



ROTORUA
LAKES COUNCIL
Te kaunihera o ngā roto o Rotorua

ROTORUA DISTRICT COUNCIL
WASTEWATER SERVICES
OPERATIONS AND MAINTENANCE CONTRACT
CONTRACT No. 20/001
Contract Conditions
VERSION A: FOR EXECUTION 21 AUGUST 2020

These are the Contract Conditions forming part of the Wastewater Services Operations and Maintenance Contract intended to be entered into by Rotorua District Council and TRILITY Rotorua Limited on or about 21 August 2020.

ADVISORS DIRECTORY	
Council Advisors	
Procurement	Morrison Low & Associates
Legal	Lane Neave
Technical	Mott MacDonald
TRILITY Advisors	
Financial	KPMG
Legal	Chapman Tripp
Technical	Stantec

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CONTRACT CONDITIONS

PART A – GENERAL CONDITIONS

1. INTRODUCTION

1.1 Contract Agreements

1.1.1 The Contractor shall carry out the Operations as set out in this Contract.

1.1.2 The Council shall make payment to the Contractor as set out in this Contract.

1.1.3 Each party shall otherwise carry out its obligations and be bound as set out in this Contract.

1.2 Te Arawa

1.2.1 The parties acknowledge the Council's commitment to co-governance principles with Te Arawa and Council's expectations that the Contractor will endeavour to involve Te Arawa in the Project.

1.2.2 The Contractor shall adopt and implement the Te Arawa Charter and shall use reasonable endeavours to implement the further proposals relating to Te Arawa involvement in the Project set out in the Contractor's Proposal.

1.2.3 The parties acknowledge that in principle (and without creating any binding commitments) the involvement of the Te Arawa Collective as a participant in the Contractor's structure for the delivery of the Operations is favoured and that this involvement would likely be as a participant at the Operations Major Subcontractor level. The parties also acknowledge that the involvement of the Te Arawa Collective will, depending on the nature of that involvement, most likely require consultation with the Council and Council approval under various provisions in this Contract (for example the Variation provisions in clause 43 and assignment provisions in clause 87.4).

1.3 Early Services Contract and CCTV Variation

1.3.1 The parties agree that on the satisfaction of the Contractor Initial Conditions Precedent pursuant to clause 5 of the Agreement:

(a) The obligations, responsibilities and liabilities of the parties under the Early Services Contract are subsumed into this Contract and shall thereafter be deemed to be obligations, responsibilities and liabilities of the parties under this Contract (on the terms and conditions of this Contract) to the intent that such obligations shall be deemed to have always been obligations, responsibilities and liabilities of the parties on the terms and conditions of this Contract and that the liability of the parties in relation to such obligations, responsibilities and liabilities shall thereafter be subject to the provisions and liability limitations set out in this Contract; and

(b) The Contractor shall be liable to the Council for the completeness, quality and accuracy of the CCTV data provided by Fulton Hogan pursuant to the CCTV Variation as if the CCTV Services provided pursuant to the CCTV Variation (CCTV Services) had been provided under this Contract to the intent that the CCTV Services shall be deemed to have always been obligations of the Contractor under this Contract and that the liability of the parties in relation to the CCTV Services shall thereafter be subject to the provisions and liability limitations set out in this Contract.

2. TERM AND EXTENSIONS

2.1 Term

2.1.1 This Contract shall commence on the date of execution of the Agreement and shall end on the Expiry Date, subject to any extension under clause 2.2 or to any earlier cancellation or termination in accordance with the terms of this Contract.

- 2.1.2 The carrying out of the Operations shall commence on the Commencement Date.
- 2.2 Extension of Term
- 2.2.1 The Term of this Contract may be extended by agreement between the parties beyond the Expiry Date for a further period(s) as specified in Schedule 1 – Reference Schedule (or any other period agreed between the Council and the Contractor) on either the same or amended terms and conditions. Any such extension will be determined using the process set out in this clause 2.2.
- 2.2.2 If the Council wishes to extend the Term it will initiate extension of Term discussions with the Contractor not later than 24 months prior to the Expiry Date.
- 2.2.3 If Council decides prior to that 24 months period not to offer an extension of the Term to the Contractor, the Council will advise the Contractor of that decision not later than 24 months prior to the Expiry Date.
- 2.2.4 Should the Council wish to extend the Term the Council shall provide the Contractor a written extension proposal setting out the proposed terms and conditions of the extension, such proposal to be delivered not later than 24 months prior to the Expiry Date.
- 2.2.5 If the Contractor wishes to extend the Contract on the basis tabled by the Council it shall signify accordingly by written notice to the Council within two months of receipt of the Council's proposal.
- 2.2.6 If the Council's extension of Term proposal is not acceptable to the Contractor, the Contractor shall give written notice to the Council as soon as is practicable but not later than two months after receipt of the Council's proposal.
- 2.2.7 If the Council's proposal is not acceptable to the Contractor, the parties may continue further negotiations in an endeavour to determine a mutually acceptable basis for an extension. Either party may discontinue such negotiations at any time.
- 2.2.8 If no agreement is reached as to an extension of Term within five months of the date of Council's proposal the Council shall have the right, in its absolute discretion, to discontinue negotiations and re-tender (or negotiate with others) for the carrying out of the Operations.
- 2.2.9 Neither party may unilaterally extend the Term nor shall either party be bound to enter into an agreement to extend the Term.
- 2.2.10 The Contract shall not be extended until both parties have entered into a formal extension of Term agreement.
- 2.2.11 Each party shall bear their own costs and expenses in relation to extension of Term negotiations and the documenting and signing of any extension of term agreement.
- 2.2.12 For any extended Term:
- (a) the Expiry Date shall be amended to the new Expiry Date agreed by the parties pursuant to this clause; and
 - (b) clause 2.2.1 shall not apply to the intent that the total Term, including all extensions, shall not exceed the Maximum Term set out in Schedule 1 – Reference Schedule in the aggregate from the Commencement Date.

3. RESOURCE MANAGEMENT ACT AND RESOURCE CONSENTS

- 3.1 Council warranty re Resource Consents
- 3.1.1 The Council represents and warrants that the Council Resource Consents are valid and in full force and effect.
- 3.1.2 The Council shall not allow (to the extent within its reasonable control) any Council Resource Consent to lapse or be varied or apply for the cancellation or change of any Council Resource Consent without prior consultation with the Contractor.

- 3.2 Contractor warranty re Council Resource Consents
- 3.2.1 The Contractor warrants to the Council that as from the Commencement Date, the Contractor is able to carry out the applicable Operations in accordance with the Council Resource Consents (excluding the Excepted Resource Consent Obligations) and that (except as outlined in clause 20.5.2) no further Resource Consents are required to carry out the applicable Operations.
- 3.2.2 The Contractor will carry out the Operations in accordance with the applicable Council Resource Consents and the Resource Management Act 1991 and shall abide by and fulfil all conditions and requirements of the applicable Council Resource Consents, other than the Excepted Resource Consent Obligations, being conditions that have been expressly accepted by the Council as conditions to be fulfilled by the Council.
- 3.2.3 The Contractor shall:
- (a) not allow (to the extent within its reasonable control) any Council Resource Consent to lapse or be varied or apply for the cancellation or alteration of any Council Resource Consent without the prior written consent of the Council (not to be unreasonably withheld or delayed); and
 - (b) fulfil all the obligations and conditions required under the Council Resource Consents (except the Excepted Resource Consent Obligations and any other obligations and conditions agreed in writing with the Council) which relate to the Operations, whether the obligations are nominally to be performed by the Contractor or the Council.
- 3.2.4 The Contractor shall:
- (a) immediately advise the Council in writing as to any notification of any application, plan change, objection or other matter received or of which the Contractor has become aware which relates to or may affect any Council Resource Consent; and
 - (b) comply with all enforcement orders, abatement notices or other requirements issued to the Council (and notified to the Contractor) or the Contractor under the Resource Management Act 1991 or any other law relating to the protection of the environment, Hazardous Material or public health or safety in relation to the carrying out of the Operations and shall otherwise comply with all Environmental Obligations which relate to the carrying out of the Operations, any of the WWTP Facilities Sites or Reticulation Networks Sites or complying with any Council Resource Consent (excepting the Excepted Resource Consent Obligations which the Council shall comply with).
- 3.2.5 The Contractor shall put in place and carry out procedures which shall adequately monitor compliance with all Council Resource Consents and all Environmental Obligations (but in each case excluding the Excepted Resource Consent Obligations) relating to the carrying out of the Operations, the WWTP Facilities Sites and the Reticulation Networks Sites.
- 3.2.6 The Contractor shall, immediately on becoming aware, verbally notify the Council (to be confirmed in writing as promptly thereafter as is practicable) of all actual or potential Environmental Liabilities arising in relation to the carrying out of the Operations, any of the WWTP Facilities Sites or any of the Reticulation Networks Sites and shall:
- (a) provide the Council with full details of all action taken or proposed to be taken in relation to such liability; and
 - (b) consult with the Council as to all action to be taken in relation to such liability; and
 - (c) use all reasonable endeavours to minimise the effects of such Environmental Liability and to mitigate the liability of the Council to the relevant controlling Authority (if any).
- 3.3 Resource Management Act breach
- 3.3.1 The Contractor shall pay all fines and penalties arising from all breaches by the Contractor of the Contractor's obligations under this Contract in relation to the Council Resource Consents and/or any Environmental Liabilities, whether such fines or penalties are imposed on the Contractor or the Council or any other person. The Contractor shall, on receipt of written demand from the Council, reimburse

the Council or any such person for any such fine or penalty paid by the Council. For clarity, the Contractor's obligations under this Contract and this clause 3.3.1 do not extend to the Excepted Resource Consent Obligations.

3.3.2 The Council shall pay all fines and penalties arising from all breaches by the Council of any Council Resource Consent or Environmental Liability obligation which the Council has agreed in writing to be responsible for (including, without limitation, the Excepted Resource Consent Obligations and the failure by the Council to hold a valid Resource Consent for discharge of Final Effluent from the Rotorua WWTP Facility) whether such fines or penalties are imposed on the Contractor or the Council or any other person. The Council shall, on receipt of written demand from the Contractor, reimburse the Contractor or any such person for any such fine or penalty paid by the Contractor.

3.3.3 If any Council Resource Consent requires Council to take any action or fulfil any obligation that is to be carried out or is an obligation of the Contractor under this Contract, the Contractor shall, unless Council in writing agrees otherwise, indemnify Council for any liability, costs and expenses, claim, proceedings, fine, penalty, loss or damage (including legal fees) reasonably incurred by the Council in taking the action or fulfilling the obligations but excluding where the Council acts in bad faith or omits to take action after receiving reasonable notice from the Contractor of the need to take action.

3.4 Environmental Obligations audit

3.4.1 If the Council shall receive notice of any breach or likely breach of any Environmental Obligation relating to the carrying out of the Operations or any of the WWTP Facilities Sites or Reticulation Networks Sites or reasonably believes that any such breach has occurred or might occur, the Council may, if such breach or likely breach results from the Contractor failing to comply with the requirements of this Contract or is otherwise the responsibility of the Contractor under this Contract, request the Contractor to, at the cost of the Contractor, obtain and provide to the Council a full independent environmental audit of the carrying out of the Operations or any of the WWTP Facilities Sites or Reticulation Networks Sites. Such audit shall be obtained and provided to the Council within a reasonable time and shall cover such matters as shall be reasonably necessary (taking into account the nature of the breach or likely breach) to ensure compliance with all applicable Environmental Obligations or to identify any potential contravention of an applicable Environmental Obligation and otherwise to ensure compliance with the Contractor's obligations under this Contract. If the Contractor shall fail to obtain an environmental audit requested by the Council under this clause, the Council may obtain such audit at the cost of the Contractor. The Council shall reimburse the Contractor for any costs and expenses incurred in complying with this clause 3.4 to the extent the audit shows that any non-compliance or potential non-compliance with an Environmental Obligation relates to or arises in respect of any Excepted Resource Consent Obligation, in which event the Council shall make such payment promptly on receipt of written demand from the Contractor.

3.4.2 The Contractor shall do all things reasonably necessary to enable such audit to be undertaken and shall implement and/or comply with the reasonable recommendations of any such audit.

3.5 Relationship with Regional Council

3.5.1 Council will have the primary relationship management role with the Regional Council in relation to the Council Resource Consents. The Council will keep the Contractor advised as to communications and notifications with the Regional Council in relation to the Council Resource Consents.

3.5.2 The Contractor shall where practicable communicate with the Regional Council through the Council and otherwise will keep the Council advised as to communications and notifications with the Regional Council.

3.5.3 The Council will liaise and consult with the Contractor as to the management of any issues arising in relation to the Council Resource Consents.

3.6 Renewal of Rotorua WWTP Facility Resource Consents

3.6.1 The parties acknowledge that:

- (a) the existing Rotorua WWTP Facility Resource Consent 60739 (Resource Consent 60739) expires on 31 July 2021;
 - (b) the Council has applied for a new Resource Consent (New Rotorua WWTP Resource Consent) to replace Resource Consent 60739 on the same terms as Resource Consent 60739;
 - (c) as between the parties the Council is responsible for ensuring it holds a valid Resource Consent for discharge of Final Effluent from the Rotorua WWTP Facility..
- 3.6.2 The Council shall use all reasonable endeavours to obtain the New Rotorua WWTP Resource Consent prior to the date Resource Consent 60739 ceases to apply.
- 3.6.3 The Contractor shall provide assistance to the Council in relation to the application made by the Council for the New Rotorua WWTP Resource Consent by way of provision of advice and information as reasonably requested by the Council.
- 3.6.4 The New Rotorua WWTP Resource Consent shall, when granted shall be a Council Resource Consent and a Rotorua WWTP Resource Consent in substitution for Resource Consent 60739.
- 3.6.5 The costs and expenses or savings to the Contractor arising under the New Rotorua WWTP Resource Consent due to any material difference between the conditions imposed by the New Rotorua WWTP Resource Consent and the conditions imposed by Resource Consent 60739 shall be treated as an Applicable Law Change under clause 36.1.

4. BONDS

4.1 Contractor to provide Bonds

4.1.1 The Contractor shall provide the Contractor's Operations Bond (whether one or a number of bonds) which shall:

- (a) be in the form (or substantially in accordance with the form) set out in Schedule 8 – Bond Form;
- (b) be provided, duly executed, not less than 20 Working Days prior to the Commencement Date; and
- (c) be provided by the bond provider set out in Schedule 1 – Reference Schedule or such other bond provider as shall be approved by the Council.

4.1.2 The Contractor's Operations Bond shall amount to the Operations Bond Amount, subject to clause 4.1.3 below.

4.1.3 The Operations Bond Amount shall be adjusted on a compounding basis by the applicable Escalation Index on 1 July in the second year after the Commencement Date (of the initial Term) and every two years thereafter.

4.2 Release of Contractor's Bonds

4.2.1 The Contractor's Operations Bond and the Contractor's Condition Assessment Obligations Bond (if any) shall be released in accordance with clause 81.6.

4.2.2 Council shall provide formal written notification of release to any surety that has provided any bond on behalf of the Contractor under this Contract, within 5 Working Days of each such bond being released pursuant to the terms of this Contract.

4.3 Claims on the Contractor's Bonds

4.3.1 The Council may only make demand under the Contractor's Bonds as follows:

- (a) under the Contractor's Operations Bond if and to the extent the Contractor shall fail to pay any moneys due to the Council under this Contract relating to the Contractor's obligations in respect of the Operations to be undertaken by the Contractor or if the Contractor shall otherwise be in default of a material obligation in relation to the Operations (including (without limitation) the Condition Assessment Obligations) to be undertaken under the Contract; and

- (b) Under the Condition Assessment Obligations Bond if and to the extent the Contractor shall fail to pay any moneys due to the Council under this Contract relating to the Condition Assessment Obligations or if the Contractor shall otherwise be in default of a material obligation in relation to the Condition Assessment Obligations.

4.3.2 The Contractor may fulfil its obligations in relation to the Contractor's Operations Bond under this clause 4 by obtaining one bond that provides for the requirements of this clause 4 or by providing successive bonds. Any replacement Contractor's Operations Bonds shall be forwarded by the Contractor, properly executed, prior to each anniversary of the Commencement Date and annually thereafter. Each replacement Contractor's Operations Bond shall be effective as from the relevant anniversary date. The Council will release any existing Contractor's Operations Bond on receipt of an executed replacement bond fulfilling the requirements of this clause.

5. GUARANTEE

5.1 Contractor to provide Parent Company Guarantee

5.1.1 The Contractor shall, contemporaneously with the execution of this Contract provide the written guarantee of the Guarantor guaranteeing the obligations of:

- (a) the Contractor pursuant to this Contract; and
- (b) the obligations of TRILITY New Zealand Limited as a Major Subcontractor pursuant to the Major Subcontractor Direct Deed entered into by TRILITY New Zealand Limited under clause 29.3.1

to the Council in the form set out in Schedule 9 – Guarantee (Parent Company Guarantee).

5.1.2 The initial Parent Company Guarantee limitation amount is NZD Fifteen Million (\$15,000,000), thereafter escalated as set out in the guarantee document.

6. COMMUNICATIONS

6.1 Contractor Representative

6.1.1 The Contractor shall at all times during the Term appoint a competent person to be the Contractor Representative. As at the date of this Contract the Contractor Representative is the person referred to in Schedule 1 – Reference Schedule.

6.1.2 The Contractor Representative shall be authorised to receive all directions and instructions in connection with the Project on behalf of the Contractor.

6.1.3 The Contractor Representative or substitute person nominated by the Contractor Representative shall be contactable by the Council at all reasonable times (including by telephone, mobile telephone, pager or other suitable communication device).

6.1.4 The Contractor may appoint a replacement Contractor Representative with the Council's written consent (such consent will not be unreasonably withheld or delayed).

6.1.5 The Council may at any time by notice in writing to the Contractor object on reasonable grounds to the continuance of any person as the Contractor Representative. The Council's notice shall state the grounds upon which the objection is based. The Contractor shall, subject to clause 6.1.4, as soon as practicable appoint a replacement person to that position.

6.2 Council Representative

6.2.1 The Council shall at all times during the term of this Contract appoint a competent and authorised representative to be the Council Representative. As at the date of this Contract the Council Representative is the person referred to in Schedule 1 – Reference Schedule.

6.2.2 The Council Representative is authorised by the Council to give and receive general communications and notifications, directions and instructions in connection with this Contract on behalf of the Council, the intent being that any other communications, notifications, directions and instructions given to or on

behalf of the Council are intended to be given to or by (as the case may be) the Administrator in accordance with clause 33.2.2.

6.3 Assistant Council Representative

6.3.1 The Council Representative may also, by written notice to the Contractor, appoint one or more Assistant Council Representatives. An Assistant Council Representative shall have the functions and powers as the Council Representative shall specify in the written notice to the Contractor or otherwise as notified in writing from time to time.

6.4 Communications

6.4.1 All contract administration and higher level communications between the Contractor and the Council shall, as is practicable and subject to any express contrary provision in this Contract, be between the Council Representative and the Contractor Representative. The parties acknowledge the need for discussion and dialogue and that the parties' respective representatives will regularly talk together. However, material and significant advice, communications or instructions should be recorded in writing (email is acceptable for routine communications).

6.5 Liaison meetings

6.5.1 The Contractor Representative and the Council Representative shall engage in regular monthly liaison/partnering meetings or at any other time reasonably requested by the Council Representative to review the carrying out of the Operations and discuss any issues relating to the performance levels and Council's requirements.

6.6 Executive Review Group

6.6.1 The parties shall establish an Executive Review Group comprising two senior executives of the Contractor, three senior managers of the Council and the Administrator. Further persons may attend Executive Review Group meetings as approved by the Administrator. The Contractor may have a permanent invitee to the Executive Review Group meetings but such person and other invited attendees shall not have a vote. The parties will provide written advice of their Executive Review Group appointees and for the Contractor the permanent invitee (if applicable), to the Administrator and will promptly notify any changes to such appointees to the Administrator. Further persons may attend Executive Review Group meetings as approved by the Administrator.

6.6.2 The function of the Executive Review Group shall be to provide a forum for the review of the Project, the response to material KPI achievement failures, the exchanging of information and views relating to the Project, the facilitating of a good working relationship between the Council and the Contractor and endeavouring to resolve Disputes referred pursuant to clause 14.4.1.

6.6.3 The Executive Review Group shall conduct its meetings in such a way and at such frequencies as the members shall see fit (but not less than once every three months).

6.6.4 The Executive Review Group is intended to provide a forum for dialogue and exchange of information and views only. As such, except as set out in clause 14.4.1 and in relation to the KPI escalation regime set out in section 4 of Schedule 16 – Operations, Maintenance and Renewals Requirements, the Executive Review Group shall have no authority to adjudicate disputes or impose a decision on the parties. The Executive Review Group shall not be competent to vary this Contract nor vary the obligations of any party under this Contract.

6.6.5 The Executive Review Group shall promptly consider matters referred to it pursuant to clause 14.4.1. Where the Executive Review Group resolves a dispute or difference referred under clause 14.4.1 the resolution shall not be binding on the parties unless it is unanimous and then until the resolution is recorded in writing and signed by the Council Representative and by the Contractor Representative.

6.6.6 Decisions of the Executive Review Group shall be by majority.

7. PARTNERING

7.1 Partnering philosophy

7.1.1 'Partnering' is a method of operating a contractual relationship to promote prompt and constructive communication and a problem solving approach between the parties. Partnering has four primary objectives:

- (a) ensuring that this Contract operates smoothly;
- (b) facilitating open 'no surprises' contract communication;
- (c) exploring opportunities to deliver mutual benefits to the parties under this Contract; and
- (d) facilitating the prompt and constructive resolution of disputes.

7.2 Partnering obligations

7.2.1 The parties agree to implement partnering in this Contract in accordance with Schedule 7 – Partnering.

7.3 Partnering and the Contract

7.3.1 The use of partnering techniques and the adoption of the partnering procedures as promoted in this Contract does not in any way imply any fiduciary obligations, partnership or joint venture between the parties.

7.3.2 The partnering obligations set out in Schedule 7 – Partnering and any partnering charter and protocol developed by the parties are subordinate to the provisions of this Contract and shall not be construed as overriding, amending or waiving any contractual rights or obligations.

8. INDEMNITIES AND LIABILITY

8.1 Contractor indemnity

8.1.1 The Contractor shall be liable for and shall indemnify the Council against all Claims, Losses and Liabilities for:

- (a) the death of or personal injury to any person; and
- (b) without limiting the Contractor's obligations as to the care and reinstatement and otherwise of the WWTP Facilities or the Reticulation Networks as set out in this Contract, the injury or damage of any kind to the WWTP Facilities or the Reticulation Networks and any other any property real or personal (including property of the Council other than the WWTP Facilities or the Reticulation Networks),

arising out of:

- (c) any breach by the Contractor of the terms of this Contract or the failure by the Contractor to properly perform or abide by its obligations under this Contract;
- (d) the negligence of the Contractor or its consultants, agents employees or Subcontractors and Subcontractor's employees and agents;
- (e) The failure by any Major Subcontractor that is a member of the TRILITY Group of companies or is a subsidiary or associated company of the Contractor Parent Companies to fulfil its obligations under the applicable Major Subcontractor Direct Deed; or
- (f) otherwise arising from the negligence or wilful misconduct of the Contractor, its employees or agents or any Subcontractor and Subcontractor's employees and agents,

provided that the Contractor shall not be liable if and to the extent such liability is caused:

- (g) by the default of the Council in the performance of its obligations under this Contract; or

- (h) by the negligence or wilful misconduct of the Council or its consultants, contractors (excluding the Contractor), agents or employees.
- 8.1.2 The Contractor's indemnity shall cover, to the extent permitted by law, all fines or other liability imposed on Council resulting from the Contractor's breach of any Law (except to the extent noted in clauses 8.1.18.1.1(g) and 8.1.1(h) above).
- 8.2 Contractor release of Council
 - 8.2.1 The Contractor releases the Council to the maximum extent permitted by law from all Claims, Losses and Liabilities in relation to any accident, damage, death or injury arising from the use or occupation by the Contractor, including all of the Contractor's and Subcontractor's employees and personnel, of any of the WWTP Facilities Sites or Reticulation Networks Sites.
- 8.3 Council indemnity
 - 8.3.1 The Council shall be liable for and shall indemnify the Contractor against all Claims, Losses and Liabilities (net of any proceeds of any insurance policy held by the Contractor or the Council which are available to the Contractor and including all legal or other fees or costs and expenses reasonably incurred by the Contractor arising out of any of the above) arising out of:
 - (a) any breach by the Council of the terms of this Contract or the failure by the Council to properly perform its obligations under this Contract; or
 - (b) the negligence, omission or wilful misconduct of the Council its employees, consultants, contractors (excluding the Contractor) or its agents,provided that the Council shall not be liable if and to the extent such liability is caused:
 - (c) by the default or omission of the Contractor in the performance of its obligations under this Contract; or
 - (d) by the negligence, omission or wilful misconduct of the Contractor or its consultants, agents or employees or any of its subcontractors or their agents or employees.
 - 8.3.2 The Council's indemnity shall cover, to the extent permitted by law, all fines or other liability imposed on the Contractor resulting from the Council's breach of any law, except to the extent noted in clauses 8.3.1(c) and (d) above.
- 8.4 Liability limitation
 - 8.4.1 Other than as is specifically provided in this Contract, neither party will under any circumstances be liable under the law of tort, contract or otherwise or under any indemnity for any loss of profits or savings or revenue, loss of goodwill, loss of reputation, loss of opportunity or for any indirect or consequential loss or damage, however caused, arising out of or in connection with this Contract. The foregoing is, however, subject to and without limitation or prejudice to the Contractor's entitlement to loss of profits in relation to Variations in accordance with clauses 43.1.3 and 43.1.15.
- 8.5 Intellectual Property indemnity
 - 8.5.1 The Contractor shall indemnify the Council from and against all Claims, Losses and Liabilities (including reasonably incurred legal and other reasonably incurred costs and expenses) for or on account of infringement of any Intellectual Property rights provided or used by the Contractor in carrying out the Operations provided that such indemnity does not apply to infringements arising in relation to such Intellectual Property supplied by the Council unless and to the extent the infringement arises from the Contractor's failure to abide by any applicable licence or use agreement that has been notified to the Contractor.
- 8.6 Defence of actions
 - 8.6.1 If either the Contractor or the Council shall be prosecuted or shall face any claim, action, proceeding, fine, penalty or damage (each being referred to in this clause as an 'Indemnified Claim') for which such

party shall seek to be indemnified by the other under an express indemnity in this Contract (Indemnity Provision) then:

- (a) the party who has the benefit of the indemnity under the Indemnity Provision shall:
 - (i) promptly upon becoming aware of the existence of the circumstances giving rise to the Indemnified Claim give written notice of such circumstances to the other party and advise that the Indemnified Claim is subject to an Indemnity Provision;
 - (ii) consult with the other party as to the response to such Indemnified Claim;
 - (iii) fully co-operate with the other party in defending or settling the Indemnified Claim and shall make its employees available to give statements, advice and evidence as the other party may reasonably request;
 - (iv) use its best endeavours to minimise the effects of such circumstance and to mitigate the liability of the other party under the Indemnity Provision in relation to such Indemnified Claim; and
 - (v) take all reasonable action to vigorously defend or oppose such Indemnified Claim; and
- (b) The party who is indemnifying under the Indemnity Provision shall:
 - (i) consult with the other party on the Indemnified Claim as to the conduct of the claim and all negotiations for its settlement or compromise and shall not settle or compromise any Indemnified Claim without the prior written approval (not to be unreasonably withheld or delayed) of the other party; and
 - (ii) reimburse the other party's reasonable out of pocket costs and expenses incurred in relation to the Indemnified Claim.

8.6.2 All moneys payable by one party to the other under this clause 8 shall be payable upon receipt of written demand.

8.7 Indemnities continue

8.7.1 The indemnities contained in this clause 8 continue in full force and effect after the termination or expiry of this Contract for any reason.

9. REPRESENTATIONS AND WARRANTIES

9.1 Contractor's warranties as to entry into Contract

9.1.1 The Contractor warrants, represents and agrees as follows:

- (a) The Contractor is a duly incorporated company under the laws of New Zealand, has the power to enter into and perform this Contract and to the extent applicable the Ancillary Documents and has taken all necessary action to:
 - (i) authorise the entry into and performance of its obligations under this Contract and the Ancillary Documents to which the Contractor is a party; and
 - (ii) ensure that its obligations under this Contract and all Ancillary Documents to which the Contractor is a party are legal, valid and binding.
- (b) This Contract and all Ancillary Documents to which the Contractor is a party constitute valid and legally binding obligations of the Contractor enforceable in New Zealand in accordance with its terms.
- (c) Neither the Contractor nor any of its assets enjoys any immunity from set off, suit or execution.
- (d) All consents, permits and approvals under any Law as shall be required on the part of the Contractor for the entry by the Contractor into this Contract and/or to render this Contract enforceable have been obtained.

- (e) All representations whether oral or in writing made on its behalf preparatory to this Contract being entered into (including as part of the Contractor's tender submission) are true and correct.
- (f) There is no action, suit, litigation, arbitration, administrative proceeding or claim current, pending or to the knowledge of the Contractor threatened which could materially adversely affect its financial condition, its business operations or its ability to fulfil its obligations under this Contract.
- (g) No corporate actions or other steps have been taken by the Contractor nor to the best of the Contractor's knowledge have any steps been taken or proceedings initiated by any other person against the Contractor, for the winding up, dissolution, administration, re-organisation or liquidation of the Contractor or for the appointment of a receiver, administrator, trustee, statutory manager or liquidator of the Contractor or of any of its assets or revenues.
- (h) The execution of and the performance of its obligations under this Contract will not conflict with any of the existing obligations of the Contractor or any applicable Law or official or judicial order.
- (i) The Contractor has not, other than in connection with the Project, traded at any time since its incorporation as a company under the Companies Act 1993, nor has the Contractor incurred any liabilities oriented into any document or agreement other than in relation to and as required pursuant to the Project.
- (j) No Probity Event has occurred or is continuing in relation to the Contractor, or any Guarantor, any Major Subcontractor or any shareholder of the Contractor in relation to this Contract and the Project.

9.2 Contractor's general warranties

9.2.1 The Contractor warrants, represents and agrees as follows:

- (i) The Operations will be provided in a competent manner and in accordance with Good Industry Practice.
- (ii) The personnel supplied to undertake carrying out the Operations will have all requisite skills, expertise and qualifications, will carry out their duties with due care and skill and that all obligations will be completed to a high quality and standard in accordance with Good Industry Practice.
- (iii) All its obligations under this Contract will be carried out in accordance with all Laws, standards and codes of practice in force in New Zealand and in accordance with Good Industry Practice.

9.3 Contractor's information warranties

9.3.1 The Contractor warrants, represents and agrees as follows:

- (a) All information contained in the Contractor's Proposal is true, accurate and complete in all material respects and is not misleading and does not infringe upon the Intellectual Property rights of any person.
- (b) No other person has any beneficial interest or has any legal or equitable right to acquire any interest in the Contractor or any Security Interest over the shares in or the assets and undertakings of the Contractor that is not disclosed in Schedule 14 – Schedule of Information.

9.4 No deemed repetition

9.4.1 Each of the representations and warranties set out in clauses 9.1, 9.2 and 9.3 are made only as at the date of entry into this Contract.

9.5 Council warranties as to entry into Contract

9.5.1 The Council warrants, represents and agrees as follows:

- (a) It is a local authority duly constituted under the Local Government Act 2002, has the power to enter into and perform its obligations under this Contract and has taken all necessary action to:
 - (i) authorise the entry into and performance of its obligations under this Contract;
 - (ii) ensure that its obligations under this Contract are legal, valid and binding; and
 - (iii) make this Contract admissible in evidence in the Courts of New Zealand.
- (b) This Contract constitutes valid and legally binding obligations of the Council enforceable in accordance with its terms.
- (c) All consents, permits and approvals under any law as shall be required on the part of the Council to render this Contract enforceable have been obtained.

10. CONTRACTOR UNDERTAKINGS

10.1 General undertakings

10.1.1 The Contractor undertakes to the Council that for so long as this Contract remains in full force:

- (a) it shall not cease to be a resident in New Zealand or transfer in whole or in part its undertakings, business or trade outside of New Zealand;
- (b) it shall not undertake the performance of its obligations under this Contract otherwise than through itself or a Subcontractor;
- (c) it shall not, without the prior written consent of the Council, such consent not to be unreasonably withheld or delayed, incorporate any company or purchase or acquire or subscribe for any shares in any company other than where such company is solely involved in carrying out the Operations;
- (d) it shall not, without the prior written consent of the Council (such consent not to be unreasonably withheld or delayed), make any loans or grant any credit or give any guarantee or indemnity to or for the benefit of any person or otherwise voluntarily or for consideration assume any liability (whether actual or contingent) in respect of any obligation of any other person except in the ordinary course of business and/or as contemplated by the Ancillary Documents;
- (e) it shall not, without the prior written consent of the Council (such consent not to be unreasonably withheld or delayed), change or cease its business or start or be engaged in any other business other than the carrying out of the Operations under this Contract;
- (f) it shall take reasonable care not to do anything, or omit to do anything, that would cause the Council to be in breach of any applicable Law;
- (g) it shall not create, permit or suffer to exist any Security Interest over all or any of its assets, without the prior written consent of the Council except in the ordinary course of business and/or as contemplated in the Ancillary Documents (and except for the Security Interests (if any) intended to be created by the Contractor as set out in Schedule 14 – Schedule of Information which are deemed approved);
- (h) it shall not without the prior written consent of the Council create or allow to subsist any Security Interest over any buildings, structures, machinery, equipment, apparatus or materials incorporated or (once paid for by the Council) intended to be incorporated in any part of the WWTP Facilities or the Reticulation Networks;
- (i) it shall not (unless otherwise expressly permitted by this Contract) contract with, assume or permit to subsist any Liability in favour of or buy, sell or dispose of assets to or from a Major Subcontractor, a Contractor Parent Company or any other related entity of the Contractor other than on Arms Length Terms;

- (j) it shall as soon as is practicable consult with the Council as to the steps the Contractor will take to endeavour to mitigate any Material Adverse Change of the Contractor, any Major Subcontractor or any Guarantor; and
- (k) it shall as soon as is practicable advise Council in the event the Contractor becomes aware any of the representations contained in clause 9 would be untrue were it to be repeated by the Contractor at any time during the Term.

10.2 Financial information

10.2.1 The Contractor undertakes to the Council that for so long as this Contract remains in full force that it shall:

- (a) provide to the Council copies of the annual accounts for the Contractor and the annual audited accounts for the Contractor's Parent Company group within five Working Days of their completion (in each case prepared in accordance with GAAP); and
- (b) provide to the Council, within five Working Days of their publication (or as soon as practicable after having received the same), copies of the annual audited (in each case prepared in accordance with GAAP) of all Guarantors.

10.3 Event notifications

10.3.1 The Contractor undertakes to the Council that for so long as this Contract remains in full force it shall notify the Council in writing promptly after becoming aware of the occurrence of:

- (a) any Material Adverse Change of the Contractor, any Major Subcontractor and any Guarantor and shall as soon as is practicable consult with the Council as to the steps the Contractor will take to endeavour to mitigate such Material Adverse Change;
- (b) any event that may give rise to a material health or safety risk (including any failure to comply with any Law relating to health and safety);
- (c) any notifiable event described in clause 39.3.3;
- (d) any industrial action or likely industrial action which may affect the carrying out of the Operations and the action the Contractor has taken or proposes to take to minimise or overcome such effects;
- (e) any Contractor Default Event;
- (f) any circumstances:
 - (i) which is or would with the giving of notice and lapse of time reasonably constitute a Contractor Default Event or any other material breach of its warranties or obligations under this Contract; and
 - (ii) the Contractor reasonably considers such circumstances are reasonably likely to transpire such that a Contractor Default Event or other material breach of its warranties or obligations under this Contract occurs; and/or
- (g) any litigation, arbitration, administrative or adjudication or mediation proceedings before or of any court, arbitrator or Authority that has been threatened or commenced against the Contractor any Major Subcontractor or any Guarantor.

10.4 Contractor working capital

10.4.1 The Contractor undertakes to the Council that it will retain its working capital surpluses relating to asset renewals and will not repatriate surplus asset renewal working capital to its parent companies or on-lend any such working capital surpluses to other members of the TRILITY Group or otherwise.

11. FORCE MAJEURE

11.1 Meaning of Force Majeure

11.1.1 The term 'Force Majeure' means and shall be limited to the following:

- (a) Earthquake, volcanic eruption, seismic activity and geo-thermal activity.
- (b) Tidal waves or tsunamis.
- (c) Ionizing radiation or contamination by radioactivity from any nuclear fuel or from any nuclear waste, from the combustion of nuclear fuel, from radioactive toxic explosion or by other hazardous properties of any explosive nuclear assembly or nuclear components.
- (d) War and other hostilities (whether war be declared or not) invasion, act of foreign enemies, mobilization, requisition or embargo.
- (e) Rebellion, revolution, insurrection, military or usurped power or civil war.
- (f) Terrorism, piracy or sabotage.
- (g) Tempest and flood.
- (h) Land subsidence and landslide (but excluding where caused by the omission or negligence of the Contractor).
- (i) Fire (but excluding fire caused by the omission or negligence of the Contractor or any Contractor personnel).
- (j) Strike, lockout or other industrial action not solely involving the Contractor's and/or any Subcontractor's personnel and employees.
- (k) Pandemic.

11.2 Force Majeure Event

11.2.1 In this Contract a Force Majeure Event shall be an event or circumstance of Force Majeure:

- (a) which prevents the performance of an obligation under this Contract by any of the parties;
- (b) where the prevention of the performance of such obligations was beyond the reasonable control of such party; and
- (c) where the effects of such event or circumstance could not reasonably be avoided or minimised by such party,

but excludes Force Majeure events or circumstances where (to the extent applicable) the effects of the event or circumstance would have been avoided or minimised if such party had properly complied with its obligations under this Contract.

11.3 Consequences of Force Majeure Event

11.3.1 If a Force Majeure Event shall occur:

- (a) a party that is prevented from performing its obligations under this Contract by the Force Majeure Event shall use all reasonable endeavours to prevent, remove or mitigate the effects of the Force Majeure Event;
- (b) provided such party has complied with clause 11.3.1(a) and clause 11.3.1(c) the failure or delay in the performance of any of that party's obligations under this Contract due to that Force Majeure Event shall not constitute a breach of the party's obligations under the Contract Documents;
- (c) the affected party shall:

- (i) as soon as practicable give notice to the other party of the occurrence of the Force Majeure Event including its effect on the affected party's ability to perform its obligations under this Contract;
 - (ii) provide to the other party all relevant information relating to the Force Majeure Event and its effects including the steps taken and to be taken to comply with clause 11.3.1(a) and an estimate of the time and the cost of remedying or overcoming the effects of the Force Majeure Event;
 - (iii) assist the other party to investigate the Force Majeure Event and its effects and the matters or circumstances which may have led to the Force Majeure Event and/or may have contributed to or caused the effects of the Force Majeure Event; and
- (d) the relief from liability for the non-performance of the party's obligations under this Contract set out in clause 11.3.1(b) takes effect from the time of the occurrence of the Force Majeure Event and ceases as at the time the effect of such Force Majeure Event preventing the performance by the affected party of its obligations under this Contract ceases or would have ceased if such party had properly performed its obligations under this Contract.

11.4 Prolonged force majeure

11.4.1 Should the Force Majeure Event continue for a period exceeding 90 Working Days from the date the party that is unable to comply with the obligations has given notice to the other party (or such further period as the parties shall agree in writing), then either party may terminate this Contract by giving written notice to the other party.

11.4.2 Where the Contract is terminated under clause 11.4.1:

- (a) the Contractor shall be entitled to payment of:
 - (i) the Monthly Service Payments to the date of termination; and
 - (ii) an amount that is equal to the sum of those amounts calculated in accordance with clause 64.2.1(a) (but excluding losses pursuant to subclause 64.2.1(a)(iii))to the intent that the termination of the Contract in itself shall not be considered as a breach by either party;
- (b) the Contractor, after taking reasonable precautions to safeguard the WWTP Facilities, the WWTP Facilities Sites and the Reticulation Network Sites against accidental damage or from causing damage to other persons or property may remove its temporary buildings, tools, equipment and Contractor's equipment; and
- (c) as soon as practicable, and subject to payment in full of all moneys payable to the Council by the Contractor pursuant to this Contract, the Council will release the Major Subcontractor Direct Deeds, the Continuity Deeds, the Parent Company Guarantee and the undrawn portion (if any) of the Contractor's Bonds.

11.5 Claims arising from force majeure

11.5.1 If a Force Majeure Event shall occur:

- (a) the Council's obligation to pay the Monthly Service Payments in accordance with the provisions of this Contract shall continue;
- (b) the Council shall pay the Contractor's costs and expenses incurred in preventing, removing or mitigating the effects of the Force Majeure Event; and
- (c) the Council shall indemnify the Contractor against costs and expenses incurred by the Contractor for any breach of the Council Resource Consents or any Environmental Obligation to the extent arising out of the Force Majeure Event.

12. TERMINATION OR REINSTATEMENT FOLLOWING DAMAGE OR CHANGE OF LAW

12.1 Termination following damage or change of law

12.1.1 If any of the following shall occur:

- (a) any WWTP Facility or all or any material part of the Reticulation Networks shall be damaged by fire, earthquake or any other cause (whether a Force Majeure Event or not) and in the reasonable opinion of the Council (and acting in good faith) it is not economic or reasonably possible to reinstate the WWTP Facility or all or a material part of the Reticulation Networks (as the case may be); or
- (b) in the reasonable opinion (and acting in good faith) of the Council an Applicable Law Change shall render the carrying out of the Operations uneconomic,

then the Council may, by notice in writing given to the Contractor within 180 days of the happening of the Force Majeure Event or the Applicable Law Change, terminate this Contract.

12.1.2 Any notice terminating this Contract given under clause 12.1.1 shall take effect immediately on the date such notice is given to the recipient.

12.1.3 If this Contract shall be terminated under clauses 12.1.1 the rights and obligations of the parties shall be as set out in clause 64.2.1 (but excluding "losses" pursuant to subclause 64.2.1(a)(iii)) to the intent that the termination of the Contract in itself shall not be considered as a breach by either party.

12.2 Reinstatement following damage

12.2.1 If all or any material part of the WWTP Facilities or the Reticulation Networks are damaged by any cause (whether a Force Majeure Event or not) and this Contract shall not be terminated under clause 12.1.1, the Contractor shall with all reasonable speed repair such damage or reinstate the WWTP Facilities or the Reticulation Networks (as the case may be). To the extent any damage was not caused by:

- (a) the Contractor; or
- (b) the failure by the Contractor to comply with its obligations under the Contract Documents,

its repair or reinstatement shall be at the cost of the Council and any insurance policy excess or deductible (however described) and any deficiency in insurance proceeds (other than a deficiency arising out of the default of the Contractor) shall be paid by the Council. In all other cases such repair or reinstatement shall be at the cost of the Contractor and any insurance policy excess or deductible (however described) and any deficiency in insurance proceeds shall be paid by the Contractor.

12.2.2 Such repair or reinstatement shall be carried out in conformance with and on the same terms and conditions as set out in the Council's Requirements subject to such reasonable amendments as might be necessary to give effect to the Contractor's obligations under clause 12.2.1.

12.2.3 If the Contractor shall be obliged to repair or reinstate all or part of the WWTP Facilities or the Reticulation Networks (as the case may be) under clause 12.2.1 the proceeds of the Project Insurances shall be paid to the Council and released (where the repair or reinstatement arises due to the default of the Contractor less the Council's reasonable costs and expenses incurred by the Council in relation to the monitoring of the reinstatement or repair) to the Contractor in the manner for payment as if a Mandatory Variation.

12.2.4 If any insurance proceeds payable to the Council shall be paid to or come into the hands of the Contractor, the Contractor shall hold such funds in trust for the Council.

13. INSURANCE

13.1 Contractor Insurances

The Contractor shall obtain the Contractor Insurances as at the Commencement Date and shall maintain the Contractor Insurances in accordance with the requirements set out in Schedule 3 –

Insurances, the Contractor Insurances information set out in Schedule 14 – Schedule of Information and otherwise as shall be approved in writing by the Council.

13.2 Contractor insurance requirements

13.2.1 The Contractor shall ensure that the insurance policies to be arranged by the Contractor shall:

- (a) be arranged through brokers (if applicable) and placed and maintained with insurers and underwriters of good repute and financial standing;
- (b) be in a form approved in writing by the Council (such approval not to be unreasonably withheld);
- (c) provide that if a claim is made and accepted under any of such policies the amount of cover shall be automatically reinstated to the full amount required determined in accordance with Schedule 3 – Insurances;
- (d) provide that all of the provisions of the policy shall operate as if it was a separate policy in the name of each insured other than in relation to the amount of any deductible to be applied.

13.3 Council Insurances

13.3.1 The Council shall obtain the Council Insurances as at the Commencement Date and shall maintain the Council Insurances during the Term. The Council Insurances shall be in accordance with the requirements set out in Schedule 3 – Insurances and the Council Insurances information set out in Schedule 14 – Schedule of Information.

13.4 Council insurance requirements

13.4.1 The Council shall ensure that, subject to clause 13.4.2, throughout the Term the Insured Assets are insured in accordance with Schedule 3 – Insurances and that the insurance policies to be arranged by the Council shall:

- (a) be arranged through brokers (if applicable) and placed and maintained with insurers and underwriters of good repute and financial standing;
- (b) be on terms as are reasonably available to the Council acting reasonably and as a prudent local authority infrastructure asset owner and having deductibles not greater than the level of deductibles set out in Schedule 3 – Insurances or otherwise shall be approved by the Contractor (such approval not to be unreasonably withheld);
- (c) either:
 - (i) note the Contractor as an insured under the policy; or
 - (ii) provide that the insurer agrees to waive all subrogation rights which it may have against the Contractor or any Subcontractor, employee of the Contractor;
- (d) provide that if a claim is made and accepted under any of such policies the amount of cover shall be automatically reinstated to the full amount required determined in accordance with Schedule 3 – Insurances;
- (e) where the Contractor is named as an insured, provide that all of the provisions of the policy shall operate as if it was a separate policy in the name of each insured other than in relation to the amount of any deductible to be applied.

13.4.2 Council self insurance:

- (a) The Council may elect at any time and from time to time to self insure the material damage risks for the Insured Assets.
- (b) The Council shall give written notification to the Contractor of any such self-insurance arrangements.

- (c) All such self-insurance arrangements shall operate as if the Council was the insurer in accordance with and with notional deductibles, limits and sub-limits applying at the levels determined in accordance with Schedule 3 – Insurances.

13.5 Payment of premiums

- 13.5.1 Each party shall pay all premiums for the insurance the party is required to arrange promptly within the time required under each policy. Each party will, upon receipt of written request from the other party, produce a copy of all insurance premium receipts or other confirmation of premium payment to the other.

13.6 Copies of policies

- 13.6.1 Other than is set out below, each party will, upon receipt of written request from the other party, provide a copy of each policy that party is required to arrange to the other party. The exception(s) are:
 - (a) The Contractor is not required to provide a copy of its professional negligence policy but will provide a certificate from the insurer (or the Contractor's insurance broker) confirming the existence of the cover, that the policy is in place and the premium has been paid, that the amount of cover (including sublimits) is equal to or exceeds that required under this Contract and the level of deductibles under the policy.

13.7 No voiding of insurance cover

- 13.7.1 The Contractor and the Council shall not do anything or allow anything to be done which would lead to any of the Project Insurances being rendered void or voidable or suspended, impaired or defeated in whole or in part.

13.8 Compliance with Project Insurances

- 13.8.1 Each party shall comply with the requirements of the Project Insurances.

13.9 Failure to comply with insurance requirements

- 13.9.1 Each party shall be liable for and shall indemnify the other against any liability, costs and expenses, loss, or damage and (including all legal or other fees or costs and expenses) incurred by the other arising out of any breach by that party of its obligations under this clause 13.
- 13.9.2 If either party fails to arrange or keep in force any insurance required by this Contract, the other party may after notifying the responsible party in writing, arrange or keep in force the insurance. Any premiums paid and other costs and expenses incurred shall be payable by the defaulting party on receipt of written demand.

13.10 Policies may be annual policies

- 13.10.1 The insurances required under this Contract may be annual policies provided each policy is renewed or replaced so that the insurance cover remains in force for the period is required as set out in Schedule 3 – Insurances.

14. DISPUTE RESOLUTION

14.1 Dispute

- 14.1.1 A dispute (Dispute) under this Contract is any dispute, disagreement or difference of opinion arising under the Contract that is:
 - (a) in connection with the carrying out of the Operations;
 - (b) as to any action, decision, instruction, clarification, certificate, determination or valuation by the Administrator; or
 - (c) otherwise arising out of or relating to the Contract,

whether before or after the abandonment or termination of this Contract.

14.2 Notice of dispute

14.2.1 A party claiming that a Dispute has arisen must give written notice to the other party, specifying the nature of the Dispute and the relief or remedies sought.

14.3 Amicable resolution

14.3.1 Within ten (10) Working Days of the giving and receiving of notice of Dispute the Council Representative and the Contractor Representative shall meet for the purpose of endeavouring to amicably settle such Dispute. The process of inter-party settlement endeavours shall continue until either party gives the other written notice that discussions are to be terminated.

14.4 Referral to Executive Review Group

14.4.1 If the parties are unable to settle a Dispute amicably either party may issue a notice referring the Dispute to the Executive Review Group to resolve. In such case the Executive Review Group shall, within 20 Working Days of service of such a notice, meet and attempt to resolve the Dispute. Any unanimous resolution shall be recorded in writing and shall be binding when signed by both parties.

14.5 Administrator's Resolution of Disputes

14.5.1 If a Dispute cannot be or is not resolved under clause 14.3 or 14.4 either party may refer the Dispute to the Administrator for resolution. The Administrator shall, as soon as is practicable and in any event within 20 Working Days of such referral state his or her decision in writing and give notice of the same to the Council and the Contractor identifying that the decision is a formal decision made under this clause.

14.5.2 If:

- (a) the Administrator shall fail to give his or her decision within the 20 Working Days period referred to in clause 14.5.1; or
- (b) either the Council or the Contractor does not accept the Administrator's decision,

then either the Council or the Contractor may within 20 Working Days after receiving notice of such decision, or within 20 Working Days after the expiration of the Administrator's decision period as set out in clause 14.5.1 (as the case may be), by notice in writing to the other (copied to the Administrator) require that the matter be referred to mediation in accordance with clause 14.6.

14.5.3 A decision of the Administrator under clause 14.5.1 shall be final and binding upon the Contractor and the Council unless either of them shall give notice requiring the Dispute be referred to mediation in accordance with clause 14.5.2 or the parties agree to submit the Dispute to expert determination in accordance with clause 14.8.

14.6 Mediation

14.6.1 If any Dispute is submitted to mediation under clause 14.5.2 the following shall apply:

- (a) the mediation shall be conducted by a single mediator;
- (b) the Contractor and the Council shall endeavour to agree on a mediator;
- (c) if the Contractor and the Council cannot agree on a single mediator within 15 Working Days of service of notice of intention to commence mediation, either party may request Resolution Institute New Zealand to appoint a sole mediator;
- (d) the mediation shall take place in Rotorua within 20 Working Days of the appointment of the mediator or such other period as the parties shall agree;
- (e) the mediator shall be responsible for determining the procedure for the mediation;

- (f) the mediator shall discuss the matter with the Contractor and the Council (separately or jointly as the mediator may determine) and endeavour to facilitate the resolution of the Dispute by agreement;
- (g) all discussions in the mediation shall be without prejudice and shall not, save in the case of proceedings to enforce settlement concluded by mediation, be referred to in any later proceedings; and
- (h) the Contractor and the Council shall bear their own costs and expenses of the mediation and shall pay the cost of the mediator in equal shares.

14.7 Arbitration

14.7.1 If the parties cannot resolve the Dispute by mediation under clause 14.6.1, then either party may by written notice to the other refer the Dispute to arbitration in accordance with the Arbitration Act 1996 on the following terms:

- (a) a single arbitrator shall be appointed;
- (b) the parties shall endeavour to agree on an arbitrator;
- (c) if the parties fail to agree on an arbitrator, then Resolution Institute New Zealand shall appoint the arbitrator;
- (d) the place of arbitration shall be Rotorua;
- (e) no person who has participated in an informal dispute resolution of the dispute shall act as arbitrator;
- (f) the arbitrator will proceed promptly to deliver an award. The parties shall co-operate fully in this respect;
- (g) the arbitrator appointed shall have full power to open up, review and revise any decision, instruction, order, direction, certificate, approval or valuation by the Administrator;
- (h) neither party shall be limited in the proceedings before the arbitrator to the evidence or arguments put before the Administrator for the purpose of obtaining his or her decision under clause 14.5.1;
- (i) no decision given by the Administrator in accordance with clause 14.5.1 shall disqualify the Administrator from being called as a witness and giving evidence before the arbitrator on any matter whatsoever relevant to the dispute or difference the subject of the arbitration;
- (j) the parties agree that the arbitrator's decision shall, subject to clauses 4 and 5 of the Second Schedule to the Arbitration Act 1996, be final and binding; and
- (k) the Contractor and the Council shall bear their own costs and expenses in arbitration and (in the absence of an arbitrator's award to the contrary) shall pay the costs of the arbitrator in equal shares.

14.8 Expert determination

14.8.1 The parties may, at any point in the dispute resolution process for any Dispute, agree as an alternative to progressing the Dispute in accordance with the above dispute resolution procedures, that the Dispute be referred to an Independent Expert for determination. It will be a pre-requisite to referring any Dispute to an Independent Expert under this clause 14.8.1, that a notice has been issued under clause 14.2.1.

14.8.2 Any such referral shall be in accordance with and governed by the Independent Expert Procedures which provisions shall apply in substitution for the procedures set out in clauses 14.5 to 14.7 (inclusive).

14.8.3 For the purposes of clarity, clauses 14.9 and 14.10 shall apply to all Disputes referred to an Independent Expert for determination.

- 14.8.4 The process for appointment of the Independent Expert shall be as follows:
- (a) The Independent Expert shall be appointed by agreement between the parties.
 - (b) If agreement as to the Independent Expert cannot be reached within a reasonable time (to be not later than 10 Working Days) then Resolution Institute New Zealand shall be requested to appoint the Independent Expert who shall be suitably qualified and experienced in relation to the issues that arise in connection with the Dispute.
 - (c) Both parties shall promptly enter into the Independent Expert Agreement as set out in Schedule 13 – Independent Expert Agreement.
- 14.9 Performance of obligations
- 14.9.1 Pending the settlement of any Dispute (but subject to and without limitation or prejudice to the Contractor suspension rights set out in section 24A of the Construction Contracts Act 2002), the parties shall continue to perform all their obligations under the Contract except neither party shall, subject to the provisions of the Construction Contracts Act 2002 be obliged to pay any money which is the subject of the Dispute.
- 14.10 Compliance with dispute resolution regime
- 14.10.1 A party to the Contract may not (but subject to and without limitation or prejudice to the Construction Contracts Act 2002) commence any court or arbitration proceedings relating to a Dispute unless it has complied with the clauses above relating to dispute resolution (except where the party seeks urgent interlocutory or injunctive relief).
- 15. DEFAULT AND TERMINATION**
- 15.1 Termination rights
- 15.1.1 The Council may by written notice to the Contractor terminate this Contract if a Contractor Default Event shall occur.
- 15.1.2 The Contractor may by written notice to the Council terminate this Contract if a Council Default Event shall occur.
- 15.1.3 This Contract shall terminate upon the day or upon the expiry of the period (to be not more than three calendar months after the date of the relevant notice) specified in the relevant notice under clauses 15.1.1 or 15.1.2 or if no such day or period is specified, immediately on receipt by one party of a termination notice issued by the other under clauses 15.1.1 or 15.1.2.
- 15.2 Contractor Default Event
- 15.2.1 A Contractor Default Event shall be any of the following:
- (a) The occurrence of any event which is a material breach of the Contractor's obligations under this Contract where the Council has given a Default Notice to the Contractor in respect of such occurrence and such Default Notice has not been complied with or an acceptable Cure Proposal has not been provided within the time period stipulated.
 - (b) If any representation or warranty made or given by the Contractor in this Contract shall be incorrect in any material respect where such lack of correctness has a material adverse effect on the Contractor's ability to perform or observe its obligations under this Contract.
 - (c) If any proceedings are commenced for the winding up of the Contractor or any Guarantor (unless in the Council's reasonable view the proceedings are vexatious and will be struck out or stayed) or an effective resolution is passed for the winding up or dissolution without winding up of the Contractor or any Guarantor except winding up for the purpose of reconstruction or amalgamation, previously approved in writing by the Council (such consent not to be unreasonably withheld) unless during or following such reconstruction the Contractor or such Guarantor (as the case may be) becomes, or is declared to be, insolvent.

- (d) If a receiver, receiver and manager, liquidator or interim liquidator is appointed over the Contractor or any Guarantor or all or any part of the assets or undertaking of the Contractor or any Guarantor or the holder of any security enforces its security over any assets or undertakings of the Contractor or any Guarantor other than with the prior written consent of the Council.
- (e) If any execution, attachment, distress or other process of any court or authority is issued against or in respect of, or levied upon, any part of the assets or revenues of the Contractor or any Guarantor and is not discharged within 10 Working Days.
- (f) If the Contractor or any Guarantor enters into any arrangement, composition or compromise with its creditors generally or any class of them, or with its members or any class of them, or proceedings are commenced to sanction any such arrangement, composition or compromise or any such arrangement, composition or compromise is agreed to at any meeting of creditors or members of the Contractor or any Guarantor.
- (g) If a statutory manager of the Contractor or any Guarantor is appointed under the Corporations (Investigation and Management) Act 1989 or if the Contractor or any Guarantor is declared to be a corporation at risk or declared to be under statutory management.
- (h) The issue of a notice of intention to remove from the register under section 319 of the Companies Act 1993 in respect of the Contractor or any Guarantor.
- (i) If the Contractor ceases to be owned by the Contractor Parent Companies without the prior written consent of the Council, not to be unreasonably withheld.
- (j) The Contractor abandons or repudiates this Contract.
- (k) The Contractor consistently failing to meet the Key Performance Indicators where the Council has given a Default Notice to the Contractor in respect of such occurrence and such Default Notice has not been complied with or an acceptable Cure Proposal has not been provided within the time period stipulated. In terms of this clause consistent failure is determined to be escalation to Level 4 KPI non-compliance as described in section 4.6.4 of Schedule 16 – Operations, Maintenance and Renewals Requirements. For the avoidance of any doubt and notwithstanding anything to the contrary (including, without limitation, clauses 15.2.1(a) and 15.2.1(l)), this clause 15.2.1(k) is the sole Contractor Default Event in relation to and in connection with any failure to meet any Key Performance Indicator(s).
- (l) The Contractor consistently breaching material requirements of this Contract. For the purposes of this clause consistent breach shall be the legitimate issue by Council of formal notice of breach pursuant to clause 15.2.1(a) (whether remedied within the time specified or not) on six occasions within any rolling six month period.
- (m) The Contractor assigns its interest in this Contract in breach of clause 87.1.
- (n) If any of the events in clause (c) to (h) of this clause (inclusive) or anything analogous or having a substantially similar effect occurs in relation to the Contractor or any Guarantor under the laws of a jurisdiction other than New Zealand.

15.3 Council Default Event

15.3.1 A Council Default Event shall be any of the following:

- (a) The failure by the Council to perform or fulfil any of the Council's material obligations under this Contract or the failure by the Council to pay any monies payable to the Contractor under this Contract where the Contractor has given a Default Notice to the Council in respect of such failure and such Default Notice has not been complied with within the time period stipulated in the notice.
- (b) If any representations or warranties made or given by the Council in this Contract shall prove to be incorrect in any material respect.

- 15.4 Default Notices
- 15.4.1 A Default Notice issued under clauses 15.2 or 15.3 shall:
- (a) identify the failure in the performance of obligations, the payment of monies, or the occurrence the subject of the notice; and
 - (b) indicate that unless the failure or occurrence is remedied or an acceptable Cure Proposal provided to the Administrator within the time period stipulated in the notice (which time period shall be reasonable having regard to the nature of the failure or occurrence and, in any event, not less than 15 Working Days) the party giving the notice may, in its discretion, exercise remedies under this Contract including the termination of this Contract.
- 15.5 Cure Proposal
- 15.5.1 In assessing whether or not a Cure Proposal is acceptable, the Administrator will act in its quasi-judicial capacity. A Contractor Cure Proposal shall be approved by the Administrator if in the Administrator's reasonable opinion the Cure Proposal will put the Council substantially in the position it would have been if the default had not occurred, within a reasonable time and without having a Material Adverse Effect on the Council. Where the default includes the non-payment of moneys due a Cure Proposal will prima facie not be reasonably acceptable unless it is accompanied by payment of the unpaid monies.
- 15.6 Obligations following Termination
- 15.6.1 Upon the termination of this Contract under clause 15, or otherwise in terms of the provisions of this Contract, or as at the date of the issue of the Administrator's Expiry Transfer Certificate, this Contract shall be at an end and, subject to clause 88.16, the obligations of the parties shall cease provided that this clause shall not release the liability of either party for any breach or failure to perform obligations under this Contract arising prior to the date of termination.
- 15.6.2 The remedies available to the parties under this Contract and at law are cumulative and shall not be exclusive of any other remedy.
- 15.7 Mutual obligations re defaults
- 15.7.1 Each party agrees:
- (a) promptly to advise the other party on becoming aware of any material breach by it of its obligations under this Contract;
 - (b) to take reasonable care not to do anything, or omit to do anything, that would cause the other party to be in breach of applicable Laws;
 - (c) to consult with the other party as soon as practicable as to any event that may materially affect the performance of its obligations under this Contract;
 - (d) that in fulfilling its obligations under this Contract it will co-operate, at its own expense, (but without being compelled to incur material expenditure) with the other party to achieve the objectives purposes and intent of this Contract,
- provided that neither party shall be under any obligation to perform any of the other party's obligations under this Contract.

PART B – GENERAL OPERATION CONDITIONS

16. OPERATIONS RESPONSIBILITY

16.1 Contractor responsible for Operations

16.1.1 The parties acknowledge that the Contractor is solely responsible for the proper carrying out of the Operations including the capability, capacity, design, engineering and technical soundness of the renewals and maintenance works carried out as part of the Operations.

17. TARAWERA SCHEME

17.1 Possible inclusion of Tarawera Scheme

17.1.1 The parties acknowledge that the Council may elect to provide a wastewater treatment plant and sewerage reticulation network for Tarawera (Tarawera Scheme) at some time in the future.

17.1.2 If the Council elects to proceed with the Tarawera Scheme the Council will provide its Tarawera Scheme design, construction, operations and (in its discretion) funding requirements (Tarawera Scheme Requirements) to the Contractor.

17.1.3 The Tarawera Scheme Requirements shall set out the Council's Tarawera Scheme design, construction and operations (and possibly funding) requirements and may include the Council's proposal for the incorporation of the Tarawera Scheme Requirements into the Contract scope, the basis of payment to the Contractor for the Tarawera Scheme design and construction and for the operation of the Tarawera Scheme and the amendments to this Contract required to accommodate the incorporation of the Tarawera Scheme within the Contract.

17.2 Contractor's Tarawera Scheme Proposal

17.2.1 The Contractor shall within such reasonable time as shall be notified by the Council (to be not less than 60 days), submit its Tarawera Scheme design, construction, operations and (if included) funding pricing, construction timing and methodology for the inclusion of the Tarawera Scheme Requirements in the Contract, in accordance with the Council's Tarawera Scheme Requirements, to the Administrator (Tarawera Scheme Proposal).

17.2.2 To the extent not covered in the Tarawera Scheme Requirements or the Contractor proposes to alter those details in the Tarawera Scheme Requirements, the Tarawera Scheme Proposal shall identify the basis of payment to the Contractor for the Tarawera Scheme design, construction, operation and (if included) funding of the Tarawera Scheme and the amendments to this Contract required to accommodate the incorporation of the Tarawera Scheme within the Contract.

17.2.3 Following submission of the Tarawera Schedule Proposal, the parties shall consult and endeavour to agree the Tarawera Schedule Proposal as the basis on which the Tarawera Scheme Requirements can be incorporated into the Contract.

17.2.4 The Administrator shall, if the Contractor's Tarawera Scheme Proposal (including all amendments) is approved by the Council, instruct the carrying out of the agreed Tarawera Scheme Proposal as a Variation. The agreed value of the design and construction portion of the Tarawera Scheme and the agreed value of the operation of the Tarawera Scheme shall be payable by the Council in accordance with the agreed Tarawera Scheme Proposal. Unless agreed otherwise the value of the design and construction of the Tarawera Scheme portion of the Variation shall be payable by the Council as set out in the agreed Tarawera Scheme Proposal and the value of the operation of the Tarawera Scheme portion of the Variation shall be payable as a further Monthly Service Payment.

17.3 Failure to agree Tarawera Scheme Proposal

17.3.1 If the parties cannot agree the Tarawera Schedule Proposal as forming the basis on which the Tarawera Scheme Requirements can be incorporated into the Contract Council may:

- (a) instruct the carrying out of the design, construction and operation of the Tarawera Scheme as a Mandatory Variation pursuant to clause 43.1.13;
- (b) abandon the provision of the Tarawera Scheme; or
- (c) arrange for the design, construction and operation of the Tarawera Scheme to be carried out by itself or others.

18. CONTRACTOR'S INFORMATION

18.1 Contractor Warranty

18.1.1 The Contractor warrants and covenants that the information provided by the Contractor as contained in the Contractor's Proposal has been and all further Contractor's Information and design work (whether in relation to the carrying out of the Operations, the completion of any Variation or otherwise under this Contract) shall be prepared and carried out with the care and skill properly to be expected from professionals with the requisite qualifications and in accordance with requirements of this Contract and is or will be complete and accurate in all material respects.

18.2 Review by Administrator or Council

18.2.1 The:

- (a) receipt by the Council or the Administrator of any Contractor's Information;
- (b) making of any response or comment or the failure to make any response or comment by the Council or the Administrator in relation to any Contractor's Information;
- (c) inspection of any part of the WWTP Facilities, the Reticulation Networks or any aspect of the carrying out of the Operations by the Council or the Administrator;
- (d) any acknowledgement, approval or consent given by the Council or the Administrator as to any aspect of the carrying out of the Operations or otherwise in relation to the Project;
- (e) the issue by the Administrator of the Administrator's Expiry Transfer Certificate;
- (f) the rejection or non-rejection of any part of the Operations under clause 44,

shall not relieve the Contractor of the Contractor's obligation to carry out Operations in accordance with this Contract, shall not defeat or reduce the warranties and representations or the indemnities given by the Contractor under clause 8.1 and shall not release the Contractor from or diminish any liability of the Contractor in relation to its obligations as to the matters covered in clauses 16.1.1. Nor shall any such action be treated as an acceptance by the Council of responsibility for, or the waiving by the Council of, any claim it might otherwise have in respect of any matter arising in relation to the carrying out of the Operations or as to any obligation or liability of the Contractor under this Contract.

18.2.2 The parties acknowledge that unless expressly incorporated in this Contract (which, for the avoidance of any doubt, includes the Rotomā/Rotoiti WWTP Facility Design Report as referred to in section 3.3.2 of Schedule 2 – Payments and the Rotorua WWTP Facility discharge history set out in Schedule 14 – Schedule of Information):

- (a) all drawings, specifications, schedules, reports and other information released by the Council to the Contractor shall not form part of this Contract;
- (b) the Council makes no warranty or representation as to the accuracy, completeness or correctness of such information;
- (c) the Contractor relies on that information entirely at its own risk;
- (d) the Council hereby expressly disclaims any liability arising from the use by the Contractor of such information and the Contractor hereby expressly accepts such disclaimer; and

- (e) to the extent possible at law the Contractor hereby waives any claim or other rights the Contractor may have against the Council arising out of the use by the Contractor of any such information.

18.2.3 The parties acknowledge that the drawings, specifications, schedules, reports and other information released by the Council to the Contractor relating to the Rotomā/Rotoiti WWTP Facility and the Rotomā/Rotoiti Reticulation Network are excluded from the application of clauses 18.2.2(b) to (e) (inclusive).

19. CONTRACTOR'S DUE DILIGENCE

19.1 Contractor to satisfy itself

19.1.1 The Contractor shall be deemed to have satisfied itself:

- (a) as to the subject matter of this Contract (including all information provided by the Council) and the nature and extent of the risks assumed by it under this Contract and is solely responsible for the consequences of any misunderstanding or misinterpretation of the requirements of this Contract;
- (b) as to the quantity, quality, nature and extent of all resources (including human resources), materials (including Intellectual Property Materials) and facilities necessary to enable it to meet, to comply with and perform its obligations under this Contract; and
- (c) that the Monthly Service Payments and Gravity Mains Renewals Payments provide the Contractor with sufficient allowance to enable it to carry out the Operations, perform its other obligations and to manage the risks assumed by it under this Contract.

19.2 Contractor acknowledgements

19.2.1 The Contractor acknowledges and agrees that it:

- (a) has gathered all information necessary to fully inform itself as to:
 - (i) the nature of the work and materials necessary for the carrying out of the Operations;
 - (ii) all relevant matters relating to the WWTP Facilities Sites, the Reticulation Networks and the Reticulation Networks Sites;
 - (iii) all regulatory requirements of all relevant Authorities in relation to the carrying out of the Operations; and
 - (iv) the performance of its obligations generally under this Contract;
- (b) has otherwise made its own independent assessment of, and has relied on its own enquiries, investigations, experience, skills and judgement in its entry into, and performance of its obligations under this Contract; and
- (c) has not relied on any representations made, or information provided to it (for clarity excluding the Contract Documents), by the Council that has not been verified by the Contractor.

20. CONTRACTOR'S OBLIGATIONS

20.1 Operations

20.1.1 The Contractor shall carry out the Operations in accordance with this Contract.

20.1.2 The Contractor shall carry out the Operations with due care, skill and diligence and in accordance with Good Industry Practice.

20.2 Contractor to survey and set out

20.2.1 The Contractor shall survey and set out all works required in the carrying out of renewals projects as part of the Operations within the applicable Network Site in conformity with the Council's

- Requirements, the Contractor's Proposal and otherwise with the Contract Documents. The Contractor shall be responsible for the accuracy of its setting out.
- 20.2.2 The Contractor shall be responsible for the preservation of all benchmarks, pegs, or other marks or things used in the carrying out of the Operations and shall accurately replace any such marks, pegs, or things that may be disturbed or removed.
- 20.2.3 The Contractor shall rectify all errors in the positions, levels, dimensions or alignment in Operations work carried out by the Contractor.
- 20.3 Contractor to provide all superintendence, materials etc.
- 20.3.1 The Contractor shall provide all superintendence, labour, management, design, materials, Contractor's equipment and all other things whether of a temporary or permanent nature, required in and for the carrying out of the Operations.
- 20.3.2 Every item not specifically referred to but reasonably incidental to or necessary for the proper carrying out of the Operations is deemed to be included in this Contract and shall be of a type or character in keeping with and consistent with the spirit and intent of this Contract.
- 20.3.3 The Contractor is deemed to have allowed in the Monthly Service Payments and the Gravity Mains Renewals Payments for all costs and expenses arising from any and all of its obligations and duties in connection with carrying out of the Operations save in respect of Variations and as otherwise expressly stated otherwise.
- 20.4 Separate Contractors
- 20.4.1 The Council may arrange for work on any WWTP Facility Site or Reticulation Networks Site not included in the Contract to be carried out by parties other than the Contractor including the Council's employees and concurrently with the carrying out of the Operations. The Contractor shall co-operate with the Separate Contractors and afford reasonable opportunities for the carrying out of their work. The Council shall ensure that in the carrying out of any such work any Separate Contractor shall in all respects comply with all reasonable requests from the Contractor.
- 20.4.2 The Contractor shall afford all reasonable facilities for Separate Contractors in accordance with the instructions of the Administrator.
- 20.4.3 The parties acknowledge that independent parties including utility operators, whether working with specific permission from the Council or not, are not Separate Contractors under this Contract.
- 20.5 Consents and approvals
- 20.5.1 The Contractor shall on its own behalf or when required on behalf of the Council seek, pay for and obtain all consents, permissions and the like required under all Laws including but not limited to the Building Act 2004, the Fire and Emergency New Zealand Act 2017, the Resource Management Act 1991 and the Health and Safety at Work Act 2015 as are necessary for the carrying out of the Operations and as may be required to fulfil its obligations under this Contract, other than the Council Resource Consents.
- 20.5.2 The parties acknowledge that it has been specifically identified that there is certain contaminated soil within the Rotorua WWTP Facility Site. If the Contractor is reasonably required to relocate contaminated soil within the Rotorua WWTP Facility Site to enable the carrying out of the Rotorua WWTP Facility Operations, unless the parties shall agree otherwise the Contractor shall apply for a Resource Consent (or other required permit or consent) to permit such contaminated soil relocation. In the event the Contractor is either unable to obtain, in a timely manner, the relevant Resource Consent (or other required permit or consent) to permit the relocation of this contaminated soil within the Rotorua WWTP Facility Site or a relevant consent or permit is issued on terms that are not acceptable to the Contractor, acting reasonably, the effects and costs and expenses of handling the contaminated soil, to the extent they arise due to the contamination, shall be treated as a Variation under clause 43.1. The Administrator may request the Contractor to provide a submission under clause 43.1.2 regarding the effect and costs and expenses arising under this clause. If the parties cannot agree as

to the Contractor's submission, the effects and costs and expenses shall be treated as a Mandatory Variation instructed by the Administrator under clause 43.1.13.

20.6 Comply with legislation and standards

20.6.1 In the carrying out of the Operations the Contractor shall comply with:

- (a) all applicable legislation and regulations;
- (b) all applicable consents, permits, approvals and requirements of all competent authorities;
- (c) all applicable standards and Good Industry Practice; and
- (d) the National Utilities Code.

20.7 Contamination

20.7.1 If the Contractor shall, in the carrying out of the Operations, cause any Contamination, the Contractor must:

- (a) clean up or otherwise deal with any such Contamination so that the Contractor is at all times in compliance with its obligations under this Contract, all applicable Laws and the Council Resource Consents; and
- (b) comply with any Clean-up Notice relating to the Contamination.

20.7.2 Each party will promptly provide written notification to the other of any Clean-up Notice served on it or received by it.

20.7.3 The obligations of the Contractor under clause 20.7.1 apply regardless of whether the applicable Law, the relevant Council Resource Consent or the Clean-up Notice apply or are addressed to the Contractor, the Council or some other person (except in respect of the Excepted Resource Consent Obligations which the Council is responsible to comply with).

20.7.4 Without limiting the application of clause 20.7.1, the Contractor must promptly and diligently comply with any reasonable direction given by the Council specifying any other action (which may include a direction not to do something) the Council reasonably requires to be taken (or not taken) in relation to the Contamination.

20.8 Contractor does not have lien

20.8.1 The Contractor shall not have any lien upon any property or assets of the Council or the right to retain possession of any property or assets of the Council arising in any way out of this Contract.

20.8.2 Comply with instructions

20.8.3 The Contractor shall comply with all reasonable directions given by the Council Representative.

20.8.4 If compliance with any such directions reasonably requires the Contractor to undertake operations which are additional to the Operations or to incur costs and expenses which are additional to the costs and expenses a competent contractor would reasonably expect to incur in carrying out the Operations as at the date of execution of this Contract, such directions shall be treated as a Variation submission request under clause 43.1.2.

20.9 Information technology

20.9.1 The Contractor shall take all reasonable steps to protect its electronic information and records from loss, corruption or harm including (without limiting the foregoing):

- (a) preventing unauthorised access or amendment;
- (b) employing appropriate back-up and recovery processes (as are approved by the Administrator acting reasonably);
- (c) minimising the risk of accidental damage, including the introduction of errors; and

- (d) maintaining compatibility to the Council information systems.
- 20.9.2 The Contractor shall comply with the Council's information technology rules in Schedule 6 – Council Information Technology Requirements as shall be updated or amended from time to time by notice in writing to the Contractor. The effect and changes in costs and expenses incurred by the Contractor in complying with any changes to Schedule 6 – Council Information Technology Requirements shall be treated as a Mandatory Variation ordered by the Administrator under clause 43.1.13.
- 20.9.3 The Contractor shall ensure that all necessary systems required to interface with Council's information technology systems for the purpose of data retrieval and conversion, and Council access to data, is carried out in accordance with Council's specific information technology rules as set out in Schedule 6 – Council Information Technology Requirements.
- 20.9.4 The Contractor shall ensure that when its personnel or Subcontractor's personnel access any Council IT system, such persons do not, other than is authorised by the Council:
- (a) copy, move or re-organise any computer files or information; and
 - (b) make changes to any Council computer files or software.
- 20.10 Council's facilities
- 20.10.1 The Contractor and its personnel shall not use any Council information technology facilities unless provided under this Contract or with the prior written consent of the Administrator.
- 20.11 Problems
- 20.11.1 If in the course of this Contract any significant information technology related problems, issues, complaints, threats to the Contractor or to Council or anything similar pertaining to information technology shall arise, the Contractor shall at the first reasonable opportunity give Council written notice that such a situation has arisen.
- 20.11.2 The purpose of such notice shall be to:
- (a) prompt consultation between the Council and the Contractor as to the effect and management of the problem; and
 - (b) enable Council to take such remedial or protective action as Council shall see fit.
- 20.11.3 As well as giving notice to Council the Contractor will take all reasonable steps itself to remedy the situation which has arisen.
- 21. OCCUPANCY OF SITES**
- 21.1 Rotomā/Rotoiti WWTP Facility Site
- 21.1.1 The Contractor is entitled to occupy the Rotomā/Rotoiti WWTP Facility Site from the Commencement Date to the Expiry Date for the purpose of carrying out of the Rotomā/Rotoiti WWTP Facility Operations.
- 21.2 Rotorua WWTP Facility Site
- 21.2.1 The Contractor shall have access to the Rotorua WWTP Facility Site for the purposes of inspection and to facilitate mobilisation from the date of execution of the Agreement.
- 21.2.2 The Contractor is entitled to occupy the Rotorua WWTP Facility Site from the Commencement Date to the Expiry Date solely for the purpose of carrying out the Operations.
- 21.3 Reticulation Networks Sites
- 21.3.1 The Contractor is entitled to occupy each Reticulation Networks Site during the Term as is required to carry out the Operations.

- 21.4 Site Access Protocols
- 21.4.1 The Contractor shall, in accessing any of the WWTP Facilities Sites or Reticulation Networks Sites comply with the site access requirements set out in the Site Access Protocols.
- 21.5 Site occupancy exclusivity
- 21.5.1 The Contractor shall have exclusive occupancy, subject to the specific provisions as to site access set out in this Contract, of the WWTP Facilities Sites.
- 21.5.2 The Contractor shall have exclusive occupancy of the Reticulation Networks Sites only to the extent necessary to carry out the Operations.
- 21.6 Occupancy rights
- 21.6.1 The sites occupancy rights granted under this clause 21 are:
- (a) personal rights in contract;
 - (b) do not create any estate or interest in any or all of the sites; and
 - (c) do not create the relationship of landlord and tenant between the Contractor and the Council.
- 21.7 Site access
- 21.7.1 The Contractor is authorised by Council to utilise the Property Access Rights to access any WWTP Facilities Site or Reticulation Networks Site. The Contractor is responsible for providing physical access to and egress from any WWTP Facilities Site or Reticulation Networks Site and for making all further Site access arrangements required to access any WWTP Facilities Site or Reticulation Networks Site in addition to the Property Access Rights.

22. CONTRACTOR'S CONDUCT ON SITES

- 22.1 General site conduct requirements
- 22.1.1 In carrying out the Operations at any WWTP Facilities Site or Reticulation Networks Site the Contractor must (and must procure that all Contractor personnel must):
- (a) comply with all Site Access Protocols requirements;
 - (b) not act or omit to act in any way that shall give rise to a right for any person to obtain title to or any right or interest over any WWTP Facilities Site or Reticulation Networks Site;
 - (c) comply with the requirements of all Council Resource Consents and other consents, permits and approvals relating to the Project (excluding the Excepted Resource Consent Obligations);
 - (d) ensure that the Operations are carried out in such a way as to not unreasonably interfere with access to private land and the use and occupation of public or private roads or footpaths by any person who is entitled to any such access, use or occupation other than to the extent that such interference is permitted under any applicable regional plan or consent, permit or approval;
 - (e) not use any WWTP Facilities Site or Reticulation Networks Site for any purpose other than for the carrying out of the Operations, as applicable provided that ancillary or associated activities outside the scope of the Operations that do not adversely impact the carrying out of the Operations, or the achieving of the KPIs and do not have a material adverse impact on Council or the community may be carried out by the Contractor subject to the prior written consent of the Administrator, not to be unreasonably withheld;
 - (f) not (except to the extent reasonably required to carry out the Operations):
 - (i) cause any damage to any WWTP Facilities Site or Reticulation Networks Site or to any utilities or services or any appurtenances, fittings and fixtures or other items on any WWTP Facilities Site or Reticulation Networks Site;

- (ii) cause any disruption to any Utility Services that has not been agreed with the supplier of those Utility Services and the owner of any equipment and structures used in the delivery of those Utility Services;
 - (iii) dispose of any surplus material excavated or extracted from any WWTP Facilities Site or Reticulation Networks Site other than to an authorised and consented disposal facility; or
 - (iv) abandon or dump any industrial waste or hazardous substances on any WWTP Facilities Site or Reticulation Networks Site;
- (g) ensure that all waste and hazardous substances are handled in a manner that will not cause damage to the environment (provided that handling of such substances in accordance with any relevant Resource Consent or Law shall not be a breach of this clause); or
- (h) ensure that in the carrying out of the Operations no substance is released, deposited or emanates from any WWTP Facilities Site or Reticulation Networks Site that results in Contamination of any land or property.

23. ADJACENT PROPERTY

23.1 Adjacent property access

23.1.1 The Contractor shall, at its cost, obtain all required permissions, permits and consents required to enter upon any adjacent land or roadway as it needs to carry out the Operations. The Contractor shall comply with all conditions that apply to the consents and permissions. The costs and expenses of obtaining and complying with the consents and permissions shall be payable by the Contractor. The Council shall provide all reasonable assistance to the Contractor in connection with the Contractor complying with the terms of this clause 23.1.1.

24. CARE OF SITES

24.1 Care of sites

24.1.1 The WWTP Facilities Sites and all Reticulation Networks Sites shall be under the Contractor's care. The Contractor shall be responsible for watching, protecting and caring for and shall take all reasonable precautions for the safety of the WWTP Facilities Sites and the Reticulation Networks Sites. Subject to the provisions of clause 12, the Contractor shall be responsible for loss or damage to any property or person resulting from or arising out of a breach by the Contractor of its obligations under this clause or the error, omission, or negligence of the Contractor or its consultants, agents, employees or subcontractors.

24.2 Sites safety and stability

24.2.1 The Contractor is responsible for the adequate stability and safety of all Contractor activities on the WWTP Facilities Sites and the Reticulation Networks Sites and shall have full regard for the safety of all persons on and about the WWTP Facilities and the Reticulation Networks Sites.

24.2.2 The Contractor shall provide and maintain all lights, guards, fences and warning signs and provide watchmen when and where necessary or required by any competent statutory or other authority for the protection of the Reticulation Networks Sites and for the safety and convenience of the public or others that might be impacted by the carrying out of the Contractor activities on any Reticulation Networks Site.

24.2.3 The Contractor shall at all times keep the WWTP Facilities Sites, the Reticulation Networks Sites and the Reticulation Network Facilities in a secure and orderly state appropriate to achieve the avoidance of danger to all persons and property.

24.3 Unauthorised Access

24.3.1 The Contractor shall take all reasonable steps to prevent unauthorised access to the WWTP Facilities Sites, the Reticulation Networks Sites and the Reticulation Networks Facilities. General public access

to such sites (other than members of the public doing business with the Contractor) shall not be permitted.

25. INDEPENDENT UTILITY OPERATOR CONTRACTORS

25.1 Activities of independent contractors

25.1.1 The parties acknowledge that the Contractor is responsible for all liaison and co-operation required with independent parties including utility operators, whether working with specific permission from the Council or not. All costs and expenses incurred by the Contractor in relation to the activities of such independent parties shall be borne by the Contractor.

25.1.2 The Council shall use reasonable endeavours to ensure the Contractor receives notification of any parties who are likely to work in the areas and during the time the Contractor is carrying out any Operations but without being liable to the Contractor in any way should notification not be given.

26. UTILITY SERVICES

26.1 Contractor's responsibilities re Utility Services

26.1.1 The Contractor shall be responsible, in relation to Utility Services relevant to or affected by or potentially affected by the carrying out of the Operations, for:

- (a) determining the location of and the maintenance of access to the Utility Services;
- (b) making and relying on all necessary investigations and surveys as to the Utility Services;
- (c) making provision for lawfully diverting, disconnecting or otherwise dealing as necessary with all Utilities Services infrastructure;
- (d) paying to all Utility Services providers all costs and expenses incurred in diverting, disconnecting, connecting into, protecting or otherwise carrying out any works in respect of the Utility Services;
- (e) making good (to the reasonable satisfaction of the Administrator) at its own cost all damage to Utility Services infrastructure caused or arising as a consequence of the carrying out of the Operations;
- (f) otherwise doing all things necessary in relation to Utility Services for the carrying out of the Operations.

27. TAONGA AND PROTECTED WILDLIFE

27.1 Taonga and Antiquities

27.1.1 For the purposes of this clause 27 "Taonga and Antiquities" means all fossils, coins, articles of value, precious stones, gold and other minerals, taonga, objects under the Protected Objects Act 1975 and other objects of antiquarian value, structures and other remains or things of geological or archaeological interest.

27.1.2 All Taonga and Antiquities discovered on the WWTP Facilities Sites or in the course of undertaking any work on the Reticulation Networks shall as between the Council and the Contractor be deemed to be the property of the Council.

27.2 Protected Wildlife

27.2.1 For the purposes of this clause 27 "Protected Wildlife" means wildlife protected under the Wildlife Act 1953.

- 27.3 Discovery of Taonga and Antiquities and Protected Wildlife
- 27.3.1 Upon the discovery of any Taonga and Antiquities and Protected Wildlife on or at any WWTP Facilities Site or Reticulation Networks Site:
- (a) the Contractor shall:
 - (i) immediately notify the Administrator of such discovery and shall specify the location;
 - (ii) take reasonable precautions to prevent its workmen or other persons from removing or damaging such Taonga and Antiquities or Protected Wildlife discovered;
 - (iii) provide all reasonable assistance to the Council in connection with the protection, managing or dealing with the discovered Taonga and Antiquities or Protected Wildlife;
 - (iv) continue to carry out the Operations subject to such amendments and alterations required to comply with the above; and
 - (b) the Council will provide instructions as to the protection, management or dealing with the discovered Taonga and Antiquities or Protected Wildlife.
- 27.3.2 The method of protection management or dealing with the discovered Taonga and Antiquities or Protected Wildlife shall be treated as a Variation under clause 43.1. The Administrator may request the Contractor to provide a submission under clause 43.1.2 regarding the effects and costs and expenses arising under this clause. If the parties cannot agree as to the Contractor's submission, the effects and costs and expenses shall be treated as a Mandatory Variation instructed by the Administrator under clause 43.1.13.

28. MĀORI CLAIMS

28.1 Contractor obligations as to Māori Claims

- 28.1.1 Upon either party becoming aware of any Māori Claim in respect of, in connection with or negatively impacting upon the performance of any obligations under this Contract, that party shall immediately notify the other party and the Administrator of the same and:
- (a) the Contractor will not (except with the consent or at the direction of the Administrator or pursuant to the order of a Court or tribunal) take any action in respect of that Māori Claim;
 - (b) the Contractor must promptly and diligently comply with any direction given by the Administrator to the Contractor (that is not inconsistent with an order of a Court or tribunal), specifying any other action (which may include a direction not to do something) the Council requires to be taken (or not taken) in relation to any Māori Claim; and
 - (c) the Contractor will, if the Māori Claim comprises or includes a claim against the Contractor or any Contractor personnel, then only if requested by the Administrator:
 - (i) do all things reasonably required by the Administrator in negotiating, defending or otherwise taking action or proceedings in respect of that Māori Claim;
 - (ii) join in any proceedings with the Council; and
 - (iii) permit the Council to represent the Contractor and have exclusive conduct of any negotiation in relation to the Māori Claim,

and the costs and expenses reasonably incurred by the Contractor in complying with its obligations under this clause or otherwise incurred by the Contractor in relation to or in connection with a Māori Claim, shall be treated as a Mandatory Variation instructed by the Administrator under clause 43.1.13.

29. SUBCONTRACTS

- 29.1 No subcontracting without Council approval
- 29.1.1 The Contractor may not enter into Subcontracts for the work packages or subtrades identified as Key Subcontracts in Schedule 14 – Schedule of Information (Key Subcontracts) without the prior written consent of the Council as to the Subcontractor to provide the Key Subcontract services (such consent not to be unreasonably withheld or delayed).
- 29.1.2 The Council's consent is not required for the Pre-Approved Key Subcontractors set out in Schedule 14 – Schedule of Information but is required for any Subcontractor replacing such Pre-Approved Key Subcontractors from time to time.
- 29.1.3 For those Key Subcontracts requiring a Continuity Deed, the Contractor shall provide a copy of all:
- (a) Key Subcontract terms to the Council when requesting consent under clause 29.1.1; and
 - (b) updated Key Subcontracts or variations to Key Subcontracts promptly after entering into such Subcontract updates or variations.
- 29.1.4 Unless specifically provided otherwise in the Contract Documents, the Contractor may enter into Subcontracts that are not Key Subcontracts in the Contractor's complete discretion and without the Council's prior approval.
- 29.1.5 Other than the Subcontracts with the Major Subcontractors or otherwise as approved by the Council, the Contractor shall not subcontract all of its obligations under this Contract.
- 29.2 Subcontractor payment arrangements
- 29.2.1 The Contractor shall comply with all applicable legislation as to contracting arrangements with and payment to the Contractor's Subcontractors and consultants including (without limiting this provision) the Construction Contracts Act 2002.
- 29.3 Major Subcontractor Direct Deeds
- 29.3.1 The Contractor shall ensure that each Major Subcontractor enters into a Major Subcontractor Direct Deed with the Council in the form set out in Schedule 10 – Major Subcontractor Direct Deed at the time(s) set out in Schedule 14 – Schedule of Information.
- 29.3.2 The Contractor shall ensure that each subcontract it enters into with a Major Subcontractor, unless otherwise agreed by the Council:
- (a) is entered into, and continues to be, on Arms Length Terms;
 - (b) contains:
 - (i) acknowledgements and agreements in respect of the ownership of Intellectual Property on the same terms as set out in this Contract;
 - (ii) an assignment of the rights in respect of the Major Subcontractor's Intellectual Property rights on the same terms as set out in this Contract; and
 - (iii) a license for the Council in respect of the Major Subcontractor's Intellectual Property rights on the same terms as the license the Council receives from the Contractor under clause 30.3.1; and
 - (c) includes, and continues to include:
 - (i) terms that the subcontract may not be varied or cancelled so as to alter or extinguish the rights granted to the Council, except in accordance with the applicable Major Subcontractor Direct Deed;
 - (ii) a statement that the subcontract as it relates to the requirements of this clause 29.3.2 is for the benefit of and enforceable by the Council under the Contracts and Commercial Law Act 2017, Part 2, Subpart 1 – Contractual privity;

- (iii) a requirement that either party to this Contract may release to the Council any of those parts of the subcontract sufficient to demonstrate compliance with the terms of this clause 29.3.2; and
- (iv) terms that require the Major Subcontractor to take all steps reasonably practicable to mitigate and minimise Subcontractor Breakage Costs.

29.4 Continuity Deeds

29.4.1 The Contractor shall ensure that, in accordance with clause 5 of the Agreement, all Subcontractors carrying out the specified portions of the Operations as set out in Schedule 14 – Schedule of Information execute a continuity deed in the form in Schedule 11 – Continuity Deed.

29.4.2 All such Continuity Deeds shall be provided at the time(s) set out in Schedule 14 – Schedule of Information.

29.5 Termination of subcontracts

29.5.1 The Contractor must provide immediate written notice to the Council of the termination or likely termination of any subcontract, whether such subcontract is a subcontract with a Major Subcontractor or otherwise.

29.6 Replacement of Subcontractors

29.6.1 The Contractor may replace any Subcontractor (other than a Major Subcontractor) on giving prior notice to the Council and subject to the Council's prior written approval (such consent not to be unreasonably withheld or delayed).

29.6.2 The Contractor shall ensure all Subcontractors replacing a Subcontractor that has entered into a Continuity Deed shall enter into a Continuity Deed prior to commencement of the replacement subcontract.

29.7 Replacement of Major Subcontractor

29.7.1 The Contractor may only replace a Major Subcontractor in accordance with this clause 29.7.

29.7.2 The Contractor must:

- (a) notify the Council in writing if it proposes to replace a Major Subcontractor at any time during the Term;
- (b) provide details to the Council of the identity of the proposed replacement Major Subcontractor and the nature and scope of the services that the Contractor intends the replacement Major Subcontractor to undertake;
- (c) provide to the Council copy of the proposed subcontract to which the replacement Major Subcontractor will be made a party; and
- (d) provide any further information known to the Contractor about the proposed replacement Major Subcontractor that the Council may reasonably require.

29.7.3 Following receipt of the notice referred to in clause 29.7.2(a), the Council (acting reasonably) will approve or reject the proposed replacement Major Subcontractor within 20 Working Days of receipt of the notice.

29.7.4 If the Council approves the proposed replacement Major Subcontractor it may do so on any reasonable conditions, including (if the Council so requires) the condition that the final form of the proposed subcontract:

- (a) complies with the requirements of clauses 29.3.1 and 29.3.2; and
- (b) is not materially different from the form of subcontract already made available to the Council under clause 29.7.2(c).

- 29.7.5 If the Council rejects the proposed replacement Major Subcontractor, the Contractor must not enter into the replacement subcontract with that proposed replacement Major Subcontractor until the reasons for the Council's rejection have been addressed to the satisfaction of the Council (acting reasonably).
- 29.7.6 Failure by the Council to approve or reject a replacement Major Subcontractor within 20 Working Days under clause 29.7.3 constitutes deemed approval of the replacement Major Subcontractor and such deemed approvals are subject to the conditions specified in clause 29.7.4.

30. INTELLECTUAL PROPERTY AND PROJECT INFORMATION

30.1 Intellectual Property

- 30.1.1 Each party shall continue to own Intellectual Property held by it prior to the commencement of this Contract.

30.2 Contractor's Retained Intellectual Property

- 30.2.1 The Contractor's Retained Intellectual Property comprises the Intellectual Property in the systems and procedures used by the Contractor for the carrying out of the Operations. The Contractor's Retained Intellectual Property excludes Intellectual Property specifically required to be provided by the Contractor to the Council pursuant to the Council's Requirements.

- 30.2.2 The Contractor owns the Contractor's Retained Intellectual Property.

- 30.2.3 All Intellectual Property created after the commencement of this Contract required for the carrying out of the Operations other than the Contractor's Retained Intellectual Property vests in and shall be owned by the Council on creation. The Contractor shall be entitled to use all such Intellectual Property during the Term and Council grants a non-exclusive licence to the Contractor, its agents and contractors for such purposes.

30.3 Council's rights re Contractor's Retained Intellectual Property

- 30.3.1 The Contractor grants a non-exclusive license to the Council to utilise all Contractor's Retained Intellectual Property. The license granted shall benefit the Council, its agents or contractors and any subsequent owners, occupiers or operators of all or any part of the WWTP Facilities or the Reticulation Networks. The Council shall only use such intellectual property for the carrying out of the Operations and the subsequent use, alteration, extension and maintenance of the WWTP Facilities and the Reticulation Networks.

- 30.3.2 The Council may utilise the systems and procedures used by the Contractor for the carrying out of the Operations under this Contract in the carrying out of the Operations after the Expiry Date or termination of this Contract.

30.4 Contractor warranties re Intellectual Property

- 30.4.1 The Contractor warrants that, other than as set out in Schedule 14 – Schedule of Information it either holds or has a license to use all Contractor's Retained Intellectual Property and in all Intellectual Property provided by the Contractor pursuant to this Contract and has the power to grant the non-exclusive licence referred to in clause 30.3.1.

- 30.4.2 The Contractor warrants that the Intellectual Property utilised or provided by the Contractor in the carrying out of the Operations does not infringe the Intellectual Property rights of any other person.

30.5 Council's Intellectual Property

- 30.5.1 The Council's Intellectual Property comprises the Intellectual Property held by Council relating to the operation of the Rotorua WWTP Facility, the Rotorua LTS, the Rotomā/Rotoiti WWTP Facility and the Reticulation Networks.

- 30.5.2 The Council grants a non-exclusive license to the Contractor, its agents and Subcontractors to utilise all Council's Intellectual Property as is required to carry out the Operations. The Contractor, its agents and Subcontractors shall only use such Intellectual Property for the carrying out of the Operations.
- 30.6 Project Information
 - 30.6.1 The Project Information is owned by the Council.
 - 30.6.2 The Contractor may use Project Information for the purposes of this Contract only.
 - 30.6.3 The Contractor shall, from time to time, provide to the Council such Project Information as the Council shall reasonably request, in readily accessible digital format. The parties acknowledge the Council may provide such Project Information to third parties as it shall elect including without limitation for the purposes of obtaining tender or proposal submissions for the carrying out of the Operations after the cessation or termination of this Contract.

31. CONTRACTOR'S INFORMATION

- 31.1 Submitting of Contractor's Information
 - 31.1.1 The Contractor shall submit the Contractor's Information to the Administrator progressively as required by the Council's Requirements or this Contract or otherwise not less than 15 Working Days prior to the Contractor requiring such information for construction or operations purposes.
 - 31.1.2 The Contractor's Information shall clarify and elaborate on and be in accordance with the Contractor's Proposal.
- 31.2 Status of Contractor's Information
 - 31.2.1 The submitting of Contractor's Information to the Administrator is the method by which the Contractor provides information as to the way in which the Contractor intends to carry out the Operations. The Administrator is not obliged to review any Contractor's Information submitted and is not required to approve that information. The submitting of Contractor's Information that is inconsistent with the Contractor's obligations under this Contract shall not relieve the Contractor of any of its obligations nor diminish the Contractor's liabilities under this Contract.
 - 31.2.2 The Contractor shall keep one further copy of all Contractor's Information, as a co-ordinated set, available for the Administrator to inspect at any reasonable time.

32. CONSENTS, PERMITS, APPROVALS

- 32.1 Contractor to obtain consents
 - 32.1.1 The Contractor is responsible for obtaining and maintaining all consents, permits, approvals and the like (other than the Council Resource Consents) required for the carrying out of the Operations.
 - 32.1.2 The Contractor shall pay for all such consents, permits and approvals and shall comply with all conditions that apply to them.
 - 32.1.3 The Contractor shall obtain all required code compliance certificate(s) for all Operations work carried out.
 - 32.1.4 The Contractor shall comply with the requirements of the Building Act 2004 applying to the WWTP Facilities and the carrying out of the Operations including the requirements of that Act that are placed on the 'owner' as that term is used in the Act.

33. ADMINISTRATOR AND ADMINISTRATOR'S REPRESENTATIVE

- 33.1 Council to appoint Administrator
 - 33.1.1 The Council shall at all times during the Term ensure that a person is appointed as Administrator and that the Administrator fulfils all aspects of the role and functions reasonably, in good faith and without

- undue delay. The Administrator as at the commencement date is the person identified as the Administrator in Schedule 1 – Reference Schedule.
- 33.1.2 The Council may remove the Administrator and appoint a replacement Administrator at any time. The Council shall give written notice of any replacement Administrator together with the contact details to the Contractor immediately following any such appointment.
- 33.2 Functions and duties of Administrator
- 33.2.1 The Administrator shall have the functions, rights and duties set out in this Contract including (without limitation) receiving and considering Contractor's Information and other documentation to be provided by the Contractor, inspecting the Operations, resolving disputes, and approving payments to the Contractor.
- 33.2.2 The parties acknowledge that the Administrator has two functions under this Contract. Firstly the Administrator acts as the agent of the Council. This function includes instructing Council initiated Variations, monitoring, testing and inspection and receipt of Contractor's Information. Secondly the Administrator acts in a quasi-judicial capacity as between both the Contractor and the Council. This second, quasi-judicial function includes issuing certificates and confirmations, resolving disputes, approving claims for money and extensions of time and valuing Variations.
- In carrying out all quasi-judicial functions under this Contract, the Administrator and the Administrator's Representatives shall at all times act independently of either party to this Contract and shall exercise proper professional skill and judgment and act reasonably, impartially, in good faith and promptly.
- 33.2.3 The parties acknowledge that the Administrator is not obliged to approve any aspect of the carrying out of the Operations and shall not have (other than is specifically set out in this Contract) any right of supervision or instruction.
- 33.2.4 The Administrator shall have no authority to relieve or otherwise absolve the Contractor from fulfilling all of its obligations under the Contract.
- 33.2.5 The Contractor may require the Administrator to confirm in writing any decision, instruction or request of the Administrator which is not in writing. Either party may also request the Administrator to clarify any aspect of the Contract. The Administrator shall provide such written confirmation within 10 Working Days of the request.
- 33.2.6 The Council will use reasonable endeavours to procure the Administrator to respond to requests for approval or comment required under the Contract Documents as promptly as is reasonably practicable in the particular circumstances.
- 33.3 Administrator's Representative
- 33.3.1 The Administrator may from time to time appoint one or more Administrator's Representative to carry out such duties and exercise such authority as may be delegated in writing by the Administrator. Such delegation by the Administrator may be revoked by the Administrator at any time.
- 33.3.2 Any appointment, delegation or revocation of delegation by the Administrator under clause 33.3 shall not take effect until notified to the Contractor in writing.
- 33.3.3 Any action, instruction, or exercise of authority by an Administrator's Representative authorised under clause 33.3 shall have the same effect as though it was the action or instruction of or the exercise of authority by the Administrator.
- 33.4 Responses by Administrator and Administrator's Representative
- 33.4.1 Unless specified otherwise the Administrator and the Administrator's Representative shall respond to Contractor queries and requests for instructions as promptly as is reasonable and practicable. This response obligation shall also apply to direct responses from the Council.

34. INSPECTIONS, EXAMINATIONS AND TESTING

34.1 Administrator entitled to inspect

34.1.1 The Administrator shall be entitled to inspect, review, examine and test any part of the WWTP Facilities, the Reticulation Network Sites and the carrying out of the Operations, and to check the manufacture of any plant, equipment, apparatus, machinery, material or other component to be supplied under this Contract. Where materials or any component of the Operations is being manufactured or stored on premises other than the applicable WWTP Facilities Site or portion of the Reticulation Networks, the Contractor shall obtain access for the Administrator to carry out such inspection, examination and testing on those premises.

34.1.2 The Contractor shall give the Administrator full opportunity to inspect, examine, and test any part of the carrying out of the Operations, which is about to be covered up or put out of view.

34.1.3 The Contractor shall give reasonable notice to the Administrator whenever any such work is ready for inspection, examination or testing.

34.1.4 The Administrator shall, unless the Administrator notifies the Contractor that it is unnecessary, without unreasonable delay carry out the inspection, examination, or testing. If the Administrator fails to carry out such inspection, examination or testing during a reasonable period after receipt of notice the Contractor may cover up the work and continue with that part of the carrying out of the Operations.

34.1.5 If so requested by the Administrator, the Contractor shall expose for inspection, examination or testing any parts of the WWTP Facilities or the Reticulation Networks. The Contractor shall reinstate and make good such parts once such inspections, examinations or testing has been concluded.

34.1.6 If any part of the WWTP Facilities or the Reticulation Networks is exposed in accordance with clause 34.1.5 and is found to be in accordance with this Contract and the Contractor's Information, the costs and expenses incurred by the Contractor in complying with the Administrator's instructions and in carrying out all necessary reinstatement shall be treated as a Mandatory Variation ordered by the Administrator under clause 43.1.13.

34.2 Contractor's Inspections Examinations and Testing

34.2.1 The Contractor shall carry out all inspections, examinations and testing in relation to the Operations as prescribed in the Council's Requirements and the Contractor's Information. In addition, the Contractor shall carry out all other inspections, examinations and tests that are appropriate and/or necessary for the proper carrying out of the Operations.

34.3 Administrator's right to observe inspections

34.3.1 The Administrator shall be entitled to attend and observe all of the Contractor's inspections, examinations or testing including any such inspections, examinations or tests that are carried out at any location other than at any of the WWTP Facilities Sites or Reticulation Networks Site.

34.3.2 The Contractor shall advise the Administrator of the time and place for all inspections, examinations or testing plus any other inspections, examinations or testing which the Administrator has requested to attend no less than 5 Working Days prior to such taking place.

34.3.3 If the Administrator does not attend on the date advised, the Contractor may proceed with the inspections, examination or testing.

34.4 Inspection and test results

34.4.1 The Contractor shall immediately when available forward to the Administrator duly certified copies of the results of all inspections, examinations and tests that are prescribed in the Council's Requirements plus any other inspections, examinations and testing to be provided under plans submitted by the Contractor and approved by the Administrator).

- 34.5 Administrator may request further inspections
- 34.5.1 If, following any of the Administrator's or the Contractor's inspections, examinations and testing as provided for in this Contract, any part of the carrying out the Operations is found to be in material non-compliance with the requirements of this Contract and the Administrator reasonably considers there are sufficient grounds to suspect that any other work or materials may also be in material non-compliance with the requirements of this Contract, then the Administrator may require further reasonable inspections, examinations and tests be carried out. The costs and expenses and consequential effects, including delays, of such additional inspections, examinations and testing including any exposure, replacement and/or making good of such other work or materials shall be borne by the Contractor notwithstanding that the other work or materials are found to comply with this Contract.
- 34.6 Contractor not released by inspections
- 34.6.1 No inspections, examinations, or testing whatsoever shall release the Contractor from any of its obligations nor diminish the Contractor's liability under this Contract.
- 35. SUSPENSION OF THE OPERATIONS**
- 35.1 Administrator's power to suspend
- 35.1.1 The Administrator may at any time instruct the Contractor to suspend the whole of or any part of the carrying out of the Operations.
- 35.1.2 The Contractor shall during any such suspension take all reasonable measures to protect, store and secure the WWTP Facilities Sites or the Reticulation Networks Sites (as applicable) or part thereof affected against any undue deterioration, loss or damage.
- 35.1.3 Subject to clause 35.1.4, the additional costs and expenses incurred by the Contractor arising from an Administrator's suspension instruction under clause 35.1.1 (including costs and expenses incurred in protecting, securing and insuring the WWTP Facilities Sites or Reticulation Networks Sites (as applicable)) and in any subsequent resumption of the Operations shall be payable by the Council and treated as a Variation. The Administrator may request the Contractor to provide a submission under clause 43.1.2 regarding the effect and costs and expenses arising as a result of the suspension. If the parties cannot agree as to the Contractor's submission the effect and costs and expenses shall be treated as if the suspension were a Mandatory Variation instructed by the Administrator under clause 43.1.13.
- 35.1.4 The Contractor shall not be entitled to be paid any additional costs or expenses in relation to any suspension instructed by the Administrator if such suspension is necessary by reason of a default or breach of this Contract by the Contractor.
- 35.1.5 Without limiting clause 35.1.4, or the Council's further rights and remedies under this Contract or at law, the Council's obligation to pay the Monthly Service Payments in accordance with the provisions of this Contract shall continue during the period of any suspension ordered by the Administrator under clause 35.1.1.
- 35.2 Prolonged suspension
- 35.2.1 If suspension under clause 35.1.1 has become prolonged by continuing for more than 84 days, and the suspension is not due to the default or breach of this Contract by the Contractor, the Contractor may by notice to the Administrator (copy to the Council) request permission to proceed with the carrying out of the Operations (as applicable) within a further 28 days.
- 35.2.2 If permission is not granted by written instruction from the Administrator within the 28 day period specified in clause 35.2.1, the Contractor may by written notice to Council, terminate this Contract forthwith, and the provisions of clause 64.2 will be deemed to apply.
- 35.2.3 If the Contractor chooses not to terminate this Contract under clause 35.2.2, the Council shall upon the written request of the Contractor, take over the responsibility for protection, storage, security and

insurance of the suspended Operations (including the related WWTP Facilities and Reticulation Networks) and the risk of loss or damage thereupon shall be with the Council.

- 35.2.4 After receipt of permission or an order to proceed following prolonged suspension under clause 35.2.1 the Contractor shall, after due notice to the Administrator, examine the WWTP Facilities Sites and Reticulation Networks Sites affected by the suspension. After due consultation with the Administrator and Council, who shall confirm or rescind the permission or order to proceed, the Contractor shall make good any deterioration or defects in or loss to the WWTP Facilities Site and Reticulation Networks Site that may have occurred during the period of suspension. Costs and expenses properly incurred by the Contractor which would not have been incurred but for the suspension shall be payable by the Council and treated as a Variation. The Administrator may request the Contractor to provide a submission under clause 43.1.2 regarding the effect and costs and expenses arising as a result of the resumption of the Operations. If the parties cannot agree as to the Contractor's submission the effect and costs and expenses shall be treated as if the resumption of the Operations was a Mandatory Variation instructed by the Administrator under clause 43.1.13.
- 35.2.5 The Contractor shall not be entitled to payment for costs and expenses pursuant to clause 35.2.4 incurred in making good any deterioration, defect or loss caused by faulty workmanship undertaken by the Contractor or faulty materials supplied by the Contractor or by the Contractor's failure to take the measures specified in clause 35.1.2 or if suspension arose as a consequence of the default or breach of this Contract by the Contractor.
- 35.2.6 If the Council has taken over risk and responsibility for the suspended Operations (including the related the WWTP Facilities and Reticulation Networks) under clause 35.2.3 risk and responsibility shall revert to the Contractor upon receipt of the permission or order to proceed as notified by the Council to the Contractor (for clarity, this is without limitation or prejudice to clause 12).

36. APPLICABLE LAW CHANGE

36.1 Applicable Law Change defined

36.1.1 An Applicable Law Change means:

- (a) any change in Laws (or their application) occurring after the date of this Contract that directly relates to or impacts on the carrying out of the Operations, such changes to include (without limitation) any re-enactment of or amendment to the Law and all Laws passed in substitution for any Laws;
- (b) any change, cancellation, suspension, lapse, expiry or amendment to the Council Resource Consents occurring after the date of this Contract (including without limitation a change following a review of the Council Resource Consents conditions under the Resource Management Act 1991);
- (c) any Laws, order of a court or other competent authority, notice, legal process, applicable standards or applicable codes of practice in force in New Zealand occurring after the date of this Contract which have the effect of suspending, restricting, preventing, or materially altering the carrying out of the Operations in accordance with the Contract;
- (d) any change to any district or regional planning documents under the Resource Management Act 1991 which impact on the carrying out of the Operations and/or requires additional resource consents or changes to the Council Resource Consents; and
- (e) any change to any standards and codes of practice in force in New Zealand occurring after the date of this Contract that directly relates to or impacts on the carrying out of the Operations.

For the avoidance of any doubt, a "change in Laws" under clause 36.1.1(a) includes a change in or repeal of any existing Law, an enactment or making of any new Law or a change in the manner in which a Law is applied or in its application or interpretation.

- 36.2 Effect of Applicable Law Change
- 36.2.1 Any costs and expenses or savings incurred by the Contractor associated with or resulting from an Applicable Law Change (including without limitation costs and expenses and savings associated with the review or replacement of the Council Resource Consents pursuant to ss.124 or 128 of the Resource Management Act 1991, respectively) shall be treated as a Variation under clause 43.1. The Administrator may request the Contractor to provide a submission under clause 43.1.2 regarding the effect and costs and expenses and savings arising from the Applicable Law Change. If the parties cannot agree as to the Contractor's submission the Applicable Law Change shall be treated as a Mandatory Variation instructed by the Administrator under clause 43.1.13.
- 36.2.2 If the Contractor is prevented from or hindered in performing any of its obligations under this Contract by an Applicable Law Change, the Contractor shall use all reasonable endeavours to prevent, remove or mitigate the effects of the Applicable Law Change and, provided the Contractor has complied with this clause 36.2.2, any failure or delay in the performance of the Contractor's obligations under this Contract due to that Applicable Law Change shall not constitute a breach of the Contractor's obligations under this Contract.

37. CONTRACTOR'S PERSONNEL

- 37.1 Personnel
- 37.1.1 The Contractor shall provide sufficient qualified, experienced and competent staff to enable it to meet its obligations under this Contract. The Contractor shall utilise the Offer Employees as set out in clause 37.6.1 in the identified roles and otherwise the Contractor Personnel utilised in the carrying out of the Operations shall be as detailed in the Schedule of Information and as may be updated from time to time by the Contractor providing notice to the Council (subject to and with without limitation or prejudice to clause 37.5).
- 37.1.2 The Contractor shall ensure that sufficient technical and secretarial support personnel are available to ensure the timely completion and submission of all reports and other information required to be provided under this Contract.
- 37.2 Staff presentation and identification
- 37.2.1 The Contractor must ensure that all Contractor personnel involved in the carrying out of the Operations are appropriately attired.
- 37.2.2 The Contractor shall ensure all staff involved in the carrying out of the Operations have and demonstrate high standards of:
- (a) behaviour – show courtesy and respect to customers and members of the public;
 - (b) demeanour – friendly and helpful at all times;
 - (c) language – good command of the English language;
 - (d) verbal and written communication skills – effective, clear and unambiguous;
 - (e) appearance – neat and tidy dress and general appearance; and
 - (f) honesty and trustworthiness.
- 37.3 Public interface
- 37.3.1 The Contractor shall ensure that all personnel that, in the carrying out of the Operations, are involved with members of the public or who work in the public arena:
- (a) communicate and deal with members of the public in a polite and business-like manner;
 - (b) do all things reasonably possible to foster good relationships between the Council and the public;
 - (c) are skilled and competent in customer relationship management;

- (d) wear an appropriate uniform which has been approved by the Council (such approval not to be unreasonably withheld); and
- (e) have suitable identification including the Contractor's name and the person's name.

37.4 Removal of personnel

37.4.1 The Contractor shall remove from the carrying out of the Operations any personnel that materially misconducts him or her self or acts in such a way as to constitute a danger to any person, reflect adversely on the public image of Council or is negligent or incompetent in the performance of duties. Any such person shall not be utilised in the carrying out of the Operations without the Council's prior written approval.

37.5 Key Personnel

37.5.1 The Contractor shall utilise the Key Personnel in the positions nominated.

37.5.2 The Contractor shall not remove Key Personnel from applicable roles, vary the duties of Key Personnel as they specifically relate to this Contract, or replace any Key Personnel without the prior written approval of the Council (such approval shall not be unreasonably withheld or delayed). The Council acknowledges and agrees that its approval to removal of Key Personnel will not be required in instances where the relevant person has ceased their employment with the Contractor or has taken extended leave (such as parental or sickness leave). Wherever practicable the Contractor shall allow for an appropriate period of overlap to prevent any loss of continuity in performance of a Key Personnel role. All costs and expenses of replacing assigned Key Personnel including the costs and expenses of information transfer between the Contractor's personnel shall be borne by the Contractor.

37.5.3 The Council shall be entitled on reasonable grounds to give notice (including reasons) to the Contractor requiring that any of the Key Personnel be no longer employed in carrying out the Operations provided that where practicable, before giving that notice, the Council has advised the Contractor of its concerns and has given the Contractor reasonable opportunity to address them. The Contractor shall take all necessary action to remove the relevant Key Personnel from carrying out the Operations.

37.6 Transfer of Council employees

37.6.1 The Contractor agrees to offer employment from the Commencement Date to the personnel set out in the Schedule 14 – Schedule of Information (Offer Employees) who are currently engaged in carrying out similar services to the Operations under this Contract.

37.6.2 The Contractor acknowledges that the Offer Employees shall:

- (a) be offered employment on terms and conditions no less favourable than the terms and conditions under the contracts of employment between each Council employee and the Council current at the offer date which provides for a transfer of employee entitlements from Council to the Contractor as is consistent with the provisions of this clause 37.6; and
- (b) be offered employment in the same capacity as each employee was employed at the offer date or in such other capacity as the Council employee and the Contractor may agree.

37.6.3 The parties also accept that as a result the operation of this Contract, the employment of a certain person identified by the parties as a vulnerable employee as set out in the Schedule 14 – Schedule of Information (Vulnerable Employee) will transfer from the Council to the Contractor if the Vulnerable Employee elects to transfer her employment, by virtue of her being classified as a "vulnerable employee" for the purposes of the Employment Relations Act 2000 (ERA).

37.6.4 Subject to any longer timeframes set out in the Vulnerable Employee's employment agreement, the parties agree to abide by the following obligations and timeframes regarding the potential transfer of the Vulnerable Employee's employment:

- (a) the Contractor shall promptly provide to the Council the information relating to the Contractor required to be provided by the Council to the Vulnerable Employee under s.69G(1)(c);

- (b) the Council will provide the Vulnerable Employee with the information outlined in s. 69G(1) of the ERA regarding the restructure as soon as is practicable, and at least 20 Working Days before the Commencement Date;
- (c) subject to the Vulnerable Employee giving the Council her election notice no later than 10 Working Days from the time the Council provides her with the information described in clause 37.6.4(a) in accordance with s. 69G(1)(d) of the ERA, the Council will send the election notice to the Contractor as soon as practicable, but not later than 5 Working Days from the time the Council receives the election information from the Vulnerable Employee in accordance with s. 69G(3) of the ERA;
- (d) the Council will provide the Contractor with any information that the Contractor requests under s. 69OC of the ERA; and
- (e) the Contractor will do all things reasonably required by the Council to assist it with complying with the obligations outlined above at clauses 37.6.4(b) - (d).

37.6.5 The Council shall pay to the Contractor on the Commencement Date all accrued entitlements, in respect of Council employees transferred to the Contractor under clause 37.6.1 (Transferring Employees) and the Vulnerable Employee should she choose to transfer her employment to the Contractor as such entitlements fall due up to the Commencement Date. Accrued entitlements shall include payments for annual leave, alternative holidays, long service leave, incentive payments, wages and salaries.

37.6.6 The Council shall also pay the Contractor for that proportion of annual leave and long service leave which accrues after the Commencement Date in respect of all Transferring Employees, and the Vulnerable Employee as applicable as such entitlements fall due, but which relates to service given by the Transferring Employee or Vulnerable Employee before the Commencement Date.

37.6.7 The Council shall pay all statutory contributions in respect of the Transferring Employees and the Vulnerable Employee as applicable up to the Commencement Date including all 'PAYE' income tax and accident compensation levies.

37.6.8 Except as provided above the Contractor shall not be liable for and the Council shall indemnify the Contractor against the following:

- (a) any liability for wages in lieu of notice, redundancy payments, compensation for wrongful and unjustified dismissal payable or becoming payable to any Offer Employee or the Vulnerable Employee in consequence of any redundancy arising as a result of that Offer Employee or Vulnerable Employee not accepting or electing to transfer to employment with the Contractor or the termination of any Offer Employee's or Vulnerable Employee's employment with the Council;
- (b) any liability arising as a result of any breach by the Council, occurring on or before the Commencement Date, of any Law or any contract (including collective contracts) of employment between the Council and any Transferring Employee/ Vulnerable Employee;
- (c) any other claims which may be made by any of the Transferring Employees or Vulnerable Employee which may arise in respect of any matter occurring prior to the Commencement Date;
- (d) liability for sick leave wages and payments for each Transferring Employee or Vulnerable Employee in relation to sick leave taken by the Transferring Employee or Vulnerable Employee within a period of two years following the Commencement Date, in excess of the entitlement of the Transferring Employee or Vulnerable Employee accruing after the Commencement Date, provided that the Council's indemnity shall be limited to sick leave, wages and payments for each Transferring Employee or Vulnerable Employee for not more than 20 days; and
- (e) any liability for redundancy payments (but not payments in lieu of notice) due to any Transferring Employee or Vulnerable Employee as applicable in relation to any redundancy occurring after the Commencement Date and prior to the expiry of a period of two years after the Commencement Date. The Council's indemnity under this clause shall be limited to the

redundancy entitlement for each Transferring Employee or Vulnerable Employee calculated as at the Commencement Date.

37.6.9 The indemnity contained in clause 37.6.8 excludes any liability due to failure by the Contractor to perform its obligations under this Contract.

38. CONTRACTOR PLANS

38.1 Contractor pre-commencement plans

38.1.1 The Contractor shall provide the various plans in accordance with the requirements set out in this section 38. All such plans must be submitted to the Administrator for approval (such approval shall not be unreasonably withheld or delayed) in accordance with clause 38.2. (For the purposes of clarity the parties acknowledge that this section 38 does not apply to plans to be prepared and submitted on an annual or periodic basis throughout the Term.)

38.1.2 The Contractor shall, in the carrying out of the Operations, comply with all approved Contractor plans.

38.2 Submission of Contractor plans

38.2.1 Unless provided otherwise in the Contract Documents, the Contractor shall submit all plans required under this clause 38 not later than 20 Working Days prior to the Commencement Date for the Administrator's approval.

38.3 Operations Risk Management Plan

38.3.1 The Contractor shall prepare an Operations Risk Management Plan in accordance with the requirements of this Contract.

38.3.2 The Operations Risk Management Plan shall include a risk assessment for carrying out of the Operations and detail the Contractor's risk management procedures and plans as required to properly manage all identified risks and such further matters as are set out in the Council's Requirements.

38.3.3 The approved Operations Risk Management Plan shall be the Operations Risk Management Plan for the purposes of this Contract.

38.4 Operations Environmental Management Plan

38.4.1 The Contractor shall prepare an Operations Environmental Management Plan in accordance with the requirements of the Contract Documents.

38.4.2 The Operations Environmental Management Plan shall include an environmental risk assessment and the further matters set out in the Council's Requirements.

38.4.3 The approved Operations Environmental Management Plan shall be the Operations Environmental Management Plan for the purposes of this Contract.

38.5 Operations Mobilisation and Transition Plan

38.5.1 The Contractor shall prepare an Operations Mobilisation and Transition Plan in accordance with Good Industry Practice and the draft Operations Mobilisation and Transition Plan provided by the Contractor prior to award of this Contract.

38.5.2 Clause 38.2 shall not apply in relation to the draft Operations Mobilisation and Transition Plan. The Contractor shall submit the draft Operations Mobilisation and Transition Plan to the Administrator for approval not later than 20 Working Days after the date of execution of this Contract.

38.5.3 The Administrator shall either approve the draft Operations Mobilisation and Transition Plan or respond to the Contractor with the Council's changes to the plan within 10 Working Days from the date of receipt of the Contractor's draft Operations Mobilisation and Transition Plan. The Contractor shall (if required) promptly update the Operations Mobilisation and Transition Plan taking into account the Council's response and resubmit the plan to the Administrator for approval.

- 38.5.4 The Operations Mobilisation and Transition Plan shall be in accordance with the following requirements for the overall Operations Mobilisation and Transition Plan.
- (a) The Operations Mobilisation and Transition Plan shall detail the measures required to ensure an efficient and timely transfer of the Operations to the Contractor.
 - (b) The Operations Mobilisation and Transition Plan shall include details all activities and actions necessary for the Contractor to mobilise and transition its operations services and to take on the full responsibility for the Operation of the Rotorua WWTP Facility and the Rotorua LTS, the Operation of the Rotoiti/ Rotomā WWTP Facility and the carrying out of the Reticulation Networks Operations, ensuring that there is no adverse impact on the operation of the WWTP Facilities, the Rotorua LTS or the Reticulation Networks. The Operations Mobilisation and Transition Plan shall cover all hand-over activities, set-up activities, mobilisation and transition activities.
 - (i) The Operations Mobilisation and Transition Plan shall include the Contractor's planning relating to, at a minimum:
 - (ii) all Contract support requirements, including support documents, critical standard operating procedures and all management plans;
 - (iii) prerequisite conditions for service commencement including treatment chemicals on hand, external communications links and protocols established, management systems certification;
 - (iv) staffing agreements and requirements are met as defined by the Contractor's organisational structure;
 - (v) Subcontractor arrangements and key personnel contact details;
 - (vi) access and induction processes and procedures to Council hosted infrastructure;
 - (vii) obtaining pre-qualification as an approved contractor for public sewer connections;
 - (viii) systems integration activities;
 - (ix) spare parts inventory and management;
 - (x) consumables audit;
 - (xi) any relevant asset condition or criticality assessment activities;
 - (xii) schedule of activities during the mobilisation and transition period (as such period is set out in the Operations Mobilisation and Transition Plan); and
 - (xiii) development, submission, approval and implementation of various Contractor's plans requiring early preparation and approval.
- 38.5.5 The approved Operations Mobilisation and Transition Plan shall be the Operations Mobilisation and Transition Plan for the purposes of this Contract.
- 38.6 Further plans
- 38.6.1 The Contractor shall provide all further plans required under the Council's Requirements at the time(s) specified in the Council's Requirements or, where not so specified, in accordance with clause 38.2.
- 38.7 Updating of plans
- 38.7.1 The Contractor shall update all plans required to be provided by the Contractor under this Contract as set out in the Contract Documents and otherwise from time to time as required to ensure the plans are current and comply with the Contract Documents and Good Industry Practice.

39. HEALTH AND SAFETY

39.1 Compliance with HSW Act

39.1.1 The Contractor will comply with its obligations and ensure that its Subcontractors comply with their obligations under the HSW Act and all regulations made under the HSW Act and all approved codes of practice under the HSW Act.

39.2 Operations Health and safety plan

39.2.1 The Contractor shall prepare a written Operations health and safety plan (Safety Plan).

The Safety Plan will address how the Contractor will comply with the HSW Act and its health and safety obligations under this Contract. The Contractor will maintain the Safety Plan and ensure that the Safety Plan is comprehensive and take into account any changes in the HSW Act and any regulations made under the HSW Act.

39.2.2 The Contractor will provide a copy of its Safety Plan to the Administrator in accordance with clause 38.2. The Contractor will provide any updates or revisions of the Safety Plan to the Administrator within 10 Working Days of making any such changes.

39.2.3 The Contractor shall incorporate the following into its Safety Plan together with all other matters that are required to be covered in the plan in order to comply with its obligations under this Contract:

- (a) the prior identification and assessment of hazards arising in connection with the carrying out of the Operations and the steps proposed to isolate and minimise significant hazards;
- (b) procedures for the identification and management of new hazards arising during the carrying out of the Operations, the creation and maintenance of a hazards register and the monitoring of compliance with hazard management procedures;
- (c) procedures for the management of safety in relation to the carrying out of the Operations and this Contract generally, including the allocation of responsibility within the Contractor's personnel;
- (d) procedures for ensuring that the Contractor contracts with Subcontractors having the required health and safety competence, that all Subcontractors have proper safety plans and will comply with the requirements of the HSW Act and the health and safety requirements of this Contract;
- (e) the need for and provision of correct protective equipment and training and the use of protective equipment if necessary;
- (f) standard work procedure methodologies to minimise hazards;
- (g) procedures for the training and supervision of the Contractor's personnel engaged in carrying out of the Operations;
- (h) procedures for consultation, co-operation co-ordination and communication with each other person having duties as a PCBU in relation to the carrying out of the Operations;
- (i) the audit and inspection of the Contractor's health and safety procedures to ensure compliance with the safety requirements of the HSW Act and this Contract;
- (j) engagement with workers and the promotion of health and safety principles and encouraging of commitment to health and safety by the Contractor's personnel;
- (k) notification of notifiable events and the keeping of records in relation to notifiable events;
- (l) the Contractor's Drugs and Alcohol Policy.

39.2.4 The Contractor shall implement and comply with its Safety Plan.

- 39.3 HSW requirements
- 39.3.1 The Council will promptly furnish the Contractor with all information that it holds that is, or is likely to be, relevant to health and safety in respect of the Operations (including in relation to the Reticulation Networks and the WWTP Facilities Sites). The Council will additionally notify the Contractor of any information it becomes aware of during the Term that is likely to impact on the health and safety of any person or property at any sites relevant to this Contract.
- 39.3.2 The Contractor shall appoint a single person as the Safety Officer for the Operations. The Safety Officer shall be the primary point of contact on all health and safety matters. The Contractor will give written notice of the name and contact arrangements for the Safety Officer to the Administrator.
- 39.3.3 The Contractor will notify (verbal confirmed in writing) the Council promptly after the occurrence of any of the following in relation to the carrying out of the Operations:
- (a) a notifiable accident or incident (a notifiable event);
 - (b) a significant hazardous situation of which the Contractor becomes aware; and
 - (c) a provisional improvement notice, improvement notice, prohibition notice, abatement notice, non-disturbance notice or suspension notice, warning, notice of proceedings or other formal notification under the HSW Act is issued to the Contractor. The Contractor shall promptly provide to the Council copies of:
 - (i) all such notices received; and
 - (ii) all enforceable undertakings provided by the Contractor under the HSW Act.
- 39.3.4 Where the Contractor has sole possession of all or part of any site, the Contractor shall, for the purposes of s.37(1) of the HSW Act, be the PCBU who manages or controls that site or part of the site.
- 39.3.5 For the purposes of s.37(1) of the HSW Act, the management and control of the WWTP Facilities Sites (being a workplace in terms of the HSW Act), sits with the Contractor who (as between the Contractor and the Council) is responsible as the PCBU for all of the management and control of the WWTP Facilities Sites.
- 39.3.6 For the purposes of s.38(1) of the HSW Act and in relation to the carrying out the Operations the Contractor is the PCBU who manages or controls the fittings, fixtures and plant (as the term 'plant' is defined in the HSW Act) on the WWTP Facilities Sites.
- 39.3.7 The Contractor will consult with each other person that has duties as a PCBU in relation to the carrying out of the Operations and/or any WWTP Facilities Site or Reticulation Networks Site and shall coordinate activities with such other PCBUs.
- 39.3.8 The Contractor shall:
- (a) maintain a register of accidents and serious harm;
 - (b) investigate accidents and identify their cause;
 - (c) ensure that all persons under its control are appropriately supervised; and
 - (d) provide written notification (and copy to the Administrator) to the regulator of all notifiable events in accordance with section 56 of the HSW Act.
- 39.3.9 The Contractor shall give to the Administrator a copy of any report that it is required to make to a public authority on any accident which is associated with the carrying out of the Operations and results in serious harm to any person.
- 39.3.10 The Contractor will implement and carry out an audit and inspection regime as shall be required to ensure compliance by all its personnel with the Contractor's Safety Plan(s) and compliance with the Contractor's health and safety obligations under this Contract.
- 39.3.11 The Council may itself or through an agent audit the Contractor's compliance with its health and safety procedures and obligations under the HSW Act and this Contract.

- 39.3.12 The Contractor will co-operate with the Council in any such audit undertaken by the Council or its agent(s). The Contractor will allow the Council or its agent access to all aspects of the carrying out of the Operations, to carry out such audits.
- 39.3.13 The Administrator may require the Contractor to cease the carrying out of the Operations (or any part of the carrying out of the Operations) where in the Administrator's reasonable view the continued carrying out of the Operations would (or would be likely to) constitute a material breach of the HSW Act, the health and safety provisions in this Contract or be a danger to persons or property. Any such suspension shall be a suspension arising out of the default of the Contractor for the purposes of clause 35.1.4.
- 39.3.14 The Contractor shall comply with the health and safety requirements applicable to the Council as Utility Operator set out in the National Utilities Code and all applicable Works Access Permits when carrying out any Operations work within Transport Corridors.

40. RECORDS AND REPORTING

40.1 Reporting requirements

- 40.1.1 The Contractor shall keep all records and provide all the reports required by Council as detailed in the Council's Requirements.
- 40.1.2 The Contractor shall keep all other reports and records that the Administrator may reasonably consider are required in relation to the carrying out of the Operations and deliver these reports to the Administrator at the time(s) and frequency reasonably specified by the Administrator. Any additional reports not contained in the Council's Requirements shall be treated as a Mandatory Variation in accordance with clause 43.1.14.
- 40.1.3 All reports shall be accurate and comprehensive and provided within the time requirements set out in the Council's Requirements.

41. AUDIT

41.1 Contractor self audit

- 41.1.1 The Contractor is responsible for monitoring the quality of the carrying out of the Operations provided under this Contract and its compliance with the requirements of this Contract. The Council's primary focus will be on ensuring that the Contractor carries out this self-monitoring and accurately reports the results to Council.
- 41.1.2 The objective of this self-monitoring regime is to implement a continuous improvement approach, taking remedial action where service quality deficiencies have occurred.

41.2 Council audits

- 41.2.1 The Council may (either using its own personnel or external parties) monitor and audit the carrying out of the Operations by the Contractor from time to time. An audit may take the form of spot checks and/or a more formal audit. The objective of such audit shall be to ascertain the level of compliance by the Contractor with the requirements of this Contract, with a particular focus on the quality of the carrying out of the Operations and compliance with legislation, consents and standards.
- 41.2.2 The Council will give the Contractor reasonable notice if a formal audit is to be undertaken.
- 41.2.3 The Contractor shall co-operate with Council and its auditors to provide access to such information, premises and employees of the Contractor and its Subcontractors as shall be reasonably necessary to facilitate such audits.

41.3 Substandard service quality

- 41.3.1 Where, as a result of any audit undertaken by the Council or the Contractor, the Council reasonably considers that the Contractor is not performing any material aspect of the Operations in accordance

with this Contract, the Council, through the Administrator may inform the Contractor of its concerns and request that the Contractor remedy such aspect of the Operations not being duly performed.

- 41.3.2 The Contractor acknowledges and agrees that a material failure by the Contractor to remedy any such aspect of the Operations after receiving notice under clause 41.3.1 may constitute a material breach for the purpose of clause 15.2.1(a).

42. COUNCIL OBLIGATIONS

42.1 Information and material

- 42.1.1 The Council shall ensure that the information and other material set out in Schedule 5 – Council Information, Facilities is provided promptly and accurately to the Contractor at the times set out in that Schedule.

42.2 Council facilities

- 42.2.1 The Council shall make the facilities set out in Schedule 5 – Council Information, Facilities (if any) available to the Contractor at the times and in the manner set out in that Schedule. The Contractor's use of and/or access to such facilities shall be subject to the conditions set out in the said Schedule or such other conditions that Council shall reasonably require.

42.3 Existing contracts

- 42.3.1 Following the execution of this Contract the Council will liaise and consult with the Contractor, as is reasonably practicable, in relation to all contracts the Council intends to enter into for works and/or services relating to the WWTP Facilities and/or the Reticulation Networks (which, for the avoidance of any doubt, does not include work within the scope of the Operations). The purposes of such liaison and consultation include:

- (a) providing the Contractor with an opportunity to provide comment and recommendations as to the way in which such work or services might be provided to blend in with and be consistent with the Contractor's proposals for the carrying out of the Operations;
- (b) allowing discussions between the Contractor and the Council as to the inclusion of the work or services in this Contract (in which case such work will be incorporated as a Variation pursuant to clause 43.1);
- (c) the possibility of incorporating of Contractor involvement in the supervision and monitoring of the work or services (in which case such work will be incorporated as a Variation pursuant to clause 45.1); and
- (d) the identification by the Council and the Contractor of the cost and risk implications under this Contract of the carrying out of the work or services (which shall be treated as a Variation pursuant to clause 45.1, or failing agreement, as a Mandatory Variation under clause 45.1.13).

- 42.3.2 The Council will use reasonable endeavours to complete by the Commencement Date, all contracts the Council has in place at that time for works and/or services relating to the WWTP Facilities and/or the Reticulation Networks.

- 42.3.3 For the purposes of this clause 42.3 'Existing Contracts' are contracts entered into by the Council for works and/or services relating to the WWTP Facilities and/or the Reticulation Networks that have not been completed as at the Commencement Date.

- 42.3.4 The Council shall arrange for the completion of all Existing Contracts as soon as is reasonably practicable after the Commencement Date.

- 42.3.5 The Council will ensure all Existing Contracts are completed in a good and workmanlike manner and in accordance with Good Industry Practice and the contract terms, drawings and specifications pertaining to that work or services as notified to the Contractor. The Council will be responsible for payment of all monies due to the third-party contractor carrying out the work or providing the services in accordance with the applicable contract terms.

42.3.6 In relation to any Existing Contracts that the parties agree shall be supervised and monitored by the Contractor pursuant to clause 42.3.1(c), the Contractor will use all reasonable endeavours to ensure such works or services are provided by the third-party contractor in a good and workmanlike manner and in accordance with Good Industry Practice and the applicable contract terms, drawings and specifications pertaining to that work or services, as notified to the Contractor. The Contractor shall forward all claims for payment from the third-party contractor carrying out the work or providing the services to the Council for payment. The Council will make payment in accordance with the applicable contract terms.

43. VARIATIONS

43.1 Variations

43.1.1 A Variation is:

- (a) any alteration, amendment, omission, addition or any other change to any part of the Operations instructed under this clause 43; and/or
- (b) any other matter under this Contract and which is stated to be treated as a Variation (including, for clarity, matters that are stated to be treated as Mandatory Variations).

43.1.2 The Administrator may request the Contractor to provide submissions regarding the effect of carrying out Variations. All such requests shall be in writing.

43.1.3 As soon as reasonably possible after having received any such request, the Contractor shall provide to the Administrator:

- (a) The Contractor's proposed description, including any preliminary design, of revised or additional work, if any, which would be required to be performed if such Variation was to proceed;
- (b) The Contractor's proposed programme to carry out the Variation which would be required if such Variation was to proceed;
- (c) The Contractor's proposed modifications to the Operations, if any, and to the Contractor's obligations and liabilities under the Contract which would be required if such Variation were to proceed;
- (d) The Contractor's proposed price and/or change to the Monthly Service Payments, the Gravity Mains Renewals Payments (as the case may be) and including any method of payment which would be required if such Variation was to proceed. Such addition or deduction or price shall include all costs and expenses to be paid by the Council in connection with the Variation. For the purposes of clarity only and without binding either party it is acknowledged that the Contractor may include or not include a pricing element for loss of profit on any proposed Variation which reduces the scope of the Operations as the Contractor shall elect.

43.1.4 Unless specified otherwise in this Contract the breakdowns and other information contained in Schedule 2 – Payments, the Contractor's Proposal and as provided by the Contractor during contract negotiations, to the extent that they are appropriate, form the basis for valuing all Variations.

43.1.5 The Contractor shall be entitled to its reasonable costs and expenses incurred in providing information in response to an Administrator's request for a Variation submission under clause 43.1.2.

43.1.6 Following receipt of the information required from the Contractor under clause 43.1.3 the Administrator shall, after due consultation with the Council and the Contractor, decide as soon as possible whether or not the Variation shall proceed. If the proposed Variation is to proceed, the Administrator shall issue a Variation Order clearly identified as such and in accordance with the information provided by the Contractor or as modified by agreement. For the purposes of clarity the parties agree that a Variation Order shall (without limitation) explicitly identify the agreed changes to the Gravity Mains Renewals Payments, the Monthly Service Payments or other pricing, as identified under clause 43.1.3(d) (as the same may have been modified by agreement between the parties).

- 43.1.7 On the issue by the Administrator of a Variation Order, the Variation shall become part of the Operations (as applicable) and the Contract shall be varied as set out in the Variation Order.
- 43.1.8 The Contractor shall not, other than is required or authorised pursuant to the Contract Documents, make any material variation or alteration to any WWTP Facility, the Reticulation Networks or the Operations, except:
- (a) in accordance with a Variation Order from the Administrator; or
 - (b) where such variation or alteration will not have a material adverse effect on the performance, quality, reliability, resilience, operating and maintenance cost or service life of any WWTP Facility or the Operations or any Reticulation Network assets or will compromise compliance with the Council Resource Consents and/or the KPI's and/or compliance with the Contract Documents.
- 43.1.9 Unless specifically set out in the Variation Order a Variation shall not diminish or affect the responsibility of the Contractor for all aspects of the carrying out of the Operations.
- 43.1.10 The Contractor may at any time propose a Variation to the Administrator providing such Variation shall be submitted to the Administrator together with the information set out in clause 43.1.3.
- 43.1.11 The Administrator shall be bound to instruct a Variation in respect of any matter to which this clause 43.1 is expressly applied by any provision of this Contract.
- 43.1.12 As part of the pricing procedure for any Variation, the Administrator may, where appropriate, require the Contractor to seek prices from a minimum of three appropriate subcontractors for carrying out all or part of the Variation. In addition, the Administrator may inspect all documents provided by the Contractor to the subcontractors for pricing and the subcontractors' price submissions for the purposes of verification and auditing.
- 43.1.13 The Administrator may by the issue of a Variation Order unilaterally instruct the Contractor to and the Contractor shall proceed with a Variation (a **Mandatory Variation**) without requiring the Contractor to provide information under clause 43.1.3 and without consultation under clause 43.1.6. The Contractor shall keep records of the costs and expenses and savings of undertaking the Mandatory Variation and of time expended thereon. Such records shall be open to inspection by the Administrator at all reasonable times.
- 43.1.14 The amounts payable by the Council to the Contractor under this Contract shall be increased or reduced in accordance with the value of each Mandatory Variation instructed by the Administrator pursuant to clause 43.1.13 and any matter that is deemed to be a Mandatory Variation under this Contract. The value of each instructed or deemed Mandatory Variation shall be determined in accordance with clause 43.1.15.
- 43.1.15 Whenever in this Contract the amounts payable by the Council to the Contractor under this Contract are to be increased or reduced in accordance with the value of a Mandatory Variation, such value shall comprise the reasonable extra or reduced costs and expenses incurred by the Contractor including without limitation for the purchase of materials, transportation, hire or purchase of necessary Contractor's equipment, labour (including fringe benefits), project management, financing costs, costs for delay and disruption, overhead and shall also include profit. Where a Mandatory Variation ordered (or deemed ordered) by the Administrator including (for clarity) a Mandatory Variation ordered under clause 43.1.13 results in a reduction in the amounts payable, the Contractor shall be entitled to compensation for loss of profit.
- 43.1.16 Unless the parties shall agree otherwise, the Contractor shall make application to the Administrator for progress payments for work carried out on all Variation Orders and for any costs and expenses which are to be claimed under this clause as set out in Schedule 2 – Payments.
- 43.1.17 Within 14 days of receiving an application for payment under clause 43.1.16 the Administrator shall issue a certificate of payment for Variations to the Council, showing the amount due (if any), for work completed to date in respect of all Variation Orders, with a copy to the Contractor.
- 43.1.18 A certificate of payment for Variations shall not be withheld on account of:

- (a) defects of a minor character in the carrying out of the Variation work which are not such as to affect the use of the WWTP Facilities or the Reticulation Networks; or
 - (b) any part of the payment applied for being disputed. In such case a certificate of payment for Variations for the undisputed amount shall be issued.
- 43.1.19 Unless alternative payments are mutually arranged between the Council and the Contractor the Council shall pay to the Contractor any amount due, as certified by the Administrator under clause 43.1.17 in accordance with Schedule 2 – Payments.
- 43.2 Variations arising under this Contract
- 43.2.1 The Contractor may claim a Variation arising out of events or circumstances only where such claim is specifically provided for in this Contract.
- 43.2.2 The Contractor must give written notice of its intention to make such a Variation claim within 15 Working Days of the date it became aware of (or ought reasonably to have become aware of) the event or the commencement of the event (for a continuing event) or circumstances occurring. The submitting of a written notice within the time allowed in this clause is a condition precedent to the Contractor's entitlement to claim for such costs and expenses. The Contractor is not entitled to payment for costs and expenses if it fails to submit such notice within the required time.
- 43.3 Clarification of Administrator instructions
- 43.3.1 Where a direction is given by the Administrator which is not in writing or is not expressly stated to be a Variation or a matter to be treated as a Variation that the Contractor considers is a Variation (or a matter to be treated as a Variation), it shall, within 15 Working Days of receiving the direction, give written notice to the Administrator that it considers the direction to entitle the Contractor to a Variation claim. Unless the Administrator, by written notice within a reasonable time, rejects the Contractor claim, it shall be treated as if it was a Variation. If the Contractor does not give such written notice within the required time, the direction shall not be a Variation.

44. REJECTION OF WORK

- 44.1 Administrator may reject work
- 44.1.1 If the Administrator considers that any part of the Operations is defective or not in accordance with this Contract and/or the Contractor's Information, the Administrator may reject such part of the Operations by written notice to the Contractor. The notice shall state the Administrator's objections with reasons. The Administrator shall not reject any part of the Operations for minor defects which do not materially affect the operation, performance or anticipated life of such part of the WWTP Facilities or the Reticulation Networks in accordance with this Contract.
- 44.1.2 The Contractor shall promptly make good in accordance with this Contract that part of the Operations which is properly rejected by the Administrator under clause 44.1.1.
- 44.1.3 The Administrator shall be entitled to require the Contractor to conduct further inspections, examinations or testing on such made good work as are reasonable and consistent with the provisions of this Contract at the Contractor's cost and expense and notwithstanding that such inspections, examinations or testing may be satisfactory. All direct additional costs and expenses incurred by the Council in the observing, monitoring and otherwise reviewing such further inspections, examinations or testing by the Administrator shall be payable by the Contractor to the Council.

45. UNFORESEEN CONDITIONS

- 45.1 Unforeseen Site Conditions
- 45.1.1 The costs and expenses arising out of physical obstructions, Contamination or adverse conditions encountered in the carrying out of the Operations that could reasonably have been anticipated:

- (a) as at the Reference Date by a competent contractor having made all reasonable and diligent independent enquiry prior to the Reference Date;
- (b) by a competent Contractor taking into account the information relevant to the Rotorua WWTP Facility Site, the Reticulation Networks and the WWTP Facilities provided to the Contractor by the Council and/or obtained by the Contractor, its advisors and consultants prior to the date of execution of this Contract; other than ground conditions so identified that have been notified (in writing) by the Contractor to the Council as being ground conditions that are excepted from this clause (b); or
- (c) by a competent Contractor taking into account the information included within the Contractor's Site Investigation Report referred to in clause 8.3.2 of Schedule 16 – Operations, Maintenance and Renewals Requirements

shall be payable by the Contractor (except as provided in clause 20.5.2). Costs and expenses incurred by the Contractor to the extent they arise out of other physical obstructions, Contamination or adverse conditions encountered in the carrying out of the Operations (Unforeseen Site Conditions) shall be payable by the Council and treated as a Variation. The Administrator may request the Contractor to provide a submission under clause 43.1.2 regarding the effect and costs and expenses arising as a result of the Unforeseen Site Conditions. If the parties cannot agree as to the Contractor's submission the costs and expenses arising from the Unforeseen Site Conditions will be treated as Mandatory Variation instructed by the Administrator under clause 43.1.13.

46. LATENT DEFECTS

46.1 Council responsibility for Latent Defects

46.1.1 The effects and costs and expenses incurred by the Contractor in relation to encountering and/or remedying of Latent Defects encountered in the carrying out of, the Rotorua WWTP Facility Operations, and the Rotorua Reticulation Network Operations (Rotorua Latent Defects) shall be treated as and payable by the Council as a Variation. The Administrator may request the Contractor to provide a submission under clause 43.1.2 regarding the effect and costs and expenses arising as a result of encountering and the remedying of any Rotorua Latent Defect. If the parties cannot agree as to the Contractor's submission the costs and expenses arising from the remedying of the Rotorua Latent Defect will be treated as Mandatory Variation instructed by the Administrator under clause 43.1.13.

46.2 Threshold for Latent Defects claims

46.2.1 Notwithstanding the provisions of clause 46.1.1 but subject to clause 46.4.2, the Contractor shall not make a claim for costs to remedy any Latent Defect where the cost is less than \$25,000 provided that the above threshold is intended to assist the parties from an administrative perspective (so as to avoid numerous claims for small payments being submitted for processing) and, therefore, shall apply to any singular occurrence but where there is more than one occurrence or incident relating to the same Latent Defect (other than arising due to Contractor error or omission) within any rolling 24-month period the threshold shall apply to the cumulative cost to rectify such defects.

46.3 Remediation of Latent Defects

46.3.1 The Contractor shall promptly provide written notification to the Administrator of all Rotorua Latent Defects identified. The Contractor shall attend to the remediation of such Latent Defects as instructed by the Administrator by way of a Variation or a Mandatory Variation pursuant to clause 46.1.1. To the extent work undertaken by the Contractor to remedy a Rotorua Latent Defect was provided for in a future renewals programme, the works undertaken to remedy the Rotorua Latent Defect shall be removed from the renewal programme and a credit given to the Council for that accordingly.

46.4 Rotomā/Rotoiti Latent Defects

46.4.1 The parties acknowledge Latent Defects encountered by the Contractor in relation to the carrying out of the Rotomā/Rotoiti WWTP Facility Operations and the Rotomā/Rotoiti Reticulation Network Operations are covered by clause 51 of these Contract Conditions.

46.4.2 The provisions of clause 46.2.1 shall not apply to prevent the Contractor from claiming payment of costs and expenses relating to any defects in the Rotomā/Rotoiti WWTP Facility and the Rotomā/Rotoiti Reticulation Network where the Council procures, or ought to procure, the contractor who carried out those works to remedy such Latent Defects under clause 51.

PART C – NOT USED

PART D – OPERATIONS TERMS

47. OPERATION OF WWTP FACILITIES AND RETICULATION NETWORKS

47.1 Commencement of Operations

47.1.1 The carrying out of the Operations other than the Rotoiti Reticulation Network Operations shall commence as at 08:00 hours on the Commencement Date.

47.1.2 The carrying out of the Rotoiti Reticulation Network Operations shall commence as set out in clause 49.3.1.

47.1.3 The Contractor shall carry out the Operations during the Term with due care and diligence and in accordance with the Council's Requirements, this Contract and where not inconsistent with such requirements, the Contractor's Proposal.

47.2 Purchase of Transfer Equipment

47.2.1 The Contractor shall purchase the Transfer Equipment from the Council as at the Commencement Date.

47.2.2 The consideration for the purchase of the Transfer Equipment shall be as set out in Schedule 14 – Schedule of Information. The consideration shall be payable to the Council as at the Commencement Date.

47.2.3 Title in, possession of and risk for the Transfer Equipment shall transfer to the Contractor on payment of the agreed consideration. The Council warrants the Transfer Equipment is and will be, at the time of transfer to the Contractor, free of any Security Interest.

48. ROTOMĀ/ROTOITI CONTRACTS

48.1 Status of Rotomā/Rotoiti Contracts at commencement

48.1.1 The Rotomā/Rotoiti Contracts comprise:

- (a) the Rotomā/Rotoiti WWTP Facility Contracts;
- (b) the Rotomā Network Contracts; and
- (c) the Rotoiti Network Construction Contracts.

48.1.2 The Rotomā/Rotoiti WWTP Facility Contracts comprise:

- (a) the Rotomā/Rotoiti WWTP Facility Construction Contracts; and
- (b) the Rotomā/Rotoiti WWTP Facility Supply Contracts.

48.1.3 The Rotomā Network Contracts comprise:

- (a) the Rotomā Network Construction Contracts; and
- (b) the Rotomā Network Supply Contracts.

48.1.4 The parties acknowledge that, as at the execution of this Contract:

- (a) Practical Completion under the Rotomā/Rotoiti WWTP Facility Construction Contracts and the Rotomā Network Construction Contracts has been achieved;
- (b) the dates of Practical Completion and the expiry of the Defects Notification Periods under the Rotomā/Rotoiti WWTP Facility Construction Contracts and the Rotomā Network Construction Contracts are as set out in Schedule 14 – Schedule of Information; and
- (c) Practical Completion under the Rotoiti Network Construction Contracts has not been achieved.

- 48.2 Contractor's warranty re Rotomā/Rotoiti Contracts
- 48.2.1 The Contractor warrants and covenants that it has carried out reasonable due diligence (on the basis of information provided by the Council to the Contractor or otherwise gained by Contractor personnel pursuant to the Secondment Agreement prior to the date of execution of this Contract) in relation to the Rotomā/Rotoiti Contracts (on the basis of a user-operator and as applicable to each contract), on:
- (a) the contract documentation (including the drawings and specifications);
 - (b) all variations and amendments to the contract documentation;
 - (c) the carrying out of the Contract Works or the supply of materials under each contract by the contractor,
 - (d) the completion, testing and commissioning activities carried out prior to the date of execution of this Contract;
 - (e) the assessment of the completion of the Contract Works to Practical Completion;
 - (f) the 'as built drawings' (as provided by the Council to the Contractor); and
 - (g) the identification of defects requiring notification to the applicable construction contractor within the Defects Notification Period up to the date of execution of this Contract
- and to the extent reasonably ascertainable from reasonable due diligence, that the Rotomā/Rotoiti WWTP Facility, the Rotomā Reticulation Network and the Rotoiti Reticulation Network constructed, tested and commissioned in accordance with the Rotomā/Rotoiti Contracts (as applicable) will be suitable, appropriate and adequate for the carrying out of the Rotomā/Rotoiti WWTP Facility Operations, the Rotomā Reticulation Network Operations and the Rotoiti Reticulation Network Operations in accordance with the Council's Requirements and the further requirements of this Contract. For clarity, the Contractor has not conducted a design review of the Rotomā/Rotoiti Contracts and makes no comment on the suitability of the design under those contracts.
- 48.2.2 The parties acknowledge that the Contractor is aware of departures from the initial design which have occurred as part of the delivery of the Rotomā/Rotoiti Contracts and these departures notified by the Council to the Contractor or otherwise gained by Contractor personnel pursuant to the Secondment Agreement prior to the date of execution of this Contract are approved by the Contractor, aside from the departures (Non-approved Departures) as described in the Execution Date Defects and Departures List.
- 48.2.3 The Execution Date Defects and Departures List is the list of Rotomā /Rotoiti Contracts Non-approved Departures and defects identified by the Contractor and the Council as at the date of execution of this Contract, as described in Schedule 14 – Schedule of Information.
- 48.3 Contractor's monitoring of Rotomā Reticulation Network STEP installations
- 48.3.1 The parties acknowledge that as at the date of execution of this Contract Practical Completion has been achieved under the Rotomā Network Construction Contracts and that the installation of most but not all STEP systems under the contract has been completed.
- 48.3.2 In relation to the STEP systems that have not been installed as at the date of execution of this Contract (Non-completed STEP Installations) and for the period prior to the Commencement Date:
- (a) the Council will consult and collaborate with the Contractor in the management of the Non-completed STEP Installations as is reasonably required to provide assurance to the Contractor that the completion of the Non-completed STEP Installations is being carried out to the standards set out in and otherwise in compliance with the requirements of the Rotomā Network Construction Contracts;
 - (b) the Council will provide reasonable prior notice of inspections and monitoring to be carried out by the engineer to the contract in relation to the completion of the Non-completed STEP Installations as is reasonably required to enable the Contractor to arrange for its representatives to attend;

- (c) the Contractor may, at the Contractor's cost, participate in the monitoring, inspection and the carrying out of tests on completion in relation to the completion of the Non-completed STEP Installations;
 - (d) the Contractor shall provide prompt written advice as to defects or deficiencies in the carrying out of the Non-completed STEP Installations identified by the Contractor that the Contractor considers should be taken into account in the acceptance of the Non-completed STEP Installations; and
 - (e) if the Contractor chooses not to attend the inspections the Contractor will be deemed to have approved the completion of the Non-completed STEP Installations.
- 48.3.3 Following the Commencement Date defects in STEP installations shall be managed under clause 51.
- 48.4 Taking over of Rotomā/Rotoiti WWTP Facility and Rotomā/Rotoiti Reticulation Network
- 48.4.1 The parties acknowledge that prior to the execution of this Contract they have been collaborating and consulting as to the completion of proving of the Rotomā/Rotoiti WWTP Facility and the Rotomā/Rotoiti Reticulation Network in accordance with the Taking Over regime set out in clause 12.5 of Schedule 16 – Operations, Maintenance and Renewals Requirements (**Rotomā/Rotoiti Taking Over Regime**).
- 48.4.2 The parties will continue with the collaboration and consultation and the implementation of the Rotomā/Rotoiti Taking Over Regime following the execution of this Contract.
- 48.5 Commencement of Rotomā/Rotoiti WWTP Facility Operations and of Rotomā Reticulation Network Operations
- 48.5.1 The Contractor shall commence the carrying out of the Rotomā/Rotoiti WWTP Facility Operations and the Rotomā Reticulation Network Operations at the Commencement Date in accordance with clause 47.1.1.
- 48.6 Contractor's Rotomā/Rotoiti WWTP Facility Operations obligations
- 48.6.1 During the period between the Commencement Date and the date of Taking Over of the Rotomā/Rotoiti WWTP Facility in accordance with the Rotomā/Rotoiti Taking Over Regime:
- (a) the Contractor shall use reasonable endeavours to operate the Rotomā/Rotoiti WWTP Facility so as to achieve the performance requirements and otherwise comply with the requirements of the Contract Documents; and
 - (b) the Contractor shall not be liable to the Council for any failure to achieve the performance requirements and comply with the requirements of the Contract Documents to the extent such failure arises due to a commissioning, process optimisation or performance proving issue in accordance with the Rotomā/Rotoiti Taking Over Regime.
- 48.6.2 The Contractor shall have full operating responsibility and risk for the carrying out of the Rotomā/Rotoiti WWTP Facility Operations as determined pursuant to the Rotomā/Rotoiti Taking Over Regime.

49. ROTOITI NETWORK CONSTRUCTION CONTRACTS

- 49.1 Changes to Rotoiti Network Construction Contracts
- 49.1.1 The Council shall not alter, waive or in any way vary the terms or conditions of the Rotoiti Network Construction Contracts after the date of execution of this Contract to any material extent without the Contractor's prior written approval, such approval not to be unreasonably withheld or delayed.
- 49.2 Contractor's monitoring of Rotoiti Network Construction Contracts
- 49.2.1 Following the execution of this Contract the parties agree to consult and collaborate with each other in the management of the Rotoiti Network Construction Contracts as is reasonably required to provide assurance to the Contractor that the construction of the Rotoiti Reticulation Network is being carried

out to the standards set out in and otherwise in compliance with the requirements of the applicable Rotoiti Network Construction Contract.

- 49.2.2 The Council will provide reasonable prior notice of inspections and monitoring to be carried out by the engineer to the contract under the Rotoiti Network Construction Contracts as is reasonably required to enable the Contractor to arrange for its representatives to attend.
- 49.2.3 The Contractor may, at the Contractor's cost, participate in the monitoring, inspection and the carrying out of tests on completion under the Rotoiti Network Construction Contracts.
- 49.2.4 The Council will ensure the engineer to the contract under each of the Rotoiti Network Construction Contracts consults with the Contractor prior to the issue of the "Practical Completion Certificate" (as that term is defined in the relevant construction contract) under each contract (such consultation to be conducted in sufficient time for the Contractor to prepare and provide any response to the Administrator in the timeframe specified in clause 49.2.5) provided however that such consultation shall not be construed as in any way fettering the quasi-judicial obligations of the engineers under the contracts.
- 49.2.5 The Contractor shall provide written notice to the Administrator of all defects and all omissions in the completion of the Contract Works under each of the Rotoiti Construction Contracts which it has identified and considers are outstanding or require completion by the contractor under each contract not later than five Working Days prior to the date the engineer under that contract is required to issue the Practical Completion Certificate. Such written notice shall indicate whether the Contractor considers the defects or omissions are such that they give rise to the withholding of the Practical Completion Certificate or are minor omissions or minor defects for the purposes of each of the Rotoiti Network Construction Contracts.
- 49.3 Commencement of Rotoiti Reticulation Network Operations
- 49.3.1 The Contractor shall commence the carrying out of the Rotoiti Reticulation Network Operations in accordance with the Rotomā/Rotoiti Taking Over Regime.

50. PROVISION OF ROTOMĀ/ROTOITI INFORMATION

- 50.1 Provision of information
- 50.1.1 The Council will promptly provide complete copies to the Contractor of all engineer instructions, variations, determinations and contractor notices under each of the Rotomā/Rotoiti Contracts arising after the date of execution of this Contract.
- 50.1.2 The Council will provide copies of all information provided by the contractor under each of the Rotomā/Rotoiti Contracts as requirements for Practical Completion and Final Completion under the Rotomā/Rotoiti Contracts, or otherwise generated by or on behalf of the Council as part of the Rotoiti Reticulation Network commissioning process, as promptly as is practicable after receipt/creation, including (without limitation):
- (a) Testing and commissioning records;
 - (b) Site photographic records;
 - (c) As built drawings;
 - (d) O&M Manuals;
 - (e) Odour Management Plan; and
 - (f) Producer statements.

51. MANAGEMENT OF ROTOMĀ/ROTOITI DEFECTS

51.1 Defects Current Contracts

51.1.1 For the purposes of this clause 51 a Defects Current Contract is any of the Rotomā/Rotoiti WWTP Construction Contracts, the Rotomā Network Construction Contracts and the Rotoiti Network Construction Contracts that, as at the date of execution of this Contract, have a Defects Notification Period that has not expired and in relation to the Rotomā/Rotoiti Contracts any Separable Portion (or deemed Separable Portion) shall, where applicable, be treated as a separate Defects Current Contract

51.2 Defects and Non-approved Departures prior to execution of the Contract

51.2.1 The parties acknowledge the defects and Non-approved Departures set out in the Execution Date Defects and Departures List are defects and departures that the Council is to procure to be remedied pursuant to clause to clause 51.5.

51.3 Defects prior to the commencement of Operations

51.3.1 Following the execution of this Contract and prior to the commencement of each of the Rotomā/Rotoiti WWTP Facility Operations, the Rotomā Reticulation Network Operations and the Rotoiti Reticulation Network Operations (as applicable) and in relation to the Rotomā/Rotoiti Contracts:

- (a) the parties will collaborate as to the management of the Council's rights relating to the identification and remediation of defects;
- (b) the Contractor may, at the Contractor's cost, participate in the tests and monitoring to identify defects under the Rotomā/Rotoiti Contracts;
- (c) the Contractor shall provide written advice as to defects identified by the Contractor that the Contractor considers should be included in the defects notification under each such Defects Current Contract and/or are covered by warranties or guarantees under the Rotomā/Rotoiti Contracts that are not included in the Execution Date Defects and Departures List (each notification being a **Rotomā/Rotoiti Operations Commencement Defects List**); and
- (d) the Council will ensure the engineer to the contract under each of the Defects Current Contracts consults with the Contractor prior to the issue of the identified defects list under each Defects Current Contract provided however that such consultation shall not be construed as in any way fettering the quasi-judicial obligations of the engineers under the Defects Current Contracts.

51.4 Defects and warranty claims after commencement of Operations

51.4.1 After the commencement of each of the Rotomā/Rotoiti WWTP Facility Operations, the Rotomā Reticulation Network Operations and the Rotoiti Reticulation Network Operations, the Contractor shall:

- (a) actively search for defects in the Rotomā/Rotoiti WWTP Facility, the Rotomā Reticulation Network and the Rotoiti Reticulation Network (as applicable) under all Rotomā/Rotoiti WWTP Facility Construction Contracts, the Rotomā Network Construction Contracts and Rotoiti Network Construction Contracts that remain as Defects Current Contracts (to the extent and standard that a reasonably prudent owner would carry out) during the relevant "Defects Notification Period" under the applicable contract (each a **Rotomā/Rotoiti Defects Notification Period**) and shall:
 - (i) promptly provide written notification to the Administrator of all defects and minor omissions pursuant to such contracts discovered by the Contractor; and
 - (ii) provide written notification to the Administrator of all further defects and minor omissions discovered at monthly intervals during the applicable Rotomā/Rotoiti Defects Notification Period with a final notification two Working Days prior to the expiry of the applicable Rotomā/Rotoiti Defects Notification Period; and
- (b) actively search (to the extent and standard that a reasonably prudent owner would carry out) for defects pursuant to the Rotomā/Rotoiti Contracts that constitute warranty claims under the

warranties and guarantees provided pursuant to the Rotomā/Rotoiti Contracts prior to the expiry date of such warranties or guarantees and shall promptly provide written notification to the Administrator of such defects identified that are not included in the Execution Date Defects and Departures List or the Rotomā/Rotoiti Operations Commencement Defects List.

51.5 Management of defects remediation

51.5.1 The Council shall use all reasonable endeavours to procure the prompt remediation of defects notified to the contractors under the Rotomā/Rotoiti WWTP Facility Construction Contracts, the Rotomā Network Construction Contracts and the Rotoiti Network Construction Contracts which shall include all defects and non-approved Departures set out in the:

- (a) Execution Date Defects and Departures List (provided pursuant to clause 48.2.2);
- (b) each Rotomā/Rotoiti Operations Commencement Defects List (provided pursuant to clause 51.3.1(c));
- (c) defects and omissions notified by the Contractor pursuant to clause 49.2.5 and 51.4.1(a); and
- (d) warranty/guarantee defects notified by the Contractor pursuant to clause 51.4.1(b).

The Contractor's extra costs arising from the failure by the Council to procure a resolution of defects within a reasonable timeframe shall be treated as a variation pursuant to clause 43.1.

51.5.2 The Contractor shall assist the engineer under each of the Rotomā/Rotoiti WWTP Facility Construction Contracts, the Rotomā Network Construction Contracts and the Rotoiti Network Construction Contracts with the verification of the completion of proper remediation of defects notified to the contractors and suppliers under the Rotomā/Rotoiti Contracts, .

51.5.3 The Council shall provide regular updates to the Contractor setting out the status of and anticipated time frames for the remediation of notified defects. The effect of delays in remediation of notified defects on the Contractor's ability to meet performance requirements shall be taken into account in relation to the identification and response to KPI failures.

51.5.4 The Contractor shall, if requested by the Administrator, carry out all defects remediation work that the Council is entitled to carry out pursuant to the Rotomā/Rotoiti Contracts. All such work shall be treated and carried out as a Variation. The Administrator may request the Contractor to provide a submission under clause 43.1.2 regarding the effect and costs and expenses arising in relation to such defects remediation work. If the parties cannot agree as to the Contractor's submission the costs and expenses shall be treated as if the completion of the defects remediation work was a Mandatory Variation instructed by the Administrator under clause 43.1.13.

51.6 Contractor's responsibility for Rotomā/Rotoiti Contracts defects and omissions

51.6.1 The Contractor shall not be responsible for defects and omissions (including minor defects and minor omissions) in the Rotomā/Rotoiti WWTP Facility, the Rotomā Reticulation Network and the Rotoiti Reticulation Network to the extent that they were:

- (a) identified by the Contractor in the Execution Date Defects and Departures List;
- (b) included in a Rotomā/Rotoiti Operations Commencement Defects List;
- (c) defects and omissions notified by the Contractor pursuant to clause 49.2.5 and 51.4.1(a)(i);
- (d) Warranty/guarantee defects notified by the Contractor pursuant to clause 51.4.1(b).
- (e) ascertained by the Contractor and notified to the Administrator prior to the expiry of the relevant Rotomā/Rotoiti Defects Notification Period pursuant to clause 51.3.1(c) and clause 51.4.1(a)(ii); and/or
- (f) that were not reasonably foreseeable by the Contractor at the time(s) the Contractor was required to identify defects pursuant to clause 51.

- 51.6.2 For the purposes of clause 51.6.1(f), not reasonably foreseeable shall mean any circumstances not reasonably foreseeable by a competent contractor having made all reasonable and diligent independent enquiry at the time(s) the Contractor was required to identify defects pursuant to clause 51.
- 51.6.3 As between the Contractor and the Council, the Contractor shall be responsible for all defects and omissions in the Rotomā/Rotoiti WWTP Facility, the Rotomā Reticulation Network and the Rotoiti Reticulation Network other than as set out in clause 51.6.1 to the extent the Council is not able to procure the remediation of such defects and omissions by the contractor under the applicable Rotomā/Rotoiti Contract.
- 51.6.4 The Council shall, at the cost of the Contractor, use all reasonable endeavours:
- (a) to procure the remediation of all defects and omissions by the contractor under the applicable Rotomā/Rotoiti Contract; and/or
 - (b) to exercise, for the benefit of the Contractor, all rights and remedies under all warranties and guarantees relating to the Rotomā/Rotoiti WWTP Facility and the Rotomā/Rotoiti Reticulation Network (in whole or part),
- in relation to all defects and omissions for which the Contractor is responsible under clause 51.6.3.
- 51.7 Rotomā/Rotoiti WWTP facility and network defects after Defects Notification Period expiry
- 51.7.1 The Contractor shall provide prompt written notification to the Council of any defects discovered in the Rotomā/Rotoiti WWTP Facility, the Rotomā Reticulation Network and the Rotoiti Reticulation Network:
- (a) in relation to such contracts as are construction contracts, after the expiry of the applicable Rotomā/Rotoiti Defects Notification Period; and
 - (b) in relation to such contracts as are supply contracts, after the commencement of the applicable Operations.
- 51.7.2 The parties acknowledge the importance of notifying all defects discovered within six years of the applicable Practical Completion date under the Rotomā/Rotoiti Contracts, and/or within the warranty periods applying under the Rotomā/Rotoiti Contracts.
- 51.7.3 The Contractor shall provide reasonable assistance to the Council in the obtaining of a remedy from the contractors under the Rotomā/Rotoiti Contracts in relation to all such defects discovered and in relation to the carrying out of warranty remediation work by contractors and/or warranty providers under the Rotomā/Rotoiti Contracts.

52. ROTOITI ON-PROPERTY TREATMENT CONTRACT NOVATION

- 52.1 Rotoiti Pre-treatment RFT
- 52.1.1 As at the date of execution of this Contract the Council intends to issue a Request for Tenders (Rotoiti Pre-treatment RFT) and intends to enter into a contract with a third party contractor for the supply, installation and potentially ongoing maintenance of On-property Pre-treatment Units (Rotoiti On-property Pre-treatment Units) in the Rotoiti Reticulation Network (Rotoiti On-property Pre-treatment Units Contract).
- 52.1.2 The Council may (in its entire discretion) request comment from the Contractor as to the suitability of the Pre-treatment solution proposed, the contractor or contractors the Council is contemplating awarding the Rotoiti On-property Pre-treatment Units Contract to, the contemplated Rotoiti On-property Pre-treatment Units Contract terms and conditions and indicative pricing for the inclusion of the Rotoiti On-property Pre-treatment Units Contract in the Contract by way of novation as set out in clause 52.2 below. The Contractor will respond to any such request as promptly as is practicable.

- 52.2 Inclusion of Rotoiti On-property Pre-treatment Units in this Contract
- 52.2.1 As part of the Rotoiti Pre-treatment RFT evaluation process or after the award of the Rotoiti On-property Pre-treatment Units Contract the Council may (in its complete discretion) request a proposal from the Contractor as to the basis on which the operation and maintenance of the Rotoiti On-property Pre-treatment Units might be:
- (a) included in the Rotoiti Reticulation Network Operations as a direct obligation of the Contractor; or
 - (b) included in the Rotoiti Reticulation Network Operations by way of novation of the Rotoiti On-property Pre-treatment Units Contract (or a separate Rotoiti On-property Pre-treatment Units operation and maintenance contract).
- 52.2.2 If the parties agree to include the operation and ongoing maintenance of the Rotoiti On-property Pre-treatment Units in the Rotoiti Reticulation Network Operations as a direct obligation of the Contractor pursuant to clause 52.2.1(a) the operation and ongoing maintenance of the Rotoiti On-property Pre-treatment Units shall be incorporated within the scope of the Rotomā/Rotoiti Operations by variation pursuant to clause 43 of the Contract Conditions.
- 52.2.3 If the parties agree to novate the Rotoiti On-property Pre-treatment Units Contract (or a separate Rotoiti On-property Pre-treatment Units operation and maintenance contract) to the Contractor pursuant to clause 52.2.1(b) the supply and ongoing maintenance of the Rotoiti On-property Pre-treatment Units shall be incorporated within the scope of the Rotoiti Reticulation Network Operations pursuant to this Contract on the basis agreed and the Contractor and the Council shall enter into a deed of novation substantially in the form set out in Schedule 4 – Novation Deeds pursuant to which the Rotoiti On-property Pre-treatment Units Contract shall be novated to the Contractor (Rotoiti On-property Pre-treatment Units Contract Novation Deed). The Council shall procure the Rotoiti On-property Pre-treatment Units Contract contractor to enter into the Rotoiti On-property Pre-treatment Units Contract Novation Deed.
- 52.2.4 The Rotoiti On-property Pre-treatment Units Contract Novation Deed shall take effect from the date set out in the Rotoiti On-property Pre-treatment Units Contract Novation Deed.
- 52.2.5 The parties acknowledge that the Council may award the Rotoiti On-property Pre-treatment Units Contract to such party and on terms and conditions as the Council shall elect, that the Council may but is not obliged to offer inclusion of the operation and ongoing maintenance of the Rotoiti On-property Pre-treatment Units in to the Contractor.
- 53. BIOSOLIDS**
- 53.1 Vermicomposting Contract
- 53.1.1 The Council is a party to the Vermicomposting Contract pursuant to which the sludge produced by the Rotorua WWTP Facility is uplifted and processed into compost by the counterparty, Ecocast Limited.
- 53.1.2 The Council and the Contractor (or at the Contractor's election the Major Subcontractor carrying out the applicable portion(s) of the Operations) shall enter into a deed of novation substantially in the form set out in the Vermicomposting Contract pursuant to which the Vermicomposting Contract shall be novated to the Contractor (Vermicomposting Novation Deed). The Council shall procure Ecocast Limited to enter into the Vermicomposting Novation Deed.
- 53.1.3 The Vermicomposting Novation Deed shall take effect from the Commencement Date.
- 53.1.4 As between the Council and the Contractor:
- (a) the Council shall be responsible for payment of the remuneration due to Ecocast Limited pursuant to the Vermicomposting Contract for all sludge uplifted and processed prior to the Commencement Date;

- (b) the Contractor will be responsible for all remuneration payable to Ecocast Limited pursuant to the Vermicomposting Contract for all sludge uplifted and processed by Ecocast Limited from the Commencement Date; and
- (c) the Contractor shall be responsible for managing the extension or non-extension of the Vermicomposting Contract within the terms of the Vermicomposting Contract.

53.2 Biosolids disposal

53.2.1 The Contractor shall be responsible for the disposal of sludge produced by the WWTP Facilities in accordance with the Council's Requirements.

54. OPERATIONS QUALITY ASSURANCE

54.1 Quality assurance process

54.1.1 The Contractor shall deliver the Operations in accordance with a reasonable Operations quality assurance process. The quality assurance process must conform to ISO 9000 or such other recognised quality control system as shall be approved (in writing) by the Administrator.

54.2 Contractor Operations Quality Plan

54.2.1 The Contractor shall submit a quality assurance plan for the Operations (Operations Quality Plan) in accordance with the Council's Requirements not later than 20 Working Days prior to the Commencement Date.

54.2.2 The Operations Quality Plan shall detail the following together with the further matters set out in clause 5.1 of Schedule 16 – Operations, Maintenance and Renewals Requirements:

- (a) compliance with all relevant requirements of this Contract;
- (b) compliance with the service quality and other requirements, including but not limited to:
 - (i) reliability and timeliness in the carrying out of the Operations;
 - (ii) overall management of the carrying out of the Operations;
 - (iii) customer service and public relations;
 - (iv) accuracy in all documentation and verbal communications;
 - (v) complaints procedures;
 - (vi) monitoring and audit requirements;
 - (vii) reporting procedures; and
 - (viii) compliance with all health and safety procedures.

54.2.3 The Contractor shall comply with the approved Operations Quality Plan.

55. KEY PERFORMANCE INDICATORS

55.1 Contractor to meet KPIs

55.1.1 The Contractor shall meet or exceed the Key Performance Indicators in accordance with the KPI requirements set out in Schedule 16 – Operations, Maintenance and Renewals Requirements.

56. CONTRACTOR'S GENERAL OPERATIONS OBLIGATIONS

56.1 Contractor to supply materials and consumables

56.1.1 The Contractor shall provide such supplies of fuel, materials, consumables, chemicals, water, gas and any other services as may be required for the carrying out of the Operations but excluding electricity which is covered in clause 56.1.2 below.

- 56.1.2 The Council will supply electricity to the Contractor for the Operations and the Contractor shall pay the Council for electricity supplied on the basis set out in Schedule 2 – Payments and Schedule 16 – Operations, Maintenance and Renewals Requirements.
- 56.2 Physical conditions information provided by the Council
- 56.2.1 Where the Council has made physical conditions information relevant to the Reticulation Networks available to the Contractor:
- (a) the Contractor shall be responsible for the interpretation of all such information for the purposes of the carrying out of the Operations; and
 - (b) the Council makes no warranty as to the sufficiency or accuracy of such information.

57. DEFECTS AND MAINTENANCE DURING OPERATIONS

- 57.1 Contractor to remedy defects
- 57.1.1 The Contractor shall, at the Contractor's cost, make good all defects and omissions (including damage arising as a consequence of defects) in any repair, maintenance, upgrades or renewals work carried out by the Contractor as part of the Operations in relation to any of the WWTP Facilities or any part of the Reticulation Network.
- 57.2 Contractor maintenance obligations
- 57.2.1 The Contractor shall maintain the WWTP Facilities and the Reticulation Networks in good order and condition as set out in the Council's Requirements. In addition the Contractor shall carry out the maintenance described in the Council's Requirements and the Contractor's Information.
- 57.2.2 The Contractor's obligations under this clause include the replacement and upgrading of items of capital equipment.
- 57.3 Further Tests on Completion
- 57.3.1 The Administrator may request any of the Tests on Completion or any other inspections, examinations or tests be carried out for any Rotorua WWTP Facility maintenance, upgrading, replacement or remedial work carried out at any time during the Term where reasonably required by the Administrator to confirm the adequacy and completeness of the work.
- 57.4 National Utilities Code
- 57.4.1 The Contractor shall remedy all work, repairs or maintenance undertaken by the Contractor as part of the Operations to any Transport Corridor Work where such work, repairs or maintenance does not conform to the requirements of the National Utilities Code, as notified by the applicable Corridor Manager or the Council. (Note the obligations of the Contractor under the Transport Corridor Work warranty continue for the applicable periods set out in the National Utilities Code).
- 57.5 Council to exercise third party warranty rights
- 57.5.1 The Council shall, at the cost of the Contractor, use all reasonable endeavours to exercise, for the benefit of the Contractor, all rights and remedies under all warranties and guarantees held by the Council relating to the Operations, the WWTP Facilities and/or the Reticulation Networks (in whole or part), in relation to all repair and maintenance obligations of the Contractor under the Contract Documents.

58. OWNERSHIP OF RENEWALS AND UPGRADES

58.1 Ownership to vest in the Council

58.1.1 Title in and ownership of all WWTP Facilities renewals and upgrades and in all materials, equipment and plant on any of the WWTP Facilities Sites or any Reticulation Networks Site intended to or actually incorporated in the WWTP Facilities or the Reticulation Networks is vested in the Council.

59. RESPONSIBILITY FOR INFLUENT AND BY-PRODUCTS

59.1 Contractor responsible for Influent

59.1.1 The Contractor shall be responsible for all Influent arriving at the WWTP Facilities as set out in the Council's Requirements.

60. NITROGEN CREDITS

60.1 Nitrogen credits ownership

60.1.1 Ownership of nitrogen credits remains with the Council.

61. ENTRY ONTO PRIVATE LAND

61.1 Entry onto private land generally

61.1.1 The Contractor shall ensure every entry onto private land is effected:

- (a) with the consent or permission of the owner or occupier of the land;
- (b) in accordance with any applicable Property Access Conditions;
- (c) in accordance with and as authorised by the LGA 2002; or
- (d) as otherwise permitted at Law,

and in accordance with all applicable conditions and requirements associated with or prescribed in relation to such consent, permission condition or authorisation.

61.1.2 Where the carrying out of the Operations requires entry onto private land the Contractor shall respect the property owner's and occupier's right to privacy and unrestricted access. Entering upon the land shall be carried out in a courteous manner. When entering private property, the Contractor shall first make a reasonable attempt to contact the owner or occupier, or leave a card to explain the reason for the visit. For any work required to be carried out affecting private property, the Contractor shall (if at all practicable) obtain the owner's or occupier's prior permission.

61.1.3 The Contractor shall ensure that personnel entering private property are adequately trained in public relation skills, that they respect gardens, trees and buildings, and that they carry out the applicable work with the least interruption to people's privacy.

61.2 Property Access Rights

61.2.1 The Contractor is authorised to exercise the Property Access Rights for the purposes of and as required to carry out the Operations.

61.2.2 The Contractor shall, in exercising any of the Property Access Rights, comply with the applicable Property Access Conditions. The Contractor shall be liable for all Claims, Losses and Liabilities arising due to the failure to comply with the Property Access Conditions.

61.2.3 The Council shall provide reasonable assistance to the Contractor to facilitate the exercise of the Property Access Rights.

61.2.4 The Contractor shall be responsible for the costs and expenses accruing to the Council in relation to the maintenance and upkeep of rights of way and access routes under the Property Access Rights.

The Council remains responsible for the payment of rent or commissions payable under the Property Access Rights. The Contractor shall make good all damage to Property Access Rights, rights of way or access routes caused by the Contractor.

61.3 Entry without emergency

61.3.1 Where the Operations require the Contractor to enter private property other than in response to a sudden emergency, the following shall apply:

- (a) The Contractor shall deposit an appropriate notice, no later than 24 hours beforehand (but preferably seven days) in the mailbox serving each property to which access is required. The notice should state the Contractor's name and address, contact person, telephone number and briefly the purpose for accessing the property.
- (b) After entering the property, the Contractor's staff shall attempt to contact the occupier by the most direct means and obtain permission to enter, before proceeding with any work.
- (c) Personal identification (clearly visible) shall be displayed by the Contractor's staff while they are on the property.
- (d) Disruption and damage to the property shall be kept to a minimum, and on completion of any work the property shall be left in a clean and tidy state not less than any condition prior to the work being started.

61.3.2 Where permission to enter land and/or carry out the work is not given under clause 61.3.1(b):

- (a) the Contractor is authorised by the Council to enter on land or any building:
 - (i) to construct works pursuant to s.181(1) of the LGA 2002; and/or
 - (ii) to inspect, alter, renew, repair, or clean the applicable parts of the Reticulation Networks pursuant to s.181(4) of the LGA 2002; and/or
 - (iii) (other than a dwellinghouse) pursuant to s.171(1) of the LGA 2002 for the purpose of carrying out the required work; and/or
 - (iv) to do necessary and sufficient work pursuant to section 234 of the Public Works Act 1981; and
- (b) the Contractor will endeavour, without use of force, to effect the required entry and carry out the work in accordance with the authorisations set out in clause 61.3.2(a); and
- (c) where entry is authorised under s.174 and s.181(1) and s.181(4) of the LGA 2002, to effect the required entry and carry out the work in the presence of and supervised by a Warranted Person.

61.3.3 The Contractor shall only use the entry rights and authorisations granted under this clause to gain entry to private land for the purposes of carrying out the Operations. The authorisations and rights of entry do not apply to entry on private land for any other work for a third party.

61.4 Entry onto occupied land or buildings in Emergency

61.4.1 Where the Operations require the Contractor to enter occupied land or buildings in response to a sudden emergency, the Contractor shall use all reasonable endeavours to obtain the permission of the private land owner or occupier for such access prior to entry and carrying out the work.

61.4.2 If such permission is not readily available, the following shall apply:

- (a) The Contractor shall explain to the owner or occupier (if present) the Contractor's powers to enter onto land or buildings as agent of the Council in relation to emergencies in accordance with s.173 of the LGA 2002 and/or s.330 of the Resource Management Act 1991.
- (b) The Contractor is constituted the agent of the Council for the purposes of s.173 of the LGA 2002 and/or s.330(2) of the Resource Management Act 1991 (as applicable) and shall have the right to enter on the land or buildings for the purposes of the emergency.

- (c) Where the entry is pursuant to s.173 of the LGA 2002:
 - (i) the Contractor will endeavour, without use of force, to effect the required entry and carry out the work in the presence of and supervised by a Warranted Person having authority to effect entry in accordance with s.174 of the LGA 2002; and
 - (ii) the Contractor shall comply with s.173(2) of the LGA 2002 in relation to the entry onto the property and the carrying out of the work.
- (d) Where the entry is pursuant to s.330(2) of the Resource Management Act 1991 the Contractor shall comply with the requirements of s.330 of the Resource Management Act 1991 and all other applicable Laws in relation to the entry onto the property and the carrying out of the work.

61.5 Entry onto land for the purposes of detection of trade waste infringements

61.5.1 Where the Contractor requires access to land for the purposes of detecting a breach of the Trade Waste Bylaw the following shall apply:

- (a) The Contractor shall, in a courteous manner, seek permission from the owner or occupier of the land to enter onto the land to carry out the investigation;
- (b) If such permission is not given the following shall apply:
 - (i) The Contractor shall explain to the owner or occupier (if present) the powers of a Warranted Enforcement Officer to enter onto land in accordance with s.172 of the LGA 2002 for the purpose of detecting a breach of a bylaw.
 - (ii) The Warranted Enforcement Officer shall endeavour, without use of force, to effect the required entry and carry out the investigation in accordance with s.172 of the LGA 2002.
- (c) The Contractor shall ensure the Warranted Enforcement Officer complies with s.172 of the LGA 2002 in relation to the entry onto the property and the carrying out of the investigation.

61.6 Failure to achieve non-forcible entry

61.6.1 If non-forcible entry cannot be achieved for the purposes of clauses 61.3.2(b), 61.4.2(c) and 61.5.1(b)(ii) following shall apply:

- (a) The Contractor shall provide written notification of the actions taken and circumstances arising in relation to the failure to achieve the entry to the Administrator.
- (b) The Contractor and the Administrator shall consult as to the appropriate method to obtain the required entry.
- (c) The method of achieving the required entry shall be determined by the Council. The Contractor and the Council shall cooperate as to the enforcing of the right of entry.
- (d) Any court proceedings required shall be undertaken by the Council at the Council's cost and expense. The Contractor shall, at the Contractor's cost and expense, provide all reasonable assistance to the Council in relation to such proceedings including attendance at hearings and the giving of evidence.
- (e) For the purposes of clarity, the parties acknowledge that the powers delegated to Warranted Enforcement Officers do not include the power to issue infringement notices in relation to infringement offences pursuant to s.245 of the LGA 2002.

62. TRADE WASTES, ILLEGAL CONNECTIONS AND DEFECTIVE PRIVATE DRAINS

62.1 Compliance with Trade Waste Bylaw

62.1.1 The parties acknowledge the importance of ensuring community compliance with the Trade Waste Bylaw to manage the adverse effects of trade waste bylaw non-compliance on the quality of the Influent.

- 62.1.2 The Council will use reasonable endeavours to enforce Trade Waste Bylaw compliance where non-compliance is detected by the Contractor and reported to the Council provided the information supplied is such that successful prosecution of such infringement is reasonably assured.
- 62.2 Illegal connections
- 62.2.1 The parties acknowledge the importance of identifying and managing illegal connections to the Reticulation Networks.
- 62.2.2 Subject to clause 62.4, the Council will, in its discretion, use reasonable endeavours to enforce compliance with the Council's Reticulation Networks connections requirements where non-compliance is detected by the Contractor and reported to the Council. (Refer also Schedule 16 – Operations, Maintenance and Renewals Requirements, clause 10.8.)
- 62.3 Defective private drains
- 62.3.1 The parties acknowledge the contribution to inflow and infiltration arising from defective private sewage drains. Subject to clause 62.4, the Council will, in its discretion, use reasonable endeavours to enforce compliance with the Council's private sewer drains inflow and infiltration minimisation requirements where non-compliance is detected by the Contractor and reported to the Council where the non-compliance is materially contributing to inflow and infiltration. (Refer also Schedule 16 – Operations, Maintenance and Renewals Requirements, clause 10.8.)
- 62.4 Council's illegal connections and defective private drains policies
- 62.4.1 The parties acknowledge that:
- (a) the Council's approach to illegal connections and defective private sewer drains remediation enforcement is influenced by wider policy considerations, individual property owner circumstances and the relativity as between the remediation cost and the derived benefit to the management of wider Reticulation Network inflow and infiltration;
 - (b) the Council is not obliged to take enforcement action in relation to illegal connections and defective private sewer drains; and
 - (c) the primary Contractor focus on inflow and infiltration management is the public Reticulation Networks assets.
- 62.5 On-property Pre-treatment Units
- 62.5.1 The parties acknowledge the importance of identifying and minimising instances of improper use of On-property Pre-treatment Units connected to the Reticulation Networks leading to undue maintenance callouts. (Refer also to Schedule 16 – Operations, Maintenance and Renewals Requirements, clause 11.5.3.)
- 63. WARRANTED OFFICERS**
- 63.1 Provision of warranted personnel
- 63.1.1 The Contractor shall provide (at its cost and expense) sufficient qualified, experienced and competent staff to be appointed by Council as Warranted Persons and Warranted Enforcement Officers to enable it to meet its obligations under this Contract.
- 63.2 Appointment of warranted personnel
- 63.2.1 Council will, by warrants issued in accordance with s.174 and s.177 of the LGA 2002, appoint such persons proposed by the Contractor as Warranted Persons and Warranted Enforcement Officers, subject to Council being satisfied (in Council's entire discretion) that such persons, having regard to their character, education and experience, are persons competent to perform the duties and exercise the powers of a Warranted Person and a Warranted Enforcement Officer (as applicable) pursuant to the LGA 2002.

- 63.2.2 Without limiting Council's discretion in any way, such competence may be demonstrated by any or any combination of the following:
- (a) quality and length of relevant experience;
 - (b) training courses completed;
 - (c) understanding of relevant statutory requirements relating to a warranted person and a warranted enforcement officer (principally the LGA 2002 and the Search and Surveillance Act 2012);
 - (d) police vetting/criminal record; and/or
 - (e) appropriate references.
- 63.3 Warranted personnel powers
- 63.3.1 Warranted Persons shall be authorised to exercise the powers exercisable pursuant to sections 171(1), 173(1) and 181 of the LGA 2002.
- 63.3.2 Warranted Enforcement Officers shall be authorised to exercise the powers exercisable pursuant to section 172(1) but will not be authorised to issue infringement notices.
- 63.3.3 A person may be appointed as both a Warranted Person and a Warranted Enforcement Officer.
- 63.4 Withdrawal of warrants
- 63.4.1 The Council may withdraw any warrant for any Contractor personnel who breaches the requirements as to Contractor personnel conduct in this Contract or acts in such a way that may bring the Council into disrepute or in Council's reasonable opinion renders that person not a fit and proper person to hold the warrant and/or to exercise the responsibilities, duties or powers associated with that warrant. The withdrawal of a warrant or a delegation is at the complete discretion of the Council.
- 63.4.2 The Council may suspend, with immediate effect, the warrant of any Contractor personnel that have seriously misconducted themselves in the performance of their duties. Such personnel shall not be utilised by Contractor in the performance of warranted services pending Council investigation and resolution of the issue.
- 63.4.3 The Contractor shall immediately notify the Council when a person holding a warrant ceases to be utilised in that role in relation to the Operations (whether through resignation, dismissal or transfer). The Contractor shall ensure that the written warrant of any such person is promptly returned to the Council.

64. CONSEQUENCES OF TERMINATION – OPERATIONS

- 64.1 Termination by the Council
- 64.1.1 If this Contract is terminated pursuant to a Contractor Default Event the following shall apply.
- (a) The Contractor shall:
 - (i) immediately vacate the WWTP Facilities and the Network Sites and give possession of the WWTP Facilities and the Network Sites to the Council; and
 - (ii) shall leave on the WWTP Facilities Sites, all temporary buildings and Contractor's equipment, all machinery, fittings, apparatus, consumables and materials (unfixed or otherwise), except as may be specifically agreed in writing by the Administrator.
 - (b) All the Contractor's interest (if any) in any of the temporary buildings, Contractor's equipment, machinery, fittings, apparatus, consumables and materials (unfixed or otherwise) on the WWTP Facilities Sites shall as at the date of termination vest in the Council.
 - (c) The obligation of the Council to pay any amounts due to the Contractor and unpaid as at the date of termination in relation to any Monthly Service Payment, any Gravity Mains Renewals

Payment, any Ancillary Payment, any Variation Order or Variation or otherwise under this Contract shall be suspended pending determination of the Operations Default Cost under clause 64.1(j).

- (d) The Council shall be entitled to exercise all rights and remedies available to it at law or in equity in addition to the rights and remedies available to it under this Contract.
- (e) The Council shall be entitled to carry on the Operations and to use all temporary buildings, Contractor's equipment, machinery, fittings, apparatus, goods, consumables and materials (unfixed or otherwise) upon the WWTP Facilities Sites for such purpose or to employ any other person to do so and for a period of not greater than five (5) years recover all reasonable additional costs and expenses incurred in carrying on the Operations (being those reasonable costs and expenses incurred by Council during that five (5) year period that are over and above what would have been paid by the Council to the Contractor in respect of the Operations to be performed under this Contract for the relevant period had the Contractor not defaulted in its obligations) as a debt due to the Council by the Contractor.
- (f) The Council shall be entitled to sell by public auction, tender or private treaty any surplus materials, consumables and fittings together with the interest which has become vested in the Council in the Contractor's equipment. The net proceeds from such sale shall be applied towards satisfaction of any liability (whether contingent or actual) of the Contractor and any surplus remaining shall, if due, be paid to the Contractor.
- (g) The Contractor shall, only if so directed by the Council or the Administrator, remove any temporary buildings, Contractor's equipment, fittings, goods, consumables or materials from the WWTP Facilities Sites, the Reticulation Network Facilities and the Reticulation Network Sites.
- (h) The Council may, but is not obliged to, pay any of the Contractor's Subcontractors or suppliers for any work, materials or goods relating to the carrying out of Operations whether carried out or supplied before or after the date of termination of this Contract and for which the Contractor has not made payment. Such payment shall be deemed to be made by the Council as agent for the Contractor and the Contractor shall, if so requested, assign the benefit of any supply contracts or any subcontracts relating to such works, materials or goods to the Council or as the Council shall direct. All such payments made shall be deducted from the monies otherwise payable by the Council to the Contractor.
- (i) The Contractor shall fulfil the Handover Obligations, provided that the Council may in its discretion fulfil any such obligation itself at the Contractor's cost.
- (j) The Administrator shall as soon as is reasonably possible (which may not be until the Council has made arrangements with another person for the continued carrying out of the Operations) make an assessment of the cost to the Council arising out of the default of the Contractor and the moneys otherwise owing by the Contractor to the Council under this Contract. The Administrator shall assess such cost (Operations Default Cost) and shall issue a certificate to the parties confirming the Operations Default Cost detailing:
 - (i) all moneys paid or payable to the Contractor's Subcontractors or other persons employed by or supplying materials, goods or services to the Contractor in terms of clause 64.1(h);
 - (ii) the costs and expenses to Council of carrying out the Operations or contracting with some other person to carry out the Operations following termination in excess of the Administrator's reasonable assessment of the costs and expenses to the Council which would have been incurred in relation to the carrying out of the Operations if carried out by the Contractor under this Contract determined in accordance with clause 64.1.1(e); and
 - (iii) all other costs and expenses or losses incurred by the Council arising out of the Contractor Default Event or otherwise owing by the Contractor to the Council under this Contract.

- (k) The Administrator shall also detail the amounts payable by the Council to the Contractor suspended under clause 64.1(c) or otherwise remaining unpaid by the Council to the Contractor pursuant to this Contract (Contractor Unpaid Amount).
 - (l) The Contractor Unpaid Amount shall be deducted from the Operations Default Cost. If the resulting amount is a positive number, that amount shall be payable by the Contractor to the Council. If the resulting amount is a negative number, that amount shall be payable by the Council to the Contractor.
- 64.1.2 Provided the Contractor has made payment in full of the Operations Default Cost balance (if any) calculated under clause 64.1.1(l), and all other moneys payable by the Contractor to the Council pursuant to this Contract the Council shall release the Contractor's Operations Bond on the earlier of the original Expiry Date of the Contract or 5 years from the date this Contract is terminated.
- 64.1.3 The Council shall be entitled to deduct from the Contractor's Operations Bond prior to release all further costs and expenses or liabilities of the Council incurred or arising in relation to all defects or omissions in the carrying out of Operations arising through the default of the Contractor or otherwise owing by the Contractor to the Council under this Contract.
- 64.2 Termination by the Contractor
- 64.2.1 If the Contractor terminates this Contract pursuant to a Council Default Event the following shall apply.
 - (a) The Council shall pay to the Contractor the Monthly Service Payments payable up to the date of such termination less any amounts payable by the Contractor to the Council under this Contract and together with the following:
 - (i) the Contractor's cost of removal from the WWTP Facilities Sites and the Reticulation Network Sites (including protection and safeguarding of the WWTP Facilities Sites as set out in clause 64.2.1(b)) insofar as such cost has not already been included in the Monthly Service Payments;
 - (ii) the cost of materials or goods ordered for the carrying out of the Operations for which the Contractor is liable to pay (and is not entitled to freely cancel) insofar as such cost has not already been included in the Monthly Service Payments provided that possession and property in the goods is transferred by the Contractor to the Council; and
 - (iii) all other reasonable costs and expenses or losses incurred by the Contractor arising out of the Council Default Event or early Contract termination or otherwise owing by the Council to the Contractor under this Contract provided that the Contractor's entitlement to its reasonable costs and expenses or losses under this sub-clause shall be limited to such costs and expenses or losses arising for a period of five (5) years from the date of termination of the Contract.
 - (b) The Contractor, after taking reasonable precautions to safeguard the WWTP Facilities and the Reticulation Network Sites against accidental damage or from causing damage to other persons or property may remove from the WWTP Facilities Sites and the Reticulation Network Sites its temporary buildings, tools, equipment and Contractor's equipment.
 - (c) The Contractor shall be entitled to exercise all rights and remedies available to it at law or in equity in addition to the rights and remedies available to it under this Contract.
 - (d) The Council shall release the Major Subcontractor Direct Deeds, the Continuity Deeds, Parent Company Guarantee and the Contractor's Operations Bond promptly after the amount payable by the Council under clause 64.2.1(a) has been determined providing all moneys owing by the Contractor to the Council under the Contract have been paid or satisfied.

65. PRACTICE NOTES

65.1 Compliance with Practice Notes

65.1.1 The Contractor shall, in the carrying out of the Operations, comply with all Practice Notes.

65.2 Amended and further Practice Notes.

65.2.1 The Practice Notes are the agreed Operations procedures as at the date of execution of the Contract but are subject to review and updating/amendment from time to time throughout the Term in the manner specified in this section 65.

65.2.2 Either party may initiate a Practice Note review or propose a further Practice Note. The Administrator or the Executive Review Group may also initiate a Practice Note review or propose a further Practice Note.

65.2.3 Any amendments to the Practice Notes or new Practice Notes produced shall not materially contradict the Contract or the Contract Schedules.

65.2.4 All proposed amendments to or new Practice Notes shall be referred to the Executive Review Group for consideration and issue where the Executive Review Group so decides.

65.2.5 Any proposed new Practice Note or proposed amendment to a Practice Note that would result in a change in the Contractor's obligations or change its costs and expenses under the Contract shall be treated as a Variation. The Administrator may request the Contractor to provide a submission under clause 43.1.2 regarding the effect and costs and expenses arising from the issue of any such amended or new Practice Note. If the parties cannot agree as to the Contractor's submission and the new or amended Practice Note is issued, the effects and costs and expense shall be treated as a Mandatory Variation instructed by the Administrator under clause 43.1.13.

65.2.6 Any disagreement between the parties relating to the interpretation of a Practice Note, a proposed change to a Practice Note, or the introduction of a new Practice Note shall be referred to the Executive Review Group. If a determination of the Executive Review Group (by majority) in relation to a Practice Note is not accepted by a party then the matter may be referred to the Administrator for the Administrator's determination pursuant to clause 14.5 (acting in the Administrator's quasi-judicial capacity) and shall thereafter be subject to the dispute resolution procedures in clause 14.

PART E - PAYMENTS

66. COUNCIL PAYMENT

66.1 Monthly Service Payments, Gravity Mains Renewals Payments

66.1.1 The Council shall pay the Monthly Service Payments and the Gravity Mains Renewals Payments to the Contractor in accordance with Schedule 2 – Payments. Other than as specifically set out in the Contract Documents the Monthly Service Payments and the Gravity Mains Renewals Payments cover all of the Contractor's obligations under the Contract Documents.

66.2 Escalation

66.2.1 The payments to be made by the Council to the Contractor pursuant to this Contract shall be adjusted during the Term or any renewal of this Contract in accordance with the escalation provisions set out in Schedule 2 – Payments.

66.3 Payment Claims and invoices

66.3.1 The Contractor shall submit its Payment Claims and Council shall pay the Payment Claims at the times and otherwise as set out in Schedule 2 – Payments.

66.3.2 The Council is not required to pay any Payment Claim amount if the Contractor has not provided a compliant Payment Claim and tax invoice.

66.4 Payment not a discharge

66.4.1 Payment by the Council of a Payment Claim amount does not constitute acceptance by the Council that the Contractor has performed its obligations nor does it constitute or is to be construed as a waiver of any of the Council's rights and remedies whether under this Contract or at Law.

67. GOODS AND SERVICES TAX

67.1 GST payable

67.1.1 In this clause words and phrases defined in the GST Act have the meaning given in that Act, unless the context requires otherwise.

67.1.2 Unless expressly provided to the contrary, any consideration payable for a supply made under this Contract is stated before the addition of any GST chargeable on that supply.

67.1.3 The parties agree that where GST is chargeable on a supply made by one party (the Supplier) to the other party (the Recipient) under this Contract, the Supplier will issue a tax invoice to the Recipient and the Recipient will pay to the Supplier the GST chargeable on that supply, in addition to the consideration payable for that supply, unless section 5(23) of the GST Act applies to that supply. The Recipient shall pay the GST to the Supplier at the same time as the consideration is paid to the Supplier.

67.1.4 The Contractor shall provide the Council with any information reasonably requested by the Council in relation to the amount of GST chargeable on a supply made under this Contract and payable by the Council to the Contractor.

68. TAXES AND SCHEDULAR DEDUCTIONS

68.1 Council not liable for Contractor taxes

68.1.1 The Council shall not (except as set out in this Contract) be liable for any corporate, personal, schedular or withholding taxes or other taxes and levies in respect of (or in respect of any payment to) the Contractor, its employees or Subcontractors under this Contract. The Contractor shall indemnify the Council for any claim upon it by the Inland Revenue Department for any such corporate, personal,

schedular or withholding taxes or other taxes or levies which should have been paid in respect of the Contractor, its employees or Subcontractors under this Contract.

68.2 Schedular taxes

68.2.1 The Contractor warrants that it is a New Zealand resident for the purposes of the New Zealand schedular payments tax regime and that the Council is not required to make schedular tax deductions under that regime in relation to payments made under this Contract.

68.2.2 If after making any payment to the Contractor under this Contract it is subsequently determined that the Council should have deducted Schedular Payments tax (or any additional amount of such tax) or any other withholding from that payment then the Contractor will, on receipt of written demand from the Council, pay such amount to the Council together with all interest and penalties payable on such amounts.

69. NON PAYMENT FOR SERVICE FAILURE

69.1 Council may withhold payments

69.1.1 The Council may withhold payment of any Monthly Service Payment or Gravity Mains Renewals Payment under this Contract under this clause if and only to the extent to which:

- (a) in relation to the carrying out of the Operations, the Contractor has, to a material extent, failed to provide any component of the services forming part of the Operations (which in the opinion of the Administrator (acting reasonably) has or is likely to have a meaningful detrimental impact on Council); and
- (b) such failure is not directly attributable to any act or omission by the Council under this Contract or by any Separate Contractor or other person for whom the Contractor is not responsible or any Force Majeure Event.

69.1.2 The amount(s) withheld under this clause shall not exceed the value of the service which the Contractor failed to perform determined having regard to the Contractor's pricing such that the withheld amount will be a reasonable proportion of the payment relating to the service which the Contractor failed to perform. The Council will provide prompt written notification to the Contractor as to amounts withheld under this clause (each a **Withheld Amount**) together with brief particulars of the service failure giving rise to the withholding and confirming whether the withholding is made pursuant to clause 69.2.1 or 69.3.1.

69.1.3 Clauses 69.1 and 69.1.2 do not limit the Council's further remedies under this Contract or at law.

69.2 Withholding as abatement

69.2.1 Where a Withheld Amount has been withheld by the Council due to a failure by the Contractor to provide any component of the services forming part of the Operations which, in the reasonable opinion of the Administrator cannot be remedied by the Contractor the Withheld Amount may, in the Council's discretion, be treated as an agreed reduction in the remuneration otherwise payable by the Council to the Contractor under this Contract.

69.3 Withholding as retention

69.3.1 Where a Withheld Amount has been withheld by the Council due to a failure by the Contractor to provide any component of the services forming part of the Operations which, in the reasonable opinion of the Administrator is able to be remedied by the Contractor, the Withheld Amount shall be treated as a retention from the amount(s) otherwise payable by the Council to the Contractor (a **Withholding Retention**).

69.3.2 A Withholding Retention (or the balance thereof) shall be released by the Council to the Contractor on completion of the provision or remediation of the failed service.

- 69.3.3 If the Contractor fails to complete the provision of the failed service within a reasonable time following receipt of the Administrator's notification under clause 69.1.2 (as shall be determined by the Administrator) the Council may:
- (a) undertake the provision of the failed service itself and deduct the cost of so doing from the Withholding Retention;
 - (b) treat the withholding as an agreed reduction in the remuneration otherwise payable by the Council to the Contractor under this Contract; or
 - (c) continue to hold the Withheld Amount as a retention pending the provision of the failed service by the Contractor, in which case this subclause (c) shall continue to apply.

69.4 Abatements to be liquidated damages

- 69.4.1 The parties acknowledge that a Withheld Amount deducted by the Council pursuant to clause 69.2.1 or clause 69.3.3(b) reflects the diminished value of the services to the Council in relation to the applicable failed service and that such deduction is without prejudice to the Council's further rights and remedies or co-extensive causes of action in relation to such service failure.

70. PROVISIONAL SUMS AND DAYWORKS

70.1 Provisional Sums

- 70.1.1 Provisional Sums relate to elements that are so nominated in Schedule 2 – Payments or elsewhere in the Contract Documents.

- 70.1.2 Provisional Sum work shall only be undertaken on the written instructions of the Administrator.

- 70.1.3 Provisional Sum work is discretionary and will be included in the Contract as set out in the applicable provision in the Contract Documents or otherwise as the Administrator shall instruct.

- 70.1.4 Payment for Provisional Sum work shall be effected as follows:

- (a) the Provisional Sum amount shall be deleted; and
- (b) the Provisional Sum work actually performed will be valued as a Variation.

- 70.1.5 The Value of Provisional Sum work shall be as agreed by the parties and if instructed without agreement the effects, costs and expenses of such Provisional Sum work ordered by the Administrator shall be treated as a Mandatory Variation instructed by the Administrator under clause 43.1.13. The Administrator may request the Contractor to provide a submission under clause 43.1.2 regarding the effect and costs and expenses for any Provisional Sum work.

70.2 Dayworks

- 70.2.1 The Administrator may request Variations be carried out on a Dayworks basis. In addition, some elements of the Operations to be carried out on a Dayworks basis may be set out in the Council's Requirements.

- 70.2.2 Such Dayworks Variations and work shall be valued on the basis of the Dayworks rates agreed by the parties from time to time.

- 70.2.3 Where there are no applicable Dayworks rates the relevant work shall be valued as a Mandatory Variation.

- 70.2.4 The Contractor shall record Dayworks work on a daily basis in such format as is required by the Administrator. The recording shall include:

- (a) time spent by each worker;
- (b) each item of plant and equipment and hours used; and
- (c) quantities of materials used.

70.2.5 Daily records shall be provided to the Administrator on a daily basis, and if agreed shall be the basis for payment. If the Administrator is not available the daily records shall be verified by the Contractor Representative (or other senior employee of the Contractor) and shall be signed as correct. Such signed off records shall be submitted with the Contractor's monthly claim and shall be prima facie evidence of the time and materials used in carrying out the Dayworks.

70.2.6 The Dayworks rates provided for labour and plant and equipment shall be all-inclusive rates, and:

- (a) the rates for labour include all costs necessary to provide an efficient worker on site, and shall be deemed to include but not be limited to, all wages inclusive of the penal portion of overtime payments, all the Contractor's overhead costs, supervision, time keeping, travel to and from site, all overheads and profit, minor charges, and all minor equipment;
- (b) the rates for plant and equipment include all costs necessary to provide an efficient plant and equipment item per working hour on site and shall be deemed to include but not be limited to all, insurance, maintenance, wear and tear, repairs and renewals, standing time, fuel and consumables, superintendence, fittings and fixtures, all hire and lease costs, overheads and profit and incidental charges; and
- (c) materials shall be priced on the basis of trade price of the materials to the Contractor inclusive of all discounts whether trade or otherwise plus the percentage to be applied to Dayworks materials as set out in the Schedule of Prices, which percentage is deemed to cover transport, loading and off-loading, all the Contractor's overheads and profit and incidental costs.

71. LOCAL AUTHORITY RATES

71.1 Council responsibility for rates

71.1.1 The Council shall pay all general local body rates charged for the WWTP Facilities Sites as from the Commencement Date.

71.1.2 The Contractor shall pay for all services and supplies separately levied or assessed on a usage basis in respect of the:

- (a) Rotorua WWTP Facility and Rotorua LTS from the Commencement Date;
- (b) Rotorua Reticulation Network from the Commencement Date;
- (c) Rotomā/Rotoiti WWTP Facility Site from the Commencement Date; and
- (d) Rotomā Reticulation Network from the Commencement Date; and
- (e) Rotoiti Reticulation Network from the commencement of the carrying out of the Rotoiti Reticulation Network Operations

whether included in the local body rates or not.

71.1.3 The Contractor is responsible for any local body rates penalty component assessed as a result of an act or omission of the Contractor. The Contractor shall pay any such amount to the Council on receipt of written request.

72. GENERAL PAYMENT PROVISIONS

72.1 Set off

72.1.1 The Council may and is hereby authorised by the Contractor to deduct any moneys payable by the Contractor to the Council from any moneys payable by the Council to the Contractor under this Contract.

72.2 Interest

72.2.1 Each party shall pay interest to the other on any amount due and unpaid from the due date for payment until payment is actually made. Interest shall be payable at a rate of 4% per annum over the receiving party's overdraft rate adjusted quarterly.

73. RETENTIONS

73.1 Retentions and the Construction Contracts Act

73.1.1 The parties agree that for the purposes of section 18FC(4) of the Construction Contracts Act 2002 the accounting and other records that the Contractor may request be made available for inspection are:

- (a) a statement of the amounts credited and debited to the retentions moneys held in trust by the Council for the Contractor relating to this Contract including the current balance of such moneys; and
- (b) a certificate signed by the Chief Financial Officer or other senior member of the Council's accounting staff certifying that:
 - (i) such moneys are held in trust for the Contractor pursuant to section 18C of the Construction Contracts Act 2002; and
 - (ii) that the Council holds cash or other liquid assets equal to or in excess of the aggregate current balance of all retentions held by the Council pursuant to all commercial construction contracts having retention moneys in excess of the de minimus amount entered into by the Council after 31 March 2017.

74. PAYMENT SCHEDULES

74.1 Period for provision of Payment Schedules

74.1.1 The period for the provision of payment schedules under the Construction Contracts Act 2002 is 20 Working Days following service of the payment claim on the Council.

PART F – STEP IN RIGHTS AND MAJOR SUBCONTRACTOR DIRECT DEEDS

75. COUNCIL OPERATIONS STEP-IN RIGHTS

75.1 Failure to carry out Operations

75.1.1 Where the Contractor fails to provide all or a material part of the Operations (Step in Operations) for any reason, or otherwise where indicated in the Council's Requirements, the Council may, without prejudice to any other right or remedy available to the Council under this Contract or at law, arrange for the carrying out of such part(s) of the Step in Operations as the Council shall elect by itself or others (Council's Operations Step-in Rights).

75.1.2 The Contractor shall provide the Council or its contractor(s) with its full co-operation as is necessary to facilitate the exercise by the Council of the Council's Operations Step-in Rights and the carrying out of the Step in Operations.

75.2 Suspension of Contractor's rights

75.2.1 The Contractor's rights and obligations under this Contract are suspended for the period that the Council is exercising the Council's Operations Step-in Rights but only to the extent necessary to permit the Council to exercise those rights.

75.3 Abandonment of sites by Contractor

75.3.1 If the Contractor shall abandon the WWTP Facilities, the WWTP Facilities Sites the Reticulation Networks Facilities or any Reticulation Networks Site (in whole or part) the Council may (but is not obliged to) itself or through its agents or workmen enter upon such facility or site and take such steps as it shall reasonably consider necessary to:

- (a) protect and secure the facility or site to safeguard the same against accidental damage or from causing damage to other persons and property; and/or
- (b) carry out the Step in Operations in relation to such facilities or sites as the Council shall elect.

75.4 Step-in Costs

75.4.1 Other than where the Contractor's failure is due to Force Majeure Event, the failure by the Council to comply with its obligations under this Contract, any act or omission of a Separate Contractor or a suspension pursuant to clause 35 (not due to default by the Contractor), the reasonable costs and expenses incurred by the Council in the exercise of the Council's Operations Step-in Rights shall be a debt due to the Council by the Contractor and (without limiting the Council's further rights and remedies under this Contract or at law in any way) may be deducted from payments due to the Contractor by the Council.

75.5 Council Step-in at Contractor risk

75.5.1 All action taken by the Council in connection with the exercise of the Council's Operations Step-in Rights due to the Contractor's failure to provide all or a material part of the Operations (provided that such action has been taken in good faith and was not wilful or reckless or unlawful) under clause 75 shall be at the risk of the Contractor in every respect even if (other than where the Contractor advised against the particular action) the Council is negligent. The Contractor shall be liable for all omissions or the failure to carry out all or any part of the Step in Operations by the Council in the exercise of the Council's Operations Step-in Rights (except where the omission or failure constitutes bad faith, was reckless, wilful or unlawful or where the Contractor advised the Council against the particular omission or failure).

- 75.6 Suspension of Monthly Service Payments
- 75.6.1 The Monthly Service Payments and the Gravity Mains Renewals Payments payable during any period of Contractor abandonment or failure to carry out the Step in Operations (in whole or part) shall abate on a fair and reasonable basis reflecting the value of the Step in Operations services the Contractor failed to provide whether or not the Council shall have exercised the Council's Operations Step-in Rights.
- 75.7 Council Operations Step-out
- 75.7.1 The Council:
- (a) may at any time after it has exercised the Council's Operations Step-in Rights; and
 - (b) promptly after the reasons for exercising the Council's Operations Step-in Rights have been remedied or cease to exist to the satisfaction of the Council (acting reasonably) and provided it is established to the reasonable satisfaction of the Council that the Contractor is willing and able to resume the carrying out of the applicable Step in Operations,
- provide written notification to the Contractor of the Council's Operations Step-out Date, which must be not less than 10 Working Days and not more than 30 Working Days (unless agreed otherwise by the Contractor, acting reasonably) after the date the Council's written notification is given to the Contractor.
- 75.7.2 On the Council's Operations Step-out Date:
- (a) the Council shall relinquish the exercise of the Council's Operations Step-in Rights commenced under clause 75.1.1 and any WWTP Facilities Site or Networks Site(s) entered into under clause 75.3.1 to the Contractor;
 - (b) the Contractor's rights and obligations which were suspended under clause 75.2.1 shall immediately recommence; and
 - (c) the Council will give reasonable assistance to the Contractor to ensure the transition of the suspended Step in Operations back to the Contractor is completed as smoothly as is practicable.
- 76. COUNCIL'S MAJOR SUBCONTRACTOR STEP-IN RIGHTS**
- 76.1 Exercise of Major Subcontractor Step-in Rights
- 76.1.1 The Council's Major Subcontractor Step-in Rights are the step-in rights described in any Major Subcontractor Direct Deed.
- 76.1.2 The Council may exercise the Council's Major Subcontractor Step-in Rights at any time where:
- (a) a Contractor Default Event has occurred and subsists as at the date of exercise of the Council's Major Subcontractor Step-in Rights;
 - (b) a Material Adverse Change in relation to the Contractor shall occur; or
 - (c) the Contractor abandons or repudiates this Contract.
- 76.1.3 The Council may exercise the Council's Major Subcontractor Step-in Rights at any time and from time to time where the circumstances in clause 76.1.2 arise including after the termination of this Contract for any reason (except the expiry of the Term).
- 76.2 Council's costs re exercise of Major Subcontractor Step-in Rights
- 76.2.1 The reasonable costs and expenses incurred by the Council in the exercise of the Council's Major Subcontractor Step-in Rights shall be a debt due to the Council by the Contractor and (without limiting the Council's further rights and remedies under this Contract or at law in any way) may be deducted from payments due to the Contractor by the Council.

- 76.3 Notice
- 76.3.1 The Council must provide written notification to the Contractor before each exercise of the Council's Major Subcontractor Step-in Rights. Such written notification must include:
- (a) the date that it will exercise the Council's Major Subcontractor Step-in Rights;
 - (b) the part of the carrying out of the Operations that is the subject of the notice; and
 - (c) the reasons why the Council is exercising the Council's Major Subcontractor Step-in Rights.
- 76.4 Contractor power of attorney
- 76.4.1 The Contractor irrevocably:
- (a) appoints the Council and the Council's nominees from time to time, jointly and severally, as the Contractor's attorney with full power and authority to exercise all or any of the Council's Major Contractor Step-in Rights;
 - (b) agrees to ratify and confirm whatever action is taken by the Council and its nominees, provided that such action is reasonable and is not unlawful or negligent; and
 - (c) on request from the Council will execute a separate power of attorney in terms of this clause 76.4.
- 76.5 Suspension of Contractor's rights
- 76.5.1 The Contractor's rights and obligations under this Contract are suspended for the period that the Council is exercising its Council's Major Subcontractor Step-in Rights but only to the extent necessary to permit the Council to exercise those rights.
- 76.6 Contractor must cooperate
- 76.6.1 During such time the Council is exercising the Council's Major Subcontractor Step-in Rights the Contractor must:
- (a) do such things as the Council may require to assist the Council and the exercise of the Council's Major Subcontractor Step-in Rights (including facilitating ongoing access to any support or other services provided by employees, Subcontractors or third parties);
 - (b) not do anything by either act or omission that impedes or frustrates the Council in the exercise of the Council's Major Subcontractor Step-in Rights; and
 - (c) ensure that none of the Contractor's personnel, by either act or omission, impede or frustrate the Council in the exercise of the Council's Major Subcontractor Step-in Rights.
- 76.7 Council to keep Contractor informed
- 76.7.1 Where the Council has exercised and while the Council is exercising the Council's Major Subcontractor Step-in Rights, the Council shall keep the Contractor reasonably informed of the actions it proposes to take and to the extent known the likely duration of the exercise of the Council's Major Subcontractor Step-in Rights.
- 76.8 Council step out of Major Subcontractor Step-in Rights
- 76.8.1 The Council may step-out of the exercise of the Council's Major Subcontractor Step-in Rights. In the event that Council exercises its right to step-out, it shall do so in accordance with the applicable Major Subcontractor Direct Deed.
- 76.8.2 The Council shall provide written notification to the Contractor of the date on which it steps out of the exercise of the Council's Major Subcontractor Step-in Rights not less than 5 Working Days prior to the date on which the Council step out shall take effect.
- 76.8.3 On the date the Council step out takes effect:

- (a) the Contractor's rights and obligations that were suspended under clause 76.5.1 shall immediately recommence; and
- (b) the Council will give reasonable assistance to the Contractor to facilitate the orderly transition of such Operations as smoothly as is reasonably possible.

76.9 Council not liable

76.9.1 The Contractor acknowledges and agrees that the Council is not obliged to:

- (a) exercise all or any of the Council's Major Subcontractor Step-in Rights at any time;
- (b) remedy any Contractor Default Event or any other breach by the Contractor of this Contract; or
- (c) mitigate, remedy or minimise the effects of the event or circumstance that triggered the Council's exercise of the Council's Major Subcontractor Step In rights.

76.10 Release by Contractor

76.10.1 As between the Contractor and the Council, the Council shall not be liable in any way in connection with or arising from the exercise by the Council of the Council's Major Subcontractor Step-in Rights unless and to the extent it is proven that the Council has acted in breach of this Contract or the Major Subcontractor Direct Deed, unlawfully, wilfully, recklessly or negligently.

76.10.2 The Contractor shall be liable for all omissions or the failure to carry out all or any part of the Operations during the exercise of the Council's Major Subcontractor Step-in Rights and without limiting its liability under this clause, the Contractor shall be liable for all Environmental Liabilities that may arise or be incurred during any such period unless and to the extent it is proven that the Council has acted in breach of this Contract or the Major Subcontractor Direct Deed, unlawfully, wilfully, recklessly or negligently.

76.10.3 This clause 76.10 shall not be construed as excluding or restricting any rights the Contractor shall have against any Subcontractor.

PART G - HANDOVER

77. CESSATION OF OPERATIONS

77.1 Cessation of Operations

77.1.1 The Contractor will cease the carrying out of the Operations as at 08:00 hours on the Expiry Date.

78. HANDOVER AT EXPIRY DATE

78.1 Contractor Handover Obligations

78.1.1 The Contractor shall hand over the WWTP Facilities and the Operation of the Reticulation Networks to the Council in accordance with the requirements of these Contract Conditions and Schedule 16 – Operations, Maintenance and Renewals Requirements and with all Handover Obligations completed upon the Expiry Date.

78.1.2 The Handover Obligations are:

- (a) the Condition Assessment Obligations;
- (b) the Expiry Date Obligations;
- (c) the further obligations of the Contractor to be fulfilled prior to or on the handing over of the WWTP Facilities and the Reticulation Networks to the Council as set out in Part G - Handover and Section 13 of Schedule 16 – Operations, Maintenance and Renewals Requirements; and
- (d) the remedying by the Contractor of all Late Arising Default Events;
- (e) the remedying of any other material default by the Contractor in the performance of its obligations under the Contract Documents of which written notice has been given by the Administrator or the Council.

78.1.3 The Condition Assessment Obligations are the Contractor's obligations relating to the condition of the Reticulation Networks and the WWTP Facilities on Contract expiry in accordance with the Contract Documents as identified pursuant to the Condition Assessment Regime.

78.1.4 The Expiry Date Obligations are the Handover Obligations that are to be completed by the Contractor on the Expiry Date (or earlier termination of the Contract) as set out in the Contract Documents other than the Condition Assessment Obligations.

79. HANDOVER PRINCIPLES

79.1 Handover principles

79.1.1 The principles governing the Handover of the Reticulation Networks and the WWTP Facilities to the Council are as follows:

- (a) The Reticulation Networks and the WWTP Facilities are to be handed over to the Council as at the Expiry Date irrespective of whether all Handover Obligations have been completed or not.
- (b) Outstanding Handover Obligations as at the Expiry Date remain obligations of the Contractor.
- (c) Council will have the right to complete outstanding Handover Obligations as at the expiry of a prescribed remediation period, at the Contractor's cost.
- (d) The Handover Period is the period commencing 18 months prior to the Expiry Date and ending on the Expiry Date.
- (e) During the Handover Period the parties will liaise and collaborate to enable:

- (i) the Administrator to assess the condition of the Reticulation Networks and the WWTP Facilities and the extent to which the Condition Assessment Obligations remain to be completed by the Contractor;
- (ii) the Contractor to assess the work required to complete the Condition Assessment Obligations; and
- (iii) the parties to have clarity as to the way in which the Expiry Date Obligations will be fulfilled

to the intent that Handover can be achieved with all Handover Obligations completed on the Expiry Date in an orderly fashion and on a no surprises basis.

80. CONDITION ASSESSMENT REGIME

80.1 Condition Assessment Regime objective

80.1.1 The objective of the Condition Assessment Regime is to provide certainty to the parties during the Handover Period as to the progressive completion by the Contractor of the Condition Assessment Obligations.

80.1.2 The issue by the Administrator of an Administrator's Interim Condition Assessment Certificate signifies that as at the date that certificate is issued the Contractor has completed all Condition Assessment Obligations other than minor matters and material matters arising or ascertained after the effective date of the certificate.

80.1.3 The issue by the Administrator of the Administrator's Final Condition Assessment Certificate signifies that the Administrator has accepted that the Contractor has completed all Condition Assessment Obligations.

80.1.4 The Handover principles set out in clause 79.1.1 are to be read subject to the following provisions setting out the specifics of the Condition Assessment Regime.

80.2 Pre-Handover Condition Assessments

80.2.1 The parties will jointly commission (and equally fund) the Pre-Handover Condition Assessments as set out in clause 13.3 of Schedule 16 – Operations, Maintenance and Renewals Requirements.

80.2.2 If the parties cannot agree as to the person to be appointed to carry out the Pre-Handover Condition Assessments or the scope of the Pre-Handover Condition Assessments such matters shall be referred to an Independent Expert for determination as set out in clause 13.3.4 of Schedule 16 – Operations, Maintenance and Renewals Requirements.

80.2.3 The Administrator may, either him or her self or through others, at the Council's cost, carry out such additional inspections and audits as the Council shall elect.

80.3 Eighteen Month Audit

80.3.1 The Contractor and the Administrator will together carry out an audit of the WWTP Facilities and the Reticulation Networks (Eighteen Month Audit) intended to be completed 18 months prior to the Expiry Date to identify work required to be carried out by the Contractor to comply with the asset condition transfer requirements set out in the Contract Documents.

80.3.2 The Eighteen Month Audit shall be informed by the Contractor's condition assessment information, the information derived from the Pre-Handover Condition Assessments and all other relevant information held by each of the parties.

80.3.3 The Contractor shall, at the Contractor's cost, carry out all work required to complete the Condition Assessment Obligations identified by the Eighteen Month Audit (being Condition Assessment Obligations) not later than 7 months prior to the Expiry Date.

- 80.4 Contractor's Condition Assessment Obligations Bond
- 80.4.1 The Administrator shall assess the value of the work required to be carried out by the Contractor to complete the Condition Assessment Obligations as identified by the Eighteen Month Audit. The Contractor shall, promptly following receipt of written notification from the Administrator, provide a Contractor's Condition Assessment Obligations Bond for the amount specified by the Administrator in the written notification.
- 80.4.2 The amount of the Contractor's Condition Assessment Obligations Bond as specified by the Administrator shall be not greater than the value of the Condition Assessment Obligations as identified by the Administrator under clause 80.4.1 plus 10%.
- 80.4.3 The Contractor's Asset Condition Obligations Bond shall be in the form (or substantially in accordance with the form) set out in Schedule 8 – Bond Form.
- 80.4.4 The Contractor's Asset Condition Obligations Bond shall be released in accordance with clause 81.6.
- 80.5 Six Month Audit
- 80.5.1 The Contractor will provide a Contractor's Interim Condition Assessment Obligations Completion Certificate certifying that the Condition Assessment Obligations identified by the Eighteen Month Audit have been completed not later than 7 months prior to the Expiry Date.
- 80.5.2 The Contractor and the Administrator will together carry out a further audit and inspection of the WWTP Facilities and the Reticulation Networks (Six Month Audit) 6 months prior to the Expiry Date to:
- (a) ascertain whether or not the work required to be carried out by the Contractor to complete the Condition Assessment Obligations identified by the Eighteen Month Audit has been satisfactorily completed; and
 - (b) identify further work required to be carried out by the Contractor to comply with the asset condition transfer requirements set out in the Contract Documents (such work being further Condition Assessment Obligations) that could not have been reasonably ascertained by the Eighteen Month Audit or are Late Arising Default Event items.
- 80.5.3 Following the Six Month Audit the Administrator will, within 10 Working Days of the completion of the audit, by written notice to the Contractor and the Council, either:
- (a) issue an Administrator's approval of the Contractor's Interim Condition Assessment Obligations Completion Certificate; or
 - (b) reject the Contractor's Interim Condition Assessment Obligations Completion Certificate giving details and reasons why, in the opinion of the Administrator it is considered that the Contractor has not completed all of the Condition Assessment Obligations identified by the Eighteen Month Audit and identifying all further Condition Assessment Obligations required to be completed by the Contractor.
- 80.6 Audit costs
- 80.6.1 Each party will bear its own costs incurred in undertaking the Eighteen Month Audit and the Six Month Audit.
- 80.7 Completion of Condition Assessment Obligations
- 80.7.1 The Contractor will provide the Contractor's Final Condition Assessment Obligations Completion Certificate certifying that the Condition Assessment Obligations requiring completion as identified in the Six Month Audit have been completed not later than one month prior to the Expiry Date.
- 80.7.2 The Contractor and the Administrator will, within 5 Working Days of the receipt of the Contractor's Final Condition Assessment Obligations Completion Certificate, together carry out a further audit and inspection of the WWTP Facilities and the Reticulation Networks, to confirm whether the Condition Assessment Obligations identified under the Six Month Audit have been satisfactorily completed.

- 80.7.3 Following the completion of the Final Condition Assessment Obligations audit under clause 80.7.2 the Administrator shall by written notice to the Contractor and the Council, either:
- (a) issue the Administrator's Final Condition Assessment Obligations Completion Certificate to the Contractor approving the Contractor's Final Condition Assessment Obligations Completion Certificate and confirming the completion of all Condition Assessment Obligations; or
 - (b) where the Contractor has completed all Condition Assessment Obligations other than minor or inconsequential items and/or Late Arising Default Events items pertaining to the completion of the Condition Assessment Obligations, issue an Administrator's Interim Condition Assessment Obligations Completion Certificate to the Contractor recording:
 - (i) all Condition Assessment Obligations items which remain outstanding and indicating the date by which such items are to be completed by the Contractor; and
 - (ii) all known Late Arising Default Events items pertaining to the completion of the Condition Assessment Obligations which remain outstanding;
- or
- (c) reject the Contractor's Final Condition Assessment Obligations Completion Certificate giving details and reasons why such rejection is made, in which case the Contractor shall complete the Condition Assessment Obligations that remain outstanding and when the Contractor considers such obligations have been completed, issue a further Contractor's Final Condition Assessment Obligations Completion Certificate pursuant to clause 80.7.1.

80.8 Rejection of Contractor's Final Condition Assessment Obligations Completion Certificate

- 80.8.1 The Administrator may only reject the final Contractor's Condition Assessment Obligations Completion Certificate issued under clause 80.7.3(c) where the outstanding items have been identified as part of the Six Month Audit as being a Condition Assessment Obligations requiring completion by the Contractor, including that they have been advised as such in writing, by the Administrator to the Contractor and the Council, pursuant to clause 80.5.3(b), and the items (other than minor or inconsequential items and/or Late Arising Default Event items pertaining to completion of the Handover Obligations) have not been satisfactorily completed by the Contractor.

81. **HANDOVER OBLIGATIONS COMPLETION AND CONTRACT CLOSE-OUT**

81.1 Administrator's Expiry Transfer Certificates

- 81.1.1 On the Expiry Date and following the completion of the Handover Obligations by the Contractor the Administrator shall by written notice to the Contractor and the Council, either:
- (a) issue the Administrator's Final Expiry Transfer Certificate to the Contractor confirming the completion of all Handover Obligations; or
 - (b) where the Contractor has not completed all Handover Obligations issue an Administrator's Interim Expiry Transfer Certificate to the Contractor in accordance with clause 81.2.1.

81.2 Administrator's Interim Expiry Transfer Certificate

- 81.2.1 An Administrator's Interim Expiry Transfer Certificate shall record all Handover Obligations items which remain outstanding (including (without limitation) all minor or inconsequential items and Late Arising Default Events) and indicate the date by which such items are to be completed by the Contractor.

81.3 Follow up of Administrator's Interim Expiry Transfer Certificate

- 81.3.1 The Contractor shall promptly complete all outstanding items recorded in an Administrator's Interim Expiry Transfer Certificate and in any event will complete all such items by the Handover Defects Completion Date.

- 81.3.2 The Contractor shall have a right of access to the WWTP Facilities Sites, the WWTP Facilities and the Reticulation Networks for the purpose of completing all Administrator's Interim Expiry Transfer Certificate outstanding items.
- 81.3.3 The Contractor shall provide written notification to the Administrator when it has completed all items recorded in the Administrator's Interim Expiry Transfer Certificate.
- 81.3.4 The Administrator shall assess the completion by the Contractor of the items recorded in the Administrator's Interim Expiry Transfer Certificate within 5 Working Days of notification by the Contractor of completion of all such items; and either:
- (a) if the Contractor has completed all outstanding items recorded in the Administrator's Interim Expiry Transfer Certificate issue an Administrator's Final Expiry Transfer Certificate; or
 - (b) where the Contractor has not completed all items recorded in that Administrator's Interim Expiry Transfer Certificate provide written notification to the Contractor and the Council, giving details and reasons why, in the opinion of the Administrator, it is considered that the Contractor has not completed all such items.
- 81.4 Completion of outstanding Handover Obligations by Council
- 81.4.1 Should the Contractor fail to complete all outstanding items recorded in the Administrator's Interim Expiry Transfer Certificate by the Handover Defects Completion Date the Council may, at the cost of the Contractor, carry out the completion of such outstanding items either itself or through others.
- 81.5 Issue of Administrator's Final Expiry Transfer Certificate
- 81.5.1 Where the Administrator's Interim Expiry Transfer Certificate records outstanding Handover Obligations to be completed by the Contractor, the Administrator shall issue the Administrator's Final Expiry Transfer Certificate on the completion of all such items either by the Contractor pursuant to clause 81.3.1 or by the Council pursuant to clause 81.4.1.
- 81.5.2 On the issue by the Administrator of the Administrator's Final Expiry Transfer Certificate this Contract shall be at an end and neither party shall have a claim against the other, other than in relation to any matter that shall have arisen prior to such date.
- 81.6 Release of Contractor's Bonds, Direct Deeds and guarantees
- 81.6.1 Subject to clause 81.6.2, the Council shall release the Contractor's Operations Bond, the Contractor's Condition Assessment Obligations Bond (if any), the Major Subcontractor Direct Deeds, the Continuity Deeds and the Parent Company Guarantee within 10 Working Days of the issue by the Administrator of the Administrator's Final Expiry Transfer Certificate provided that the Contractor shall have paid, in cleared funds, all moneys payable by the Contractor to the Council pursuant to the Contract.
- 81.6.2 Where, following the issue by the Administrator of the Administrator's Final Expiry Transfer Certificate and payment by the Contractor to the Council, in cleared funds, of all non disputed moneys payable by the Contractor pursuant to the Contract, all outstanding Disputes under the Contract have not been resolved:
- (a) the Council shall release the Contractor's Operations Bond and the Contractor's Condition Assessment Obligations Bond (if any) pursuant to (and in accordance with) clause 81.6.1 on receipt of a duly executed and valid replacement bond, to be provided by a bond provider acceptable to the Council in the form (or substantially in accordance with the form) set out in Schedule 8 – Bond Form for an amount that is not less than such amount determined by the Administrator (in the Administrator's quasi-judicial capacity) as being sufficient to satisfy the Contractor's potential liability in relation to such unresolved Disputes;
 - (b) the Council shall release any Major Subcontractor Direct Deeds and Continuity Deeds which are not relevant to the unresolved Disputes, such release to be pursuant to (and in accordance with) clause 81.6.1; and

- (c) the Council shall release the replacement bond (if any) provided by the Contractor pursuant to clause 81.6.2(a), any remaining Major Subcontractor Direct Deeds and Continuity Deeds and the Parent Company Guarantee on the resolution of all outstanding Disputes and the payment, in cleared funds, of all moneys payable by the Contractor pursuant to the Contract.

82. HANDOVER INDEPENDENT EXPERT

82.1 Appointment of Handover Independent Expert

82.1.1 The Handover Independent Expert shall be appointed by agreement between the parties at the commencement of the Handover Period. To simplify the process Council will nominate a suitable person or persons for consideration one month prior to the commencement of the Handover Period.

82.1.2 If agreement as to the Handover Independent Expert cannot be reached within a reasonable time (to be not later than 10 Working Days after Council's nomination is made under clause 82.1.1) then the President of Engineering New Zealand shall be requested to appoint the Handover Independent Expert who shall be suitably qualified and experienced in relation to the technical issues that may arise in connection with the Condition Assessment Regime.

82.1.3 Clauses 82.1.1 and 82.1.2 shall apply to the appointment of any replacement Handover Independent Expert.

82.1.4 Both parties shall enter into the Independent Expert Agreement as set out in Schedule 13 – Independent Expert Agreement.

82.2 Condition Assessment Disputes

82.2.1 All disputes between the parties as to the identification and completion of Condition Assessment Obligations or matters required to be completed by the Contractor to complete the Condition Assessment Obligations (a Condition Assessment Dispute) shall be subject to the dispute resolution procedure procedures set out in clauses 14.1 to 14.4 (inclusive), as though the Condition Assessment Dispute was a "Dispute".

82.2.2 If the Condition Assessment Dispute cannot be resolved pursuant to clauses 14.1 to 14.4 the Condition Assessment Dispute shall be referred to the Handover Independent Expert in accordance with the Independent Expert Procedures which provisions shall apply in substitution for the procedures set out in clauses 14.5 to 14.8 (inclusive).

82.2.3 For the purposes of clarity clauses 14.9 and 14.10 shall apply to Condition Assessment Disputes.

83. HANDOVER REPORT

83.1 Contractor to provide Handover Report

83.1.1 On the Expiry Date or earlier termination of this Contract for any reason the Contractor shall provide a Handover Report to Council. The report shall contain all the Handover Obligations details as set out in Schedule 16 – Operations, Maintenance and Renewals Requirements and any other information reasonably required by Council as directed by the Council Representative.

83.1.2 The Contractor shall bear the cost of the Handover Report if termination arises as a result of default by the Contractor or on expiry of the Contract. The Council shall bear the cost of the Handover Report if earlier termination occurs as a result of default by Council or as a result of a Force Majeure Event.

84. TRANSFER OF WARRANTIES CONSENTS AND CONTRACTS

84.1 Transfer on Contract termination

84.1.1 On the Expiry Date or earlier termination of this Contract for any reason, the Contractor will transfer to the Council:

- (a) all Resource Consents, permits, licences, consents and authorisations obtained and held by the Contractor as at the date of termination relating to the Operations;
- (b) all then current supplier or manufacturer warranties or guarantees relating to any of the WWTP Facilities or Reticulation Network assets; and
- (c) such ongoing service or maintenance contracts relating to the Operations as shall be requested by the Administrator.

85. PROVISION OF PROJECT INFORMATION

85.1 Contractor to provide Project Information

85.1.1 On the Expiry Date or earlier termination of this Contract for any reason:

- (a) the Contractor shall immediately provide to the Council, in readily accessible digital format, such Project Information held by the Contractor and any other property or equipment of the Council's in the possession or control of the Contractor in relation to this Contract as the Council shall request;
- (b) the Contractor may retain a copy of the Project Information. Such data and information shall remain confidential and shall not be released to any third party without the written approval of the Council; and
- (c) if the Council asks, the Contractor shall also supply reasonable comment or explanation in connection with the Project Information that is reasonably required to continue with the carrying out of the Operations. Such comment or explanation shall be supplied within a reasonable time of the request. Other than when the Contract is terminated due to the default of the Contractor, the Contractor's reasonable costs and expenses in providing such comment or explanation shall be payable by the Council.

86. CO-OPERATION

86.1 Co-operation on termination

86.1.1 On expiry or earlier termination of this Contract for any reason, and in order to provide a seamless transition between the Contract and any replacement or subsequent contracts, the Contractor agrees to:

- (a) co-operate for a reasonable period with the Council or any incoming contractor engaged by the Council to provide all or part of the Operations; and
- (b) co-ordinate for such period as is reasonable with the Council or the incoming contractor in connection with the transfer of electronic data as is required (if any) from Contractor's system to the Council's system or the system of the incoming contractor prior to the termination date.

PART H – MISCELLANEOUS

87. NOVATION AND ASSIGNMENT

87.1 Novation by Council

87.1.1 Without limiting the application of any legislative provisions implementing a compulsory re-organisation or amalgamation of the Council, the Council may novate its rights and obligations under this Contract subject to the prior written approval of the Contractor as to the novatee's financial resources and capacity to perform the Council's obligations under the Contract only (which approval shall not be unreasonably withheld or delayed). Where a novation is to take place under this clause the Contractor will as soon as practicable, sign all reasonable novation documentation provided to it by the Council. The Council shall pay to the Contractor all reasonable costs and expenses (including legal costs and expenses on a solicitor client basis) reasonably incurred by the Contractor in connection with any novation under this clause.

87.2 Water Reform

87.2.1 In the event the novation of this Contract by the Council under clause 87.1.1 is specifically prevented by the application of any legislative provisions implementing a compulsory re-organisation or amalgamation of the Council's wastewater assets or operations and the Council is required to cancel this Contract pursuant to any such legislative provisions then the Council may terminate this Contract.

87.2.2 Prior to a termination pursuant this clause 87.2.1 the Council must consider whether specific amendments to the conditions of the Contract would allow the novation to occur. If this is the case the parties shall use reasonable endeavours to negotiate the specific amendments to the Contract required to enable the novation to occur.

87.2.3 If the parties cannot reach agreement on specific amendments to the Contract within one month then the Council may terminate this Contract.

87.2.4 In the event of a termination under this clause then:

- (a) the rights and obligations of the parties shall be as set out in clause 64.2 with the exception of clause 64.2.1(a)(iii); and
- (b) the Contractor will be entitled to a one off payment on termination of the lesser of 18 months (or the remaining term) loss of profits to compensate for future loss of profit from the Contract.

87.2.5 For the avoidance of doubt, termination of the Contract under this clause shall not be considered as a breach by either party.

87.3 Novation by the Contractor

87.3.1 The Contractor may novate this Contract to an Associated Person only with the prior written consent of the Council which may be withheld in the Council's sole discretion. The Council's consent to any novation under this clause may be subject to satisfaction of certain requirements and conditions, one of which may be that the Parent Company Guarantee and all Contractor Bonds and other Ancillary Documents provided under this Contract remains in full force and effect notwithstanding any novation of this Contract under this clause (or suitable replacement security is provided in favour of Council). The Contractor shall provide to the Council all information requested by the Council (acting reasonably), together with certificates and legal opinions to establish the legal effectiveness of the Parent Company Guarantee referred to above and any aspect of the proposed novatee. The Contractor shall pay to the Council all reasonable costs and expenses (including legal costs and expenses on a solicitor client basis) reasonably incurred by the Council in connection with any novation under this clause.

- 87.4 Assignment
- 87.4.1 Subject to clause 87.4.2, neither party shall assign their rights and obligations under this Contract without the prior written consent of the other party which consent may be given or withheld in that party's entire discretion.
- 87.4.2 The parties may assign their respective rights under this Contract together with the benefits of all applicable Ancillary Documents to an Associated Person.
- 87.4.3 An assignment of the rights of a party under this Contract shall not release such party from its obligations or liability under this Contract.
- 87.4.4 Any transfer of shares in the Contractor to a party who is not an Associated Person, shall be deemed to be an assignment of the rights and obligations of the Contractor for the purposes of this clause 87.4 and shall require the Council's consent under 87.4.1.

88. GENERAL

- 88.1 Council as a regulatory body
- 88.1.1 The Contractor acknowledges that in terms of its regulatory function as a territorial authority the Council is obliged to and shall act as an independent territorial authority and not as a party to this Contract. The Contractor expressly acknowledges that it shall have no right or claim against the Council in its capacity as party to this Contract as a result of any lawful action, decision or determination made by the Council in the performance of its regulatory function as a territorial authority.
- 88.1.2 A consent or approval of the Council acting in its regulatory capacity shall not be construed as a consent or approval of the Council as a party to this Contract.
- 88.1.3 For the avoidance of doubt, the parties acknowledge that the Council gives no warranty, nor does it make any representation (other than the express warranties and representations set out in this Contract) as to the likelihood of obtaining resource consents, building consents, regulatory or other approvals and the like, as are required to complete the various matters contemplated under this Contract.
- 88.2 Publicity and publication
- 88.2.1 The Contractor shall not release public or media statements or publish material related to the carrying out of the Operations or this Contract without the prior written approval of the Council.
- 88.2.2 The Contractor shall not respond to media requests for information or comment in relation to the carrying out of the Operations or in any way relating to this Contract. All such requests shall be referred to the Council Representative for reply.
- 88.2.3 The parties agree that the Council shall be entitled to make the initial announcement as to the existence of this Contract. The Contractor shall not make any announcement or otherwise make public the existence of this Contract prior to the Council's announcement. The Council shall issue the initial statement in conjunction and with the agreement of the Contractor provided that the Council shall have the final discretion as to the wording of any such announcement.
- 88.2.4 Neither party shall make any announcement or otherwise make public or release any publicity or make any statement in connection with this Contract without first notifying the other. The parties agree they shall endeavour to make announcements relating to this Contract in conjunction and with the agreement of the other provided that this clause shall not restrict the right of the Council to discuss any aspect of this Contract in open Council meetings and have such deliberations reported in the media or to make statements in relation to the Contract as in the Council's opinion are necessary or desirable in the performance of the Council's role as a local authority or in the interests of full public debate of all issues relevant to a local authority, its community and its ratepayers.

- 88.3 Advertising
- 88.3.1 The Contractor shall not display any sign directly or indirectly indicating its involvement in the carrying out the Operations without the prior written approval of Council.
- 88.3.2 The Contractor shall not at any time, make any statement or claim that might be construed as an endorsement by the Council of its carrying out the Operations.
- 88.4 Confidentiality
- 88.4.1 The parties agree that the Confidential Information shall be treated as confidential.
- 88.4.2 Subject to clause 88.5, neither party shall, during or after the Term, disclose Confidential Information to any third party other than as is required to:
- (a) fulfil the party's obligations under this Contract;
 - (b) to obtain any consent or approval;
 - (c) for the Contractor, to the Guarantor and any banker, financier or advisor or to any other party the Contractor may need to consult with in order to carry out the Operations;
 - (d) for the Council, to the Regional Council or to any other Authority the Council may need to advise or consult with in its capacity as asset owner and otherwise connection with or arising out of this Contract.
- 88.4.3 The Council's obligations under this clause 88.4 shall not be construed as restricting the right of the Council to discuss any aspect of this Contract in open Council meetings and have such deliberations reported in the media or to make statements in relation to the Contract as in the Council's opinion are necessary or desirable in the performance of the Council's role as a local authority or in the interests of full public debate of all issues relevant to a local authority, its community and its ratepayers.
- 88.4.4 The Contractor will not, and shall ensure its personnel and subcontractors do not, view or access any Council electronic or hard copy files or information other than is required for the carrying out of the Operations AND where access has been authorised by the Council.
- 88.5 Official Information Legislation
- 88.5.1 The parties acknowledge that Council is subject to the Local Government Official Information and Meetings Act 1987 and that under that Act the Council may be required to release information about this Contract.
- 88.5.2 In addition, the Contractor agrees to comply with the requirements of the Local Government Official Information and Meetings Act 1987 in relation to all information relating to the Council held by the Contractor or its subcontractors.
- 88.5.3 The Contractor will only release information to a third party under the Local Government Official Information and Meetings Act 1987 through the Council unless compelled by a competent authority, in which case it will immediately advise the Council as to the information released.
- 88.6 No partnership
- 88.6.1 The relationship created by this Contract is one of independent contractor for the provision of Operations services. Nothing in this Contract shall be deemed or construed as creating a contract of employment or a partnership or other joint or co-operative venture between the parties.
- 88.6.2 Nothing in this Contract constitutes the parties as partners or as agents for each other. No party has any authority to bind the other or act on its behalf except to the extent expressly provided for in this Contract or authorised in writing.
- 88.7 Amendment
- 88.7.1 This Contract cannot be amended, modified or varied or supplemented except in writing signed by duly authorised representatives of the parties.

- 88.8 Severance
- 88.8.1 The illegality, invalidity or unenforceability of any provision in this Contract will not affect the legality, validity or enforceability of any other provisions.
- 88.9 Waiver
- 88.9.1 No right under this Contract shall be deemed to be waived except by notice in writing signed by the party providing the waiver.
- 88.9.2 A waiver by a party will not prejudice its rights in respect of any subsequent breach of this Contract by the other party.
- 88.9.3 The failure by a party to enforce any clause of this Contract, or any forbearance, delay or indulgence granted by a party will not be construed as a waiver of that party's rights under this Contract.
- 88.10 Governing law and jurisdiction
- 88.10.1 This Contract will be governed by and construed according to the law of New Zealand. The parties (subject to and without limitation or prejudice to clause 14) hereby agree to submit to the non-exclusive jurisdiction of the Courts of New Zealand.
- 88.11 Costs
- 88.11.1 Each party shall bear its own costs and expenses incurred in the preparation and execution of this Contract.
- 88.12 Notices
- 88.12.1 All notices, documents, requests, demands or other communication to be given for the purposes of this Contract must be in writing and may be served personally, sent by email or other electronic method or sent by registered mail to the address for notice of each party as set out in Schedule 1 – Reference Schedule or such other address that each party may notify in writing from time to time.
- 88.12.2 Such notice given:
- (a) in person is deemed served upon delivery;
 - (b) by registered mail is deemed to be served three Working Days after posting;
 - (c) by email or other electronic method is deemed to be served at the time the communication enters the recipient's system.
- 88.12.3 Any such notice which has been served on a non-Working Day or after 5:00pm on a Working Day is deemed served on the first Working Day after that day.
- 88.12.4 For the purposes of clause 9(3)(a) of the Construction Contract Regulations 2003 and where applicable under this Contract each party's email system shall be the designated information system for that party and the time any email communication enters the recipient's system shall be the time the claim or schedule is served.
- 88.13 Entire Agreement
- 88.13.1 This Contract represents the entire agreement between the parties. No party shall be bound by any prior warranty or representation unless included in this Contract.
- 88.14 Counterparts
- 88.14.1 This Contract may be executed in any number of counterparts. All counterparts will constitute one instrument.

- 88.15 Contra proferentem
- 88.15.1 This Contract shall not be construed against a party on the basis the party was responsible for the preparation of the Contract.
- 88.16 Survival of obligations
- 88.16.1 Except as otherwise expressly provided in this Contract or as already taken into account in the calculation of any payment on termination under this Contract;
- (a) expiry or termination of this Contract shall be without prejudice to any accrued rights or obligations under this Contract as at the date of termination; and
 - (b) expiry or termination of this Contract shall not affect the continuing rights and obligations of the Contractor and the Council under:
 - (i) clause 8.4.1 (Liability Limitation);
 - (ii) clause 14 (Dispute resolution);
 - (iii) clause 15 (Default and Termination);
 - (iv) clause 30 (Intellectual Property and Project Information);
 - (v) clause 40.1 (as to keeping records);
 - (vi) clause 88.4 (Confidentiality);
 - (vii) clause 88.10 (Governing law and jurisdiction);
 - (viii) this clause 88.16;
 - (ix) Part G - Handover;
 - (x) all provisions relating to the remedying of defects that have been identified at the time of expiry or termination but not yet remediated by the Contractor;
 - (xi) all provisions relating to the payment by either party to the other of Losses or costs and expenses or 'Claims, Losses and Expenses' incurred by one party and arising from or in connection with the default of the other party; and
 - (xii) any other provision in this contract which either explicitly or by implication is intended to have application following the expiry or termination of this Contract.
- 88.17 Good faith
- 88.17.1 Nothing in this Contract is to be construed as imposing any general duty of good faith on the Council or the Contractor in relation to or arising out of the Project, other than to comply with the obligations (if any) expressly stated to be assumed by the Council or the Contractor under this Contract on a good faith basis.

PART I – DEFINITIONS AND INTERPRETATION

89. DEFINITIONS AND INTERPRETATION

89.1 Definitions

89.1.1 In this Contract unless the context otherwise requires the following definitions apply:

Administrator means the person appointed by the Council to act as Administrator for the purposes of the Contract under clause 33.1.

Administrator's Final Condition Assessment Obligations Completion Certificate means the Administrator's Final Condition Assessment Obligations Completion Certificate issued to the Contractor by the Administrator under clause 80.7.3(a).

Administrator's Final Expiry Transfer Certificate means the Administrator's Final Expiry Transfer Certificate issued to the Contractor by the Administrator under clause 81.1.1(a) or 81.5.1.

Administrator's Interim Expiry Transfer Certificate means an Administrator's Interim Expiry Transfer Certificate issued to the Contractor by the Administrator under clause 81.1.1(b).

Administrator's Representative means any representative of the Administrator appointed from time to time by the Administrator under clause 33.3.

Agreement means that part of this Contract headed 'Agreement'.

Ancillary Documents means the Ancillary Documents set out in clause 2.2 of the Agreement.

Ancillary Payment has the meaning set out in Schedule 2 – Payments.

Applicable Law Change has the meaning set out in clause 36.1.

Arms Length Terms includes (without limiting the ordinary meaning of that term) relationships, dealings and transactions that:

- (a) do not include elements the parties and their respective positions would usually omit; or
- (b) do not omit elements that party's and their respective positions would usually include, if the parties are:
- (c) connected or related only by the transaction or dealing in question;
- (d) acting independently; and
- (e) each acting in their own respective best interests.

Assistant Council Representative means any person(s) from time to time appointed by the Council Representative and notified to the Contractor under clause 6.3.1.

Associated Person means in relation to the Contractor or the Council:

- (a) a subsidiary of either the Contractor or the Council respectively;
- (b) in the case of the Council includes a council-controlled organisation or a council-controlled trading organisation as those terms are defined in the Local Government Act 2002 or any similar or successor entity and a subsidiary of a council-controlled organisation or a council-controlled trading organisation or any person in whom the ownership and/or the obligations to administer or manage the WWTP Facilities and the Reticulation Networks by statute or pursuant to any local government 3Waters re-organisation; or
- (c) in the case of the Contractor a company having the same or substantially the same shareholders as the Contractor.

Authority means:

- (a) any national or local government department, body or instrumentality; or

- (b) any other public authority or statutory body which has jurisdiction over the Reticulation Networks or the Operations.

CCTV Variation means the contract variation dated 18 July 2019 and entered into by the Council and Fulton Hogan Limited pursuant to the Rotomā Sewerage Reticulation Construction (17/039) made between the Council and Fulton Hogan Limited providing for the provision by Fulton Hogan Limited of certain Rotorua Network Reticulation CCTV services.

Claim includes any claim, proceedings, action, demand or suit (including by way of contribution or indemnity) at law or in equity including for payment of money (including damages) whether in tort for negligence or otherwise, including negligent misrepresentation or for strict liability or for restitution.

Clean-up Notice means a notice or direction given under Law that requires the person to whom it is issued to take action to remediate Contamination including:

- (a) enforcement order under section 314 of the Resource Management Act 1991; and
(b) an abatement notice under section 322 of the Resource Management Act 1991,

but only to the extent that it requires the person to whom it is issued to do anything to remedy that Contamination.

Commencement Date means the Commencement Date set out in Schedule 1 – Reference Schedule.

Condition Assessment Dispute has the meaning set out in clause 82.2.1.

Condition Assessment Obligations has the meaning set out in clause 78.1.3.

Condition Assessment Obligations Bond has the meaning set out in clause 80.4.

Condition Assessment Regime means the condition assessment regime described in clause 80.

Confidential Information means any information relating to the Council, the Contractor, the Operations, this Contract or any client or customer of the Council or member of the public that comes into the possession of the other party pursuant to this Contract other than:

- (a) has been published or otherwise has become part of the public domain other than through acts or omissions of the receiving party; or
(b) has been furnished to the recipient by persons other than the parties (which term includes persons employed by or acting for the party) as a matter of legal right and without restriction on disclosure; or
(c) was already in the possession of the recipient without restriction or disclosure; or
(d) is required to be disclosed by any law or in relation to any proceedings or action before any Court, tribunal or other competent authority or body.

Contamination means the presence on, in, over or under the land (including by surface and groundwater) of a substance at a concentration above the concentration at which the substance is normally or naturally present on, in, over or under that land (including both surface and groundwater) or land or waters in the same locality, being a presence that presents a risk of harm to human health or any other feature of the environment. Contamination does not include any discharge into the environment permitted by any Resource Consent or Law.

Continuity Deed means a Continuity Deed entered into entered into by the Council, the Contractor, a Major Subcontractor and a Subcontractor pursuant to clause 29.4.1.

Contract and Contract Documents mean this Contract including the Agreement, Parts A to I inclusive and all appendices, attachments and schedules being part of and attached to this Contract or otherwise referred to as forming part of this Contract (whether attached to this Contract or not).

Contract Conditions means Parts A - I (inclusive) of the Contract.

Contractor Default Event has the meaning set out in clause 15.2.

Contractor Initial Conditions Precedent has the meaning set out in clause 5.1.1 of the Agreement.

Contractor Insurances means the Contractor Insurances set out in Schedule 3 – Insurances.

Contractor Parent Companies means the shareholders of the Contractor as identified in the Schedule 14 – Schedule of Information.

Contractor Representative means the person as nominated by the Contractor as the Contractor Representative from time to time in accordance with clause 6.1.1.

Contractor Unpaid Amount has the meaning set out in clause 64.1.1(k).

Contractor's Bonds means the Contractor's Operations Bond and the Contractor's Condition Assessment Obligations Bond.

Contractor's Condition Assessment Obligations Bond means the Contractor's Condition Assessment Obligations Bond to be provided by the Contractor pursuant to clause 80.4.1.

Contractor's Final Condition Assessment Obligations Completion Certificate means the certificate to be issued by the Contractor pursuant to clause 80.7.1.

Contractor's Interim Condition Assessment Obligations Completion Certificate means the certificate to be issued by the Contractor pursuant to clause 80.5.1.

Contractor's Information means drawings, plans, specifications, samples, patterns, models, studies, reports, calculations, manuals, records and other information to be provided by the Contractor under this Contract.

Contractor's Proposal means the Contractor's proposal for carrying out the Operations as set out in the document entitled "The Contractor's Proposal relating to Wastewater Services Operations and Maintenance Contract (Contract No: 20/001)" dated 19 August 2020 (a pdf copy of which is held by each party). The parties acknowledge that the Contractor's Proposal is based on the original proposal submitted by the Contractor in its initial bid response but includes material modifications to reflect the Contractor's final proposal for the carrying out of the Operations pursuant to this Contract.

Contractor's Operations Bond means the Contractor's Operations Bond to be provided by the Contractor under clause 4.

Contractor's Retained Intellectual Property has the meaning set out in clause 30.2.1.

Council means the Rotorua District Council.

Council Default Event has the meaning set out in clause 15.3.

Council Insurances means the Council Insurances set out in Schedule 3 – Insurances.

Council Representative means the person nominated by the Council as the Council Representative from time to time in accordance with clause 6.2.1.

Council Resource Consents means the following Resource Consents and Designations obtained by the Council:

- (a) for the Rotomā/Rotoiti WWTP Facility, the Rotomā/Rotoiti WWTP Resource Consents as referred to in Appendix G of Schedule 16 – Operations, Maintenance and Renewals Requirements; and
- (b) for the Rotorua WWTP Facility and the Rotorua LTS, the Rotorua WWTP Facility Resource Consents as referred to in Appendix R of Schedule 16 – Operations, Maintenance and Renewals Requirements; and
- (c) for the Reticulation Networks the Resource Consents and designations referred to in Appendix R of Schedule 16 – Operations, Maintenance and Renewals Requirements.

Council's Intellectual Property has the meaning set out in clause 30.5.1.

Council's Major Subcontractor Step-in Rights has the meaning set out in clause 76.1.1.

Council's Operations Step-in Rights has the meaning set out in clause 75.1.1.

Council's Operations Step-out Date means the Council's Operations Step-out Date notified by the Council pursuant to clause 75.7.1.

Council's Requirements means the Council's requirements set out in Schedule 16 – Operations, Maintenance and Renewals Requirements and Schedule 15 – WWTP Technical Specifications.

Cure Proposal means for the purposes of clause 15.4.1(b) a proposal detailing how the party in default will cure the breach (or breaches) referred to in the applicable Default Notice.

Dayworks means work to be carried out as Dayworks under clause 70.1.5.

Deadline Date in relation to a Condition is the applicable date set out in the Agreement.

Default Notice means a notice issued in accordance with clause 15.4.

Defects Current Contracts has the meaning set out in clause 51.1.1 and a Defects Current Contract refers to any one of such contracts.

Designation means 'designation' as that term is defined in the Resource Management Act 1991.

Dispute has the meaning set out in clause 14.1.1.

Early Services Contract means the Wastewater Services Project Early Services Contract dated 2nd July 2019 and entered into by the Council and TRILITY Water PTY Ltd (and subsequently novated by TRILITY Water Pty Ltd to the Contractor) for the provision of certain work elements included within the scope of the services to be provided by the Contractor pursuant to this Contract. The Early Services Contract includes all variations of that contract entered into by the parties from time to time.

Eighteen Month Audit has the meaning set out in clause 80.3.1.

Environmental Liability means any liability (including strict liability), encumbrance, judgment, claim, obligation, penalty, fine, loss, cost or expense of any nature (including contingent) which is or could be imposed upon the Contractor, the Council or any other person as a result of a breach of an Environmental Obligation.

Environmental Obligation means any environmental obligation in relation to the occupation or use of land or the use of assets, development, pollution, waste disposal, Hazardous Material and conservation of natural or cultural resources, whether arising pursuant to any law or provision of any law (including, without limitation, the Resource Management Act 1991) or pursuant to any of the Council Resource Consents, or contract or arrangement with a governmental agency.

Escalation Index means the Escalation Index determined in accordance with Schedule 2 – Payments.

Execution Date Defects and Departures List has the meaning set out in clause 48.2.3.

Excepted Resource Consent Obligations means the Excepted Rotorua WWTP Resource Consent Obligations and the Excepted Rotomā/Rotoiti Resource Consent Obligations.

Excepted Rotomā/Rotoiti Resource Consent Obligations means the Excepted Rotomā/Rotoiti Resource Consent Obligations set out in Schedule 16 – Operations, Maintenance and Renewals Requirements.

Excepted Rotorua WWTP Resource Consent Obligations means the Excepted Rotorua WWTP Resource Consent Obligations as set out in Schedule 16 – Operations, Maintenance and Renewals Requirements.

Executive Review Group means the Executive Review Group constituted under clause 6.6.

Expiry Date means the Expiry Date set out in Schedule 1 – Reference Schedule, subject to clause 2.2.12.

Expiry Date Obligations has the meaning set out in clause 78.1.4.

Extension Date means an Extension Date as set out in clause 2.2.1.

Extension Term means an Extension Term as set out in clause 2.2.1.

Final Effluent means the liquid product of the treatment of Influent by the Contractor under this Contract and does not include Sludge.

Force Majeure Event has the meaning set out in clause 11.2.1.

GAAP means generally accepted accounting principles.

Good Industry Practice means that degree of skill, care, prudence and foresight and operating practice that would reasonably and ordinarily be expected of the skilled and competent supplier of services engaged in the same type of undertaking as that of the Contractor under the same or similar circumstances as those contemplated by this Contract.

Gravity Main means an underground pipe through which wastewater flows by gravity and used for transporting sewage from customers' premises to treatment facilities:

- (a) inclusive of Public Gravity Laterals (as defined in section 12.4 of Schedule 16 – Operations, Maintenance and Renewals Requirements) and their connections to the trunk gravity main; and
- (b) exclusive of rising mains, pressure sewer systems, privately owned infrastructure, manholes, valves, wet wells and other non-pipe network assets.

Gravity Mains Renewals Payments means the Gravity Mains Renewals Payments set out in Schedule 2 – Payments.

Gravity Mains Renewals Programme has the meaning ascribed to it in section 1.1.1 of Schedule 16 – Operations, Maintenance and Renewals Requirements.

GST means goods and services tax chargeable under the GST Act.

GST Act means the Goods and Services Tax Act 1985.

Guarantor means such person(s) as have guaranteed the performance of the obligations of and payment of monies by the Contractor under this Contract (whether named specifically or not) and includes the person(s) shown as such in Schedule 14 – Schedule of Information.

Handover means the transfer of the WWTP Facilities and the Operation of the Reticulation Networks to the Council at the expiry of this Contract.

Handover Defects Completion Date means the Handover Defects Completion Date set out in Schedule 1 – Reference Schedule.

Handover Independent Expert means the Independent Expert appointed for the purposes of the Condition Assessment Regime pursuant to clause 82.1.

Handover Obligations has the meaning set out in clause 78.1.2.

Handover Period means the 18 month Handover Period referred to in clause 79.1.1(d).

Handover Report means a Handover Report as referred to in clause 83.1.

Hazardous Material means any substance, material, chemical, pollutant or contaminant which is toxic, explosive, flammable, corrosive, carcinogenic, mutagenic, radioactive or otherwise hazardous in any manner whatever the presence of which requires investigation or remedy under any law or which is or becomes regulated by any law.

HSW Act means the Health and Safety at Work Act 2015.

Indemnity Provision has the meaning set out in clause 8.6.1(a).

Independent Expert means an Independent Expert appointed pursuant to clause 14.8.4.

Independent Expert Agreement means the Independent Expert agreement set out in Schedule 13 – Independent Expert Agreement.

Independent Expert Procedures means the Independent expert procedures set out in Schedule 12 – Independent Expert Procedures.

Influent means untreated or partially treated sewage and liquid waste delivered by way of the Reticulation Networks to the WWTP Facilities for treatment.

Insured Assets has the meaning set out in Schedule 3 – Insurances.

Intellectual Property means any methodologies, procedures, software, technical handbooks and information, data and factual information, drawings, plans, designs, specifications or copyright, patents, designs, trademarks (registered or unregistered) or other protectable intellectual property rights.

Intellectual Property Materials means any software, firmware, document methodology or process, documentation or other material whatsoever (including any reports, specification, plans, business rules all requirements, user manuals, user guides, operations manuals, training materials and instructions) in either or both human readable or computer readable form which wholly or partly embody or contain Intellectual Property.

Interim Expiry Transfer Certificate means the Interim Expiry Transfer Certificate (if any) issued by the Administrator pursuant to clause 81.

Key Performance Indicator or KPI means a Key Performance Indicator as set out in Schedule 16 – Operations, Maintenance and Renewals Requirements.

Key Personnel means the Key Personnel set out in Schedule 14 – Schedule of Information.

Key Subcontracts has the meaning set out in clause 29.1.1.

Late Arising Default Event means a material Contractor Default Event pursuant to the Contract that has either arisen or become ascertainable subsequent to the Eighteen Month Audit or the Six Month Audit (as applicable), and which:

- (a) in the case of having become ascertainable, could not have been reasonably ascertained prior to the Eighteen Month Audit or the Six Month Audit (as applicable); and
- (b) has been notified as such in writing, by the Administrator to the Contractor and the Council, within 20 Working Days of having arisen or becoming reasonably ascertainable.

Latent Defect means any material defect of design, materials, equipment or workmanship that has given rise to or may with the passage of time reasonably be expected to cause failure or malfunction resulting in the Contractor failing to meet applicable KPIs or incurring greater costs or expenses or being in breach of a performance obligation under this Contract but excludes:

- (a) a defect of design, materials, equipment or workmanship to the extent they arise due to fair wear and tear;
- (b) a defect of design, materials, equipment or workmanship known to the Contractor as at the Reference Date;
- (c) any matter where the Contractor ought to have had as at the Reference Date, knowledge of such defect exercising Good Industry Practice or where the same was reasonably discoverable prior to the Reference Date (except where part or parts of the assets subject to Latent Defect were not accessible by an experienced contractor due to requiring a confined space entry or a working at heights requirement, being buried, under water, part of the operating facility that could not be closed down for inspection, or not otherwise physically accessible); or
- (d) a defect of design, materials, equipment or workmanship in work carried out or supplied by the Contractor.

Laws means those principles of New Zealand law established by the courts, statutes, regulations, ordinances, bylaws and any other subordinate forms of rulemaking of government, any local authority, or any governmental authority and “Law” has the corresponding meaning.

LGA 2002 means the Local Government Act 2002.

Liability includes any debt, obligation, cost (including legal costs, deductibles or increased premia), expense, loss, damage, compensation, charge or liability of any kind and whether or not currently ascertainable and whether arising under or for breach of contract, in tort (including negligence),

restitution, under statute (including, to the extent permitted by Law, statutory fines, penalties and criminal liabilities) or otherwise at Law.

Losses and Loss means all damages, losses, Liabilities, costs, expenses (including legal costs and expenses on a solicitor/client basis and other professional charges and costs and expenses) and charges whether arising under statute, contract or at common law, or in connection with judgements, proceedings, internal costs or demands.

Major Subcontractor means a Major Subcontractor set out in Schedule 14 – Schedule of Information.

Major Subcontractor Direct Deed means any Major Subcontractor Direct Deed entered into by the Council, the Contractor and a Major Subcontractor pursuant to clause 29.3.

Major Subcontractor Subcontracts means the Major Subcontractor Subcontracts set out in Schedule 14 – Schedule of Information.

Mandatory Variation means a Mandatory Variation ordered under clause 43.1.13.

Māori Claim means any claim made by Māori (whether an individual, hapū, iwi group, mandated body corporate or trust representing Māori individuals or their interests or otherwise):

- (a) under any enactment including the Local Government Act 2002, the Te Ture Whenua Māori Act 1993, the Treaty of Waitangi Act 1975, the Treaty of Waitangi (State Enterprises) Act 1988;
- (b) under common or customary law; or
- (c) in relation to any arrangement or agreement in place with Council,

but excluding a claim arising out of any wilful misconduct by the Contractor or any Contractor Personnel or any breach of their obligations under this Contract.

Material Adverse Change means any material adverse change in:

- (a) the financial condition of the particular person; or
- (b) the particular person's ability to carry on business,

that results in the particular person not being in a position to continue to carry out its obligations under this Contract and/or the Ancillary Documents (as may be applicable to the particular person).

Material Adverse Effect means a material adverse effect on:

- (a) the ability of the party to perform or observe its obligations under any Contract Document;
- (b) the rights of the Council or the Contractor under any Contract Document; or
- (c) the cost or expense to the party arising from the performance or observing of its obligations under any Contract Document.

Monthly Service Payment means the Monthly Service Payment set out in Schedule 2 – Payments.

National Utilities Code means the National Code of Practice for Utility Operator's Access to Transport Corridors Approved 10 September 2015 as subsequently amended or replaced.

Non-approved Departures has the meaning set out in clause 48.2.2.

Offer Employee has the meaning set out in clause 37.6.1.

On-property Pre-treatment Units means units installed on private land to physically remove most of the non-soluble solids in order to reduce the pollutant loads and to protect all the subsequent steps in the treatment of influent.

Operations means all aspects of the operation, maintenance and renewal of the WWTP Facilities and the Reticulation Networks to be carried out by the Contractor as set out in the Contract Documents.

For the purposes of clarity and unless the context requires otherwise the Operations include the following:

- the Rotorua WWTP Facility Operations

- the Rotorua LTS Operations
- the Rotorua Reticulation Networks Operations
- the Rotomā/Rotoiti WWTP Facility Operations
- the Rotomā/Rotoiti Reticulation Network Operations.

Operations Bond Amount means the Operations Bond Amount set out in Schedule 1 – Reference Schedule.

Operations Continuity Deed means a Continuity Deed to be provided by a Subcontractor in relation relating to the carrying out of any part of the Operations pursuant to clause 29.4.

Operations Default Cost means the cost to the Council arising out of the Contractor's default in relation to the Operations determined in accordance with clause 64.1.1(j).

Operations Environmental Management Plan means an Operations Environmental Management Plan required to be provided by the Contractor pursuant to clause 38.4.1.

Operations Mobilisation and Transition Plan means the Mobilisation and Transition Plan approved by Council under clause 38.5.5.

Operations Quality Plan means the Operations Quality Plan referred to in clause 54.2.

Operations Risk Management Plan means an Operations Risk Management Plan approved by the Administrator under clause 38.3.1.

Operations Subcontracts means any Subcontract for the carrying out by a Subcontractor of any part of the Operations.

Pandemic means a serious disease that is widespread in New Zealand and is declared to be a Pandemic by the New Zealand Government or other governmental authority or is the subject of a declaration of a state of National Emergency in New Zealand.

Parent Company Guarantee means a guarantee of the obligations of the Contractor to be provided pursuant to clause 5.1.1.

Payment Claim means a Contractor payment claim as set out in clause 66.3.1 and Schedule 2 – Payments.

PCBU means a person conducting a business or undertaking as defined in the HSW Act.

Practical Completion in relation to a Rotomā/Rotoiti Contract means practical completion (or equivalent expression) as the term is used in the applicable construction contract.

Practice Note means a practice note as appended to Schedule 16 – Operations, Maintenance and Renewals Requirements as at the date of this Contract or as amended replaced, or any new practice issued and as agreed to between the parties as provided for in Schedule 16 – Operations, Maintenance and Renewals Requirements and clause 65.

Pre-Handover Condition Assessment means the Pre-Handover Condition Assessment to be carried out as part of the Condition Assessment Regime as described in clause 80.2 of these Contract Conditions and clause 13.3 of Schedule 16 – Operations, Maintenance and Renewals Requirements.

Probity Event means:

- (a) offering, giving or agreeing to give to any employee or agent of or contractor to the Council any gift or consideration as an inducement or reward:
 - (i) for doing or not doing or for having done or not having done any act;
 - (ii) for showing or not showing favour or disfavour,in relation to the procuring of the award of this Contract to the Contractor;
- (b) committing any offence under any Law in respect of fraudulent acts in relation to this Contract or the entry into this Contract by the Contractor;

(c) engaging in any collusive tendering activity or behaviour.

Project means the project contemplated by this Contract including but not limited to the carrying out of the Operations.

Project Consultants means the design and other consultants providing services to the Contractor in relation to the Operations.

Project Information means all information, SCADA and other data and reports, models and plans provided by the Council to the Contractor pursuant to this Contract and all source data and other data and factual information, models, plans and specifications relating to the carrying out of the Operations collected, generated or produced by the Contractor in the carrying out of the Operations but otherwise excludes the Contractor's Retained Intellectual Property.

Project Insurances means the Contractor Insurances and the Council Insurances.

Property Access Conditions means the conditions associated with the Property Access Rights as detailed in the property access agreements and easements listed in Appendix J of Schedule 16 – Operations, Maintenance and Renewals Requirements.

Property Access Rights means the rights of access onto private land as detailed in the property access agreements and easements listed in Appendix J of Schedule 16 – Operations, Maintenance and Renewals Requirements.

Protected Wildlife has the meaning set out in clause 27.2.1.

Provisional Item means work covered by a Provisional Sum to be carried out as Provisional Item work as instructed by the Administrator.

Provisional Sum means an amount nominated as a Provisional Sum in the Contract Documents.

Reference Date means the Reference Date set out in Schedule 1 – Reference Schedule.

Regional Council means the Bay of Plenty Regional Council or its successor entity as the regional council having jurisdiction over the Reticulation Networks and WWTP Facilities Sites.

Request for Proposal or RFP means the Request for Proposals for this Contract issued by the Council.

Resource Consents means resource consents as that term is defined in the Resource Management Act 1991.

Reticulation Networks means the Rotorua Reticulation Network and the Rotomā/Rotoiti Reticulation Network as described in the Council's Requirements and any further reticulation network incorporated into the into this Contract by agreement between the parties and Reticulation Network means any one of the Reticulation Networks.

Reticulation Networks Facilities means the pumpstations and other structures and facilities forming part of the Reticulation Networks.

Reticulation Networks Operations means the Rotorua Reticulation Network Operations and the Rotomā/Rotoiti Reticulation Network Operations.

Reticulation Networks Sites means such parts of the Reticulation Networks (including the Reticulation Networks Facilities) as are subject to remedial, renewal or maintenance physical works pursuant to the carrying out of the Reticulation Networks Operations during such time as such works are being carried out and Reticulation Networks Site means any one of the Reticulation Networks Sites.

Rotoiti On-property Pre-treatment Units means the On-property Pre-treatment Units to be installed in the Rotoiti catchment pursuant to the Rotoiti On-property Pre-treatment Units Contract.

Rotoiti On-property Pre-treatment Units Contract has the meaning set out in clause 52.1.

Rotoiti On-property Pre-treatment Units Contract Novation Deed has the meaning set out in clause 52.2.2.

Rotoiti Pre-treatment RFT has the meaning set out in clause 52.

Rotoiti Network Construction Contracts means contracts entered into by the Council for the construction of the Rotoiti Reticulation Network as described in Schedule 14 – Schedule of Information (including all variations).

Rotoiti Reticulation Network means the Rotoiti Reticulation Network as described in Schedule 16 – Operations, Maintenance and Renewals Requirements.

Rotoiti Reticulation Network Operations means the carrying out of the Operations relating to the Rotoiti Reticulation Network.

Rotomā Network Contracts means the Rotomā Network Construction Contracts and the Rotomā Network Supply Contracts.

Rotomā Network Construction Contracts means contracts entered into by the Council for the construction of the Rotomā Reticulation Network as described in Schedule 14 – Schedule of Information (including all variations).

Rotomā Network Supply Contracts means contracts entered into by the Council for the supply of materials or equipment for the Rotomā Reticulation Network as described in Schedule 14 – Schedule of Information (including all variations).

Rotomā Reticulation Network means the Rotomā Reticulation Network as described in Schedule 16 – Operations, Maintenance and Renewals Requirements.

Rotomā Reticulation Network Operations means the carrying out of the Operations relating to the Rotomā Reticulation Network.

Rotomā/Rotoiti Contracts means the Rotomā/Rotoiti WWTP Facility Contracts, the Rotomā Network Contracts and the Rotoiti Network Construction Contracts.

Rotomā/Rotoiti Operations Commencement Defects List means the list of Rotomā/Rotoiti Contracts a defects notified by the Contractor pursuant to clause 51.3.1(c).

Rotomā/Rotoiti Defects Notification Period has the meaning set out in clause 51.4.1.

Rotomā/Rotoiti Operations means the Rotomā/Rotoiti WWTP Facility Operations and the Rotomā Reticulation Network Operations and the Rotoiti Reticulation Network Operations.

Rotomā/Rotoiti Reticulation Network means the Rotomā Reticulation Network and the Rotoiti Reticulation Network and any further reticulation network incorporated into this Contract as a Rotomā/Rotoiti Reticulation Network by agreement between the parties and Rotomā/Rotoiti Reticulation Network means any one of the Rotomā/Rotoiti Reticulation Networks.

Rotomā/Rotoiti Reticulation Network Operations means the Rotomā/Rotoiti Reticulation Network Operations as described in Schedule 16 – Operations, Maintenance and Renewals Requirements.

Rotomā/Rotoiti Taking Over Regime has the meaning set out in clause 48.4.1.

Rotomā/Rotoiti WWTP Facility means the Rotomā/Rotoiti WWTP Facility and Land Disposal System (LDS) as described in Schedule 16 – Operations, Maintenance and Renewals Requirements.

Rotomā/Rotoiti WWTP Facility Contracts means the Rotomā/Rotoiti WWTP Facility Construction Contracts and Rotomā/Rotoiti WWTP Facility Supply Contracts.

Rotomā/Rotoiti WWTP Facility Construction Contracts means the contracts entered into by the Council for the construction of the Rotomā/Rotoiti WWTP Facility as described in Schedule 14 – Schedule of Information (including all variations).

Rotomā/Rotoiti WWTP Facility Operations means the carrying out of the Operations relating to the Rotomā/Rotoiti WWTP Facility.

Rotomā/Rotoiti WWTP Facility Site means the site of the Rotomā/Rotoiti WWTP Facility as set out in the Council's Requirements.

Rotomā/Rotoiti WWTP Facility Supply Contracts means the contracts entered into by the Council for the supply of materials or equipment for the Rotomā/Rotoiti WWTP Facility as described in Schedule 14 – Schedule of Information (including all variations).

Rotomā/Rotoiti WWTP Resource Consents means the Council Resource Consents identified as Rotomā/Rotoiti WWTP Resource Consents in Schedule 16 – Operations, Maintenance and Renewals Requirements.

Rotorua Gravity Mains means the Gravity Mains forming part of the wider Rotorua wastewater Reticulation Network as identified in Schedule 16 – Operations, Maintenance and Renewals Requirements.

Rotorua Land Treatment System and Rotorua LTS means the land treatment system located in the Whakarewarewa Forest for the disposal of Rotorua WWTP Facility Final Effluent as described in Schedule 16 – Operations, Maintenance and Renewals Requirements.

Rotorua Latent Defect has the meaning set out in clause 46.1.1.

Rotorua LTS Operations means the Rotorua LTS Operations as described in Schedule 16 – Operations, Maintenance and Renewals Requirements..

Rotorua Reticulation Network means the Rotorua Reticulation Network as described in the Council's Requirements.

Rotorua Reticulation Network Operations means the Rotorua Reticulation Network Operations as described in the Council's Requirements.

Rotorua WWTP Designation means the Designation in the Rotorua District Plan relating to the Rotorua WWTP Facility Site (Refer Rotorua District Plan, Appendix 6, sections A6.11.3 and A6.11.7.1).

Rotorua WWTP Facility means the Rotorua WWTP Facility as described in the Council's Requirements. For the purposes of clarity the Rotorua WWTP Facility includes all modifications to the facility made by the Contractor up to the Expiry Date or earlier termination of this Contract.

Rotorua WWTP Facility Operations means the operation of the Rotorua WWTP Facility pursuant to this Contract.

Rotorua WWTP Facility Resource Consents means the Resource Consents relating to the Rotorua WWTP Facility as referred to in Appendix R of Schedule 16 – Operations, Maintenance and Renewals Requirements together with the Rotorua WWTP Designation.

Rotorua WWTP Facility Site means the site on which the Rotorua WWTP Facility is located at Te Ngae Road as set out in Appendix V of Schedule 16 – Operations, Maintenance and Renewals Requirements.

Safety Plan means a Safety Plan as referred to in clause 39.2.1.

Schedule of Information means the Schedule of Information set out in Schedule 14 – Schedule of Information.

Schedule of Prices means the Schedule of Prices/Rates (if any) included in or determined in accordance with Schedule 2 – Payments.

Secondment Agreements means the agreements relating to the secondment of TRILITY personnel to the Council as set out in the secondment agreements entered into by TRILITY Water Pty Ltd and the Council constituted by:

- letter from TRILITY Water Pty Ltd dated 25 March 2019 and the Council's acceptance letter dated 25 March 2019; and
- letter from TRILITY Water Pty Ltd dated 17 June 2019 and the Council's acceptance letter dated 20 June 2019.

Security Interest means any mortgage, encumbrance, hypothecation, charge (whether fixed or floating) pledge, lien, trust, financial lease, sale and lease back, sale and re-purchase, title retention or other charge or similar interest imposed by law.

Separate Contractor means a person other than the Contractor engaged by the Council or on behalf of the Council for carrying out work or services on any WWTP Facilities Site or Networks Site that is not otherwise provided for in this Contract.

Service Life has the meaning set out in Schedule 16 – Operations, Maintenance and Renewals Requirements.

Six Month Audit has the meaning set out in clause 80.5.

Sludge means the solid/liquid mixture of the by-product materials produced by the treatment of Influent.

Step in Operations has the meaning set out in clause 75.1.1.

Subcontract means a contract between the Contractor and a Subcontractor for the design, carrying out and/or supply by the Subcontractor of any part of the Operations and where the context allows includes a subcontractor to a Subcontractor (or a sub-Subcontractor).

Subcontractor means any person contracted to the Contractor to pursuant to a Subcontract.

Subcontractor Breakage Costs has the meaning set out in the Major Subcontractor Direct Deed.

Taonga and Antiquities has the meaning set out in clause 27.1.1.

Tarawera Scheme means a possible wastewater treatment plant and reticulation network system for Tarawera as described in clause 17.1.1.

Tarawera Scheme Proposal has the meaning set out in clause 17.2.1.

Tarawera Scheme Requirements means the Council's design, construction and operations requirements for a possible Tarawera Scheme as set out in clause 17.1.2.

Tax Invoice has the meaning given to that term in section 2(1) of the GST Act.

Te Arawa Charter means the Te Arawa Charter set out in the Schedule 14 – Schedule of Information.

Te Arawa Collective means the group of Te Arawa Iwi legal entities working together from time to time for the purpose noted in clause 1.2.3.

Te Arawa MOU means the Memorandum of Understanding that is intended to be entered into between the Contractor and Te Arawa stakeholder groups, as summarised in the Te Arawa Charter.

Term means the term of this Contract from the date of execution of the Contract to the Expiry Date.

Trade Waste means trade waste as that term is used in the Trade Waste Bylaw.

Trade Waste Bylaw means the Rotorua District Council Trade Waste Bylaw 2017, as amended from time to time, and any bylaw passed by the Rotorua District Council in substitution, re-enactment or consolidation of such bylaw.

Trade Waste Permit means a Trade Waste Permit pursuant to the Trade Waste Bylaw

Transfer Equipment means the Transfer Equipment set out in Schedule 14 – Schedule of Information.

Transferring Employee has the meaning set out in clause 37.6.5.

Transport Corridors has the meaning set out in the National Utilities Code.

Unforeseen Site Conditions has the meaning set out in clause 45.1.

Utility Services means any utility service including water, electricity, gas, telephone, drainage, sewerage and all communications services and waste collection services.

Vulnerable Employee has the meaning set out in clause 37.6.3..

Variation means a variation under clause 43 of this Contract.

Variation Order means a written Variation order under clause 43.1.6 confirming a Variation or a Mandatory Variation under clause 43.1.13.

Vermicomposting Contract means the Vermicomposting Contract as defined in Schedule 16 – Operations, Maintenance and Renewals Requirements, Appendix S.

Vermicomposting Novation Deed has the meaning set out in clause 53.1.2.

Vulnerable Employee has the meaning set out in clause 37.6.3.

Warranted Enforcement Officer means a person nominated by the Contractor and authorised as a warranted enforcement officer by way of warrant provided by the Council pursuant to s.177 of the LGA 2002 in accordance with clause 63.2.

Warranted Person means a person nominated by the Contractor and authorised to enter private land by way of warrant provided by the Council pursuant to s.174 of the LGA 2002 in accordance with clause 63.2.

WWTP means wastewater treatment plant.

WWTP Facilities means the Rotorua WWTP Facility, the Rotomā/Rotoiti WWTP Facility and any further facility incorporated into this Contract by agreement between the parties and WWTP Facility means any one of the WWTP Facilities.

WWTP Facilities Sites means the sites upon which the WWTP Facilities are situated as identified in the Council's Requirements and WWTP Facilities Site shall mean any one of the WWTP Facilities Sites.

Working Day means any day other than a Saturday, Sunday, or a public holiday applying in Rotorua, New Zealand.

89.2 Interpretation

89.2.1 In this Contract unless the context otherwise requires:

- (a) References to "costs and expenses" claimable by a party to this Contract shall be construed as references to reasonable costs and expenses.
- (b) All monetary amounts are stated exclusive of GST and in New Zealand dollars unless provided otherwise.
- (c) Where the context permits the singular includes the plural and vice versa.
- (d) References to any party means the parties to this Contract and includes their respective successors, permitted assignees and permitted novatees (as the case may be).
- (e) References to clauses are (unless otherwise stated or the context otherwise requires) to clauses in the Contract Conditions, and references to schedules, appendices and attachments are (unless otherwise stated) to schedules, appendices and attachments to this Contract.
- (f) Where an obligation is imposed on the Contractor under this Contract, the obligation shall (where the context permits) extend to include a requirement on the Contractor to procure compliance with the same by the Contractor's employees, personnel and agents.
- (g) References to defects includes defects and damage resulting from defective workmanship or materials or omission by the Contractor
- (h) All references to legislation include all subordinate legislation, any re-enactment of or amendment to that legislation and all legislation passed in substitution for that legislation.
- (i) References to a person include a natural person, firm, corporation, association or other entity whether incorporated or not and whether or not having a separate legal personality.
- (j) The headings in this Contract shall not be used in its interpretation.
- (k) Obligations that bind more than one person shall bind those persons jointly and severally.

- (l) Defined expressions are signified by capitalisation.
- (m) If there is a conflict between the provisions of the Contract, the provisions shall take priority in the following order:
 - (i) the Agreement;
 - (ii) the Contract Conditions;
 - (iii) the Council's Requirements;
 - (iv) the Schedules (excluding the Practice Notes) and the Appendices;
 - (v) Practice Notes;
 - (vi) The Contractor's Proposal.
- (n) Reference to a 'law', 'laws', 'Law' or 'Laws' means (without limiting the definition of "Law" in clause 89.1.1 above) a statute, regulation, bylaw or any other requirement of a governmental or semi-governmental organisation.
- (o) The language of this Contract is English. All notices and communications of any kind required under or arising in connection with this Contract shall be in English.
- (p) The illegality, invalidity or unenforceability of any provision in this Contract will not affect the legality, validity or enforceability of any other provisions.
- (q) Whenever the words "includes" or "including" are used in this Contract, they are deemed to be followed by the words "without limitation".
- (r) Words or expressions used in the Contract that are defined in the National Utilities Code shall, where the context allows and where not otherwise inconsistent with this Contract, have the meaning set out in the National Utilities Code.

89.3 Contractor's Proposal Status

89.3.1 The Contractor's Proposal includes information relevant to this Contract which includes the way the Contractor will fulfil its obligations under this Contract and records further relevant matters. The Contractor's Proposal does not vary or override this Contract or the Council's Requirements.

89.3.2 The parties also acknowledge that key elements of the Contractor's Proposal have been developed and amended during negotiations and that such changes are summarised in the validated Contractor's Proposal document.

SCHEDULE 1 – REFERENCE SCHEDULE

Term	
Commencement Date:	2 November 2020
Expiry Date:	1 November 2030
Extension Term	First Extension: Five (5) years from the initial Expiry Date. Second Extension: A further five (5) years from the extended Expiry Date.
Maximum Term:	Twenty (20) years from the Commencement Date.
Reference Date:	13 July 2018
Handover	
Handover Defects Completion Date:	The date falling three Months after the Expiry Date
Administrator and Representatives	
Administrator:	Stavros Michael GM Infrastructure Rotorua District Council
Contractor Representative:	LGOIMA 1987 s 7(2)(a) Operations Contract Manager TRILITY
Council Representative:	Eric Cawte Manager – 3 Waters Services Rotorua District Council
Contractor's Bonds	
Operations Bond Amount:	Two Million Dollars (\$2,000,000)
Contractor's Bonds provider:	LGOIMA 1987 s 7(2)(b)(ii)
Miscellaneous	
Addresses for Notices Council:	GM Infrastructure Rotorua Lakes Council 1061 Haupapa Street Private Bag 3029, Rotorua Mail Centre Rotorua 3046, New Zealand Email: stavros.michael@rotorualc.nz
Contractor:	Company Secretary c/o KPMG 18 Viaduct Harbour Avenue Auckland 1010 New Zealand Email: vmaletic@trility.com.au

SCHEDULE 2 – PAYMENTS

PAYMENT SCHEDULE
relating to
WASTEWATER SERVICES
OPERATIONS AND MAINTENANCE CONTRACT

Rotorua District Council
(Council)

TRILITY Rotorua Limited
(Contractor)

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1. DEFINITIONS

In this Schedule:

“Additional On-property Pre-treatment Units Maintenance Payment Component” or “AOPUM Payment Component” means the component of the Monthly Service Payment described by section 3.4.3 of this Schedule 2.

“Adjustable Operations Payments” means the variable payments set out in clause 3.1.1 of this Schedule.

“Annual Renewals Work Plan” is the plan produced by the Contractor on an annual basis in accordance with Schedule 16 section 3.4.2.

“Base Profile” has the meaning defined in Schedule 16.

“Claimable Units” Means the cumulative running total of the number of On-property Pre-treatment Units added in years where a threshold of more than 5 additional units is exceeded. It does not include units added in years when the threshold of more than 5 additional units is not exceeded.

“Combined WWTP and Reticulation Network Service Payment” has the meaning set out in clause 3.1.1 of this Schedule.

“Commencement Date” has the meaning as described in the Contract Conditions.

“Contract” means the Wastewater Services Operations and Maintenance Contract of which this Schedule 2 forms part.

“Contract Conditions” means the Contract Conditions forming part of the Contract.

“Contractor Electricity Payment” means the payment for electricity consumed in the carrying out of the Operations to be made by the Contractor to the Council as described in clause 3.4.1 of this Schedule 2.

“Electricity Index” means the method of calculating the annual increase in the Electricity Payment Component, as described in section 3.6.4 of this Schedule 2.

“Electricity Payment Component” means the component of the Monthly Service Payment relating to electricity described in section 0 and 3.4.1 of this Schedule 2.

“Escalated Contract Sums” means items within the Contract that have dollar values assigned that are subject to escalation but are not Payment Components. The list of items is shown in Table 2 under Escalated Contract Sums.

“Escalated Payment Component” means a Payment Component for the following 1 July to 30 June period after the Escalation Adjustment has been applied.

“Escalated Project Price” means the Project Price at the Commencement Date, escalated annually by CGPI in accordance with clause 3.6 of this Schedule and Table 2, up to the current year.

“Escalation Adjustment” means the annual adjustment upwards or downwards in a component of the Contractor’s Payment Claim, calculated pursuant to clause 3.6 of this Schedule using the relevant Escalation Index and the Escalation Formula. “Escalation Adjustments” refers to cumulative adjustments over multiple years being applied.

“Escalation Adjustment Date” means the date defined in section 3.6.1 of this Schedule 2 when the Escalation Adjustment is applied to the Contractor’s Payment Claim.

“Escalation Index” means the collection of indices and their relative weightings for each payment type, as described in Table 2 of this Schedule 2.

“Escalation Formula” means the formula for the calculation of the Escalation Adjustment and the Escalated Payment Component as described in section 3.6.3 of this Schedule 2.

“Gravity Main Renewals Payment” has the meaning set out in 3.5.1 of this Schedule 2.

“Gravity Mains Renewals Programme” has the meaning as described in Schedule 16.

“Key Materials and Services” has the meaning as described in Schedule 16.

“List of Key Materials and Services – Gravity Mains” refers to the specific gravity main renewal items listed in Attachment C of this Schedule 2.

“List of Key Materials and Services – Non Gravity Mains” refers to the specific items related to asset renewals listed in Attachment D of this Schedule 2.

“Mandatory Variation” has the meaning as defined in the Contract Conditions.

“Market Rate” has the meaning defined in Schedule 16.

“Monthly Service Payment” has the meaning set out in section 3.1 of this Schedule 2.

“Monthly Service Payment Component” refers to each individual item of the Monthly Service Payment described in section 3.1.1 of this Schedule 2.

“Net Cost” means the reasonable actual or assessed expense or direct cost to the Contractor, plus return on investment in plant, after deduction of trade discounts and exclusive of the Contractor’s on-site overheads, off-site overheads and profit.

“Payment Claim” means the total amount claimed by the Contractor in the relevant month across all Payment Components as described in section 6.1.2 of this Schedule 2.

“Payment Component” refers to each individual item of the Monthly Service Payment and Gravity Main Renewals Payment.

“Project Price” means the price for a cost item as set out in the tables in Attachment D List of Key Materials and Services – Non Gravity Mains

“Purchase Order Number” means the identifying project number issued to the Contractor by Council.

“Rotoiti Reticulation Network” means that part of the Rotomā/Rotoiti Reticulation Network serving the Rotoiti community as described in Schedule 16

“Rotomā/Rotoiti Reticulation Network Monthly Service Payment” means the Rotomā/Rotoiti Reticulation Network Monthly Service Payment set out in Table 1 of this Schedule 2.

“Rotomā/Rotoiti WWTP Facility Adjustment” means the agreed adjustment to the Rotomā/Rotoiti WWTP Facility Monthly Service Payment as described in section 3.3.2 of this Schedule 2.

“Rotomā/Rotoiti WWTP Facility Design Report” means the report titled “Rotomā Rotoiti WWTP Basis of Design Rev C (150517)” dated 15 May 2017, and all accompanying information provided to the Contractor by the Council prior to the Reference Date (including the information shared in folder “3.0 Rotoiti Rotomā WWTP Information” during the RFP period).

“Rotomā/Rotoiti WWTP Facility Monthly Service Payment” means the Rotomā/Rotoiti WWTP Facility Monthly Service Payment set out in Table 1 of this Schedule 2.

“Rotorua Reticulation Network Monthly Service Payment” means the Rotorua Reticulation Network Monthly Service Payment set out in Table 1 of this Schedule 2.

“Rotorua WWTP Facility Monthly Service Payment” means the Rotorua WWTP Facility Monthly Service Payment set out in Table 1 of this Schedule 2.

“Schedule of Rates – Gravity Mains Renewals” means the schedule of rates used to price the Gravity Mains Renewals Programme as set out in Attachment A of this Schedule 2.

“Trade Waste Payment Component” means the component of the Monthly Service Payment resulting from agreed additional costs due to specific Trade Waste permits granted by Council, described in section 3.4.2 of this Schedule 2.

“Unplanned Gravity Mains Renewals” has the meaning as defined in Schedule 16.

“Variation” has the meaning as described in the Contract Conditions.

Terms defined in the Contract Documents and used in this Schedule have the same meaning as set out in the Contract Documents.

2. SCOPE

This Schedule 2 describes the Monthly Service Payment and the Gravity Mains Renewals Payment amounts together with further amounts payable and the basis on which such payments are to be made by the Council to the Contractor pursuant to the Contract, including:

- How the quantum of the payment is determined
- How various payment amounts are escalated over the Contract Term
- The conditions under which each payment is claimable by the Contractor
- The process for submitting the Contractor's claim
- The time frames for payments due.

3. OPERATIONS

3.1. MONTHLY SERVICE PAYMENT

The Monthly Service Payment shall be determined in accordance with this Schedule 2.

The Monthly Service Payment as determined in accordance with this Schedule covers all of the Operations to be carried out by the Contractor under this Contract, including (without limitation) all WWTP Facilities and Reticulation Networks operations, maintenance, repairs, upgrades and renewals together with all other obligations of the Contractor under this Contract, other than the Gravity Mains Renewals. The Monthly Service Payment will be subject to adjustment as set out in section 3.6 and in relation to applicable Variations.

3.1.1. Monthly Service Payment Components

The Monthly Service Payment comprises the aggregate of:

- the Combined WWTP and Reticulation Network Service Payment; and
- the Adjustable Operations Payments

for any claim month.

The Combined WWTP and Reticulation Network Service Payment comprises the aggregate of:

- a) the Rotorua Reticulation Network Monthly Service Payment;
- b) the Rotorua WWTP Facility Monthly Service Payment;
- c) the Rotomā/Rotoiti Reticulation Network Monthly Service Payment; and
- d) the Rotomā/Rotoiti WWTP Facility Monthly Service Payment

for the claim month.

The Adjustable Operations Payments comprise the aggregate of:

- a) the Electricity Payment Component;
- b) the Trade Waste Payment Component; and
- c) the Additional On-property Pre-treatment Units Maintenance Payment Component

for the claim month.

3.1.2. Combined WWTP and Reticulation Network Service Payment

The Combined WWTP and Reticulation Network Service Payment is payable monthly in advance in accordance with clause 6.1.2, with the first payment claim being provided as at the Commencement Date for the initial month on a pro rata basis.

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The Combined WWTP and Reticulation Network Service Payment amount as at the Commencement Date is shown in Table 1 and is escalated in accordance with section 3.6 of this Schedule 2.

3.2. MONTHLY SERVICE PAYMENT COMPONENTS AT THE COMMENCEMENT DATE

The Monthly Service Payment Component amounts as at the Commencement Date are as set out in Table 1 below:

Table 1: Monthly Service Payment Components Amounts

Monthly Service Payment Component	Monthly Payment Amounts at Commencement Date (excl GST) (in 2020 dollars)	
Combined WWTP and Reticulation Network Monthly Service Payment		
Rotorua Reticulation Network Monthly Service Payment	██████	
Rotorua WWTP Facility Monthly Service Payment	██████	
Rotomā/Rotoiti Reticulation Network Monthly Service Payment	██████	
Rotomā/Rotoiti WWTP Facility Monthly Service Payment	██████	
Total Combined WWTP and Reticulation Network Service Payment		██████
Adjustable Operations Payments		
Electricity Payment Component	██████	
Trade Waste Payment Component	██████████	
Additional On-property Pre-treatment Units Maintenance Payment Component	██████████	
Total Adjustable Operations Payments		██████
Total Monthly Service Payment at Commencement:		██████████

The Trade Waste Payment Component and the Additional On-property Pre-treatment Units Maintenance Payment Component are equal to zero at the Commencement Date and shall be calculated for each claim month in accordance with clause 3.4 and Schedule 16 Operations, Maintenance and Renewals Requirements.

3.3. ROTOMĀ/ROTOITI ADJUSTMENTS

3.3.1. Rotomā/Rotoiti Reticulation Network Monthly Service Payment Adjustments

The parties acknowledge that as at the Commencement Date the construction of the Rotoiti Reticulation Network including the installation of On-property Pre-treatment Units has not been fully completed or commissioned, that the Influent flows and loads to be derived from the Rotoiti Reticulation Network after completion are not known and accordingly the Rotomā/Rotoiti Reticulation Network Monthly Service Payment set out in Table 1 above does not include the Rotoiti Reticulation Network Operations.

The Rotomā/Rotoiti Reticulation Network Monthly Service Payment shall be adjusted to incorporate the Rotoiti Reticulation Network Operations in accordance with the following:

- a) Once, following the establishment of the Contractor's obligations regarding the Operations of the On-property Pre-treatment Units as described in clause 52 of the Contract Conditions, and
- b) Following each request by Council to the Contractor to submit a proposal for the Rotoiti Reticulation Network Operations (refer clause 52 of the Contract Conditions and section 12.5 of Schedule 16). The Council may either:
 - (i) Accept the Contractor's proposal, in which case the Rotomā/Rotoiti Reticulation Network Monthly Service Payment adjustment shall be the proposed amount, or
 - (ii) Reject the Contractor's proposal, in which case the parties shall endeavour to agree the appropriate adjustment to the Rotomā/Rotoiti Reticulation Network Monthly Service Payment. If the parties cannot agree the appropriate adjustment, that amount shall be determined as a Mandatory Variation in accordance with clause 43.1.14 of the Contract Conditions.

Once agreed, the amount of the adjustment from (a) or (b) or both shall be translated into Commencement Date dollars (if not already) using the most recently published set of index values and the Commencement Date index values shown in clause 3.6.2 of this Schedule (below Table 2). The Rotomā/Rotoiti Network Monthly Service Payment Component at Commencement and the Combined WWTP and Reticulation Network Service Payment in Table 1 shall be modified to incorporate the adjustment value and shall apply from such date as shall be agreed by the parties. The weightings within the Escalation Index for the Combined WWTP and Reticulation Network Service Payment in Table 2 shall be updated to incorporate the revised split of indices across all of its components.

The Escalation Adjustment for the Combined WWTP and Reticulation Network Service Payment under this clause shall continue to be adjusted by the method in clause 3.6.3 of this Schedule 2.

3.3.2. Rotomā/Rotoiti WWTP Facility Monthly Service Payment Adjustment

The Rotomā/Rotoiti WWTP Facility Monthly Service Payment shall be adjusted twice (as below) to reflect the Contractor's extra costs incurred or cost savings arising from and to the extent the operating parameters of the Rotomā/Rotoiti WWTP Facility vary materially from the operating parameters that would be reasonably anticipated by a competent and experienced contractor based on the Rotomā/Rotoiti WWTP Facility Design Report provided to and reviewed by the Contractor prior to the Reference Date. Both parties acknowledge that, as an exception to this, the cost of Operations of the UV system added to the design after the Reference Date has been included in Rotomā/Rotoiti WWTP Monthly Service Payment component at the Commencement Date.

Deviations in the total aggregate cost of chemical consumption, electricity consumption, sludge production and screenings production may give rise to an adjustment to the Rotomā/Rotoiti WWTP Facility Monthly Service Payment pursuant to this clause.

The adjustments to the Rotomā/Rotoiti WWTP Facility Monthly Service Payment under this clause shall be determined:

- (i) Once, following the completion of Phase 10 of the Rotomā/Rotoiti WWTP Facility Taking Over Plan (Schedule 16, Appendix W) based on the measurement of chemical consumption, electricity consumption, sludge production and screenings production undertaken during Phase 8 and Phase 9, and applying an average daily Influent volume equal to [REDACTED]/day, being [REDACTED] of the

█ m³/day assumed in the Contractor's pricing of the Rotomā/Rotoiti WWTP Facility's operating costs. The outcome of this adjustment remains the Rotomā/Rotoiti WWTP Facility Monthly Service payment until (ii) below is achieved; and

- (ii) Once, based on a twelve month period following the date when the parties agree that sufficient properties have been connected to the Rotoiti Reticulation Network to represent approximately █ of the ultimate total number of connections to the Rotoiti Reticulation Network. The adjustment shall be based on the performance of the facility during the twelve month period being scaled up to approximate the facility's future chemical consumption, electricity consumption, sludge production and screenings production with █ of the Rotoiti Reticulation Network connected. The average daily flow for this adjustment shall be █ m³/day, being █ of the █ m³/day assumed in the Contractor's pricing of the Rotomā/Rotoiti WWTP Facility's operating costs. (Rotoiti alone, representing █ of the expected Influent volume.) This adjustment represents the projected future operating costs and expenses of the facility with the Rotoiti Reticulation Network fully connected.

The parties acknowledge that:

- Both (i) and (ii) above represent potential one-off step changes to the Rotomā/Rotoiti WWTP Facility Monthly Service Payment, and not a continually variable payment regime.
- The remaining █ of the Contractor's original assumed █ m³/day average daily flow rate applies to the design flows from the Rotoehu community, that may be serviced by the Rotomā/Rotoiti WWTP Facility in the future.
- A contract management tool has been developed, as listed in Attachment G, that may be used by the parties to assist with the calculation of these adjustments.

The Contractor shall provide its claims (if any) for the adjustments to the Rotomā/Rotoiti WWTP Facility Monthly Service Payment under this clause as promptly as is practicable as set out in subparagraphs (i) and (ii) above (each being a "Claim Date") and in any event within three months of the Claim Date. An adjustment to the Rotomā/Rotoiti WWTP Facility Monthly Service Payment may be initiated by the Council within the timeframes set out in this paragraph.

The amount of each adjustment to the Rotomā/Rotoiti WWTP Facility Monthly Service Payment under this clause shall be as agreed by the parties and failing agreement shall be determined as a Mandatory Variation in accordance with clause 43.1.14 of the Contract Conditions. The amount of the adjustment shall be split into portions escalated by CGPI, CPI and LCI appropriately by the Contractor as approved by the Administrator. Where the adjustment is based on a measurable operational variable, the amount of the adjustment shall be proportional to the increase or decrease in the rate at which the variable is utilised or produced and not be influenced by the unit rate of supply.

The parties will use the monitoring periods set out in (i) and (ii) above to derive the appropriate usage rates for the parameters in question at the time the adjustment is made for (i) and for the future performance of the plant for (ii).

Once agreed, the amount of the adjustment shall be translated into Commencement Date dollars (if not already) using the most recently published set of index values and the Commencement Date index values shown in clause 3.6.2 of this Schedule (below Table 2). The Rotomā/Rotoiti WWTP Facility Monthly Service Payment Component at Commencement and the Combined WWTP and Reticulation Network Service Payment in Table 1 shall be modified to incorporate the adjustment value and shall apply from such date as shall be agreed by the parties and failing agreement from the Claim Date. The weightings within the Escalation Index for the Combined WWTP and Reticulation Network Service Payment in Table 2 shall be updated to incorporate the revised split of indices across all of its components.

The Escalation Adjustment for the Combined WWTP and Reticulation Network Service Payment under this clause shall continue to be adjusted by the method in section 3.6.3 of this Schedule 2.

3.4. ADJUSTABLE OPERATIONS PAYMENTS

3.4.1. Electricity Payment Component of the Monthly Service Payment

(a) Electricity Payment Component

The Electricity Payment Component is payable monthly in advance in accordance with clause 6.1.2, with the first payment claim being provided as at the Commencement Date for the initial month on a pro rata basis.

The Electricity Payment Component amount as at the Commencement Date is shown in Table 1 and is escalated in accordance with section 3.6 of this Schedule 2.

The Electricity Payment Component includes an electricity specific contingency of [REDACTED] and the project-wide profit margin of [REDACTED].

(b) Electricity Procurement

It is the intent of both parties that Council is responsible for changes in the unit rates (e.g. cents/kWh or \$/day) of electricity supply, apart from the exception in (c) below, and the Contractor is responsible for the volume and timing of electricity consumption at all ICP sites included within the Contract (Appendix A of Schedule 16 as updated from time to time).

Unless agreed otherwise, electricity supply will continue to be procured by Council as part of Council's bulk supply arrangements throughout the Contract Term. The Council reserves the right to enter into a new electricity supply agreement under any terms and with any electricity retailer from time to time throughout the Contract Term at the Council's sole discretion.

When the Council is contemplating a new electricity agreement, the Contractor may be requested to review the proposed agreement and provide advice as to the impact on the Electricity Payment Component should Council proceed. Where the proposed agreement is under the same or similar terms as the agreement already in place, any change in the Electricity Payment Component shall be limited to the impact of the change in unit rate pricing only. Where the proposed agreement includes a significant change in the method of procurement (such as spot price procurement) the Contractor may include within their advice an assessment of the Contractor's perceived risks under the proposed agreement and a corresponding risk premium.

Whether consulted or not, any time that Council enters into a new electricity agreement that impacts on the Contractor's cost of electricity supply, the Contractor shall be entitled to an adjustment in the Electricity Payment Component to include any change in the unit rate price and/or Contractor risk in the electricity supply agreement. Such adjustment shall be as agreed by the parties and failing agreement shall be the fair adjustment taking into account the above factors as determined pursuant to the dispute resolution provisions on the Contract. The timing of any adjustment shall coincide with the commencement date of the incoming electricity agreement i.e. the date the Contractor's costs for consuming electricity are altered by the agreement.

Where the Contractor has been consulted and has provided advice prior to Council entering into the electricity supply agreement, the adjustment shall be limited to the amount in the advice supplied if there are no material changes between the information provided at the time of consultation and the eventual electricity supply agreement.

For clarity, Council's arrangement with their electricity supplier is independent of the arrangement between Council and the Contractor, other than the impact on unit rates charged from Council to the Contractor. Payment terms and conditions negotiated between Council and their nominated electricity supplier do not affect this Contract, unless explicitly discussed with the Contractor and agreed to by both parties.

(c) Fixed Line Charges at the Rotorua WWTP Facility

The exception to Council's responsibility for unit rates is the item identified as Line Charges – Fixed on the invoice for the Rotorua WWTP Facility's ICP (or its replacement). The Rotorua WWTP Facility is

considered a large industrial site for the purpose of electricity charging and the line charges are set using a different mechanism to all other ICPs.

The Line Charges - Fixed item is charged on a daily rate (\$/day) fixed from 1 April – 31 March each year and is set by Unison Networks (the network provider), who determines the ICP's share of Unison Networks' network costs based on the demand behaviour at the ICP in the previous period. For clarity, this means the Line Charges – Fixed is a function of both the Contractor's ability to manage demand at the Rotorua WWTP Facility, and Unison Networks' network costs which are beyond the Contractor's control.

Each time the Council enters into a new electricity agreement, the Line Charges – Fixed item shall be updated within the Electricity Payment Component to be the average of the current and previous two years daily rates (i.e. a three year average) excluding the [REDACTED]/day fixed charge described in (e) if applicable. No further adjustment shall be made to this rate until the Council enters into the next electricity agreement.

As at the execution date of the Contract, the parties acknowledge that discussions regarding future options for the replacement of the MCC2 transformers are underway with Unison Networks. This renewal has been allowed for by the Contractor in the early years of the Contract. In the event these discussions result in capital charges being applied to the Rotorua WWTP Facility's Line Charges – Fixed for the replacement of the transformers, these charges shall be passed on to the Contractor in the Contractor's Electricity Payment, but not taken into account in the calculation of the Electricity Payment Component of the Monthly Service Payment.

(d) Contractor Electricity Payment (i.e. payment from the Contractor to the Council for electricity consumed)

This section describes the process for the raising and payment of invoices related to the payment by the Contractor to the Council for electricity consumed in the carrying out of the Operations (Contractor Electricity Payment) as at the Commencement Date. The details of this section may be changed by mutual agreement to establish the optimum process for subsequent electricity supply agreements.

Upon Council's receipt of the electricity invoice from the electricity supplier, Council will identify the total charges associated with the current wastewater ICPs. The extent of this list is shown in Schedule 16 Appendix A as at the Commencement Date and may be adjusted as required to maintain currency with the WWTP Facilities Sites and Reticulation Network Sites.

Council will raise an invoice for the Contractor Electricity Payment being the total amount of the identified charges to the Contractor without the addition of margin, exclusive of any early payment discount and subject to paragraph (e) below, and submit the invoice to the Contractor for payment. Accompanying the invoice, Council will provide copies of all relevant information received from the electricity supplier that the Contractor as is reasonably required to enable the Contractor to verify the Contractor Electricity Payment amount.

The Contractor Electricity Payment shall be payable by the Contractor to the Council within 15 Working Days of receipt of the Council's Contractor Electricity Payment invoice.

Where the Contract Term does not encompass the full billing period set by the electricity supplier (e.g. the month containing the Commencement Date or the Expiry Date) the Contractor Electricity Payment amount shall be determined by pro-rata using the number of days the Contract Term overlaps with the number of days in the billing period.

(e) Charges excluded from the Contractor Electricity Payment

In determining the Contractor Electricity Payment amount, the Council shall deduct a fixed charge of [REDACTED]/day (not escalated) for the number of days in the period covered by the invoice from the total wastewater electricity charges invoiced by the electricity supplier. This deduction continues through to 30 September 2029 inclusive, after which, it will no longer apply.

For the sake of clarity, this deducted amount represents the Council's contribution to the capital cost of the 11kV upgrade carried out at the Rotorua WWTP Facility prior to the Commencement Date. A

separate charge of [REDACTED]/day is included within the fixed line charges for the Rotorua WWTP Facility, as payment for operations and maintenance of the 11kV system by Unison. The operations and maintenance charge is ongoing and is included in Council's invoice to the Contractor (i.e. it is not deducted from the total charges).

(f) Contractor's assumptions around electricity pricing

To assist in the calculation of any change in the Electricity Payment Component as a result of a change in Council's electricity procurement throughout the Contract, key assumptions made by the Contractor in the development of the Electricity Payment Component at the Commencement Date are shown in Attachment F and a contract management tool is listed in Attachment G.

For reference information only, the Contractor has previously valued the risk of a spot price style procurement method at [REDACTED] excluding GST per annum in 2018 dollars. Any future risk associated with a different electricity procurement method would require a specific assessment of risk to the Contractor.

3.4.2. Trade Waste Payment Component of the Monthly Service Payment

The Trade Waste Payment Component is payable monthly in arrears in accordance with clause 6.1.2,. This is the only Payment Component of the Monthly Service Payment payable in arrears, allowing for the possibility that Trade Waste charges may be flow dependent or vary from month to month depending on the specific requirements.

The Trade Waste Payment Component amount shall be the aggregate of the payment adjustments to be paid by the Council to the Contractor as Variations pursuant to clause 10.7 of Schedule 16 and are escalated in accordance with section 3.6 of this Schedule 2.

For the avoidance of doubt, the Trade Waste Payment Component covers costs adjustments associated with the increased or decreased operations and maintenance costs incurred by the Contractor arising from Trade Waste Permits which are the subject of agreed Variations pursuant to clause 10.7 of Schedule 16. Capital works required to accommodate a Trade Waste customer's requirements will not be included in the Trade Waste Payment Component but will be implemented as separate Variations pursuant to clause 43 of the Contract Conditions.

The Trade Waste Payment Component at Commencement is zero because the Trade Waste permits in existence at the Commencement Date are covered by the Combined WWTP and Reticulation Network Monthly Service Payment, though changes in the conditions of these existing permits may qualify for Variations (see clause 10.7 of Schedule 16). The Trade Waste Payment Component will remain zero until the first Variation under clause 10.7 of Schedule 16 is granted.

The Trade Waste Payment Component may not be less than zero.

3.4.3. Additional On-property Pre-treatment Units Maintenance Payment Component of the Monthly Service Payment

The Additional On-property Pre-treatment Units Maintenance Payment Component (or AOPUM Payment Component) is payable monthly in advance in accordance with clause 6.1.2, and the following:

- The AOPUM Payment Component is calculated based on the number of Claimable Units. Note that Claimable Units is a cumulative running total of the number of On-property Pre-treatment Units added in years where the threshold of more than 5 additional units is exceeded. It does not include units added in years when the threshold of more than 5 additional units is not exceeded.
- The initial AOPUM Payment Component shall commence on 1 July of any year (see below) where more than 5 new (additional) On-property Pre-treatment Units are installed and connected to the existing Reticulation Networks in the 12 month period ending 31 January of the same year and shall be determined on the basis of [REDACTED] excluding GST per annum per Claimable Unit.

- The number of Claimable Units shall be adjusted on 1 July thereafter where more than 5 new (additional) On-property Pre-treatment Units are installed and connected to the existing Reticulation Networks in the 12 month period ending 31 January of the same year. The adjustment shall be determined on the basis of [REDACTED] excluding GST per annum per Claimable Unit.
- Annual escalation shall be applied as per section 3.6 for the number of Claimable Units to determine the AOPUM Payment Component. The value of the AOPUM Payment Component at Commencement for the purpose of escalation is [REDACTED]/12 multiplied by the number of Claimable Units at any point in time. An example of this calculation is shown in Appendix E.
- For the purpose of clarification it is acknowledged that there is no adjustment to the number of Claimable Units where 5 or less additional On-property Pre-treatment Units are installed in the 12 month period to 31 January, and that the AOPUM Payment Component as adjusted from time to time shall apply for all subsequent years of the Contract Term.

For the purpose of this clause, the annual count of additional On-property Pre-treatment Units shall be determined for the annual period ending on 31 January each year to determine the appropriate change in the number of Claimable Units and the AOPUM Payment Component (if any) for the following Council financial year. The count of additional On-property Pre-treatment Units shall reset to zero on 1 February each year.

In the event that a reduction of more than five On-property Pre-treatment Units occurs in a contract year, this clause shall apply in reverse to calculate a reduction in the number of Claimable Units and the AOPUM Payment Component, however the AOPUM Payment Component may not be reduced below zero.

The AOPUM Payment Component determination shall exclude additional On-property Pre-treatment Units in Rotomā, as the Rotomā/Rotoiti Reticulation Network Monthly Service Payment at Commencement assumes [REDACTED] uptake within the Rotomā scheme.

The parties acknowledge that in relation to the installation of On-property Pre-treatment Units in a new Reticulation Network (such as Rotoiti or Lake Tarawera) the basis of the Contractor's remuneration for the maintenance of such units shall be negotiated as part of the Variation introducing such scheme into the Contract, and without limiting the approaches that may be adopted by the parties could include either:

- (a) The proposed maintenance price for the new scheme is based on [REDACTED] % uptake, in which case this clause will not apply to that particular scheme, or
- (b) The proposed maintenance price for the new scheme is based on an agreed percentage uptake (less than [REDACTED]), and this clause will apply to additional On-property Pre-treatment Units installed in that particular scheme above the agreed uptake level.

3.5. GRAVITY MAINS RENEWALS PAYMENT

3.5.1. Gravity Mains Renewals Payment - General

This section is to be read in conjunction with Appendix K of Schedule 16. For the purposes of this Schedule, references to 'Appendix K' are references to Appendix K of Schedule 16.

The Gravity Mains Renewals Payment is a monthly payment for the delivery of each three year Gravity Mains Renewals Programme, payable monthly in advance in accordance with clause 6.1.2, with the first payment claim being for the period commencing 1 July 2021, in line with the delivery of the first Gravity Mains Programme.

The monthly Gravity Mains Renewals Payment shall, unless agreed otherwise by the parties pursuant to Appendix K of Schedule 16, be the total cost of the applicable three year Gravity Mains Renewals Programme as determined (and approved by the Administrator) pursuant to Appendix K divided by 36.

The monthly Gravity Mains Renewals Payment for years 2 and 3 of the Gravity Mains Renewals Programme shall be adjusted by the escalation of the Schedule of Rates – Gravity Mains Renewals.

3.5.2. Schedule of Rates – Gravity Mains Renewals

The Schedule of Rates – Gravity Main Renewals in Attachment A of this Schedule 2 shall be adjusted for escalation in accordance with section 3.6 of this Schedule including adjustments for items on the List of Key Materials and Services in accordance with latest Market Rates or index escalation as applicable.

The Schedule of Rates – Gravity Main Renewals current at the time of the development of a Gravity Mains Renewals Programme, shall be used to price individual projects within the programme as per Appendix K. The summation of the individual project prices within the Gravity Mains Renewals Programme determines the Gravity Mains Renewals Payments due for the period covered by the Gravity Mains Renewals Programme, recoverable as per section 3.5.1 above.

The Schedule of Rates – Gravity Main Renewals and the corresponding Gravity Mains Renewals Payments cover the physical delivery of the individual projects only. Any project management, programme management and all overhead costs are included within the Rotorua Network Monthly Service Payment.

The Contractor is entitled to the same project-wide contingency (█%) and profit margin (█%) on the Gravity Mains Renewals Payments. These margins are not included in the Schedule of Rates in Attachment A of this Schedule 2 and shall be applied to the overall Gravity Main Renewal Programme.

Each Gravity Mains Renewals Programme is also subject to a █% design allowance to be calculated using the total cost of the Gravity Main replacement and relining projects included in the programme, excluding all works related to laterals.

3.5.3. Base Profile

The Base Profile at the Commencement Date, shown in Schedule 16 Appendix O, details the anticipated Gravity Mains Renewals Programme budgets over the Contract Term with the best information available at the Reference Date and includes negotiated changes up to the Commencement Date (including preliminary smoothing of the programme to align with Council Long Term Plan cycles). The process for making adjustments to the Base Profile based on evidence of network condition and performance are described in Appendix K of Schedule 16.

The Base Profile is shown in both dollars and kilometres of pipe as the cumulative projects priced as per the Schedule of Rates can be reasonably anticipated to deliver the Base Profile over the Contract Term.

The parties acknowledge that the Base Profile at Commencement is based solely on a desktop assessment of age of gravity mains based on available data prior to Commencement and comparison of this theoretical age relative to theoretical service life. The Base Profile at Commencement does not necessarily represent the risk based planning principles set out in Schedule 16 or the focus on reduction in GWI detailed in Schedule 16.

3.5.4. Initial Gravity Mains Renewal Programme

For the period between the Commencement Date and 1 July 2021 (i.e. Contract year 1) the Gravity Mains Renewals Programme includes a representative quantity of gravity main renewal allowance only, to the value of █. The parties agree that Council will maintain this sum as a contingency within their budget to account for the risk on any Unplanned Gravity Mains Renewals projects which emerge during that period and that there will be no Gravity Mains Renewals Payment for Contract year 1 unless Unplanned Gravity Mains Renewals projects occur. The █ forms part of the Base Profile total and any remaining balance at the end of the period shall be available for the following Gravity Mains Renewals Programme.

3.6. ESCALATION RATES

3.6.1. Process for applying escalation

The rates and amounts identified in the Contract Documents as being subject to escalation in accordance with movements in the Escalation Index for each payment type (an Escalation Adjustment) shall be adjusted on

1 July following the commencement of the Contract and annually thereafter on each 1 July during the Contract Term (each being an Escalation Adjustment Date) based on the movement in the indices nominated in Table 2 in the 12 month period ending the prior 31 December, in accordance with the following:

- (a) The Contractor will obtain and apply the applicable Escalation Index to each of the items in Table 2 in accordance with section 3.6.2, and provide details of the calculation of the Escalation Indices, the Escalation Adjustments, the Escalated Payment Components and Escalated Contract Sums, for the coming year commencing 1 July, to the Administrator no later than the end of the second week of February as part of the Annual Renewals Work Plan (in accordance with Schedule 16 section 3.3.2), each year of the Contract Term.
- (b) The Administrator will review the accuracy of and approve the information and calculations provided by the Contractor in (a) and either confirm approval or otherwise no later than 31 May each year of the Contract Term.
- (d) The adjusted rates and amounts as accepted by Council shall apply from 1 July each year of the Contract Term.
- (e) If the Administrator does not approve the Escalation Indices and the calculation of the Escalation Adjustments pursuant to this clause then the parties shall endeavour to agree the appropriate Escalation Indices and Escalation Adjustments and failing agreement the Escalation Indices and the Escalation Adjustment shall be determined pursuant to the dispute resolution processes set out in the Contract Conditions.
- (f) The indice(s) referred to below include any indices which officially replaces such indice(s). If no indice(s) officially replaces the indice(s) and no replacement index can be agreed by the parties, the parties shall proceed as per (g).
- (g) If no agreement can be reached the Council will arrange for an expert to assess what the Escalation Index and/or Escalation Adjustment would have been. The Contractor and the Council shall share the cost of the expert's fees and expenses equally.

For ease of administration, the escalation of the Operations Bond Amount may be calculated and applied every second Contract year, as described in clause 4.1.3 of the Contract Conditions.

3.6.2. Escalation Indices

The Escalation Indices for each Payment Component and the Escalated Contract Sums are shown in the table below:

Table 2 Escalation Indices

Escalation Index	% LCI	% CGPI	% CPI	% EI
Monthly Service Payment Components (described in sections 3.1 and 3.4 of this Schedule 2)				
Combined WWTP and Reticulation Network Service Payment	■	■	■	
Electricity Payment Component				■
Trade Waste Payment Component			■	
Additional On-property Pre-treatment Units			■	

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Escalation Index	% LCI	% CGPI	% CPI	% EI
Maintenance Payment Component				
Gravity Mains Renewals Payment Components				
Schedule of Rates - Gravity Main Renewals (section 3.5.2 and excluding items covered by section 3.6.6)		■		
Items on the List of Key Materials and Services – Gravity Main Renewals (subject to section 3.6.6)		■		
Other Payment Components				
Items on the List of Key Materials and Services – Non Gravity Main Renewals (subject to section 3.6.6)		■		
Escalated Contract Sums				
Operations Bond Amount (Schedule 1)		■	■	
Insurance cover requirements (Schedule 3)		■	■	
Parent Company Guarantee (Schedule 9 section 4)		■	■	

Where:

LCI = the latest December quarter Labour Cost Index; All Sectors Combined: Index of all salary and wage rates (Series ref: LCIQ-SG53Z9) published by Statistics New Zealand. (Being 1215 at March 2020 (LCI_{CD}))

CGPI = the latest December quarter Capital Goods Price Index (; All groups (Series ref: CEPQ-S2GG) published by Statistics New Zealand. (Being 1614 at March 2020(CGPI_{CD}))

CPI = the latest December quarter Consumers Price Index; All Groups (Series Ref: CPIQ-SE9A) published by Statistics New Zealand. (Being 1052 at March 2020(CPI_{CD}))

EI = Electricity Index (bespoke index defined in section 3.6.4 of this Schedule).

3.6.3. Escalation Formula

Each line item in Table 2 will escalate by the following formulae, except:

- Electricity (escalated by section 3.6.4)

- Trade Waste Monthly Service Payment (escalated by section 0), and
- Market Rates of Items on the List of Key Materials and Services, both Gravity Mains and Non-Gravity Mains (escalated by section 0) though Project Prices are escalated by this formula.

Step 1)

Escalation Adjustment =

$$\left(\frac{W(LCI - LCI_{CD})}{LCI_{CD}} + \frac{X(CGPI - CGPI_{CD})}{CGPI_{CD}} + \frac{Y(CPI - CPI_{CD})}{CPI_{CD}} \right) \times \text{Payment Component at Commencement}$$

Step 2)

Escalated Payment Component = Escalation Adjustment

+ Payment Component at Commencement

Where:

- W= the weighting assigned to LCI in Table 2
- X = the weighting assigned to CGPI in Table 2
- Y = the weighting assigned to CPI in Table 2
- “Payment Component at Commencement” is shown in one of the following:
 - o Table 1 of this Schedule 2 for the Combined WWTP and Reticulation Network Service Payment
 - o Section 3.4.3 for AOPUM Monthly Service Payment
 - o Attachment A Schedule of Rates – Gravity Mains;
 - o The Contract Document references in Table 2 for the Escalated Contract Sums.

Note: Any new Adjustable Operations Payment component to which the parties may agree that is valued by way of a Variation (i.e. without an agreed value as at the Commencement Date) shall use the latest relevant indices released at the time the Adjustable Operations Payment Component is agreed and becomes payable as the equivalent of the Commencement Date value of the index for the purpose of escalating the Adjustable Operations Payment Component by this formula.

3.6.4. Electricity Index Calculation

For the duration of each of Council's electricity supply agreements, the escalation of the Electricity Payment Component shall be limited to the relevant escalation mechanism within the electricity supply agreement, and/or changes in the unit costs charged by the energy supplier or network provider, with the exception of the Line Costs – Fixed at the Rotorua WWTP Facility's ICP, described in section 3.4.1 (c).

If no escalation mechanism exists within the electricity supply agreement, and the unit costs remain unchanged for the term of the agreement then no escalation shall be applied for the duration of the electricity supply agreement.

Whenever Council is notified of an impending change in the unit costs relating to the supply of wastewater electricity the Council will notify the Contractor of the updated unit costs and their application date from the electricity supplier in a timely manner. The adjusted Electricity Payment Component shall be calculated utilising the Contractor's assumptions in Attachment F and the updated unit costs supplied by Council (other than Line Costs – Fixed at the Rotorua WWTP Facility ICP, which are adjusted when Council enters into a new electricity supply agreement, described in section 3.4.1 (c) and the adjusted Electricity Payment

Component will apply from the immediately following 1 July, in line with the annual escalation of the Monthly Service Payment.

3.6.5. Trade Waste Payment Component Escalation

Items within the Trade Waste Payment Component will be relevant to the dollar value of the day when the Trade Waste permit is granted. For this reason, a year-on-year escalation is more practical for this Payment Component.

The escalation of the fixed Trade Waste Payment Component shall be determined by:

- Step 1) Aggregating the value of all new fixed trade waste adjustments agreed from 1 February of the previous year until 31 January of the current year.
- Step 2) Combining the value of the new fixed trade waste adjustments and the current year's fixed Trade Waste Payment Component.
- Step 3) Escalate the total from Step 2 by the Escalation Index nominated in Table 2

For clarity, Steps 1-3 above are described by the formula:

$$\begin{aligned} \text{Escalated Payment Component} \\ = \frac{CPI_X}{CPI_{X-1}} \times (\text{Current Year Payment Component} + \text{Additional Adjustments}) \end{aligned}$$

Where:

CPI_X = the most recently published Consumers Price Index (typically December); All Groups (Series Ref: CPIQ-SE9A) published by Statistics New Zealand.

CPI_{X-1} = the value of the same index 12 months earlier

Where the Trade Waste Payment Component is variable (e.g. flow-based) the rate for each Trade Waste permit shall be adjusted by CPI. These shall be calculated individually to determine the rates applicable to each permit for the coming year. i.e. For each variable Trade Waste Payment Component:

$$\text{Escalated Rate} = \frac{CPI_X}{CPI_{X-1}} \times (\text{Current Year Rate})$$

Variations that result in Trade Waste Payment Components granted after 1 February each year, shall not escalate until 1 July of the following year.

A worked example of this calculation is shown in Attachment E.

3.6.6. Escalation of Key Materials and Services

(e) List of Key Materials and Services - Gravity Mains

The List of Key Materials and Services – Gravity Mains identifies materials and services related to Gravity Mains Renewals where costs shall be adjusted based on prevailing Market Rates rather than CGPI.

The List of Key Materials and Services – Gravity Mains is detailed in Attachment C. These items are also specifically identified within the Schedule of Rates – Gravity Mains in Attachment A.

When the Contractor procures items on the List of Key Materials and Services – Gravity Mains under competitively tendered contracts that meet the Market Rate requirements, the relevant cost item in the Schedule of Rates – Gravity Mains shall be updated to include the median tenderer's rate. This shall be no more frequently than once per year, and no less frequently than once every three years (in line with the Gravity Main Renewal Programme).

For the duration of the Contractor's contract for the procurement of a cost item, the median tendered rate shall become the relevant cost item within the Schedule of Rates – Gravity Mains, unless the Contractor's contract for the procurement of a cost item is for a multi-year term and includes an escalation mechanism, in which

case that escalation mechanism shall apply for the duration of the Contractor's contract for the procurement of a cost item.

In the event that no existing procurement contract is in place and more than 12 months has passed since a Market Rate has been sought for an item on the List of Key Materials and Services – Gravity Mains, then the default Escalation Index as per Table 2 shall be applied to the last Market Rate obtained for the item using the following formula:

$$\text{Escalated Market Rate} = \frac{CGPI_{Current}}{CGPI_{LMR}} \times \text{Latest Market Rate}$$

Where:

- $CGPI_{Current}$ = the December quarter Capital Goods Price Index; All groups (Series ref: CEPQ-S2GG) published by Statistics New Zealand.
- $CGPI_{LMR}$ = the CGPI value from the same series, released closest to the date of the latest Market Rate.
- Latest Market Rate = the Market Rate established by the most recent qualifying market testing exercise.

(f) List of Key Materials and Services - Non-Gravity Mains

- (i) The List of Key Materials and Services - Non-Gravity Mains shown in Attachment D, sets out Key Materials and Services related to non-Gravity Mains renewals that may be subject to Market Rate cost adjustments described in this section, where the Escalation Adjustments based on the CPGI index no longer reflect the actual cost to the Contractor to purchase the materials and services.
- (ii) Attachment D also sets out the opening values for the items on the List of Key Materials and Services - Non-Gravity Mains, each referred to as a Project Price. (For the purposes of clarity the parties acknowledge that the Project Price is escalated over time in accordance with the index from Table 2 and the formula in section 3.6.3 set out in this Schedule.)
- (iii) The Project Prices in Attachment D are the Project Prices at Commencement for the specific items listed only and are not intended to cover the full cost or budget associated with the renewal activity. The Escalation Adjustment process described in this section applies only to the scope of the Project Price as described in Attachment D.
- (iv) In the preparation of all Annual Renewals Work Plans the Contractor shall append a table of Escalated Project Prices based on the formula:

$$\text{Escalated Project Price} = \frac{CGPI}{CGPI_{CD}} \times \text{Project Price at Commencement}$$

Where:

CGPI = the December quarter Capital Goods Price Index; All groups (Series ref: CEPQ-S2GG) published by Statistics New Zealand. (Being 1614 at the Commencement Date ($CGPI_{CD}$))

“Project Price at Commencement” is the Project Price set out in the List of Key Materials and Services - Non-Gravity Mains in Attachment D of this Schedule 2 for the item concerned.

- (v) In the preparation of each Annual Renewals Work Plan, for all items on the List of Key Materials and Services - Non-Gravity Mains that are required for the delivery of the proposed programme the Contractor shall:
 - (a) identify the current Market Rate (where Market Rate has the meaning defined in Schedule 16, including using reasonable endeavours to obtain three quotes from independent suppliers); and
 - (b) shall provide a comparison between the Escalated Project Price and the Market Rate.
- (vi) If, for any item on the List of Key Materials and Services - Non-Gravity Mains that are required for the delivery of the proposed programme, the difference between the Market Rate and the Escalated Project Price for that item is more than ████ of the Escalated Project Price, then the difference will be

applied as a positive or negative adjustment to the Monthly Service Payment in the year the item is delivered, adjusted for the number of units being purchased. For the purposes of clarity, the parties acknowledge the Project Price is not replaced by the tested Market Rate. Rather the intent is that the process for comparing the Market Rate with the Escalated Project Price takes place each time a Market Rate adjustment pursuant to this clause is implemented.

- (vii) The aggregate adjustment to the Monthly Service Payment resulting from (v) shall be payable as 12 equal monthly payments (or deductions) over the year the Annual Renewals Work Plan is delivered or as otherwise agreed by the parties.
- (viii) Details of Market Rate information, the Escalated Project Price together with resulting comparisons and adjustments shall be included within the Annual Renewals Work Plan.

A worked example of this calculation is shown in Attachment E.

3.6.7. Total Monthly Service Payment annual escalation

The total Monthly Service Payment escalation shall be the aggregate of:

- (a) The calculated Escalation Adjustment of each of the Monthly Service Payment Components from Table 2; and
- (g) Any calculated adjustment for the List of Key Materials and Services – Non Gravity Mains being procured in the year the escalation applies to.

3.6.8. Total Gravity Main Renewal Payment annual escalation

The total Gravity Mains Renewals Payment escalation shall be determined by adjustments in the Schedule of Rates – Gravity Mains by way of:

- (a) Application of Market Rate and procurement contract information to items on the List of Key Materials and Services as per section 0; and
- (b) Application of the calculated Escalation Adjustment to all items not on the List of Key Materials and Services as per sections 3.6.2 and 3.6.3

and then applied to the portion of the Gravity Mains Renewals Programme included in the Annual Renewals Work Plan that the escalation applies to.

4. CALCULATION OF AMOUNT PAYABLE FOR VARIATIONS

4.1. PROVISIONS RELATING TO MANDATORY VARIATIONS

4.1.1. General

This clause 4.1 describes the methodology for determining the value of Mandatory Variations instructed by the Administrator or matters to be valued as a Mandatory Variation pursuant to clause 45.1.14 of the Contract Conditions.

The regime set out in this section 4.1 shall also apply for all variations where it is agreed that the variation is carried out on a Net Cost basis.

4.1.2. Cost and margins

Mandatory Variations shall be valued on the basis of the following:

- (a) The reasonable cost (or saving) of the work as set out in clause 43.1.15 of the Contract Conditions (excluding any margin or profit, and labour costs for staff already covered by the Monthly Service Payment); and

(b) Profit of [REDACTED] of the (a) amount.

4.1.3. Keeping of records

The Contractor must keep contemporary records of all costs incurred e.g. purchases, time consumed (including project management time) and submit evidence of these costs with the Variation claim.

4.1.4. Minimising cost

The Contractor must use reasonable endeavours to minimise the cost incurred, such reasonable endeavours shall include obtaining several quotations where it is practicable to do so.

4.2. PROVISIONS RELATING TO VARIATIONS GENERALLY

4.2.1. Variation Terms

This clause shall be read in conjunction with clause 43 of the Contract.

Variation payments shall be payable on terms as agreed by the parties and recorded in the Variation Order and failing such agreement shall be payable as described in 6.1.2(g) of this Schedule 2 following the completion of the Variation work.

The value of each Variation shall as far as possible shall be determined by agreement between the Contractor and the Council and where possible such agreement shall be reached prior to the Variation works being undertaken.

Failing agreement the Variation shall be valued by the Administrator in accordance with the rates and prices set out in the Schedule of Prices included in this Schedule (if any) or otherwise as agreed by the parties from time to time during the Term.

Where the Schedule of Prices contains prices or rates which are not directly applicable but which have a sufficient relationship to the Variation for it to be reasonable for the new prices to be derived from them, the Administrator shall use those prices or rates as a basis for calculating the value of the Variation.

If there is no applicable rate in the Schedule of Prices/Rates then the value of the Variation shall be such fair value as properly reflects the costs incurred or saved by the Contractor in undertaking or implementing the Variation plus a reasonable margin for the Contractor as shall be determined by the Administrator.

Where the valuation of the Variation requires that the Operations are monitored or measured, the Contractor will keep a record of all Variation work carried out. This information shall be submitted to the Administrator with each applicable monthly claim.

The parties acknowledge that the determination of the value of a Variation by the Administrator is a matter that may be the subject of a dispute pursuant to clause 14.1.1(c) of the Contract Conditions.

5. TE ARAWA COLLECTIVE

5.1. FORMATION OF AN O&M PARTNERSHIP WITH TE ARAWA COLLECTIVE

As per clause 1.2 of the Contract, the parties acknowledge that in principle (and without creating any binding commitments) the involvement of the Te Arawa Collective as a financial participant in the Contractor's structure for the delivery of the Project is favoured. The Contractor agrees to use all reasonable endeavours to implement the proposals relating to Te Arawa Collective involvement in the Project set out in the Contractor's Proposal, including without limitation the entry into the Te Arawa MOU.

Should the Contractor reach agreement with the Te Arawa Collective after the Execution Date of the Contract that results in the Te Arawa Collective's financial participation in the Contractor's delivery structure, then the Contractor will present a Variation Proposal to Council detailing the nature of the involvement and the implications for the Monthly Service Payment. The parties acknowledge that this will likely include an incremental adjustment to the Contractor's overall margin and the Monthly Service Payment.

6. GENERAL

6.1. CONTRACTOR INVOICE CONTENT

6.1.1. Invoice Requirements

All Contractor invoices must:

- (a) be dated the month following the month the work or services were carried out if claimed in arrears, and the month the work shall be carried out if claimable in advance;
- (b) received by Council within 5 Working Days of the start of the month that the payment claim relates to;
- (c) state the Council's Purchase Order Number for the work or services as communicated to the Contractor from time to time throughout the Contract, and
- (d) clearly identify the matters included in the claim.

6.1.2. Payment Claims procedure

The procedure for Payment Claims shall be as follows:

- (a) The Payment Claims shall be submitted on a calendar month basis and shall detail:
 - (i) The Monthly Service Payment due for the current month;
 - (ii) The Gravity Mains Renewals Payment due for the current month;
 - (iii) The Contractor's applications pursuant to clause 43.1.16 of the Contract Conditions for all amounts to which the Contractor is entitled to claim as a Variation (either in arrears or in advance as may be relevant to the Variation type) pursuant to the Contract.
- (b) Payment Claims shall be submitted within five Working Days of the start of the month dated as at the first day of the month.

e.g. a Payment Claim dated 1 June 20XX, submitted 04 June 20XX, would include:

- the Monthly Service Payment payable for the month of June (including the Trade Waste Payment Component payable for the month of May)
 - the Gravity Mains Renewal Payment payable for the month of June
 - Applications for payment for Variation claims for the month of May (unless payment in advance has been agreed as part of the Variation).
- (c) The claims shall be in the format required by the Administrator.
 - (d) The Contractor shall also submit to the Administrator such further information as is reasonably required to verify all Payment Claim amounts claimed and that the Operations for which the Payment Claim has been claimed have been performed to the standards required under this Contract. The format of this information will be agreed by the parties during the transition phase and may be changed from time to time throughout the Contract.
 - (e) Pursuant to 43.1.17 of the Contract Conditions, the Administrator shall issue a Certificate of Payment for the Variations claimed, or request further verifying information. Payment Claims (or

- parts of claims) may be rejected by the Administrator where insufficient verifying information is provided.
- (f) The Monthly Service Payment (excluding the Trade Waste Payment Component described in clause 3.4.2) and the Gravity Mains Renewals Payment portion of the Payment Claims (less deductions permitted under this Contract or at law) shall be paid, subject to provision of a valid tax invoice, by the 20th of the month of the date the claim relates to and is received, or where further verifying information is requested, within 10 Working Days of the date the required verifying information is provided to the Council.
 - (g) The portion of the Payment Claim that relates to Variation claims and the Trade Waste Payment Component charges in clause 3.4.2 (less deductions permitted under this Contract or at law) shall be paid, subject to provision of a valid tax invoice, by the 20th of the month it is received and the following month of the date that the claim relates to, or where further verifying information is requested, within 10 Working Days of the date the required verifying information is provided to the Council.
 - (h) If the Contractor omits any amount from a Payment Claim, it shall give written notice to Administrator immediately it becomes aware of the omission provided this happens in the following month. The omitted amount may be included in the Payment Claim for the following month but not otherwise.

6.2. GENERAL

6.2.1. General Requirements

All prices and payments made under the Contract shall (unless provided otherwise in the Contract) be in New Zealand currency and payable in New Zealand. All prices and rates are stated exclusive of goods and services tax, which is to be added and paid where appropriate.

Attachment A Schedule of Rates – Gravity Mains

Schedule 1 – Gravity Main Open Trench Replacement Rates

Rate No.	Pipe Diameter	Depth	Geothermal	Reinstatement	Pipe Material	Cost Rate (/m)
1.1 100mm Replacement						
1.1.1	100	<2.5m	N	Road	uPVC Pipe	████████
1.1.2	100	>2.5m	N	Road	uPVC Pipe	████████
1.1.3	100	<2.5m	N	Footpath	uPVC Pipe	████████
1.1.4	100	>2.5m	N	Footpath	uPVC Pipe	████████
1.1.5	100	<2.5m	N	Grass / Other	uPVC Pipe	████████
1.1.6	100	>2.5m	N	Grass / Other	uPVC Pipe	████████
1.1.7	100	<2.5m	Y	Road	GFRP	████████
1.1.8	100	>2.5m	Y	Road	GFRP	████████
1.1.9	100	<2.5m	Y	Footpath	GFRP	████████
1.1.10	100	>2.5m	Y	Footpath	GFRP	████████
1.1.11	100	<2.5m	Y	Grass / Other	GFRP	████████
1.1.12	100	>2.5m	Y	Grass / Other	GFRP	████████
1.2 150mm Replacement						
1.2.1	150	<2.5m	N	Road	uPVC Pipe	████████
1.2.2	150	>2.5m	N	Road	uPVC Pipe	████████
1.2.3	150	<2.5m	N	Footpath	uPVC Pipe	████████
1.2.4	150	>2.5m	N	Footpath	uPVC Pipe	████████
1.2.5	150	<2.5m	N	Grass / Other	uPVC Pipe	████████
1.2.6	150	>2.5m	N	Grass / Other	uPVC Pipe	████████
1.2.7	150	<2.5m	Y	Road	GFRP	████████
1.2.8	150	>2.5m	Y	Road	GFRP	████████
1.2.9	150	<2.5m	Y	Footpath	GFRP	████████
1.2.10	150	>2.5m	Y	Footpath	GFRP	████████
1.2.11	150	<2.5m	Y	Grass / Other	GFRP	████████
1.2.12	150	>2.5m	Y	Grass / Other	GFRP	████████
1.3 200mm Replacement						
1.3.1	200	<2.5m	N	Road	uPVC Pipe	████████
1.3.2	200	>2.5m	N	Road	uPVC Pipe	████████
1.3.3	200	<2.5m	N	Footpath	uPVC Pipe	████████
1.3.4	200	>2.5m	N	Footpath	uPVC Pipe	████████
1.3.5	200	<2.5m	N	Grass / Other	uPVC Pipe	████████
1.3.6	200	>2.5m	N	Grass / Other	uPVC Pipe	████████
1.3.7	200	<2.5m	Y	Road	GFRP	████████
1.3.8	200	>2.5m	Y	Road	GFRP	████████
1.3.9	200	<2.5m	Y	Footpath	GFRP	████████
1.3.10	200	>2.5m	Y	Footpath	GFRP	████████
1.3.11	200	<2.5m	Y	Grass / Other	GFRP	████████
1.3.12	200	>2.5m	Y	Grass / Other	GFRP	████████
1.4 300mm Replacement						
1.4.1	300	<2.5m	N	Road	uPVC Pipe	████████

Rotorua Wastewater Services Operations and Maintenance Contract

Rate No.	Pipe Diameter	Depth	Geothermal	Reinstatement	Pipe Material	Cost Rate (█/m)
1.4.2	300	>2.5m	N	Road	uPVC Pipe	█
1.4.3	300	<2.5m	N	Footpath	uPVC Pipe	█
1.4.4	300	>2.5m	N	Footpath	uPVC Pipe	█
1.4.5	300	<2.5m	N	Grass / Other	uPVC Pipe	█
1.4.6	300	>2.5m	N	Grass / Other	uPVC Pipe	█
1.4.7	300	<2.5m	Y	Road	GFRP	-
1.4.8	300	>2.5m	Y	Road	GFRP	-
1.4.9	300	<2.5m	Y	Footpath	GFRP	-
1.4.10	300	>2.5m	Y	Footpath	GFRP	-
1.4.11	300	<2.5m	Y	Grass / Other	GFRP	-
1.4.12	300	>2.5m	Y	Grass / Other	GFRP	-
1.5 375 Replacement						
1.5.1	375	<2.5m	N	Road	uPVC Pipe	█
1.5.2	375	>2.5m	N	Road	uPVC Pipe	█
1.5.3	375	<2.5m	N	Footpath	uPVC Pipe	█
1.5.4	375	>2.5m	N	Footpath	uPVC Pipe	█
1.5.5	375	<2.5m	N	Grass / Other	uPVC Pipe	█
1.5.6	375	>2.5m	N	Grass / Other	uPVC Pipe	█
1.5.7	375	<2.5m	Y	Road	GFRP	-
1.5.8	375	>2.5m	Y	Road	GFRP	-
1.5.9	375	<2.5m	Y	Footpath	GFRP	-
1.5.10	375	>2.5m	Y	Footpath	GFRP	-
1.5.11	375	<2.5m	Y	Grass / Other	GFRP	-
1.5.12	375	>2.5m	Y	Grass / Other	GFRP	-
1.6 450 Replacement						
1.6.1	450	<2.5m	N	Road	uPVC Pipe	█
1.6.2	450	>2.5m	N	Road	uPVC Pipe	█
1.6.3	450	<2.5m	N	Footpath	uPVC Pipe	█
1.6.4	450	>2.5m	N	Footpath	uPVC Pipe	█
1.6.5	450	<2.5m	N	Grass / Other	uPVC Pipe	█
1.6.6	450	>2.5m	N	Grass / Other	uPVC Pipe	█
1.6.7	450	<2.5m	Y	Road	GFRP	-
1.6.8	450	>2.5m	Y	Road	GFRP	-
1.6.9	450	<2.5m	Y	Footpath	GFRP	-
1.6.10	450	>2.5m	Y	Footpath	GFRP	-
1.6.11	450	<2.5m	Y	Grass / Other	GFRP	-
1.6.12	450	>2.5m	Y	Grass / Other	GFRP	-
1.7 525 Replacement						
1.7.1	525	<2.5m	N	Road	uPVC Pipe	█
1.7.2	525	>2.5m	N	Road	uPVC Pipe	█
1.7.3	525	<2.5m	N	Footpath	uPVC Pipe	█
1.7.4	525	>2.5m	N	Footpath	uPVC Pipe	█
1.7.5	525	<2.5m	N	Grass / Other	uPVC Pipe	█
1.7.6	525	>2.5m	N	Grass / Other	uPVC Pipe	█

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Rate No.	Pipe Diameter	Depth	Geothermal	Reinstatement	Pipe Material	Cost Rate █/m)
1.7.7	525	<2.5m	Y	Road	GFRP	-
1.7.8	525	>2.5m	Y	Road	GFRP	-
1.7.9	525	<2.5m	Y	Footpath	GFRP	-
1.7.10	525	>2.5m	Y	Footpath	GFRP	-
1.7.11	525	<2.5m	Y	Grass / Other	GFRP	-
1.7.12	525	>2.5m	Y	Grass / Other	GFRP	-
1.8 600 Replacement						
1.8.1	600	<2.5m	N	Road	uPVC Pipe	█
1.8.2	600	>2.5m	N	Road	uPVC Pipe	█
1.8.3	600	<2.5m	N	Footpath	uPVC Pipe	█
1.8.4	600	>2.5m	N	Footpath	uPVC Pipe	█
1.8.5	600	<2.5m	N	Grass / Other	uPVC Pipe	█
1.8.6	600	>2.5m	N	Grass / Other	uPVC Pipe	█
1.8.7	600	<2.5m	Y	Road	GFRP	-
1.8.8	600	>2.5m	Y	Road	GFRP	-
1.8.9	600	<2.5m	Y	Footpath	GFRP	-
1.8.10	600	>2.5m	Y	Footpath	GFRP	-
1.8.11	600	<2.5m	Y	Grass / Other	GFRP	-
1.8.12	600	>2.5m	Y	Grass / Other	GFRP	-
1.9 675 Replacement						
1.9.1	675	<2.5m	N	Road	uPVC Pipe	█
1.9.2	675	>2.5m	N	Road	uPVC Pipe	█
1.9.3	675	<2.5m	N	Footpath	uPVC Pipe	█
1.9.4	675	>2.5m	N	Footpath	uPVC Pipe	█
1.9.5	675	<2.5m	N	Grass / Other	uPVC Pipe	█
1.9.6	675	>2.5m	N	Grass / Other	uPVC Pipe	█
1.9.7	675	<2.5m	Y	Road	GFRP	-
1.9.8	675	>2.5m	Y	Road	GFRP	-
1.9.9	675	<2.5m	Y	Footpath	GFRP	-
1.9.10	675	>2.5m	Y	Footpath	GFRP	-
1.9.11	675	<2.5m	Y	Grass / Other	GFRP	-
1.9.12	675	>2.5m	Y	Grass / Other	GFRP	-
1.10 750 Replacement						
1.10.1	750	<2.5m	N	Road	uPVC Pipe	█
1.10.2	750	>2.5m	N	Road	uPVC Pipe	█
1.10.3	750	<2.5m	N	Footpath	uPVC Pipe	█
1.10.4	750	>2.5m	N	Footpath	uPVC Pipe	█
1.10.5	750	<2.5m	N	Grass / Other	uPVC Pipe	█
1.10.6	750	>2.5m	N	Grass / Other	uPVC Pipe	█
1.10.7	750	<2.5m	Y	Road	GFRP	-
1.10.8	750	>2.5m	Y	Road	GFRP	-
1.10.9	750	<2.5m	Y	Footpath	GFRP	-
1.10.10	750	>2.5m	Y	Footpath	GFRP	-
1.10.11	750	<2.5m	Y	Grass / Other	GFRP	-

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Rate No.	Pipe Diameter	Depth	Geothermal	Reinstatement	Pipe Material	Cost Rate (/m)
1.10.12	750	>2.5m	Y	Grass / Other	GFRP	-
1.11 825 Replacement						
1.11.1	825	<2.5m	N	Road	uPVC Pipe	█
1.11.2	825	>2.5m	N	Road	uPVC Pipe	█
1.11.3	825	<2.5m	N	Footpath	uPVC Pipe	█
1.11.4	825	>2.5m	N	Footpath	uPVC Pipe	█
1.11.5	825	<2.5m	N	Grass / Other	uPVC Pipe	█
1.11.6	825	>2.5m	N	Grass / Other	uPVC Pipe	█
1.11.7	825	<2.5m	Y	Road	GFRP	-
1.11.8	825	>2.5m	Y	Road	GFRP	-
1.11.9	825	<2.5m	Y	Footpath	GFRP	-
1.11.10	825	>2.5m	Y	Footpath	GFRP	-
1.11.11	825	<2.5m	Y	Grass / Other	GFRP	-
1.11.12	825	>2.5m	Y	Grass / Other	GFRP	-
1.12 900 Replacement						
1.12.1	900	<2.5m	N	Road	uPVC Pipe	█
1.12.2	900	>2.5m	N	Road	uPVC Pipe	█
1.12.3	900	<2.5m	N	Footpath	uPVC Pipe	█
1.12.4	900	>2.5m	N	Footpath	uPVC Pipe	█
1.12.5	900	<2.5m	N	Grass / Other	uPVC Pipe	█
1.12.6	900	>2.5m	N	Grass / Other	uPVC Pipe	█
1.12.7	900	<2.5m	Y	Road	GFRP	-
1.12.8	900	>2.5m	Y	Road	GFRP	-
1.12.9	900	<2.5m	Y	Footpath	GFRP	-
1.12.10	900	>2.5m	Y	Footpath	GFRP	-
1.12.11	900	<2.5m	Y	Grass / Other	GFRP	-
1.12.12	900	>2.5m	Y	Grass / Other	GFRP	-

Schedule 2 – Gravity Main Relining Rates

Rate No.	Pipe Dia.	Key Service	Total Cost Rate (█/m)	Key Service %	Key Service Rate (█/m)
2.1 Gravity Main Relining					
2.1.1	150	Pipe Relining	█	█	█
2.1.2	225	Pipe Relining	█	█	█
2.1.3	250	Pipe Relining	█	█	█
2.1.4	300	Pipe Relining	█	█	█
2.1.5	375	Pipe Relining	█	█	█
2.1.6	450	Pipe Relining	█	█	█

Schedule 3 – Lateral Replacement and Sealing Rates

Rate No.	Pipe Diameter	Cost Rate (█)
3.1 Lateral Replacement (\$/m)		
3.1.1	20	█
3.1.2	100	█
3.1.3	150	█
3.1.4	225	█
3.2 Lateral Sealing (\$/each)		
3.2.1	300	█
3.2.2	225	█
3.2.3	150	█

Attachment B Summary of Combined WWTP and Reticulation Network Service Payments at the Commencement Date

Item	Service Payment Calculation (In Scope Costs)	Total Proposal	Rotorua WWTP	Rotoiti/Rotoma WWTP	Rotorua Network	Rotoiti/Rotoma Network
Variable Costs						
6.1	Electricity					
6.2	Residuals Disposal (sludge and grit and screenings)					
6.3	Chemicals					
6.4	Metered Water Supply					
6.5	Sampling & Analysis					
Variable Operating Costs Total						
Fixed Operating Costs						
6.6	Salaries and Wages					
6.7	Maintenance and other operating costs					
6.8	Mobilisation Cost					
6.9.	Provisional Sum for LCB [REDACTED]					
Fixed Operating Costs Total						
Overhead and Administration Costs						
6.10	Management/Support Services/Admin					
6.11	Insurance					
6.12	Guarantees/Bonds					
Overhead Costs Total:						
Total O&M Costs:						
6.13	Replacement & Refurbishment Replacement & Refurbishment (Gravity Main)					
Total Asset Renewal Costs:						
6.14	Contingency					
6.15	Profit					
Service Payment Total						

These figures form the basis of the Monthly Service Payment at Commencement, however:

- All figures in the table above are [REDACTED] except for 6.1 Electricity which is [REDACTED]. Initial escalation of [REDACTED] has been applied to the Commencement Date values.
- The figures at 6.14 Contingency are based on a [REDACTED] contingency applied to 6.1 Electricity and [REDACTED] contingency applied to all other line items.
- The line 6.15 Profit is based on a project-wide profit margin of [REDACTED]
- The line 6.13 Replacement & Refurbishment (Gravity Main) is based on the Base Profile at the Commencement Date.

Attachment C List of Key Materials and Services – Gravity Mains

Gravity Main Relining

The following market rates are based on indicative budget quotes from Interflow (a specialist relining supplier) obtained during the preparation of the Contractor's original proposal submitted on the Reference Date and escalated to Commencement Date dollars. The Key Service Market Rates are for the relining service only, excluding other project costs contained in the [REDACTED] balance of the Total Cost Rate.

Pipe Diameter	Total Cost Rate ([REDACTED]/m)	Key Service	Key Service %	Key Service Market Rate ([REDACTED]/m)
150	[REDACTED]	Pipe Relining	[REDACTED]	[REDACTED]
225	[REDACTED]	Pipe Relining	[REDACTED]	[REDACTED]
250	[REDACTED]	Pipe Relining	[REDACTED]	[REDACTED]
300	[REDACTED]	Pipe Relining	[REDACTED]	[REDACTED]
375	[REDACTED]	Pipe Relining	[REDACTED]	[REDACTED]
450	[REDACTED]	Pipe Relining	[REDACTED]	[REDACTED]

Note that as Gravity Main relining is part of the Gravity Main Renewals Programme, the rates in the table above are not considered Project Prices, but are shown for reference only.

Each Gravity Main Renewals Programme shall be prepared using the latest Market Rate for the most appropriate relining technique, or the rates above escalated to present day dollars only if no more recent Market Rate exercise has been completed by the Contractor.

The rates used in the preparation of the programme shall be replaced by the Market Rate prior to the delivery of the project. Where there is an unexpected change in the Market Rate obtained, the Contractor shall seek the Administrators instructions on how to proceed. The following sections contain more detail regarding this process:

- Section 3.6.6 (a) of this Schedule 2
- Section 8.1 of Appendix K of Schedule 16 (Methodology for Altering the Gravity Mains Renewals Programme).

Attachment D List of Key Materials and Services – Non Gravity Mains

The following items have been identified as Key Materials and Services for the purpose of sharing risk in external price movements over the Contract Term. The prices below refer to the specific items or services as described only, and not the delivery, design, management or other costs and expenses associated with the renewal activity.

Membranes

The following budget pricing for individual membrane module replacements were obtained from Suez in June 2020. They are ex works pricing (bag and boxed ready for shipping). These rates represent the cost to the Contractor.

Note at the time of a renewal project, the Project Price in the table below would be multiplied by the number of modules being replaced.

Model	Project Price (█████ ex GST)	Supplier for Project Price (quoted █████ ex GST)
Individual ZeeWeed 500D 370 ft2 modules (bag and boxed ready for shipping).	█████	Suez
Individual ZeeWeed 500D 340 ft2 modules (bag and boxed ready for shipping).	█████	Suez

Manhole Relining

The following project prices are based on indicative budget quotes from Interflow (a specialist relining supplier) obtained during the preparation of the Contractor's original proposal submitted on the Reference Date and escalated to Commencement Date dollars. The rates are for the relining service only, excluding associated traffic management and other project costs.

It should be noted that the per m² rate is converted to individual manholes by working out the circumference of the manhole chamber multiplied by the depth.

Manhole Depth	Product Type	Project Price (\$ per m ² of surface area of manhole chamber to be relined)	Supplier for Project Price (quoted █████ ex GST escalated to Commencement Date dollars)
<3m	Sewpercoat (CAC)	█████	Interflow
3m – 6m	Sewpercoat (CAC)	█████	Interflow
>6m	Sewpercoat (CAC)	█████	Interflow

Attachment E Worked Examples

1. Additional On-property Pre-treatment Units Escalated Payment Component

Scenario: The following number of additional On-property Pre-treatment Units are added to the contract as shown in Table E1 below. For the purpose of calculation of this example, CPI values for the same period are estimated in Table E2.

Table E1

31 January, Year	No. of On-property Pre-treatment Units	Cumulative No. of Claimable Units
2030	█	█
2031	█	█
2032	█	█

Table E2

31 December, Year	CPI value
2029	█
2030	█
2031	█

The AOPUM Payment Component is calculated as follows.

At the end of January 2030, the 10 additional On-property Pre-treatment Units recorded for the year is above the threshold of “more than 5” so the number of Claimable Units requires adjusting. At this point the cumulative total of Claimable Units is also 10.

$$10 \text{ Claimable Units} \times \text{█ per year per unit} = \text{█}$$

This is the adjustment in Commencement Date dollars (2020). Using the CPI values estimated in Table E2 and the Escalation Formula in Section 3.6.3 (with LCI and CGPI weightings both equal to zero):

$$\begin{aligned} \text{Escalation Adjustment} &= \frac{(CPI - CPI_{CD})}{CPI_{CD}} \times \text{Payment Component at Commencement} \\ &= \frac{\text{█}}{\text{█}} \times \text{█} = \text{█} \end{aligned}$$

Escalated Payment Component

$$\begin{aligned} &= \text{Escalation Adjustment} + \text{Payment Component at Commencement} \\ &= \text{█} + \text{█} = \text{█} \end{aligned}$$

The AOPUM Payment Component of the Monthly Service Payment payable for the period 1 July 2030 – 30 June 2031 is █ / month.

At the end of January 2031, the 4 additional On-property Pre-treatment Units recorded for the year is below the threshold of “more than 5” so the number of Claimable Units does not increase. The Payment Component still applies to the 10 Claimable Units from the previous year and requires an escalation adjustment:

$$10 \text{ Claimable Units} \times \text{█ per year per unit} = \text{█}$$

$$\begin{aligned} \text{Escalation Adjustment} &= \frac{(CPI - CPI_{CD})}{CPI_{CD}} \times \text{Payment Component at Commencement} \\ &= \frac{\blacksquare}{\blacksquare} \times \frac{\blacksquare}{\blacksquare} = \blacksquare \end{aligned}$$

$$\begin{aligned} \text{Escalated Payment Component} \\ &= \text{Escalation Adjustment} + \text{Payment Component at Commencement} \\ &= \blacksquare + \frac{\blacksquare}{\blacksquare} = \blacksquare \end{aligned}$$

The AOPUM Payment Component of the Monthly Service Payment payable for the period 1 July 2031 – 30 June 2032 is \blacksquare month.

At the end of January 2032, the 6 additional On-property Pre-treatment Units recorded for the year is above the threshold of “more than 5” so the number of Claimable Units requires adjusting. The Payment Component for the following year now applies to 10+6 = 16 Claimable Units in total.

$$16 \text{ Claimable Units} \times \blacksquare \text{ per year per unit} = \blacksquare$$

$$\begin{aligned} \text{Escalation Adjustment} &= \frac{(CPI - CPI_{CD})}{CPI_{CD}} \times \text{Payment Component at Commencement} \\ &= \frac{\blacksquare}{\blacksquare} \times \frac{\blacksquare}{\blacksquare} = \blacksquare \end{aligned}$$

$$\begin{aligned} \text{Escalated Payment Component} \\ &= \text{Escalation Adjustment} + \text{Payment Component at Commencement} \\ &= \blacksquare + \frac{\blacksquare}{\blacksquare} = \blacksquare \end{aligned}$$

The AOPUM Payment Component of the Monthly Service Payment payable for the period 1 July 2032 – 30 June 2033 is \blacksquare / month.

2. List of Key Materials Adjustment

Scenario: A membrane module is planned for replacement at the Rotorua WWTP in the 2024/25 Annual Renewals Works Plan. The membrane module has a Market Price at Commencement of [REDACTED] in 2020 dollars in the Lists of Key Materials – Non Gravity Mains.

In November 2023, the Market Rate of the membrane module is [REDACTED]

The Escalated Project Price (after annual escalation by the December 2023 CGPI figure) is [REDACTED] (for the purpose of this example only, not based on actual CGPI rates)

Calculation:

$$\frac{\text{Market Rate} - \text{Escalated Project Price}}{\text{Escalated Project Price}} \times 100\%$$

$$\frac{[REDACTED]}{[REDACTED]} = [REDACTED]$$

The Market Rate is [REDACTED] greater than the Escalated Project Price. As this is more than the [REDACTED] threshold. The Market Rate is used in the preparation of the Annual Renewals Work Plan.

The unit price difference between Market Rate and the Escalated Project Price = [REDACTED]

The replacement project in the 2024/25 Annual Renewals Works Plan at the Rotorua WWTP involves 100 modules so the total difference between the Market Rate and the Escalated Project Price for the entire replacement is calculated as:

The unit price difference between Market Rate and the Escalated Project Price x the number of units to be replaced = [REDACTED]

This is payable as an Escalation Adjustment to the Monthly Service Payment for the 12 month period July 2024 to June 2025:

$$= [REDACTED] \text{ per month.}$$

3. Trade Waste Payment Component Worked Example

Scenario: The following additional Trade Waste permits are granted by Council, that meet the criteria in Schedule 16 section 10.7 of having a “more than minor” effect. Variations in order to mitigate the impact of the Trade Waste permits are granted as shown.

Note that the Trade Waste Payment Component is claimed monthly in arrears. For the purpose of calculation of this example, CPI values for the same period are estimated in Table E1.

Also note that at the Commencement Date, all Trade Waste permits have fixed components only. The variable components shown below are included in case of future use.

Trade Waste permits:

- Permit #1 payable from 1 November 2029 includes a fixed payment of [REDACTED]/month.
- Permit #2 payable from 1 August 2030 includes a fixed payment of [REDACTED] month and a variable payment of [REDACTED] m³ discharged, assuming [REDACTED] of water metered at the premises is discharged.
- Permit #3 payable from 1 May 2031 includes a fixed payment of [REDACTED]/month and a variable payment of [REDACTED] m³ discharged.

Table E1 CPI values

End January, Year	CPI value
2029	[REDACTED]
2030	[REDACTED]
2031	[REDACTED]
2032	[REDACTED]

The Trade Waste Payment Component is calculated as follows (table of payments follows calculations):

Calculation A

Starting with the payment claim submitted dated 1 December 2029, the Trade Waste Component for Permit #1 is [REDACTED]/month.

Calculation B

Escalation is calculated at the end of January 2030 but is not applied until 1 July 2030.

At the end of January 2030, Permit #1 requires escalating by the formula:

$$\begin{aligned} & \text{Escalated Payment Component} \\ &= \frac{CPI_x}{CPI_{x-1}} \times (\text{Current Year Payment Component} + \text{Additional Adjustments}) \end{aligned}$$

$$= \frac{[REDACTED]}{[REDACTED]} \times [REDACTED]$$

$$= [REDACTED]$$

The escalated Trade Waste Payment Component, payable from 1 July 2030 is [REDACTED]/month. This is included in the payment claim dated 1 August 2030.

Calculation C

For the payment claim submitted dated 1 September 2030, Permit #2 is payable. The Trade Waste Payment Component now has fixed and variable portions. The fixed portion of Trade Waste Payment Component is now:

$$\text{Permit \#1(escalated) + Permit \#2} = \blacksquare + \blacksquare = \blacksquare / \text{month}$$

The variable portion of the Trade Waste Payment Component is $\blacksquare / \text{m}^3$ discharged from Permit #2 premises and will vary from month to month.

Calculation D

For the payment claim submitted 1 April 2031, Permit #3 is now payable.

The fixed portion of Trade Waste Payment Component is now:

$$\text{Permit \#1(escalated) + Permit \#2 + Permit \#3} = \blacksquare + \blacksquare + \blacksquare = \blacksquare \text{ per month}$$

The variable portion of the Trade Waste Payment Component is:

- $\blacksquare / \text{m}^3$ discharged from Permit #2 premises and
- $\blacksquare / \text{m}^3$ discharged from Permit #3

And will vary from month to month.

Calculation E

Escalation is calculated at the end of January 2031, but is not applied until 1 July 2031. This is included in the payment claim dated 1 August 2031.

Permit #1 and Permit #2 require escalating by the formula above. Permit #3 began after the end of January 2031, so Permit #3 will not escalate in 2031, but will be included in escalation adjustments from 2032 onwards.

The fixed portion of the Trade Waste Payment Component is:

$$\begin{aligned} &= \text{Permit \#1 and \#2 escalated} + \text{Permit \#3} \\ &= \frac{\blacksquare}{\blacksquare} \times \blacksquare + \blacksquare = \blacksquare \text{ per month} \end{aligned}$$

The variable portion of the Trade Waste Payment Component for Permit #2 is:

$$= \frac{\blacksquare}{\blacksquare} \blacksquare \text{ per m}^3$$

The variable portion of the Trade Waste Payment Component for Permit #3 is $\blacksquare / \text{m}^3$.

Calculation F

Escalation is calculated at the end of January 2032, but is not applied until 1 July 2032. This is included in the payment claim dated 1 August 2032.

Permit #1, Permit #2 and Permit #3 now all escalate.

The fixed portion of the Trade Waste Payment Component is:

$$= \frac{\blacksquare}{\blacksquare} \blacksquare \text{ per month}$$

The variable portion of the Trade Waste Payment Component for Permit #2 is:

$$= \frac{\blacksquare}{\blacksquare} \blacksquare \text{ per m}^3$$

The variable portion of the Trade Waste Payment Component for Permit #3 is:

$$= \frac{\blacksquare}{\blacksquare} \blacksquare \text{ per m}^3$$

Rotorua Wastewater Services Operations and Maintenance Contract

Note that the variable portions cannot be summed because they will each apply to their own trade waste customer.

Payment Claim Dated	Combined Fixed Portion	Variable Portion (\$/m ³)			Calculation reference
		Permit #1	Permit #2	Permit #3	
1 Dec 2029					A
1 Jan 2029					
1 Feb 2030					
1 March 2030					
1 April 2030					
1 May 2030					
1 June 2030					
1 July 2030					
1 August 2030					B
1 Sept 2030					C
1 Oct 2030					
1 Nov 2030					
1 Dec 2030					
1 Jan 2030					
1 Feb 2031					
1 March 2031					
1 April 2031					
1 May 2031					
1 June 2031					D
1 July 2031					
1 August 2031					E
1 Sept 2031					
1 Oct 2031					
1 Nov 2031					
1 Dec 2031					
1 Jan 2031					
1 Feb 2031					
1 March 2031					
1 April 2032					
1 May 2032					
1 June 2032					
1 July 2032					
1 August 2032					F
1 Sept 2032					
1 Oct 2032					
1 Nov 2032					
1 Dec 2032					
1 Jan 2032					

Attachment F Contractor's Electricity Assumptions

The assumptions listed in this section form the basis of the Electricity Payment Component, and the adjustment of that Payment Component throughout the Contract Term as the rates charged for electricity change with time.

It is not anticipated that the assumptions in these tables will change throughout the Contract Term, unless driven by changes to the Council's procurement of electricity.

A spreadsheet has been developed by the parties as a contract management tool (and not a formal part of the Contract Documents) prior to execution of the Contract, that calculates the Electricity Payment Component using the information in the tables below. It is listed in Attachment G.

TOU Variable Pricing – Used for all TOU Sites

Operation Hours Assumptions	Days	Times	Assumed Proportion of Electricity Consumption in Each Part of Week
Weekday Peak	Mon-Fri	08:00-00:00	
Weekday Offpeak	Mon-Fri	00:00-08:00	
Weekend Peak	Sat, Sun	08:00-00:00	
Weekend Offpeak	Sat, Sun	00:00-08:00	

Type of Charge/Time of Use	Unit	July 2018 Tender Baseline Rate
Peak Weekday Charge	c/kWh	
Offpeak Weekday Charge	c/kWh	
Peak Weekend Charge	c/kWh	
Offpeak Weekend Charge	c/kWh	
Peak Weekday Loss Charge	c/kWh	
Offpeak Weekday Loss Charge	c/kWh	
Peak Weekend Loss Charge	c/kWh	
Offpeak Weekend Loss Charge	c/kWh	

Rotorua WWTP – Variable Costs

Year 1 Total Rotorua WWTP Tender Energy Costs	
Assumed Initial Variable Cost Proportion	
Annual Demand Growth	

Rotorua WWTP - Fixed Costs

Component	Units	Assumed Quantity per month
Anytime EA Levy	c/kWh	kWh
EA Levy Registry & Ops Charge	\$/year	/month
Admin Fees	c/kWh	kWh
Fixed Line Charge (Rotorua WWTP)	\$/day	days
Meter Fees	\$/month	
Peak Capacity Charge	\$/kVar/month	kVar

Note that the Fixed Line Charge is not updated annually. See section 3.4.1 (c)

Rotorua Network – Operational Cost Split

Year 1 Total Energy Costs	\$	
Annual Demand Growth		
Fixed Cost Proportion		
Variable Cost Proportion		
TOU Cost % Proportion		
NHH Cost % Proportion		

Note: TOU Variable cost adjustment is shown under the TOU Variable Pricing above.

Rotorua Network - Fixed Costs at TOU Sites

Fixed Charge Component	Units	July 2018 Tender Rate	% of Fixed Charges Component
Anytime EA Levy	c/kWh		
EA Levy Registry & Ops Charge	\$/year		
Meter Fees	\$/month		
Admin Fees	c/kWh		
Power Factor	\$/kVar/month		
Fixed Line Charge + Transformer Charge	\$/day		
Anytime Demand Charge	\$/kW/month		
Summer Demand Charge	\$/kW/month		
Winter Demand Charge	\$/kW/month		

Rotorua Network - NHH Sites – based on Load Group R-MC1 only

Electricity Rates	Units	2018 Baseline Charges
Variable Usage Charges (all c/kWh charges)	c/kWh	
Daily Fixed Charges	\$/day	

Rotomā/Rotoiti WWTP Facility Variable Pricing (TOU site)

Variable Consumption Design Flow (ML/d)	█
Annual Average Daily Flow (ML/d)	█
Variable Loss Rate	█
Annual Demand Growth	█

Year No.	-1	0	1	2	3	4	5	6	7	8	9	10
Flow (ML)	█	█	█	█	█	█	█	█	█	█	█	█
Total Energy (kWh)			█	█	█	█	█	█	█	█	█	█
Total Losses (kWh)			█	█	█	█	█	█	█	█	█	█
Maximum kVar			█	█	█	█	█	█	█	█	█	█

Rotomā/Rotoiti WWTP Facility Fixed Pricing

Electricity Rates	Units	Assumed Quantity per year
Anytime EA Levy	c/kWh	Total Energy + Total Losses (Year 1) kWh
EA Levy Registry & Ops Charge	\$/year	█
Admin Fees	c/kWh	Total Energy + Total Losses (Year 1) kWh
Fixed Line Charge (Rotoiti WWTP)	\$/day	█
Meter Fees	\$/month	█
Peak Capacity Charge	\$/kVar/month	█ (Maximum kVar value)

Rotomā Network – Variable Pricing

Annual Average Daily Flow (ML/d) – Year 1	█
Annual Average Flow (ML) – Year 1	█
Annual Demand Growth	█
Pump Station 1	
Consumption	Operation Proportion
kW	Duty (L/s)

Rotorua Wastewater Services Operations and Maintenance Contract

Pump 1												
Pump 2												
	Variable Loss Rate											
Pump Station 3												
Pump 1												

Year No.	-1	0	1	2	3	4	5	6	7	8	9	10
Flow (ML)												
PUMP STATION 1												
Total Consumption (kWh)												
Total Losses (kWh)												
PUMP STATION 3												
Total Consumption (kWh)												

Rotomā Network – Fixed Pricing

Pump Station 1

Electricity Rates	Units	Assumed Quantity per year
Anytime EA Levy	c/kWh	Total Consumption + Total Losses in Variable Pricing (kWh)
EA Levy Registry & Ops Charge	\$/year	
Admin Fees	c/kWh	Total Consumption + Total Losses in Variable Pricing (kWh)
Fixed Line Charge (Rotoiti Network PS1)	\$/day	
Meter Fees	\$/month	

Electricity Index

To inform future discussions regarding escalation of the Electricity Payment Component under different bulk purchasing models, the parties acknowledge the following Electricity Index was agreed to account for annual variations in electricity pricing under Council's previous spot-price-based purchasing model:

Step 1)

$$\frac{\text{Total electricity cost relating to Contract scope in the preceding 12 months}}{\text{Total number of MWh relating to Contract scope purchased by Council in the preceding 12 months}} = \text{Current year average purchase price per MWh}$$

Step 2)

$$\frac{\text{Current year average purchase price per MWh}}{\text{Previous year average purchase price per MWh}} = \text{Electricity Index}$$

Note this is not intended to override section 3.6.4 of this Schedule 2, so long as escalation can be derived from Council's electricity agreement (though it may be [REDACTED] for the term of a fixed price agreement).

Attachment G Practice Note: Contract Management Tools

Prior to the execution of the Contract, the following spreadsheets were developed to assist with the cost calculations described in this Schedule 2.

Important assumptions out of these spreadsheets are captured in Schedule 2 or elsewhere in the Contract Documents. The spreadsheets represent the logical connection of these assumptions through formulae but they are not guaranteed to be free of errors.

They are listed here as references for future cost adjustments required under the Contract, but do not form part of the Contract Documents.

The parties acknowledge that the approaches used align with the intent of the Contract Documents, but where any discrepancy is uncovered, the requirements of the Contract Documents shall have precedence.

1. The Electricity Payment Component:
"Rotorua Electricity Pricing Adjustment Model_FINAL_130820.xlsx"
2. The annual escalation of the Payment Components:
"Escalation Calculation.xlsx"
3. The Rotomā/Rotoiti WWTP Facility Monthly Service Payment Adjustment:
"Rotoiti WWTP Variable Cost Calculations_FINAL.xlsm"
4. The Gravity Mains Base Profile (execution date copy in Schedule 16)
"Gravity Mains Base Profile FINAL_200814.xlsx"

SCHEDULE 3 – INSURANCES

1. Council Insurances

1.1 Material Damage

For the purposes of this Contract “Insured Assets” means all above ground WWTP Facilities and Reticulation Network Assets.

A policy or policies covering damage to the Insured Assets in whole and any part.

Cover to include (but not be limited to) fire, earthquake, tidal wave, tsunami and flood. The amount of cover shall be the full reinstatement value of the Insured Assets including allowance for the following:

- (a) the cost of demolition, removal of debris and preparation for replacement works; and
- (b) the cost of project management including the cost of the Administrator and Administrator's Representatives; and
- (c) the cost associated with the preparation of any claims under such insurance policy (whether incurred by the Contractor, the Council or both); and
- (d) increased costs due to inflation; and
- (e) increased costs due to inflation and expediting costs that may occur arising from re-planning and delays during the reinstatement period together with such additional costs arising during the reinstating of the Insured Assets.

The material damage insurance shall be in place at the Commencement Date and shall be maintained by the Council until the Expiry Date or sooner termination of the Contract.

Deductibles limits and sub-limits under the Material damage insurance shall not exceed the following amounts set out in Schedule 14 – Schedule of Information.

The material damage insurance deductible, limit and sublimit amounts specified above shall be adjusted in each year on a compounding basis by the Escalation Index as set out in Schedule 2 – Payments on 1 July in the second year after the Commencement Date and annually thereafter.

The Council's obligations re Material Damage cover do not include provision of cover for damage caused to other Council property arising out of the carrying out by the Contractor of construction work.

2. Contractor Insurances

2.1 Operations Construction Insurance

A policy (or policies) covering the whole and any part of all construction work anywhere in New Zealand including while in transit and including all materials intended to be incorporated into the works. Cover to include (but not be limited to) fire, earthquake, seismic activity, tidal wave, tsunami and flood. The amount of cover shall be the full reinstatement value of the works and shall include allowance for the following:

- (a) the cost of demolition, removal of debris and preparation for replacement works;
- (b) the cost of project management including the cost of the Administrator and Administrator's Representatives;
- (c) the cost associated with the preparation of any claims under such insurance policy (whether incurred by the Contractor, the Council or both);
- (d) increased costs due to inflation: and
- (e) increased costs due to inflation and expediting costs that may occur arising from re-planning and delays during the reinstatement period together with such additional costs arising during the reinstating of the works.

The Operations construction insurance shall be in place as at the Commencement Date and shall be maintained by the Contractor until the Expiry Date. The Operations Construction insurance shall also cover all work required to remedy defects in the Operations works.

2.2 Third Party Liability

A third party liability policy covering the liability of the Contractor and/or the Council in respect of personal injury (including death) or property damage occurring anywhere in New Zealand (including whilst in transit) arising out of or in connection with the carrying out of the Operations. Cover shall include liability arising out of the use of all Contractor's equipment. The cover shall be for not less than twenty million dollars (\$20,000,000.00) for any one occurrence with no limit on the total payable in respect of all occurrences.

The third party liability insurance shall be in place as at the Commencement Date and shall be maintained by the Contractor until the Expiry Date.

2.3 Motor Vehicle Third Party Liability

A motor vehicle liability policy covering the liability of the Contractor and/or the Council to third parties in respect of personal injury (including death) or property damage occurring anywhere in New Zealand arising out of or in connection with the use of any motor vehicle which the Contractor owns or has control over and that is directly or indirectly connected with the carrying out of the Operations. The cover for any one occurrence shall be not less than five million dollars (\$5,000,000.00) with no limit on the total amount payable in respect of all occurrences.

The motor vehicle liability insurance shall be in place as at the Commencement Date and shall be maintained by the Contractor until the Expiry Date.

2.4 Contractor's machinery and equipment

A policy covering loss or damage to Contractor's equipment and machinery. The cover shall be for not less than the current market value of all Contractor's equipment and machinery.

The Contractor's machinery and equipment insurance shall be in place as at the Commencement Date and shall be maintained by the Contractor until the Expiry Date.

2.5 Professional Negligence

A policy covering liability to third parties in respect of claims for breach of professional duty by reason of negligent act, error or omission relating to the carrying out of the Operations. The cover for any one occurrence shall be not less than twenty million dollars (\$20,000,000.00).

The professional negligence insurance shall be in place as at the Commencement Date and shall be maintained by the Contractor up to 6 years following the Expiry Date.

2.6 Environmental Impairment Liability Insurance

A Third Party Liability policy covering the liability of the Contractor and/or the Council to third parties in respect of environmental pollution or contamination arising out of, or in connection with the carrying out of the Operations. The cover shall be for not less than Ten million dollars (\$10,000,000) any one occurrence and in the annual aggregate.

The environmental impairment liability insurance shall be in place as at the Commencement Date and shall be maintained by the Contractor until the Expiry Date.

3. Escalation of insurance cover amount requirements

- 3.1 The insurance cover amounts specified above shall be adjusted in each year on a compounding basis by the Escalation Index as set out in Schedule 2 – Payments on 1 July in the second year after the Commencement Date and annually thereafter.

SCHEDULE 4 – NOVATION DEEDS

1. Rotoiti On-property Pre-treatment Units Contract Novation Deed

Rotorua District Council

[] Limited

TRILITY Rotorua Limited

DEED OF NOVATION RE ON-PROPERTY PRE-TREATMENT UNITS CONTRACT

PARTIES

Rotorua District Council (Council)

[] Limited (On-property Pre-treatment Units Contractor)

TRILITY Rotorua Limited (Contractor)

BACKGROUND

- A The Council has entered into a contract dated [] (reference []) (On-property Pre-treatment Units Contract) with the On-property Pre-treatment Units Contractor for the [supply, operation and maintenance/operation and maintenance] of On-property Pre-treatment Units in the Rotoiti sewage reticulation catchment area (On-property Pre-treatment Units).
- B The Council has entered into a Wastewater Services Operations and Maintenance contract (reference 20/001) dated [] with the Contractor (Wastewater Services Contract).
- C The parties have agreed that the interest of the Council in the On-property Pre-treatment Units Contract shall be novated to the Contractor to the intent that the On-property Pre-treatment Units Contract shall, following such novation, be a subcontract to the Wastewater Services Contract and the On-property Pre-treatment Units Contractor shall be a subcontractor to the Contractor.
- D The parties record the terms and conditions of the novation in this deed.

COVENANTS

This Deed witnesses

1. NOVATION

1.1 Novation Date

This deed is effective from [] (Novation Date). This deed, and the warranties, and obligations of the parties under this deed become, or are, of force and effect as at the Novation Date irrespective of the actual date of this deed or the date of execution of this deed by any of the parties.

1.2 Release of obligations

Other than Council obligations as to payment in terms of clause 1.4 of this deed, the Council and the On-property Pre-treatment Units Contractor agree to release each other from all obligations and liabilities under the On-property Pre-treatment Units Contract as from the Novation Date. The parties acknowledge that the Council and On-property Pre-treatment Units Contractor remain otherwise fully liable to each other under the On-property Pre-treatment Units Contract for the period up to the Novation Date.

1.3 Novation

As from the Novation Date, the On-property Pre-treatment Units Contractor and the Contractor agree that they enter into a new contract on the same terms and conditions as the On-property Pre-treatment Units Contract except that the rights, obligations and liabilities of the Contractor and the On-property Pre-treatment Units Contractor will be as if the Contractor had executed the On-property Pre-treatment Units Contract instead of the Council.

1.4 Remuneration

The Council agrees to pay all amounts payable to the On-property Pre-treatment Units Contractor under the On-property Pre-treatment Units Contract for On-property Pre-treatment Units in relation to services provided by the On-property Pre-treatment Units Contractor prior to the Novation Date.

2. WARRANTIES

2.1 On-property Pre-treatment Units Contractor warranties to the Contractor

The On-property Pre-treatment Units Contractor warrants and undertakes to the Contractor as at the Novation Date that the On-property Pre-treatment Units Contractor has complied with all of its duties, obligations and undertakings under the On-property Pre-treatment Units Contract.

2.2 Council's warranty to the Contractor

The Council warrants and undertakes to the Contractor as at the Novation Date that the Council has complied with all of its duties, obligations and undertakings under the On-property Pre-treatment Units Contract.

3. GENERAL

3.1 Governing law

This deed is governed by the laws of New Zealand. Each party unconditionally and irrevocably submits to the non-exclusive jurisdiction of the Courts of New Zealand.

3.2 Further assurances

Each party must do or use its reasonable endeavours to cause to be done anything necessary or desirable to give effect to this deed, and will refrain from doing anything, which might prevent full effect being given to this deed.

3.3 Severability

The illegality, invalidity or unenforceability of any provision in this deed will not affect the legality, validity or enforceability of any other provisions.

3.4 Counterparts

This deed may be executed in any number of counterparts. All counterparts taken together will be deemed to constitute the one deed.

4. DEFINITIONS AND INTERPRETATION

4.1 Interpretation

In this deed, unless the context otherwise requires:

- (a) words importing the singular number include the plural number;
- (b) words importing the plural number include the singular number;
- (c) words of any gender include the other gender and bodies corporate;
- (d) covenants given in this document by more than one person shall bind each of them jointly and severally;
- (e) a party includes its successors and permitted assigns;
- (f) paragraph headings and table of contents are not to be used to construe this document.

4.2 Except where expressly provided to the contrary all references in this deed to 'including', 'includes' or 'include' shall be read as if that reference is followed by the words 'without limitation'.

4.3 Terms used in this deed that are defined in the On-property Pre-treatment Units Contract have, unless the context does not allow, the same meaning as in the On-property Pre-treatment Units Contract.

EXECUTION

Executed and delivered as a deed.

Dated 20[]

Signed for and on behalf of
Rotorua District Council

Elected Member

Elected Member

Signed by
[Insert name of On-property Pre-treatment Units Contractor] Limited

in the presence of:

Witness signature:

Witness name:

Occupation:

Address:

Signed by
TRILITY Rotorua Limited

in the presence of:

Witness signature:

Director

Witness name:

Director

Occupation:

Address:

SCHEDULE 5 – COUNCIL INFORMATION, FACILITIES AND OBLIGATIONS

1. Information to be provided by the Council is the following information as is reasonably available within Council's records:
 - A) Up to date network maintenance records where not already provided. This is required during the transition period and would include, for example records of the network flushing programme and any relevant historical information on the performance or reliability of the Land Treatment System which the Contractor does not already hold.
 - B) A summary of historical information regarding On-property Pre-treatment Units. This information can be provided by way of a face to face handover during the transition period.
 - C) All hard copy asset data held relating to the Wastewater assets including manuals and historical drawings of the Rotorua WWTP Facility, the Land Treatment System and Reticulation Network Facilities to be provided during the transition period.
 - D) Any relevant customer information relating to the safety of Contractor staff and subcontractors. This may include information about dangerous dogs, restrictive access, ongoing disputes with customers relating to wastewater issues and the like.

2. Facilities to be provided by the Council
Nil

SCHEDULE 6 – COUNCIL INFORMATION TECHNOLOGY REQUIREMENTS

1. Follow the Practice Note(s) (being developed under this Contract) when interacting with the Council's systems.
2. Follow the latest version of Council's IT Acceptable Use Policy when using a Council device or connected to a Council network.
3. Take all reasonable steps not to cause harm the integrity of the Council's information, systems or networks relating to:
 - ensuring data integrity and accuracy;
 - appropriate data custodianship whilst held by the Contractor;
 - securing devices, data, services and networks where the Contractor and Council networks overlap or interact.
4. Inform Council in a timely manner of any security or data breach relating to services performed for Council.
5. Inform Council 1 Working Day (where possible) before any staff departure who have access to Council services.
6. Ensure only named users have access to Council services and account usernames and passwords are not shared.
7. Ensure all Contractor staff are governed by appropriate Contractor IT policies which Council can review.
8. The Contractor to maintain appropriate Disaster Recovery and Business Continuity documentation relating to IT on this Contract to ensure that Contractor IT services relating to this Contract are maintained.

SCHEDULE 7 – PARTNERING

Partnering philosophy

Council and the Contractor will conduct the Contract within the philosophy of partnering.

Partnering plan

Partnering under this Contract shall involve (but will not necessarily be limited to) the following:

1. Gaining top management commitment from each party.
2. Arranging team building/bonding between Council and the Contractor as a planned process to acknowledge each other's agendas, focussing on common goals, clarifying expectations and establishing ground rules for the implementation of the Contract.
3. Expanding the commitment to all other significant participants who will be working together on the Contract by forming a cohesive team with a single set of objectives and developing a joint commitment for the timely identification, discussion and resolution of issues affecting the Project.
4. Producing a charter for the Contract with each team building workshop participant signing the charter to reinforce its commitment. The charter may typically contain the following commitments to:
 - (a) maintain quality control;
 - (b) carry out and administer the Contract so that all parties are treated fairly;
 - (c) achieve the Key Performance Indicators;
 - (d) embrace a transparent 'no surprises' contract relationship culture;
 - (e) resolve disputes as quickly as possible; and
 - (f) encourage the achievement of added value for the benefit of all parties by indicating improvements which become apparent throughout the Project.
5. Conducting regular joint evaluations of partnering performance by all participants.
6. Conducting regular formal follow up evaluations of team performance and identifying areas for improvement at regular intervals as are necessary to enforce the attitudes and processes developed in the initial workshops.
7. Developing commitment and support from all levels of management including consistent endorsement of the principles of partnering.

SCHEDULE 8 – BOND FORM

BOND

SCHEDULE 8 – BOND FORM

BOND

PARTIES

Rotorua District Council (Council)

[] (Surety)

BACKGROUND

- A TRILITY Rotorua Limited (Contractor) has entered into a Wastewater Services Operations and Maintenance Contract dated [] (Contract) with the Council.
- B [OPTION - for Contractor's Operations Bond] The Contract requires the Contractor to provide the Council with security in the form of a bond as security for the performance of the Contractor's obligations and liabilities in respect of Operations as set out in Schedule 16 – Operations, Maintenance and Renewals Requirements.
- [OPTION – for Condition Assessment Obligations Bond] The Contract requires the Contractor to provide the Council with security in the form of a bond as security for the performance of the Contractor's Condition Assessment Obligations in accordance with clause 80.4 of the Contract.
- C The Surety has agreed to provide this bond in favour of the Council.

OPERATIVE PROVISION

The Surety undertakes and binds itself in favour of the Council as follows.

COVENANTS

1. SURETY'S UNDERTAKING

- 1.1 The Surety unconditionally undertakes to pay to the Council all sums which the Council shall demand up to an amount in the aggregate not exceeding the sum of [] dollars (\$[]) (Bond Amount).

2. DEMAND BY THE COUNCIL

- 2.1 Demand by the Council shall be in writing.
- 2.2 The Council may make demand under this bond at any time and without any need to first pursue remedies against the Contractor.

3. BOND TO CONTINUE IN FORCE

- 3.1 This bond and the Surety's undertaking shall continue in force until the earlier of the following events:
- 3.1.1 the Surety pays the whole of the Bond Amount to the Council; or
- 3.1.2 the Council provides a written release of this bond to the Surety.
- 3.2 Except as provided in this clause 3 this bond shall continue in full force and effect.

4. SURETY NOT RELEASED FROM LIABILITY

- 4.1 The Surety shall not be released from any liability under this bond:

- 4.1.1 by any alteration in the terms of the Contract;
- 4.1.2 by any alteration in the extent or nature of the Operations to be carried out by the Contractor under the Contract;
- 4.1.3 by any allowance of time by the Council or the Administrator;
- 4.1.4 by any forbearance or waiver by the Council or the Administrator in respect of any of the Contractor's obligations or liabilities or in respect of any default on the part of the Contractor;
- 4.1.5 by any alteration of the extent or nature of the Contractor's obligations or liabilities under the Contract;
- 4.1.6 by any indulgence or additional or advance payment, forbearance, payment or concession given to the Contractor;
- 4.1.7 by the compromise or resolution of any dispute with the Contractor; or
- 4.1.8 by the failure to detect or prevent any default or breach by the Contractor under the Contract.

5. SURETY RIGHT TO DISCHARGE BOND

- 5.1 Notwithstanding any other provision of this bond, the Surety may at any time at the Surety's discretion, whether or not the Surety has received a demand, terminate the Surety's obligations under this bond giving the Council written notice of such termination and by paying the Council the Bond Amount or the balance outstanding of the Bond Amount, or any lesser amount that the Council may require.

6. PAYMENTS BY THE SURETY

- 6.1 Payments under this bond shall be made free and clear of and without any deduction for any present or future taxes, levies, impost duties, fees, deductions, set off or withholding of any nature.

7. PAYMENT ON DEMAND

- 7.1 Payment by the Surety will be made forthwith upon receipt of a written demand purporting to be signed by the Council and such payment will be made without reference to and notwithstanding any instruction from the Contractor to the Surety not to pay the same. Payment or part payment will be made as demanded under this bond up to the maximum aggregate amount expressed herein.

8. NOTICES

- 8.1 All demands notices and other communications provided for and permitted under this bond are required to be in writing and shall be sent by registered mail with postage prepaid, by hand delivery or by courier as follows:

In the case of notices or communications to the Council:

GM Infrastructure
Rotorua District Council
1061 Haupapa Street
Private Bag 3029
Rotorua mail Centre Rotorua 3046

In the case of demands, notices or communications to the Surety [*to be inserted in executed bond*].

or to such other address or person as any party may specify by notice in writing to the others.

- 8.2 All such notices or communications shall be deemed to have been duly given or made:
 - (i) 3 days after being deposited in the mail by the sender with mail postage prepaid;

(ii) on delivery when delivered by hand or by courier.

9. GENERAL

- 9.1 This bond shall be governed by the laws of New Zealand. The Surety submits to the non-exclusive jurisdiction of the courts of New Zealand.
- 9.2 No waiver or any breach or failure to enforce any provision of this bond at any time by the Council shall in any way limit or waive the right of the Council to subsequently exercise its rights under this bond.
- 9.3 Capitalised expressions that are not defined in this bond shall have the meaning set out in the Contract.
- 9.4 This bond is and shall be construed as a deed.
- 9.6 The Council shall be entitled, with the Surety's consent, to transfer, assign, novate or otherwise deal with its rights under this bond to an entity to which the Council's benefits and where novated, liabilities in the Contract are assigned, transferred, novated. In all other respects, the Council cannot assign, transfer, charge or otherwise deal with its rights under this bond and the Surety will not recognise any other purported assignment, transfer, charge or other dealing.

EXECUTION

Dated 20[].

Signed as a deed by the Surety

in the presence of

Witness:

Occupation:

Address:

NOTE: This bond must be executed by the Surety in the manner required for execution of a deed.

Any Surety which is a company or body corporate must execute as follows:

- (i) Where it is a company incorporated under the Companies Act 1993, by having it signed, under the name of the company, by two or more directors. If there is only one director, it is sufficient if the bond is signed under the name of the company by that director, but the signature must be witnessed by another person. The witness must not only sign but must also add his or her occupation and address. Alternatively, companies may execute under power of attorney.
- (ii) Where it is a body corporate other than a company incorporated under the Companies Act 1993, in the same manner as a company by persons occupying a position that is comparable with that of a director of a company or otherwise in accordance with s.9 Property Law Act 2007.

In the case of a Surety who is an individual, the Surety must sign and the signature must be witnessed by another person. The witness must not only sign but must also add his or her occupation and address.

SCHEDULE 9 – GUARANTEE

DEED OF GUARANTEE AND INDEMNITY
RE
WASTEWATER SERVICES
OPERATIONS AND MAINTENANCE CONTRACT

PARTIES

[] (Guarantor)

Rotorua District Council (Council)

BACKGROUND

- A** The Council has, at the request of the Guarantor, entered into a Wastewater Services Operations and Maintenance Contract with TRILITY Rotorua Limited (Contractor) dated [] (Contract).
- B** TRILITY New Zealand Limited (O&M Major SubContractor) is a Major SubContractor under the Contract and has entered into or will after the execution of this Guarantee enter into a Major SubContractor Direct Deed in favour of the Council pursuant to the Contract (Direct Deed).
- C** In consideration of the Council entering into the Contract at the request of the Guarantor, the Guarantor has agreed to execute this deed in favour of the Council whereby the Guarantor guarantees the Guaranteed Obligations of and the payment of all Guaranteed Monies by the Contractor and/or the O&M Major SubContractor to the Council under the Contract and under the Direct Deed.

OPERATIVE PROVISIONS

This deed witnesses and for the consideration set out above, the Guarantor covenants with the Council as follows.

- 1. Guarantee**
 - 1.1 The Guarantor unconditionally and irrevocably guarantees the performance by the Contractor and of the O&M Major SubContractor of the Guaranteed Obligations and the payment of all Guaranteed Moneys.

- 2. Guarantor covenants**
 - 2.1 The Guarantor covenants:
 - (a) Whenever the Contractor and/or the O&M Major SubContractor defaults in the performance of any Guaranteed Obligations, the Guarantor will promptly following written demand from the Council remedy the default or arrange for the default in the performance of such Guaranteed Obligations to be remedied; and
 - (b) The Guarantor shall promptly (and in any case within 3 Working Days) on receipt of written demand from the Council, pay to the Council any Guaranteed Moneys not paid by the Contractor and/or the O&M Major SubContractor on its due date.

- 3. Unconditional indemnity**
 - 3.1 The Guarantor unconditionally and irrevocably indemnifies the Council against all damages, costs, loss or expenses incurred by the Council as a direct result of any breach by the Contractor and/or the O&M Major SubContractor of any of the Guaranteed Obligations and as a result of failure by the Contractor and/or the O&M Major SubContractor to pay any part of the Guaranteed Moneys and the Guarantor shall promptly following written demand from the Council pay to the Council the amount of such damages, costs, loss or expenses so indemnified.

4 Extent of Guarantor's liability

4.1 The Guarantor's liability under clauses 1, 2 and 3 is payable on the same terms as the indemnity provided by and the obligations of the Contractor and/or the O&M Major SubContractor to the Council under the Contract and the Direct Deed (as applicable).

4.2 Subject to clause 14.2 but notwithstanding anything else to the contrary in this deed, the Guarantor's liability under this deed is limited in the aggregate to the following maximum amounts:

(a) For claims notified in writing by the Council pursuant to this deed in the period from the Commencement Date under the Contract to the date falling 10 years after the Commencement Date the sum of fifteen million dollars (\$15,000,000) in aggregate escalated in accordance with the Escalation Index and the process set out in Schedule 2 of the Contract.

4.3 Notwithstanding anything to the contrary in this deed, the Guarantor shall not have any greater obligation or liability (and shall have no greater rights and entitlements) than the Contractor and/or the O&M Major SubContractor has under the Contract and the Direct Deed, including without limitation:

(a) the Guarantor shall be entitled to assert any defence, set-off or counterclaim that the Contractor or the O&M Major SubContractor can assert;

(b) the discharge by the Contractor or the O&M Major SubContractor of any of its obligations under the Contract (including, without limitation, the payment of any moneys) shall effectively and to a similar extent discharge the obligations of the Guarantor under this deed;

(c) the discharge by the Guarantor of any of the Contractor and/or the O&M Major Subcontractor's obligations under the Contract shall effectively and to a similar extent discharge the Guarantor of its similar obligations under this deed;

(d) the Guarantor will not be liable to the Council for any loss, damage, costs or expenses in respect of which the Contractor and/or the O&M Major SubContractor's liability is expressly excluded under the Contract, and if the Contractor's and/or the O&M Major SubContractor's liability for any loss, damage, costs or expenses is expressly limited under the Contract then the Guarantor will not be liable to the Council in excess of such limit in respect of such loss, damage, costs or expenses; and

(e) the Guarantor shall not be entitled to re-litigate any Dispute that has been resolved pursuant to the provisions of the Contract or the Direct Deed (as applicable) or at Law to the intent that each binding Dispute resolution relating to the Guaranteed Obligations and the Guaranteed Moneys shall be binding on the Guarantor.

5. Guarantor's liability as principal debtor

5.1 Although as between the Guarantor and the Contractor and the O&M Major SubContractor the Guarantor may be a surety only, as between the Guarantor and the Council the Guarantor shall be deemed to be a principal debtor and liable on all of the Contractor and/or the O&M Major SubContractor's covenants with the Council. The Guarantor shall not be released by any act, matter or thing the happening of which would release one liable only as a surety and shall continue to remain liable to the Council notwithstanding that for any particular reason any covenant or obligation of the Contractor or the O&M Major SubContractor with or to the Council may, for the time being, be unenforceable by the Council against the Contractor or the O&M Major SubContractor.

6. Guarantor's obligations to continue unaffected

6.1 The obligations and liabilities of the Guarantor and the rights of the Council under this deed continue and are not affected by:

(a) the Council granting any time, waiver or other indulgence to the Contractor and/or the O&M Major SubContractor or any Covenantor;

- (b) the Council consenting to any scheme of arrangement or assignment for the benefit of creditors by the Contractor or the O&M Major SubContractor or any Covenantor or compounding or compromising with or wholly or partially releasing or covenanting not to sue the Contractor or the O&M Major SubContractor or any Covenantor;
- (c) laches, acquiescence, delay, acts, omissions, or mistakes by the Council or any other person;
- (d) the Council taking, varying, wholly or partially discharging or otherwise dealing with or losing or impairing any rights to or security interest for the Guaranteed Moneys;
- (e) any person who was intended to become a Covenantor not doing so or not doing so effectively or being discharged;
- (f) the entry into novation, assignment, rescission, termination or variation of any contract or arrangement between the Council and the Contractor and/or the O&M Major SubContractor or any Covenantor;
- (g) the insolvency, winding up or de-registration of the Contractor or the O&M Major SubContractor or any Covenantor;
- (h) the granting of time by the Council, or the extension of time under the Contract or the Direct Deed;
- (i) the entering into by the Contractor and/or the O&M Major SubContractor and the Council of, or the instructing of, any variation by the Council under the Contract or the Direct Deed;
- (j) the amending or varying of the Contract or the Direct Deed or the rights or obligations of any party to the Contract or the Direct Deed;
- (k) the making of payments by the Council to the Contractor and/or the O&M Major SubContractor in relation to the Contract or the Direct Deed, whether provided for in the Contract or not;
- (l) the lack of notice by the Council to the Guarantor of any default or impending default or of any circumstances that may have led to a default on the part of the Contractor and/or the O&M Major SubContractor;
- (m) any alteration in the nature or extent of the services under the Contract or the Direct Deed;
- (n) the failure by the Council to detect any error or omission or other defect in the performance of the services under the Contract or the Direct Deed;
- (o) the compromising of any dispute with the Contractor and/or the O&M Major SubContractor;
- (p) anything else which might at law or in equity have the effect of prejudicing or discharging the Guarantor's liability under this deed.

7. Discretion in enforcing securities

- 7.1 The Guarantor agrees that the Council may enforce this deed irrespective of whether it has made a demand on or enforced any rights against the Contractor and/or the O&M Major SubContractor.

8. Suspension of Guarantor's rights

- 8.1 As long as any Guaranteed Moneys are owing by the Contractor and/or the O&M Major SubContractor to the Council (whether or not the Guarantor has become liable for that money under this deed), the Guarantor shall not:
- (a) make any claim or enforce any right against the Contractor or the O&M Major SubContractor or any Covenantor;
 - (b) prove in competition with the Council if the Contractor or the O&M Major SubContractor or any Covenantor becomes insolvent, whether in respect of any amount paid by the Guarantor under this

deed, in respect of any other amount (including the proceeds of any security interest) applied by the Council in reduction of the Guarantor's liability under this deed, or otherwise; or

- (c) be entitled to the benefit of any security interest or guarantee or any share therein now or subsequently held by the Council in respect of the Guaranteed Moneys.

9. Payment for services

- 9.1 If the Guarantor performs any of the Guaranteed Obligations then, as between Council and the Guarantor, the same conditions and consideration will apply as contained in the Contract or the Direct Deed (as applicable), except that no consideration will be paid to the Guarantor for the performance of any Guaranteed Obligations for which the Contractor and/or the O&M Major SubContractor has been paid in accordance with the Contract or the Direct Deed (as applicable). For the purposes of clarity, the parties acknowledge that this clause shall not operate to limit the Council's set off rights or the Council's Operations Step-in Rights under the Contract or the Direct Deed.

10. Acknowledgements by Guarantor

- 10.1 The Guarantor acknowledges that:

- (a) there is no condition affecting the operation of the guarantee and indemnity recorded by this deed that is not contained in this deed; and
- (b) no person has any authority to vary the terms of this deed or to waive any of the Council's rights, except by an instrument in writing executed by the Council.

11. Continuing security

- 11.1 This deed shall be a continuing guarantee and indemnity and shall remain in full force and effect and shall not be deemed to have been released or discharged or in any way vacated until a final release of this deed is executed by the Council.

12. No right to discontinue

- 12.1 The Guarantor shall have no right to discontinue the guarantee and indemnity recorded by this deed.

13. Collateral securities

- 13.1 This deed is given in addition to and not in substitution for any other security interest held by the Council. Neither this deed nor anything contained in this deed shall discharge, merge, abate or prejudice:
 - (a) any other security interest now or in the future held by the Council for the Guaranteed Obligations or for payment of the Guaranteed Moneys; or
 - (b) any claim or rights the Council has or may have upon any guarantee, bill of exchange, promissory note, cheque or other instrument.

14. Costs

- 14.1 The Guarantor will pay on demand all external legal costs and expenses reasonably incurred by the Council in connection with and incidental to the exercise or attempted exercise by the Council of any of its powers or rights under this deed.
- 14.2 All such costs and expenses shall be paid by the Guarantor to the Council in addition to the amount to which the Guarantor's liability is limited under clause 4.1 of this deed.

15. Notices

- 15.1 In this clause a 'notice' includes any demand, request, disclosure, notification or other communication which is required or permitted to be made, given or delivered by any party to any other party under this deed.
- 15.2 All notices shall be in writing.
- 15.3 Without limiting any other form of service prescribed or permitted by law, no notice shall be effective unless properly sent to the recipient and until received by the recipient.
- 15.4 Unless otherwise expressly provided in this deed, any notice shall be deemed to have been properly sent if sent by prepaid post, courier or delivered by hand to the address for service (which shall be in New Zealand or Australia) and marked for the attention of the person or office holder (if any) specified by the parties as provided in this deed.
- 15.5 Without prejudice to any other mode of receipt, any properly sent notice shall be deemed to have been received by the recipient:
- (a) if sent by post three Working Days after being put in the post; or
 - (b) if delivered by hand or by courier, when left at the address for service of the recipient.
- 14.6 The initial address for service (which shall be in New Zealand or Australia), and person or office holder (if any) specified by the parties are set out in the Schedule.
- 15.7 Any notice delivered by hand or courier which is received by the recipient after 5:00pm (local time) on any Working Day or on a day which is not a Working Day, shall be deemed not to have been received by the party to which it was sent until 9:00am (local time) on the next Working Day.
- 15.8 Any party may modify its address for service (which shall be in New Zealand or Australia), by giving 5 Working Days' notice to the other party.
- 15.9 No error or omission in a notice or demand shall affect its validity and the Guarantor shall not have any right of action, claim or demand against the Council by reason of such error or omission or by reason of the exercise or enforcement by the Council of its powers, rights and remedies under this deed whether express or implied.

16. Assignment by Guarantor

- 16.1 The Guarantor may not assign or transfer all or any of its rights, benefits and obligations under this deed.

17. Governing law

- 17.1 This deed shall in all respects be governed by and construed in accordance with the laws of New Zealand. The parties hereby irrevocably submit to the non-exclusive jurisdiction of the Courts of New Zealand.
- 17.2 The Guarantor agrees that the process by which any proceedings in New Zealand under this deed is begun may be served on it by delivery to the address for notices pursuant to clause 15.

18. No waiver

- 18.1 No failure or delay by the Council to exercise any power, remedy or right in relation to this deed shall:
- (a) prejudice, limit or affect or operate as a waiver of that power, remedy or right; or
 - (b) be deemed to waive any default or breach of any obligation, liability or agreement by the Guarantor.
- 18.2 The exercise or partial exercise of any power, remedy or right shall be without prejudice to the Council's right to exercise that or any other power, remedy or right at the same time or in the future (except insofar as the exercise of any power, remedy or right is inconsistent with the exercise of any other power, remedy or right).

19. Survival of covenants

- 19.1 The covenants of the Guarantor contained in this deed shall survive the payment of the Guaranteed Moneys and any part thereof and the release of this deed and shall only be discharged if the Guarantor or other person or persons making any payment of the Guaranteed Moneys or any part thereof was solvent at the time of making such payment and remains solvent during the period during which any such payment may become or be deemed to be avoided or voidable.

20. Partial invalidity/severability

- 20.1 If one or more of the provisions or part of any provision of this deed is or becomes or is held to be or to have become illegal, invalid, unenforceable, void or voidable in any respect under any applicable law for any reason, it shall not affect the legality, validity or enforceability of the other provisions or other part of any provision of the deed, and shall be severed from this deed so that the remaining provisions or other part of any provision shall remain in full force and effect and shall be valid and enforceable to the fullest extent permitted by law.

21. Remedies cumulative

- 21.1 The powers, remedies or rights conferred on the Council by this deed are cumulative and not exclusive of any powers, remedies or rights provided by law.

22. Counterparts

- 22.1 This deed may be executed in any number of counterparts each of which shall be deemed an original but all of which taken together shall be deemed to constitute one and the same instrument.

23. Definitions

- 23.1 In this deed, unless the context otherwise requires:

Covenantor means any person other than the Guarantor who has guaranteed the Guaranteed Obligations to the Council and/or the payment of the Guaranteed Moneys to the Council or has agreed to indemnify the Council as to the same whether a party to this deed or not.

Guaranteed Moneys means all moneys payable by the Contractor to the Council under or arising from the Contract and all moneys payable by the O&M Major SubContractor to the Council under or arising from the Direct Deed.

Guaranteed Obligations means all obligations (whether express or implied) of the Contractor to be observed or performed under the Contract and all obligations (whether express or implied) of the O&M Major SubContractor to be observed or performed under the Direct Deed.

Schedule means the schedule attached to this deed.

Working Day means any day other than a Saturday, Sunday, or a public holiday applying in Rotorua, New Zealand.

- 23.2 In this deed, unless specifically stated, or the context otherwise requires, any reference shall be construed in the same way as in the Contract.

24. Interpretation

- 24.1 Where a party comprises more than one person, the covenants and obligations expressed or implied in this deed bind those persons, and any two or more of them jointly and each of them severally.

- 24.2 This deed shall benefit and be binding upon the parties and their respective successors and personal representatives and any permitted assignees or transferee of their rights and references to the parties shall be construed accordingly.
- 24.3 Words importing one gender include the other genders and words importing the singular number include the plural and in each case vice versa.
- 24.4 A 'person' includes any individual, company, corporation, firm, partnership, joint venture, association, organisation, trust, state, or agency of state, government department or municipal authority in each case whether or not having separate legal personality.
- 24.5 Unless otherwise specified, references to parts, sections, clauses, subclauses, schedules and appendices are references to sections, clauses, subclauses, schedules and appendices in this deed and references to parties are references to parties to this deed.
- 24.6 Terms and expressions defined in this deed and any other part of this deed (including the Schedules) shall unless expressly limited or where the context does not permit, have the same meaning in all parts and all schedules and appendices.
- 24.7 Any schedules or appendices to this deed shall have the same effect as if set out in the body of this deed.
- 24.8 Headings are inserted for the sake of convenience of reference only and do not affect the interpretation of this deed.
- 24.9 References to any statute refer also to any regulation, order and notice made under or pursuant to the statute or regulations made under the statute; and references to statutes and regulations refer also to statutes and regulations amending, consolidating or re-enacting those referred to.
- 24.10 Any covenant not to do anything also constitutes an obligation not to suffer, permit or cause that thing to be done.
- 24.11 A right granted or reserved may be exercised from time to time and at all times.
- 24.12 Words and expressions defined are indicated by capital letters for convenience.
- 24.13 References in this deed to the consent or approval of any party for any purpose shall be construed to require that consent or approval for each separate occasion notwithstanding any prior consent or approval for the like purpose or purposes.
- 24.14 In this deed 'day' means a calendar day and 'year' means a calendar year unless used in the context of a calculation or pro rating when it shall mean a period of 365 days.
- 24.15 Reference to 'Dollars' or '\$' shall be a reference to New Zealand Dollars unless otherwise stated.
- 24.16 A 'law' includes common or customary law and any constitution, decree, judgment, legislation, order, ordinance, regulation, by-law, statute, treaty, permit, authorisation, consent, requirement or other legislative measure of any governmental or quasi-governmental body or any local authority or other authority body or tribunal and in each case of any jurisdiction whatever and includes any future law, and 'lawful' and 'unlawful' shall be construed accordingly.
- 24.17 The language of this deed is English. All notices and communications of any kind required under or arising in connection with this deed shall be in English.

EXECUTION

Executed and delivered as a deed

Date:

Signed for and on behalf of _____)
[_____]) Director
as Guarantor)
in the presence of: _____)
Director

Witness signature

Witness name:

Occupation:

Address:

Signed for and on behalf of _____)
Rotorua District Council)
By _____) Elected Member
)
)
) _____)
) Elected Member

NOTE: This guarantee must be executed by the Guarantor(s) in the manner required for execution of a deed.

Any Guarantor which is a company or body corporate must execute as follows:

- (i) Where it is a company incorporated under the Companies Act 1993, by having it signed, under the name of the company, by two or more directors. If there is only one director, it is sufficient if the guarantee is signed under the name of the company by that director, but the signature must be witnessed by another person. The witness must not only sign but must also add his or her occupation and address. Alternatively, companies may execute under power of attorney.
- (ii) Where it is a body corporate other than a company incorporated under the Companies Act 1993, in the same manner as a company by persons occupying a position that is comparable with that of a director of a company or otherwise in accordance with s.9 Property Law Act 2007.

In the case of a Guarantor who is an individual, the Guarantor must sign and the signature must be witnessed by another person. The witness must not only sign but must also add his or her occupation and address.

SCHEDULE 10 – MAJOR SUBCONTRACTOR DIRECT DEED

MAJOR SUBCONTRACTOR DIRECT DEED
relating to
WASTEWATER SERVICES
OPERATIONS AND MAINTENANCE CONTRACT
(CONTRACT 20/001)

Rotorua District Council
(Council)

[]
(Major Subcontractor)

TRILITY Rotorua Limited
(Contractor)

Date:

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This Major Subcontractor Direct Deed is made on

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- Between (1) Rotorua District Council (Council)
(2) *[insert name of Major Subcontractor]* (Major Subcontractor)
(3) TRILITY Rotorua Limited (Contractor)

Introduction

- A. The background to the Project is set out in the Project Agreement.
- B. The Contractor has subcontracted its obligations under the Project Agreement to *[insert description of subcontracted obligations]* to the Major Subcontractor pursuant to the Major Subcontract.
- C. The parties agree that the Council will have the option of exercising certain rights in relation to the Major Subcontract, on the terms set out in this Deed.

It is agreed

Part 1 - Definitions and Interpretation

1. Definitions

1.1 Project Agreement

Definitions in the Project Agreement apply in this Deed unless the relevant term is defined in this Deed.

1.2 Definitions

In this Deed, unless the context otherwise requires, the following terms have the following meanings:

Affiliate means in respect of the Major Subcontractor or the Contractor (as applicable):

- (a) any holding company or subsidiary of the Major Subcontractor or the Contractor (as applicable) or another subsidiary of that holding company; or
- (b) any company, body corporate or partnership (including a limited partnership) where 50% or more of the votes exercisable, directly or indirectly, at a meeting or partners meeting, or more than 50% of the profits of which, are controlled by such person;

Consent Date has the meaning given to it in clause 11.4(a);

Council Personnel means the Administrator or other person(s) authorised by Council and notified to the parties in writing to act as and perform the functions of the Council Personnel under this Deed;

Deed means this Major Subcontractor direct deed;

Default Event means:

- (a) any breach by the Contractor of its obligations under the Major Subcontract; or
- (b) any other event or circumstance,

that alone or with the giving of notices or passage of time or both, entitles the Major Subcontractor to terminate, rescind, accept the repudiation of, or suspend any or all of the Major Subcontractor's obligations under the Major Subcontract but only where any such breach, event or circumstances has not been remedied within any relevant cure period set out in the Major Subcontract or at Law;

Default Event Notice has the meaning given to it in clause 6.2(a);

Event of Contractor Default has the meaning given to it (or to the term "Event of Default" as that term relates to the default of the Contractor) in the Major Subcontract; *[Drafting note: Term may alter depending on Major Subcontract terminology.]*

General Partner means a general partner of a Limited Partnership.

Intervention Failure has the meaning given to it in clause 12.1 (Rights preserved);

Limited Partnership means a limited partnership under the Limited Partnerships Act 2008.

Major Subcontract means that agreement dated on or around the date of this Deed between the Contractor and the Major Subcontractor, with respect to the Project;

Major Subcontract Documentation means the Major Subcontract and each and every other bank guarantee, performance bond, stand-by letter of credit or other guarantee or security held by the Contractor to secure the obligations of the Major Subcontractor under the Major Subcontract;

Major Subcontractor Breakage Costs means Losses that have been or will be reasonably and properly incurred by the Major Subcontractor as a direct result of the termination of the Project Agreement, but only to the extent that:

- (a) the Losses are incurred in connection with the Project and in respect of the Services, including:
 - (i) any materials or goods ordered or subcontracts placed that cannot be cancelled without such Losses being incurred;
 - (ii) any expenditure incurred in anticipation of the provision of Services in the future;
 - (iii) the cost of demobilisation including the cost of any relocation of equipment used in connection with the Project; and
 - (iv) redundancy payment liability incurred by the Major Subcontractor; and
- (b) the Losses are incurred under arrangements and/or agreements that are on reasonable, arms-length commercial terms and are consistent with terms that have been entered into in the ordinary course of business.

Major Subcontractor Statement has the meaning set out in clause 7.2;

MSDD Dispute refers to a 'Major Subcontractor Default Dispute' and has the meaning set out in clause 18 (Dispute resolution);

MSDD Dispute Notice has the meaning given to it in clause 18 (Dispute resolution);

MS Independent Expert means an independent expert appointed under clause 18.2;

MS Independent Expert Referral Notice means a notice given under clause 18.2;

Novation Agreement has the meaning given to it in clause 11.4(b)(ii) (Implementation of Novation);

Novation Effective Date means the date of commencement of the performance of the obligations under the Novation Agreement, as set out in the Novation Agreement;

Power means any power, right, authority, discretion or remedy, whether express or implied;

Project Agreement means the Wastewater Services Operations and Maintenance Contract dated on or around the date of this Deed, between the Contractor and the Council, with respect to the Project;

Proposed Novation Date has the meaning given to it in clause 11.1(b) (Proposed Novation Notice);

Proposed Novation Notice has the meaning given to it in clause 11.1(a) (Proposed Novation Notice);

Proposed Substitute has the meaning given to it in clause 11.1(a)(iii) (Proposed Novation Notice);

Related Loss has the meaning given to it in clause 21.10 (Related Loss);

Revised Proposed Novation Notice has the meaning given to it in clause 11.3(e)(i) (Consent to novation);

Services means the services required to be performed by the Major Subcontractor, for the Contractor, pursuant to the terms of the Major Subcontract;

Step-in Date means the date on which the Major Subcontractor receives notice from the Council of the exercise of any Step-in Right;

Step-in Period has the meaning given to it in clause 8.1(b) (Council rights);

Step-in Right means each right exercisable by the Council pursuant to clause 8.1(a) (Council rights);

Step-out Date means the date on which Step-out occurs under clause 8.3 (Council Step-out);

Subcontractor means a person engaged by the Major Subcontractor to act as a subcontractor for the purposes of the Project;

Successor Council Entity means any council controlled organisation or council controlled trading organisation of the Council as those terms are defined in the Local Government Act 2002; and

Termination Ground has the meaning given to it in clause 6.3 (Termination Grounds).

2. Interpretation

2.1 Interpretation

In this Deed, unless the context requires otherwise:

- (a) unless otherwise specified, references to parts, sections, clauses, subclauses, schedules and appendices are references to sections, clauses, subclauses, schedules and appendices in this deed and references to parties are references to parties to this Deed;
- (b) a gender includes each other gender;
- (c) the singular includes the plural and vice versa;
- (d) a reference to a person includes:
 - (i) a partnership and also a body of persons, whether corporate or unincorporated; and
 - (ii) its respective successors in title and permitted assigns;
- (e) a reference to documentation includes:
 - (i) a reference to that document as varied, supplemented, novated or substituted from time to time; and
 - (ii) a reference to that documentation in any form, whether paper-based or in electronic form encoded on or as part of any form of media;
- (f) a reference to materials means a reference to materials of any kind whether in the form of documentation, software, hardware, componentry or otherwise;
- (g) any agreement not to do a thing also constitutes an agreement not to suffer or permit or cause that thing to be done;
- (h) unless specifically stated otherwise, any reference to a consent requires the prior written consent of the party giving that consent;
- (i) whenever the words “includes” or “including” are used in this Deed, they are deemed to be followed by the words “without limitation”;
- (j) a reference to any legislation includes a modification of that legislation and all legislation enacted in substitution for that legislation and any regulation, order-in-council and other instrument from time to time issued or made under that legislation;
- (k) headings and the table of contents are included for the purpose of ease of reference only and are not to have any effect on construction and interpretation;
- (l) the “Introduction” forms part of this Deed;
- (m) a reference to days, other than Working Days, is a reference to any calendar day of the year;
- (n) a reference to any currency is, unless specifically stated otherwise, a reference to New Zealand currency;

- (o) if an obligation falls due to be performed or a right is to be exercised on or by a day that is not a Working Day then, unless otherwise specified, that obligation is due to be performed or that right may be exercised on the Working Day next following that day;
- (p) a reference to a right or obligation of any two or more persons confers that right, or imposes that obligation, as the case may be, jointly and severally;
- (q) none of the terms nor any of the parts of this Deed are to be construed against a party, by reason of the fact that that term or that part was first proposed or was drafted by that party;
- (r) a party who has an obligation is to perform that obligation at its own cost, unless a term of this Deed expressly provides otherwise;
- (s) terms and expressions defined in this Deed and any other part of this Deed (including the Schedules) shall unless expressly limited or where the context does not permit, have the same meaning in all parts and all schedules and appendices;
- (u) any schedules or appendices to this Deed shall have the same effect as if set out in the body of this Deed; and
- (v) headings are inserted for the sake of convenience of reference only and do not affect the interpretation of this Deed.

2.2 Priority of documents

- (a) To the extent of any inconsistency between this Deed and the Major Subcontract, this Deed will prevail.
- (b) To the extent of any inconsistency between this Deed and the Project Agreement, the Project Agreement will prevail.

2.3 Joint and several liability

If the Major Subcontractor comprises more than one person:

- (a) the obligations of those persons under this Deed are joint and several;
- (b) a reference to the Major Subcontractor is a reference to each of those persons separately, so that (for example), a representation, warranty or undertaking is given by each of them separately; and
- (c) the Contractor or the Council may proceed against any or all of them for any failure of the Major Subcontractor to comply with any obligation under this Deed or otherwise.

2.4 Construction Contracts Act 2002

If and to the extent that the Major Subcontract comprises a construction contract as defined in the Construction Contracts Act 2002, this Deed will be subject to the Construction Contracts Act 2002.

2.5 Commencement

The rights and obligations of the parties under this Deed commence on the Commencement Date pursuant to the Project Agreement.

2.6 Contractor's role

The Contractor is bound by, and must cooperate in the implementation of, this Deed. It acknowledges that this Deed is intended to benefit the Major Subcontractor and the Council and does not in any way affect any obligation of the Contractor under the Major Subcontract or under any Ancillary Document.

Part 2 – Acknowledgements

3. Acknowledgements by Major Subcontractor

- (a) The Major Subcontractor acknowledges the Council's rights under the Project Agreement.

- (b) The Major Subcontractor agrees with the Council that the Major Subcontractor will exercise its rights under the Major Subcontract in a way that facilitates the effective exercise by the Council of the Council's rights under the Project Agreement and will on reasonable notice permit one or more delegates of the Council to have access to, and take copies of, the records, reports, documents and other papers to which the Council is entitled to have access pursuant to the Project Agreement to the extent that:
- (i) such items are in the possession of the Major Subcontractor or any third party acting on its behalf; and
 - (ii) compliance with this clause 3(b) would not cause the Major Subcontractor to breach any obligation of confidence that it owes to any other person or to infringe the Intellectual Property rights of any third party,
- and subject always to the Council entering into a confidentiality undertaking in a form reasonably acceptable to the Major Subcontractor prior to the Major Subcontractor being required to provide access to such records, reports, documents and other papers.
- (c) During the period in which the Council is exercising its Major Subcontractor Step-in Rights under Part F of the Project Agreement, the Council may in accordance with the Project Agreement require the suspension or continuation of performance by the Major Subcontractor of its obligations under the Major Subcontract subject to and in accordance with the terms of the Major Subcontract and, if it does so, the Major Subcontractor agrees that it will comply with this requirement and with all reasonable directions of the Council made in accordance with this Deed or the Major Subcontract in relation to the performance of the Major Subcontract by the Major Subcontractor during such period.
- (d) The requirement of the Council that the Major Subcontractor either suspend or continue to perform its obligations under the Major Subcontract and the giving of any direction under clause 3(c) by the Council will not, except to the extent expressly acknowledged by the Council in writing, be construed as an assumption by the Council of any obligations of the Contractor under or in relation to the Major Subcontract and will not in itself constitute a breach by the Contractor of the Major Subcontract.
- (e) The Major Subcontractor will not subcontract any of its obligations under the Major Subcontract without the prior written consent of the Council where so required pursuant to clause 29 (Subcontracts) of the Project Agreement.
- (f) The Major Subcontractor acknowledges and agrees that any payment by the Council of a sum outstanding under the Major Subcontract shall be deemed to constitute payment of such sum by the Contractor for the purposes of the Construction Contracts Act 2002 and at Law.

4. Acknowledgements in relation to Major Subcontract

The Contractor and the Major Subcontractor acknowledge and agree that:

- (a) all information, data and documents provided by the Council:
 - (i) is provided for information purposes only (except any specific reports that the Council may procure directly for the benefit of, and reliance on by, the Contractor, as may be advised by the Council prior to the date of this Deed, and subject to any limitations specified by the Council) and all of the Council's Intellectual Property rights therein remain the property of the Council; and
 - (ii) do not form part of this Deed or constitute an invitation, offer or recommendation by or on behalf of the Council;
- (b) to the extent permitted by Law, the Council will not have any Liability to the Major Subcontractor or any Affiliate of the Major Subcontractor, nor will the Major Subcontractor or any Affiliate of the Major Subcontractor be entitled to make, continue or enforce any Claim or seek, pursue or obtain an indemnity against or contribution to Liability from the Council or any Council Personnel arising out of or in respect of or in connection with:

- (i) the provision of any information, data and documents referred to in clause 4(a);
 - (ii) any reference to the Council in the Major Subcontract; or
 - (iii) any review of, comments on, or approval of the form or substance of the Major Subcontract (or any associated documentation) by the Council;
- (c) where the Major Subcontractor is expressed in the Major Subcontract to have a right (or possible right) to compensation or relief that is dependent on or determined by reference to the Project Agreement:
- (i) this does not of itself expand the Contractor's rights, or the Council's Liability, under the Project Agreement to include the compensation or relief to which the Major Subcontractor is or may become entitled under the Major Subcontract; and
 - (ii) the Contractor's rights, and the Council's Liability, under the Project Agreement will be determined solely in accordance with the terms of the Project Agreement;
- (d) as between the Council (on the one hand) and the Contractor and the Major Subcontractor (on the other hand), the Contractor and the Major Subcontractor accept and will bear the risk of any ambiguity, discrepancy or inconsistency between the terms of the Major Subcontract and the Project Agreement; and
- (e) notwithstanding anything to the contrary in the Major Subcontract but except as expressly contemplated by this Deed, the Major Subcontractor has no right to deal directly with the Council or participate in any meeting, consultation or process (including negotiation or dispute resolution) unless:
- (i) expressly provided to the contrary in the Project Agreement; or
 - (ii) the Council consents.

5. Not used

Part 3 – Termination, suspension and Step-in

6. Restrictions on termination and suspension

6.1 Subject to the Council's rights

The Major Subcontractor's rights to exercise a Power to terminate, rescind, accept the repudiation of, or suspend the performance of any or all of its obligations under the Major Subcontract are subject to the Council's rights under this Deed.

6.2 Termination or suspension with cause

The Major Subcontractor may only exercise a Power to terminate, rescind accept the repudiation of, or (subject to clause 6.5) suspend the performance of any or all of its obligations under the Major Subcontract if:

- (a) the Major Subcontractor has given to the Council prior notice (a Default Event Notice) setting out details of the Default Event giving rise to that proposed exercise in accordance with clause 7.2 (Major Subcontractor Statements);
- (b) one or more Termination Grounds exists; and
- (c) where an MSDD Dispute existed in relation to the applicable Termination Ground, the Major Subcontractor is entitled to exercise the relevant Power under clause 6.4.

6.3 Termination Ground

For the purposes of this Deed, each of the circumstances set out in clauses 6.3(a) to (d) is a Termination Ground:

- (a) where a Default Event:

- (i) is capable of remedy within 20 Working Days after the date on which the Council received the relevant Default Event Notice (including by the payment of any sum); or
- (ii) is not capable of remedy and the Default Event Notice contains a Claim for reasonable compensation for the Default Event,

and that Default Event has not been cured or remedied, nor the compensation sum referred to in clause 6.3(a) paid, within 20 Working Days after the date on which the Council received the Default Event Notice;

- (b) where a Default Event is not capable of remedy within 20 Working Days but is nevertheless reasonably capable of remedy, if the Council has not commenced remedying that Default Event within 20 Working Days after the date on which the Council received the Default Event Notice nor has the Council or the Contractor continued to diligently pursue that remedy following the expiry of that 20 Working Days period;
- (c) where:
 - (i) the Default Event is not reasonably capable of remedy; and
 - (ii) the Default Event Notice does not contain a Claim for reasonable compensation for the relevant Default Event,the Council does not commence and continue to perform the Contractor's obligations under the Major Subcontract within 20 Working Days (or such longer period as is permitted under the Major Subcontract) after the date on which the Council received the Default Event Notice; or
- (d) the Council notifies the Major Subcontractor in writing that it elects not to remedy (or procure the remedy of) the relevant Default Event and not to perform the Contractor's obligations under the Major Subcontract.

6.4 MSDD Disputes

Where the Council notifies the Major Subcontractor of an MSDD Dispute in relation to a Termination Ground:

- (a) where that MSDD Dispute relates to any aspect of the Termination Ground other than the payment of compensation or any other sum to remedy or otherwise resolve a Default Event:
 - (i) during the period of dispute resolution, all parties must continue to perform their obligations under this Deed and the Ancillary Documents; and
 - (ii) the Major Subcontractor must not exercise a Power to terminate, rescind, accept the repudiation of, or suspend the performance of any or all of its obligations under the Major Subcontract unless the Council fails to comply with the MS Independent Expert's determination within 10 Working Days after its delivery to the parties; and
- (b) where that MSDD Dispute relates to the payment of compensation or any other sum to remedy or otherwise resolve a Default Event:
 - (i) the Council must pay the amount (if any) not in dispute;
 - (ii) upon resolution of the dispute under clause 18 (Dispute resolution), the parties must make payments as determined by the MS Independent Expert;
 - (iii) during the period of dispute resolution, all parties must continue to perform their obligations under this Deed and the Ancillary Documents; and
 - (iv) the Major Subcontractor must not exercise a Power to terminate, rescind, accept the repudiation, or suspend the performance of any or all of its obligations under the Major Subcontract unless the Council has not paid any sum determined as payable by the MS Independent Expert within 10 Working Days after the MS Independent Expert's determination.

6.5 Termination or suspension without cause

If there is no Default Event, the Major Subcontractor may only exercise a right to terminate or suspend the performance of its obligations under the Major Subcontract to the extent that the Contractor is entitled to terminate the Project Agreement or suspend its corresponding obligations under the Project Agreement.

7. Notices by Major Subcontractor

7.1 Council's cure rights

- (a) The Major Subcontractor must give the Council Default Event Notices as required by clause 6.2 (Termination or suspension with cause).

7.2 Major Subcontractor Statements

As part of any Default Event Notice, the Major Subcontractor must submit statements (Major Subcontractor Statements) to the Council of:

- (a) all amounts due and payable to the Major Subcontractor under the Major Subcontract on or before the date of the Default Event Notice but remaining unpaid at such date;
- (b) the nature and, to the best of the Major Subcontractor's knowledge and belief, the amount of any monetary claim asserted by the Major Subcontractor under or arising out of the Major Subcontract against the Contractor; and
- (c) where the Major Subcontractor intends to terminate the Major Subcontract due to a default or breach of a condition of a non-financial nature or intends to claim damages or to seek some other form of relief from the Contractor under the Major Subcontract:
 - (i) the provisions of the Major Subcontract alleged to have been breached or not fulfilled;
 - (ii) sufficient information to enable the Council to identify the material facts;
 - (iii) the steps reasonably required to remedy the Default Event (if reasonably capable of remedy);
 - (iv) the time within which the specified steps to remedy the Default Event can reasonably be expected to be taken;
 - (v) if applicable, the amount of damages claimed and the manner in which the amount has been calculated; and
 - (vi) if applicable, the other relief to be sought.

7.3 Warranty of accuracy

The Major Subcontractor warrants to the Council that the Major Subcontractor Statements submitted by it will be, subject to unintended error that the Major Subcontractor agrees to rectify, true, complete and accurate statements of the amounts to which the Major Subcontractor considers itself entitled and the further matters set out in clause 7.2(c).

7.4 Major Subcontractor Statements to be conclusive evidence

- (a) The Council is entitled to rely on the Major Subcontractor Statements for the purpose of determining the extent of the matters occurring prior to a Default Event that are required to be cured or remedied and the requirements to effect the remedy of that Default Event by the Council (if it elects to remedy).
- (b) The Major Subcontractor Statements will, to the extent provided in clauses 7.2 and 7.3, be conclusive evidence in favour of the Council that the Major Subcontractor has waived and abandoned all other Claims then known or that ought reasonably to have been known to the Major Subcontractor arising out of or in connection with the Major Subcontract prior to the date of the Default Event Notice (other than Claims set out in the Major Subcontractor Statements).
- (c) Clauses 7.4(a) and 7.4(b) are without prejudice to the rights of the Major Subcontractor to pursue any Claims against the Contractor following the end of the Step-in Period.
- (d) For the avoidance of doubt, a Major Subcontractor Statement will not prevent the Council from commencing a MSDD Dispute disputing the amount of any Claim by the Major Subcontractor or the existence of any default by the Contractor under the Major Subcontract.

8. Step-in by the Council

8.1 Council rights

- (a) On or after receipt of a Default Event Notice or at any time at all after which the Council is permitted under any Ancillary Document to do so, the Council may, but is not obliged to:
- (i) remedy, or procure the remedy of, the relevant Default Event;
 - (ii) if the Default Event is not capable of remedy, to commence and continue to perform the obligations of the Contractor under the Major Subcontract; or
 - (iii) take such other action permitted pursuant to Part F (Step-in Rights and Major Subcontractor Direct Deeds) of the Project Agreement or any similar action permitted under the Project Agreement (and the receipt of the Default Event Notice will be deemed to be a ground for Step-in under clause 76 (Council's Major Contractor Step-in Rights) of the Project Agreement,
- each a Step-in Right under this Deed.
- (b) The Step-in Period is the period from the date on which the Council provides the Major Subcontractor with its formal written notice of the exercise of any Step-in Right to the earliest of:
- (i) the date on which the Major Subcontractor validly terminates the Major Subcontract;
 - (ii) the date of any novation under clause 11 (Council's Novation Rights); and
 - (iii) the Step-out Date.
- (c) The Major Subcontractor acknowledges that the exercise by the Council of a Step-in Right will not of itself contravene, or constitute a Default Event under the Major Subcontract or entitle the Major Subcontractor to exercise any Power (including termination) under the Major Subcontract.

8.2 Step-in by Council

- (a) The Council may, at any time after the Council has given its formal written notice to the Major Subcontractor notifying it of the Council's exercise of its Step-in Rights, exercise all or any of the Contractor's Powers and perform all or any of the obligations of the Contractor under or in relation to the Major Subcontract and the Major Subcontract Documentation, as if it were the Contractor, to the exclusion of the Contractor. Where the Council notifies the Major Subcontractor that it is to exercise its Step-in Rights under this Deed, it will also notify the Major Subcontractor of the Council Personnel that are authorised to exercise such rights on its behalf.
- (b) The Contractor and the Major Subcontractor acknowledge and agree that, subject to the Project Agreement, neither the Council nor any Council Personnel will have any Liability, nor will the Contractor or the Major Subcontractor be entitled to make, continue or enforce any Claim against the Council or any Council Personnel arising out of or in respect of or in connection with, the Major Subcontract, the Major Subcontract Documentation or this Deed by reason only of exercise of any of the Contractor's Powers, or performing any of the Contractor's obligations in accordance with the Major Subcontract or the Major Subcontract Documentation (as permitted by the Ancillary Documents) other than, and then only to the extent of, Liability for fraudulent, unlawful, negligent or wilful acts or omissions of the Council or any Council Personnel.

8.3 Council Step-out

The Council may Step-out at any time, in accordance with Part F clause 75.7 (Council's Major Subcontractor Step-in Rights) of the Project Agreement. The Council shall provide not less than 10 Working Days prior written notice to the Major Subcontractor informing it of the Step-out Date.

9. Not used

10. Indemnity by Contractor

Subject to the limits on the Contractor's liability set out in clause 8.4 of the Project Agreement, the Contractor indemnifies the Council and all Council Personnel against any Claim or Liability (including any Claim made by, or Liability to, a third party) the Council or any Council Personnel suffers or incurs or arising in connection with:

- (a) taking any action under clause 76.1 (Exercise of Major Subcontractor Step-in Rights) or clause 76.8 (Council Step-out of Major Subcontractor Step-in Rights) (except in respect of any other action taken by the Council under Part F of the Project Agreement, which action shall be subject to the rights and remedies of the Council set out in Part F of the Project Agreement instead); and/or
- (b) taking any action (including the payment of any sum) to prevent, or as a result of, the Major Subcontractor suspending, or following the expiry of the requisite notice and/or remedy period, threatening to suspend the performance of its obligations under the Major Subcontract where the Major Subcontractor is entitled to do so under the Construction Contracts Act 2002.

11. Council's novation rights

11.1 Proposed Novation Notice

- (a) The Council may at any time on or after the issue of a Default Event Notice:
 - (i) while it is entitled to exercise its Step-in Rights; or
 - (ii) during the Step-in Period,
give notice (a Proposed Novation Notice) to the Major Subcontractor that:
 - (iii) it wishes itself or by another person (in either case, a Proposed Substitute) to assume, by way of sale, transfer or other disposal, the rights and obligations of the Contractor under the Major Subcontract and the Major Subcontract Documentation; and
 - (iv) it wishes full legal and equitable title to any retention account, bond, guarantee or other security or assurance constituting Major Subcontract Documentation that is held by the Contractor to secure the obligations of the Major Subcontractor under the Major Subcontract to vest in the Proposed Substitute.
- (b) The Proposed Novation Notice shall specify a date on which the proposed novation is to take effect (the Proposed Novation Date). The Proposed Novation Date must fall not later than 30 Working Days after the date of the Proposed Novation Notice.
- (c) Without prejudice to (and except as permitted by) clause 11.6 (Termination after novation) and/or clause 12 (Rights to terminate - Intervention Failure), the Major Subcontractor will not exercise or seek to exercise any Power that may be or become available to it to terminate or treat as terminated or repudiated the Major Subcontract or discontinue or suspend the performance of any obligations under the Major Subcontract and that is the subject of a Default Event Notice:
 - (i) during the notice period specified in a Proposed Novation Notice; or
 - (ii) against any Proposed Substitute that is a party to a Novation Agreement.
- (d) The Major Subcontractor acknowledges that the exercise by the Council of its rights under this clause 11 does not of itself contravene, or entitle the Major Subcontractor to exercise any right or remedy (including any right to terminate) under the Major Subcontract.

- (e) Nothing in this clause 11 operates to require the Council to assume any obligations or Liabilities arising, or which are required to be performed under the Major Subcontract, except to the extent expressly provided in this clause 11.

11.2 Proposed Substitute

- (a) Where the Proposed Substitute is not the Council or a Successor Council Entity, the Council shall (as soon as practicable) supply the Major Subcontractor with the following information:
 - (i) the name and registered address of the Proposed Substitute;
 - (ii) the names of the directors of the Proposed Substitute; and
 - (iii) the technical competency and resources (including financial resources, key personnel and contractual arrangements) that are to be available to the Proposed Substitute to enable it to perform its obligations under the Major Subcontract.

11.3 Consent to novation

- (a) Where the Proposed Substitute is the Council or a Successor Council Entity, the Major Subcontractor will be deemed to have given its consent to the novation. In that case, the Major Subcontractor irrevocably:
 - (i) appoints the Council and the Council's nominees from time to time, jointly and severally, as the Major Subcontractor's attorney with full power and authority to sign on its behalf or documents the Council requires to legally effect the novation of the Major Subcontract Documentation to the Council or the Successor Council Entity; and
 - (ii) agrees to ratify and confirm whatever action is taken by that attorney or those attorneys for the purposes of giving legal effect to that novation.
- (b) Where the Proposed Substitute is not the Council or a Successor Council Entity, the Major Subcontractor must consent to the proposed novation, unless the Major Subcontractor demonstrates to the Council's reasonable satisfaction that:
 - (i) the Proposed Substitute does not have the legal capacity, power and authorisation to become a party to and perform the obligations of the Contractor under the Major Subcontract;
 - (ii) the technical competence and/or financial standing of, and the technical and/or financial resources available to, the Proposed Substitute are not sufficient to perform the obligations of the Contractor under the Major Subcontract; or
 - (iii) the Major Subcontractor would be placed in breach of Law by the proposed novation.
- (c) Where the Proposed Substitute is not the Council or a Successor Council Entity, within 10 Working Days of the later of receipt of a Proposed Novation Notice and all information required under clause 11.2, the Major Subcontractor must:
 - (i) notify the Council in writing as to whether or not it consents to the novation of the Major Subcontract Documentation; and
 - (ii) where that request for consent is not approved, provide an explanation of the reasons why.
- (d) The Major Subcontractor is deemed to have given its consent to the novation of the Major Subcontract Documentation to the Proposed Substitute for the purposes of clause 11.3(c) if the Major Subcontractor fails to serve notice in writing on the Council within the period required by that sub-clause.
- (e) If, in accordance with this clause 11.3, the Major Subcontractor withholds its consent to a Proposed Novation Notice:
 - (i) the Council shall be entitled to give one or more subsequent Proposed Novation Notices, pursuant to the provisions of clause 11.1 and clause 11.2, (a Revised Proposed Novation Notice) containing changed particulars relating to the same Proposed Substitute or particulars relating to another Proposed Substitute, provided that:
 - (A) only one Proposed Novation Notice may be current at any one time; and

- (B) any revised Proposed Novation Date shall be a date falling not later than 15 Working Days after the date of the Revised Proposed Novation Notice;
- (ii) the Major Subcontractor will not:
 - (A) exercise or seek to exercise any right that may be or become available to it to terminate or treat as terminated or repudiated the Major Subcontract; or
 - (B) discontinue or suspend the performance of any obligations under the Major Subcontract, during the notice period specified in a Revised Proposed Novation Notice; and
- (iii) clauses 11.3(b), 11.3(c), 11.3(d) and this clause 11.3(e) will apply in relation to that Revised Proposed Novation Notice, as if that notice was a Proposed Novation Notice.

11.4 Implementation of novation

- (a) Promptly following the date on which the Major Subcontractor consents or is deemed to have consented to a novation of the Major Subcontract pursuant to a Proposed Novation Notice or a Revised Proposed Novation Notice (the Consent Date), the Contractor must (subject to the Proposed Substitute first providing a confidentiality undertaking in a form reasonably acceptable to the Major Subcontractor) give the Proposed Substitute an updated copy of all information in the possession of the Contractor in relation to the Major Subcontract.
- (b) Within three Working Days of the Consent Date:
 - (i) the Council shall procure that the Proposed Substitute shall become a party to, or beneficiary of the Major Subcontract Documentation in place of the Contractor and, thereafter, shall be treated as if it was and had always been named as a party or beneficiary of the Major Subcontract Documentation in place of the Contractor; and
 - (ii) the Major Subcontractor and the Contractor shall enter into a novation agreement (the Novation Agreement) and any other requisite agreements, in form and substance satisfactory to the Major Subcontractor (acting reasonably) and the Council (acting reasonably) and the Council shall procure that the Proposed Substitute validly executes such Novation Agreement and any other requisite agreements, pursuant to which:
 - (A) the Proposed Substitute shall be granted all of the rights of the Contractor under the Major Subcontract Documentation and this Deed (including those arising prior to the end of the Step-in Period); and
 - (B) the Proposed Substitute shall assume all of the obligations and Liabilities of the Contractor under the Major Subcontract and this Deed.
- (c) Unless otherwise agreed, the assumption by the Proposed Substitute of the obligations and Liabilities of the Contractor under the Major Subcontract will:
 - (i) not include:
 - (A) any payment obligations of the Contractor that are in dispute as at the Consent Date, provided that the Council shall, on the determination of such dispute, procure that the Proposed Substitute shall assume such obligation in accordance with that determination; and
 - (B) any payment for the performance of the Services that the Council has already paid the Contractor for under the terms of the Project Agreement; and
 - (ii) only include (in relation to any other obligation of the Contractor (not being an obligation to pay money which the Proposed Substitute must pay under clause 11.4(b)(ii)(B))) those obligations that fall due to be performed as at or following the Consent Date.
- (d) On and after the Novation Effective Date, the Major Subcontractor shall owe its obligations under the Major Subcontract to the Proposed Substitute and will be bound by and must comply with the terms of the

Major Subcontract binding on it, for the benefit of the Proposed Substitute as if the Proposed Substitute were the Contractor.

- (e) The Council and Major Subcontractor shall use all reasonable endeavours to agree and the Council shall use reasonable endeavours to procure that the Proposed Substitute agrees any amendments to the Major Subcontract necessary to reflect this clause 11 and the fact that the Project Agreement may have terminated at the time of the Novation Effective Date.
- (f) For the avoidance of any doubt the total Liability incurred by the Major Subcontractor to the Proposed Substitute under the Major Subcontract as at the Novation Effective Date shall be identical to the total Liability incurred by the Major Subcontractor to the Contractor up to and immediately prior to the Novation Effective Date, and the entering into of the Novation Agreement shall not reduce, limit or otherwise affect the total aggregate Liability incurred by the Major Subcontractor under the Major Subcontract in any way.

11.5 Contractor's obligations to continue

Until completion of a novation pursuant to clause 11.4, the Contractor shall continue to be liable for all its obligations and Liabilities, whenever occurring, under or arising from the Major Subcontract notwithstanding:

- (a) the service of a Proposed Novation Notice or any Revised Proposed Novation Notice; or
- (b) any other provision of this Deed.

11.6 Termination after Novation

After the Novation Effective Date, the Major Subcontractor shall only be entitled to exercise its rights of termination under the Major Subcontract:

- (a) in respect of any Event of Contractor Default arising after that date in accordance with the Major Subcontract; or
- (b) if the Proposed Substitute does not discharge, within 20 Working Days following the Novation Effective Date, the obligations and liabilities assumed by it under clause 11.4(b) (read subject to clause 11.4(c)) that relate to matters arising prior to the Novation Effective Date,

(in each case subject to the terms of this Deed as it applies after the Novation Effective Date).

12. Rights to terminate - Intervention Failure

12.1 Rights preserved

Notwithstanding the other terms of this Deed, the Major Subcontractor shall be entitled:

- (a) to exercise all of its rights under the Major Subcontract and act upon any and all grounds for termination available to it in relation to the Major Subcontract whenever occurring; and/or
- (b) to pursue any and all Claims and exercise any and all rights and remedies against the Contractor, in any of the circumstances described in clause 12.2 (an Intervention Failure).

12.2 Intervention Failures

An Intervention Failure constitutes circumstances where:

- (a) no Proposed Novation Notice (including a Revised Proposed Novation Notice) is given before the date or by the expiry of the period in which the Council is entitled to serve the same pursuant to clause 11.1(a) in accordance with the terms of this Deed;
- (b) the Step-in Period ends before the occurrence of the Novation Effective Date;
- (c) (in circumstances in which the Major Subcontractor is entitled not to consent under this Deed), the Major Subcontractor does not consent to a novation pursuant to a Proposed Novation Notice and to any Revised Proposed Novation Notice and the Step-in Period has ended; or

- (d) the Council exercises its right to step-out (in which case, an Intervention Failure exists from the Step-out Date).

in each case where Termination Grounds continue to subsist at the relevant time.

Part 4 - Warranties and Undertakings

13. Warranties and acknowledgements

13.1 General warranties

The Major Subcontractor warrants and represents to the Council:

- (a) where the Major Subcontractor is:
- (i) a sole corporate entity it is properly constituted and incorporated under the Companies Act 1993 and has the corporate power to own its assets and to carry on its business as it is now being conducted; and
 - (ii) a joint venture, syndicate or partnership each entity involved is properly constituted and incorporated under the Companies Act 1993 and has the corporate power to own its assets and to carry on its business as it is now being conducted; and
 - (iii) a Limited Partnership the General Partner is properly constituted and incorporated under the Companies Act 1993 and has the corporate power to own its assets and to carry on its business as it is now being conducted;
- (b) neither it nor any of its assets enjoys any immunity from set off, suit or execution;
- (c) it has the corporate power to enter into and to exercise its rights and perform its obligations under this Deed and the other Ancillary Documents to which it is a party;
- (d) the obligations expressed to be assumed by it under this Deed and the other Ancillary Documents to which it is a party, are, or in the case of any Ancillary Document executed after the date of this Deed, will be on their execution, legal, valid, binding and subject to laws affecting creditors' rights generally and equitable principles, enforceable;
- (e) this Deed and each other Ancillary Document to which it is a party is in proper form for enforcement in New Zealand; and
- (f) the execution, delivery and performance by it of this Deed and the other Ancillary Documents to which it is a party do not contravene any provision of:
- (j) any existing Laws either in force, and enacted but not yet in force, that are binding on it;
- (ii) its constitution;
 - (iii) any order or decree of any Court or arbitrator that is binding on it; or
 - (iv) any obligation that is binding upon it or upon any of its assets or revenues.

13.2 Additional Warranties

The Major Subcontractor further warrants, represents and undertakes to the Council that:

- (a) the Major Subcontract has been entered into on Arms Length Terms;
- (b) it has complied with and fulfilled and shall continue to comply with and fulfil its duties and obligations arising under or by virtue of the Major Subcontract;
- (c) without limiting the other terms of this Deed:
- (i) it is aware of those terms of the Project Agreement that apply to it, in its capacity as a Major Subcontractor; and

- (ii) it will ensure at all times that:
 - (A) it shall not by act, do or, (to the extent of its obligations under the Major Subcontract only) by omission fail to do anything that would result in the Contractor being in breach or being put in breach of its obligations under the Project Agreement; and
 - (B) it will co-operate and assist the Council and/or the Contractor to facilitate (and will not impede or frustrate) the Contractor's compliance with its obligations under the Project Agreement;
- (d) there are no documents or agreements in existence or contemplated as at the date of this Deed to which the Major Subcontractor is or would be a party that have not been or will not be disclosed to the Council that (in each case) is or would:
 - (i) be material in the context of this Deed and the other Ancillary Documents to which it is a party;
 - (ii) be, or be likely to be, material in the context of the Project; or
 - (iii) have the effect of varying this Deed or any other Ancillary Document,and in respect of this Deed or the Ancillary Documents, performance of which by the Major Subcontractor would have a material adverse effect on the ability of the Major Subcontractor to perform and observe its obligations under this Deed or any other Ancillary Document;
- (e) all information provided to the Council by the Major Subcontractor under this Deed constitutes true, accurate and complete statements of the Major Subcontractor; and
- (f) in entering into this Deed and the other Ancillary Documents to which it is a party, it relied upon its own investigations and has not relied upon any representation or warranty about its subject matter by:
 - (i) the Council; or
 - (ii) the Contractor or any other person (unless otherwise expressly stated in the Major Subcontract).

14. General Undertakings

The Major Subcontractor undertakes to the Council that it must:

- (a) notify the Council of any Event of Contractor Default promptly after it gives notice of that Event of Contractor Default pursuant to the Major Subcontract;
- (b) in relation to documents:
 - (i) promptly give the Council a copy of all documents issued by the Major Subcontractor to the Contractor in relation to an Event of Contractor Default; and
 - (ii) return a copy of all plans, drawings, specifications and other documents that come into its possession for the purpose of the Project to the Council at the expiration or termination of the Major Subcontract;
- (c) not, without first obtaining the consent of the Council:
 - (i) make or permit any material amendment, replacement of, or addition to;
 - (ii) subject to the terms of this Deed, terminate, surrender, rescind or accept repudiation of (provided that the Council's consent will be deemed to have been given to such act or acceptance where the Major Subcontractor is expressly permitted to do so under this Deed);
 - (iii) permit the novation, assignment or substitution of its rights, obligations or interest in; or
 - (iv) allow any express waiver of its material rights and obligations under,the Major Subcontract, provided that the Council will not withhold its consent to an amendment that corresponds to an amendment to which it has consented in accordance with the Project Agreement;

- (d) not novate, assign or substitute any of its rights, obligations or interest in the Major Subcontract without first procuring that the proposed novatee, assignee any or substitute executes a deed in favour of the Council (in form and substance approved by the Council (acting reasonably)) pursuant to which the novatee, assignee or substitute agrees to accept and be bound by this Deed as if it were the Major Subcontractor;
- (e) in relation to records and meetings:
 - (i) when reasonably requested by the Council, attend meetings with the Council;
 - (ii) subject to the relevant persons entering into confidentiality undertakings with the Major Subcontractor on terms reasonably acceptable to the Major Subcontractor, when reasonably requested by the Council, provide the Council with such information records or documents that the Council (acting reasonably) requires in relation to the carrying out of Services or compliance with the Major Subcontract; or
 - (iii) subject to the relevant persons entering into confidentiality undertakings with the Major Subcontractor on terms reasonably acceptable to the Major Subcontractor, permit the Council to inspect all records, reports, plans, programmes, specifications and design documents prepared or kept by the Major Subcontractor in relation to the Project and supply the Council with a copy of any such report or document that it may reasonably require from time to time,

provided that nothing in this clause 14(e) shall require the Major Subcontractor to breach any obligation of confidence which it owes to any other person or to infringe the Intellectual Property rights of any third party;
- (f) to the extent provided in the Project Agreement, permit the Council, and the Administrator to attend all tests and inspections to be carried out in connection with the Project in accordance with the terms of the Project Agreement and/or the Major Subcontract;
- (g) provide the Administrator with all such access to the the WWTP Facilities, the Reticulation Networks Sites and the carrying out of the Operations (as applicable) and to the Major Subcontractor and its records relating to the WWTP Facilities, the Reticulation Networks Sites and the carrying out of the Operations (as applicable) as the Administrator may reasonably require to perform the Administrator's obligations and functions and exercise the powers set out in the Project Agreement;
- (h) on the termination of the Major Subcontract, take all steps reasonably practical to mitigate and minimise Major Subcontractor Breakage Costs; and
- (i) not contract with the Contractor otherwise than on Arms Length Terms.

Part 5 – General

15. Relationship of parties

15.1 Relationship of parties

Nothing in, or contemplated by, this Deed will be construed or interpreted as:

- (a) constituting a relationship between the Council and the Major Subcontractor or the Contractor or any other person, as partners, joint venturers, fiduciaries, employer and employee or principal and agent;
- (b) imposing any general duty of good faith on the Council to the Major Subcontractor or the Contractor or any Major Subcontractor Affiliate or Contractor Affiliate in relation to or arising out of the Project, other than to comply with the obligations (if any) expressly stated to be assumed by the Council under this Deed, the Project Agreement and the Ancillary Documents on a good faith basis; or
- (c) unlawfully restricting or otherwise unlawfully affecting the unfettered discretion of the Council to exercise any of its statutory powers or functions under any Law.

15.2 Limitation of Council's obligations

The Major Subcontractor and the Contractor each acknowledge and agree that:

- (a) anything that the Council or any Successor Council Entity does, fails to do or purports to do pursuant to its statutory functions and powers will be deemed not to be or cause an act or omission by the Council under this Deed and will not entitle the Contractor or the Major Subcontractor to make any Claim against the Council or Successor Council Entity under this Deed;
- (b) the Council is not relieved from any Claim that the Major Subcontractor may have against the Council for exercising any of its statutory functions or powers under any Law in a manner contrary to an express obligation of the Council under this Deed and the existence of such obligations, and the existence and the amount of such Claim is to be assessed in accordance with the terms of this Deed;
- (c) if there is any statement in this Deed that the Council will use "reasonable endeavours" in relation to an outcome then it means that the Council will take steps to bring about the relevant outcome so far as it is reasonably able to do so having regard to its resources and other responsibilities but the Council cannot guarantee the relevant outcome.

16. Termination

- (a) This Deed will terminate upon the performance and satisfaction of all of the obligations under the Major Subcontract.
- (b) The termination of this Deed does not affect the rights of any party that have accrued to that party before the date of termination.

17. Insurance

- (a) The Major Subcontractor must ensure that it does not do or omit to do anything or does not permit anything to be done or omitted to be done whereby any of the Council Insurances and/or the Contractor Insurances or any insurances required to be arranged by the Major Subcontractor under the Major Subcontract may be prejudiced.
- (b) If any default is made by the Major Subcontractor in effecting or maintaining any insurances required to be arranged by the Major Subcontractor under the Major Subcontract or if any such insurance policy becomes void or voidable, the Council may (but is not obliged to) effect or maintain that insurance policy at the cost of the Major Subcontractor or, failing the Major Subcontractor paying such costs, at the cost of the Contractor (but only to the extent that the relevant insurance policy required to be effected and maintained by the Major Subcontractor is also a Contractor Insurance as defined under the Project Agreement).
- (c) If required by the Project Agreement, the Major Subcontractor will ensure that the Council is specified as a person to whom the insurance cover provided by any applicable insurance contract extends.
- (d) Subject to the provisions of the Project Agreement in respect of the Contractor and the provisions of the Major Subcontract in respect of the Major Subcontractor, the Contractor and the Major Subcontractor will do all things reasonably necessary and (subject to the Council providing a confidentiality undertaking in a form reasonably acceptable to the Major Subcontractor or the Contractor, as applicable) provide all documents, evidence and information reasonably necessary to enable the Council to collect or recover any moneys due or to become due or in respect of any insurance policy to which the Council is an insured party at the cost of the Major Subcontractor or, failing the Major Subcontractor paying such cost, at the cost of the Contractor (but only to the extent that the relevant insurance policy required to be effected and maintained by the Major Subcontractor is also a Contractor Insurance as defined under the Project Agreement).

- (e) Without prejudice to any of the above requirements, the Major Subcontractor will not cause or take any steps to bring about the cancellation, lapse, material change, reduction or any rescinding of insurances required to be arranged by the Major Subcontractor under the Major Subcontract unless it has first obtained the written consent of the Council after giving 60 days prior written notice to the Council.
- (f) The Major Subcontractor will immediately notify the Council of any cancellation, lapse, material change, reduction, or any rescinding of any insurances required to be arranged by the Major Subcontractor under the Major Subcontract, and of the occurrence of any event giving rise to any claim under any such insurance policy.
- (g) Notwithstanding clause 17(f), but subject to the obligations of the Contractor under the terms of the Project Agreement, the obligations of the Contractor and the Major Subcontractor in this clause 17 shall be several.

18. Dispute resolution

18.1 Resolution of MSDD Dispute

- (a) A MSDD Dispute is any dispute or difference between the Council and the Major Subcontractor arising out of or in connection with this Deed.
- (b) A party claiming that a MSDD Dispute has arisen must give written notice (a MSDD Dispute Notice) to the other party to the MSDD Dispute and to the Contractor specifying the nature of the dispute and the relief or remedies sought.
- (c) Within ten (10) Working Days of the giving and receiving of a MSDD Dispute Notice a senior representative of the Council and the Major Subcontractor (and where practicable the Contractor) shall meet for the purpose of endeavouring to amicably settle the MSDD Dispute. The process of inter-party settlement endeavours shall continue until a party gives the other parties written notice that discussions are to be terminated.
- (d) If the MSDD Dispute cannot be resolved by the parties pursuant to clause 18.1(c) of this Deed any party may, by written notice to the other parties (an MS Independent Expert Referral Notice) require the MSDD Dispute to be referred to an MS Independent Expert in accordance with the following provisions of this clause 18.

18.2 Referral to MS Independent Expert

- (a) The MS Independent Expert shall be appointed by agreement between the parties.
- (b) If agreement as to the MS Independent Expert cannot be reached within a reasonable time (to be not later than 10 Working Days following the date of issue of the MS Independent Expert Referral Notice) then the MS Independent Expert will be appointed by the President of Engineering New Zealand, who shall be requested to appoint an MS Independent Expert who is suitably qualified and experienced in relation to the issues that may arise in connection with the MSDD Dispute.
- (c) The parties shall enter into an MS Independent Expert Agreement on such terms as shall be reasonably required by the MS Independent Expert.
- (d) Within 10 Working Days of the appointment of the MS Independent Expert, the parties shall send written submissions on the MSDD Dispute to the MS Independent Expert and to each other and, within 10 Working Days of receiving each other party's submission, shall submit any written replies they wish to make to the MS Independent Expert and to each other party.
- (e) The MS Independent Expert shall consider matters and issue his or her determination resolving the MSDD Dispute within the times set out in this process whether or not all parties have provided their submissions on time. The MS Independent Expert may consider or take into account the late submissions of any party or parties provided the other parties have reasonable opportunity to respond to such late submissions and such consideration will not unduly delay the issue of the determination, or the MS Independent Expert

- otherwise determines that it is appropriate in all the circumstances to take the late submissions into account.
- (f) The parties shall give the MS Independent Expert all necessary assistance that the MS Independent Expert reasonably requires to consider the MSDD Dispute.
 - (g) The MS Independent Expert shall act as MS Independent Expert and not as an arbitrator. The MS Independent Expert shall take into account:
 - (i) the written submissions of the parties; and
 - (ii) the context of and circumstances surrounding the MSDD Dispute.
 - (h) The Expert may also:
 - (i) rely on the MS Independent Expert's own knowledge, skill and experience in relation to the matter in dispute;
 - (ii) make his or her own enquiries without reference to the parties; and
 - (iii) if any matter or issue requiring resolution is outside the area of expertise of the MS Independent Expert and if the MS Independent Expert considers it appropriate to do so, take advice from other persons the MS Independent Expert considers to have expertise in the applicable area provided that the MS Independent Expert shall first consult with the parties as to any such person(s) so appointed.
 - (i) The Expert may:
 - (i) arrange to meet with the parties either together or alone to discuss the MSDD Dispute;
 - (ii) require the parties to provide such evidence or information as the MS Independent Expert considers necessary to determine the MSDD Dispute; and
 - (iii) establish procedures and a timetable for the conduct of the determination to the extent that those matters are not already laid down in these dispute resolution provisions.
 - (j) The MS Independent Expert shall be requested to deliver a written determination (with reasons) to the parties within 15 Working Days of having received the parties' written submissions and replies under subclauses (d) and (e) above. However the MS Independent Expert shall have the right to extend the time for issue of the determination in the MS Independent Expert's discretion provided any such extension shall not be longer than a further 15 Working Days (unless agreed otherwise by the parties).
 - (k) The MS Independent Expert's decision shall be final and binding on all parties and, to the extent it is lawful to do so, the parties waive any right of appeal or review. For the purposes of clarity the MS Independent Expert's decision shall be final and binding on the Contractor irrespective of whether the Contractor participates in the dispute resolution process or not.
 - (l) Unless the MS Independent Expert directs otherwise in the determination, a sum directed to be paid in the determination carries interest as from the date of the determination until paid and at the rate set out in the Major Subcontract.
 - (m) The MS Independent Expert's costs in relation to the resolution of any MSDD Dispute shall be payable by the parties and the MS Independent Expert shall determine the proportion of those fees that each party shall be required to pay, having regard (amongst other things) to the conduct of the parties. In the absence of an MS Independent Expert's determination as to allocation of fees, the fees shall be payable by the parties equally.
 - (n) The parties and the MS Independent Expert agree in relation to all information disclosed to them, or coming to their knowledge in the course of the determination (including communications between them):
 - (i) to keep that information confidential on the terms set out in clause 88.4 of the Project Agreement; and
 - (ii) not to use that information for any purpose other than settling the MSDD Dispute.

18.3 Participation by the Contractor

- (a) The Contractor may participate and be part of the dispute resolution processes for any MSDD Dispute pursuant to this section 18 provided that the absence of the Contractor or the failure by the Contractor to participate in any aspect of such dispute resolution processes shall not invalidate any agreement reached by the Council and the Major Subcontractor or any determination issued by the applicable MS Independent Expert.
- (b) Following receipt of the written notification to the Contractor that a MSDD Dispute has arisen the Contractor shall within three (3) Working Days advise the Council and the Major Subcontractor as to whether or not the Contractor will participate in the MSDD Dispute resolution process pursuant to this clause 18.
- (c) If the Contractor elects to participate in the MSDD Dispute resolution process the Contractor shall be treated as a party to that process.
- (d) If the Contractor elects not to participate in the dispute resolution process or fails to provide the Contractor's written advice pursuant to clause 18.3(b) within the three (3) Working Day period (time being of the essence) the Contractor shall thereafter, unless the Council and the Major Subcontractor agree otherwise, not be a party to the MSDD Dispute resolution procedures.

19. Assignment

- (a) Except as expressly contemplated by this Deed, neither the Contractor nor the Major Subcontractor may assign or transfer any of its rights or obligations under this Deed or the Major Subcontract without the Council's consent.
- (b) Clause 19(a) does not apply to any assignment by way of security in respect of any financing agreement or arrangement relating to the Project (in respect of the Contractor only) or any assignment or transfer pursuant to a direct agreement entered into between the Contractor, the Contractor's lenders and financiers, and the Major Subcontractor (in respect of the Contractor and the Major Subcontractor).
- (c) The Council shall not assign or transfer its rights or obligations under this Deed except to a permitted assignee or novatee under and in accordance with clause 87 (Novation and Assignment) of the Project Agreement.

20. Notices

20.1 Method of giving notices

A notice, consent, approval or other communication (each a Notice) under this Deed must:

- (a) be in writing addressed to the address of the recipient from time to time designated for the purpose by the addressee to the other parties. The initial address of each party is as set out under its name on the execution pages of this Deed; and
- (b) be signed by an authorised representative of the sender.

20.2 Notice effective

- (a) No Notice is to be effective until it is received.
- (b) A Notice will be deemed to be received:
 - (i) in the case of a letter, on the second Working Day after posting (with all postage paid);
 - (ii) in the case of an email, on the Working Day on which it arrives in the recipient's information system (provided that if it is received on that system after 5 PM on a Working Day, then it will be deemed to

be received on the next Working Day), provided that if there is any dispute as to whether an email has been received, the email shall be deemed to have been received at that time where the email enters the recipient's system; and

- (iii) in the case of personal delivery, when delivered.

21. General

21.1 Limitation of Liability

- (a) Subject to clause 21.1(b), but despite any other provision in this Deed, the maximum aggregate Liability of the Major Subcontractor to the Contractor or the Council in respect of any Claim or Loss:
 - (i) under, arising out of or in connection with the Services, this Deed and the Major Subcontract;
 - (ii) in tort (including negligence);
 - (iii) under any statute; and
 - (iv) otherwise at law,and irrespective of how it arises, is limited to the Major Subcontractor's cap on liability as set out in the Major Subcontract.
- (b) Other than as is specifically provided in this Deed, neither party will under any circumstances be liable under the law of tort, contract or otherwise or under any indemnity for any loss of profits or savings or revenue, loss of goodwill, loss of reputation, loss of opportunity or for any indirect or consequential loss or damage, however caused, arising out of or in connection with this Deed. .
- (c) Without prejudice to clause 21.1(a), the Major Subcontractor shall owe no duty, obligation or Liability to the Council and/or the Contractor under this Deed which is greater or of longer duration than that which it would owe to the Council and the Contractor under the Major Subcontract had the Council and the Contractor jointly appointed the Major Subcontractor to perform the obligations of the Major Subcontractor under the Major Subcontract.
- (d) Without prejudice to its rights under clause 18 (Dispute resolution), except to the extent necessary to enable the Council to exercise its rights of cure and Step-in under Part 3 of this Deed, the Council shall only be entitled to make a Claim against the Major Subcontractor for breach of this Deed (including any warranty), if:
 - (i) the Project Agreement has terminated; or
 - (ii) the Claim is for specific performance and/or injunctive relief,provided that if and to the extent that the Council has been compensated for any Losses under the Project Agreement, the Council shall not be entitled to claim or recover moneys owing for a breach of this Deed from the Major Subcontractor to the extent it has already been compensated for the same.
- (e) The Major Subcontractor shall be entitled to raise the same defences to any Claim made against it by the Contractor or the Council under this Deed that it would be entitled to raise under the Major Subcontract if the Contractor and the Council had jointly appointed the Major Subcontractor to perform its obligations under the Major Subcontract.

21.2 Counterparts

This Deed may be signed in any number of counterparts all of which, when taken together, constitute one and the same instrument. A party may enter into this Deed by executing any counterpart.

21.3 Severability

If any provision of this Deed is or becomes unenforceable, illegal or invalid for any reason, the relevant provision shall be deemed to be modified to the extent necessary to remedy such unenforceability, illegality or invalidity. If

such modification is not possible, then such provision shall be severed from this Deed without affecting the enforceability, legality or validity of any other provision of this Deed.

21.4 Waiver

Any delay, failure or forbearance by a party to exercise (in whole or in part) any Power under, or in connection with, this Deed shall not operate as a waiver of such Power. A waiver of any breach of any provision of this Deed shall not be effective unless that waiver is in writing and signed by the party against whom that waiver is claimed. A waiver of any breach shall not be, or be deemed to be, a waiver of any other or subsequent breach.

21.5 Public disclosure

All public disclosure by the Contractor or the Major Subcontractor relating to this Deed including promotional or marketing material (but not including any announcement intended solely for internal distribution or any disclosure required by legal, accounting or regulatory requirements) shall be co-ordinated with and must first be approved in writing by the Council (acting reasonably) prior to its release.

21.6 Entire agreement

This Deed and the Ancillary Documents constitute the entire agreement between the parties and together supersede and extinguish all prior agreements and understandings between the parties about their respective subject matters.

21.7 Amendments in writing

No amendment to this Deed will be effective unless it is in writing and signed by duly authorised signatories of the Council, the Contractor and the Major Subcontractor.

21.8 Governing Law and jurisdiction

This Deed is governed by, and is to be construed in accordance with, the Laws of New Zealand. Each party irrevocably submits to the non-exclusive jurisdiction of the New Zealand courts for the purpose of hearing and determining of disputes under or in connection with this Deed.

21.9 Contractual privity

- (a) This Deed is not intended to create any obligation enforceable at the suit of any person who is not a party to this Deed.
- (b) A person who is not a party to this Deed shall have no right under the Contracts and Commercial Law Act 2017, Part 2, Subpart 1 – Contractual privity to enforce any term of this Deed. This clause does not affect any right or remedy of any person which exists or is available otherwise than pursuant to that Act.

21.10 Related Loss

Notwithstanding any other provision of this Deed or the Project Agreement, to the extent that the Council is liable to the Contractor for any Claim arising under the Project Agreement, the Council will not be entitled to avoid or reduce its Liability to the Contractor on the basis that the Contractor has not suffered all or part of the relevant loss or damage (Related Loss) solely because such Related Loss is incurred by a subcontractor (of any tier) of the Contractor or because the subcontractor's right to recover such Related Loss from the Contractor or any other subcontractor is deferred, suspended or dependent upon recovery or entitlement from the Council, the Contractor or any other subcontractor or is dependent upon determination of any such entitlement.

Execution

Executed as a deed.

Signed for and on behalf of
the Rotorua District Council
:

)
)
)

Elected Member

Elected Member

Signed by)
[insert name of Major Subcontractor]) _____
) Director
)
)
) _____
) Director

in the presence of:

Witness signature:

Witness name:

Occupation:

Signed by)
TRILITY Rotorua Limited) _____
) Director
)
)
) _____
) Director

in the presence of:

Witness signature:

Witness name:

Occupation:

NOTE: This Deed must be executed by the parties in the manner required for execution of a deed.

Any party which is a company or body corporate must execute as follows:

- (i) Where it is a company incorporated under the Companies Act 1993, by having it signed, under the name of the company, by two or more directors. If there is only one director, it is sufficient if the Deed is signed under the name of the company by that director, but the signature must be witnessed by another person. The witness must not only sign but must also add his or her occupation and address. Alternatively, companies may execute under power of attorney.
- (ii) Where it is a body corporate other than a company incorporated under the Companies Act 1993, in the same manner as a company by persons occupying a position that is comparable with that of a director of a company or otherwise in accordance with s.9 Property Law Act 2007.

In the case of a party who is an individual, the party must sign and the signature must be witnessed by another person. The witness must not only sign but must also add his or her occupation and address.

PARTIES

Rotorua District Council (Council)

TRILITY Rotorua Limited (Contractor)

[Major Subcontractor] (Major Subcontractor)

[Subcontractor] (Subcontractor)

BACKGROUND

- A. The Council and the Contractor have entered into a Wastewater Services Operations and Maintenance contract dated [] (Contract).
- B. Under the Contract the Contractor undertakes the operation of the Council's wastewater treatment facilities and reticulation networks (Operations).
- C. The Contractor has engaged the Major Subcontractor to undertake part of the Operations under the Contract as described in the Schedule A (Major Subcontractor Services).
- D. The Major Subcontractor has engaged the Subcontractor to undertake part of the Operations under the Contract as described in the Schedule A in accordance with the form of Subcontract in Schedule B (Subcontracted Services).
- E. In consideration of the Council approving the engagement of the Subcontractor as a sub-subcontractor under the Contract and as required pursuant to the Contract the Subcontractor has agreed to enter into a continuity covenant in favour of the Council on the terms set out in this deed.

OPERATIVE PROVISION

This deed witnesses and for the consideration set out above, the Subcontractor covenants with the Council as follows.

GENERAL

- 1. CONTINUITY
 - 1.1 The Subcontractor covenants that if the Contract is determined or comes to an end before the completion of the Subcontracted Services or if the Council exercises its Step In Rights under the Contract, the Subcontractor will, if required (in writing) by the Council, carry out the Subcontracted Services under the same conditions and for the same consideration as originally agreed between the Major Subcontractor and the Subcontractor.
 - 1.2 If the Council shall require the Subcontractor to carry out the Subcontracted Services a new contract shall be deemed to be agreed between the Council and the Subcontractor on the terms of the original subcontract between the Subcontractor and the Major Subcontractor for the portion of the Subcontracted Services not yet carried out.
 - 1.3 The Council shall be responsible for payment for such further work only and is not responsible for the obligations of the Major Subcontractor under the original subcontract and is not responsible for payment for work carried out under the original subcontract.
 - 1.4 The Council's rights under this deed may be exercised at the option of the Council.

2. **BENEFIT OF COVENANT**

2.1 The Contractor, the Major Subcontractor and the Subcontractor agree that the Subcontractor's covenants under this deed shall enure for the benefit of the Council and may be assigned by the Council to any subsequent owner operator of the Council's wastewater assets.

3. **CONTRACTS AND COMMERCIAL LAW ACT**

3.1 For the purposes of the Contracts and Commercial Law Act 2017, Part 2, Subpart 1 – Contractual privity, the Subcontractor acknowledges that its warranties and covenants in this deed constitute promises which confer or are intended to confer a benefit on the Council and all owners, operators of the Council's wastewater assets.

4. **RIGHTS ADDITIONAL TO CONTRACT**

4.1 The Council's rights under this deed are in addition to and do not derogate from any other rights the Council may have under the Contract or pursuant to any Major Subcontractor Direct Deed between the Major Subcontractor and the Council.

5. **CONTRACTOR'S AND MAJOR SUBCONTRACTOR'S CONSENT**

5.1 The Contractor and the Major Subcontractor each acknowledge that the Subcontractor has entered into this deed at their request and each consents to the entry by the Subcontractor into this deed.

6. **NOTICES**

6.1 All notices, documents, requests, demands or other communication to be given for the purposes of this deed must be in writing and may be served personally, sent by email or other electronic method or sent by registered mail to the address for notice of each party as set out below.

6.2 All notices, requests, demands or communications shall be deemed to have been duly given or made:

6.2.1 in person, upon delivery;

6.2.2 by email or other electronic method, at the time the communication enters the recipient's system;

6.2.3 by registered mail, 3 Working Days after the date of posting.

6.3 Any such notice, request demand or communication which has been served after 5pm or on a non Working Day is deemed served on the first Working Day after that day.

6.4 The initial addresses and relevant person or office holder of each party is as follows:

For the Council:-

Rotorua District Council
1061 Haupapa Street
Rotorua
New Zealand

Private Bag 3019
Rotorua 3046
New Zealand

Email: Stavros.michael@rotorualc.nz

Attention: GM Infrastructure

For the Contractor:

TRILITY Rotorua Limited
Company Secretary
c/o KPMG

18 Viaduct Harbour Avenue
Auckland 1010
New Zealand
Email: vmaletic@trility.com.au

For the Major Subcontractor:

[]
[street address]
[postal address]
[city/town + postcode]
Email: []
Attention: []

For the Subcontractor:

[]
[street address]
[postal address]
[city/town + postcode]
Email: []
Attention: []

7. NO WAIVER

- 7.1 No right under this deed shall be deemed to be waived except by notice in writing signed by all parties.
- 7.2 A waiver given by a party will not prejudice its rights in respect of any subsequent breach of this deed by the any other party.
- 7.3 The failure by a party to enforce any clause of this deed, or any forbearance, delay or indulgence granted by a party will not be construed as a waiver of that party's rights under this deed.

8. GOVERNING LAW

- 8.1 This deed is governed by the laws of New Zealand. Each party unconditionally and irrevocably submits to the non exclusive jurisdiction of the Courts of New Zealand.

9. SEVERABILITY

- 9.1 The illegality, invalidity or unenforceability of any provision in this deed will not affect the legality, validity or enforceability of any other provisions.

INTERPRETATION

10. INTERPRETATION

- 10.1 In this deed, unless the context otherwise requires:
 - 10.1.1 Where the context permits the singular includes the plural and vice versa
 - 10.1.2 Words of any gender include the other gender and bodies corporate
 - 10.1.3 Obligations that bind more than one person shall bind those persons jointly and severally

- 10.1.4 A party includes its successors and permitted assigns
- 10.1.5 Paragraph headings are not to be used to construe this document
- 10.1.6 References to a clause, clauses, Schedule or Schedules shall unless otherwise specified be a reference to the corresponding clause, clauses, Schedule or Schedules in this deed.
- 10.2 Except where expressly provided to the contrary all references in this deed to 'including', 'includes' or 'include' shall be read as if that reference is followed by the words 'without limitation'.
- 10.3 Terms used that are not defined in this deed have, unless the context does not allow, the same meaning as in the Contract.

EXECUTION

Executed as a deed.

Dated 20[]

Signed for and on behalf of)
Rotorua District Council) _____
Elected Member)
)
) _____
Elected Member)

Signed for and on behalf of) _____
TRILITY Rotorua Limited) Director
in the presence of:)
) _____
Witness signature: Director

Witness name:

Occupation:

Address:

Rotorua Wastewater Services Operations and Maintenance Contract

Signed by) _____
[Insert Major Subcontractor name]) Director
in the presence of:) _____
) Director

Witness signature:

Witness name:

Occupation:

Address:

Signed by) _____
[Insert Subcontractor name]) Director
in the presence of:) _____
) Director

Witness signature:

Witness name:

Occupation:

Address:

NOTE: This deed shall be executed by each party in the manner required for execution of a deed. Any of these parties which are a company must execute the deed by having it signed, under the name of the company, by two or more directors. If there is only one director, it is sufficient if the deed is signed under the name of the company by that director, but the signature must be witnessed by another person. The witness shall not only sign but must also add his or her occupation and address.

Alternatively, companies may execute under power of attorney.

Any party which is a body corporate (other than a company) must execute in the same manner as a company by persons in a comparable position to a company director or otherwise in accordance with section 9 of the Property Law Act 2007.

In the case of a party who is an individual the party shall sign and the signature shall be witnessed by another person. The witness shall also add his or her occupation and address.

SCHEDULE A

Major Subcontractor Works

The works subcontracted to the Major Subcontractor under the Contract are:

[Insert description of Major Subcontractor Works]

Subcontracted Services

The work subcontracted to the Subcontractor (Subcontracted Services) are:

[Insert description of Subcontracted Services]

SCHEDULE B

Copy of Subcontractor's Subcontract Agreement

SCHEDULE 12 – INDEPENDENT EXPERT PROCEDURES

1. These Independent Expert Procedures shall apply to any Dispute or Handover Dispute referred to independent expert determination pursuant to this Contract. Unless specified otherwise in this Schedule, references in these procedures to “Expert” shall be construed as references to an Independent Expert or to the Handover Independent Expert and references to “Dispute” shall be construed as references to a Dispute or a Handover Dispute in each case as applicable.
2. Either party may, by written notice, refer any Dispute to the Expert for resolution. The referring party shall promptly copy the referral notice to the other party and the Administrator. It is a pre-requisite to referring any Dispute to the Expert under this clause 2, that a notice has been issued under clause 14.2.1 of the Contract.
3. Within the specified Submission Period set out below (at 3(a) or (b) as applicable), the parties shall send written submissions on the Dispute to the Expert and to each other and, within 1 the Response Period set out below (at 3(a) or (b) as applicable), shall submit any written replies they wish to make to the Expert and to each other.

For the purposes of this clause:

Submission Period means:

- (a) for a Dispute – 20 Working Days; and
 - (b) for a Handover Dispute – 10 Working Days,
- after the date of referral of the Dispute to the Expert; and

Response Period means:

- (c) for a Dispute – 15 Working Days; and
- (d) for a Handover Dispute – 10 Working Days,

after the earlier of expiry of the Submission Period and the date on which both parties have issued their initial submissions under this clause.

4. The Expert may extend the Submission Period and/or the Response Period as set out in clause 3 above in the Expert’s discretion where the Expert considers that given the nature of the Dispute and the complexity of the factual, technical and/or legal issues involved extensions of such periods will assist in the fair and equitable resolution of the Dispute provided that such periods may not be extended by more than 100% without the written approval of both parties.
5. The Expert shall consider matters and issue his or her determination resolving the Dispute within the times set out in this process whether or not all parties have provided their submissions on time. The Expert may consider or take into account the late submissions of any party or parties provided the other parties have reasonable opportunity to respond to such late submissions and such consideration will not unduly delay the issue of the Expert’s determination or the Expert otherwise determines that it is appropriate in all the circumstances to take those late submissions into account.
6. The parties shall give the Expert all necessary assistance that the Expert reasonably requires to consider the Dispute.
7. The Expert shall act as Expert and not as an arbitrator. The Expert shall take into account:
 - (a) the written submissions of the parties; and
 - (b) the context of and circumstances surrounding the Dispute.
8. The Expert may also:
 - (a) rely on the Independent Expert’s own knowledge, skill and experience in relation to the Dispute;
 - (b) make his or her own enquiries without reference to the parties; and

- (c) if any matter or issue requiring resolution is outside the area of expertise of the Expert and if the Expert considers it appropriate to do so, take advice from other persons the Expert considers to have expertise in the applicable area provided that the Expert shall first consult with the parties as to any such person(s) so appointed.
9. The Expert may:
- (a) arrange to meet with the parties either together or alone to discuss the Dispute;
 - (b) require the parties to provide such evidence or information as the Expert considers necessary to determine the Dispute; and
 - (c) establish procedures and a timetable for the conduct of the determination to the extent that those matters are not already laid down in these procedures.
10. The Expert shall, subject to the provisions of the next sentence, deliver a written determination (with reasons) to the parties within 15 Working Days of having received the parties' written submissions and replies under clause 3 above. However the Expert shall have the right to extend the time for issue of the determination in the Expert's discretion provided any such extension shall not be longer than a further 15 Working Days (unless agreed otherwise by the parties).
11. The Expert's decision shall be final and binding and, to the extent it is lawful to do so, the parties waive any right of appeal or review.
12. Unless the Expert directs otherwise in the determination, a sum directed to be paid in the determination carries interest as from the date of the determination until paid and at the rate set out in clause 72.2.
13. The parties and the Expert agree in relation to all information disclosed to them, or coming to their knowledge in the course of the determination (including communications between them):
- (a) to keep that information confidential; and
 - (b) not to use that information for any purpose other than settling the Dispute or enforcing any Expert's determination.
14. Fees and costs of the Handover Independent Expert: The Handover Independent Expert's fees and costs in relation to his or her appointment and the entry into the Independent Expert Agreement shall be payable by the Council. The Handover Independent Expert's costs in relation to the resolution of any Handover Dispute shall be payable by the parties and the Handover Independent Expert shall determine the proportion of those fees that each party shall be required to pay, having regard (amongst other things) to the conduct of the parties. In the absence of a Handover Independent Expert's determination as to allocation of fees the fees shall be payable by the parties equally.
15. Fees and costs of the Independent Expert: The Independent Expert's fees and costs in relation to his or her appointment, the entry into the Independent Expert Agreement and the resolution of any Dispute shall be payable by the parties and the Independent Expert shall determine the proportion of those fees that each party shall be required to pay, having regard (amongst other things) to the conduct of the parties. In the absence of an Independent Expert's determination as to allocation of fees, the fees shall be payable by the parties equally.

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Parties

- Between
- (1) Rotorua District Council (Council)
 - (2) TRILITY Rotorua Limited (Contractor)
 - (3) [*insert name of Expert*] (Expert)

Introduction

- A. The Council and the Contractor have entered into the Project Agreement.
- B. The Project Agreement prescribes a regime (the Handover Regime) for the handover of the WWTP Facilities and the Reticulation Networks by the Contractor to the Council at the expiry of the Project Agreement.
- C. The Handover Regime requires the appointment of an independent expert for the purposes of dispute resolution by way of expert determination in relation to disputes arising under or in connection with the Handover Regime.
- D. The parties have requested the Expert to accept the appointment as Independent Expert pursuant to the Project Agreement which appointment the Expert has accepted.
- E. This Independent Expert Agreement sets out the basis of the appointment of the Expert and the referral of disputes to the Expert for resolution.

It is agreed

1. Definitions and interpretation

- 1.1 In this Agreement, unless the context otherwise requires, the following terms have the following meanings:
- Agreement means this agreement.
 - Determination means a determination of the Expert resolving a Handover Dispute pursuant to this Agreement.
 - GST means goods and services tax under the GST Act.
 - GST Act means the Goods and Services Tax Act 1985.
 - Handover Dispute means a Handover Dispute as defined in the Project Agreement.
 - Handover Regime means the Handover Regime described in paragraph B of the Introduction.
 - Project Agreement means the Wastewater Services Operations and Maintenance Contract dated [] between the Contractor and the Council.
 - Schedule means the Schedule to this Agreement.
- 1.2 Definitions in the Project Agreement apply in this Agreement unless the relevant term is defined in this Agreement.

2. Appointment of Expert

- 2.1 The Council and the Contractor jointly appoint the Expert to act as Independent Expert for the purposes of the Handover Regime.
- 2.2 The Expert accepts the appointment to act as Independent Expert as above.
- 2.3 [The parties acknowledge that the timely resolution of Handover Disputes is important to each party and that it is their mutual intention that the Expert is provided with all necessary documentation and information (including the Project Agreement) as is relevant to the completion of Handover Regime in accordance with the Project Agreement and undertakes a review of all such documentation and information promptly after his or her appointment and thereafter is involved in the Handover Regime process so as to be informed in real time to enhance the Expert's ability to promptly deliver Determinations should Handover Disputes arise.

3. Handover Disputes Determinations

- 3.1 The Expert shall:
- (a) determine Handover Disputes referred to him or her pursuant to section 82.2 of the Project Agreement in accordance with the Independent Expert Procedures set out in Schedule 12 of the Project Agreement (Independent Expert Procedures);
 - (b) act as independent expert and not as arbitrator;
 - (c) be bound by and comply with the provisions relating to the resolution of Handover Disputes set out in the Independent Expert Procedures;
 - (d) act impartially and independently of the parties;
 - (e) immediately disclose to the parties any circumstances arising after the date of the Expert's appointment under this Agreement that may constitute a conflict of interest or compromise the Expert's ability to act impartially and independently;
 - (f) use all reasonable endeavours to determine each Handover Dispute referred to the Expert within the time limits set out in the Independent Expert Procedures;
 - (g) provide the Determination in writing setting out the basis of and reasons for the Determination.
- 3.2 The Expert warrants that as at the date of the Expert's appointment under this Agreement he or she is not aware of any circumstances that would adversely affect or compromise the Expert's ability to act impartially and independently in the resolution of Handover Disputes.

4. Determinations final and binding

- 4.1 Each Determination provided by the Expert pursuant to this Agreement shall be final and binding as between the Council and the Contractor as set out in the Independent Expert Procedures.

5. Expert's remuneration

- 5.1 The Expert's remuneration shall be determined in accordance with the Schedule.
- 5.2 As between the Council and the Contractor on the one part and the Expert on the other part the Council and the Contractor are jointly and severally responsible for payment of the Expert's remuneration.
- 5.3 As between the Council and the Contractor, the obligations as to payment of the Expert's remuneration are as set out in the Project Agreement.

- 5.4 The Expert is responsible for payment of all taxes (other than GST) in relation to the Expert's remuneration.
- 5.5 The Council and the Contractor shall pay GST on the Expert's remuneration, expenses and outgoings payable by them respectively under this Agreement that are a supply under the GST Act.

6. Termination

- 6.1 This Agreement may be terminated at any time by joint written notice given by the Council and the Contractor to the Expert.
- 6.2 This Agreement may be terminated by either the Council or the Contractor by not less than 10 Working Days written notice to the other of them and to the Expert, if:
- (a) the Expert is declared of unsound mind or mentally ill or is subject to a prolonged physical incapacity ;
 - (b) the Expert is declared bankrupt;
 - (c) the Expert commits any proven act of fraud or dishonesty or acts in such a way that is reasonably construed as compromising the Expert's ability to continue to act as Expert pursuant to this Agreement;
 - (d) the Expert is in material default of his or her obligations under this Agreement; or
 - (e) the Expert fails to issue any Determination within the time required pursuant to the Independent Expert Procedures.

7. Confidentiality

- 7.1 Each party agrees to be bound by the confidentiality provision set out in the Independent Expert Procedures.

8. General

- 8.1 This Agreement may be signed in any number of counterparts all of which, when taken together, constitute one and the same instrument. A party may enter into this Agreement by executing any counterpart.
- 8.2 This Agreement is governed, and is to be construed in accordance with, the laws of New Zealand.

Execution

Executed as an agreement.

Dated

20

Signed for and on behalf of the
Rotorua District Council)
by:)

[]
Authorised Person

Rotorua Wastewater Services Operations and Maintenance Contract

Signed by)
TRILITY Rotorua Limited)
) _____
) Director

Director

in the presence of:

Witness signature:

Witness name:

Occupation:

Signed by)
[insert name of Expert]) _____ in
)
the presence of:

Witness signature:

Witness name:

Occupation:

Schedule

The Expert's remuneration shall be determined on the basis of an hourly rate of \$[] (excluding GST) for the Expert's time and attendances in the provision of each Determination.

The Expert shall also be paid all expenses and outgoings incurred in the provision of each Determination.

[To be amended as agreed by the parties as required]

[OPTION FOR APPOINTMENT OF INDEPENDENT
EXPERT FOR REFERRED DISPUTES]

INDEPENDENT EXPERT AGREEMENT

relating to

WASTEWATER SERVICES
OPERATIONS AND MAINTENANCE CONTRACT

Rotorua District Council
(Council)

TRILITY Rotorua Limited
(Contractor)

[]
(Expert)

Date:

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Parties

- Between
- (1) Rotorua District Council (Council)
 - (2) TRILITY Rotorua Limited (Contractor)
 - (3) [*insert name of Expert*] (Expert)

Introduction

- A. The Council and the Contractor have entered into the Project Agreement.
- B. The Project Agreement prescribes a regime (the Disputes Resolution Regime) for the resolution of disputes arising under the Project Agreement.
- C. The Disputes Resolution Regime provides, where the parties agree, for referral of specific disputes arising under or in connection with the Project Agreement to an independent expert for resolution by way of expert determination.
- D. A dispute has arisen under or in connection with the Project Agreement which dispute is identified in the Schedule (Referred Dispute)
- E. The parties have requested the Expert to accept the appointment as Independent Expert pursuant to clause 14.8 of the Project Agreement to resolve the Referred Dispute which appointment the Expert has accepted.
- F. This Independent Expert Agreement sets out the basis of the appointment of the Expert and the referral of the Referred Dispute to the Expert for resolution.

It is agreed

1. Definitions and interpretation

- 1.1 In this Agreement, unless the context otherwise requires, the following terms have the following meanings:
- Agreement means this agreement.
 - Determination means the determination of the Expert resolving the Referred Dispute pursuant to this Agreement.
 - Disputes Resolution Regime means the disputes resolution regime set out in clause 14 of the Project Agreement as described in paragraph B of the Introduction.
 - GST means goods and services tax under the GST Act.
 - GST Act means the Goods and Services Tax Act 1985.
 - Project Agreement means the Wastewater Services Design, Build and Operate Contract dated [] between the Contractor and the Council.
 - Referred Dispute means the Referred Dispute identified in the Schedule.
 - Schedule means the Schedule to this Agreement.
- 1.2 Definitions in the Project Agreement apply in this Agreement unless the relevant term is defined in this Agreement.

2. Appointment of Expert

- 2.1 The Council and the Contractor jointly appoint the Expert to act as Independent Expert for the purposes of the resolution of the Referred Dispute by way of expert determination.
- 2.2 The Expert accepts the appointment to act as Independent Expert as above.

3. Expert's Determination

- 3.1 The Expert shall:
- (a) determine Referred Dispute in accordance with the Independent Expert Procedures set out in Schedule 12 of the Project Agreement (**Independent Expert Procedures**);
 - (b) act as independent expert and not as arbitrator;
 - (c) be bound by and comply with the provisions relating to the resolution of Disputes set out in the Independent Expert Procedures;
 - (d) act impartially and independently of the parties;
 - (e) immediately disclose to the parties any circumstances arising after the date of the Expert's appointment under this Agreement that may constitute a conflict of interest or compromise the Expert's ability to act impartially and independently;
 - (f) use all reasonable endeavours to determine each Referred Dispute within the time limits set out in the Independent Expert Procedures;
 - (g) provide the Determination in writing setting out the basis of and reasons for the Determination.
- 3.2 The Expert warrants that as at the date of the Expert's appointment under this Agreement he or she is not aware of any circumstances that would adversely affect or compromise the Expert's ability to act impartially and independently in the resolution of the Referred Dispute.

4. Determination final and binding

- 4.1 The Determination provided by the Expert pursuant to this Agreement shall be final and binding as between the Council and the Contractor as set out in the Independent Expert Procedures.

5. Expert's remuneration

- 5.1 The Expert's remuneration shall be determined in accordance with the Schedule.
- 5.2 As between the Council and the Contractor on the one part and the Expert on the other part the Council and the Contractor are jointly and severally responsible for payment of the Expert's remuneration.
- 5.3 As between the Council and the Contractor, the obligations as to payment of the Expert's remuneration are as set out in the Project Agreement.
- 5.4 The Expert is responsible for payment of all taxes (other than GST) in relation to the Expert's remuneration.
- 5.5 The Council and the Contractor shall pay GST on the Expert's remuneration, expenses and outgoings payable by them respectively under this Agreement that are a supply under the GST Act.

6. Termination

- 6.1 This Agreement may be terminated at any time by joint written notice given by the Council and the Contractor to the Expert.
- 6.2 This Agreement may be terminated by either the Council or the Contractor by not less than 10 Working Days written notice to the other of them and to the Expert, if:
- (a) the Expert is declared of unsound mind or mentally ill or is subject to a prolonged physical incapacity;
 - (b) the Expert is declared bankrupt;
 - (c) the Expert commits any proven act of fraud or dishonesty or acts in such a way that is reasonably construed as compromising the Expert's ability to continue to act as Expert pursuant to this Agreement;
 - (d) the Expert is in material default of his or her obligations under this Agreement; or
 - (e) the Expert fails to issue any Determination within the time required pursuant to the Independent Expert Procedures.

7. Confidentiality

- 7.1 Each party agrees to be bound by the confidentiality provision set out in the Independent Expert Procedures.

8. General

- 8.1 This Agreement may be signed in any number of counterparts all of which, when taken together, constitute one and the same instrument. A party may enter into this Agreement by executing any counterpart.
- 8.2 This Agreement is governed, and is to be construed in accordance with, the laws of New Zealand.

Execution

Executed as an agreement.

Dated

20

Signed for and on behalf of the
Rotorua District Council)
by:)

[
Authorised Person]

Rotorua Wastewater Services Operations and Maintenance Contract

Signed by
TRILITY Rotorua Limited

)
)
)

Director

Director

in the presence of:

Witness signature:

Witness name:

Occupation:

Signed by
[insert name of Expert]

)
)
)

in

the presence of:

Witness signature:

Witness name:

Occupation:

Schedule

Referred Dispute

[Sufficient detail to identify the dispute to be included here]

Expert's Remuneration

The Expert's remuneration shall be determined on the basis of an hourly rate of \$[] (excluding GST) for the Expert's time and attendances in the provision of the Determination.

The Expert shall also be paid all expenses and outgoings incurred in the provision of the Determination.

[To be amended as agreed by the parties as required]

SCHEDULE 14 – SCHEDULE OF INFORMATION

CORPORATE STRUCTURING AND SUPPORTS

Contractor Parent Companies

The Contractor parent company is:

(Refer clause 89.1 - Definitions)

- TRILITY Group Pty Ltd – ACN144 522 565

PARENT COMPANY GUARANTEE

The Parent Company Guarantee shall be provided by TRILITY Group Pty Ltd.

The Parent Company Guarantee shall be limited to the sum of FIFTEEN MILLION DOLLARS (\$15,000,000) - subject to adjustment in accordance with clause 5 of the Contract Conditions and as set out in the guarantee document set out in Schedule 9 – Guarantee.

TE ARAWA CHARTER

See Attachment 1

SUBCONTRACTORS

Major Subcontractors

(Refer clause 5.1 of the Agreement and clause 29.3.1.)

The Major Subcontractor is TRILITY New Zealand Limited. (Refer clause 89.1 – Definitions).

The Major Subcontractor Direct Deed is to be entered into not later than 20 Working Days after the date of execution of this Contract.

Key Subcontracts and Council approval

(Refer clause 29.1.1)

Key Subcontract trades and packages that require Council approval under clause 29.1.1 are:

- All Subcontracts requiring a Continuity Deed as below
- Control system integrator
- Cultural advice and community liaison
- Network communications and monitoring.

Pre-approved Key Subcontracts

Key Subcontracts that are pre-approved by Council pursuant to clause 29.1.1 are:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

Subcontracts requiring a Continuity Deed

(Refer clause 29.4.1)

Subcontracts in relation to which a Continuity Deed pursuant to clause 29.4.1 is required and the times the Continuity Deeds are to be provided are:

- Network maintenance and renewal of the Reticulation Networks - to be entered into not later than 20 Working Days after the date of execution of this Contract pursuant to clause 5.1 of the Agreement
- Biosolids transport and disposal in respect of Operations – to be entered into not later than 20 Working Days after the date of execution of this Contract pursuant to clause 5.1 of the Agreement.
- WWTP facility management to be entered into prior to entry into any subcontracting agreements covering this activity. See also clause 29 regarding Subcontracting activities

TRANSFERRING COUNCIL PERSONNEL

(Refer clause 37.6.1)

The Offer Employees and the Vulnerable Employee that are to be offered employment by the Contractor pursuant to clause 37.6.1 are as described in the letter from the Council to the Contractor detailing the Transferring Personnel dated 17 June 2020.

TRANSFER EQUIPMENT

(Refer clause 47.2 and clause 89.1 - Definitions)

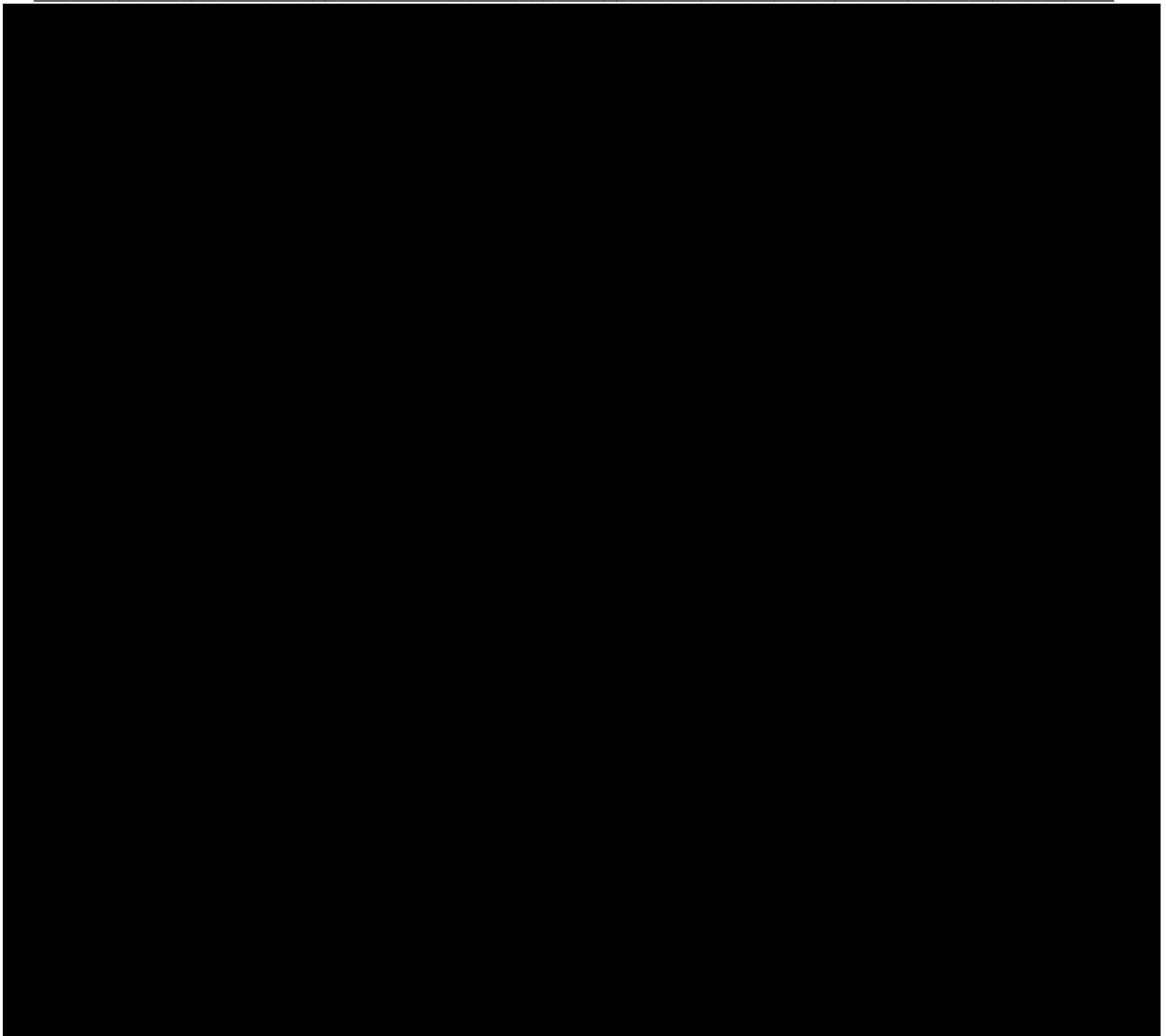


ROTOMĀ/ROTOITI CONTRACTS

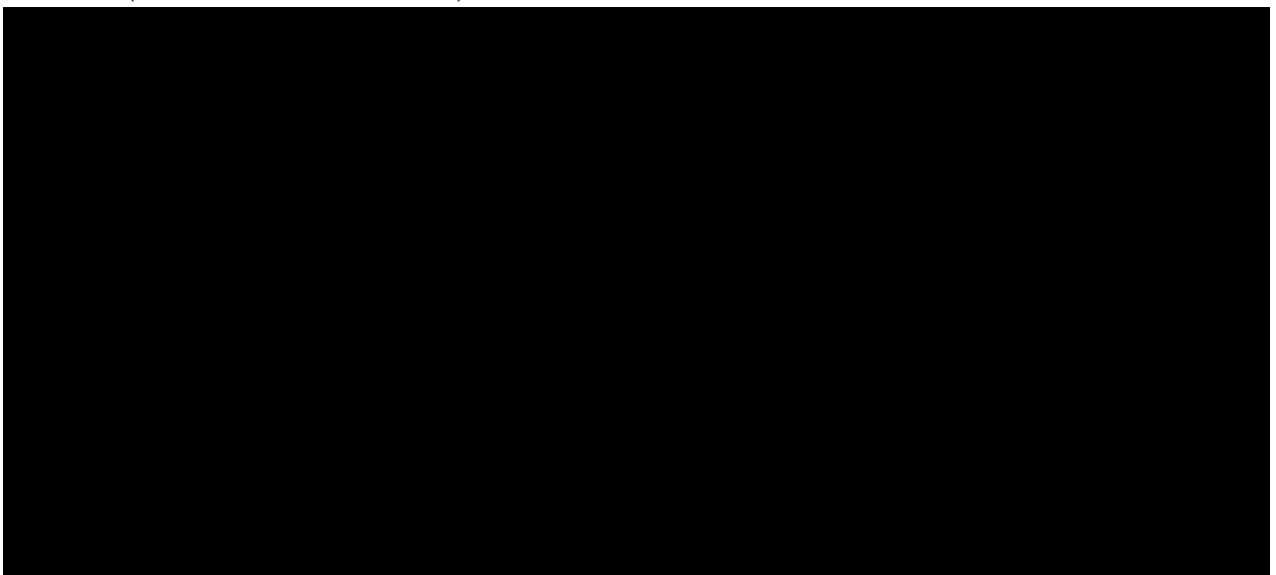
Rotomā/Rotoiti WWTP Facility Construction Contracts

(Refer clause 89.1 - Definitions)





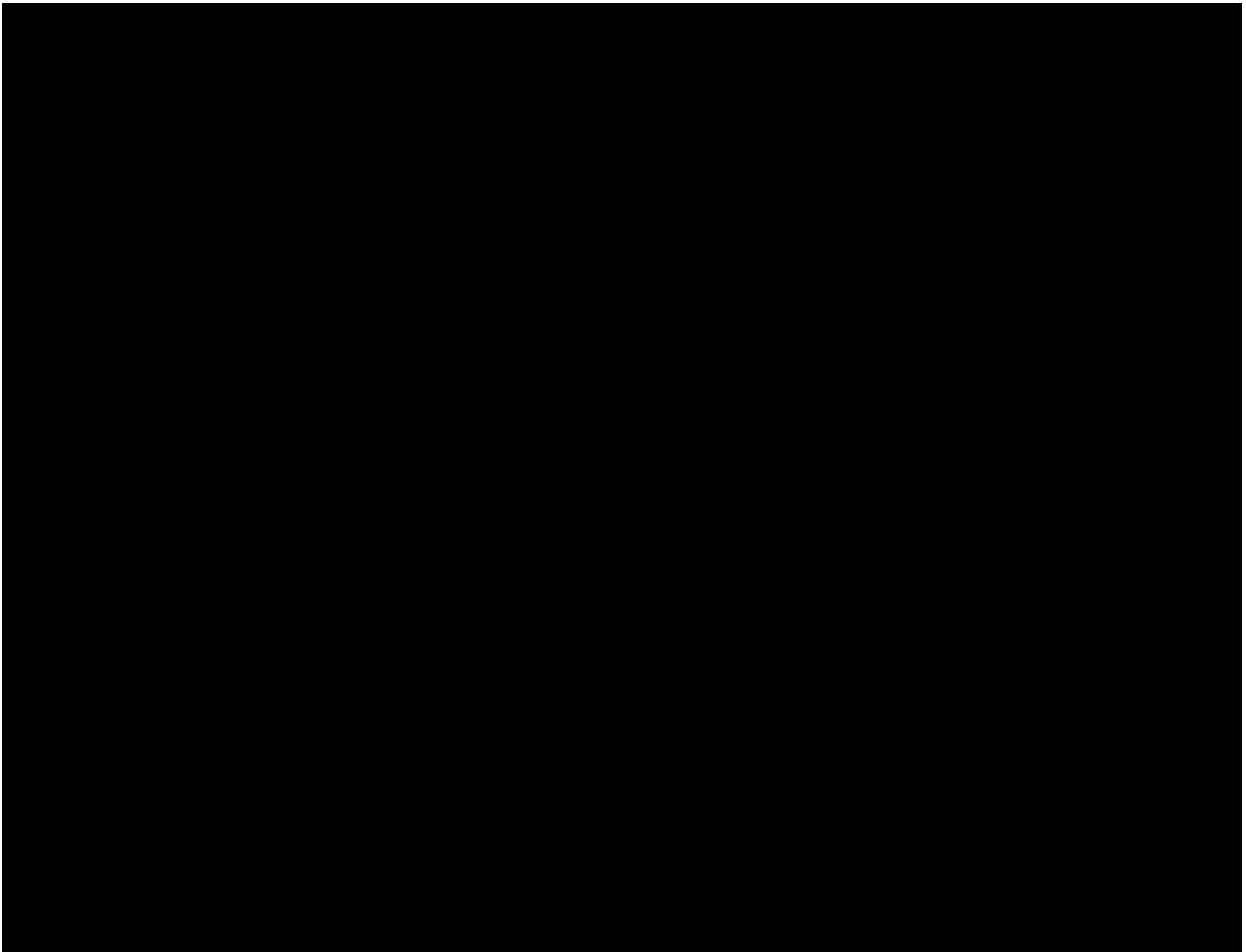
Rotomā/Rotoiti WWTP Facility Supply Contracts
(Refer clause 89.1 - Definitions)





Rotomā Network Construction Contracts

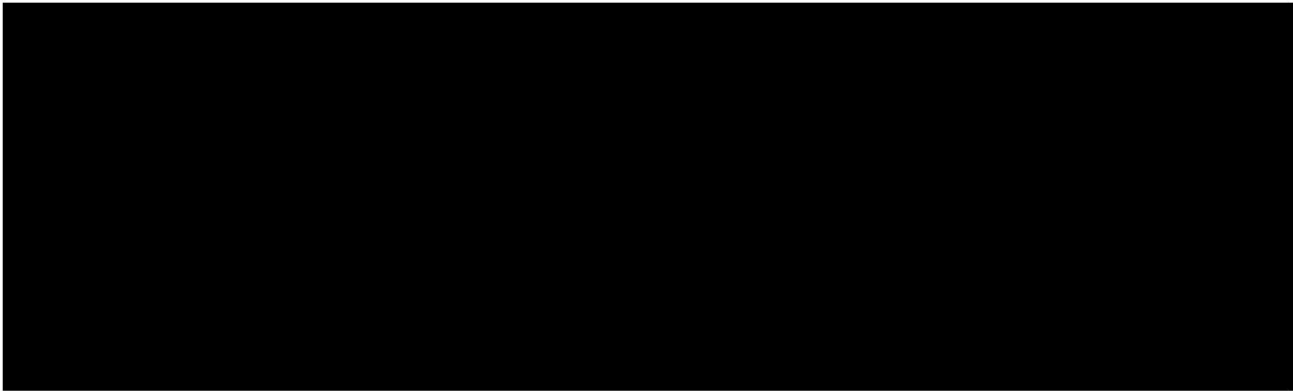
(Refer clause 89.1 - Definitions)



Rotoiti Network Construction Contracts

(Refer clause 89.1 - Definitions)





Execution Date Defects and Departures List

The Execution Date Defects and Departures List is the list entitled "Rotomā /Rotoiti Contracts Execution Date Defects and Departures List" and dated 18 August 2020 a copy of which is held by each party.

CONTRACTOR INSURANCES

Insurance information

(Refer clause 13.1)

See Attachment 2

COUNCIL INSURANCES

(Refer clause 13.3)

See Attachment 2

DISCLOSED BENEFICIAL INTEREST AND LEGAL OR EQUITABLE RIGHTS

(Refer clause 9.3.1(b))

The disclosed beneficial interests and legal or equitable rights pursuant to clause 9.3.1(b) are:

Nil

INTELLECTUAL PROPERTY

(Refer clause 30.4.1)

Arrangements re Intellectual Property provided by the Contractor that fall outside the 30.4.1 warranty including arrangements where the Intellectual Property is to be vested or acquired by Council directly from a third party are as follows:

Nil

KEY PERSONNEL

(Refer clause 89.1 - Definitions)

Key Personnel Role	Key Personnel
Operations and Maintenance Contract	[REDACTED]

Rotorua Wastewater Services Operations and Maintenance Contract

Key Personnel Role	Key Personnel
Manager	
Operations Manager	[REDACTED]
Team leader (Rotorua and Rotoiti WWTPs)	[REDACTED]
Maintenance coordinator	[REDACTED]
Reticulation Network Maintenance Lead	[REDACTED]
Reticulation Network Maintenance Contract Manager	[REDACTED]
Reticulation Network Maintenance O&M and CCTV Manager	[REDACTED]
Assets Manager	[REDACTED]
Reticulation Network Renewals Lead	[REDACTED]
Reticulation Network Renewals Contract Manager	[REDACTED]
Reticulation Network Renewals Team Leader	[REDACTED]

ROTORUA WWTP DISCHARGE HISTORY

The relevant Rotorua WWTP discharge history information is set out in Attachment 3.

[REDACTED]

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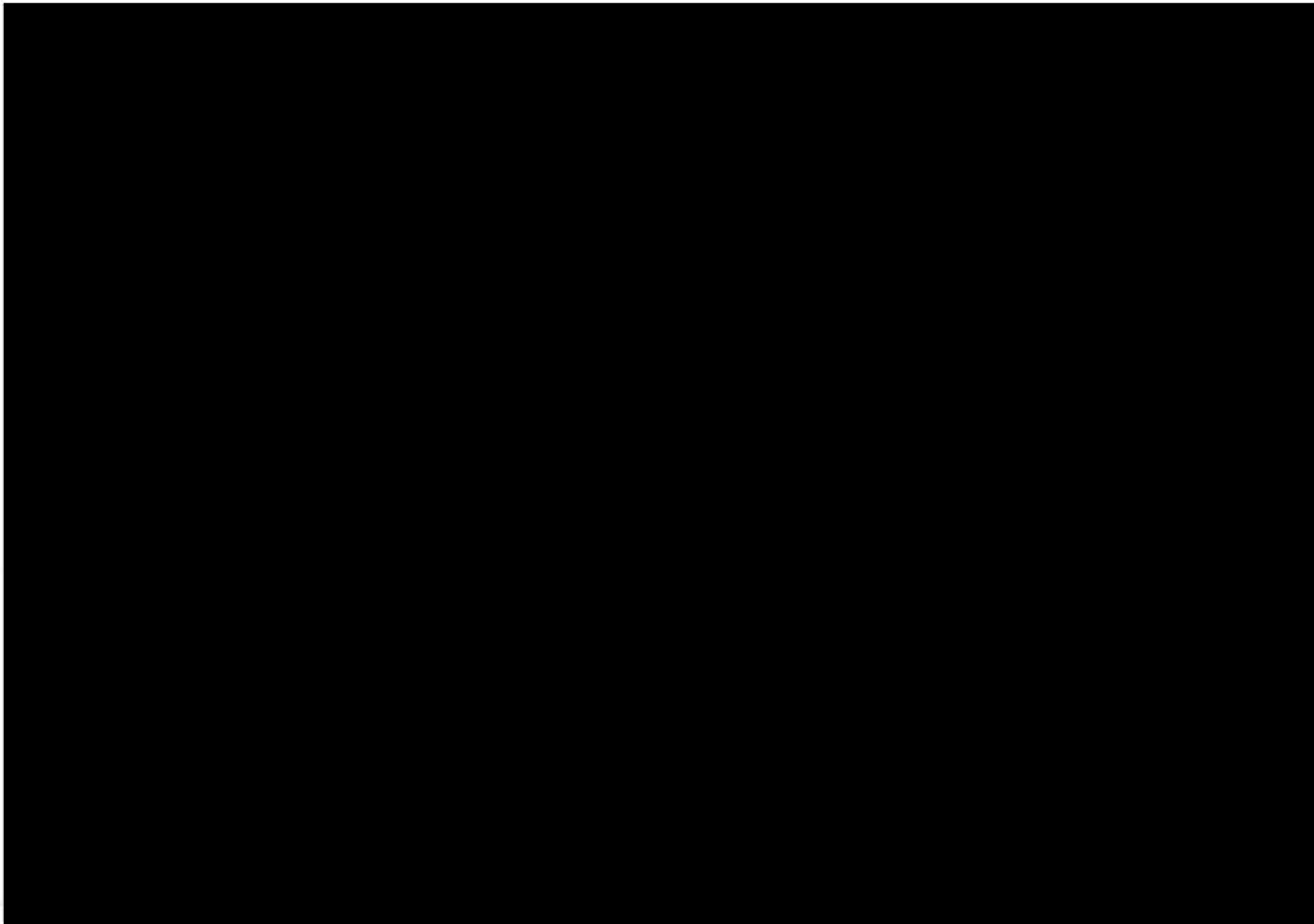
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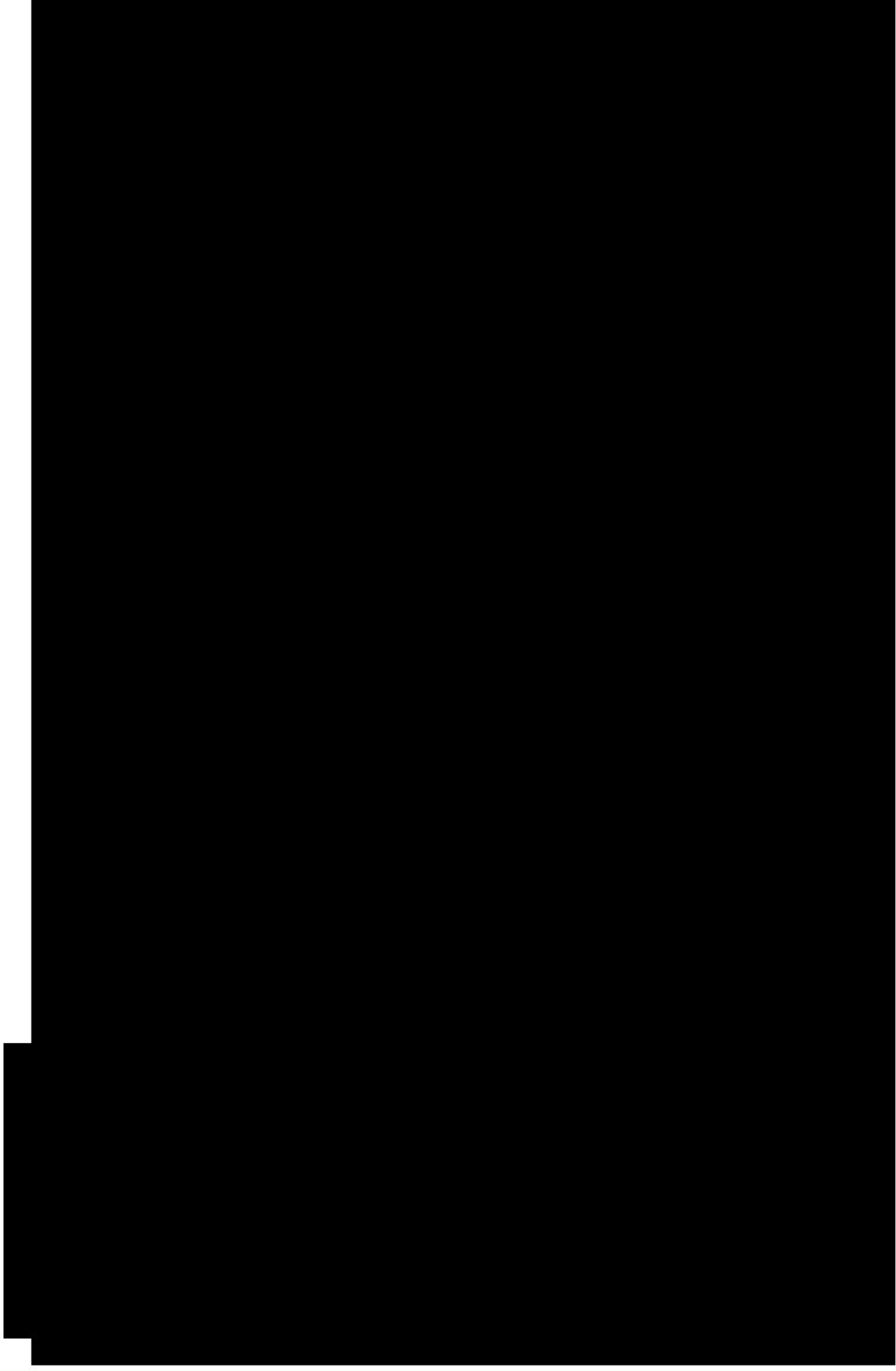
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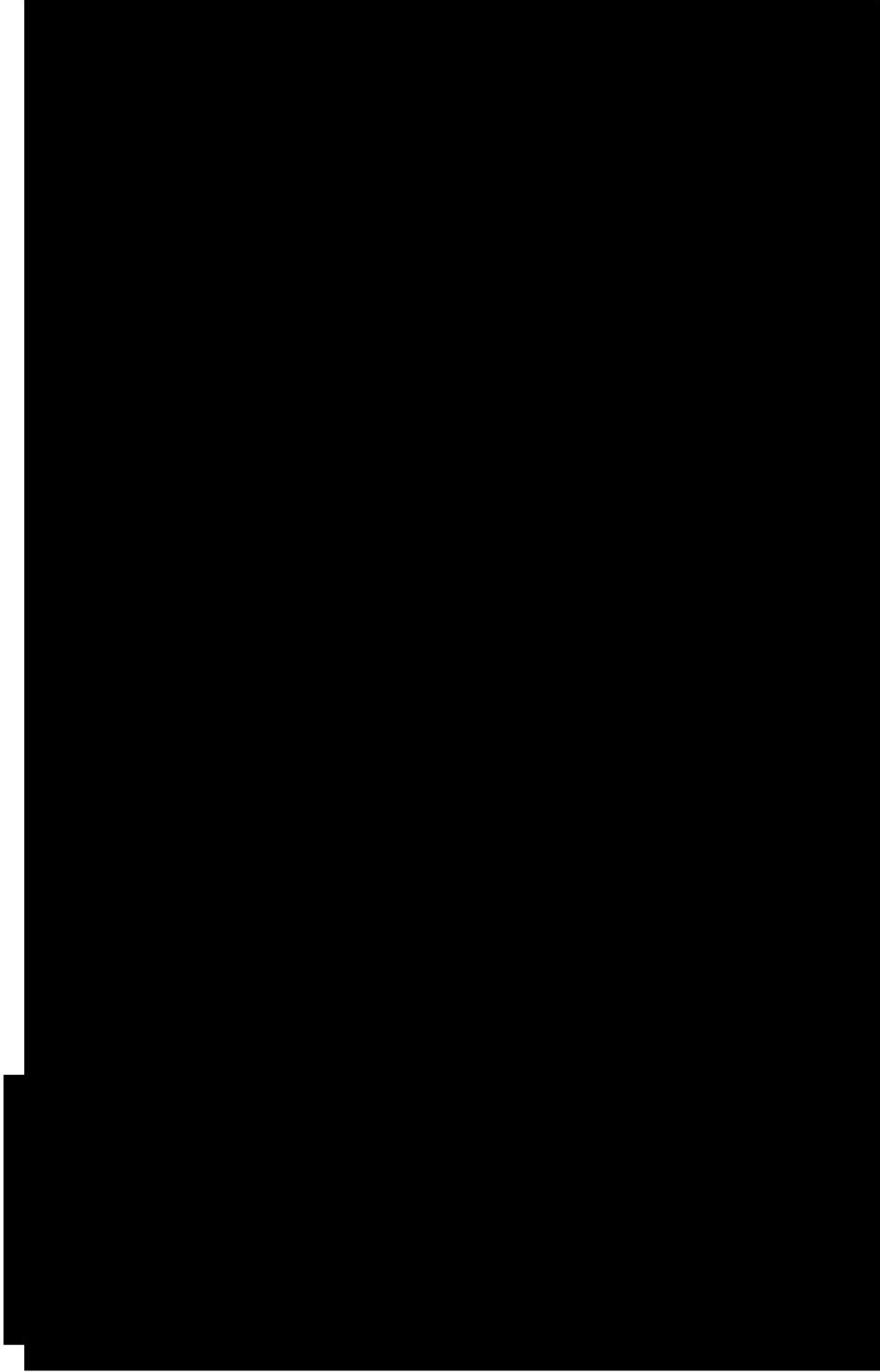
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Attachment 2 – Contractor Insurance Information

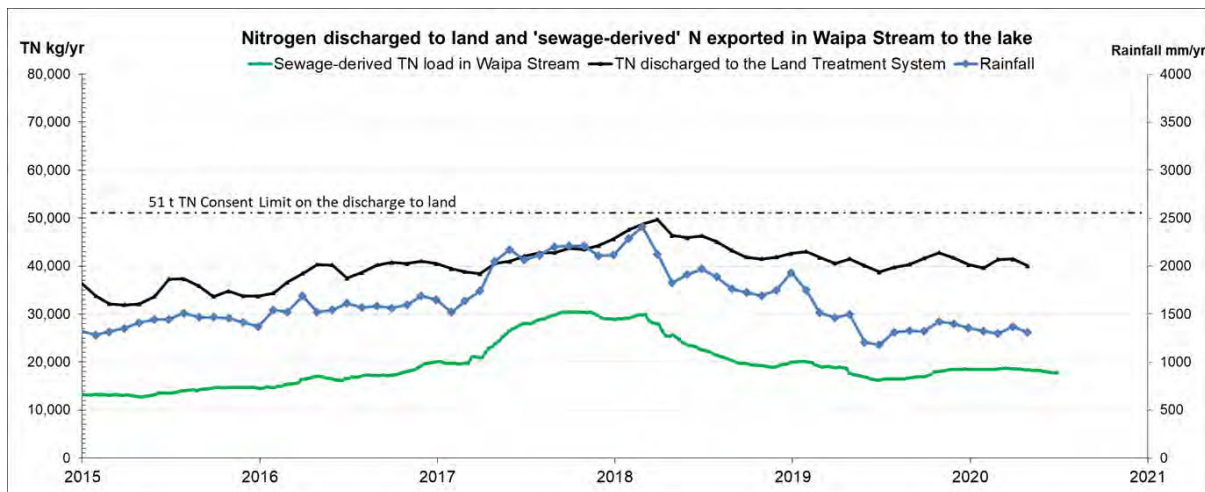
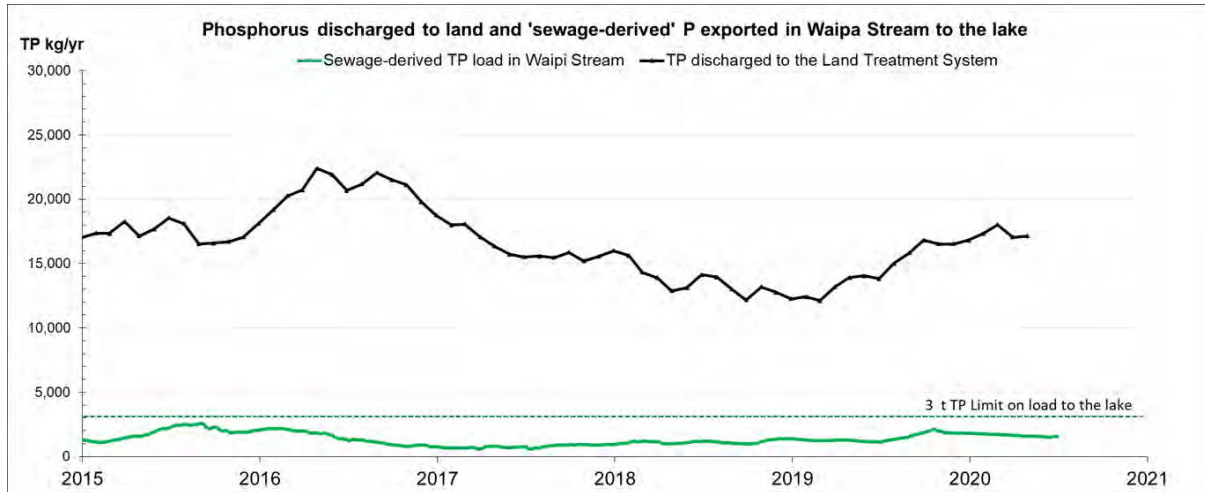




Attachment 3 – Rotorua WWTP Discharge History

Rotorua WWTP Monitored Discharge History

The information in the graphs below shows the 12-month rolling load of TN and TP discharged to land, and exported to the lake in Waipa Stream.



SCHEDULE 15 – WWTP TECHNICAL SPECIFICATIONS

WWTP TECHNICAL SPECIFICATIONS
relating to
WASTEWATER SERVICES
OPERATIONS AND MAINTENANCE CONTRACT

Rotorua District Council
(Council)

TRILITY Rotorua Limited
(Contractor)

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1 PRELIMINARY AND GENERAL

1.1 DEFINITIONS, ABBREVIATIONS AND ORDER OF PRECEDENCE

1.1.1 Definitions

In this document:

- a) Terms defined in the Contract Conditions and used in this Schedule have the same meaning as set out in the Contract Conditions.
- b) Terms defined in Schedule 16 and used in this Schedule have the same meaning as set out in Schedule 16.

1.1.2 Abbreviations

FAT	Factory Acceptance Test
HAZOP	Hazard and Operability
HSNO	Hazardous Substances and New Organisms Act
I/O	Input/Output
KPI	Key Performance Indicator
LTS	Land Treatment System
MBR	Membrane Bio-Reactor
MCC	Motor Control Centre
PE	Polyethylene
PLC	Programmable Logic Controller
PMCC	Power and Motor Control Centers
RFP	Request for Proposal
PVC	Poly vinyl chloride
RLC	Rotorua District Council (a.k.a. Rotorua Lakes Council)
SAT	Site Acceptance Test
SCADA	Supervisory Control and Data Acquisition
UPS	Uninterruptible Power Supply
UV	Ultra-violet
VSD	Variable Speed Drive
WWTP	Wastewater Treatment Plant

1.1.3 Order of Precedence

Refer to section 1.1.3 of Schedule 16.

1.2 INTRODUCTION

1.2.1 Scope of this Schedule and Limitations of Applicability to WWTP Facility Renewals

This Schedule sets out the Council's Technical Specifications for the WWTP Facilities.

The operations and maintenance requirements for the Reticulation Networks and the WWTP Facilities are set out in Schedule 16.

The renewals requirements for the Reticulation Networks and WWTP Facilities are set out in Schedule 16.

The limitations of applicability and principles for application of this Schedule 15 to Rotorua WWTP Facility and Rotorua LTS renewals are set out in sections 3.9.6 and 8.19 of Schedule 16.

1.2.2 Objectives of Schedule 15

The objective of this Schedule 15 is to set out the Council's technical requirements for physical works (capital works and renewals) undertaken at the WWTP Facilities in order to ensure that renewals and capital works undertaken at the WWTP Facilities:

- Meet the Minimum Service Life Requirements for new assets set out in Schedule 16;
- Subject to the limitations set out in sections 3.9.6 and 8.19 of Schedule 16, renewals work undertaken at the Rotorua WWTP Facility fits with the requirements of an eventual WWTP upgrade at the Rotorua WWTP Facility to avoid the situation where renewals undertaken within the Contract Term are decommissioned prematurely because they aren't suitable for incorporation in the eventual upgrade works.
- Ensure quality workmanship
- Ensure quality and fit for purpose parts and materials are used
- Minimise whole of life costs
- Minimise operations and maintenance costs
- Maximise up time, reliability and operability

2 HEALTH AND SAFETY

Refer to section 2 of Schedule 16.

3 WWTP FACILITY EQUIPMENT AND DESIGN STANDARDS

3.1 RELIABILITY AND REDUNDANCY

New and replacement WWTP Facility equipment shall be designed to run continuously without interruption (except in the case of power failure).

The mechanical, electrical and control system designs shall avoid single points of failure that would compromise the process design requirements.

The general philosophy for redundancy for WWTP Facility equipment shall be to provide sufficient processing capacity in the event that a single process stream / item is taken offline (either scheduled or otherwise). Where "n" number of items are provided to fulfil a particular demand or duty, the Rotorua WWTP Facility shall be capable of operating at the design throughput capacity with one of those items out of service "n-1". For clarity this would apply to mechanised process items required to be taken off-line periodically for maintenance (e.g. pumps and blowers), however it does not apply to a membrane train required to be taken entirely offline for short periods of time for clean in place procedures or routine equipment maintenance. This requirement also does not apply to a tank structure housing multiple mechanical items where the mechanical items can be individually removed for periodic maintenance where the removal of a single mechanical item would not compromise the process performance (e.g. the existing Bardenpho tank).

For each process critical item of equipment, a standby unit shall be provided. This extends to the electrical and controls associated with the process critical item. For example, a duty/standby pump set operated by variable speed control shall not share a common VSD and shall have separate independent motor controls.

Permanent standby emergency power generation shall be provided on-site of sufficient capacity to power all process critical items to achieve the containment and treatment design objectives in the event of a mains power outage. Emergency power generation shall automatically start and come on-line in the event of mains power failure. When emergency power generation is on-line the PLC shall bring equipment back into operation in a predefined (safe) sequence. It should be noted that Motor Control Centre 3 (MCC3) that also powers the final effluent transfer pumps to the LTS does not currently meet this requirement.

Process controllers and critical instrumentation shall be powered by UPS units to prevent loss of control and process critical data upon loss of mains power.

Controllers shall have dual redundant processors and where practical to do so I/O shall be distributed across different cards so that back up or redundant signals will still operate if the card of the main signal should fail.

Spares of all process critical controller hardware shall be held on-site along with the latest version of controller software to minimise downtime in the event of controller hardware failure and/or loss of software from controller memory.

The Contractor shall be solely responsible for maintaining compliance with the KPI's and performance requirements in the event of any control system component failures. The Contractor shall therefore ensure the design, construction, provision for critical spares and operations procedures of all renewed equipment allow for means of ensuring compliance with the KPI's and performance requirements set out in Schedule 16 in the event of any control system component failures.

Consideration shall be given in the planning of any controller renewals for the option of fully redundant main plant controller infrastructure (i.e. duty/standby PLC's on independent UPS power supplies placed at different locations within the plant).

Consideration shall be given in the planning of any capital works and renewals involving control system architecture reconfiguration for redundancy of communications pathways to ensure that an alternative pathway is provided for process critical communications in the event of a single point of failure in the communication network(s).

3.2 EASE OF OPERATION

WWTP Facility capital works and renewals shall provide for ease of operation as a major criterion. In particular incorporation of the following shall be considered where practical:

- Confined spaces shall be eliminated. If the confined space cannot be eliminated, then the area and reasons for its access shall be minimised as far as practical, and labelled appropriately
- Instruments and field controls shall be grouped for ease of operation
- All systems shall be designed to fail safe. Equipment shall run continuously and be designed to be safely maintainable while in operation wherever possible.
- Provision to accommodate both planned and unplanned stoppages and efficient return to service under both automatic and manual control.
- All low points shall be equipped with flushing points and all tanks and equipment shall be configured for ease of drainage and cleaning
- All drains shall be properly designed to avoid any blockages (e.g. open channels, large collection sump) and shall flow by gravity to the return liquor pump station (if appropriate)
- Rodding points should be provided or manholes at bends

- All pipework shall include readily accessible rodding or flushing points and dismantling joints
- New below ground pipework shall be avoided wherever it is practicable to do so (given the aggressive ground conditions)
- The design and operation of the system shall allow for all pipework carrying sludge to be easily flushable when taken off-line
- All pumps, control valves, tanks, and major equipment shall be provided with isolation valves to facilitate their maintenance
- Overall design shall prevent spills of sludge and other fluids (e.g. everything fully contained)
- Adequate internal and external lighting for key work and egress areas that might be accessed at night
- All safety equipment and signage to comply with relevant dangerous goods, manual lifting and Occupational, Health and Safety codes of practice and regulations
- Full remote SCADA access for monitoring and control (the Contractor shall have full remote control and the Council shall have read-only access while the Contractor is operating the facilities)
- Individual unit processes shall be capable of being taken offline using automated actuated isolating valves, penstocks, or gates
- Operations status information is to be available locally and remotely on SCADA systems
- All potential wet areas properly drain; and,
- Power failure recovery without assistance.

3.3 EASE OF ACCESS

WWTP Facility capital works and renewals projects shall provide for ease of access as a major criterion. In particular incorporation of the following shall be considered where practical:

- All valves, instruments, pumps and any other equipment requiring operator attendance shall be accessible from the normal operational position, and operators should not have to stretch or bend down to conduct their tasks
- Specific attention is required to allow maintenance activities to be undertaken using safe working practices. All equipment requiring access for operation and/or maintenance shall have sufficient clearance so that operators can easily undertake their tasks. A minimum required clearance around equipment is as follows:
 - General minimum clearance around mechanical equipment and motors: 0.8 m
 - General minimum clearance for any walkways: 0.6 m
 - General minimum width for any stairway: 0.8 m
 - General minimum diameter for any manhole access: 0.8 m
 - General minimum vertical clearance: 2.2 m.
- All fall from heights risks shall be mitigated by providing hand railing to prevent access to the fall from height location.
- No operational activities shall be required on building rooftops. Only essential maintenance activities shall be undertaken on building rooftops and this should be avoided if practicable to do so.
- Stairways shall be avoided where possible using Good Industry Practice accessway design. Where required for personnel access, stairways shall be provided rather than ladders
 - All stairways shall have a reinforced concrete landing at ground level of minimum 1.5 x 1.5 m dimensions.

3.4 EASE OF MAINTENANCE

WWTP Facility capital works and renewals projects shall consider ease of maintenance as a major criterion. Ease of maintenance means maintenance personnel can carry out their routine tasks without the need to shut down process units and that equipment service points are readily accessible.

In particular incorporation of the following shall be considered where practical:

- Instruments shall be chosen and installed for reliability, low maintenance and easy calibration
- Ease of accessibility to all equipment and instrumentation
- Flanges, instruments and equipment shall be a minimum of 200 mm clear from any part of an adjacent structure to aid maintenance access
- All equipment installed in a building shall be removable from the building without dismantling the building
- All calibration and adjustment points shall be accessible from floor or walkway level
- Calibration shall be possible while the plant is in operation by providing a “hold” or “calibration mode” in SCADA
- All equipment and appurtenances (e.g. gauges) shall include isolation devices (e.g. valves, test points) to allow for servicing without interrupting the process
- Where practicable equipment shall be selected to provide servicing commonality between the Rotorua WWTP Facility and the Rotomā/Rotoiti WWTP Facility.

Daily maintenance shall be minimised where possible and be limited to inspection, lubrication, wash-down and minor adjustments that can be carried out while machinery is operating.

No maintenance tasks shall require skills not reasonably expected to be available within New Zealand.

3.5 LIFECYCLE COSTS

The parties acknowledge that whole of life cycle cost for the combined Rotorua wastewater scheme (comprising the Rotorua WWTP Facility and the Rotorua Reticulation Network) shall be minimised where practicable (so long as the other design objectives and performance requirements are not adversely compromised or put at risk by doing so).

3.5.1 Operational Costs

The overall philosophy is to configure capital works and renewals to achieve the other design objectives as set out in this section while minimising ongoing operational costs. This includes minimising the use of or requirement for:

- Consumables and chemicals (including supplemental carbon dosing)
- Labour
- Power
- Maintenance
- Renewals
- Disposal of by-products.

3.6 ASSET SERVICE LIFE

The Minimum Service Life Requirement of all new and replacement assets built and installed by the Contractor shall comply with section 7.4 of Schedule 16 unless agreed otherwise by the Administrator in writing.

3.7 LESSONS LEARNT

The following observations, issues and problems have been encountered at the Rotorua WWTP Facility side stream MBR which was constructed in 2012. Where applicable, the Contractor shall consider the below when planning and designing WWTP Facility capital works and renewals.

Table 1: Rotorua WWTP Sidestream MBR Observations, Issues and Problems

Heading	Problem Description and Mitigation
Blower E-stop	Blower e-stops at blower enclosures need to be located appropriately for safe access
Electrical corrosion	Corrosion of electrical parts for the MBR plant has been accelerated and excessive. Future electrical parts must comply with the RLC specifications and shall be made of suitable materials to minimised corrosion in a high H ₂ S environment.
Solenoid valve corrosion	Corrosion of solenoid valves has been excessive. Solenoid valves need to be of a suitable IP rating, protected and constructed from suitable materials to resist weathering and H ₂ S attack.
GRP grating	GRP grating deflects to a relatively high degree when walked upon. A thicker, higher stiffness grating would be preferred and would reduce the risk of structural collapse.
GRP handrailing	The gelcoat/ surface coat is wearing away and exposing the glass fibres. Handrailing also is not suitably rigid/robust. GRP/FRP handrailing is not allowed
Chemical dosing pipes	Solvent Welded PVC pipes have failed in the past. Contractor to review the construction and integrate flexible joints where required in the chemical pipes in pipe above ground situations.
Electrical supplies / cables	At the existing site there are service water pipes and electrical services located within the same trenches/service channels. This is causing electrical problems. In future all cables shall be installed in separate cable trenches / ducts unless it is impractical to do so. Cables shall not be installed in the same trenches as pipework or water services unless there is no practical alternative available. All new cable installation work shall comply with the Australian/New Zealand Wiring Rules (AS/NZS 3000).
Concrete quality	The existing concrete membrane tank suffers from concrete coating failure and concrete spalling. The Contractor shall integrate suitable additives/coatings to ensure suitable longevity of the tanks and to prevent foreign objects from entering the membrane train.
Local instrument readouts	At the existing plant, local instrument mounted readouts have in some instances been mounted in in-accessible locations. Where instruments are located in inaccessible locations the readouts shall be remote mounted and located at suitable height. In the case where a remote readout is not available, the local instrument shall be a local, blind readout.
Modbus communications	A prolonged outage of the Sidestream MBR (>24 hours) occurred in February 2018 due to a Modbus network communications failure. At the time of writing it is unclear where the exact point of failure was (intermittent control card fault or a faulty plug). A mitigation could be to employ a more robust communications network (i.e. Ethernet only) with redundancy built into it (so communications can follow alternative pathways in the event of a single point of failure).

It should be noted that it is not the Contractor's obligation to rectify these existing issues, unless they are part of an individual capital works or renewals project. However the Contractor shall abide by the mitigation measures listed in Table 1 as applicable to capital works and renewals undertaken by the Contractor, unless it is impractical to do so.

3.8 WORKMANSHIP

All work undertaken by or on behalf of the Contractor shall be executed conscientiously by skilled and experienced tradespersons in a tradesman-like manner to produce well-finished work throughout.

When New Zealand Standards covering workmanship of various trades exist, then these standards shall be taken as the minimum standard for capital works and renewals work. Where no applicable New Zealand Standards exists, then the workmanship shall be to Good Industry Practice.

Before commencing any capital works or renewals works, the Contractor shall carefully examine the previous work on which it may depend. Commencing work on any part means that previous work is accepted by the Contractor as being satisfactory work of the required standard.

3.9 SUBCONTRACTORS AND SUPPLIERS

The Contractor shall ensure that all Subcontractors and suppliers are subject to all of the same quality requirements, codes, standards and specifications as specified in this Schedule.

3.10 QUALITY RECORDS

Records for equipment and parts subject to inspection and approval by the relevant regulatory authority shall be made available on site at the time of arrival of all relevant items at site, or after inspections have been carried out on site (if applicable).

3.11 NOISE

The noise generated from any new assets installed (including replacements) shall comply with the Resource Management Act 1991 (RMA) with particular reference to sections 326, 327 and 328 and any applicable Council Resource Consents.

Acoustic control measures shall be provided as required to comply with site boundary noise restrictions for any new assets installed. All items of noise producing plant installed as part of capital works and renewals works shall be equipped with silencers and noise insulation to reduce noise at source to the lowest levels practicably achievable in accordance with Good Industry Practice.

If required, acoustic enclosures shall be designed, constructed and installed to allow quick and easy removal for inspections and maintenance. Acoustic enclosures must be sufficiently robust to withstand a minimum of 10 removal and replacement operations during the life of the associated equipment item.

Noise from any activity at the Rotorua WWTP Facility shall not exceed the following limits as measured at the site boundary.

Daytime 7am to 10pm, any day except public holidays 50 dB LAeq.

Night-time At all other times 40 dB LAeq and 70 Db LAmx.

The Administrator has the right to order the removal and replacement of plant or noise mitigation measures to be implemented at no cost to Council, if the Contractor has not complied with this clause.

The parties acknowledge that some areas of the existing Rotorua WWTP Facility may not comply with these requirements and it is not within the Contractor's scope to rectify these areas, unless as part of an individual capital works or renewal project.

3.12 VIBRATION

Plant and infrastructure vibration shall comply with the requirements of AS 1359 and AS 2625.

3.13 STRUCTURAL STEELWORK AND METALWORK

The following aspects relating to structural steelwork and metalwork (as a minimum) shall be considered as part of capital works and renewals projects:

- Reference documents and standards
- Materials and component specifications, testing, inspection and acceptance/rejection criteria
- Shop drawings
- Protective coating systems including inspection, testing, acceptance/rejection criteria and minor site repair
- Fabrication
- Installation/erection

Unless prior approval is given otherwise by the Administrator in writing, all metallic structural members submerged or in splash zones shall be Grade 316 stainless steel.

All metal ladders, stairs and walkway grids or plates, handrails and kick plates shall be either:

- galvanised steel that is protective coated after galvanising with a durable, H₂S resistant and UV resistant coating system; or
- 316 Stainless Steel.

Fasteners shall be grade 316 stainless steel with suitable galvanic isolation between different metals.

Washers shall be provided under all nuts and bolt heads. Spring washers shall also be provided under nuts connecting or fixing elements that are subject to vibration (note exception to this in section 3.13.1.2).

3.13.1 Aluminium Plates and Sections

All aluminium plates and sections shall be of marine grade aluminium. Unless otherwise noted, all aluminium extrusions shall be alloy 6061 tempered to T6, all aluminium sheet thinner than 3mm shall be alloy 5251 tempered to H34 and all aluminium sheet 3mm and thicker shall be alloy 5083 tempered to H321. Aluminium handrails and grill flooring shall be alloy 6063 tempered to T5 or T6.

Fabricated aluminium items shall be insulated from concrete bearing surfaces by painting the contact area with a heavy coat of approved alkali-resistant bituminous paint.

3.13.2 Fasteners within Process Structures

Bolts, nuts and washers and masonry anchors where used in water retaining structures, or subject to splashing shall be grade 316 stainless steel.

Fixings which will be below water level or otherwise not readily accessible and which may be subject to vibration shall be double nutted (lock nuts added) or lock nuts used. Spring washers and a single plain nut shall not be considered adequate in such situations.

Threads shall be coated with nickel-based anti-seize compound before nuts are installed.

3.13.3 Fasteners within Other Structures

Fastenings at other structures, general stairways and walkways shall be compatible with the structural members used.

3.13.4 Grating

All grating shall be designed to comply with the relevant provisions of the New Zealand Building Code and NZS/AS 1657.

3.13.5 Pipework

Due to the adverse ground conditions at the Rotorua WWTP Facility, design of pipework buried directly in the ground shall be avoided wherever it is possible to do so. Above-ground pipework runs attached to structures or supported on low plinths at ground level or run in services channels are preferable. Refer to section 3.14.15.

All buried flexible pipelines shall comply with AS/NZS 2566.

Buried non-metallic pipes shall have metal warning tape placed in the trench above the pipe to allow for future detection.

All buried flanges shall be wrapped using the Denso primer, mastic and wrap system or approved equivalent. Metallic items in all buried flanges shall be grade 316 stainless steel.

The Contractor shall comply with the requirements for buried pipework installation as stated in the Council's Engineering Specifications, which shall include (but not be limited to) the following:

- Bedding,
- Pipe handling and laying
- Jointing
- Thrust and anchor blocks
- Tolerances and checking thereof prior to backfilling
- Backfilling (including placement of warning tape)
- Cleaning and disinfection (where relevant)
- Testing

3.14 MECHANICAL REQUIREMENTS

3.14.1 General

All new equipment to be incorporated in the WWTP Facilities shall be fit for purpose, and preferably have a history of successful use in similar facilities and for which spare parts are readily available in New Zealand or there is a reputable agent in New Zealand.

All spare parts and consumables of process critical equipment either recommended by the equipment suppliers or identified from a critical spare parts review process, where such spare parts and consumables have long lead items (i.e. spares not readily available in New Zealand), shall be held on site.

The following aspects relating to mechanical engineering design, mechanical equipment selection and installation works (as a minimum) shall be considered as part of capital works and renewal projects:

- Reference documents and standards
- Materials compatibility with chemicals
- Corrosion protection
- Materials and component specifications, testing, inspection and acceptance/rejection criteria
- Materials and equipment storage and protection prior to installation
- Shop drawings
- Protective coating systems including inspection, testing, acceptance/rejection criteria and minor site repair
- Fabrication
- Valves

- Penstocks
- Actuators (electric, pneumatic and solenoid)
- Equipment labelling
- Pipe labelling
- Pipe supports
- Pressure vessels
- Chemical storage and dosing system standards and specifications
- Mechanical installation works including materials handling requirements and above ground pipework
- Pressure testing procedures and pass/fail criteria

3.14.2 Equipment Supports

All equipment supports shall be designed, fabricated and installed to comply with the requirements of NZS 4219:2009 - Seismic performance of engineering systems in buildings.

3.14.3 Guarding

All equipment shall be properly protected and guarded to prevent injury to operators and bystanders. Guarding shall as a minimum comply with safety regulations and OH&S requirements.

3.14.4 Warning Signs

Safety and warning signs shall be provided where necessary at locations of equipment (or entranceways to rooms housing equipment) to warn of potential hazards, specify PPE requirements and provide emergency response information. Such signs shall provide warnings where equipment may start automatically, move without warning or where other hazards may occur (e.g. noise).

3.14.5 Corrosion Resistance

The Contractor's equipment selection and mechanical design shall incorporate provisions necessary to protect assets from premature deterioration due to the highly corrosive atmospheric conditions. Particular attention is required to the selection, specification, isolation and protection of metalwork items. Ferrous metals are particularly prone to corrosion in the Rotorua WWTP Facility environment if not adequately protected. The expected service life afforded by galvanic protection of ferrous items by application of zinc coatings is significantly reduced in the Rotorua WWTP Facility environment. Galvanic corrosion due to direct contact of dissimilar metals is accelerated in the Rotorua WWTP Facility environment, as are the corrosive effects of chemicals and the rate of corrosion occurring on surfaces subject to intermittent submergence or splashing with wastewater,

External fasteners on equipment shall be stainless steel Grade 316 or where this material is inappropriate for the application a suitable non-corroding alternative shall be provided. In general, plated or painted steel bolts are not acceptable.

Where items are submerged or in the splash zone they shall be constructed out of corrosion resistant materials such as stainless-steel Grades 316 and 316L or fully coated with a corrosion resistant protective coating suited to continuous exposure to the surrounding liquid for the stated Minimum Design Life of the equipment.

3.14.6 Flanges

All flanges shall generally be PN16 and compliant with AS/NZS 4087.

All flange nuts, bolts and washers shall be in accordance with the requirements of AS 4087.

All gaskets shall be suitable for the nominated conditions including fluid, pressure and temperature.

3.14.7 Pumps

3.14.7.1 Selection Criteria

Pumps shall be selected where feasible for maximum efficiency at the normal operating duty point. Pumps shall be selected to optimise the whole life costs of ownership.

Pump configurations shall generally be the manufacturer's standard design. All new process and essential services pumping systems shall provide, at a minimum, one standby pump. The pumping system shall be designed such that the normal operating duty range shall be achievable if a duty pump fails.

Variable speed applications shall be suitable for extended running at minimum design speed.

Pumps shall be selected such that, for the full range of anticipated duty, there is reliable operation with minimal vibration. Pumps selected shall be able to operate reliably for the full range of anticipated pumped fluid qualities.

All pumps and appurtenances shall be provided with suitable protective coatings.

A tapping shall be provided on both suction (if applicable) and discharge pipework adjacent to new process and essential services pumps, complete with isolation valve, to suit attachment of a pressure gauge.

Pump-sets (and/or individual separate components thereof) shall be provided with clearly identified lifting points to give a safe and balanced lift.

All new process and essential services pumping systems shall be designed and sized for the required duties, including flow ranges, fluids, temperatures and pressures where applicable and shall comply with the following requirements:

- Provide the required turndown and be capable of operating in a stable manner over the specified range of suction heads and discharge heads without overload or cavitation over the complete specified flow range
- With the exception of clean water only applications the pump rotational speed should not exceed 1500 r/min (4 pole) unless the selected motor output is rated higher than 170kW where the rotational speed shall not exceed 1000 r/min (6 pole).
- Where the pump is required to operate at varying speed, the maximum speed of the pump required to meet any normal duty point shall not exceed its nominal synchronous speed at 50Hz.
- All pumps and motors shall operate smoothly without undue rumble, noise, vibration or other effects detrimental to safe and efficient operation which shall extend over the entire operating range from minimum to design flow in accordance with the respective characteristic curves and performance data
- Motors shall not be overloaded for any condition of pump operation. Motors shall be rated to 110 per cent of maximum impeller flow duty
- Each pump shall be designed to ensure that there shall be an adequate margin between required NPSH and available NPSH for satisfactory operation and run-out conditions
- Centrifugal pump impellers shall be dynamically balanced
- The layout of the pumps shall provide adequate clearance and safe access for operation and maintenance
- Pumps shall be completely stable in operation at all heads and (in case of two or more units in parallel) under all conditions of single or parallel operation, within the full operating range.
- Pumps shall be suitable for use within the Rotorua WWTP Facility environment and with the medium to be pumped.
- Pumps and pump materials shall be selected with proper reference provided to the pump supplier by the Contractor with regard to the operating environment, pumped medium, Minimum Service Life requirements and spare parts availability requirements.

3.14.7.2 Electric motors

Refer to Section 3.15.8 of this Schedule.

3.14.7.3 Pump nameplates

A name plate (or plates) manufactured from stainless steel grade 316 shall be affixed to the body of all new pumps with a motor rating over 1.0kW unit with the following information:

- Manufacturer's name
- Model/type description
- Equipment tag number
- Serial number
- Impeller reference
- Design flow rate
- Design head
- Rated speed
- Motor kW rating
- Motor full load current (at actual supply voltage)
- Maximum speed
- Total weight
- Date of manufacture.

For submersible pumps an identical nameplate shall be supplied loose for installation by the Contractor at a suitable accessible location for equipment identification purposes.

3.14.7.4 Pump Suppliers

All pumps serving a similar function shall generally be of the same type and from the same manufacturer.

All new process and essential services pumps incorporated in the WWTP Facilities shall be supported by a reputable local New Zealand agent who keeps stocks of all essential spare parts for the installed pump make and model in New Zealand (seals, impellers, stators, rotors etc).

3.14.7.5 Centrifugal pumps

All materials of construction for centrifugal pumps shall be of materials at least equal in quality and to the minimum standards as specified in Table 2.

Table 2: Materials Specification for Centrifugal Pumps

Component	Minimum Material	Relevant Standard
Baseplate	Cast iron or steel	AS1830, Grade T220 AS/NZS3678, Grade 250
Casing	S G iron	AS1831, Grade 500-7
Discharge Elbow	Cast iron	AS1830, Grade T220
Fasteners	Stainless Steel	AS1444, Grade 316
Impeller	Stainless Steel	AS2074: H6C
Sealing Rings	Stainless Steel	AS1444, Grade 431
Shaft	Stainless Steel	AS1444, Grade 431
Shaft Sleeve	Stainless Steel	AS1444, Grade 431
Wear Ring	Stainless Steel	AS2074: H6B

Alternative materials for the pump impeller may be specified by the manufacturer, as appropriate, to best suit the pumped medium and operating conditions, and provide optimum resistance to corrosion and abrasion.

3.14.7.6 Casings

Casings shall be designed to suit the pump, seating arrangement and service specified.

Casings shall generally be fitted with removable inlet wear rings.

3.14.7.7 Pump seals

The pump component materials selected shall be compatible with the process fluid in which they operate, to minimise corrosion and wear.

Pumps for applications that are not highly abrasive and not high-speed will generally be fitted with single balanced cartridge type mechanical seal arrangement such that no external flushing and cooling of the seal arrangement is required.

Details of alternative mechanical seal options offered by the pump manufacturer for aggressive applications and the option selected by the Contractor shall be provided in the Contractor's design submissions.

All seals shall be individually replaceable.

Mechanical seals shall:

- Be of an industry approved standard design effective for their purpose and requiring a minimum of maintenance
- Be of the balanced type
- Have seal face materials of either carbon ceramic for clean water (e.g. permeate) applications or tungsten carbide for dirty water applications
- Incorporate bellows or multiple helical springs of 316 stainless steel and high nitrile synthetic rubber, ethylene propylene or 'Viton' rubber 'O' rings as appropriate for the pump application

The pump and seal design shall be such that interface temperatures under operating conditions remain safely below the vapourisation temperature.

3.14.7.8 Pump bearings

Bearings shall be of metric dimensions and replacements shall be readily obtainable from a well-established manufacturer represented by a reputable New Zealand supplier.

Bearing mountings shall be designed to allow for variations in shaft temperature.

Bearings shall be lubricated by oil bath or grease lubrication.

Oil bath lubricated bearings shall have fill and drain plugs, a breather and a method of checking the oil level.

The lubrication of both pump and motor bearings shall be of a modern design of sufficient capacity to operate for long periods without attention.

Each grease lubrication point should be considered to be fitted with a self-contained "PERMA Lube" automatic lubricator unless an automatic lubricator may result in over-greasing due to the low greasing requirement of a bearing. Where fitted, automatic lubricators shall be sized to provide the required degree of lubrication for at least twelve months. Where automatic lubrication is not appropriate the bearing housing shall be fitted with grease nipples in accessible locations and provision made for the release of excess grease to prevent over greasing.

Extension tubes shall be fitted to lubrication points to allow convenient positioning of, and access to, automatic lubricators, for maintenance and replacement purposes.

Extension tubes shall be primed prior to fitting automatic lubricators.

The bearing housing shall be totally enclosed to prevent contamination.

The bearing housing shall be sealed at the shaft openings by lip seals.

Sealed-for-life bearings may be provided for pumps with motors rated at 15 kW or less.

3.14.7.9 Impellers

Impellers shall:

- Be of an industry approved, modern design with high efficiency
- Be fixed to the shaft by an industry-approved method
- Be manufactured from material to best suit the pumped fluid and operating conditions
- Be fitted with replaceable wear rings

3.14.7.10 Shaft

The shaft shall be designed to withstand vibration and high speed rotation and shall be manufactured from materials selected to best suit the duty requirements, fluids and operating conditions specified.

Shafts shall be of sufficient size to limit whip or deflection and shall operate at less than 80 percent of their critical speed.

3.14.7.11 Vertical multi-stage in-line pumps

Vertical multi-stage in-line pumps shall be centrifugal type, directly coupled to a motor forming a compact, robust and completely watertight pumping unit.

In low flow/high head applications where the selection of a 2 pole (~3000r/min) pump would result in an overall efficiency significantly (>10%) higher than a 4 pole unit, a 2 pole pump may be selected.

3.14.7.12 Submersible pumps

Prior to the commencement of the Contract, the Council generally used Flygt submersible sewage pumps. The Contractor may use alternative submersible sewage pumps that comply with this Schedule 15. Submersible pumps used for the conveyance of unscreened wastewater shall be of a type that is capable of passing a 75mm diameter solid.

All submersible pumps shall be supplied complete with duckfoot base mount elbows, grade 316 stainless steel guiderails, guiderail holders and lifting chains. They shall also be provided with all necessary fixtures and fittings to complete installation.

Submersible pumps shall be readily removable for inspection and maintenance, using the dedicated lifting equipment, davits and chains without the need for personnel to enter tanks and wet wells.

Submersible sewage pump station design shall comply with the requirements of the Council's Engineering Specifications.

New submersible pumps shall be provided with seal failure and moisture ingress detection systems which stop the pump when moisture ingress is detected.

3.14.7.13 Reciprocating positive displacement diaphragm pumps

The pump shall be of the positive displacement diaphragm type complete with integral electric drive unit and all related accessories as described below and shall be of a standard and proven design.

The pump shall be designed and sized for the required duties and shall comply with the following requirements:

- Drives with variable frequency drives fitted shall be suitable for use
- Shall have manual stroke adjustment
- Shall as a minimum have polypropylene heads and ball check valves
- Shall perform repeatable and linear results over full speed and stroke range with discharge accuracy with ± 2 per cent of full stroke length

3.14.7.14 Progressive cavity pumps

Stators

Stators shall be designed to resist abrasion and mechanical shock imposed by solids in the pumped flow.

Stators shall be easily removable for refurbishment or replacement.

Shafts

Shafts should be:

- Be machined from a solid one-piece bar stock of stainless steel grade 316 or better
- Have a ground finish over its entire length
- Be equipped with replaceable shaft sleeves in areas subjected to high wear

Shaft sealing

Shafts shall generally be sealed using single mechanical seals without external flushing requirement. Shafts shall be solid through the mechanical seal area and of a design which allows the mechanical seal and other wetted rotating parts to be removed from the pump without disassembly of the pump, gearbox or motor bearings.

Connections

Flanged connections shall be provided at both the inlet and discharge ports. Connections shall be standard nominal bores sizes. Pump suction and discharge flanges shall comply with AS/NZS 4087. Flange pressure ratings shall be not less than the pressure rating of the pump casing.

3.14.7.15 Peristaltic pumps

The basic components of a peristaltic pump shall comprise an elastic tube or hose, rotor, pump casing, nozzles, and drive unit (motor and gearbox).

Peristaltic pumps shall have a minimum rated operating pressure of 6 bar.g.

The tube or hose shall be securely clamped to the suction and discharge nozzles.

The rotor shall be supported on industrial heavy-duty bearings. Rotors shall use 'lobes' or 'shoes' to compress the hose, or 'rollers' in the case of tube, for pumping fluids depending on the application.

When using rotors with 'lobes' or 'shoes' the pump casing shall be lubricated and the actual and required lubricant levels indicated.

Suction and discharge connections shall be flanged.

The pump casing and cover plate shall be constructed from cast iron or carbon steel.

Hoses shall be reinforced and both hoses and tubes shall be designed for long service. The hose or tube material shall be chemically resistant to the fluid being pumped. The material and design shall also be suitable for the specific fluid properties including abrasiveness, suspended solids, density, viscosity, temperature, and pressure.

Suction and discharge nozzles and flanges shall be fabricated from stainless steel.

3.14.8 Mixers

Mixers must be of a standard and proven design comprising an electric, motor driven gearbox with a shaft and mixer assembly (i.e. impeller, paddles, blades, turbine, propeller, or similar assembly) designed for the required service.

Metallic mixer shaft and mixer assemblies shall be constructed from grade 316 stainless steel. Alternatively, non-metallic mixer shafts and impellers are acceptable.

Mixers shall be standard commercial units for which spare parts are readily available.

Mixers may be submersible type or top entry surface mounted vertical type.

Submersible mixers may be either low speed 'banana' blade type mixers or high-speed propeller type.

Submersible mixers shall be supplied complete with adjustable guide rails, lifting chain or cable, and lifting davit. The davit structure, guide rails, lifting chain or cable, and the davit winding assembly shall be fully constructed from 316 stainless steel. A common moveable davit assembly that can fit into davit posts located adjacent to each mixer is acceptable provided the moveable davit winding assembly can be safely and easily moved between mixer locations by hand by two operators.

Mixers within anaerobic and anoxic bioreactor zones shall minimise the entrainment of air into the liquid phase to ensure efficient process performance. Mixers are to be carefully positioned so as to allow ease of access for maintenance and must be fitted with ready and efficient means of removal. Mixers shall be designed to operate continuously. Mixer shafts shall be designed to avoid any vibration or instability. Maximum deflection must be limited to shaft length/1000. Mixers must be able to be easily adjusted in terms of both depth and rotation. Unless mixers are fitted with a jet ring, the mechanism of mixer rotation adjustment shall be fitted with end stops to prevent the possibility of operators rotating the mixer such that the impeller could impinge on walls, pipework, or other objects submerged in the tank adjacent to the mixer vertical axis.

3.14.9 Fine Bubble Diffuser Aeration Systems

Turn-Down Capacity - Where possible fine bubble aeration systems shall be designed such that the diffuser airflow associated with the minimum process aeration demand is greater than or equal to the minimum allowable diffuser airflow specified by the diffuser supplier. The fine bubble aeration system shall also be capable of meeting the peak aeration demand without exceeding the maximum allowable diffuser airflow specified by the diffuser supplier.

Removable Grids – Diffused aeration systems installed in the Bardenpho reactor shall be mounted on grids that are removable for inspection and diffuser replacement without the requirement to drain or enter the reactor tank.

Energy Efficiency – The aeration system (including the diffusers, blowers, instrumentation controlling the blowers and the aeration process control algorithms) shall be designed to optimise energy efficiency and minimise the carryover of oxygen from aerated reactor zones to unaerated reactor zones.

Chemical Cleaning Systems – Unless the diffuser manufacturers prohibits (or recommends against) the use of in-situ diffuser cleaning methods, an in-situ diffuser chemical cleaning system shall be installed in the diffuser distribution pipework. The cleaning system shall provide provisions (pipework connections) for the in-situ measurement of diffuser back-pressure at each dropper and provision for chemical to be injected into each aeration grid to clean the diffusers while operating.

Materials – All metallic aeration diffuser system components, including distribution pipework, grid structure, grid lifting provisions and dropper pipework shall be manufactured from grade 316 stainless steel, unless approved otherwise by the Administrator. All non-metallic materials shall be inherently corrosion resistant and suitable for a long service life in the operating environment (including operating temperature ranges).

3.14.10 Aeration Blowers

Aeration blowers shall be designed to match the requirements of the aeration diffuser system they are providing air to. Blowers must be of a proven design and must be commercial units for which spare parts are readily available.

Aeration blower configurations shall comply with the requirements of section 3.1, this includes providing sufficient redundancy in ancillary systems (such as oil cooling or instruments used for blower control for example) so that removal from service or failure of a component does not shut down the entire aeration system. The requirements of sections 3.2, 3.3, 3.4, 3.11 and 3.12 of relevance to the blower installation shall be complied with. The matters in section 3.5 shall be considered in the blower selection.

Blower units must be enclosed in buildings (new or existing). Provision must be made to manage temperatures in the design of the blower building and its ventilation system.

3.14.11 Valves

3.14.11.1 Design Criteria

Valves shall be provided with all actuators, positioners, and the like as a complete and operable unit. Consideration shall be given as to the appropriate position to which an actuator should fail on power or signal loss. Valves shall be sized to match the nominal pipe size of the pipework to which they are connected.

All valve bodies and seals shall be suitable for the maximum pressure rating of the adjacent pipes.

All flanged valves shall be drilled to AS/NZS 4087.

Screwed valves may only be used for sizes 50 mm and smaller. Screwed connections on valves shall be female BSPT thread.

Thermoplastic valves 80 mm and smaller shall be double socket union.

All valves shall be installed with permanent fixed identification tags adjacent to the valve, so when the valve is removed, the tag remains.

Butterfly valves shall be lug type not wafer.

Due to the presence of aggressive geothermal ground conditions, valves shall not be directly buried within the Rotorua WWTP Facility site (a means of physical separation of the valve components from the aggressive ground conditions is required).

An approved lifting attachment or provision for safe slinging shall be incorporated on the body of the valve if it weighs more than 20 kg.

Isolation valves to be manufactured and tested in accordance with:

- 1) AS 4795 for butterfly valves
- 2) AS/NZS 2638.1 and 2 for gate valves

Non-return valves shall be swing check tilting disc type and manufactured and tested in accordance with AS 4794.

Air valves shall be manufactured and tested in accordance with AS 4956. Lining and coating shall comply with AS/NZS 4158.

All valves shall be closed by a clockwise rotation of the hand wheel or handle, except when the valve is part of a potable water system, which shall be anti-clockwise closing.

3.14.11.2 Materials

All valves shall be manufactured from materials that are suitable for the process stream in which they are to be installed.

For valves to be installed in pipelines carrying chemicals, the materials of the valve body and internals shall be in accordance with the valve manufacturer's recommendations for service with that chemical.

3.14.11.3 Valve Operation

All valves that require frequent operation as part of the main treatment process shall be provided with automatic actuators controlled via the PLC & SCADA system.

The valve schedules provided as part of the design deliverables shall separately list valves with actuators from manually actuated valves.

Valves without actuators shall have suitably sized hand-wheels or levers, where located above ground, and tee-key caps where located below ground, extended to within 300mm of the surface.

For all manual valves it shall either be inherently clear to the operator what the position of the valve is (e.g. ball or butterfly valve lever position is visible, exposed gate on knifegate valves) or the opening and/or closing direction of the valve shall be clearly marked, with the markings clearly visible to operators when operating the valve. For example, the face of hand wheels on gate valves to which hand wheels are fitted shall be clearly marked with the words 'OPEN' and 'SHUT' or 'CLOSE' with arrows adjacent to indicate the direction of rotation to which each refers.

Operating hand-wheels shall be located in a readily accessible position with the centreline of the hand-wheel positioned between 900 mm and 1200 mm above the floor level wherever possible. Where hand-wheels are located at height and cannot be readily reached a chain wheel type operator shall be provided. The chain shall extend to within 1000 mm of the floor level or operating platform below the valve.

The maximum torque required at the hand-wheel of valves shall not exceed 130 Nm under the worst conditions of differential head or unseating force. Larger diameter handwheels, gearing or automatic actuators shall be provided where the manual operating torque required would otherwise be greater than this.

3.14.11.4 Valve Corrosion Protection

Valves shall be protected from corrosion by:

- The use of suitable factory applied protective coatings such as a thermally bonded polymeric coating complying with AS/NZS 4158, or
- Using corrosion resistant material such as stainless steel, or a suitably rated non-metallic material.

Painting is not an acceptable corrosion protection for valves.

All studs, bolts, nuts, washers, or any other fasteners in valves shall be grade 316 stainless steel.

Valves located below ground shall be avoided wherever possible and where unavoidable shall be physically separated from the soil (i.e. located in a chamber and not directly buried).

3.14.11.5 Valve Pressure Rating

The pressure rating of valves shall be selected for drip tight operation at all working and test pressures likely to be experienced in operation.

3.14.11.6 Valve Installation

Isolating valves shall be provided for non-return valves. A dismantling joint or other approved means shall be provided to allow the non-return valve to be removed.

Butterfly valves and non-return valves shall not be buried.

Adequate clearance shall be provided between wafer butterfly valve discs and wafer non-return valve gates and the adjacent pipe fittings and valves to allow full opening without clashing. The sealing surfaces of butterfly valves shall bed on the metal face of the adjoining pipework flanges (diameter compatibility may need to be checked). If the valve sealing surface of all valves does not bed on the metal face, then Grade 316 stainless steel insertion rings and additional insertion joint rings shall be provided to suit.

Where possible valves shall not be installed in an inverted position.

Where possible valves shall be located and/or orientated in such a way that manual operation of the valves may be carried out with ease and without the need for any other extra equipment (e.g. Ladders, mobile platforms, etc.).

Where possible, all valves and their actuators shall be easily accessible for maintenance purposes and shall be capable of being removed from their location in a pipeline without obstruction by the pipeline or other equipment

3.14.12 Valve Actuators

3.14.12.1 Pneumatic Actuators

Pneumatic cylinders shall have aluminium bodies, 316 stainless steel shafts and fastenings and suitable for operation from a compressed air system with a pressure range between 300 kPa.g and 500 kPa.g. Pneumatic cylinders shall be of the double acting type where required by the process, if a valve is to fail open or close then a suitable spring to open or close actuator shall be used.

Unless fitted with position indication feedback (e.g. for modulating duty) pneumatic actuated valves shall have either inductive proximity switches (three-wire 24 VDC type), or mechanical limit switches (SPDT type) to provide feedback to the PLC when the valve is at the fully open and fully closed positions.

All pneumatic actuated valves shall be capable of manual override on the air supply solenoid valve. Solenoid valves shall be grouped together with other solenoid valves for a common area in a solenoid valve cabinet. The Contractor shall take particular care when specifying external materials of solenoids to avoid premature failure from corrosion in the geothermal environment at the Rotorua WWTP Facility site.

3.14.12.2 Electric Actuators

Electric actuators shall have integral reversing motor starters and be suitable for interfacing with the PLC/SCADA system.

Unless fitted with position indication feedback (e.g. for modulating duty), electric actuators shall have integral switches to signal as an output to the PLC when the valve is at the fully open and fully closed position.

The available torque margin of the actuator shall be at least 25% greater than the required seating or unseating torque of the valve being actuated. The safety margin of actuator motor power available for seating and unseating of the valve being actuated shall be sufficient to ensure normal operation with the supply voltage 10% below nominal without causing nuisance tripping of the actuator.

3.14.12.3 Solenoid Actuators

Solenoid valves and their installation shall be to IP65 in accordance with AS1939. Solenoid valves shall be fail-safe. Coils shall be fully encapsulated and have class 'B', 'E' or 'F' insulation.

Where possible, all solenoid valves shall be equipped with a manual means to operate the valve in the case of power failure and shall be fitted with an LED indicator.

Solenoid operated valves on compressed air lines shall be specially constructed for non-lubricated air service. The valve body shall be stainless steel when used in a corrosive environment or exposed to the weather.

All field mounted solenoid valves shall be installed and mounted within remote enclosures and are to be located close to the equipment they serve in a decentralised manner. Solenoid valves shall not be mounted on equipment, valves or valve bodies. All solenoid valves shall be provided with boltable bases.

The pneumatic control valve suppliers shall either select and supply or specify the correct solenoid control valves as part of their valve package and shall verify that any solenoids supplied separately by the Contractor (or their Subcontractors) are fit for purpose to match the appropriate valve.

Design of enclosures for the solenoids shall incorporate a sealed box and opening door mounted upon a structural post and footplate which shall be constructed from Gr316 SS.

All elements of the solenoid system design shall be included in the mechanical design deliverables.

3.14.13 Penstocks

3.14.13.1 Performance

All Penstocks shall be suitable for withstanding typical wastewater treatment plant operating conditions. This shall include (as applicable):

- Suitability for sewage containing sand particles and fibrous elements and temperature variations between 4°C and 20°C
- Suitability for sewage sludge with 6% solids
- Suitability of materials for exposure to hydrogen sulphide
- Penstocks shall be free of any feature capable of obstructing the free movement of wastewater solid materials including fibrous matter.
- All penstocks shall be capable of withstanding a seating pressure of 6 metres head of water unless otherwise specified.
- Non-metallic materials shall be fit for the intended purpose and shall exhibit dimensional stability when in service.

Provision shall be made for taking up wear. Any wedges or adjusting bolts shall be accessible and replaceable.

Unless approved otherwise by the Administrator, penstocks shall comprise: a gate manufactured from stainless steel Gr316 or 316L, a frame (including headstock) manufactured from stainless steel Gr316 or 316L and shall be of a rising spindle configuration and designed for both, seating and unseating heads.

Seat and seal materials shall not be adversely affected by the process fluid or operating conditions.

Penstocks shall be designed to resist all stresses which may occur during installation and operation. The minimum thickness of penstock gates and frames shall be 6mm. All welding of fabricated stainless-steel components shall be continuous.

A means of process isolation both upstream and downstream of penstocks shall be provided, by way of stoplogs or similar means, to enable safe access into tanks or channels to inspect and maintain penstock gates and frames.

Gates shall be clear of the flow when in the fully open position at maximum hydraulic capacity through the penstock opening.

Where a penstock is critical to operations the penstock shall be of a design such that in an emergency the headstock can be safely accessed and removed and the gate can be lifted out of the frame by a crane from lifting points located at the top of the gate,

Pedestals and headstocks shall not be mounted to metal grates or flooring. Headstocks shall preferably be mounted to concrete structures. Pedestals shall be mounted to headstocks, concrete structures or other rigid structural members.

3.14.13.2 Weir Penstocks

The design and fabrication of weir penstocks shall ensure side and invert sealing for all positions of the gate.

3.14.13.3 Actuators

Penstock actuators shall generally comply with Section 3.14.12.

Where automatic actuators are used the penstock gate shall be moved from the fully open to closed position at a speed of approximately 300 mm/min.

Penstocks used for automatic modulating process control purposes shall be limited to a maximum of 30 movements per hour either opening or closing.

3.14.13.4 Spindles

Spindles shall be of the rising spindle type and shall have a slenderness ratio not exceeding 200. They shall be manufactured from stainless steel Gr316L.

All spindle nuts shall be self-aligning, have a length not less than twice the spindle diameter and shall be manufactured from either: grade 316 stainless steel, gunmetal, aluminium bronze or magnesium bronze.

3.14.13.5 Extension Spindles, Spindle Supports and Guides

Extension spindles shall be manufactured from grade 316L stainless steel, shall be adequately sized to prevent buckling and shall be attached to the penstock spindle by means of torque transmitting couplings. At least two couplings shall be incorporated. Limit nuts or collars shall be provided to prevent operator applying excessive closing force that might buckle the spindle, or over-torque the spindle nut or spindle couplings, or overload any of the frame components and fixings.

Intermediate support bearings of PTFE (or other approved material) shall be fitted to long shafts, and universal joints and waterproof sleeves shall be provided.

Long extension spindles for remote operation of penstocks shall be complete with intermediate bearing supports or guide brackets fabricated from grade 316 stainless steel, with slotted holes for adjustment at installation. Bearings/bushes shall be of PTFE or grade 316 stainless steel (or other approved material). Guide brackets shall be bolted to walls at centres not greater than 2 metres. When used with motorised penstocks, spindle bearings shall be manufactured from bronze.

3.14.13.6 Lubrication

The spindle thrust bearing shall be greased packed and a button head type grease nipple provided on the thrust housing.

3.14.13.7 Headstocks, Pedestals, Fixings and Spindle Protection Tubes

Penstock pedestals shall be of stainless steel, cast iron or welded steel construction with a substantial base and fixing provision. The base and top of the pedestals shall be machined normal to the axis of the spindle.

Cast iron or welded steel pedestals shall be protective coated to comply with the Minimum Service Life Requirements for the service environment they are to be exposed to.

Where necessary, support guide bushes and brackets shall be fitted at the base of the pedestal.

Spindle protection tubes shall be provided for all rising spindles to totally enclose them when in the fully raised position, and flexible gaiters shall be fitted to protect the spindles from being splashed with process liquid when in the lowered position. Spindle protection tubes shall be made of clear polycarbonate or grade 316 stainless steel.

Headstocks and pedestals shall be fitted with mechanical position indicators to show the amount which the penstock is open or closed in relation to its full travel, i.e. 0.25, 0.50, 0.75, 1.0 etc.

All fixings (nuts, bolts, washers, anchors) shall be grade 316 stainless steel.

3.14.13.8 Access

All penstocks, spindles and handwheels shall be positioned to allow safe unaided access for normal operation. The special precautions and equipment required to allow safe access for maintenance shall be minimal.

3.14.13.9 Operation and Control, Including ICA Interfaces

For hand operation a cast or ductile iron or stainless steel handwheel of diameter not exceeding 450 mm shall be provided with each penstock (cast or ductile iron handwheels shall be protective coated). The tangential force required at the rim of the handwheel to operate the penstock shall not exceed 200 N (20 Kg) under the worst-case operating conditions. Gearing shall be provided if necessary, to meet this requirement.

All penstocks shall close when the spindle is turned in a clockwise direction and all handwheels shall have embossed on them suitable information to ensure correct operation.

All handwheels shall incorporate facilities for securing the penstock in any position from fully open to fully closed.

Electric actuators for penstocks shall include provision for manual operation by means of a handwheel and handwheel engagement lever which shall be interlocked with, and fixed to, the actuator.

3.14.13.10 Labelling

Each penstock shall have the following information provided on a nameplate permanently located where it can be readily viewed after installation:

- 1) Manufacturer's name or mark
- 2) Model number
- 3) Serial number
- 4) Aperture dimensions (width x height)
- 5) A direction of flow arrow if penstock is unidirectional
- 6) Maximum input operating torque (Nm)
- 7) Year of manufacture
- 8) Maximum static head (m)

3.14.14 Stopboards

Stopboards shall be fabricated from 316 stainless steel or marine grade aluminium. Stopboards shall be fitted with knocking plates to allow use of a hammer to ensure the board is fully seated without causing damage to the structure of the board.

Stopboards shall comprise completely removable boards or gates with appropriate lifting lugs. Stopboards shall be designed to be safely lifted and fully removed or installed by one operator. Where slide gates or stopboards cannot be safely manually handled by one operator, permanent lifting and handling device(s) shall be provided to operate the slide gates and/or stopboards. Lifting lugs shall be provided on the slide gates to permit safe manual handling and/or removal by a permanent lifting and handling device in both horizontal and vertical positions.

Guide members for slide gates and stopboards shall be designed to facilitate ease of installation and removal of the slide gates and stopboards. Frame components shall provide sealing or sealing faces for the slide gates and stopboards as appropriate, on both sides and bottom.

For all new works, the frames shall be embedded into the channel structure and all frames shall be flush with the channel sides and invert.

For new stopboards to be retrofitted into existing works some channel flow obstruction by side and bottom frames may be allowed.

All stainless steel welds shall be passivated. All parts in sliding contact shall be of dissimilar corrosion resistant materials.

For uni-directional stopboards, the edge of the bottom of the stopboards shall be chamfered to provide a narrow bearing area on the seal.

Details of lifting device(s) and procedures shall be provided with the mechanical design deliverables.

Storage racks shall be provided for stopboards when out of use in a position for easy access and out of normal access routes. The storage shall be designed to protect the boards' seals from sunlight and physical damage.

The total leakage rate for slide gates and stopboards shall not exceed 1 litre per minute per metre length of the seal length. The seal length calculation shall not include the seals between the individual stopboard elements.

3.14.15 Pipework

3.14.15.1 General

Unless otherwise specified, flow velocity of liquids (including sludge) in the pipework, flow meter or other accessory shall not exceed 2.0 m/s at the maximum hydraulic loading for pressured pipe and shall not exceed 1.2 m/s for gravity pipe.

All pipework for wastewater or sludge shall be designed to maintain a self-cleaning velocity or be equipped with line flushing capabilities.

The minimum acceptable diameter for all sludge lines is 100 mm.

The minimum acceptable diameter for all gravity sludge lines and wastewater lines is 100 mm.

Pipework shall be designed to accommodate short and long-term settlement of the structures that it is connected to.

All materials shall be of a new and unused nature, free from pitting, surface contamination, inclusions or other defects.

All buried pipework shall be PVC or PE, all above ground pipework shall be either Stainless Steel Grade 316 or Ductile Iron Cement Lined (DICL) pipe (the exception is chemical lines as below).

Acrylonitrile butadiene styrene (ABS) pipework is prohibited at the Rotorua WWTP Facility.

Due to the adverse ground conditions at the Rotorua WWTP Facility, design of pipework buried directly in the ground shall be avoided wherever it is possible to do so. Above-ground pipework runs attached to structures or supported on low plinths at ground level or run in services channels are preferable.

3.14.15.2 DICL Pipe

DICL pipe and fittings up to and including DN750 shall comply with AS/NZS 2280. DICL pipe of diameters greater than DN 750 shall comply with ISO 2531. The external protective coatings of DICL pipes shall be suitable for the aggressive atmospheric environment at the site. The internal lining system of DICL pipes shall be suitable for the process fluid to be conveyed by the pipe. The internal and external protective coatings shall be selected to achieve the Minimum Service Life requirements specified in section 7.4 of Schedule 16.

3.14.15.3 Polyethylene (PE) Pipe

PE pipe shall comply with AS/NZS 4130 Series 1.

Fittings for PE pipes shall comply with AS/NZS 4129.

PE pipes shall be installed, tested and commissioned in accordance with AS/NZS 2033.

The preferred method of fusion jointing shall be butt-fusion. Other methods fusion jointing shall be avoided where possible.

Adequate allowance shall be made for thermal expansion and contraction of the pipe in the Contractor's design.

3.14.15.4 Stainless Steel Pipe and Tube

Stainless steel pipe and tube shall be grade 316.

Standards and workmanship for material supply, fabrication (including welding and post weld treatment) and installation of stainless steel pipe and tube shall comply with the requirements in the paragraphs below.

Barriers between dissimilar metals shall be installed (e.g. fibre washers, sleeves). All nuts, bolts, washers and associated fittings where not made of stainless steel shall be physically isolated from the stainless steel using only commercially available isolation material and fittings.

All stainless steel welding shall comply with the welding techniques and procedures specified in the latest edition of the Code of Practice for the Fabrication of Stainless Steel Plant and Equipment published by the New Zealand Stainless Steel Development Association (referred to as the "Blue Book"). Welds shall be performed using low hydrogen filler material and on completion shall be chemically cleaned and fully passivated to a procedure approved in the Blue Book.

Special precautions shall be taken during stainless steel piping erection in close vicinity of any carbon steel elements. Temporary carbon steel blinds, spades and caps shall not be used for stainless steel pipe and components. Grinding of carbon steel shall be prohibited in the vicinity of stainless steel items. Tools containing carbon steel and grinding discs containing carbon steel particles shall not be used on stainless steel. Tools used for fabrication of stainless steel shall be clearly identified. Stainless steel piping and components shall be stored in separate areas away from storage areas for carbon steel and other materials to avoid direct contact between carbon steel and stainless steel. Stainless steel materials shall be stored on non-metallic pallets. Steel wire slings shall not be used for handling and transportation of stainless steel pipes. Canvas or nylon slings shall be used.

Anti-galling compound shall be liberally applied to the mating surfaces of all stainless steel bolting flange sets and between the pipe and any directly contacting metal support surface.

3.14.15.5 Pipe Marking

All unburied pipes, including those in pipe trays and services channels shall be marked with either vinyl or plastic pipe markers. Markers shall indicate direction of flow and fluid carried. Maximum distance between markers shall be 3 metres. Markers shall be of a material that is resistant to degradation and fading by atmospheric hydrogen sulphide and sunlight.

3.14.15.6 Chemical Dosing System Pipework

Chemical dosing lines shall be made of materials resistant to degradation by the chemicals and in accordance with recognised Good Industry Practice for the particular chemical being conveyed. Where possible, small diameter chemical dosing lines shall be continuous runs with no fittings from end to end (i.e. continuous runs of unbroken tubing) from the point of exit of the chemical secondary containment bund to the dosing point. Flexible tubing is acceptable (downstream of backpressure valves) but flexible hoses are not permitted. Any fittings in chemical dosing lines shall be above ground in locations where leakage would be obvious. Joints shall be either flanged, solvent cement, fusion welded joints or union joints. Screwed joints (other than unions) are not acceptable.

Chemical dosing lines and transfer lines shall be designed and installed so that leakage from the pipe, fitting or valve is captured and directed to containment areas in a safe manner.

Chemicals shall be dosed into recipient pipework via withdrawable dosing lances.

All uPVC pipework located above ground and outdoors shall be protected from exposure to sunlight.

Buried chemical dosing lines shall be pipe-in-pipe arrangement. The ends of the outer pipe shall terminate at, and drain to a leak detection point, such as a bund, pit or sump, so that a leak can readily be identified.

Gaskets shall be EPDM, Viton, or neoprene. The material selected and thickness shall be appropriate for the chemical.

3.14.15.7 Pipework Installation

The Contractor shall ensure that above-ground pipework design and installation takes into consideration (without limitation) the following:

- Avoiding overstraining of pipes, supports and joints
- Avoiding foreign matter entering pipes
- Good Industry Practice with respect to workmanship and appearance
- Correct alignment and grade
- Installation provisions for future maintenance (e.g. rodding points, dismantling joints, removable spool pieces)
- Clearances between adjacent pipes, other services and structures
- Installation provisions for thermal expansion and contraction
- Operator accessibility to valves, instruments and fittings
- Valve orientation
- Pipe flushing

High standards of cleanliness must be maintained during the installation of piping systems to ensure that no foreign matter is introduced that could adversely affect the use or performance of the plant or cause damage to process equipment (e.g. membranes).

3.14.16 Pipe Supports

All pipe supports shall be designed, fabricated and installed to comply with the requirements of NZS 4219:2009 'Seismic performance of engineering systems in buildings'.

Piping shall generally be supported in accordance with the requirements of NZS 3500 'Plumbing and drainage'. Where there is a conflict the requirements of NZS4219:2009 shall take precedence.

3.14.16.1 General

Pipe supports shall be provided as required and shall be constructed from hot-dipped galvanised steel or grade 316 stainless steel. Pipe supports that are or may be submerged in water in service or are located within 300 mm of the maximum liquid level inside tanks and bunds shall be grade 316 stainless steel, unless otherwise approved by the Administrator.

Pipe supports may be constructed where pipes are close to ground level. Concrete supports shall be designed specifically for the application and the design details shall be submitted in the Design Report.

Pipework shall be adequately supported to prevent undue sagging, vibration, and strain on connected equipment. The design for pipe supports shall consider the appropriate standard for the pipe material.

Pipe supports shall be designed to allow for pipe movement due to thermal expansion and contraction and vibration from mechanical equipment. Pipework shall be suitably anchored to minimise pipe stresses caused by pipe pressure, thrust, and weight of valves, instruments, and equipment.

Pipe supports shall be designed such that no static load is transferred to equipment. Pipes shall not be supported from other pipes where possible.

Locating, levelling, and grouting all pipe supports shall be undertaken.

Integral pipe supports, such as 'dummy legs', shall be installed in accordance with AS 4041. Welding of such supports shall be in accordance with AS 4041.

Pipe shoes and sliding pipe support attachments shall be centred over the concrete or steel support beams before any field welding or bolting is carried out.

If the pipe and support materials are dissimilar, industrial grade electrically non-conductive material shall be provided and securely bonded to the pipe support to separate them. In general, electrolytically compatible materials shall be used.

Fibreglass piping shall include natural rubber sleeves between the pipe surface and the pipe support to prevent unnecessary wear on the pipework. The rubber sleeve shall be a minimum of 2 mm thick.

3.14.16.2 Support Spacing

Unless specified in the piping specifications or elsewhere in this Specification, support spacing shall be in accordance with the manufacturer's recommendations or to the relevant New Zealand or Australian standard, whichever is the more stringent:

- 1) Metallic pipe: to AS 4041
- 2) UPVC pipe: to AS/NZS 2032
- 3) Polyethylene pipe: to AS/NZS 2033

3.14.16.3 Flexibility

Pipework shall be provided with pipe anchors, expansion loops (or expansion devices), and pipe guides to accommodate expansion and contraction and minimise the transmission of vibration and noise to building structures.

Anchors and guides shall be located at equal distances on each side of expansion devices. Weld or securely clamp the anchors to bare pipe. If limitations in the strength of structures preclude the use of expansion devices and anchors, pipework shall be arranged so that it moves in lateral and linear directions (for example at bends) while not deviating from design gradient.

3.14.16.4 Bolted Connection and Fasteners

Bolts, studs, nuts, and washers shall comply with standards relevant to the specified requirements. Only metric standards shall be used.

New corrosion resistant and commercial grade fasteners complying with all applicable standards shall be used.

All bolts, in their final tightened state, shall project a minimum of three threads or 5 mm beyond the nut, but no more than 10 mm, after the nut has been tightened, and be of the closest standard length required for the connection.

Taper washers shall be provided on bolted sections whenever required by the shape of the sections being connected.

Anchors shall be hot dipped galvanised steel for galvanised steel supports and 316 stainless steel for stainless steel supports.

3.14.17 Permanent Lifting Provisions and Cranage

Given the naturally elevated background hydrogen sulphide levels in the area, the installation of permanent lifting gantry beams and associated support structures in the outside environment is not recommended at the Rotorua WWTP Facility site due to the ongoing maintenance costs and re-certification requirements. The philosophy adopted for previous upgrades at the Rotorua WWTP Facility has been to make provisions for mobile cranes to lift items of equipment during periodic operations and maintenance activities. During the design process consideration shall be given to the location of temporary cranes for lifting major items that are not provided with permanent lifting provisions.

3.14.18 Future Proofing

Where appropriate, capital works and renewals works shall be designed to allow for direct connection of future expansion of the Rotorua WWTP Facility to avoid or minimise interruption to the operation of the Facility during future expansion works.

Pipework shall be fitted with suitably placed tees, isolating valves, and blank flanges to allow for easy connection of future expansion works.

The parties acknowledge that these requirements, if agreed, will be beyond the scope of a renewal project and the methodology in Schedule 16 shall be followed to allocate costs.

3.14.19 Chemical Systems

For chemical pipework refer to 3.14.15.

3.14.19.1 Chemical Dosing Equipment

The Contractor shall provide chemical dosing systems capable of automatically adjusting to changes in the treatment processes, based on each individual application's control method.

Chemical dosing systems shall be failsafe against siphoning. Two protection devices shall be installed such as a combination of a pressure retaining/anti-siphon valve and an actuated isolation valve are required ("siphoning" shall be a keyword prompt at the HAZOP).

Chemical dosing systems shall provide chemical metering pumps of sufficient rated capacity and number and with adequate turn down to achieve the complete range of dosing flowrates requirements for each of the required dosing points.

For positive displacement chemical metering pumps the Contractor shall provide an external pressure relief valve in the discharge pipework returning to the storage tank irrespective of any internal pressure relief system that may be incorporated in the pump itself.

Back pressure valves shall be installed on each discharge line from the metering pumps to maintain dosing accuracy over the range of operating depths in the storage tank.

Each pump shall be provided with isolation valves to allow the pump to be removed and replaced with minimal spillage of chemical.

Chemical dosing systems shall generally be provided with the following appurtenances:

- 1) Calibration Cylinders
- 2) Pulsation Dampeners
- 3) Back-pressure valves

- 4) Suction and discharge flush and drainage points
- 5) Chemical Flow Meters

Valves for chemical lines shall be of the double union or flanged type. Valves welded to the pipework are not acceptable.

Actuated valves on chemical lines shall:

- 1) generally fail safe to the closed position,
- 2) be fitted with a visual position indicator,
- 3) be fitted with open/closed position signals wired to the PLC with position shown on SCADA
- 4) open on signal to run associated metering pump and close when the associated pump stops (i.e. valve is closed when pump is not running), and
- 5) be capable of manual operation

3.15 ELECTRICAL REQUIREMENTS

3.15.1 General

The electrical design of all capital works and renewals works shall comply with the latest version of the NZ Electrical (Safety) Regulations, Council's Engineering Specifications and the latest New Zealand Standards, or in absence of New Zealand Standards, the relevant Australian, or IEC standards.

All electrical equipment and installation work shall be carried out to a high standard. Standard items shall be used that can be replaced from equipment supplied from the manufacturer without modification. All equipment shall be new and of current model and manufacture.

Where appropriate due to heat generated within panels, cabinet ventilation shall be considered in the design and maximum temperature calculations shall be provided in the Design Report for all new electrical panels housing equipment that generates heat.

Calculations shall be provided in the Design Report for all AC power supply, DC power supply and UPS loads.

The Contractor shall consider the following aspects relating to electrical engineering design, electrical equipment, specification, selection and installation works (as a minimum) as part of any capital works and renewals projects:

- Reference documents and standards
- Procurement, design, configuration, installation and testing of permanent standby generators
- LV switchroom construction and fitout
- VSD's and soft starters
- Power factor correction equipment
- Electric Motors
- Switchgear
- Switchboards
- Cabling, cable supports and cable installation
- Electrical installation
- 240VAC UPS power supplies
- DC power supplies

- Lighting and small power
- Protocols for liveing electrical circuits and equipment
- Inspection, testing, pre-commissioning and commissioning

3.15.2 Component, Equipment, and Material Selection

3.15.2.1 Quality

All electrical components and materials shall be selected and installed to ensure reliable and satisfactory operation in which safety is the first consideration, and to facilitate inspection, cleaning and repairs. Materials shall be of the best quality and class and shall withstand the variations of temperature and atmospheric conditions without distortion or without affecting the strength and suitability of the various parts for which they have to perform.

3.15.2.2 Selection

Equipment shall be selected from established manufacturers regularly engaged in the manufacture of such equipment, who issue comprehensive rating data and certified test data on their products.

3.15.2.3 Ratings

Equipment shall be selected to conform to the design rated voltage, load current, prospective fault current level, insulation class, ingress protection (IP), hazardous area classification, duty cycle, electrical installation, RFI and electromagnetic compatibility.

3.15.2.4 Electromagnetic Compatibility

Equipment with nonlinear voltage/current characteristics that generate harmonic disturbances, radio frequency interference or rapid fluctuations of the power supply shall be selected and appropriately uninstalled to meet acceptable levels as outlined by AS/NZS 61000 (parts of) Electromagnetic compatibility and the Essential Services Commission Electricity Distribution Code.

3.15.2.5 Consistency

For the whole quantity of each material or product the Contractor shall endeavour to use the same manufacturer or source and provide consistent type, size, quality and appearance.

The Contractor shall not incorporate in the WWTP Facilities products that are obsolete, discontinued or about to be discontinued (that the Contractor should reasonably be aware of).

3.15.2.6 Efficiency

When selecting equipment, the Contractor shall endeavour to minimise energy usage, operating and maintenance costs without putting KPI compliance at risk.

3.15.2.7 Noise

The Contractor shall select and install electrical plant and equipment and provide acoustic control measures so that the noise levels arising from simultaneous operation of all services do not exceed the maximum permissible noise levels specified in section 3.11 at the boundary of the Rotorua WWTP Facility site.

3.15.2.8 Safety

The Contractor shall provide all necessary safety devices for the protection of personnel against injury and the protection of plant and equipment against damage including effective earthing of electrical components, electrical interlocks, warning lights, and signs, alarms and local lighting.

3.15.3 Operating Conditions

All new equipment incorporated at the WWTP Facilities shall be capable of operating continuously and without premature failure through the environmental extremes of dust, dirt, heat, cold and water prevalent in the areas where the equipment is installed and, shall also be readily accessible for maintenance purposes.

The Contractor shall provide ventilation/cooling as required to ensure reliable operation of equipment incorporated at the WWTP Facilities under the full range of expected climatic conditions at the applicable WWTP Facility.

3.15.4 Hazardous Area Assessment

The Contractor shall undertake a Hazardous Area assessment, in accordance with AS/NZS 60079.10.1 – Classification of areas - Explosive gas atmospheres, for any capital works or renewals relating to or in proximity to combustible or flammable chemicals used (e.g. ethanol) and shall ensure design, equipment selection, installation methodology, signage and documentation are compliant with area zoning classifications determined in the assessment. Existing hazardous area assessment documentation may be reviewed and if necessary, amended to reflect the proposed changes, where such documentation exists.

3.15.5 Capital Works and Renewals Works Design Considerations

3.15.5.1 Energy Minimisation

Plant and equipment incorporated in capital works and renewals works shall be designed to minimise electrical energy consumption. Where practical and applicable this shall include but not be limited to the following measures:

- Automatic control of replacement lighting to reduce unnecessary lighting
- Use of LED lighting
- Correct sizing of electrical motors and devices
- Selection of high efficiency motors and electrical devices
- Selection of mechanical equipment of high overall efficiency that under normal operation operates close to its best efficiency point
- Design of processes to (where practicable) be efficient and to spread electrical energy consumption requirements over time to reduce peaks in electrical loads
- Use of filters (static and active) to reduce harmonics and improve power factor

The power supply installation and equipment shall not cause unduly severe voltage disturbance and harmonic distortion on electricity distributor's network, nor on other Council assets fed from the supply. The level of harmonics shall comply with the New Zealand Standards and the requirements of the electricity distributor and shall comply with:

- AS/NZS 61000: Parts 3.2, 3.4 and 3.12 - relates to harmonic currents. Generally, Total Harmonic Distortion of the current waveform shall be limited to less than 5% THDi
- AS/NZS 61000: Parts 3.3 and 3.5 - relates to voltage fluctuations and flicker
- AS/NZS 61000: Parts 3.6 and 3.7 - relates to assessment of emission limits for "distorting" and "fluctuating" load in power systems

3.15.5.2 Latch Stop, Emergency Stop and Safety Relays

Emergency stops and safety relays shall, as a minimum, comply with AS/NZS 4024 in addition to any other regulatory or legislative requirement.

Risk assessments shall be conducted and documented for all new equipment or the Contractor shall ensure equipment suppliers provide risk assessment documentation of their Safety in Design and Machine Safety analyses.

Maintenance requirements shall also be taken into account in the risk assessments. If elimination of the risk cannot be achieved, the Contractor should follow the hierarchy of controls (substitution, engineering controls, etc) to provide a safe outcome.

Emergency and Latch stops shall not be used for isolation purposes.

Emergency stops shall have hidden failure check process as recommended by the supplier (e.g. Safety Relay)

Emergency stops used for personnel safety shall be designed to be incapable of malfunction and may require back up contactors for high risk machinery. They shall have red pushbuttons on a yellow background, pull to reset, be non-locking, with a large emergency stop label comprising black letters on a yellow background

Lock-off stop buttons that are not used for personnel safety shall be referred to as latch stops to aid distinction as to their function and avoid any confusion as to purpose. They shall include a red mushroom head button against a grey background, pull to reset, non-locking, with no label.

3.15.5.3 Drive Isolation, Handstations and Interlocks

Drive Isolation

Power isolators for each motor starter shall be padlockable in an OFF position using a standard padlock.

Whole current isolators/disconnectors shall also be provided within 2 m of the motor installation (or if not practical to install within 2m then as close as practical), complete with auxiliary contacts for anti-condensation heaters, thermistors etc. Early break, late break auxiliary contacts on the isolator. Disconnectors shall ensure motor contactor is open before breaking the main circuits.

Generally, disconnectors/decontactors shall be applied for all submersible and semi-portable equipment. Equipment requiring 240V single phase supply (including dosing pumps, instruments etc) shall be provided with local IP 56 disconnectors.

Handstations

Drives should be fitted with a handstation adjacent to it where it is desirable and safe to operate the drive locally. It shall be possible to start/stop the respective drive from the handstation.

Each handstation shall incorporate individual pushbuttons mounted in an IP65 (weatherproof) GRP or stainless steel enclosure for the following functions as minimum:

- 1) Start
- 2) Stop
- 3) Emergency or Latched Stop

Consideration may also be made to manually operating the plant through remote access to SCADA from a mobile device next to the equipment being manually operated.

All drives that are not fitted with emergency stops shall be fitted with latched stops. The latched stops shall be distinguishable from emergency stops.

The Emergency Stop (with safety relay as deemed appropriate) or Latched Stop shall be wired directly into the drive control circuit in series with the main contactor coil. When activated the emergency stop shall de-energise the circuit so that when re-activation is required a further step is involved other than just pulling out the emergency stop.

Interlocks

For all new equipment, as a minimum, the following applicable interlocks shall be directly hardwired to the MCC starter panel to provide protection in Auto and Local/Manual modes.

- 1) All emergency stops as per AS/NZS 4024
- 2) All latched stops as per AS/NZS 4024
- 3) Thermal overload, thermistor, RTD and protection relays for motors
- 4) Suction safety and delivery safety switches for pumps
- 5) Ingress protection and overtemperature protection for submersible pumps, mixers, etc
- 6) Guard switches for screen, press, etc
- 7) Pull wire switch and belt break switch for belt conveyor
- 8) Electronic Shear pin switches for devices with a high drive to driven device speed reduction ratio
- 9) High pressure switch for compressors and blowers
- 10) Oil and/or cooling water switch for large motors and/or pumps
- 11) Fully open, fully closed and over-torque limit switches for valves and penstocks
- 12) Starting siren and timer for belt conveyors
- 13) Seal water flow switch for compressors and pumps
- 14) Bearing over-temperature protection

3.15.5.4 Safety in Design

Consideration shall be given to hierarchy of controls to eliminate/minimize hazards.

3.15.6 Identification and Labelling

The identification of all new/replacement electrical equipment shall be in accordance with the labelling protocols used for existing equipment at the Facility. In instances where a labelling protocol does not exist for a particular type of electrical equipment the Contractor shall inform the Administrator. The Administrator will provide the Contractor with an identification and labelling protocol within ten (10) Working Days.

3.15.7 Power and Motor Control Centers (PMCC's) and Switchboards

New and replacement PMCC's and Switchboards shall be designed, manufactured and supplied in accordance with the Council's Engineering Specifications, Good Industry Practice and when fitout and wiring is complete on-site shall be fully compliant with AS/NZS3000.

3.15.7.1 Design

The specification for replacement of switchboards, distribution boards and PMCC's is as follows:

- Configuration: Floor Standing, double sided preferred
- Ingress Protection Rating: IP41
- Segregation Rating: Form 4a
- Internal and External Finish: Powder-coated Light Straw (Orica 58863) with white gear plates
- Cable Entry: As existing for replacements but if optional then top entry
- Busbar Rating: 400 A type-tested 16 kA for 1-second busbar system fully rated for the entire length of switchboard and extendable at both ends.

- Incomer: 400 A ATS c/w 2 x 230 VAC motorized 400 A 4P withdrawable MCCBs, UA controller, IVE & ACP
- Revenue Metering: Included
- Local Metering: Included
- Surge Protection: Included
- All Starters and Feeders have lockable rotary handles extended through the door.

The Contractor shall submit details of the switchboard/MCC design, layout, connections, and construction drawings to the Administrator for approval at least 10 Working Days prior to the intended date of the Contractor confirming the order with the manufacturer.

PMCC's shall be seismically restrained and have a seismic coefficient of CP=1 as a minimum. PMCC's shall comply with AS/NZS 3439.1 and AS/NZS AS/NZS 61439.1 if the switchboard is based on European or American design standards and/or components.

Supply system shall be 400 V ac 50 Hz, three-phase, earthed neutral 230 V ac 50 Hz, single phase, earthed neutral.

3.15.7.2 Switchboard/PMCC Construction Details

The switchboard/PMCC shall be to Form 4a.

3.15.7.3 Inspection of Switchboard/PMCC

Switchboards shall be Factory Acceptance Tested (FAT) and inspected before their dispatch.

3.15.8 Electric Motors

All electric motors shall comply with the following unless otherwise approved by the Administrator:

- 1) Suitable for continuous operation 24 hours per day, 365 days per year, in a maximum ambient air temperature of 45°C.
- 2) Designed to operate from a 3 phase 50 Hz power supply.
- 3) Suitable for connection to a six pulse, pulse width modulated, variable voltage, variable frequency drive (VSD).

Three-phase cage induction motors with ratings in the range from 1 kW to 185 kW shall be high efficiency motors and shall comply with the Minimum Energy Performance Standard (MEPS) requirements of AS/NZS 1359.5 Tables A3 or B3.

The electric motor torque/speed characteristic shall be selected to give safe and stable operation under all operating conditions taking into account load inertia and the torque/speed characteristic of the driven machine.

The electric motor torque developed during acceleration, shall be sufficient to accelerate the driven machine and motor to the design full speed and to perform the specified repeated number of starts, within the limits of temperature rise of the motor.

Separate electrically driven cooling fans shall be provided for all motors connected to VSDs that are required to operate continuously at or below 30 Hz or as required by the motor manufacturer.

The minimum degree of protection for electrical parts of non-submersible motors shall be IP56. Submersible motors shall be IP68 and shall be fitted with moisture detection sensors for both the motor winding and oil chamber.

PTC thermistors shall be fitted to motors where recommended by the equipment manufacturer, for all motors rated over 5.5kW and less than 90kW, and for all motors that are supplied by a VSD. For submersible electric motors, the over temperature sensor may be a thermostat suitable for use with a combined leakage sensor and over temperature relay.

Anti-condensation heaters shall be provided for all motors from 1kW and above exposed to potentially cold temperatures or high humidity. Anti-condensation heaters shall automatically turn off when motor is running and shall be isolated from the local isolator.

All motors supplied for variable speed applications shall be certified suitable for operation by VSDs by the motor manufacturer. Provision shall be made for terminal box and gland suitable for screened power cabling with three earth conductors. Motors greater than 90kW controlled by a VSD shall be fitted with insulated bearings on the non-drive end and earthing ring installed on the drive end. Due to the corrosive atmospheric conditions, motors fitted directly with an integrated VSD will not be accepted without the prior written approval of the Administrator.

3.15.9 Variable Speed Drives

The Contractor shall confirm with both the VSD supplier and the electric motor supplier that there is compatibility between the proposed VSD and the proposed electric motor over the full operating envelope of the combination prior to installation. This applies in all instances where:

- 1) A new VSD and electric motor combination is proposed; or
- 2) A VSD and motor combination exists, and it is proposed to replace either the motor or the VSD (or both);
or
- 3) In particular where it is proposed to install a new VSD to an existing electric motor (where a VSD does not currently exist).

Variable Speed Drives and Active Harmonic Filters installed at the Rotorua WWTP Facility shall be supplied with conformal coated circuit boards.

Electronic shear pin protection shall be incorporated in VSD's connected to electric motors driving machines types that require shear pin protection.

VSDs shall only be located in switchrooms or switchboards fed with ventilation air supplies that are pre-conditioned to limit the effects of atmospheric corrosion on electronic components,

The Contractor shall ensure that the VSDs do not interfere with the communications and instrumentation signals. Noise suppression filters shall be supplied if required. Screened power cables shall be used for VSD's.

VSD units shall include devices as required to limit harmonics emitted by the variable speed drive unit to ensure that harmonics created by the unit do not cause interference with or malfunction of other equipment. Also refer to section 3.15.5.1 regarding overall harmonics and correction thereof.

Earth fault protection for VSD circuits shall comply with clause 5.7 of AS/NZS 3000.

3.15.10 Uninterruptible Power Supplies (UPS)

UPS uptime on power failure shall be determined by the Contractor based on criticality and risk.

UPS units shall only be located in switchrooms or switchboards fed with ventilation air supplies that are pre-conditioned to limit the effects of atmospheric corrosion on electronic components,

UPS units shall be provided with a lockable main-supply isolating switch and shall incorporate protection against damage resulting from over-current including output short-circuit, and failure of internal components. Solid-state components shall be protected by fast-acting current-limiting fuses or equivalent MCBs and MCCBs. Operation of such devices shall initiate a visual alarm.

Adjustable under-voltage, over-voltage, over-current, battery temperature sensor failure and charger failure detection shall be provided on the battery charging system. Operation of any protection or detection device shall initiate a visual alarm.

Lead acid batteries shall comprise the appropriate number of high performance, sealed maintenance free cells having a minimum design life of 10 years on float. The batteries shall not require a separate battery room and ventilation requirements. Lithium-ion batteries may be offered in place of lead-acid batteries.

A static bypass switch shall be provided to affect an automatic no-break transfer of load from the UPS supply to the bypass supply in the event of an equipment malfunction or overload. Following operation of the static bypass switch due to an overload, the load shall be automatically restored to the UPS when normal conditions return. For any other cause, restoration to normal conditions shall require manual operation. Transfer of load to the automatic bypass shall be inhibited when the UPS output is not in synchronism with the bypass supply.

A manual maintenance bypass switch shall be provided for online transfer of the load from the UPS to mains supply for maintenance purposes.

The following indications shall be provided on the UPS unit as a minimum:

- 1) Mains on OK (off alarm)
- 2) Charger on float
- 3) Charger on charge
- 4) Charger on boost
- 5) Inverter on
- 6) Static bypass on (alarm)
- 7) Maintenance bypass on
- 8) UPS fault alarm
- 9) Overload alarm
- 10) Battery volts low alarm
- 11) UPS run time remaining
- 12) Battery voltage

Monitoring volt free contacts and analogue outputs shall be made available and connected to the PLC system to monitor the status of the UPS and generate alarms (Contractor to determine which of the above to monitor and alarm via PLC).

3.15.11 24V DC Supplies

24 V dc supplies to safety relays and PLC digital inputs shall be sourced from dual redundant supplies with 4 hour battery back-up within the MCC feeding a DC distribution section through blocking diodes. Each DC supply and battery voltage shall be monitored by the PLC.

3.15.12 Lighting

Exterior lighting poles shall comply with the following:

- 1) Poles shall be structural steel hot dip galvanised as per AS/NZS4680: 2006
- 2) Poles shall be circular, ground/platform planted, swivel type
- 3) Poles shall be able to attach a standard cross arm

3.16 ELECTRICAL INSTALLATION WORKS

The Contractor shall complete onsite electrical works in accordance with Council's Engineering Specifications and Good Industry Practice inclusive of but not limited to the following:

- Installation of new cables including means of cable routing such as cable trays, cableways and ducts and excludes repairs to direct buried cables
- Redirection and connection of existing power, control and instrument cables as required to accommodate installation of replacement equipment
- All lighting and power circuits to comply with AS/NZS3000
- Removal of cables, conduits and fittings made redundant by the work

3.17 INSTRUMENTATION, CONTROLS AND AUTOMATION

The Contractor shall consider the following aspects relating to instrumentation, control and automation design, equipment, specification, selection and installation works (as a minimum) as part of any capital works and renewals projects:

- Reference documents and standards
- Instrument power supply and I/O protocols
- Surge protection devices
- Field isolation
- Specifications for individual instrument types, e.g.
 - Electromagnetic flowmeters
 - Pressure transmitters
 - Pressure switches
 - Level Transmitters
 - Limit switches
 - Analytical instruments (dissolved oxygen, pH etc)
- Ingress Protection requirements
- Spare parts and technical support requirements
- Instrument installation, configuration, calibration and testing, including physical protection of display units from elements (sunlight, high temperatures, rainfall), including any specific requirements for various instrument types (e.g. earthing of magnetic flowmeter elements to pipework)
- Instrument cabling including shielding and separation requirements, conduits, pull pits, tray and ladders
- Engineering units
- Scaling
- Tagging and labelling
- Accessibility requirements for Operations (including maintenance and replacements)

3.17.1 SCADA Pages

New SCADA pages developed (and existing SCADA pages modified) as part of capital works and renewals works shall have the same look and feel as the existing SCADA pages. The same colour conventions for equipment status shall be used. The same conventions for describing different modes of operation shall be used unless approved otherwise by the Administrator.

3.17.2 Instrumentation

All instrumentation and controls incorporated in capital works and renewals works shall comply with the following general requirements:

- All instruments and associated devices supplied shall be fully supported by spare parts and technical service
- All instrument transmitters shall preferably operate from 24V dc supply, except for analytical transmitters where particular analysers are not available in 24Vdc versions. All instrument power supplies shall be derived from UPS or battery backed-up 24V dc supplies
- Instrument transmitters may be interfaced using either analogue signals HART over 4-20mA or using a Fieldbus network, preferably Profinet.
- All instruments that are HART compatible must be fitted with test blocks to allow connection for local maintenance and fault finding.
- Analogue signal transmission shall be linear, 4-20 mA DC proportional to the range of measured variable
- All indicating transmitters and output devices shall be capable of working into instrument loop impedances of up to 1,000 ohms
- All instrument loops shall perform reliably under the site conditions
- Earth electrodes shall be installed at the location of each field instrumentation enclosure for surge protection. An earth bar shall be installed in each instrumentation enclosure for the connection of all earths and the earth electrode
- A means to isolate the power supply shall be provided within each instrumentation enclosure
- All indicating transmitters shall be provided with adjustable signal damping, and non-interacting span and zero adjustment over 50% of the range

3.17.3 I/O Updates

At the completion of each capital works or renewal works project, all relevant and affected documentation with references to affected I/O, such as reference drawings, I/O Schedule, wire numbers, terminals, On/Off States, 4 mA and 20 mA values and comments shall be updated accordingly to reflect the as-built condition of the Facility as so affected by the changes made.

For equipment which has a duty/standby pair, the physical I/O shall be separated where it is practical to do so to achieve the reliability requirements.

3.17.4 Control System Functionality

The control system shall be programmed in such a way that it shall start-up, operate, and shutdown automatically with appropriate levels of operator intervention.

It is anticipated that the normal level of operator adjustments on a day-to-day level would be limited to:

- 1) Selecting mode of operation
- 2) Selecting duty and stand-by equipment
- 3) Changing set points

- 4) Acknowledging alarms
- 5) Initiating planned sequences (e.g. membrane CIP's)

In general, the philosophy shall be that an operator makes equipment 'available' for service, and if the equipment is 'available', the control system decides when to use it. If a device such as a pump is unavailable due to maintenance or other reason, then an operator makes it unavailable to the control system either through the SCADA/HMI or at the MCC, and the system then automatically operates the stand-by device instead.

If stand-by equipment requires operator intervention, such as hand valves, then the system can only alarm and wait for an operator to intervene, such as changing the position of the relevant valves.

The control system shall use feedback from instrumentation to determine abnormal operating conditions. In those situations where faults are related to the failure of equipment operating in duty, the system shall raise an alarm, shutdown the faulty item of equipment, and changeover to the stand-by equipment. In such a situation the plant operates as if nothing happened.

In the event that the stand-by equipment is not available, then the system shall alarm again and trip the plant or provide other pre-defined responses.

Alarm set points shall include an adjustable 'prove time' to prevent spurious alarms from occurring.

The Contractor shall consider contingences and fail-safe modes in the event of failure of the PLC, for example motorised and actuated equipment including VSDs, valves, etc that can be operated manually at the device or at the MCC using pushbuttons and systems where it is not possible or safe to do so.

4 INSTALLATION WORKS

4.1 GENERAL

The Contractor shall ensure all personnel and any subcontractors coordinate with the Contractor's operations personnel to ensure the continued safe and compliant carrying out of the WWTP Facility Operations, and where necessary to plan for shut-downs or required operations adjustments to accommodate capital works and renewals works installation to be carried out.

Sequencing of tie-ins to existing live services and commissioning will be a major consideration from an operations perspective during capital works and renewals works.

4.2 WORKS APPROACH AND INTEGRATION WITH EXISTING FACILITIES

The Contractor shall take all necessary measures to ensure the continued compliant carrying out of the WWTP Facility Operations during capital works and renewals works.

4.2.1 Connections to Existing Works and Shutdowns

The WWTP Facility as a whole shall be kept on-line at all times, except for such periods as approved in writing by the Administrator. Acceptance and processing of Influent arriving at the WWTP Facilities shall not be disrupted at any time and the Contractor shall be responsible for maintaining Final Effluent quality compliance at all times.

Where a specific work activity cannot be carried out without disruption to the operation of a WWTP Facility, the Contractor shall prepare a work plan for the specific work activity for approval by the Administrator and submit the plan to the Administrator no later than 10 Working Days prior to the intended date of commencement of the work to which the work plan relates.

The work plan shall:

- identify the tie-in, shutdown and/or disruption required to effect the work
- clearly describe why the work and the tie-in/disruption/shutdown is required
- detail the date and time of the proposed tie-in and/or shutdown and the duration
- Describe the procedure for the work
- Describe any isolation requirements and the isolation procedure
- Identify any and all risks and describe how they will be managed.

Each work activity shall be thoroughly planned with contingency and risk mitigation measures considered and describe the measures that will be put in place ready for implementation if required during the execution of the work.

Work shall be planned to occur during times of low inflows (i.e. work over night may be required)

The Administrator shall review and either approve or reject (with reasons) the work plan within 5 Working Days of the Contractor submitting it to the Administrator.

The planned shutdown shall not proceed until the Administrator has approved the work plan. The Administrator reserves the right to not approve any planned shutdowns if the Administrator considers that the respective work plan does not sufficiently identify and/or address the risks, the residual risks are unacceptable in the Administrator's opinion or for other reason as determined by the Administrator.

Where a work plan is not approved by the Administrator, the Administrator shall provide details to the Contractor in a timely manner and the Contractor shall address those and any other issues and resubmit the relevant work plan to the Administrator for approval.

4.2.2 Working Hours

Planned maintenance, capital works and renewals work should only be undertaken between 7 am and 6 pm Monday to Friday and not on any public holiday. Planned work outside of these hours requires the prior approval of the Administrator. A minimum notice period of 48 hours for approval for any planned works outside of these hours is required.

4.2.3 Potable Water Connections

Potable water connections shall be designed to prevent the contamination of the water supply as per AS 3500. Backflow protection devices shall be selected and installed as per AS 2845. Pressure reduction systems shall be provided as required.

4.3 PROTECTION OF EQUIPMENT

The design and selection of new and replacement equipment shall consider the physical protection of equipment from the environment to achieve the Minimum Service Life Requirements.

External instrumentation displays shall be in a protected, secure environment sheltered from sunlight with durable hard fixed weather shields and oriented to avoid direct sunlight.

4.4 TESTING

All testing shall be carried out by the Contractor at the Contractor's risk and cost, and the Contractor shall provide labour for installation and dismantling of test equipment and shall supply all approved pumps, engines, pipes, temporary valves, plugs or flanges and other items as may be necessary.

4.5 LIVE CONNECTIONS

Where a live connection to existing systems may potentially interrupt or upset the WWTP Facility treatment processes the Contractor shall prepare and submit to the Administrator for approval a detailed work method statement and risk assessment as detailed in section 4.2.1 of this Schedule.

4.6 FACTORY ACCEPTANCE TESTING (FAT) AT MANUFACTURERS' WORKS

The purpose of the factory acceptance tests is to verify that the specific piece of equipment complies with the Manufacturer's Specifications, this Schedule 15 and the Council's Engineering Specifications.

Details of the factory acceptance test and all supporting documentation shall be incorporated into the relevant Operations and Maintenance Manual.

Works testing and inspections shall be carried out where possible for flow measuring equipment, pumps, switchboards and the control and instrumentation system. Specific testing details are provided below.

4.6.1 Flow Measuring Equipment

A calibration certificate shall be provided for each primary flow-measuring element. Hydrostatic testing of primary devices shall be carried out, with electrical inspection and checking of all secondary equipment.

4.6.2 Valves

All valves greater than 300mm NB shall undergo hydrostatic and performance testing at the manufacturer's works.

The correct function of limit switches shall be tested. Manual valves shall be opened and closed to check the ease of operation. Actuators shall be stroked over their full range of movement in both directions and checked for satisfactory operation.

4.6.3 Pumps

All pumps over 1.0kW motor size shall undergo hydrostatic testing and performance testing for the minimum suction conditions under which they will be required to operate. This testing shall be carried out at the manufacturer's works. Certificates with records of tests shall be maintained by the Contractor.

4.6.4 Electrical Items

Routine tests shall be carried out to ensure that motors and actuators have been assembled correctly and are in sound mechanical and electrical working order.

4.6.5 Switchboards Electrical and Control Cabinets

All new switchboards shall be tested at the manufacturer's works. Tests shall include current continuity, termination checks, component installation, check circuit breaker ratings, as well as a functional check of all components and routine tests.

4.6.6 Control and Instrumentations System

Elements of the control system shall be tested at the manufacturer's works. This shall include simulating the operation of the new PLC, communications to PLC I/O, peer to peer PLC network and SCADA network. Elements of the controls system to be assembled and connected at the Facility for testing shall include PLCs, remote I/O and SCADA.

4.7 SITE TESTING

Site testing is required to demonstrate that all new items of plant and equipment, have been installed and tested in accordance with this Schedule 15 and the Manufacturer's instructions, and are safe to use.

The following list is a typical, though not exhaustive list of items which would typically require testing and associated documentation. The Contractor shall keep copies of all of the test records and certificates for each item of plant and equipment installed by the Contractor.

- Tank Hydrostatic Tests and Test Certificates
- Hydrostatic pressure testing of all pressure pipelines over 50mmNB
- Certificate of Compliance in accordance with the Electricity Regulations
- Pressure Relief and Control Valves Set Pressure Test Sheets and/or certificate of calibration
- Lifting beams, Davit and Chain Block – Test Certificates
- Pump Factory Test Sheets for pumps over 1.0kW motor size
- PE Tanks – Inspection/ Hydro test sheet
- Instruments certificate of conformity
- Instruments Inspection Check Sheets
- Cable Test Certificates – Power detailing point to point checks marked up on drawings confirming testing has been done and As Built status
- Cable Test Certificates – Instrumentation detailing point to point checks marked up on drawings confirming testing has been done and As Built status
- Plant and Building Earthing Test Certificates
- Lightning Protection Test Certificates
- MCC and C and I Panels Megger Inspection Test Sheets
- Lubrication Inspection Check Sheets
- Protective Coating Inspection Check Sheets
- Tests for signal continuity (electrical, pneumatic, hydraulic)
- Inspection Check Sheets for the Control System Hardware and Connections
- Chemical Dosing Systems Installation Inspection Check Sheets and HSNO certification
- Screen Installation Inspection Check Sheets
- The Contractor shall not power up any plant or equipment until the component and installation has been visually inspected and:
 - Circuit breaker overloads set and proved to comply with system discrimination requirements
 - Distribution boards checked for operation of switches, circuit protection, contactors and controls
 - Continuity and insulation resistance checked on all wiring and cabling
 - Phase continuity for the installation checked
 - Any additional lighting installed is switched correctly, loadings checked, and fittings checked for correct operation and earthing circuitry
- All plant and equipment labelled and tagged.
- Phase rotation for motors checked, then couplers connected, and final alignment checks undertaken
- Lighting and Power Certificates of Test
- Motors/Drives Test Sheet

- Verification that maximum load demanded by rotating equipment shall not result in thermal or electrical overloading
- End to end tests if all analogue and digital I/O wiring
- Instruments – confirmation of correct setup and correct spanning of analogue signals end to end (from field device through to SCADA)
- Manual operation of equipment from MCC (where feasible)
- All site testing shall be documented by the Contractor.

SCHEDULE 16 – OPERATIONS, MAINTENANCE AND RENEWALS REQUIREMENTS

OPERATIONS MAINTENANCE AND RENEWALS REQUIREMENTS
relating to
WASTEWATER SERVICES
OPERATIONS AND MAINTENANCE CONTRACT

Rotorua District Council
(Council)

TRILITY Rotorua Limited
(Contractor)

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1 PRELIMINARY AND GENERAL

1.1 DEFINITIONS, ABBREVIATIONS AND ORDER OF PRECEDENCE

1.1.1 Definitions

In this document:

“Annual Plan” has the meaning as set out in the Local Government Act 2002.

“Asset Management Information System” means the asset management information system used by the Council from time to time for the management of information relating to the Council’s wastewater assets. The AMIS used by Council as at the Commencement Date is Infor.

“Assets to be Decommissioned” means a subset of Exempt Assets being the Rotorua WWTP Facility assets and Rotorua LTS assets intended to be decommissioned soon after the Expiry Date as set out in the Exempt Assets Schedule.

“Base Profile” means the indicative budget and kilometres of gravity main renewals required over a rolling 25 year time horizon, updated on a three yearly basis as agreed by both parties based on actual evidence of renewals requirements as set out in section K.2 of Appendix K to this Schedule.

“Contemporary Equivalent” means conforming to the Contract Documents (including section 8.20.2 of this Schedule 16 for the avoidance of doubt), current regulatory and statutory requirements, current Good Industry Practice, current equivalent make and model as applicable and that otherwise represents the equivalent treatment or conveyance capacity, and provides the same level of service as the asset being replaced.

“Contract” means the Wastewater Services Contract of which this Schedule 16 forms part.

“Contractor’s General Technical Specifications” means the general technical specifications produced by the Contractor and approved by the Administrator as described in section 7.5. In the absence of Contractor’s General Technical Specifications approved by the Administrator, then Schedule 15 shall apply wherever a reference is made to the Contractor’s General Technical Specifications.

“Contractor’s Site Investigation Report” means the technical memorandum prepared by the Contractor entitled “Early Works Site Investigation Report” dated 27 March 2019 inclusive of associated addendum and attachment.

“Council Call Centre” means the call centre operated by the Council from time to time for the reporting and initiating responses to Operations issues.

“Council’s Engineering Specifications” are as defined in section 7.2.

“Cure Actions” mean the actions required to be undertaken by the Contractor to remedy or cure a KPI non-compliance as set out in a KPI Non-Compliance Cure Strategy.

“Design PWWF” means the Measured ADWF multiplied by the highest wet weather design peaking factor applicable in Council’s Engineering Specifications or other method of calculation as may be stipulated in the Council’s Engineering Specifications.

“Easements and Agreements Reference Documents” means the documents referred to in Appendix J and Appendix U, dated 20 August 2020.

“Escalated Proposal Price” has the meaning as set out in Schedule 2.

“Escalation Adjustment” has the meaning as set out in Schedule 2.

“Excepted Rotorua Reticulation Network Designation Obligations” means the Excepted Rotorua Reticulation Network Designation Obligations set out in Appendix R to this Schedule.

“Excepted Rotorua WWTP Facility Resource Consent Obligations” means the Excepted Rotorua WWTP Facility Resource Consent Obligations set out in Appendix R to this Schedule.

“Exempt Assets” means the exempt assets set out in the Exempt Assets Schedule.

“Exempt Assets Schedule” means the Exempt Assets Schedule included in Appendix N.

“Gravity Mains” means underground pipes through which wastewater flows by gravity which are used for transporting sewage from serviced premises to treatment facilities. Gravity Mains include Public Gravity Laterals (as defined in section 11.4) and their connections to trunk gravity mains. Unless specifically stated otherwise Gravity Mains exclude rising mains, pressure sewer systems, privately owned infrastructure, manholes, valves, wet wells and other non-pipe network assets.

“Gravity Mains Renewals” means any replacement of Gravity Mains or rehabilitation of Gravity Mains that extends the useful life of the Gravity Mains while maintaining the same level of service.

“Gravity Mains Renewals Payment” has the meaning as defined in Schedule 2.

“Gravity Mains Renewals Programme” means a detailed list of individual Gravity Mains Renewals compiled on a three yearly basis (in line with the RLC LTP cycle) based on evidence of asset condition and performance of the Gravity Mains network in accordance with the Gravity Mains Renewals Practice Note provided in Appendix K.

“Groundwater Infiltration” (GWI) means groundwater that infiltrates pipeline and manhole defects located below the ground surface. GWI is further described in section 11.3. The estimated annual average contribution of GWI in the Influent arriving at the Rotorua WWTP Facility is an annual reporting parameter.

“Handover Plan” means the plan prepared by the Contractor to demonstrate how the Contractor will manage the Handover of the WWTP Facilities, the Reticulation Networks and the Operations in an orderly fashion at the Expiry Date as described in section 13.1.1.

“Inflow” means surface or rainwater that enters a Reticulation Network through connections or faults in the Reticulation Network, faults in private property sewerage reticulation and illegal connections.

“Influent Event” has the meaning as set out in section 8.2.3 of this Schedule.

“Key Materials and Services” means goods or materials or a specialised renewal or rehabilitation service as specified on a predefined list “List of Key Materials and Services” that may be escalated by Market Rate instead of CGPI as set out in Schedule 2 of the Contract Conditions.

“KPI” means a key performance indicator as set out in Appendix M of this Schedule.

“KPI Non-Compliance Cure Strategy” means a KPI non-compliance cure strategy as determined by the ERG in accordance with section 4.6.3 of this Schedule.

“KPI Non-Compliance Report” means a KPI non-compliance report to be submitted by the Contractor in accordance with section 4.6.1 of this Schedule.

“KPI Performance Failure Event” means a failure to comply with any KPI in any given month calculated as a 12 month rolling average or such other period as set out in Appendix M. A KPI Performance Failure Event shall be deemed to occur when the Contractor becomes aware of or should reasonably have been expected to become aware of, a failure to comply with a KPI.

“Long Term Plan” (LTP) has the meaning as set out in the Local Government Act 2002.

“LTS Management Plan” means the document entitled “Management Plan for the Operation of the Rotorua Land Treatment System” dated November 2007 prepared by Council as required by the BOPRC.

“Major Event” has the meaning set out in clause 1.8 of this Schedule.

“Market Rate” means the usual price charged for the goods or services in a free market, using prudent procurement practices. This means where practicable reasonable endeavours to obtain a minimum of three quotes, on Arm's Length Terms, from different independent suppliers. In the absence of extraordinary circumstances, the Market Rate shall be the median value of the quotes obtained.

“Measured ADWF” means actual measured average daily flow data during periods with no apparent flow response to rainfall that is corrected by deducting the measured contribution of GWI from actual measured flows, to determine only wastewater volumes generated at source. Measured ADWF is an annual reporting parameter. [NOTE: This takes into consideration seasonal variation in tourism numbers and impacts on population-based flows].

“Minimum Service Life Requirement” is the minimum Service Life standard applicable to new, refurbished or replacement assets as defined in this Schedule 16 (refer to sections 7.4 and 12.4.9).

“On-property Pre-treatment Units” means the private property wastewater pre-treatment systems upstream of the point of public connection to the low pressure sewer systems in the Reticulation Networks (inclusive of but not limited to LPGP and STEP systems).

“Ongoing Exempt Asset” has the meaning set out in section 8.21 and Appendix N of this Schedule.

“Operation and Maintenance Manual” means the operations and maintenance manual for the Rotorua WWTP Facility described in section 8.18.

“Operations Monthly Reports” means the operations monthly reports to be provided by the Contractor pursuant to clause 1.27 of this Schedule.

“Optimised Renewals” has the meaning described in section 3.9.2 of this Schedule.

“Redundant Assets” means the already redundant assets as at the Commencement Date set out in the Exempt Assets Schedule.

“Remaining Service Life Expectancy” means the time (in years) an existing asset would be expected to remain functional given the age, condition, prior maintenance, operational loads/duties and maintenance procedures applicable to or carried out in relation to the asset at the time of investigation.

“Renewals Credit” means the portion of the total cost of design, preparation and providing of an upgrade required for additional capacity, that is already included in the Monthly Service Payment for the renewal of the same asset reasonably expected to occur at a later date in the Contract Term valued at the cost of a Contemporary Equivalent replacement using the same installation technique as the proposed upgrade solution, and reduced by the Remaining Service Life Expectancy at the time of the upgrade as a percentage of the assets total design Service Life.

“Rotomā/Rotoiti Influent Envelope” has the meaning set out in clause 12.3.6 of this Schedule.

“Rotomā/Rotoiti Resource Consents” means the Resource Consents and Designation RDC451a for the Rotomā/Rotoiti WWTP Facility and LDS listed in Appendix G of this Schedule.

“Rotomā/Rotoiti WWTP Facility Taking Over Plan” means the Rotomā/Rotoiti WWTP Facility taking over plan described in section 12.5 of this Schedule. The version current as at the date of execution of the Contract is included in Appendix W.

“Rotorua LTS” means the Rotorua Land Treatment System located in Whakarewarewa Forest the extent and layout of which is shown in Appendix V to this Schedule, inclusive of but not limited to the Final Effluent pumps at the Rotorua WWTP Facility, the rising main from the Final Effluent pumps to the LTS, the cathodic protection system associated with this rising main, the 11kV power cable from the Rotorua WWTP Facility to the irrigation pump station and associated 11kV switchgear and transformers, the LTS holding ponds, the irrigation pump station, the irrigation distribution reticulation network and irrigation system.

“Rotorua Reticulation Network Designations” means Designations RDC1 to RDC72 (RDC sanitary sewerage utilities: sewage pump stations) and RDC401 to RDC402 (RDC stormwater pump stations) subject to conditions A6.11.7.1 listed in Appendix R to this Schedule and Appendix A6 of the Rotorua District Plan as at the Commencement Date.

“Rotorua WWTP Facility Resource Consent” has the meaning set out in clause 89.1 of the Contract Conditions (being Resource Consent No. 60739 and Designation RDC450 listed in Appendix R to this Schedule).

“Schedule of Rates – Gravity Mains Renewals” means the schedule of rates used to price the Gravity Mains Renewals Programme as appended to Schedule 2 of the Contract Conditions.

“Service Life” means the length of time that any new element or item will perform as designed and remain suitable for operation without requiring any significant repair or replacement.

“Service Request” shall have the meaning set out in section 1.23 of this Schedule.

“Taking Over” in relation to the Rotomā/Rotoiti WWTP Facility and Rotomā/Rotoiti Reticulation Network means taking over the Operations of Rotomā/Rotoiti WWTP Facility and the Rotomā Reticulation Network at the Commencement Date and taking over of the Rotoiti Reticulation Network Operations in stages as described in clause 12.5 of this Schedule.

“Unplanned Gravity Mains Renewals” means Gravity Mains Renewals that were not planned to be undertaken in the current Gravity Mains Renewals Programme and which cannot be deferred until the next Gravity Mains Renewals Programme but requires immediate renewal due to actual or imminent structural failure of the Gravity Mains or poor performance that is not directly attributable to a lack of capacity and that represents a high risk of (or actual) KPI non-compliance.

“Vermicomposting Contract” means the contract for the Removal and Beneficial Re-use of Sewage Sludge 2016 dated 26 February 2016 entered into by the Council and Ecocast Limited together with the Deed of Variation of that contract dated 4 April 2019 referred to in Appendix S of this Schedule.

“Whakarewarewa Rain Station” means the rainfall gauging station located at Whakarewarewa, Rotorua, operated by the BOPRC or the nearest other official rain gauging station as may be determined by the Administrator in the event that the Whakarewarewa Rain Station ceases to operate. The total annual rainfall depth as measured at the Whakarewarewa Rain Station is an annual reporting parameter.

“WWTP Laboratory” means the IANZ accredited water and wastewater testing laboratory located at the Rotorua WWTP Facility Site.

Terms defined in the Contract and used in this Schedule have the same meaning as set out in the Contract.

1.1.2 Abbreviations

The following abbreviations shall have the meaning shown.

ADF	Average Daily Flow
ADWF	Average Dry Weather Flow
AMIS	Asset Management Information System
AMP	Asset Management Plan

BOD	Total Biochemical Oxygen Demand
BOPRC	Bay of Plenty Regional Council
COD	Chemical Oxygen Demand
DAF	Dissolved Air Flootation
DS	Dry Solids
ERG	Executive Review Group
GWI	Groundwater Infiltration
HV	High Voltage
I/I	Inflow and Infiltration (GWI)
ICP	Installation Control Point
IWLG	Iwi Wastewater Liaison Group
KPI	Key Performance Indicator
LDS	Land Disposal System
LTP	Long Term Plan
LTS	Land Treatment System
LPGP	Low Pressure Grinder Pump
MBR	Membrane Bio-Reactor
MCC	Motor Control Centre
NIWA	National Institute of Water and Atmospheric Research
NTP	National Testing Programme
O&M	Operation and maintenance
OEMP	Operations Environmental Management Plan
OSET TestFac	On-Site Effluent Treatment Testing Facility at the Rotorua WWTP Facility Site
PE	Polyethylene
PEs	Population Equivalents
PLC	Programmable Logic Controller
PLP	Phosphorus Locking Plant
PPE	Personal Protective Equipment in accordance with the HSW Act.
PWWF	Peak Wet Weather Flow
RFP	Request for Proposal
RLC	Rotorua District Council (a.k.a. Rotorua Lakes Council)
SCADA	Supervisory Control and Data Acquisition
STEP	Septic Tank Effluent Pump
SWANS-MAG	Small Wastewater and Natural Systems Management and Auditing Group – as established by Water New Zealand
TKN	Total Kjeldahl Nitrogen
TN	Total Nitrogen
tN/yr	Tonnes of Nitrogen per year
TP	Total Phosphorus
tP/yr	Tonnes of Phosphorus per year
TSS	Total Suspended Solids

UV	Ultra-violet
VSD	Variable Speed Drive
WAS	Waste Activated Sludge
WRC	Waikato Regional Council
WWTP	Wastewater Treatment Plant

1.1.3 Order of Precedence

This section shall be read in conjunction with Clause 89.2.1 (m) of the Contract Conditions.

Where conflicts occur between the provisions of this Schedule 16 and the documents, regulations, codes and standards referenced in this Schedule 16, the order of precedence, in descending order, shall be:

- a) The specific provisions within this schedule
- b) The Contractor's General Technical Specifications as approved by the Administrator (in so far as such an approved document exists)
- c) Schedule 15
- d) Council's Engineering Specifications
- e) New Zealand Statutory Regulations and Acts of Parliament (except where items (a) or (b) above impose less stringent requirements than the New Zealand Statutory Regulations and Acts of Parliament)
- f) New Zealand Codes and Standards
- g) International Codes and Standards.

In all instances, legally required National codes and standards of New Zealand, together with any other applicable regional regulatory requirements, shall be complied with.

1.2 SUMMARY OF SCOPE

1.2.1 Scope of this Schedule

This Schedule sets out the Council's Requirements for the carrying out of:

- Operations, maintenance and renewals for the Rotorua WWTP Facility
- Operations, maintenance and renewals for the Rotorua Reticulation Network (including all connected satellite communities)
- Operations, maintenance and renewals of the Rotomā/Rotoiti WWTP Facility (built by others)
- Operations, maintenance and renewals of the Rotomā/Rotoiti Reticulation Network (built by others)
- Treatment and disposal of sludge and biosolids generated by both schemes (Rotorua and Rotomā/Rotoiti)
- Day to day management of the above.

Notes:

1. The Council's WWTP Facility technical specifications as at the Commencement Date are set out in Schedule 15.
2. The Operations of On-property Pre-treatment Units for the Rotoiti Reticulation Network area may be included in the scope of the Contract after the Commencement Date as contemplated in clause 52.2 of the Contract Conditions.

1.3 PRACTICE NOTES

Practice notes are included as Appendices K, L and W of this Schedule.

A Practice Note entitled “Incidents, Service Requests and Complaints: Notification, Procedures, Tracking and Close-Out Practice Note” will be developed collaboratively by the parties prior to the Commencement Date to describe in detail the processes and procedures described in sections 1.23, 1.25.2, 4.2, 4.4 and 10.8 of this Schedule 16.

Additional Practice Notes may also be developed throughout the Contract Term as agreed by the parties as provided for in clause 65.2 of the Contract Conditions.

Practice Notes may be amended by the parties as provided for in clause 65.2 of the Contract Conditions.

1.4 LOCATIONS

1.4.1 Rotorua WWTP Facility

The Rotorua WWTP Facility Site is located at the southernmost point of Lake Rotorua adjacent to the Puarenga Stream near its confluence with Lake Rotorua at Sulphur Bay as shown in Figure 1 below.

Figure 1: Rotorua WWTP Facility Site Location Plan



1.4.2 Rotorua Wastewater Reticulation Network

As at the Commencement Date the existing wastewater Reticulation Network serving Rotorua consists of the older conventional gravity system servicing the more central and older suburbs of the city, extending from Ngongotaha to the northwest, Pukehangi to the west, Tihiotonga to the south and through the eastern suburbs to Hannahs Bay in the north east.

More distant satellite lakeside communities (previously serviced by on-site systems) were connected to the Rotorua wastewater Reticulation Network between 2000-2010 via low pressure grinder pump (LPGP) sewer systems. Lakeside communities that have been moved off septic tank systems and connected to the centralised Rotorua sewage scheme in this manner include: Otaramarae, Okere Falls, Okawa Bay, Mourea, Brunswick, Rotokawa, Hamurana and Okareka.

The extent, connectivity and location of the Rotorua Reticulation Network as at the Commencement Date is shown in Appendix D of this Schedule.

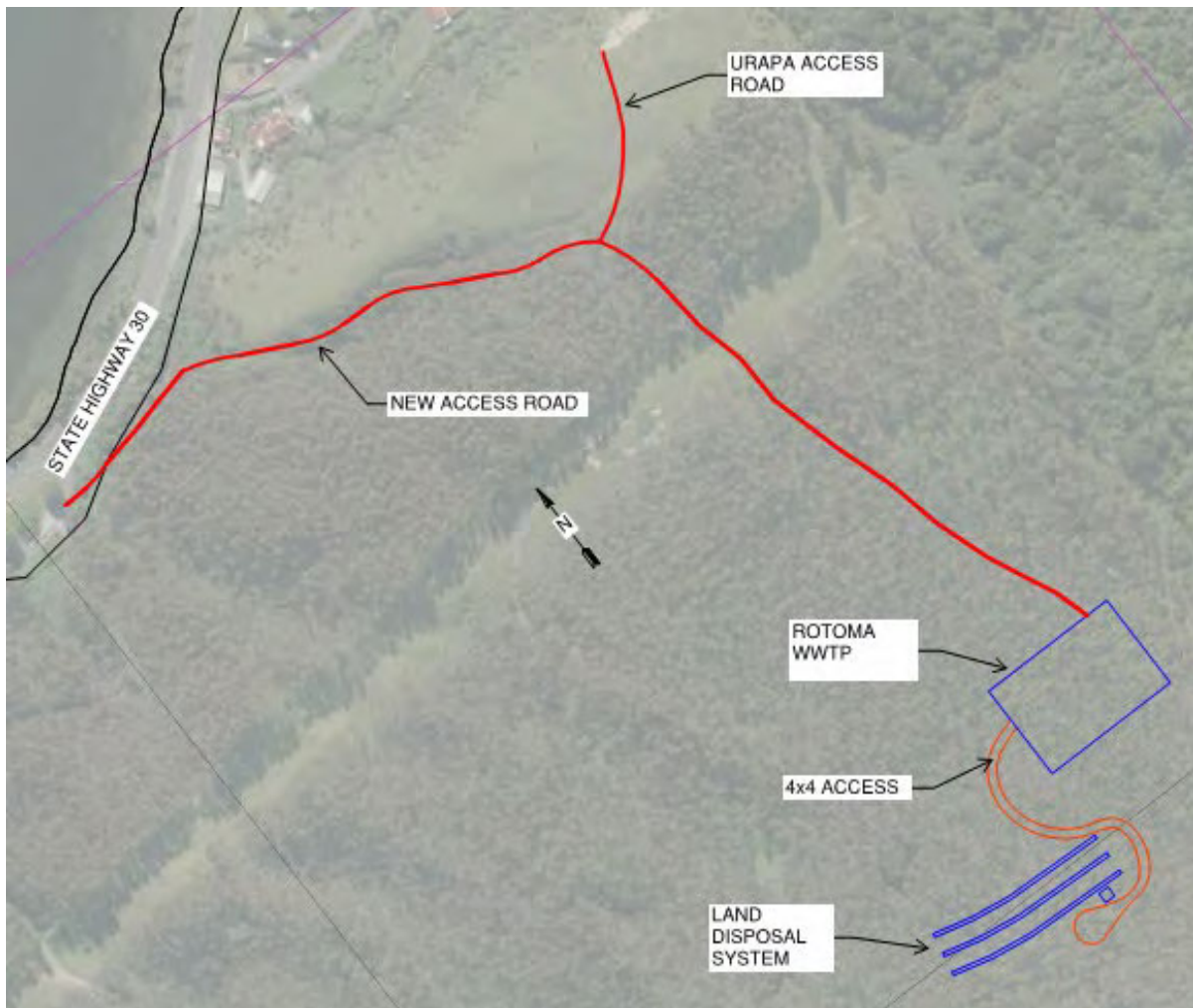
1.4.3 Rotomā/Rotoiti Sewerage Scheme

The location and extent of the Rotomā/Rotoiti Reticulation Network is shown in the Area of Benefit Maps provided in Appendix E of this Schedule.

1.4.4 Rotomā/Rotoiti WWTP Facility

The Rotomā/Rotoiti WWTP Facility is located on the hillside above Emery's Store on SH 30 at the approximate location shown on Figure 2.

Figure 2: Rotomā/Rotoiti WWTP Facility Site Location Plan



1.5 GEOTHERMAL ENVIRONMENT AND RISKS

There are a number of risks associated with the geothermal activity in the Rotorua Lakes District including those detailed below. The Contractor is to take adequate precautions against these risks in all operations, maintenance and renewals activities on the Rotorua Reticulation Network and the Rotorua WWTP Facility.

1.5.1 Atmospheric Hydrogen Sulphide

The Rotorua urban area and surrounds have been built on a thermally active zone. The Rotorua area has many active geothermal features and the background atmospheric hydrogen sulphide levels in areas close to active geothermal features are relatively high.

The atmospheric conditions are particularly corrosive due to the background hydrogen sulphide levels and special design provisions are required to protect assets from premature deterioration due to the highly corrosive atmospheric effects. In particular, attention is required to the selection, specification, isolation and protection of metalwork and electrical items.

Ferrous metals and ABS are particularly at risk from atmospheric hydrogen sulphide attack and shall not be used in the creation of new assets or in the renewal of existing assets unless approved by the Administrator in writing.

Refer to Council's Engineering Specifications for further details of specific requirements in the following documents and sections:

1. Hydrogen-Sulphide Corrosion Protection of Electrical Equipment
2. RDC Civil Engineering Standard S 6.11.3.

1.5.2 Hot and Aggressive Ground Conditions

In geothermally active areas there is a risk of hot and aggressive ground conditions. This poses a Health and Safety risk as well as a risk of accelerated deterioration of below ground assets.

In particular there is a risk of accidental scalding when walking over active geothermal areas due to localised surface collapse underfoot where a geothermal feature has appeared just under the surface and also when working in trenches in areas of high groundwater levels.

The Contractor shall take the hot and aggressive ground conditions into account in its health and safety planning, materials and equipment selection and works methodology planning.

1.5.3 Confined Space Risks

In the Rotorua area, there is a risk of Hydrogen Sulphide gas accumulation in below ground confined spaces. As a result, atmospheres incapable of supporting life can be encountered in poorly ventilated spaces. The Code of Practice "Safety in Confined Spaces and Working in Gaseous Atmospheres" must be strictly complied with at all times.

1.5.4 Hydrothermal Eruption

Localised small and spontaneous hydrothermal eruptions have occurred in the vicinity of the Rotorua CBD, Whakarewarewa, Ohinemutu and Kuirau Park in the decade preceding the Commencement Date.

The Contractor shall take all required precautions to protect persons, plant, machinery and materials from localised hydrothermal eruptions.

1.6 **ILLEGAL DISCHARGE AND HAZARDOUS WASTE INCIDENT RESPONSE**

The Contractor shall maintain the capability of responding immediately to incidents involving the discharge of illegal trade waste or hazardous substances into the sewerage system, 24 hours per day, 365 days per year, and to assist in the management of such events when requested.

Such immediate response shall consist of personnel, equipment and/or materials necessary to safely trace and remove illegal trade waste or hazardous substances and minimise damage to Council's Reticulation Networks and the WWTP Facilities.

1.6.1 Notification

Notification of an incident will generally be via either:

- the Administrator or the Administrator's Representative,
- the Council's Pollution Control Officer, or
- the Council's Call Centre (via the Service Request process)

and will be made to the Contractor's Office or, after hours phone number.

It is possible that in the future notifications may be automated using field instrumentation and monitoring equipment or other mechanism deployed across the Reticulation Networks or the WWTP Facilities.

The Contractor shall also initiate the notification of an incident if the Contractor's personnel witness or detect illegal or hazardous substances in the sewerage system in the course of their normal work. Notification by the Contractor's personnel shall generally be made by contacting the Council's Call Centre to log the incident and then to the Council's Pollution Control Officer and the Administrator.

The Contractor shall ensure at all times that the Contractor's normal working hours and after-hours personnel have the authority and capability to immediately attend or deploy appropriate personnel to such incidents with the appropriate equipment.

1.6.2 Site Observations

In addition to the above, the Contractor shall notify the Administrator first verbally (within 2 hours) and then in writing (E-Mail) if any of the following circumstances are observed:

- A hazard is evident that could endanger persons or equipment or cause pollution to water courses and/or lakes
- Any defect or situation is likely to cause prolonged service outage.

1.6.3 Equipment and Resources

The Contractor shall provide and have available at all times suitable equipment and resources for responding to any illegal trade waste and hazardous substance incident. This includes the location and identification of the incident, the means to contain and rectify the situation and the ability to track the contaminant back to its source. Such equipment may include, but is not limited to:

- PPE, including personnel safety gas detectors, traffic control equipment and trained personnel
- As-built information of all public sewer and storm water drains.
- Means to rapidly access the sewer network and determine the approximate catchment area and then the source that the illegal discharge is coming from.
- Means to take a sample of the contaminated wastewater in a sample container of a type as approved from time to time by the WWTP Laboratory.
- Means to document the incident and trace the contaminant to the source i.e. suitable photography equipment to capture clear images looking down inside chambers and wet wells
- Means to isolate gravity sewer pipes and remove contaminated wastewater from the network (such as sandbags and sucker trucks)

1.6.4 Access to Private Property

Refer to section 1.11 of this Schedule 16 and to clause 61 and clause 63 of the Contract Conditions.

1.6.5 Escalation and Assistance

The Contractor shall make every reasonable endeavour to obtain conclusive evidence of the source of the illegal discharge or hazardous substance including eliciting the assistance of Warranted Enforcement Officers to gain access to private property where access is required to collect such conclusive evidence.

If the Contractor is unable to safely isolate and contain the contaminant, remove it safely, clean-up, make-good and restore normal service with the equipment and resources that the Contractor has available or can readily access, the Contractor shall immediately notify the Council's Pollution Control Officer and the Administrator that the Contractor requires third party assistance.

1.6.6 Council's Step-In Rights

In relation to any hazardous waste or illegal discharge incident the Administrator considers that the Contractor:

- has not responded in a timely manner or
- is not sufficiently containing an illegal discharge &/or preventing overflows or
- is not taking all practicable measures to protect the Council's assets &/or private property or
- is not adequately protecting the health and safety of workers or the public

the Council may exercise the Council's step-in rights as set out in Part F of the Contract Conditions, without prejudice to any other right or remedy available to the Council under the Contract or at Law.

1.6.7 Remediation, Clean-Up and Making Good

The Contractor's immediate focus in the event of an incident shall be on health and safety, protection of assets, prevention of overflows, containment of harmful substances, reinstatement of wastewater services and temporary reinstatement of any urgent works undertaken.

Once the initial response is complete the Contractor shall then dispatch samples, ascertain the source of the contaminant (as far as practicable) and collect evidence of such.

Following these actions, the Contractor shall within a reasonable timeframe complete any remediation, clean-up and making good required as a result of the incident. Upon completion of remediation, clean-up and making good (i.e. at completion of the initial response to make the situation safe and prevent further damage to the Reticulation Network and WWTP Facility), the Contractor shall notify the Council's Call Centre that the initial response has been completed and provide a summary of the status of the situation and any follow-up actions required.

For the avoidance of doubt, the applicable reinstatement KPIs shall be deemed reasonable timeframes.

1.6.8 Follow-Up and Reporting

Within 2 Working Days of the time of the notification of the incident the Contractor shall provide a brief report to the Council's Pollution Control Officer and the Administrator detailing the events and facts associated with the incident. This report shall contain the following information:

- a) Date and time
- b) Location
- c) Nature of the Incident
- d) Name of person or company responsible for the discharge if this information has been ascertained, or otherwise details of where the source of the contaminant was traced to.
- e) Details of evidence collected to support d) above.
- f) A summary of action taken (including a chronological timeline), including who initiated the notification, the nature of inspections and investigations undertaken, results of inspections and investigations, times and locations of samples taken
- g) A list of all manholes and pump stations inspected including photos taken.

1.6.9 Contractor's Reimbursement

The Contractor will be reimbursed for its costs and expenses for attendance to an Illegal Discharge and Hazardous Waste Incident on the basis set out for valuing a Mandatory Variation as set out in clause 43.1.14 of the Contract Conditions.

1.7 INFLOW AND INFILTRATION MANAGEMENT

As at the date of execution of the Contract the gravity reticulation assets within the Rotorua Reticulation Network are at various ages and stages through their Service Lives. As such as at the date of execution of the Contract, the parties acknowledge that the Rotorua Reticulation Network gravity reticulation catchments are exhibiting varying degrees of inflow and infiltration (I/I).

1.7.1 I/I Responsibilities

The Contractor is responsible for:

- a) overall management of I/I and achieving compliance with the KPI's; and
- b) managing I/I from all other Reticulation Network assets, other than Gravity Mains, as part of the renewals programme for those assets as set out in the Contractor's Renewals Work Plans,

which are covered by the Monthly Service Payments for Reticulation Networks.

The Contractor is responsible for carrying out I/I investigations and providing the required I/I Reports in accordance with section 3.8 of this Schedule and is responsible for the costs of carrying out I/I investigations and providing I/I Reports.

The Contractor's I/I investigations and I/I Reports shall include identifying I/I arising from private property assets. However, the parties acknowledge that it is at Council's discretion what private property I/I enforcement action the Council may initiate or what the Council may allocate funds for to expend on rectification of private property I/I issues (refer also to clause 62 of the Contract Conditions).

The parties acknowledge that I/I improvement works from direct leakage into Gravity Mains shall be addressed as part of the Gravity Mains Renewals Programme and that the costs associated with Gravity Mains I/I improvement works (or any alternative strategy to the renewal of Gravity Mains proposed by the Contractor that is accepted by the Council) shall be funded by the Gravity Mains Renewals Payments.

1.7.2 Determination of Optimal I/I Management Strategy

The parties acknowledge that clarity is required around the sources of I/I within catchments where I/I is problematic, to provide a foundation for ascertaining the optimal I/I management strategy, be it:

- I. Targeting I/I reduction from private properties via enforcement action
- II. Replacement or relining of Gravity Mains (which may or may not include Public Gravity Laterals)
- III. Replacement or rehabilitation of other Reticulation Network assets (other than Gravity Mains) – e.g. manhole relining
- IV. Increasing storage and/or conveyance capacity of assets to contain and convey I/I flows (including pump stations rising mains and treatment plant assets) – acknowledging that this option is not preferred as it does not reduce I/I entering the network and the WWTP Facility.
- V. Any combination of the above.

The Contractor shall carry out its investigations and include such information in its I/I Reports, as per Section 3.8, as is reasonably required to provide the required level of clarity as above.

The I/I Reports shall form the basis for discussion and agreement with the Administrator of an optimised I/I remediation plan including:

- the extent of renewal of the Gravity Mains required to have a substantive impact on reducing I/I
- known or reasonably suspected sources of I/I from private property assets
- known or reasonably suspected sources of I/I deemed non-viable to remedy on infrastructure where renewals are covered by the Contractor's Monthly Service Payments (e.g. manholes and pump stations)

- remedies that are within the scope of the Contractor's Operations obligations completed or planned to be completed by the Contractor
- a strategy for managing residual I/I

The Contractor's recommended optimal I/I strategy shall be determined on a best for scheme approach. The parties acknowledge that a higher priority will be given to options that prevent I/I, and GWI in particular, entering the Rotorua Reticulation Network than to options that attenuate and convey I/I to the Rotorua WWTP Facility. See section 11.3 for the basis behind this prioritisation.

In any circumstance where assets are replaced to increase capacity to cater for I/I (as an alternative to remedying the source) the optimal I/I strategy shall take into account all factors relating to asset renewal as described in section 3.9.

1.7.3 Funding of the Optimal I/I Management Strategy

Funding of the optimal I/I strategy shall be determined by firstly considering the renewal funding responsibility for the approximate relative sources of I/I determined by the investigations, and secondly, the renewal funding responsibility for the assets involved in the optimal solution as set out in section 3.9, e.g.:

- If increasing storage and/or conveyance capacity of assets to contain and convey I/I flows (including pump stations rising mains and treatment plant assets) is determined to be the optimal I/I strategy as an alternative to a Gravity Mains Renewal (by agreement of the parties) then this would be introduced by the Gravity Mains Renewals Programme development process and funded by the Gravity Mains Renewals Payments, less any Renewals Credit payable by the Contractor on the assets involved.
- If a storage or conveyance solution is an alternative to resolution of an identified private property I/I issue in a catchment area where Council has chosen not to undertake private property I/I enforcement action (or is partly caused by the same) then the parties will agree a funding outcome for such projects on a case by case basis.

If agreement with the Administrator cannot be reached the division of costs as shall be as reasonably determined by the Administrator.

Refer to Section 3.9 of this Schedule for further details regarding the apportionment of asset renewal costs.

1.7.4 Deferred Renewals (Impact on I/I Management)

The parties acknowledge that:

- the collaborative programming regime applying to Gravity Mains Renewals gives rise to the potential for Council to choose not to deliver some renewals projects proposed by the Contractor; and
- In the Gravity Mains Renewals Practice Note (refer to Appendix K), potential impacts of deferral are required to be identified against each Gravity Mains Renewals project in the draft 10 Year Renewals Work Plan.

It is important these consequences are specific and limited to the affected area(s). The Contract KPIs will still apply but the consequences in the draft 10 Year Renewals Work Plan may be referred to in the Contractor's Non-Compliance Report related to any associated KPI non-compliance events.

Overall responsibility for meeting the KPIs by managing I/I and network performance lies with the Contractor.

1.8 MAJOR EVENTS AND EMERGENCIES

A Major Event is an event arising in relation to a civil defence emergency pursuant to the Civil Defence Emergency Act 2002 where damage occurs to the Reticulation Networks or to any of the WWTP Facilities or protective action to prevent damage occurring to the Reticulation Networks or to any of the WWTP Facilities is required due to the emergency.

A Major Event shall be notified to the Contractor by the Administrator either in writing or verbally confirmed in writing as soon as is practicable.

During a Major Event:

- the Administrator and the Contractor shall consult and collaborate to identify and prioritise required actions; and
- the Contractor shall provide assistance and undertake emergency repairs as directed by the Administrator.

The Contractor will be reimbursed for extra costs incurred as a result of Major Event attendance as if the Major Event was a Mandatory Variation ordered pursuant to clause 43.1.13 of the Contract Conditions.

1.9 HAZARDOUS SUBSTANCES

The Contractor shall, in the carrying out of the Operations, comply with the Hazardous Substances and New Organisms Act 1996 or any other such act as may repeal or replace this legislation.

1.10 FACILITY HOUSEKEEPING AND MAINTENANCE

An initial assessment of the housekeeping and maintenance status of the WWTP Facilities and the Reticulation Network pump station sites will be carried out with a representative from Council and from the Contractor in the period between the execution of the Contract and the Commencement Date using Appendix H as the basis. A list of outstanding housekeeping and maintenance matters shall be prepared during this assessment. The Council shall endeavour to address the outstanding housekeeping and maintenance matters prior to the Commencement Date. Any outstanding housekeeping and maintenance matters remaining as at the Commencement Date shall be either addressed promptly by Council within reasonable timeframes or otherwise addressed as the parties shall agree.

The currency of or requirement for certification of any existing safety or lifting equipment required to carry out the Operations shall also be assessed during the initial housekeeping and maintenance assessment. This shall include (but is not limited to) assessment of: PPE or other safety equipment, lifting equipment (gantries, cranes, apparatus), pressure vessels, chemical and other hazardous substance storage facilities certification. Any such certification required shall be current or renewed by the Council or the equipment clearly tagged as not to be used (in the event that it has not been used by the Council in routine operations and maintenance prior to the Commencement Date). Any outstanding certification remaining as at the Commencement Date shall be either addressed promptly by Council within reasonable timeframes or otherwise addressed as the parties shall agree. Also see section 2.13.

Other than housekeeping, maintenance and re-certification to be carried out by the Council as above, the Contractor shall maintain all WWTP Facilities, Reticulation Network pump station sites and physical works sites in a neat and tidy state, free of debris, vermin and rubbish at all times. The Contractor shall be responsible for keeping all certifications current. The Contractor's obligations shall include general grounds keeping and building maintenance within the properties of the WWTP Facilities and Reticulation Network pump station sites such as (but not limited to): re-painting of buildings, lawn mowing, vermin control, weed and vegetation control to maintain the requirements set out in Appendix H. The Contractor shall also be responsible for removal of graffiti. Mural artwork shall only be commissioned by the Contractor upon the Administrator's written approval. The Contractor shall comply with all Property Access Conditions relating to site maintenance. Refer to clause 61.2 of the Contract Conditions and Appendix J of this Schedule for property access agreements where the applicable Property Access Conditions are set-out.

Annual assessments shall be carried out recording the condition of assets and the appearance of the grounds which shall be recorded in documentation and photographs. A consistent recording approach shall be adopted through the Contract Term and at the initial site assessment with Council which can also be used as a timeline for assessing asset life and level of property maintenance being carried out by the Contractor.

It is recognised that some assets may be added and removed through the Contract Term.

Subsequent annual assessments recording condition of assets and the appearance of the grounds shall be carried out by the Contractor and shall be documented in the same manner as agreed to for the initial Contractor assessment and shall be submitted to the Administrator for review.

The assessments will be documented and reviewed by Council with corrective actions highlighted and summarised, and dates for completing the actions listed.

All assessment reports and supporting photos and documentation will be retained by the Contractor creating a historical record of site conditions prior to the Commencement Date and through the Contract Term.

1.11 ACCESS TO PRIVATE PROPERTY

The Contractor shall ensure that the correct procedures and warrants are in place so that personnel are able to legally access a private property when required to do so in the course of executing the Contractor's obligations pursuant to and in accordance with clauses 61 and 63 of the Contract Conditions.

1.11.1 Warrant Cards

The necessary warrant cards will be issued by the Council to nominated Contractor personnel pursuant to clause 63 of the Contract Conditions to facilitate the entry onto private property in order to carry out the Operations.

The first warrant card will be issued to the nominated Contractor staff member at the expense of Council. If replacement warrant cards are requested for reasons other than normal wear and tear, the Contractor will incur a reasonable charge to cover the cost of the replacement card. (Note the cost at the Commencement Date is \$100.00 per card). Any "worn" or damaged card requiring replacement shall be returned to the Council when the new card is issued.

The Contractor shall ensure that warrant cards are collected and signed for within three Working Days of being notified by the Council that they are ready for collection.

The Contractor is required to keep a formal register of warrant card holders and the Contractor's business process for the return of warrant cards when a warranted staff member leaves. Every six months, or as requested, the Contractor shall provide to Council an up to date copy of its warrant card register.

The warrant cards issued to the nominated Contractor's personnel will confer a right of access only in the circumstances set out in the Contract. Contractor Warranted Persons and Warranted Enforcement Officers are not authorised to issue infringement notices or take enforcement action. If the Contractor considers that any enforcement action is required in any instance the Contractor shall contact the Administrator.

Refer also to clause 63 of the Contract Conditions.

1.12 NOTIFICATION OF WORK AFFECTING PRIVATE LAND

In general, the Contractor shall provide a minimum of 48 hours notification of planned service interruptions and disruptions to property access (via a pre-approved letter pro-forma) to occupiers of affected properties. Letters shall comply with the branding requirements set out in section 1.21.

Notification letters shall be distributed to all property occupiers regardless of whether the occupier is at home or not. If the 48-hour notice period is not practical due to the urgency of the work, the Administrator shall be consulted prior to works commencing. For urgent work, the Contractor shall endeavour to make contact with the property owner/occupier. If the owner/occupier is not home, work shall be carried out.

After entering the property, the Contractor's personnel shall attempt to contact the occupier by the most direct means before proceeding with the purpose of the visit. Personal identification should be clearly visible at all times and disruption and damage to the property shall be kept to a minimum. Whenever the Contractor has entered private property and carried out any works or inspection, an advice note shall be left on site (letter box or hand delivered). This shall state the Contractor's name and telephone number so that further information can be given to the customer if required. The Contractor shall keep a record of such advice notes.

1.13 DAMAGE CAUSED BY CONTRACTOR'S ACTIVITIES

1.13.1 Damage to Private Property

The Contractor shall notify the Administrator in writing within 1 Working Day of any incident resulting in damage to private property. This shall include any incident where personnel of the Contractor or Subcontractor personnel are involved in an incident while carrying out the Operations. This shall include any motor vehicle accidents resulting in damage to a third-party vehicle.

1.13.2 Damage to Council's Property & Assets

The Contractor shall notify the Administrator in writing within 1 Working Day of any incident resulting in damage to any of the Council's property or assets.

If the incident results in damage to the Council's wastewater assets, the Contractor shall repair the damage at the Contractor's cost.

If the incident results in damage to the Council's assets or property that are not wastewater assets, the Contractor shall be liable for the cost of repair of those assets.

1.13.3 Damage to Utility Services

The Contractor shall notify the Administrator in writing within 1 Working Day of any incident resulting in damage to utility services.

The Contractor shall immediately notify the utility service provider of the damage (be it the Council or a third-party utility provider), shall organise for the utility service provider to repair the damage and reinstate the utility to service without delay and shall be liable for the cost of repair of the damaged services.

Refer also to clause 26 of the Contract Conditions.

1.13.4 Damage to Contractor's Plant, Equipment & Property

The Contractor shall notify the Administrator in writing within 7 Working Days of any accident resulting in damage to the Contractor's plant, equipment and property.

The Contractor shall upon request of the Administrator provide the Administrator with a copy of any incident report provided by the Contractor to the Contractor's insurers.

The Contractor shall provide the Administrator with a copy of any internal incident report generated by the Contractor if the incident constitutes a "near miss" or results in any injury whatsoever to persons.

1.14 THIRD PARTY DISPUTES AND CLAIMS

The Contractor shall inform the Administrator in writing within 1 Working Day of any third-party disputes or claims that are made against the Contractor in relation to actions or omissions of the Contractor in the carrying out of the Operations or in any other way arising out of the carrying out of the Operations. The Contractor shall investigate any such disputes or claims, attempt to amicably resolve them with the third party and report the outcome to Administrator within 7 Working Days of the dispute or claim being resolved.

The Council has no obligation to become involved in any disputes or claims involving a third party and the Contractor. However, if a dispute or claim involving a third party and the Contractor has the potential to cause reputational damage to the Council:

- the Council and the Contractor shall consult as to the management of the dispute or claim by the Contractor; and
- the Contractor shall, as is reasonably practicable, manage the dispute or claim so as to minimise the reputational damage or potential for reputational damage to Council as is reasonably directed by the Council.

1.15 TEMPORARY SITE AMENITIES

The Contractor may provide temporary site amenities for the Contractor's personnel at any worksite established by the Contractor in order to fulfil the Contractor's obligations under the Contract (e.g. at a significant renewal worksite). The Contractor shall be responsible for providing site security to such facilities and maintaining them in a safe and tidy manner throughout the duration of the particular job.

1.16 DUTY TO AVOID PUBLIC NUISANCE

1.16.1 Restrictions in Time of Work

1.16.1.1 Planned Maintenance and Construction Works

Planned maintenance and construction activities may be carried out on streets and public places between the hours of 7.00am and 6.00pm and on private property between the hours of 8.00am and 6.00pm on Working Days.

The exception to this is working in the vicinity of motels and hotels where an 8:00 am start shall apply.

Should the Contractor wish to work outside these hours, approval must first be obtained in writing from the Administrator.

Adverse impacts to tourism should be avoided where possible. The Contractor shall not undertake any planned work in the Rotorua CBD area during any event related shut-down period as determined and notified by the Council's corridor manager. This includes but is not limited to the Christmas holiday period.

Work outside of the above hours requires the prior approval of the Administrator. A minimum notice period of 48 hours is required.

1.16.1.2 Unplanned Maintenance, Emergency Works and Incident Response

There is no restriction on the hours of work necessary to carry out unplanned maintenance, emergency work or incident response provided that Traffic Control is carried out in accordance with the Council's Requirements.

1.16.2 Noise

All operations, maintenance and renewal activities undertaken by or on behalf of the Contractor shall comply with the noise limits specified in the Rotorua District Plan.

The exception to this is emergency work. During emergency work the Contractor shall take all practicable steps in the circumstances to limit noise nuisance to the public in terms of volume and duration of noise generating activities.

1.16.3 Dust

When undertaking physical works including reinstatement aftercare, the Contractor shall take reasonable measures to prevent the generation of dust and associated nuisance effects, particularly where the work site is in the urban environment. The Contractor shall employ dust suppression techniques as required to avoid dust nuisance to the public.

The Contractor shall comply with all BOPRC rules regarding dust nuisance.

1.16.4 Odour

A high risk of odour generation exists in the Reticulation Networks at the point of low pressure sewer to gravity network interface and at pump stations that receive significant inputs from upstream low-pressure sewer systems. Passive activated carbon odour filters have been installed by Council previously at various such locations throughout the Reticulation Networks. The Contractor shall monitor (for odour breakthrough) and maintain (replace activated carbon) these odour filters where they already exist. The Contractor shall also be responsible for proactively identifying any additional locations where odour control is required and installing and maintaining odour control in order to achieve the Reticulation Network KPIs and compliance with the requirements of the Contract Documents.

The Contractor shall be responsible for operating and maintaining the odour extraction and biofilter odour control system at the Rotomā/Rotoiti WWTP in a manner that maximises odour capture and removal efficiency.

The Contractor shall operate the WWTP Facilities in a manner that minimises potential for odour generation from all treatment stages and maintains compliance with the relevant conditions of the Council's Resource Consents. Putrescible treatment by-products (such as screenings, grit and sludge) shall be regularly processed and removed from site to minimise odour potential. Fugitive odour sources shall be proactively managed to minimise odour release to the environment.

All public odour complaints shall be investigated by the Contractor to identify the source of the odour. The location of the complainant and the wind speed and direction at the time that the complainant describes detecting the odour shall be recorded.

1.16.5 Traffic Control

At all times during the performance of the works included in this Contract the Contractor shall undertake all temporary traffic control in accordance with the current version of the NZTA specification TNZ G/1 or such other specification may be required to be complied with by the applicable roading authority from time to time.

1.16.6 Vermin, Insects and Birds

The Contractor shall operate and maintain Reticulation Network pump stations and the WWTP Facilities in a manner where vermin, insects and birds are not encouraged or permitted to reside, breed or congregate. The Contractor is not required to guarantee the complete absence of vermin, insects and birds at all times.

The Contractor shall operate the WWTP Facilities in a manner that does not encourage flocks of birds to congregate within the boundaries of the facility site.

For the avoidance of doubt, the purpose of this clause is to minimise disease carrying vectors. Hence areas of high disease vector risk (such as WWTP inlet works) shall be operated with greater diligence in preventing vermin, insects and birds from making contact with faecal contaminated material.

1.17 COUNCIL APPROVED CONTRACTORS

From time to time the Council may approve certain contractors to make new connections to the Reticulation Networks included in the scope of the Contract. Council shall give not less than 10 Working Days' notice to the Contractor in the event that the Council:

- approves another contractor to make new connections to the Reticulation Networks; or
- revokes approval of a previously approved contractor to make new connections to the Reticulation Networks.

Refer to section 1.35.2 for further details regarding new connections made by approved contractors.

The Contractor shall undertake the Council approved contractor application process and shall renew such application as required from time to time.

In carrying out Reticulation Networks connection work the Contractor shall comply with the standards applicable to such work from time to time.

1.18 RESOURCES AND CONTRACTOR'S FACILITIES

1.18.1 Resources Generally

The Contractor shall provide all resources, labour, plant, tools, service vehicles, equipment, materials, protective safety equipment, traffic management equipment and consumables required to fully carry out the Operations. This shall include the requirement for the Contractor to hold in a depot based in Rotorua: essential spare parts, stocks of common size pipes and valves, pump wearing parts, manhole components, electrical and control spares (e.g. I/O modules, PLC's), commonly used repair products (e.g. gibaults in common sizes, epoxy mortar), spill containment equipment, generators, portable pumps and mobile lifting equipment together with all other spare parts, materials and consumables required to enable the Contractor to carry out the Operations in compliance with the Contract Documents and to achieve the KPIs.

1.18.2 Contractor's Facilities

The Contractor shall have at least one depot in the Rotorua District for Reticulation Network Operations equipment, plant, vehicles and machinery. It is not intended that the Contractor will use the WWTP Facility Sites as a depot for storage of materials and equipment normally used for the Reticulation Network aspects of the Operations. If the Contractor intends to use a WWTP Facility Site for storage of materials, equipment and plant associated with Reticulation Network Operations activities the Contractor shall obtain the Administrator's prior approval in writing.

1.18.3 Plant and Machinery

All plant and machinery shall be on rubber tracks or tyres (no metal tracked plant and machinery shall be used unless specifically approved by the Administrator in writing).

All plant and machinery shall have suitable mufflers to ensure noise levels are minimised and do not cause a nuisance. (ref cl 1.16.2).

All plant and machinery shall be regularly serviced, have current certificates of registration (or equivalent) and be fitted with all necessary safety devices e.g. ROPS, TOPS, FOPS, OPS & COPS. This equally applies to any hired plant and machinery. Refer to "Engineers New Zealand Practice Note 12" (or its replacement) for good practice as at the Commencement Date.

It shall be the Contractor's responsibility to ensure any plant and machinery hired meets all of the legal and health and safety statutory requirements at the time of the works as well as the Contractor's own requirements.

Plant and machinery shall be suitably and sufficiently sized to carry out the required and expected work in an optimal and efficient manner.

All plant and motor vehicles shall be maintained to a tidy and suitable standard.

1.18.4 Critical Spares and Stock Levels

Pipes and fittings shall be either kept in stock or available through supply arrangements such that the Contractor can meet the level of service KPIs. See also sections 1.18.1 and 1.18.5.

1.18.5 WWTP Facility Critical Controller Hardware Spares and Recovery Plans

Unless duplicate (duty/standby) control hardware is installed, spares of all process critical controller hardware shall be held at each WWTP Facility along with the latest version of controller software to minimise downtime in the event of controller hardware failure and/or loss of software from controller memory. A recovery plan clearly and concisely setting out the procedure to rapidly reinstate the Facility to fully automated control in the event of a process controller failure shall be prepared for each WWTP Facility that does not have duplicate (duty/standby) control hardware is installed for all process critical plant. The recovery plan (if required) shall be included within or appended to the respective Operation and Maintenance Manual or Rotomā/Rotoiti O&M Manual.

1.18.6 Cross Contamination

Tools and equipment used on wastewater are not to be used on any water supply services.

Tools and equipment shall be washed after each call out.

1.19 STAFF

1.19.1 Qualifications and Training

The Contractor may apply to the Administrator for approval of alternative equivalent or higher qualifications for personnel to the qualifications specified in this section on a case by case basis (e.g. an overseas operator with equivalent qualifications from their country of origin). The Contractor may also apply to the Administrator for approval of directly relevant work experience in lieu of the qualifications specified in this section on a case by case basis (e.g. a very experienced local operator). The approval of such applications by the Administrator shall not be unreasonably withheld.

In the event that these qualifications are replaced or superseded, qualifications of equivalent standards will be required.

1.19.1.1 WWTP Facilities Operations Staff

Staff who have a supervisory role for the WWTP Facilities shall have as a minimum a National Diploma in Wastewater Treatment (Site Technician) – Level 5.

Staff who are senior operators for the WWTP Facilities shall have as a minimum a National Certificate in Wastewater Treatment (Site Operator) – Level 4.

1.19.1.2 Network Utilities Operations and Maintenance Staff

Staff who have a supervisory role for Reticulation Networks operations and maintenance shall have as a minimum a New Zealand Certificate in Utilities Maintenance with the Wastewater Strand – Level 4.

Senior field staff for Reticulation Networks operations and maintenance shall have as a minimum a New Zealand Certificate in Infrastructure Works – Level 3.

1.19.1.3 Network Renewals Staff

Staff who have a supervisory role for Reticulation Networks renewals shall have as a minimum a New Zealand Certificate in Pipe Installations – Level 4.

Senior field staff for Reticulation Networks renewals shall have as a minimum a New Zealand Certificate in Infrastructure Works – Level 3.

Staff shall not undertake butt fusion jointing or electrofusion jointing of polyethylene pipes and fittings unless they hold the relevant unit standards for the work they are undertaking.

1.19.1.4 General Maintenance Staff

Maintenance personnel, Subcontractors and tradespeople shall be appropriately qualified for the work they are undertaking. In particular:

- All electrical work shall be completed by, or under the direct supervision of, an electrician individually licenced by the Electrical Workers Registration Board. Exceptions shall be allowed for specialist roles such as radio frequency engineering or switchboard construction. Exceptions shall also be allowed for simple replacement of existing components within single phase 240V systems and work on low voltage systems (less than 50V), in these instances the personnel shall be appropriately qualified for the work they are undertaking but do not necessarily need to undertake the work under the supervision of a registered electrician. A minimum of 5 years industrial work experience is required.
- All plumbing and drain laying work shall be completed by Tradesman Plumbers or Tradesman Drainlayers under the supervision of Certifying Plumbers or Certifying Drainlayers (personnel as certified by the Plumbers, Gasfitters and Drainlayers Board).
- All mechanical maintenance tradesmen must hold a minimum of a trade and/or Level 4 NCEA qualification in a relevant mechanical engineering strand. In addition, they will require previous experience in water and wastewater infrastructure and have knowledge and experience of: process engineering plant, diesel engines, and asset management systems. Mechanical maintenance tradesmen must have basic understanding of electrical components and process controls, knowledge and experience with reliability centred maintenance, root cause analysis, and planned and preventative maintenance. They will also need to hold confined space entry certificates.

1.19.2 Immunisations

The Contractor's personnel who will regularly come into contact with wastewater and wastewater derivatives shall be immunised for all common waterborne illnesses for which immunisations exist. The Contractor shall be responsible for ensuring that all personnel maintain immunisations up to date (i.e. boosters).

The Contractor shall keep records of all staff immunisations and shall furnish a copy of such records upon the Administrator's request (within 5 Working Days of such request).

1.19.3 Availability

The Contractor shall ensure it has sufficient resources and systems/processes in place to respond to and meet the incident response times and targeted Service Level KPIs.

1.19.4 Personal Appearance

The Contractor shall ensure that the personal appearance of their personnel is of a respectable standard at all times.

1.19.5 On-Call Staff

The Contractor shall ensure they have sufficient resources and systems/processes in place to respond to and meet the afterhours incident response times and targeted Service Level KPIs.

1.19.6 Identification

The Contractor's personnel shall carry and display an identification card which is to be approved by the Administrator and shall contain the following:

- a) Photograph of and name of bearer
- b) Contractor's logo, address and contact phone number
- c) Statement to effect that they are under Contract on Rotorua District Council Services Operations and Maintenance.

Contractor's personnel who hold warrant cards shall, when utilising the access rights of Warranted Persons or Warranted Enforcement Officers, produce these upon request.

1.20 LIAISON WITH COUNCIL AND ATTENDANCE AT MEETINGS

1.20.1 Contract Meetings

The Contractor shall attend monthly meetings with representatives of the Council to discuss:

- Health and safety matters
- the Contractor's Operations Monthly Report,
- compliance with the KPIs,
- issues and incidents
- Quality Assurance
- activities undertaken in the previous month
- planned activities for the next month and
- the Contractor's monthly claim.

The Contractor and the Council shall discuss and agree a standing agenda for the monthly meetings prior to the first monthly meeting.

The frequency of these meetings may be altered by mutual agreement of the parties.

For the first 3 months of the Contract Term, the Contractor shall attend more frequent informal meetings (up to weekly) if required by the Administrator.

Refer also clause 6.5 of the Contract Conditions.

1.20.2 Quarterly Utility Operations Liaison Group Meetings

The Contractor shall attend quarterly Utility Operations Liaison Group Meetings with representatives of the Council and other utility providers in the Rotorua District. The Contractor shall provide a detailed forward work programme in advance of the meeting for inclusion with the meeting agenda.

The purpose of the meetings will be to liaise and engage with other utility service providers to ensure optimal coordination of renewals and capital works projects.

1.20.3 Executive Review Group Meetings

The Contractor shall participate in the Executive Review Group and attend meetings as per clause 6.6 of the Contract Conditions to ensure the smooth operation of the Contract, and to address any contractual and/or commercial matters between the parties. The Executive Review Group is expected to meet at least six monthly or as often as necessary to enable it to fulfil its duties.

One of the functions of the Executive Review Group will be to review and address any ongoing KPI non-compliance (refer to Section 4 for further details).

1.20.4 Community, Iwi, Industry and Interest Group Meetings

The Contractor shall provide sufficiently senior and experienced personnel to attend meetings with stakeholders as and when required to do so by the Administrator throughout the Contract Term, in the capacity of Council's wastewater utility service provider. These meetings may for example be with the Regional Council to discuss compliance, with community groups to discuss planned renewals work, with iwi groups to discuss cultural matters, or with industry groups to discuss collaboration and development of good practice guidelines.

When requested to do so by the Administrator, the Contractor shall provide evidence or supply information to facilitate Council's interaction with their stakeholders.

Attendance at such meetings and provision for making information available to the Administrator to facilitate stakeholder engagement is part of the overall role of the Contractor as the Council's wastewater utility service provider. Preparation for and attendance at such meetings and provision to furnish the Administrator with information to facilitate stakeholder engagement is deemed included in the Monthly Service Payments. Attendance at stakeholder meetings shall not be grounds for a Variation.

1.21 BRANDING AND CO-BRANDING

Co-Branding between the Contractor and Council will be utilised during the Contract Term as the public face of wastewater services in the Rotorua District. Council's branding shall be displayed on all forms of written communication and all forms of official identification such as personal ID cards, calling cards and business cards.

Co-branding shall be displayed on all Contractor's vehicles plant and equipment that are dedicated to the Operations.

Co-branding shall be displayed on all Contractor's sign-boards associated with Operations physical works.

Co-branding shall be displayed on signboards at the entranceways to both WWTP Facilities along with the Contractor's contact details. The Contractor shall modify or replace existing signboards accordingly.

The co-branding format shall be approved by the Administrator in writing.

All letters issued by the Contractor to property owners and occupiers in relation to the Operations must jointly display RLC's logo together with the Contractor's logo and contact details. All correspondence to property owners and occupiers must be approved by the Administrator prior to release.

1.21.1 Limitations on use of Council logo

The Contractor shall display a Council logo in accordance with the following conditions:

- The Contractor shall not incorporate the Council logo in any presentation, document, signage or sales advertising or promotional material unless it has first been submitted to and approved in writing by the Administrator.
- The Contractor shall use the Council logo only in the form and manner from time to time approved by the Administrator.
- No right, title or interest in or to the Council logo, other than a licence to use it and subject to any conditions imposed by this Contract, is conferred on or created in the Contractor and all goodwill arising from the use of the Council logo by the Contractor endures to the benefit of Council.
- On receipt of instructions from the Administrator or on termination of this Contract, the Contractor must immediately cease using and not thereafter use the Council logo.

1.22 KEYS, ACCESS TAGS AND ACCESS CODES

At the Commencement Date the Contractor will be issued with keys, access tags and access codes that are required to access the WWTP and Reticulation Network Facilities, along with a register of any keys or access tags retained by Council staff. Any changes of locks will require the Contractor to issue new keys or access tags to Council as per the register. The Contractor shall keep a key register that records the use and possession of keys and access tags. A copy of the Contractor's key register shall be provided to the Administrator upon request.

The Contractor shall keep a register of keys, access tags and authorised access codes issued by the Contractor to all personnel and Subcontractor personnel. All such means of access to the Council's WWTP Facilities and Reticulation Network Facilities shall be tracked on the register as to the persons to whom they have been issued. The contact details of the persons issued with means of access shall be recorded on the register whether issued or otherwise. Keys, tags and authorised access codes that have not been issued and are held by the Contractor shall be recorded as spares held by the Contractor.

The Contractor's staff employment and Subcontractor contract termination procedures shall ensure that any keys, access tags or warrant cards in the possession of leaving personnel are returned and the key and warrant card registers updated accordingly.

Upon handover at the Expiry Date, the Contractor shall provide the Council with all keys, access tags and access codes along with a copy of the Contractor's key register so that all means of access can be properly accounted for.

1.23 SERVICE REQUESTS

Any incident reported to the Council Call Centre will be prioritised based on specified criteria. Once the information is collected from the caller, the Council Call Centre will generate a numbered service request (a "Service Request") and forward the Service Request to the Contractor. On receipt the Contractor shall undertake the response actions appropriate and specified according to the Service Request priority. The Contractor's response and actions shall form part of the KPI measure and review, refer to section 4 for further details.

Should the Contractor find or believe from additional information gathered on site that the incident prioritisation is incorrect, the Contractor shall promptly notify the Council's Call Centre to update the Council's Call Centre staff on the circumstances relating to the incident and agree on the incident prioritisation. All responses thereafter shall be based on the revised priority.

The Contractor shall report all incidents that affect or are likely to affect required service levels under this Schedule that the Contractor becomes aware of, to the Council Call Centre. The Call Centre shall prioritise and log each incident accordingly.

The Service Request response time for the purposes of measuring KPI compliance) will start from the time when the Service Request is issued to the Contractor from the Council's Call Centre. The exceptions to this are incidents that arise from SCADA alarms (i.e. high-high level alarms in pump stations). The response times to these incidents will start from the time that the alarm is logged in the SCADA alarm register.

Further details on the handling of incidents, Service Requests and complaints are set out in the Incidents, Service Requests and Complaints: Notification, Procedures, Tracking and Close-Out Practice Note.

1.23.1 Close-Out Procedure

Once the Contractor has ascertained the scope and nature of the incident or issue to which the Service Request relates they shall report their findings back to the Council Call Centre with the updated details. These should include the estimated time period to remedy the fault (this should be regularly updated); the number and nature of customers affected i.e. residential, commercial, industrial etc; and when the works are complete and normal service level resumes (this may exclude final reinstatement).

The Contractor shall report to the Council's Call Centre the status of any communications with property owners or the public.

The Contractor shall report to the Council's Call Centre when normal service has been restored to customers.

The Contractor shall report to the Council's Call Centre when permanent repairs have been made (in instances where temporary repairs were initially made in order to restore service).

The Contractor shall report to the Council's Call Centre when final reinstatement is complete.

If the Contractor considers that the Service Request is closed, the Contractor shall advise the Council's Call Centre.

The times logged by the Council's Call Centre for the above reports shall be used to assess response time KPI compliance.

The Contractor shall log all incidents and Service Requests, and these shall be reported to the Council in the Operations Monthly Reports.

1.24 COMMUNICATIONS

1.24.1 Regular Updating of Contact Details

The Council and the Contractor shall provide each other with an up-to-date contacts list.

Whenever throughout the course of the Contract any details in a party's contacts list changes the party shall promptly notify the other party and provide an updated contacts list.

The Contractor's contacts list shall clearly identify how to contact the Contractor's on-duty contact person.

1.24.2 Public Relations

A significant amount of the work for the Operations work will be in public areas. There will also be requirements at times to enter private property. An important aspect of the Contract is the Contractor's interaction and liaison with the public and owners and occupiers of private land. Public image is paramount therefore the Contractor shall ensure that the Contractor's personnel exhibit a high standard of conduct, appearance and cooperation with the public and Council's customers.

The Contractor shall actively pursue courtesy, focus on customer service and exhibit an attitude that displays cooperation and assistance.

The Rotorua District is culturally diverse. The Contractor and its employees or agents shall act and behave in a culturally sensitive way when dealing with iwi groups, the public and Council's customers of all cultural and ethnic backgrounds.

The Contractor and its employees or agents shall not do anything or behave in a manner that may bring the Council into disrepute.

The Contractor and its personnel shall not make any comment to the public on the condition or performance of the wastewater systems or any action that Council should or should not be taking or have taken in respect of the wastewater assets or services.

Refer to section 1.11 for details regarding procedures for entry onto private land. Refer to section 37 of the Contract Conditions for further provisions relating to Contractor personnel.

1.24.3 Media Communications

The Contractor, the Contractor's personnel, the Contractor's suppliers and Subcontractor's personnel shall not make any statement to the media on behalf of Council or in relation to this Contract or the performance of this Contract. All enquiries from the media shall be referred to the Administrator.

The Contractor shall immediately notify the Administrator of all events which arise in the course of the Contractor carrying out its contractual obligations which are likely to receive media attention.

Refer to clause 88.2 of the Contract Conditions regarding publicity and publications.

1.24.4 Communications during Normal Working Hours

The Contractor shall maintain a "manned" means of communication such as a fixed reception landline or call centre during normal working hours.

The Contractor and Council shall regularly monitor and shall promptly respond to email communications during normal working hours.

1.24.5 Communications outside Normal Working Hours

The Contractor shall ensure they have sufficient resources, avenues of communication and systems/processes in place to respond to and meet the afterhours targeted Service Level KPIs.

The Contractor shall provide details to the Council's Call Centre of how to contact the Contractor's on-call personnel outside of normal working hours.

1.25 INCIDENT NOTIFICATION AND REPORTING

1.25.1 Health and Safety Incidents

Refer to section 2.11.

1.25.2 Wastewater Overflows

Any overflow of sewage to a watercourse that the Contractor becomes aware of shall be immediately advised by the Contractor to the Bay of Plenty Regional Council, the Lakes District Health Board, Council's Pollution Control Officer, the Administrator and other stakeholders on an agreed list maintained by the parties during the Contract Term. See section 1.27 for follow-up reporting requirements.

The Contractor shall investigate and report to the Administrator on the cause of each Reticulation Network or WWTP Facility overflow that occurs.

If the overflow was caused by nothing other than rainfall-induced infiltration and/or inflow exceeding the normal capacity of the network, it shall be a "wet weather overflow". An overflow in the absence of rainfall or caused by a physical fault or obstruction (e.g. fat, rags, roots, displaced joints, cracks, other foreign bodies) shall be a "dry weather overflow".

The Contractor's response to overflows from a Reticulation Network shall include such reasonable clean-up and disinfection of contaminated land as is required to protect public health and in compliance with generally accepted community standards in accordance with the Incidents, Service Requests and Complaints: Notification, Procedures, Tracking and Close-Out Practice Note.

1.25.3 Significant Incidents

All Reticulation Network Priority 1 and Priority 2 incidents as defined in section 4.4 that are not initiated by the Council's Call Centre shall be reported by the Contractor to the Council's Call Centre as soon as the situation is made safe.

1.25.4 Public Complaints

If a customer or member of the public initiates contact with the Contractor over faults or complaints (by way of telephone calls or out in the field), the Contractor shall direct them to the Council's Call Centre. This will ensure the nature of their complaint can be captured, tracked and managed through the Council's Service Request system.

1.26 WORKING IN PUBLIC ROAD CORRIDORS

As at the Commencement Date, all works in the public road and road reserve shall be undertaken in full accordance with the requirements of the NZ Code of Practice for Working in the Road (SNZ HB 2002:2003 Code of Practice for Working in the Road) and also National Code of Practice for Utility Operators' Access to Transport Corridors. The Contractor shall adhere to these codes and any equivalent or updated version as may be issued by the relevant roading authorities throughout the Contract Term.

Refer also to clauses 39.3.14 and 57.4 of the Contract Conditions.

1.27 MONTHLY REPORTING

The Contractor shall provide monthly reports on Operations to the Administrator (**Operations Monthly Reports**). The frequency of the Contractor's reports shall be monthly and the reports shall be furnished within 5 Working Days of the end of the month to which the Operations Monthly Report relates. The Operations Monthly Report will be reviewed by the Administrator within 5 Working Days of the date of receipt of the report.

Operations Monthly Reports shall cover as a minimum:

- Completion of Work Reports generated over the reporting period
- Health and Safety
 - Safety incidents, accidents, injuries, near misses
 - Lead and lag H&S indicators
 - Incidents of loss, theft or vandalism
 - Copies of all permits for Particular Hazardous Work in the reporting period
- KPIs
 - Compliance
 - Non-Compliance and reference to applicable KPI Non-Compliance Report(s)
- Operational issues and incidents that occurred within the reporting period
- A tabulated summary of all Service Requests that were initiated within the reporting period and those that were open at the commencement of the reporting period including details of when they were opened, the status of each and (if they were closed) when they were closed
- A list of each separate occasion during the reporting period of sewage overflow from a wastewater Reticulation Network or WWTP Facility, including the location and time that it was reported, attended, restored and cleaned up.
- Community feedback and customer complaints received within the reporting period

- Noise and odour complaints received within the reporting period and the actions taken to investigate and address the complaint
- Planned Maintenance Works that was undertaken within the reporting period or delayed, (if delayed, specify why and when rescheduled)
- Planned Renewals Works that was commenced or completed within the reporting period or delayed, (if delayed, specify why and revised timeframe)
- Planned Works for the following month
- Unplanned Maintenance Works that was undertaken within the reporting period as reasons why it was necessary
- Unplanned Renewals Works that was undertaken within the reporting period as reasons why it was necessary
- Emergency Works that was undertaken within the reporting period as reasons why it was necessary
- Summary of all monitoring and inspections of Trade Waste customers undertaken in the reporting period
- Quality Assurance, Remedial Work & Areas for Improvement
- Operational Statistics for each WWTP Facility including:
 - Volumes and calculated influent pollutant mass loads received
 - Volumes of effluent discharged
 - Average nutrient concentrations and nutrient mass loads discharged
 - Volumes of recycled water used
 - Volumes of potable water used
 - Power and chemical consumed
 - Volumes and quality of sludge/biosolids produced
- Details of internal audits (clause 1.28.1) and external audits (clause 1.28.2) carried out over the reporting period
- Other statistics, feedback or commentary that may be required from time to time
- A summary of Variation notifications (or matters to be treated as Variations) provided over the reporting period.

The KPIs are described in section 4.

1.28 AUDITS

1.28.1 Contractor's Internal Audits

The Contractor shall carry out regular internal audits of the Contractor's management systems as is required to provide assurance that the carrying out of the Operations is in compliance with the requirements of the Contract Documents, including (without limitation): Health and Safety, Quality Assurance, Risk and Environmental Management.

Details of such audits shall be included in the Contractor's Operations Monthly Reports.

The Contractor shall provide a copy of any internal audit report together with advice as to how service deficiencies identified in the report are to be addressed as requested by the Administrator.

1.28.2 Contractor's External Audits

The Contractor shall ensure regular external audits of the Contractor's management systems where external accreditation is held (i.e. ISO 9001 accreditation) are carried out.

The Contractor shall provide evidence of such regular audits occurring within 10 Working Days of any request to do so by the Administrator.

The Contractor shall provide a copy of any external management system audit report together with advice as to how deficiencies identified in the report are to be addressed as requested by the Administrator.

1.28.3 Audits by Council

The Administrator may from time to time undertake formal or informal audits of the Contractor's compliance with the following approved Contractor Plans:

- Operations Health and Safety Plan
- Operations Quality Plan
- Operations Risk Management Plan
- Operations Environmental Management Plan.

The Contractor shall allow the Administrator access to the work and relevant documentation to inspect or audit the Contractor's compliance with their various approved management plans.

The findings of audits will be reported back to the Contractor in accordance with clause 41.3.1 of the Contract Conditions.

The Council will also have the right to audit the Contractor's self-assessment against the KPIs at any time.

The Contractor will be given a minimum of 48 hours' notice of the commencement of any and all formal audits.

Refer also to clause 41.2 of the Contract Conditions.

1.29 COUNCIL'S RIGHT TO DISCLOSE APPROVED PLANS TO THIRD PARTIES

Without limiting the Confidentiality Requirements in the Contract, Council will have the right to submit the Contractor's Renewals Work Plans to the Regional Council or other regulatory bodies to demonstrate the Council is meeting its obligations to comply with resource consents and other statutory requirements.

1.30 RISK MANAGEMENT

The Contractor shall develop an Operations Risk Management Plan demonstrating how the Contractor will manage all risks associated with the carrying out of the Operations in compliance with the KPIs and the Contract Documents. In particular the Operations Risk Management Plan shall outline the systems, procedures and contingency measures the Contractor has in place to mitigate risk of overflows and consent non-compliance in the event of abnormal operational conditions and emergencies.

The Operations Risk Management Plan shall include a description of procedures to move the mobile generators around the Reticulation Network pump stations and manual operation of pump stations to optimise the use of storage in the Reticulation Network and minimise the risk of overflows in the event of a widespread prolonged mains power outage.

The Operations Risk Management Plan shall be reviewed and updated, as appropriate, at a minimum of annually or more frequently as may be required. The Operations Risk Management Plan and the updates to it shall be submitted to the Administrator for review and approval.

Refer also to clause 38.3 of the Contract Conditions.

1.31 ENVIRONMENTAL MANAGEMENT

1.31.1 Operations Environmental Management Plan

The Contractor shall prepare an Operations Environmental Management Plan (OEMP) and submit this to the Administrator for approval.

As a minimum the OEMP shall cover, but not be limited to, the following issues:

- Works environmental policy
- Associated risk of works to be carried out and risk rating these activities pose to the environment
- Flora and fauna
- Environmental complaints, training and audits
- Landscaping/remediation works
- Contaminated soil
- Cultural heritage
- Water quality, erosion and sedimentation control
- Bulk storage of chemicals/fuels/bunding
- Emergency/contingency action plans
- Clean-up of spills and site remediation
- Incident notification policy
- Ground vibration
- Noise
- Air quality and dust suppression
- Machinery access and fuelling
- Inspections and monitoring
- Statutory approvals
- Waste disposal (solid/liquid).

The Contractor’s Operations Environmental Management Plan shall be submitted and reviewed as stated in Table 1 as follows:

Table 1: Operations Environmental Management Plan Approval Timeframes

Description	Response Times
Draft OEMP	not later than 30 Working Days prior to the Commencement Date
Final OEMP	not later than 10 Working Days after the date of receipt by the Contractor of the Administrator’s review of the draft OEMP
Annual Reviews of the OEMP	at 12 monthly intervals from the Date of Acceptance.

The Administrator’s review of the OEMP does not release the Contractor from full responsibility for adopting all necessary environmental protection measures for the duration of the Contract, whether or not such measures are explicitly or implicitly included in the OEMP.

1.31.2 Surplus Spoil and Debris

Surplus spoil and debris generated by the Contractor's activities shall be removed and disposed of appropriately as soon as it is practicable to do so. Surplus spoil and debris generated by the Contractor's activities shall not be stockpiled for periods greater than 1 month without the written prior approval of the Administrator.

Stockpiled surplus spoil and debris shall have appropriate erosion and sediment control measures implemented in order to prevent overland migration of material and contamination of public drains and waterways during wet weather events.

1.31.3 Works Near Trees

The Contractor is required to comply with guidelines for working in close proximity to trees. The Contractor shall enquire with the Council's Parks and Reserves staff for up to date guidelines. Refer also to the Council's Engineering Specifications.

Tree trunks can be easily damaged. The Contractor shall not lean items against trees or chain machinery to them or nail site notices to their trunks.

1.31.4 Sediment and Erosion Control

The Contractor shall install sediment and erosion control measures according to good practice for all activities involving earthworks and open trenching. Refer to the Council's Engineering Specifications.

1.31.5 Accidental Wastewater Spills or Discharges

The Contractor shall maintain the capability of responding immediately to emergencies involving the risk of wastewater entering the storm water system, water courses or other Council drains, 24 hours per day, 365 days per year.

Such immediate response shall consist of personnel, equipment and/or materials necessary to prevent or minimise contamination or damage to Council drains or waterways, or to assist emergency services in such events when requested.

This requirement shall apply to all such events within the wastewater catchment areas, including Urban area, State Highways, Local Roads, parks and private property where there is a possibility of wastewater discharge to the public surface water drains.

1.31.6 Discovery of Contamination

If in the course of undertaking earthworks, the Contractor encounters unforeseen contamination that is the risk of the Council in accordance with clause 45.1 of the Contract Conditions, the Contractor shall cease activities and notify the Council's Pollution Control Officer and the Administrator. The Administrator or the Council's Pollution Control Officer may engage a third party to remove the material or the Administrator may instruct the Contractor regarding the safe removal and disposal of the contaminated material.

1.32 LIABILITY FOR FINES AND PENALTIES

Payment of any fines and penalties arising from non-compliance by the Contractor with its obligations under the Contract Documents in relation to Council's statutory and contractual obligations for the carrying out of the Operations is the responsibility of the Contractor (refer to clause 3.3 and 8.1 of the Contract Conditions).

1.33 ARCHAEOLOGICAL DISCOVERY

In the event of any archaeological site or material being uncovered or reasonably suspected to have been uncovered during any capital, renewals or maintenance works, activities in the vicinity of the discovery shall cease and the Contractor shall notify the Administrator as soon as possible.

Refer also to clause 27 of the Contract Conditions.

1.34 LOCATION OF SERVICES, SURVEYING AND SETTING OUT

1.34.1 Surveying and Setting Out

Refer to the Council's Engineering Specifications.

1.34.2 Location and Protection of Services

The Contractor shall be responsible for liaising with the relevant utility services providers for the accurate location, and marking out of utility services prior to open trenching, excavation works or trenchless pipe installation. The Contractor shall be responsible for exposing (potholing) and protecting utility services and shall be responsible for payment of all costs to the relevant utility services providers for location services and stand-over services.

For the purpose of this Contract, survey marks shall be treated in the same manner as a utility service.

If, in the completion of any repair, the Contractor's operation conflicts with an existing private service connection, the Contractor shall maintain the private service in full working order throughout the duration of the repair.

Refer also to clause 26 of the Contract Conditions.

1.35 NEW CONNECTIONS AND VESTED INFRASTRUCTURE

1.35.1 New Developments and Council Driven Capital Upgrades

The Council will advise the Contractor of any proposed new wastewater infrastructure from new developments to be vested in Council, and new reticulation assets to be added to a Reticulation Network (built by a third party).

The Contractor shall, where requested by the Administrator, produce a report for Council on any proposed new infrastructure which will detail the impact on the level of service (if any) in the existing Reticulation Network and identify any potential upgrade works required to manage the identified impacts. Refer to Appendix L for further details of requirements.

The Contractor will be invited to attend inspections of new wastewater infrastructure from new developments to be vested in Council, and new reticulation assets to be added to a Reticulation Network (built by a third party), along with Council staff.

The Contractor may raise any issues or identify any defects with Council staff during the inspections. Responsibility for the raising of defects with the respective construction contractor, closing out any defects, approval of the assets and taking over ownership will lie with Council. The Contractor shall not be liable for the cost of remedying any defects identified by the Contractor during the inspections.

If the Contractor chooses not to attend the inspections the Contractor will be deemed to have approved the infrastructure to be vested in the Council.

If an issue arises with new vested infrastructure within 12 months of its handover to Council (i.e. within the vested assets defects notification period), the Contractor shall notify the Administrator and Council shall endeavour to have remedial works completed by the developer. If any issues arise with new vested infrastructure after expiry of the 12 month maintenance period then it shall be the Contractor's responsibility and cost to remedy.

1.35.2 New Individual Gravity Connections

As described in section 1.17, approved contractors may make new connections to the Reticulation Networks.

The Contractor shall afford the approved contractors reasonable access to the wastewater asset(s) at the point of connection, and shall provide reasonable assistance to any request made by the approved contractors in relation to the carrying out of the connection.

In instances where no lateral connection exists at the location where a new connection is to be made then a Service Request will be issued by the Council to request the Contractor to provide a lateral connection from the gravity sewer main to the property boundary. The Contractor shall undertake the work within the timeframes specified in section 4 for Priority 3 events in the Reticulation Network. The Contractor will be reimbursed for the cost of Service Requests to install new lateral connections on the basis for a Mandatory Variation ordered in accordance with clause 43.1.14 of the Contract Conditions.

The Council will provide the Contractor with a list of all new conventional gravity connections made on an annual basis.

1.35.3 New Individual On-property Pre-treatment Unit to Low Pressure Sewer System Connections

The Contractor shall be responsible for making new On-property Pre-treatment Unit connections to the existing low pressure sewer networks. The Service Request system will be used to initiate and track the process.

Private property owners are required to have their On-property Pre-treatment Units installed by separate contractors who are pre-approved by the Council. The Contractor shall make the final connection from the On-property Pre-treatment Unit boundary kit to the live public low pressure sewer main.

Where On-property Pre-treatment Units are being installed by the Contractor pursuant to a separate arrangement between the Contractor and the private landowner, or as a renewal the Contractor shall use the following On-property Pre-treatment Units for commonality with the existing systems:

- Eone units for the new LPGP pump stations
- Innoflow for the STEP units
- The units selected for the Rotoiti section of the Rotomā/Rotoiti Reticulation Network pursuant to clause 52 of the Contract Conditions.

The use of alternative On-property Pre-treatment Units requires the Administrator's prior written approval.

See sections 11.5, 12.4.4 and 12.4.5.

The Contractor's costs of making new On-property Pre-treatment Unit connections will be reimbursed on the basis for a Variation in accordance with clause 43.1 of the Contract Conditions.

The design details of new low pressure sewer system connections shall be completed by the Contractor and shall be submitted to the Administrator together with a Variation price (in accordance with clause 43.1.3 of the Contract Conditions) to make the low pressure sewer system connection (according to the design details) for review and approval of the Variation (in accordance with clause 43.1.6 of the Contract Conditions) prior to the Contractor undertaking the physical works. The Contractor shall be responsible for liaising with the customer for the new connection regarding the location of the boundary kit on the particular site and shall agree the details with the customer prior to submitting the design details and Variation pricing to the Administrator for approval.

If more than 5 new (additional) On-property Pre-treatment Units are installed in any one year (as set out in Schedule 2) and connected to the existing Reticulation Networks (excluding those in the Rotoma Reticulation Network, and those that are added as part of specific Variations relating to the potential incorporation of the Rotoiti, Tarawera or any other new reticulation networks), then the additional maintenance cost of these units shall be added as an adjustment to the relevant Monthly Service Payment for all subsequent years of the Contract as detailed in Schedule 2.

1.36 PLANNED OPERATIONS AND MAINTENANCE ACTIVITIES AND INCLEMENT WEATHER

During periods where severe weather is forecast, the Contractor shall ensure that all WWTP Facilities and Reticulation Network pump stations are fully operational at full capacity. This may require the emptying of storage tanks/ponds or the procurement of additional consumables over and above normal levels in order to maximise the ability to cope with abnormal flows or consumption. Planned maintenance work or operations activities that would compromise operational capacity and levels of redundancy shall be either bought forward to be completed prior to the onset of severe weather or postponed until after the severe weather has passed.

Severe weather warnings are issued via email from the Civil Defence Duty Manager at the BOPRC. The Administrator will arrange for the Contractor to receive the severe weather warning emails. Receipt of a severe weather warning email or the Contractor's own monitoring of severe weather forecasts will be a trigger for the Contractor to organise to either bring forward work activities to be completed before the severe weather is forecast to arrive at Rotorua, according to the warning email, or postpone the work activities until the severe weather has passed and the warning has been lifted.

1.37 CULTURAL MANAGEMENT

The Council will lead and maintain the relationship with iwi groups with an interest in the Council's management of wastewater in the Rotorua District. The Contractor shall provide all reasonable assistance as requested by the Council or the Administrator for the purpose of all iwi liaison requirements pursuant to or arising in relation to the Council Resource Consents for the Contract Term. This shall include attendance at meetings, providing information, liaising directly with iwi groups (as necessary) and complying with all reasonable requests made by iwi as approved by the Administrator. All such assistance, attendance and liaison shall be allowed for within the Contractor's Monthly Service Payment.

Local iwi will have a continual active and effective participation as applicable during the renewals, maintenance and operation of the Rotomā/Rotoiti WWTP Facility and Rotomā/Rotoiti Reticulation Network, through the formation of an Iwi Wastewater Liaison Group (IWLG). Council will be responsible for constituting and managing the IWLG, however the Contractor will be part of the group as the operator for the Contract Term.

As the operator of the Rotomā/Rotoiti WWTP Facility, the Contractor shall consider and liaise with the IWLG's, to the extent required within the Council Resource Consents, before conducting major works or completing material changes to the process operation of the Rotomā/Rotoiti WWTP Facility.

The Contractor shall provide assistance and information as may be reasonably requested by the Council to assist the Council to comply with the cultural requirements stipulated in condition 15 of Resource Consent RM16-0834-DC.02 referenced in Appendix G.

1.38 SIGNAGE

The Contractor shall erect signs at prominent locations adjacent to the sites of any capital or renewals works for the duration of the activity. The sign must clearly display any relevant safety warnings and a 24-hour contact phone number.

2 HEALTH AND SAFETY

2.1 GENERAL

The Contractor shall provide and maintain a safe working environment in which people are not exposed to unacceptable hazards from any work being undertaken. This includes the Contractor's personnel, Subcontractors and their personnel, Council employees, members of the public and any other person at the workplace or affected by the carrying out of the Operations.

The Contractor shall at all times comply with the health and safety requirements of this Contract and at Law. The Contractor is required to bring this to the attention of all Subcontractors and shall require that each of them shall act in accordance with the requirements of this clause.

Additionally, the Contractor shall advise the Administrator should the activities of any other Separate Contractor or Council approved connection contractor present a hazard or risk to the Contractor's personnel, any Subcontractors personnel or any other person who could be affected by the carrying out of the work.

2.2 PRE-QUALIFICATION

The Contractor shall complete the Council's health and safety pre-qualification process (which involves a questionnaire and online application) not later than 30 Working Days prior to the Commencement Date. The Contractor will need to provide documentation to show it understands and will comply with all current health and safety at work legislation. Once the Contractor's application has been reviewed and the Council is satisfied with the Contractor's Health and Safety management systems, the Contractor will receive a confirmation advising of their 'approved' status.

The Contractor's "pre-qualified" status is valid for two years. The Contractor shall renew its pre-qualified status on each prequalified status expiry.

The Contractor shall be responsible for payment of Council's prequalification application process fees as set by Council from time to time.

2.3 CONTRACTOR'S HEALTH AND SAFETY REPRESENTATIVE

The Contractor shall appoint a single person as the Safety Officer for the carrying out of the Operations as specified in Clause 39.3.2 of the Contract Conditions.

2.4 CONSULTATION, COLLABORATION, AND COORDINATION

The Administrator or Council shall consult, coordinate, and collaborate with the Contractor on all safety matters pertaining to the Contract and the carrying out of the Operations as required by the HSW Act. The Contractor shall consult, collaborate and coordinate with all other parties and/or PCBUs involved in or relating to the carrying out of the Operations to ensure a safe place of work and the safety of all affected persons.

Both the Contractor and Council have a legal duty of care to one another to notify the other party of any new or existing known hazard that their work may introduce. This notification shall be immediate when the new asset or process is operational or in any case prior to the other party being exposed to the known hazard. It is each parties' responsibility to then determine how they will manage any risks associated with the new hazard and to update their SOP's and H&S plans accordingly.

2.5 OPERATIONS SAFETY PLAN

The Contractor shall submit to the Administrator and the Council a comprehensive Contract-specific Operations Safety Plan to meet the requirements of the HSW Act, the Contract and this Schedule. The requirements of this plan, including timeframes for its development and approval are outlined in clause 39.2 of the Contract Conditions.

2.6 INDUCTIONS

Where, in the carrying out of the Operations, any Contractor or Subcontractor personnel is to access a construction site or working plant e.g. WWTP Facility (whether performing work or for any other purpose) the Contractor shall ensure they complete a site-specific induction prior to commencing work on the site. A record of site-specific inductions shall be submitted to the Administrator upon request.

All Contractor and Subcontractor personnel shall receive health and safety inductions at the commencement of their involvement in the carrying out of the Operations.

2.7 DRUGS AND ALCOHOL POLICY

The Contractor shall have a Drugs and Alcohol Policy and shall submit the policy to the Council for Council's information within 10 Working Days of the Commencement Date.

The Contractor's Drugs and Alcohol Policy shall cover the following as a minimum:

- The Contractor's conditions of employment of staff in relation to drugs and alcohol
- The Contractor's position regarding alcohol in the workplace
- High risk work activities or occupations with a zero tolerance for drugs and alcohol
- Random drugs and alcohol testing of personnel
- Means of informing personnel of the Contractor's expectations regarding use of drugs and alcohol and the consequences to personnel who do not meet those expectations.

2.8 PERSONNEL HEALTH MONITORING PROGRAMME

The Contractor shall have, maintain and implement a Health Monitoring Programme to identify any changes in the health status of personnel due to exposure to any health hazards arising from their work activities for all personnel who are at potential risk of exposure to chemicals, asbestos, wastewater and biosolids. Details of the Contractor's Health Monitoring Programme shall be provided in the Contractor's Safety Plan.

2.9 HAZARD IDENTIFICATION, RISK ASSESSMENT AND CONTROL

The Council will notify the Contractor of all hazards and risks known to the Council that may be encountered in the carrying out of the Operations that could not reasonably be expected to be known by a competent contractor.

The Council advises that the following hazards may exist or be encountered when undertaking Operations in the Reticulation Networks:

- Trench excavations greater than 1.5 m in depth.
- Unstable ground conditions.
- Asbestos containing material (inhalation of fibres).
- Overhead and/or underground electricity services.
- Buried gas services.
- Landfill gas (at PS61 Landfill Slave Pump Station)

- Electrical earthing to metal water service connections.
- Geothermal hazards (e.g. hydrogen sulphide, hot pressurised water, muds).
- Aggressive members of the public.
- Aggressive dogs.
- Traffic hazards.
- Confined spaces.
- Working at heights.
- Lone Working
- Infection/illness from dealing with “sharps” and wastewater
- Exposure to noise
- Pressurised gases/fluids/air
- Illness from exposure to Aerosols/microbial pathogens from wastewater
- Hazardous substances/chemicals.

The Council advises that as at the Commencement Date the following hazards may exist or be encountered at the WWTP Facilities:

- Trench excavations greater than 1.5 m in depth
- Unstable ground conditions
- Asbestos containing material at the Rotorua WWTP Facility (inhalation of fibres) – see sections 2.9.1 & 8.3.3
- Overhead and/or underground electricity services
- Buried gas services at the Rotorua WWTP Facility
- Electrical earthing to metal water service connections
- Geothermal hazards at the Rotorua WWTP Facility (e.g. hydrogen sulphide, hot pressurised water, muds)
- Aggressive members of the public
- Aggressive dogs
- Traffic hazards
- Confined spaces
- Working at heights
- Lone Working
- Infection/illness from dealing with “sharps” and wastewater
- Exposure to noise
- Pressurised gases/fluids/air
- Illness from exposure to Aerosols/microbial pathogens from wastewater
- Hazardous substances/chemicals including (but not limited to) alum, sodium hypochlorite, citric acid, polymer and ethanol

The Council advises that as at the Commencement Date the following hazards may exist or be encountered at the Rotorua LTS:

- Moving machinery–risk of entrapment, entanglement etc.
- Use of hand/power tools (grinders etc.)–risk of injury or inhalation of fumes/dust etc.
- Overhead loads (when using cranes etc.)
- Slippery surfaces
- Manual handling
- Off-Road Driving
- Fatigue
- Aggressive members of the public
- Aggressive dogs.
- Trench excavations greater than 1.5 m in depth
- Unstable ground conditions
- Overhead and/or underground electricity services
- Traffic hazards – including forestry machinery and mountain bikes
- Confined spaces
- Lone working
- Infection/illness from dealing with wastewater (biological hazards)
- Exposure to noise
- Pressurised gases/fluids/air
- Illness from exposure to Aerosols/microbial pathogens from wastewater
- Logging/Forestry Operations
- Falling trees/branches (especially in high winds)
- Land slips/entrapment
- Drowning in Ponds or streams
- Exposure to cold/wet conditions
- Geothermal hazards (e.g. hydrogen sulphide, hot pressurised water, muds)
- Hazardous substances/chemicals including (but not limited to) sodium hypochlorite and Glyphosate

The Contractor shall provide and update a hazard register for the Operations, identifying potential hazards and all safety and environmental management requirements relating to the Operations.

2.9.1 Asbestos Contamination

Soil contaminated with asbestos has been identified at the Rotorua WWTP Facility Site. Further details are provided in section 8.3.3.

If the asbestos contaminated soil is required to be removed, the Administrator shall be notified and the legislative requirements for the safe handling and disposal of asbestos shall be complied with. As at the commencement of the Contract, these legislative requirements can be found at:

<http://www.legislation.govt.nz/regulation/public/2016/0015/19.0/DLM6729706.html> and <https://worksafe.govt.nz/dmsdocument/8-acop-management-and-removal-of-asbestos>.

2.9.2 Hazard Register

A copy of the Contractor's Hazard Register identifying all potential hazards as a result of the site characteristics and Contractor's operations shall be produced with the Safety Plan. The hazard register shall include confirmation that all potential hazards have been discussed with all the personnel (and Subcontractor's personnel) on site prior to them commencing work. The hazard register shall also detail:

- The steps to be taken by the Contractor to eliminate, or minimise the hazards identified, including contingency plans for managing active hazards.
- The procedure for reviewing the hazards and identifying new ones which may arise as the works progress.

2.9.3 Particular Hazardous Work

For the purposes of this clause "Particular Hazardous Work" means 'notifiable work' as defined in the Health and Safety in Employment Regulations 1995.

The responsibility for the identification and management of Particular Hazardous Work lies with the Contractor.

The Contractor shall notify the Administrator at least 48 hours prior to commencement of any work undertaken on site that involves Particular Hazardous Work and provide evidence of WorkSafe NZ being formally notified pursuant to regulation 26 of the Health and Safety in Employment Regulations 1995 upon the request of the Administrator. A copy of relevant permits, etc. shall be provided in the Contractor's Operations Monthly Reports.

2.10 SAFE WORK PROCEDURES

2.10.1 Safe Equipment

The Contractor shall ensure that all tools and equipment to be used by the Contractor are in a safe condition and working correctly prior to their use.

2.10.2 Work Involving AC Pipes

Work involving AC pipes shall be treated as if it were Particularly Hazardous Work with respect to Administrator notification and WorkSafe where applicable.

The Contractor is responsible for the storage, labelling and disposal of any asbestos cement (AC) pipe that is removed from the Reticulation Network during the course of any works. The parties acknowledge that the Contractor has assumed (in the Contractor's Base Profile and associated cost estimates) that abandoned AC pipes will remain in-situ and will not be removed (this does not apply to the removal and disposal of small sections of AC pipe as may be required to make room for the connection of new pipes to existing manholes and chambers). Handling practices must comply with Health and Safety (Asbestos) Regulations 2016 and the WorkSafe Approved Code of Practice for the Management and Removal of Asbestos 2016. Disposal must be made at a designated refuse disposal site. All costs shall be met by the Contractor and are covered by the Gravity Mains Renewals Payment.

2.10.3 Temporary Safety Fencing Requirements

2.10.3.1 General

Temporary safety fencing shall be provided to protect the public against health and safety risks inherent in excavations and construction works. Temporary fencing (or hoardings) shall be erected around work sites and kept in good order for the duration of the works, after which shall be removed as part of the disestablishment from the site.

2.10.3.2 Specifications

The following specification should be adhered to when erecting temporary safety fencing (or most recent edition):

NZ Transport Agency – Code of practice for Temporary Traffic Management (CoPTTM) 4th edition July 2015 - Section B6: Safety Fences and Section B7: Barricades.

Note that 1.8 metre mesh panels are the preferred form of site security. Orange security mesh netting is the least preferred form of security fencing, must only be used for short duration work and is to be framed to ensure it does not sag. The Contractor shall not use steel waratahs to support mesh panels as it poses the risk of electrocution and may damage underground services.

2.10.4 Safety Precautions

In addition to any safety devices called for in the Council's Engineering Specifications, all normal safety measures required by any authority having jurisdiction over the work, by Good Industry Practice and/or at Law, shall be fitted or provided for the protection of persons and equipment. Guards, handrails, covers, warning notices, etc. shall be provided.

Refer to Section 1.24 for future guidance on working in public corridors.

2.11 ACCIDENT AND INCIDENT RESPONSE, NOTIFICATION, AND REPORTING

The Contractor shall keep a register of all injuries, illnesses and near-misses and provide details of any such instances in the Operations Monthly Report and the monthly Health and Safety related KPI statistics.

The Contractor shall provide Council with a summary of health and safety matters on a monthly basis in the Operations Monthly Report along with health and safety statistics in the monthly KPI reporting. Refer to sections 1.27 and 4.2 of this Schedule and to clause 39.3 of the Contract Conditions.

2.11.1 Notifiable Events

The Contractor shall immediately notify the Administrator and Council by phone of their actions in dealing with all matters resulting from Notifiable Events. The definition of Notifiable Events can be found in section 25 of the Health and Safety at Work Act 2015.

Any incident requiring notification to WorkSafe NZ shall be followed by a full written report within 48 hours in accordance with section 56 of the HSW Act.

Refer also clause 39.3 of the Contract Conditions.

2.11.2 Other Incident Notification Requirement

If, during the carrying out of the Operations, any situation arises whereby the safety of any persons or property is endangered, the Contractor shall immediately stop work and notify the Administrator without delay.

The Contractor shall carry out such remedial measures as the Contractor deems necessary to remove the danger and shall notify the Administrator of the details and timeframes of the remedial measures being undertaken. Any remedial measures undertaken are to be done at the Contractor's expense.

Within two Working Days of any such incident, the Contractor shall provide a report to the Administrator giving complete details of the incident, including results of investigations into its cause, and any actions that will be taken for prevention of a recurrence in the future.

2.12 SAFETY INSPECTIONS AND AUDITS

The Contractor shall allow the Administrator or the Administrator's representative, or Health and Safety representative of the Council, access to the work to inspect or audit any aspect of the Contractor's operations relevant to safety and the work environment. The Contractor shall immediately address all health and safety deficiencies or omissions identified and notified to the Contractor.

2.13 SITE AND SAFETY CERTIFICATION

The Contractor shall be responsible for obtaining, maintaining and renewing any site or equipment safety related certification required to carry out the Operations. This shall include but is not limited to PPE or other safety equipment, lifting equipment (gantries, cranes, apparatus), pressure vessels, chemical and other hazardous substance storage facilities certification.

The currency of site and safety certification as at the Commencement Date shall be jointly assessed by the parties and rectified by the Council as may be necessary as described in section 1.10.

3 Asset Management Systems and Planning Requirements

3.1 CONTRACTOR'S OBLIGATIONS

The Contractor shall undertake such asset planning and management as is necessary to ensure that:

- a) in the carrying out of the Operations the Contractor meets and maintains the KPIs and the requirements of the Contract Documents over the Contract Term; and
- b) the Contractor delivers the Reticulation Networks and WWTP Facilities to Council in accordance with the asset condition requirements as set out in section 13.4 at the Expiry Date.

The Contractor's asset planning and management shall include as a minimum an Annual Renewals Work Plan and a higher level 10-year Renewals Work Plan that is updated every three years, timed to tie into the Council's three yearly LTP reviews. The Annual and 10-year Renewals Work Plans shall provide sufficient forward visibility to Council to allow the Council to monitor the Contractor's planning performance and to inform the Council's Annual Plan, Asset Management Plan and three yearly LTP reviews.

As part of the process of development of the 10-year Renewals Work Plan, the Contractor shall develop a Gravity Mains Renewals Programme as described in Appendix K.

Appendix I provides a list of the progress and status of the Council's capital works programme as at the date of execution of the Contract. The list provided in Appendix I sets out the Council's obligations with respect to completion of particular projects in progress as at the date of execution of the Contract. The Contractor shall assume responsibility for the completion and execution of all aspects of committed projects outlined in Appendix I that are not assigned to Council for completion in Appendix I.

The Contractor shall provide such data, attend meetings and community liaison etc as the Council requires to assist the Council to meet its obligations with respect to the preparation of the necessary parts of Council's draft LTP and Annual Plan documentation, as well as the 30-year Infrastructure Strategy (also refer to section 1.20 of this Schedule).

Where I/I is a contributing driver of renewals, upgrades and increases in asset capacity and/or if the level of I/I results in frequent surcharging and/or overflows and/or other observable effects, then the Contractor shall undertake targeted I/I investigations and produce a I/I Report as per Section 3.8 in order to identify the optimal combination of asset management strategies to address the I/I issue.

3.2 COUNCIL'S OBLIGATIONS

Council will retain the strategic asset management role for wastewater infrastructure and a coordination role between the asset management of the wastewater services and the asset management of Council's other core infrastructure (primarily: local roads, water supply, stormwater drainage but also other areas such as parks and reserves).

Council and the Administrator will review the Contractor's draft Annual Renewals Work Plan and draft 10-Year Renewals Work Plan (including the draft Gravity Mains Renewals Programme) within 15 Working Days of the date of submission by the Contractor. The Administrator shall either accept the reports/plans in draft to inform the interactive workshops described in section 3.3, or notify of any changes or corrections that the Administrator considers are required in order for the Contractor to meet the minimum draft Renewals Work Plan content requirements of the Contract Documents.

3.3 RENEWALS WORK PLANS APPROVAL PROCESS AND TIMEFRAMES

3.3.1 10-year Renewals Work Plan

The Contractor shall produce a draft 10-year Renewals Work Plan every three years with the draft of the first 10-year Renewals Work Plan to be submitted by the end of June 2023 covering the period July 2024-June 2034.

A series of interactive workshops will be held between Council and the Contractor in July/August 2023. Following the workshops, the Contractor will finalise and submit a final draft 10-year Renewals Work Plan to the Administrator with sufficient time for Council to meet internal reporting deadlines. The Council will then use the final draft 10-year Renewals Work Plan to inform and produce a draft LTP which will feed into the Council's business case review process which will occur during November/ December 2023. Following the business case review the Council will produce a final draft LTP for public consultation in April 2024. Following public submissions, the Council will then issue a final LTP by the end of June 2024 and the Administrator will instruct the Contractor of any amendments required to the Contractor's 10-year Renewals Work Plan to align with the final LTP. The Contractor shall then produce a final 10-year Renewals Work Plan and submit this to the Administrator by the end of July 2024. Once the Administrator is satisfied that the 10-year Renewals Work Plan meets the requirements of the Contract and is aligned with the final LTP the final 10-year Renewals Work Plan shall become the basis of the Contractor's programme of renewals works for the following ten years (subject to the next 3 year review cycle).

The extra costs and effects incurred by the Contractor in relation to the carrying out of work arising from any amendments to the 10-year Renewals Work Plan instructed by the Administrator that alter the obligations of the Contractor shall be payable by the Council determined as for a Mandatory Variation in accordance with clause 43.1.14 of the Contract Conditions.

This process will be repeated every three years thereafter throughout the Contract Term. During the Contract Term the Contractor shall continue to project the 10-year Renewals Work Plan (including the Gravity Mains Renewals Programme) for the following 10 years irrespective of the Expiry Date of the Contract.

As at the date of execution of the Contract the parties are collaboratively developing a draft 10-year Renewals Work Plan covering the period July 2021-June 2031, which will be subject to Council's 2021-24 LTP approval process and will become the final 10-year Renewals Work Plan 2021-31 at the conclusion of the 2021-24 LTP approval process. This will be the 10-year Renewals Work Plan from the Commencement Date until the Contractor's revised 10-year Renewals Work Plan is approved in July 2024 as described above.

3.3.2 Annual Renewals Work Plan

The Contractor shall produce an Annual Renewals Work Plan every year with the draft to be submitted to the Administrator by the end of the second working week in February covering the renewals work planned in the upcoming July - June period.

Unless agreed otherwise by the Administrator, the Contractor's Annual Renewals Work Plan for any given year shall reflect the agreed programme of works for that year as set out in the final 10-year Renewals Work Plan.

Either party may advise the other by the end of February each year if the advising party requires an interactive workshop with the other party to discuss to content of the draft Annual Renewals Work Plan. If required, the interactive workshop shall be held between Council and the Contractor in early March. If any amendments are required to the draft Annual Renewals Work Plan as a result of the interactive workshop, the Contractor shall revise and resubmit a (final) draft Annual Renewals Work Plan to the Administrator within 5 Working Days of the interactive workshop.

The Administrator shall either approve the draft Annual Renewals Work Plan or notify the Contractor of any amendments required to the draft Annual Renewals Work Plan by mid-March.

The Contractor shall then produce a final draft Annual Renewals Work Plan and submit this to the Administrator by the end of March. Once the Administrator is satisfied that the final draft Annual Renewals Work Plan meets the requirements of the Contract and is aligned with the Council's approved Annual Plan, the Contractor shall produce the final Annual Renewals Work Plan which shall become the basis of the Contractor's programme of renewals works for the following year (July to June).

The extra costs and effects incurred by the Contractor in relation to the carrying out of work arising from any amendments to the Annual Renewals Work Plan instructed by the Administrator that alter the obligations of the Contractor shall be payable by the Council determined as for a Mandatory Variation in accordance with clause 43.1.14 of the Contract Conditions.

This process will be repeated every year throughout the Contract Term. In the final year of the Contract, the Contractor shall continue to develop and produce an Annual Renewals Work Plan (including the Gravity Mains Renewals) for the following full year period irrespective of the Expiry Date of the Contract. In this instance the final Annual Renewals Work Plan prepared under the Contract will specify which projects are to be completed by the Contractor prior to the Expiry Date of the Contract and which projects will not be started by the Contractor and shall be delivered by Council.

3.3.3 Cost Implications of Work Plan Approval

The approval of the Contractor's 10-year Renewals Work Plan and Annual Renewals Work Plan does not alter the value of the Monthly Service Payment other than by approved Variations (in the case where amendments instructed by the Administrator alter the obligations on the Contractor pursuant to sections 3.3.1 and 3.3.2).

The approval of the Contractor's 10-year Renewals Work Plan and Annual Renewals Work Plan will be part of the process of determining the value of the Gravity Mains Renewals Payments.

3.3.4 Deviations to Final Annual Renewals Work Plans

Any deviation to an agreed final Annual Renewals Work Plan in relation to Gravity Mains Renewals shall be referred to the Administrator for approval as per section 11.9.2.

3.4 CONTENT OF CONTRACTOR'S RENEWALS WORK PLANS

3.4.1 10-Year Renewals Work Plan

The Contractor's 10-year Renewals Work Plan shall, as a minimum, have the following content and address the following matters:

- A statement of the purpose of the Work Plan
- A statement of the goals and objectives of the Work Plan with reference to: lifecycle approach to asset renewals, long term management strategy, management of GWI in the Rotorua Reticulation Network, achieving performance objectives & levels of service, risk management, efficiency improvements, demand management, sustainability and continuous improvement
- A summary of the elements/content of the Work Plan
- A summary of the wastewater assets to which the Work Plan relates, including:
 - total replacement value of new or rehabilitated assets,
 - distribution of the assets by type and value
 - average remaining asset service life of each type of asset (expressed as estimated remaining service life over total service life as a percentage)
- Identification of assets that have exhibited a material deterioration in asset performance since the last revision of the 10-year Work Plan in terms of KPI compliance, maintenance requirements, unplanned

outages, levels of service, measured parameters (e.g. flows or effluent quality) and any other performance related parameters

- A summary of the current capacity vs. current demand of the WWTP Facilities, the 14 highest capacity Pump Stations in the Rotorua Network and the terminal pump station in the Rotomā/Rotoiti Reticulation Network
- A summary of the Contractor's overarching strategy or approach to identifying and remedying WWTP Facility and Network performance issues in order to ensure compliance with the Contract KPI's
- Summary of condition assessments undertaken since the last revision of the 10-year Renewals Work Plan, including a summary of the findings (all condition assessment information and reports shall be made available to the Administrator upon request)
- Summary of asset condition assessments planned to be undertaken over the term of the Work Plan
- A summary of the consideration of efficiency improvements and demand management initiatives (e.g. inflow and infiltration reduction programmes) proposed throughout the term of the Work Plan
- A description of the process undertaken by the Contractor for the development of informed future maintenance and renewals programmes, recognising that conventional gravity wastewater networks and pressure sewer networks are completely different types of systems with different maintenance and renewal requirements
- A summary of the Reticulation Network infrastructure rehabilitation and/or renewals techniques considered by the Contractor and the rationale behind the Contractor's selection of particular techniques in developing the renewals strategies and Work Plans (i.e. cost-benefit analysis of options) – note that this applies to both the Gravity Mains Renewals and the non-Gravity Mains related Reticulation Network assets
- A summary of minor capital improvement projects to be implemented in the Work Plan timeframe for the purposes of improving operational efficiencies (details of each minor capital improvement project to be appended)
- A summary of growth related capital works upgrades to be implemented in the Reticulation Networks including details of any related renewals and/or customer service improvement components (i.e. a breakdown of renewals vs capital vs. customer service improvement aspects of the work where these are combined in a project)
- A summary of the proposed renewals projects over the Work Plan timeframe (details of each renewals project to be appended), including a breakdown of expenditure by year, by the categories described in section 3.9 and percentage of total renewals expenditure on each class of assets (Gravity Mains, pressure mains, manholes, WWTP Facilities, Network Pump Stations & LP sewer systems)
- A summary of the proposed projects that will result in customer service improvements (for example: renewals to reduce I/I that will reduce wet weather overflow risk)
- A summary of new or emerging technologies/materials to be investigated over the term of the Work Plan
- A graphical and tabular representation of the estimated or measured annual reporting parameters (in the same graph and table over the same measurement periods) measured over the Contract Term for:
 - Estimated annual ADWF in the Rotorua WWTP Facility Influent;
 - Estimated annual average GWI in the Rotorua WWTP Facility Influent; and
 - Total annual rainfall depth at the Whakarewarewa Rain Station
- A summary of any new technologies/materials proposed to be implemented over the term of the Work Plan
- Details of any assets that are to become redundant over the term of the Work Plan and outline details of proposed decommissioning plans
- A summary table of unit rates for the List of Key Materials and Services - Non Gravity Mains including details of Escalation Adjustments made, including links/reference to the applicable cost indices and Market Rates that are used to derive the Escalation Adjustments

- An updated Schedule of Rates – Gravity Mains Renewals including unit rate cost adjustments and Market Rates as per Schedule 2 of the Contract
- Targeted I/I Reports (refer to section 3.8) relevant to the planned capital works and renewals projects shall be appended
- A summary of the draft Gravity Mains Renewals Programme and supporting information required by Appendix K
- The draft Gravity Mains Renewals Programme (refer to Appendix K) shall be appended.

3.4.2 Annual Renewals Work Plan

The Contractor's Annual Renewals Work Plan shall, as a minimum, have the following content and address the following matters:

- A summary and outline programme of all investigation work (such as asset condition assessments) planned to be undertaken over the term of the Work Plan
- A detailed programme for each planned investigation (such as asset condition assessments) planned to be undertaken over the term of the Work Plan
- A graphical and tabular representation of the estimated or measured annual reporting parameters (in the same graph and table over the same measurement periods) measured over the Contract Term for:
 - Estimated annual ADWF in the Rotorua WWTP Facility Influent;
 - Estimated annual average GWI in the Rotorua WWTP Facility Influent; and
 - Total annual rainfall depth at the Whakarewarewa Rain Station
- An outline programme of works for all planned capital works, renewals and significant maintenance activities (the projects) proposed by the Contractor over the term of the Work Plan (including Gravity Mains Renewals)
- A detailed programme of works for each planned capital works, renewals and significant maintenance activity (project) proposed by the Contractor over the term of the Work Plan (including details of Gravity Mains Renewals and supporting information to go in the Annual Work Plans as detailed in Appendix K)
- Details of resources required to implement the projects planned over the Work Plan period along with details of how the Contractor intends to meet the resourcing requirements (i.e. internal staff or external contractors)
- Details of coordination of physical works programmes with other Council infrastructure (3 waters, local roads and reserves) and other utility providers (state highways, power, communications and gas).
- A table of the asset classes listed in Table 5 - Table 9, and Table 18 showing for each asset category: the current average Remaining Service Life Expectancy, the expected average Remaining Service Life Expectancy after the delivery of the proposed Annual Plan, and the current projected average Remaining Service Life Expectancy at the Expiry Date.
- A summary table of total project costs for each Gravity Mains Renewals project with a total annual cost at the bottom of the table
- A detailed cost breakdown for each Gravity Mains Renewals project on a project by project basis
- An updated Schedule of Rates – Gravity Mains Renewals including details of Escalation Adjustments made and changes due to Market Rate information as per Schedule 2, including links/reference to the applicable cost indices that are used to derive the Escalation Adjustments
- The List of Key Materials and Services including details of adjustments to the Monthly Service Payment for non-Gravity Mains Renewals related Key Materials and Services that will be purchased in the year period covered by the Annual Renewals Work Plan calculated as per Schedule 2. The list to include for each applicable item: Escalated Project Price, current Market Rate and the difference between these two. For the avoidance of doubt Market Rate testing of the Key Materials and Services is mandatory in the year that a respective Key Material or Service will be applicable.

- Details of the applicable indices and Escalation Adjustments calculated according to Schedule 2 of the Contract for each of the Monthly Service Payment components and Escalated Contract Sums.
- A summary of the new LPGP connections over the 12 months up to 1 February, together with additional costs calculated as per Schedule 2 if the threshold has been reached.
- A summary of new Trade Waste Payment Components over the 12 month period up to 1 February.
- A colour-coded map of the Reticulation Networks showing remaining capacity for growth as per Appendix L.
- I/I Reports (refer to section 3.8) relevant to the planned capital works and renewals projects shall be appended.

The Gravity Mains Renewals project costs and unit rate adjustments, along with any adjustments for other renewals projects relating to Key Materials and Services price movement, as detailed above, shall be submitted in an electronic spreadsheet in a format to be approved by the Administrator.

3.5 ACCESS TO DATA

The Contractor shall provide the Council with reasonable and real-time access to view SCADA information, historian information and other Project Information (such as effluent quality information). The Contractor may restrict access to “read-only” however the Contractor shall allow the Council to make copies of such Project Information at any time. The location for access to such information shall be at the Rotorua WWTP Facility or other such location as may be agreed to between the parties from time to time.

The Contractor shall comply with any reasonable requests from the Council to provide reports or information from the SCADA system.

3.6 ASSET MANAGEMENT AND GIS SYSTEMS

3.6.1 Asset Management System

3.6.2 Description

As at the Commencement Date, Infor is used as the Council's Asset Management Information System (AMIS) for recording all asset data pertaining to the Rotorua Reticulation Network and the Rotorua WWTP Facility. The Council may adopt another AMIS system (or systems) at some time (or times) during the Contract Term.

The range of data collected includes records of: Public comment and complaints, work requested, work completed, new installations, inspections undertaken, and observations made. Observations include recording material type, size, condition and location.

3.6.2.1 Contractor's Interface and Access Rights

The Contractor may use any asset management system of their choice and preference for their own works and benefit. However, new information entered into the Contractor's asset management system must be seamlessly mapped across to the Council's wastewater AMIS by the Contractor. As such the systems and data format must be compatible. For clarity this process does not need to be automated but should use readily available export and import functions of the respective systems and not rely on manual data entry.

As at the date of execution of the Contract, the parties acknowledge that Council's wastewater AMIS is not currently configured as a maintenance work order management system which means that as at Commencement, the Contractor will use its own asset management system and ensure that the requirements of this section are met.

During the mobilisation and transition period the parties shall collaboratively determine and document the functional requirements for the data management processes between the Contractor's asset management system and the Council's wastewater AMIS.

The parties acknowledge that the optimal solution (from a mutual transparency and efficiency perspective and best legacy for Council) would be for the Contractor to undertake all work directly in Council's wastewater AMIS. During the Contract Term the parties will discuss the benefits and costs of potential modifications to be made to Council's wastewater AMIS to enable full maintenance work order management which would enable the Contractor to work directly in the Council's wastewater AMIS. For clarity, the cost of any development work required in the Council's wastewater AMIS in this regard may be borne by either party, or shared by agreement, with neither party obliged to progress this development work.

The Contractor shall provide all reasonable assistance to the Council to facilitate this. The Contractor shall be responsible for any modifications required to the Contractor's systems to interface with and enable the transfer of data from the Contractor's systems into the Council's AMIS.

The Council will provide the Contractor with the necessary access rights to edit the Council's wastewater AMIS. The Contractor shall interrogate and input data into Council's AMIS either directly or by mapping data between the two systems if the Contractor chooses to use their own separate system. Read/view only access shall be given by the Contractor to the Council for the Contractor's system if the Contractor chooses to have their own separate system.

3.6.2.2 Contractor Updating of Asset Register

The Contractor shall be responsible for updating the Council's AMIS in a timely manner when the Contractor makes any changes to or becomes aware of any inaccuracies regarding the Council's wastewater assets, except in circumstances the Administrator may from time to time instruct the Contractor, where Council will update the AMIS with as-built information supplied by the Contractor.

The collection of this asset data will assist the Contractor by providing information to plan renewal works and capital upgrade works within the Reticulation Networks.

When the Contractor makes changes to the Council's AMIS, the Contractor shall notify the Council's nominated Asset Information Officer when information has been entered in the Council's AMIS and supply sufficient as-built information for Council's nominated Asset Information Officer to verify the accuracy and completeness of the changes made by the Contractor. The Council's nominated Asset Information Officer may review the information for accuracy and completeness and raise queries with the Contractor and/or advise of any amendments required to be made by the Contractor to the information.

AMIS updates by the Contractor are subject to the KPI target for accuracy and completeness of reporting information (KPI 12) that include for, but are not limited to, accuracy of the information entered and timeliness of the entry:

- When errors are found in the existing AMIS (i.e. validation data)
- When new assets are added
- When assets are replaced
- When old assets are removed or abandoned
- When corrections (as advised by the Council) to information entered by the Contractor are made by the Contractor.

Where Council has elected to receive as-built information from the Contractor and update the AMIS themselves, KPI 12 shall be applicable to the as-built information supplied by the Contractor.

3.6.2.3 Capitalisation and Revaluation Information

At least quarterly, the Contractor shall provide a spreadsheet to the Council reconciling the Contractor's asset renewal spend with the updates to Council's AMIS (or as-built information provided to Council's As-Builts Officer) that impact the remaining life of the assets. This information shall include for each asset: the unique asset identifier, the install date, number of units, the value of the renewals works completed and the updated remaining service life of the asset.

From time to time when requested by Council, the Contractor shall provide advice regarding current unit costs to inform Council's revaluation process.

3.6.3 Geospatial Information System (GIS)

3.6.3.1 GIS Description

As at the Commencement Date, the Council records all Reticulation Network infrastructure asset information (location only) in an ESRI ARC Map based GIS system. The GIS system is a web based system (called Geyserview) which is accessible to the public, contractors and Council's service providers as read-only for viewing and downloading of geospatial asset information. As at the Commencement Date, Geyserview can be accessed at the following URL <http://www.rotorualakescouncil.nz/Pages/Maps.aspx>

As at the Commencement Date, attribute information (e.g. for asset management purposes) is currently limited in the GIS system to basic information. The GIS system is linked to the Council's Infor AMIS such that if any attributes enabled in the GIS system are edited in either system then the corresponding attribute in the other system is also updated. The Council's Infor AMIS has more detailed information regarding the assets (the GIS has only basic asset information enabled such as the geospatial parameters).

As at the Commencement Date the Council does not allow access to third parties to edit the Council's GIS system and all changes are made by the Council's As-Builts Officer.

3.6.3.2 GIS Updates

The Contractor shall be responsible for providing sufficient asset as-built information to the Council's As-Builts Officer for updating the Council's wastewater GIS information in a timely manner when the Contractor makes any changes to the Council's wastewater Reticulation Networks or discovers errors or omissions in the Council's GIS information in the course of undertaking the Contractor's Operations.

During the mobilisation and transition period, the parties shall agree the asset attribute data to be provided by the Contractor to the Council's As-Builts Officer, and the format it is to be provided in, for each asset class and asset type with a view to making the transfer of asset information from the Contractor via the Council's As-Builts Officer into the Council's GIS system seamless, trouble free and error free.

The Contractor shall be responsible for providing asset information to the Council's As-Builts Officer for updating the Council's wastewater GIS when:

- errors are found in the existing wastewater GIS (i.e. validation data)
- new assets are added
- assets are replaced
- old assets are removed or abandoned
- corrections or verifications (as advised by the Council) are required to be made, due to errors or probable errors, identified in information previously provided by the Contractor (e.g. negative grades in gravity pipes, larger gravity pipes discharging into smaller gravity pipes, invert levels higher than lid levels etc).

The Contractor shall advise the Council's nominated As-Builts Officer if the Contractor finds errors or omissions in the Council's GIS for other Council services (i.e. water, stormwater, roading) in the course of providing the Reticulation Network Operations. Such advice shall include details such as photographs and location details of exposed services not shown on the Council's GIS system.

3.6.3.3 Mobile Devices for GIS Access

The Contractor is encouraged to use mobile devices in the field to access and view the Council's GIS information on Geyserview (or via read only view of GIS software) when undertaking Reticulation Network Operations activities.

3.6.4 Software Licences

It shall be the Contractor's responsibility and cost to obtain any required software licences required to allow read only access the Council's GIS system as at the Commencement Date.

It shall be the Contractor's responsibility and cost to obtain any software licences that are required by the Contractor in order for the Contractor to view and edit information on the Council's AMIS as at the Commencement Date.

It shall be the Contractor's responsibility and cost to obtain any software licences on the Council's behalf that are required by the Council in order for the Council to view the Contractor's asset management information.

If the Council changes the GIS and/or AMIS software that the Council uses during the Contract Term, the Council shall pay, on the Contractor's behalf, for any new software licences required by the Contractor for the Contractor to access the Council's new GIS and/or AMIS systems.

3.6.5 Staff Training

Within 10 Working Days of the Commencement Date the Contractor and the Council shall agree on dates for training of the Contractor's personnel on their obligations with respect to the updating of asset information in the Council's GIS system and for the updating of asset information in the AMIS system . The purpose of the training will be to familiarise the Contractor's staff with the agreed systems, information, the format of the information and procedures for updating of the Council's AMIS and GIS by the Contractor and Council staff, the information and attributes required to be updated and the quality assurance requirements.

The Contractor shall be responsible for AMIS and GIS system training costs for new staff employed by the Contractor after the Commencement Date.

If the Council changes the GIS and/or AMIS software that the Council uses during the Contract Term, the Council shall provide training at the Council's cost for the Contractor's staff on the use of the new software. The Council shall not be required to reimburse the Contractor for the Contractor's staff attendance at the training, which shall be held in Rotorua.

3.7 ROTORUA RETICULATION NETWORK HYDRAULIC MODEL

The Contractor shall maintain and update a network hydraulic model of the Rotorua Reticulation Network (Hydraulic Model) on behalf of the Council for the duration of the Contract Term.

3.7.1 Hydraulic Model Software Platform, Ownership and Licences

The Hydraulic Model shall be on a version of the software platform Infoworks ICM, as agreed between the Contractor and Council, or other platform as approved by the Administrator.

The Contractor shall obtain (at the Contractor's cost) software licences, subscriptions and such like as may be required by the Contractor and the Council to run or access the Hydraulic Model.

Ownership of the Intellectual Property in the Hydraulic Model files and electronic model data shall vest in and be held by the Council.

3.7.2 Contractor's Obligations as to Hydraulic Model

The Contractor shall be responsible for maintaining, calibrating and updating the Hydraulic Model to reflect the current status of the Rotorua Reticulation Network. This includes identifying and correcting any errors discovered in the Hydraulic Model, updating the Hydraulic Model to reflect changes and additions to the Reticulation Network, calibrating the Hydraulic Model to reflect actual performance measured and observed in the Reticulation Network. Refer to sections 3.7.7 and 3.7.8 for the Contractor's obligations with respect to updating the Hydraulic Model and handing over the model to the Council at completion of the Contract Term.

The Hydraulic Model shall be calibrated and maintained as is reasonably required for use by Council as a planning tool for Council's long term strategic planning purposes.

3.7.3 Contractor's Use of the Hydraulic Model

The Contractor may use the Hydraulic Model for the Contractor's purposes and this may include to: assess the potential impacts of developments proposed to be connected to the Rotorua Reticulation Network, optimise network performance, plan renewal works, assess network I/I and prioritise I/I reduction initiatives.

3.7.4 Council's Right to Access Hydraulic Model

Upon the Council's request the Contractor shall provide to the Council the latest version of the Hydraulic Model electronic files and all associated datasets. The parties acknowledge that the Hydraulic Model is included in the Project Information for the purposes of clause 85 of the Contract Conditions.

3.7.5 Contractor's Risk in Relation to the Hydraulic Model

The Council does not warrant that the Council's Hydraulic Model as at the Commencement Date is up to date, free of errors or omissions or is accurately calibrated.

Irrespective of whether the Contractor chooses to adopt and modify the model provided by the Council at the time of tender or whether the Contractor develops their own Hydraulic Model, the Contractor shall assume all risk associated with the Contractor's use of the Hydraulic Model and the Council shall have no liability whatsoever arising out of or in connection with such use.

3.7.6 Council's Risk in Relation to the Hydraulic Model

Without limiting the Contractor's obligations under clauses 3.7.2 and 3.7.7, the Contractor does not warrant that the Contractor's Hydraulic Model is, or will be from time to time during the Contract Term, up to date, free of errors or omissions or is accurately calibrated.

3.7.7 Hydraulic Model Updates

The Contractor shall update the Hydraulic Model at least every three years, timed to coincide with the three yearly 10-year Renewals Work Plan reviews. The updated Hydraulic Model shall include model scenarios that reflect:

- the existing assets and performance of the Rotorua Reticulation Network at the time of the model update; and also
- the future assets and performance of the network as predicted according to the network modifications contemplated in the latest version of the Contractor's 10-year Renewals Work Plan.

3.7.8 Hydraulic Model Handover Obligations

The Contractor's final update of the Hydraulic Model shall be completed and submitted not later than 3 months prior to the Expiry Date as part of the Handover Obligations. The Contractor shall prepare and submit a

hydraulic modelling report along with the final update of the Hydraulic Model files/data. The purpose of the hydraulic modelling report will be to outline all assumptions, limitations, calibration, scenarios and recommendations relevant to the Hydraulic Model as part of the process of handing over the Hydraulic Model (along with all pertinent and relevant information) to the Council (or the Council's nominee) at completion of the Contract. The exact content of the hydraulic modelling report shall be submitted to the Administrator for approval no later than 6 months prior to the Expiry Date.

3.8 I/I INVESTIGATIONS AND REPORTS

3.8.1 Requirements and Triggers for Targeted I/I Investigations and Reporting

In gravity reticulation network catchments (or sub-catchments) whenever:

- I/I is a contributing factor to growth driven network upgrades or planned renewals projects; and/or
- the level of I/I results in frequent surcharging and/or overflows and/or other observable effects (see triggers below)

the Contractor shall undertake targeted I/I investigations and produce an I/I Report for the catchment (or sub-catchment). The purpose of the I/I Report is to determine relative sources of the I/I and the optimum I/I management strategy for the catchment. The I/I Report shall form the basis for discussions as to funding and timing in accordance with sections 1.7 and 3.9 of this Schedule. A copy of all I/I Reports shall be promptly forwarded to the Administrator on completion. The Administrator shall have 15 Working Days for review of each I/I Report provided by the Contractor and either accept the Contractor's findings or request further information or an external review (see section 3.8.5).

Triggers for the initiation of I/I investigations and reporting may include (but not necessarily be limited to):

- incidences of repeat wet weather overflows in a catchment,
- observed levels of I/I are putting compliance with I/I affected KPI's at risk,
- known/observed instances of gravity network surcharging during wet weather events,
- frequent pump station high level alarms during wet weather events,
- periods of sustained high flows from a catchment following wet weather periods,
- elevated unexplained high night flows from a catchment,
- unexplained visibly dilute (clean water) flows in gravity sewers,
- observed I/I leakage from CCTV condition assessment footage,
- high I/I indicator statistics in calibrated hydraulic model runs of wet weather scenarios,
- upgrades are required to increase capacity where a component of (or all of) the proposed capacity increase is to provide additional storage or capacity to contain and convey I/I flows.

Targeted I/I investigations and I/I Reports shall be self-initiated by the Contractor, however the Administrator or the ERG may instruct the Contractor to produce an I/I Report should either the Administrator or the ERG reasonably consider that the Contractor has failed to self-initiate despite clear evidence of triggers to initiate targeted I/I investigations and an I/I Report.

3.8.2 I/I Investigations

I/I investigations may include (but not be limited to):

- review and statistical analysis of historical wastewater flow, rainfall, pump station operations and lake level data,
- CCTV inspections,
- manhole surveys,
- smoke testing,

- night flow isolation,
- sewer flow gauging and rain gauging,
- depth sensing,
- groundwater level monitoring,
- physical inspections during heavy rainfall,
- hydraulic modelling

and other techniques to quantify and characterise the nature and severity of the I/I in the subject catchment.

3.8.3 I/I Report Contents

Based on the I/I investigations, the I/I Reports shall identify:

- the sources of I/I within the subject catchment, including a high level assessment of the relative contribution that each source is having on (both) inflow and infiltration (as applicable)
- the Contractor's recommended optimal I/I management strategy for the subject catchment
- a strategy and timeframe to remedy all infrastructure defects that it is reasonably practicable to remedy (taking into account benefits and cost) where renewals are covered by the Contractor's Monthly Service Payments (e.g. manholes and pump stations).

3.8.4 I/I Report Format

The general format of the I/I Reports shall be agreed to between the Contractor and the Administrator and may be subject to amendment by agreement from time to time throughout the Contract Term.

3.8.5 Peer Review of I/I Reports

The Administrator may at the Administrator's sole discretion based on review of a Contractor's I/I Report, engage an independent peer review of a Contractor's I/I Report. Any such peer reviews will be at Council's cost, unless a peer review identifies significant shortcomings with a Contractor's I/I Report which would have a material impact on the recommendations, in which case the applicable peer review will be at the Contractor's cost.

If the Administrator commissions a peer review, then the Administrator shall provide a copy of the peer review report to the Contractor within 2 Working Days of the final peer review report being issued to the Administrator.

The Contractor shall respond to the Administrator on any points raised by the peer reviewer within 5 Working Days of the date that the Contractor receives the peer review report.

If, in the opinion of the Administrator, any points raised by the peer reviewer are not adequately addressed by the Contractor's response then the Administrator may make a determination after further consultation with the peer reviewer and/or the Contractor as may be necessary.

If necessary, as a result of the peer review, the Contractor shall revise the I/I Report and issue the revised I/I Report to the Administrator within 5 Working Days of the Administrator's acceptance of the Contractor's responses to the points raised by the peer reviewer or within 5 Working Days of any directive issued by the ERG.

3.9 PLANNED RENEWALS WORK

3.9.1 General Requirement to Plan and Undertake Renewals

Renewals work shall be planned for and undertaken by the Contractor as necessary and required to meet the KPIs and in accordance with the approved Renewals Work Plans described in section 3.4.

3.9.2 Optimised Renewals

In developing Annual and 10-year Renewals Work Plans, the Contractor shall apply the principles of “Optimised Renewals” planning. The general philosophy for optimised renewals planning is to strike a balance between maximising the Service Life of the assets (gaining the most value out of the capital investment in the asset) when considered along with increasing reactive (e.g. maintenance) costs, decreasing level of service (e.g. reduced reliability) and increasing level of risk (e.g. consequence of higher likelihood of failure). This balance is referred to herein as “Optimised Renewals”.

“Optimised Renewals” also refers to the consideration of alternative assets for a renewal project that achieve a replacement of the function of the asset being replaced, rather than just replacing the assets with Contemporary Equivalent replacements.

3.9.3 Renewals and Population Growth

When an asset is due for renewal the Contractor shall consider the demand including future projected demand due to population growth throughout the estimated Service Life of the replacement asset as determined in accordance with Council’s Engineering Specifications and Appendix L compared to the capacity of the replacement asset. The replacement asset shall have sufficient capacity to cater for the future projected demand due to population growth throughout the estimated Service Life of the replacement asset. For the avoidance of doubt, an increase in capacity of a replacement asset to accommodate an increase in the level of I/I shall not be deemed to be an allowance for growth.

3.9.4 Renewals and Level of Service Improvement

When an asset is due for renewal the Contractor shall consider the future level of service that the replacement asset should provide (e.g. maintain status quo or provide a level of service improvement) and, where economically feasible, propose a level of service improvement to the Administrator for approval. In general terms a level of service improvement is a change to the asset being renewed that achieves a better outcome (e.g. environmental improvement, a better outcome for the customer, increased level of reliability/redundancy in continuity of service) compared to a Contemporary Equivalent replacement. For a WWTP Facility asset, a level of service improvement might be an improvement in the level of treatment provided by the replacement asset compared to the original asset. An inherent increase in the reliability or resilience of an asset (when compared to a straight Contemporary Equivalent replacement) would also represent a level of service improvement. For the avoidance of doubt, an increase in the capacity of an asset is not deemed to be a level of service improvement and an increase in the reliability of an asset simply by virtue of replacing an ageing unreliable asset with a Contemporary Equivalent asset is not deemed to be a level of service improvement, and meeting the requirements of this Schedule and the Contract Documents shall not be considered a level of service improvement. For the Rotorua WWTP Facility, where compliance with the Contractor’s General Technical Specification requires an increase in the level of service, and a Contemporary Equivalent replacement complies with all other requirements of the Contract Documents (including the Minimum Service Life Requirements), the Contractor shall submit the information to the Administrator as a proposed level of service improvement.

3.9.5 Apportionment of Asset Replacement Costs

For every asset renewal the Contractor shall set out the Contractor’s view as to the proportion of the asset replacement cost that is attributable to asset renewal, the proportion of the asset replacement cost that is attributable to growth, the proportion that is attributable to I/I and the proportion of the asset replacement cost that is attributable to an increased level of service as follows:

- The asset renewal component shall be the proportion of the total cost of design, preparation and providing the new asset, that would replace an existing asset, that would otherwise need to be renewed /rehabilitated because of the asset condition /age during the Contract Term, and that represents the Contemporary Equivalent of the asset it is replacing.

- The growth component shall be the proportion of the total cost of design, preparation and providing a new asset that would provide the capacity required by Council's Engineering Specifications with no level of service improvements, less the asset renewal component.
- The I/I component shall be the proportion of the total cost of design, preparation and providing the new asset with no level of service improvements, less the asset renewal component, less the growth component. This establishes the cost of providing an increase in capacity solely to accommodate an increase in the level of I/I over and above Council's Engineering Specifications.
- The level of service improvement component shall be the total cost of design, preparation and providing the new asset, less the growth component, less the I/I component and less the asset renewal component.

In all instances the asset renewal component of costs shall not be treated as a Variation and is covered by either the Monthly Service Payments or the Gravity Mains Renewals Payments.

The growth component of the asset replacement cost:

- Shall be payable under the Gravity Mains Renewals Payments regime for Gravity Mains renewals
- Is covered by the Rotomā/Rotoiti WWTP Facility Monthly Service Payments for Rotomā/Rotoiti WWTP Facility renewals up to the Rotomā/Rotoiti Influent Envelope
- Shall be treated as a Variation in all other instances, including any additional cost associated with providing a capacity increase to cater for growth at the Rotorua WWTP Facility.

The I/I component (if applicable) shall be funded according to the funding for additional I/I capacity determined as per section 1.7.

The level of service improvement component of costs is covered by the Monthly Service Payment or shall be payable under the Gravity Mains Renewals Payment regime as applicable, unless in particular circumstances where the level of service improvement component is agreed to be treated as a Variation by prior written approval of the Administrator (e.g. a level of service improvement at the Rotorua WWTP Facility that is intended to be incorporated in a later upgrade of the WWTP Facility beyond the term of the Contract).

3.9.6 Rotorua WWTP Facility and Rotorua LTS Renewals

The parties acknowledge that the Rotorua WWTP Facility and Rotorua LTS renewals pricing which underpins the Contractor's Monthly Service Payment was based on asset renewals requirements on a Contemporary Equivalent basis, with the exception of the Exempt Assets in Appendix N. Contemporary Equivalent renewals generally do not require project by project Council approval or submission of specific documentation after the final 10-year or Annual Renewals Work Plan is developed in accordance with section 3.3. When a Rotorua WWTP Facility or Rotorua LTS renewal project is being planned (as part of the 10-year or Annual Renewals Work Plan process set out in section 3.3), the Contractor shall assess the requirements of the Contractor's General Technical Specifications, and the proposed future WWTP upgrade solution and identify any requirements and opportunities for the renewal project based on those documents that the Contractor considers goes beyond the scope of a Contemporary Equivalent replacement.

As part of the process of developing the 10-year or Annual Renewals Work Plans, the Contractor will highlight any planned Rotorua WWTP Facility and Rotorua LTS renewal projects where compliance with the Contractor's General Technical Specifications, or the opportunity to incorporate all or part of the proposed future WWTP upgrade solution, go beyond a Contemporary Equivalent replacement and develop an estimate of the marginal additional cost over and above the Contemporary Equivalent replacement cost. This marginal additional cost shall be considered a level of service improvement for the purpose of section 3.9.5, meaning it may be approved by the Administrator and treated as a Variation, or funded by the Contractor through the Monthly Service Payment, or not be implemented if it is not economically feasible for either party.

A minimum threshold of LCOIMA 1987
s 7(2)(b)(i) per renewal project for the marginal additional cost of compliance with the Contractor's General Technical Specifications or the implementation of all or part of the proposed future WWTP upgrade solution, must be exceeded before the Contractor can present an item for consideration as a level of service improvement opportunity to the Administrator, as described in section 3.9.4.

Where this minimum threshold is not reached, the Contractor shall ensure that the renewal project complies with the requirements of the Contractor's General Technical Specifications, the cost of which will be covered by the Contractor's Monthly Service Payment.

The principle for determination of Rotorua WWTP Facility and Rotorua LTS renewal requirements are set out in the flow chart included in Appendix X. If any conflict arises between Appendix X and the remainder of the Contract Documents, including the main body of Schedule 16, then Appendix X shall have the lowest level of precedence.

3.9.7 Parawai Road Rising Main

In year 2010 it was conservatively estimated by Council, based on a number of assumptions (not all of which remain valid), that the Parawai Road rising main had a Remaining Service Life Expectancy of 15 years. Prior to year 2025, the Contractor shall, undertake a detailed condition assessment of the Parawai Rd rising main. The cost of the condition assessment shall be included in the Monthly Service Payments. Based on the results of the condition assessment, the Contractor shall programme the renewal of the Parawai Rd rising main in the following draft 10-year Renewals Work Plan if required. If the Parawai Road rising main begins to fail prematurely and requires significant, frequent maintenance (over and above reasonable maintenance requirements for a similar asset) or to be partially or fully renewed by the Contractor within the Contract Term the reasonable additional maintenance or the renewal shall be treated as a Variation.

3.10 UNPLANNED RENEWALS WORK

In instances where unplanned renewals work is undertaken (for example, replacing a section of gravity sewer pipe that has structurally failed/collapsed or blocked), the Contractor shall collect and update all information required (asset register, GIS etc) as if the work had been undertaken as planned renewals work. This includes amending the Annual Renewals Work Plan, Gravity Mains Renewals Programme and 10-year Renewals Work Plan if and as required. Refer to the Gravity Mains Renewals Practice Note in Schedule K for more detail.

The Contractor shall ensure that unplanned renewals work is undertaken to the same standards as planned renewals work, where feasible given issues such as personal safety, environmental compliance, service continuity or traffic management as may be applicable to an unplanned renewal.

3.11 SCHEDULED MAINTENANCE

The Contractor shall prepare schedules setting out routine, scheduled preventative maintenance activities as required to meet the Contractor's Operations maintenance obligations under this Schedule. For mechanical items, it is expected the scheduled activities shall generally be run-hours based. For other assets, the scheduled activities shall generally be time based (monthly, quarterly, 6 monthly, annually, biannually, 3 yearly, 5 yearly, 10 yearly) where the frequency shall befit the age/condition of the asset.

The Contractor shall maintain all standby units/items to the same standard as all duty units.

The Contractor shall regularly review the asset inspection and maintenance schedules throughout the Contract Term and update them as required. The interval between reviews shall not exceed 3 years.

The Contractor shall provide copies of the asset inspection and maintenance schedules and records of inspections and maintenance undertaken to the Administrator on request.

The Contractor shall undertake routine scheduled inspection and maintenance in accordance with the asset inspection and maintenance schedules. (This requirement does not limit the Contractor's general maintenance obligations under this Schedule in any way.)

The asset inspection and maintenance schedules shall be appended to and form part of the Operation and Maintenance Manuals.

3.12 CAPITAL WORKS

Refer to section 12.3.19 of this Schedule regarding future expansion of the Rotomā/Rotoiti WWTP Facility.

The Contractor shall be responsible at the Contractor's cost for the following Rotorua Reticulation Network and Rotorua WWTP Facility capital works upgrades:

- Mechanical and electrical upgrades at Reticulation Network pump stations that are not growth driven or agreed level of service improvement projects
- All capital upgrades that are identified and implemented by the Contractor driven and justified by operational efficiencies
- All capital upgrades that are required to remove sources of, or contain, convey, treat and dispose of I/I flows related to infrastructure where renewals are covered by the Contractor's Monthly Service Payment (i.e. Reticulation Network assets such as manholes and pump stations)

The Council will be responsible for the cost of all Rotorua Reticulation Network capital works required to accommodate growth, including extending the Rotorua Reticulation Network to new growth areas, upsizing of Rotorua Reticulation Network pipes to increase their capacity for growth, and infrastructure upgrades at pump stations (e.g. larger pumps, electrical equipment, electrical supply, wet wells & storage tanks) to accommodate growth. Growth shall be determined by assessment of the increase in Measured ADWF. Growth as determined by assessment of Measured ADWF will also be compared to new connection statistics. For the avoidance of doubt, the Council will not be responsible for undertaking Rotorua Reticulation Network capital works upgrades to accommodate increases in Measured ADWF to the extent such increases are due to I/I in the Rotorua Reticulation Network, unless as part of the Gravity Mains Renewals Programme or as an alternative to resolution of a private property issue.

Rotorua Reticulation Network capital works that are driven by growth or have a growth component to it shall be assessed according to the Growth-Driven Reticulation Network Upgrades Practice Note included in Appendix L. The funding of any capacity increase shall be determined as defined in section 3.9.5.

The Annual and 10-year Renewals Work Plans and Gravity Mains Renewals Programme developed by the Contractor shall be sufficient to inform Council of all Rotorua Reticulation Network capital works planned to be carried out by the Contractor including details of how the capital works have been designed to service planned growth.

3.12.1 Out of Scope Council Driven Capital Works

Council-driven and Council funded wastewater network infrastructure capital upgrade projects (most likely growth driven) that are not part of an operational Reticulation Network are not included within the scope of the Operations pursuant to this Schedule. Such Council-driven wastewater network infrastructure capital upgrade projects include for example:

- new extensions to a wastewater network to service new growth areas that can be built off-line and can be connected to a Reticulation Network after completion
- reticulation of existing communities serviced by on-property wastewater treatment and disposal systems that are to be connected to an existing Reticulation Network (apart from the proposed Lake Tarawera Scheme as set out in the Contract Documents).

The Contractor will be given the opportunity to quote on out of scope Council-driven capital projects that can be constructed outside of an existing operational Reticulation Network. If agreeable to both parties such works will be carried out by way of a Variation under this Contract. Council retains the right not to accept the quote given by the Contractor, and to have the out of scope Council-driven capital upgrades that can be constructed outside of an existing operational Reticulation Network completed by a third party.

Out of scope Council-driven capital upgrades that can be constructed outside of an existing operational Reticulation Network that are completed by a third party will be subject to the vested asset approval process set out in section 1.35.1.

3.13 REQUIREMENT TO COORDINATE WITH OTHER COUNCIL ASSET MANAGERS

The Contractor shall liaise with Council asset managers such as the roading asset manager, water supply services asset manager, stormwater asset manager and special projects managers to ensure the optimal co-ordination and timing of renewals projects. Utility Operation Liaison Group Meetings will be held quarterly to assist with this process. Refer to section 1.20.2 of this Schedule.

4 Performance Monitoring and Compliance

4.1 INTRODUCTION

The Key Performance Indicators (as set out in Appendix M) shall be used to measure the Contractor's performance in the carrying out of the Operations.

The KPIs are intended to reflect the attributes that the Council particularly values as being significant contributors to the successful operation, maintenance, and renewals of the Reticulation Networks and the WWTP Facilities. These attributes include:

- Health and Safety
- Consent Compliance
- Public Perception
- Responsiveness
- Customer Satisfaction and
- Management and Reporting.

The KPIs and the KPI regime also reflect the Council's strong aspiration that the parties work together and collaborate to avoid the occurrence of major contract non-compliance incidents discussed in section 4.7.

4.2 INCIDENT NOTIFICATION PROCESS

The procedure for the receipt/initiation, notification, logging, tracking, follow-up and closing out of incidents, Service Requests and complaints is set out in the Incidents, Service Requests and Complaints: Notification, Procedures, Tracking and Close-Out Practice Note, including the role and functions that the Council Call Centre has in this process (refer also to clause 1.23 of this Schedule).

4.3 KEY PERFORMANCE INDICATORS (KPIs)

The KPIs shall take effect from the Commencement Date and shall remain in effect until the Expiry Date.

Appendix M lists the KPIs and sets the lower or upper limit for each KPI based on existing performance and New Zealand water industry benchmarking statistics.

The ERG will review the KPI's and performance measurement system after the first year and then annually thereafter, and may suggest amendments, to be introduced by agreement by the parties.

The Contractor shall self-assess its compliance with the KPIs and report such self-assessment to the Administrator in the Operations Monthly Reports. The Contractor shall develop a KPI reporting format in consultation with the Administrator, to summarise the assessed KPI achievement levels (refer section 1.27).

A lower or upper limit has been set for each KPI. If the Contractor does not achieve the lower or upper limit (as the case may be) of any KPI in any given month as a 12 month rolling average (unless another averaging period is specified for the KPI in Appendix M), this shall trigger or escalate various levels of reporting and remedial action depending on the significance and duration of the KPI non-compliance as outlined in Section 4.6.

The Administrator may carry out audits of the KPI performance at any time during the Contract Term, providing the Administrator gives a minimum of 48 hours' prior notice of any such audit to the Contractor.

For the initial period of the Contract to 30 June 2024 the Contractor is required to maintain the current performance of the Reticulation Networks and the KPIs established for the initial period reflect this. The initial period will allow the Contractor time to undertake investigations, assess the Reticulation Network condition and performance and make improvements as required to meet the KPIs that will come into effect beyond 30 June 2024.

4.4 WORK PRIORITISATION DEFINITION

The definitions of the various categories for the work prioritisation KPIs are generally described hereafter.

All incidents will be logged when they are received and Service Requests generated by the Council Call Centre as described in the Incidents, Service Requests and Complaints: Notification, Procedures, Tracking and Close-Out Practice Note and clause 1.23.

For KPI measurement purposes the response times referred to below shall be measured from the time logged by the Council Call Centre that the Contractor has been notified of the Service Request by the Council Call Centre. Where notifications are generated by the Contractor, the response times referred to below shall be measured from the time logged by the Council Call Centre that the Contractor made the notification and the Service Request was generated.

The Contractor shall respond to incidents within the KPI incident response timeframes set out in Appendix M.

4.4.1 Incidents in the Reticulation Network

The following shall apply to the Reticulation Networks excluding network pump stations.

4.4.1.1 Priority 1

Reticulation Networks situations that: pose a danger to personal safety, pose a danger to public health, have potential for damage to or loss of property or potential for (or actual) contamination of drains and waterways.

Priority 1: Typical Situations

- Sewage overflows
- Mains or manhole blockages
- Rising main breaks/bursts
- Faults posing danger to the public or property (i.e. missing manhole lids)
- Sewer trench collapse below carriageway.

4.4.1.2 Priority 2

Reticulation Networks situations that will likely cause escalation to a Priority 1 situation or cause significant concern to / issues for the public and/or customers if not attended to within 8 hours.

Priority 2: Typical Situations

- Reports of damage not currently affecting service or creating a hazard.

4.4.1.3 Priority 3

Any other faults, enquiries or Service Requests relating to the Reticulation Networks. Includes installation of lateral connections and LPGP systems.

Priority 3: Typical Situations

- Public enquiries
- Requests for mark-out of mains
- Requests for physical locating of sewer connections or buried manholes.

- Non-urgent investigation work
- Installation of new gravity lateral connections to private property boundaries
- Installation of new LPGP connections.

4.4.2 Incidents at the Rotorua WWTP, Rotomā/Rotoiti WWTP, Reticulation Network Pump Stations and Rotorua LTS

The following shall apply to the Rotorua WWTP Facility, Rotomā/Rotoiti WWTP Facility, Reticulation Network pump stations and Rotorua LTS.

4.4.2.1 Priority 1

Situations that pose an immediate danger or risk to personal safety, public health, significant damage to property or the environment, an imminent risk of or an actual breach of a condition of the Council Resource Consents or an imminent risk of material damage to Council's reputation

Priority 1: Typical Situations

- High-High level alarms that indicate an imminent risk of overflow to the environment or loss of containment
- Other alerts of potential for overflows (not otherwise alerted to by High-High level alarms)
- Process critical alarms
- Communications failures
- Electrical/mechanical faults of equipment defined as Tier 1 where no standby exists or the standby has failed to operate
- Significant overland flow at the LTS
- Mains break at the LTS
- Sprinkler faults affecting public access routes at the LTS
- Significant land washouts at LTS
- Public complaint of noise/odour
- Power outage (where no automatic standby generation exists or the automatic standby generation has failed to resume power supply)
- Reports of damage that is affecting service or representing a hazard or is of a nature that may result in further damage if left unattended

For Priority 1 situations the remote access response time (SCADA interrogation and intervention) and the onsite response time (if required) shall be measured from initial notification of the incident to the Contractor from the Council Call Centre. Service shall be restored within the specified time from notification unless on site circumstances (e.g. health and safety) prevent this. If applicable the site shall be completely reinstated within the specified time from notification unless delayed by weather, availability of parts/replacements, non-routine materials and specialist sub-contractors.

4.4.2.2 Priority 2

Situations that if not attended to within 8 hours may escalate to Priority 1 status.

Priority 2: Typical Situations

- Faults with equipment for which there is operational back-up capability that remains operational
- LPGP alarms if no overflow
- Reports of damage not affecting service and not representing a hazard and not of a nature that will result in further damage if left unattended

- Electrical/mechanical faults of equipment defined as Tier 1 where a standby exists and the standby has successfully operated
- Single sprinkler faults in LTS unless directly affecting public access routes
- Failure of Equipment defined as Tier 2

For Priority 2 situations the response time on site shall be within the specified time from initial notification of the incident to the Contractor from the Council Call Centre to arrival and assessment on site. Service shall be restored within the specified time from notification unless on site circumstances (e.g. health and safety) prevent this. The site shall be completely reinstated within the specified time from notification unless delayed by weather, availability of parts/replacements, non-routine materials and specialist sub-contractors.

4.4.2.3 Priority 3

The site shall be completely reinstated within the specified time of notification unless delayed by weather, availability of parts/replacements, non-routine materials and specialist sub-contractors.

Priority 3: Typical Situations

- Issues with the tidiness of the plant/ground/buildings
- Public enquiries
- Failure of non-critical equipment

For Priority 3 situations the response time on site shall be within the specified time from initial notification of the incident to the Contractor from the Council Call Centre to arrival and assessment on site. Service shall be restored within the specified time from notification unless circumstances (e.g. long lead time of non-critical equipment parts replacement) prevent this. The site shall be completely reinstated within the specified time from notification unless delayed by weather.

For issues not effecting the core service (e.g. tidiness), the service restoration time is not applicable.

4.5 EQUIPMENT DEFINITIONS

The following lists define the equipment at the Rotorua WWTP Facility categorised as Tier 1 or Tier 2 prior to the date of execution of the Contract. The failure of Tier 1 equipment may constitute a Priority 1 Event and the failure of Tier 2 equipment may constitute a Priority 2 event depending on the availability of standby equipment and the potential consequence of the failure. Equipment that is not captured in the below lists is classified as non-critical equipment.

Tier 1 WWTP Equipment:

- Inlet Screens
- Stormwater/Inlet bypass pumps
- Inlet and Primary Clarifier pumps
- Primary clarification equipment
- Blowers
- Diffusers
- Final Effluent Pumps
- Forest Pumps and irrigation
- Compressors
- Generators
- SCADA/Alarms

- MBR Permeate pumps

Tier 2 WWTP Equipment List

- RAS pumps
- Mixers
- Scum removal
- DAF
- WAS pumps
- Belt presses
- Grit removal & processing equipment
- Ethanol dosing equipment

The Contractor shall prepare and submit to the Administrator a revised list of Tier 1 and Tier 2 equipment within 3 Months of the Commencement Date based on an assessment of: process criticality and risk, health and safety risk and criticality to maintenance whereby Tier 1 represents a high level of risk/criticality, and Tier 2 represents a moderate level of risk/criticality.

The Contractor shall submit a revised list of Tier 1 and Tier 2 equipment installed at the Rotomā/Rotoiti WWTP Facility to the Administrator for approval within 40 Working Days of the Commencement Date.

All new equipment shall be defined as Tier 1, Tier 2, or non-critical based on assessment of: process criticality and risk, health and safety risk and criticality to maintenance whereby Tier 1 represents a high level of risk/criticality, and Tier 2 represents a moderate level of risk/criticality.

4.6 KPI NON-COMPLIANCE

If the Contractor fails to comply with any KPI in any given month calculated as a 12 month rolling average, unless defined otherwise in Appendix M, such failure will trigger or escalate various levels of reporting and remedial action depending on the significance and duration of the KPI non-compliance as outlined in Table 2 and the following subsections.

Table 2: KPI Non-Compliance Remedial Actions

Level	Remedial Action
1	KPI Non-Compliance Report
2	ERG Review
3	Cure Strategy
4	Default Notice

A KPI Non-Compliance Flow Chart following the processes described in the following sub-sections is provided as Figure M1 in Appendix M.

4.6.1 Level 1 - KPI Non-Compliance Report

Upon the Contractor becoming aware of the occurrence of a KPI Performance Failure Event the Contractor shall prepare and submit a KPI Non-Compliance Report to the Administrator describing:

- the chronological sequence of events leading to the KPI Performance Failure Event and (where possible) the actions taken by the Contractor to attempt to prevent the KPI Performance Failure Event from occurring and minimise the extent of its adverse effects

- a root cause analysis of the circumstances giving rise to the occurrence of the KPI Performance Failure Event
- the remedial or corrective actions the Contractor has implemented or intends to implement to prevent a recurrence of the KPI Performance Failure Event along with implementation timeframes.

The KPI Non-Compliance Report shall be submitted to the Administrator within 5 Working Days of the Contractor becoming aware of the occurrence of the KPI Performance Failure Event.

The parties acknowledge that a single event giving rise to a KPI Performance Failure Event may persist as a KPI Performance Failure Event for several months following the event as a result of the 12 month rolling average KPI measure. Following a KPI non-compliance, provided the affected KPI statistic is improving from month to month and the KPI statistic comes back into compliance (with no further events occurring that give rise to a further deterioration in the KPI statistic) and the Contractor has implemented (or is implementing) the remedial or corrective actions as set out in the associated KPI Non-Compliance Report then the particular KPI shall be deemed to be compliant in that particular month.

4.6.2 Level 2 - Executive Review Group Review

If, in the month or months following a KPI Performance Failure Event, further events or incidents occur that give rise to a further deterioration (or no improvement) in the KPI non-compliance then the Administrator may, at the Administrator's sole discretion, refer the ongoing KPI non-compliance to the ERG as an item for discussion at the next ERG meeting. For such matters referred to the ERG by the Administrator, the ERG will endeavour to determine an approach for remedying the KPI non-compliance by the Contractor.

If, as a result of the ERG meeting, the Council receives satisfactory assurance from the Contractor's senior management that the KPI non-compliance will be addressed by the Contractor, then no further specific action will be taken until the KPI statistics for the following month are reported. If in the month or months following assurance from the Contractor's senior management that the KPI non-compliance will be addressed by the Contractor, further events or incidents occur that give rise to a further deterioration (or no improvement) in the KPI non-compliance then the following will apply:

- the ERG may agree and implement a KPI Non-Compliance Cure Strategy in accordance with section 4.6.3; or
- if the ERG do not agree to implement a KPI Non-Compliance Cure Strategy or the KPI Non-Compliance Cure Strategy fails to remedy the KPI non-compliance then the Council may escalate the KPI Non-Compliance to Level 4 in accordance with clause 4.6.4 below; or
- the Council may elect not to take immediate action in which case the Council's rights and remedies in relation to the non-compliance will continue.

The provisions of this clause do not affect or limit Council's step-in rights pursuant to Part F of the Contract Conditions or its further rights and remedies as set out in the Contract Conditions or at Law.

4.6.3 Level 3 - KPI Non-Compliance Cure Strategy

a) KPI Non-Compliance Cure Strategy

The ERG may decide a KPI Non-Compliance Cure Strategy which will include the following:

- the actions required to be undertaken by the Contractor to remedy or cure a KPI non-compliance (Cure Actions);
- the time frame for the satisfactory implementation of the Cure Actions;
- that a portion of the future Monthly Service Payments are reserved against the satisfactory performance by the Contractor of the Cure Actions;
- the basis on which the Contractor may claim against the amounts reserved.

b) Implementation of KPI Non-Compliance Cure Strategy

Where the ERG determines that a KPI Non-Compliance Cure Strategy is to be implemented:

- i. The Contractor shall implement the Cure Actions within the agreed timeframe;
 - ii. The portion of the future Monthly Service Payments reserved against the satisfactory performance by the Contractor of the Cure Actions shall be deducted from future Monthly Service Payments and shall be held by the Council as a Cure Strategy Retention.
 - iii. The Contractor will be entitled to claim against the Cure Strategy Retention on the basis agreed.
 - iv. Without limiting the Council's rights and remedies under the Contract or at Law in any way, the Council may resort to the Cure Strategy Retention to reimburse the Council's costs and expenses incurred in remedying any KPI non-compliance and/or to recover any amounts payable by the Contractor to the Council following the termination or expiry of the Contract.
- c) The Cure Strategy Retention shall be treated as a retention for the purposes of the Construction Contracts Act 2002.
- d) If the implementing by the Contractor of a KPI Non-Compliance Cure Strategy fails to remedy the applicable KPI non-compliance the matter shall be referred to the ERG who may elect to: extend the KPI Non-Compliance Cure Strategy; or implement a further KPI Non-Compliance Cure Strategy; or amend the affected KPI's in Appendix M; or refer the matter to the Council
- e) If an ongoing KPI Non-Compliance is referred to the Council as per (d) above, the Council may elect to: do nothing, in which case the Council's rights and remedies in relation to the non-compliance will continue; escalate the KPI Non-Compliance to Level 4; or amend the affected KPI's in Appendix M.

4.6.4 Level 4 - Default Notice

Where a KPI Non-Compliance is escalated to Level 4, the Council may issue a Default Notice in accordance with clause 15.2.1(a) of the Contract Conditions, in which case the applicable provisions of clause 15 of the Contract Conditions shall apply.

4.7 MAJOR CONTRACT NON-COMPLIANCE INCIDENTS

There are key service delivery areas where a lack of response by the Contractor to a reported outage or problem would be a default of a material obligation under the Contract. The below list provides examples (but is not an exhaustive list):

- Failure to respond to urgent jobs (Priority 1 incidents).
- Customer(s) with no wastewater services for more than 8 hours.
- Missing or dislodged manhole covers not responded to.
- Sewage overflow not responded to.
- Environmental and/or public health incident arising from mismanagement of the Reticulation Network.
- Wilful neglect or negligence that causes the failure of any asset.

Without prejudice to any other right or remedy available to the Council under this Contract or at Law, if the Administrator considers that a major Contract non-compliance incident has occurred, the Administrator may, at the Administrator's discretion, refer the matter directly to the ERG (for Level 2 Remedial Action). If the Administrator gives notice to the Contractor that the Administrator considers that a major Contract non-compliance incident has occurred and has referred the matter directly to the ERG, then the Contractor shall prepare a KPI Non-Compliance Report as set out in section 4.6.1 within 5 Working Days of receipt of such notice and the KPI Non-Compliance Report shall be forwarded directly to the ERG members with a copy provided to the Administrator.

If the Administrator considers that a major Contract non-compliance incident has occurred and that the ongoing failure to comply may result in: public health risk, environmental degradation, damage to property or a danger to people the Council may exercise the Council's step-in rights as set out in Part F of the Contract Conditions, without prejudice to any other right or remedy available to the Council under this Contract or at Law.

5 Quality Assurance

5.1 OPERATIONS QUALITY PLAN

The Contractor shall prepare an Operations Quality Plan in accordance with this subsection and clauses 54 and 38 of the Contract Conditions and submit it to the Administrator for approval.

The Operations Quality Plan shall detail:

- all work procedures, policies, and schedules for undertaking Operations activities
- resource requirements to undertake the Operations
- the methods by which the Contractor will execute the Operations work. (In this respect the Contractor will produce Work Method Statements for all common types of work and append these to the Operations Quality Plan.)

As a minimum requirement, the Operations Quality Plan shall consider the methodology for the activities set-out in Table 3, to ensure compliance with this Schedule.

Table 3: Operations Quality Plan Minimum Requirements

Item	Key Points
Staff roles and responsibilities	<ul style="list-style-type: none"> - What are the general and specific responsibilities of personnel under the Operations Quality Plan.
How the Contractor will ensure that the requirements of the Council's Engineering Specifications are met	<ul style="list-style-type: none"> - How the Contractor shall ensure output requirements are met (standards) - How the asset condition is to be maintained - How works will be planned - Who will manage the maintenance plan, how and at what frequency
Contractor's communications and incident response procedures	<ul style="list-style-type: none"> - Contact numbers - Procedure for mobilising personnel for emergency works - Incident response procedures - Routine call-out procedures - Incident and call-out close-out procedures - Alternative communications systems for loss of mobile and / or landline networks
Materials and equipment planning and storage	<ul style="list-style-type: none"> - Procedural policies for storage of spare parts and materials
Inspections	<ul style="list-style-type: none"> - Frequency and scope of inspections to ensure compliance with the Contract
Preparation of reports	<ul style="list-style-type: none"> - How information will be collated and reports prepared
Maintenance Activities	<ul style="list-style-type: none"> - Description of preventative routine maintenance activities and asset inspections - Maintenance schedules to be appended
Recording of works completed	<ul style="list-style-type: none"> - How information will be collected and collated
Testing	<ul style="list-style-type: none"> - How compliance with requirements of the Council Resource Consents will be monitored and complied with - Frequency of testing to ensure compliance with specification and Council Resource Consents - Who will undertake the testing - How will the testing be undertaken

Item	Key Points
Receiving customer complaints, Service Requests and undertaking these works	<ul style="list-style-type: none"> - Procedure for recording, investigating and acting on complaints as described in Service Requests received
Identification and Rectification of Non-Complying Work	<ul style="list-style-type: none"> - Identification of the non-complying item, - Preparation of an appropriate method of repair and completion of the re-work. - Procedure for identifying and reporting on items of interest to the Council, particularly with respect to being proactive
Works on private property	<ul style="list-style-type: none"> - Actions to be taken on private property to ensure minimum disturbance and maintenance of property conditions - Dealing with damage of private property and reinstatement
Management of Subcontractors	<ul style="list-style-type: none"> - How Subcontractors will be selected, managed and audited

5.2 RECORD KEEPING

The Contractor shall have its own internal system and software for quality assurance document management, to confirm conformance with Council's Engineering Specifications as defined in section 7.2 and the Contract Documents.

5.3 EXTERNAL ACCREDITATION

Refer to clause 54.1.1 of the Contract Conditions. The Contractor shall ensure its quality assurance process holds external accreditation throughout the Contract Term.

5.4 AUDITS

Refer to section 1.28 of this Schedule and clause 41 of the Contract Conditions.

The Administrator may request to review and audit the Contractor's quality assurance management record keeping at any time, with 48 hours' notice.

6 Utility Services and Mobile Plant

The Contractor will be responsible for the cost of all consumables and utilities (e.g. power, water, communications) required for the carrying out of the Operations.

6.1 ELECTRICITY SUPPLY

6.1.1 Mains Supply

As at the Commencement Date, Council has an electricity supply agreement with Mercury (Mercury Electricity Supply Contract 1 December 2019) as set out in Appendix A.1. The agreement with Mercury is a fixed price electricity agreement for 2 years ending on 30/11/2021.

Unless agreed otherwise, electricity supply will continue to be procured by Council as part of Council's bulk supply arrangements. The Council reserves the right to enter into a new electricity supply agreement with any electricity retailer from time to time throughout the Contract Term at the Council's sole discretion. The Council will consult with the Contractor for the price impact of any new electricity agreement as described in Schedule 2.

All wastewater related electricity ICPs are listed in Appendix A.2 (inclusive of new ICP's associated with the implementation of the Rotomā/Rotoiti WWTP Facility and the Rotomā/Rotoiti Reticulation Network). The Contractor will be responsible for the payment of all wastewater related electricity ICP power costs throughout the Contract Term to the extent described in Schedule 2.

6.1.1.1 Rotorua WWTP Facility Existing Supply

As at the Commencement Date, the existing architecture of the power supplies to the major load centres is configured such that there are two parallel HV cables to two 11 kV/400V transformers mounted locally to each major switch room. This configuration allows for n-1 redundancy of the transformers provided each transformer can deliver the full load requirements for the load centre. The existing architecture is shown schematically on the 11kV/400V Power Supply Single Line Diagram included in Appendix A.3 along with a schedule setting out the ownership of assets associated with the electricity supply.

The Contractor shall be responsible for the operation, maintenance and renewal of all assets associated with the electricity supply that are owned by Council as defined on the 11kV/400V Power Supply Single Line Diagram and the schedule setting out the ownership of assets associated with the electricity supply included in Appendix A.3.

For the avoidance of doubt:

- all equipment on the raised concrete 11kV switchgear pad is owned by either Unison Networks (switchgear) or Vector AMS (metering units) and is therefore not the responsibility of the Contractor to operate, maintain and renew; and
- all other assets, including the seven 11kV cables leaving this raised concrete 11kV switchgear pad, all transformers, forest pump station 11 kV switchgear and all 400 V equipment (including generators) is owned by Council and is thus the Contractor's responsibility to operate, maintain and renew throughout the Contract Term.

The Contractor acknowledges that the Contractor has been provided with a copy of the Rotorua WWTP 11kV Visual Inspection Report prepared by Unison Networks Limited dated 11th April 2016.

6.1.2 Standby Power

The Contractor shall be responsible for purchasing and installing (if applicable), maintaining and renewing permanent and mobile generators as may be required to achieve the Contract KPIs throughout the Contract Term, including fulfilling the Handover Obligations at completion.

The Contractor shall undertake regular routine maintenance of generators and shall regularly test run generators as required to ensure compliance with the Contract KPI's in the event of a power outage.

6.1.2.1 Rotorua WWTP Facility

As at the Commencement Date, a permanent standby generator set of 600 kVA provides power to MCC 4 which also feeds MCC 1. This generator set automatically starts and provides power in case of mains failure.

Prior to the Commencement Date, Council have installed and commissioned a further 500 kVA standby generator connected to MCC 2 (the Bardenpho switch room). This has been connected in the same manner as the permanent standby generator described above.

As at the date of execution of the Contract a project is underway (generator synchronisation project) to enable the generators described in the two preceding paragraphs to be synchronised with the incoming mains supply. Council will be responsible for completing this project at Council's cost. Also refer to section 6.1.4,

These generators shall be operated, maintained and renewed as required over the Contract Term at the Contractor's cost.

The Final Effluent pump station to the Rotorua LTS is not provided with back-up power generation and the effluent storage ponds are relied on during a mains power outage.

6.1.2.2 Rotorua Wastewater Reticulation Network

As at the Commencement Date the following major pump stations in the Rotorua Reticulation Network have permanent fixed standby generators on-site:

- Elizabeth St (PS 4)
- Depot St (PS 6)
- Marine Parade (PS 2)
- Parawai Rd (PS 44)
- Hona Rd (PS 31)
- Holdens Av (PS 34).

The permanent standby generators at the facilities listed above are configured to auto-changeover and start automatically on power failure.

These generators shall be operated, maintained and renewed as required over the Contract Term at the Contractor's cost.

As at the Commencement Date the remainder of the pump stations in the Rotorua Reticulation Network have the ability to plug in mobile generators and are fitted with appropriate sized 3 phase weatherproof plugs (64, 32 or 16 Amp).

6.1.2.3 Mobile Generators Available at Commencement

As at the Commencement Date, Council have the following mobile generators which are located at the Rotorua WWTP Facility for the purpose of providing back-up emergency power supply to Reticulation Network pump stations that do not have dedicated standby generation installed:

- 1x100 kVA trailer mounted generator
- 1x20 kVA trailer mounted generator
- 1x15 kVA generator (that can be lifted onto a trailer for transportation)

Registration of these mobile generators will be transferred from the Council to the Contractor at the Commencement Date, and at the Expiry Date, the registration of the mobile generators in use shall be transferred from the Contractor back to the Council as part of the Handover Obligations. The parties acknowledge that Wastewater Services are the first priority for their usage. The Council may from time to time make a request to the Contractor for the Council to use these mobile generators for other purposes for short durations, in which case the Council shall return the generators to the Contractor fully re-fuelled. The Contractor's approval of a request by the Council to use the generators when they are not otherwise required for Wastewater Services shall not be unreasonably withheld.

The generators listed above shall be the responsibility of the Contractor to operate, maintain, renew, and Handover. including:

- obtaining and maintaining currency of all applicable licences, safety certifications and road use approvals (e.g. WOF, registration, electrical safety certification etc),
- obtaining and maintaining currency of on-road insurance (third party liability, theft and accidental loss)

Refer to section 6.1.3 for the requirements for procurement and renewals of generators.

For the avoidance of doubt, ownership of the mobile generators remains with Council, as with all other operational wastewater assets (e.g. pumps).

6.1.2.4 Rotomā/Rotoiti WWTP Facility

Refer to section 12.3.12.4 for standby power arrangements/requirements at the Rotomā/Rotoiti WWTP Facility.

6.1.2.5 Rotomā/Rotoiti Reticulation Network

Refer to section 12.4.7 for standby power arrangements/requirements for the Rotomā/Rotoiti Reticulation Network.

6.1.3 Requirements for New Generators

Electrical equipment associated with any new standby generators shall comply with the corrosion protection requirements set out in the Council's Engineering Specifications.

Generating sets shall consist of a diesel engine, a direct coupled alternator, an associated electrical switchboard and ancillary equipment all mounted on a suitable base frame and enclosed in a weatherproof kiosk.

The standby generator package is to provide back-up electrical power for fundamental equipment to ensure the operability of the facility in the event of a mains power failure, and to operate in parallel with the Grid when required. The standby generator shall have a circuit breaker, and control panel, and be packaged suitably for operation outdoors under the site ambient conditions. The standby generator shall include all equipment necessary to form a completely operational power generation system.

Where any existing unused generator set is reinstated to service, it shall first be fully overhauled and serviced to return to prime condition.

The generator fuel tank(s) shall be a double skinned integral base tank. The base frame shall incorporate skid and vibration isolators. The Contractor shall ensure sufficient fuel storage is provided, and/or refuelling is undertaken frequently enough to ensure compliance with the KPI's.

The generator set shall be provided with a compact super sound attenuated acoustic weatherproof canopy and shall be installed in an outdoor environment without any additional shelter. The canopy shall be a specifically designed, factory assembled compact enclosure. Alternative ad-hoc canopy enclosures will not be accepted.

The generator shall comply with the following requirements:

- Shall be a diesel generator supplying 400 V at 50 Hz
- The acoustic level shall not exceed 78 dB (A) measured at 1m at any time during the operation of the generator. The acoustic level at 7 meters shall not exceed 68 dB (A) at any time during the operation of the generator.

6.1.4 Regional Coincident Peak Demand Management Program, Enel X Electricity Agreement and Generator Synchronisation Project

6.1.4.1 Regional Coincident Peak Demand Management Program

As at the date of execution of the Contract, Council is part of the New Zealand Regional Coincident Peak Demand (RCPD) Management Program (RCPD Program). The RCPD Program enables large electricity consumers with standby generation equipment installed at their facilities to reduce electricity network charges and/or earn revenue by reducing electricity demand or generating and exporting electricity to the national grid during times that coincide with the highest peak electricity demand periods in the large consumers region.

6.1.4.2 Enel X Agreement

Council has entered into an agreement with Enel X New Zealand Ltd (the Enel X Agreement). Enel X is a company that monitors and manages large customers participation in the RCPD Program on the customers behalf for an annual management fee.

Two existing Council facilities are included in the RCPD Program (as managed by Enel X under the Enel X Agreement), one of those being the Rotorua WWTP Facility.

The existing Enel X Agreement, including the payment of annual management fees to Enel X will remain with Council until the expiry date of the Enel X Agreement on 31 August 2021.

Upon expiry of the existing Enel X Agreement, either, both or neither party may choose to enter into a new agreement with Enel X. No obligation exists for either Council or the Contractor to enter into a further agreement with Enel X upon expiry of the existing Enel X Agreement.

6.1.4.3 Rotorua WWTP Facility Generator Synchronisation Project

Prior to the date of execution of the Contract, the Council has commissioned a project to allow the two existing generators at the Rotorua WWTP Facility to synchronise with the national grid.

It is not the purpose of this project to allow these two generators to supply power to the national grid.

The operation of the generators with the synchronisation control system (i.e. the purpose of the project) is intended for the situations described as follows:

1. A power outage on the Unison network will start the 2 generators, generator 1 will provide power to MCC1 / MCC4 and generator 2 will provide power to MCC2. There is no generator backup supply for MCC3 or the forest pumps. In this situation the generators will start as soon as there is a mains power outage. Upon return of mains power, the generators will synchronise with the mains and power will be switched to normal. There is no second power outage to the Rotorua WWTP Facility when the power supply switches from generator back to mains supply. This is the major advantage of implementing a synchronised system.

2. During periods of peak demand (on the RCPD programme as controlled by Enel X at the Commencement Date), the generators will start, synchronise with the mains and supply power to the Rotorua WWTP Facility. As the generators are synchronised, they supply electricity to the Rotorua WWTP Facility to the output set point of the generators and the remainder of the Rotorua WWTP Facility power demand is supplied by the national grid. This means that any excess electricity generated by MCC1 and MCC2 can be used by MCC3 or the forest as all these sites are on the same 11kV supply. This is only possible if the generators are synchronised.
3. During an under frequency event on the national electricity grid (on the Interruptible Load programme), the generators will start and synchronise with the grid and reduce load on the grid. This requires the generators to run in parallel with the grid which is only possible if the generators are synchronised.
4. During routine periodic load testing of the generators, the generators can be started, synchronise, take load, reduce load and turn off without any interruption/outage to the electricity supply to the Rotorua WWTP Facility. Thus, the generators can be properly tested and run under load without any interference to Rotorua WWTP Facility Operations.

All the situations described above require the synchronisation control system to be completed and commissioned. The synchronisation control system ensures that no energy is generated into the grid, if there is too much electricity generated, the controller will reduce the generator output.

The control systems also includes protection systems for safety to ensure the generator will not supply into an isolated grid or into a grid that has a fault on it. The system includes NVD (Neutral Voltage Displacement) relays to assist with this protection. During network faults the generators will only supply MCC1 / MCC4 and MCC2.

Without these control and protection systems, it would not be possible to run the generators for situations 2 to 4 above, and it would only be possible to automate operation of the generators as described in situation 1 with a second interruption in the power supply to the Rotorua WWTP Facility upon return of the mains power supply (no synchronising).

As at the date of execution of the Contract, Council has undertaken all of the necessary works required to allow the Rotorua WWTP Facility generators to be synchronised with the electricity supply system. Based on the commissioning protection value information provided to Unison by Council, Unison may require additional protection works to be implemented before Unison will provide authorisation for the generators to synchronise with the electricity supply network. It will be Council's responsibility to complete any additional protection works required by Unison at no cost to the Contractor.

6.1.4.4 Contractor's Obligations

Until the expiry of the existing Enel X Agreement the Contractor shall:

- allow the remote operation of the Rotorua WWTP Facility generators by Enel X
- allow Enel X staff access to the Enel X control equipment installed at the Rotorua WWTP Facility
- take all reasonable care in relation to the protection of the Enel X control equipment installed at the Rotorua WWTP Facility
- remain responsible for all generator operational and maintenance costs, including (but not limited to) fuel.

The Contractor shall, on a case by case basis, have the discretion to inhibit remote generator operation by Enel X taking into consideration: environmental, operational, safety, occupational health and electrical or mechanical issues. Such discretion shall not be used unreasonably.

The above obligations shall continue in the event that the Council enters into a new agreement with Enel X that includes the Rotorua WWTP Facility upon expiry of the existing Enel X Agreement.

6.2 RADIO TELEMETRY, REMOTE MONITORING AND CONTROL

6.2.1 Radio Telemetry

The Contractor will be responsible for operating, maintaining and renewing the wastewater radio telemetry system across the district (or other such remote communications system(s) as the Contractor may elect to use) throughout the Contract Term.

As at the Commencement Date Council holds licences (through Radio Spectrum Management (RSM) <https://www.rsm.govt.nz/>) to use a number of radio telemetry links associated with the wastewater system across the district. The most recent annual licence fee invoice from RSM (including the list of licences) is included in Appendix B. The renewal of radio frequency licences and payment of licence fees to RSM shall be the responsibility of the Contractor.

As at the Commencement Date Council also pays annual fees to Communication Networks Management Ltd for the use of a radio repeater station and a radio channel for communication with some of the outlying pump stations in the Rotorua Reticulation Network. The most recent invoices for these are also included in Appendix B. Maintenance of communication to the outlying pump station and the payment of any associated fees to Communication Networks Management Ltd or any other fees to use a third party communications network shall be the responsibility of the Contractor.

When the Rotomā/Rotoiti Sewerage Scheme was built, three additional radio telemetry stations were added to the radio telemetry network by the Council. The maintenance of telemetry to these locations and the payment of any associated licensing costs and fees shall be the responsibility of the Contractor.

6.2.2 Remote Monitoring and Control

The Rotorua WWTP SCADA system and control room is the operations hub for the Rotorua WWTP, all of the pump stations in the Rotorua Reticulation Network (including outlying connected satellite communities) and the Rotorua LTS.

All information is telemetered to the Rotorua WWTP via telemetry radio (refer to the Control and Communication Architecture diagram in Appendix C).

Alarms are sent out via text message to the duty operator's phone. The duty operator can remotely access the SCADA system to interrogate the cause of the alarm and determine if intervention is required and its priority. Remote access also allows the operator to make control changes remotely (start/stop pumps, acknowledge & reset alarms etc).

As at the Commencement Date Council has an arrangement with Horizon Technology Ltd to provide support to resolve SCADA faults and issues. Costs arising from requirements for support from Horizon Technology or any other SCADA, control system and communications system sub-contractors shall be payable by the Contractor.

The Contractor shall ensure that WWTP Facilities and Reticulation Networks operations personnel on duty have on their person a mobile alarm paging device that will receive, annunciate and display all priority alarms.

The Contractor shall also ensure that the WWTP Facilities and Reticulation Networks operations personnel on duty have access to the relevant SCADA system at their location while on duty in order to interrogate the cause of alarms, the operational status of facilities and the ability to remotely make control changes as required in response to priority alarms. The Contractor shall provide read-only SCADA access for the Council's authorised personnel.

The Contractor shall also ensure that the WWTP Facilities and Reticulation Networks operations personnel on duty have a mobile phone, mobile radio, or other such means of mobile voice to voice communication that can be contacted by the Council's Call Centre at any time.

Details of the pump stations with remote monitoring capability as at the Commencement Date are provided in section 10.4.2.

6.3 POTABLE WATER SUPPLY

In relation to the potable water consumption associated with the Operations, the Contractor will be a commercial user of potable water from Council's perspective and will be billed accordingly. The potable water usage will be metered, and the Contractor shall purchase potable water used based on the standard RLC water supply rates and charges applicable from time to time.

6.4 GAS

The Contractor shall be responsible for organising the supply of and payment for any gas usage at any of the WWTP Facilities.

6.5 CHEMICAL AND ENERGY MANAGEMENT PLAN

6.5.1 Timeframes and Revisions

The Contractor shall provide a draft Chemical and Energy Management Plan and submit it for review by the Administrator within 3 months after the Commencement Date. The draft Chemical and Energy Management Plan will be reviewed by the Administrator and any comments will be provided by the Administrator to the Contractor within 1 month of receipt by the Administrator of the Contractor's draft. The Contractor shall produce and submit to the Administrator a working version of the Chemical and Energy Management Plan within 1 month of receipt of the Administrator's comments on the draft version. The working version shall incorporate any necessary amendments based on the Administrator's review of the draft version.

The Chemical and Energy Management Plan will be a live document and will require revisions throughout the Contract Term to stay relevant with Contract Documents and regulatory requirements and shall be updated in line with the overall Quality Management System requirements. The Chemical and Energy Management Plan shall encompass the energy and chemicals used at all facilities within the scope of the Contract that use electricity, fuel and chemicals.

Any amendments to the Chemical and Energy Management Plan shall be resubmitted to the Administrator in electronic format with changes tracked from the previous version.

6.5.2 Contents

As a minimum, the Chemical and Energy Management Plan shall cover:

1. Power Base Unit Usage (PBUU) targets that will be measured against flow and load and will be used for benchmarking annual performance and efficiency
2. Load shedding arrangements while under emergency generator operation
3. Details for the optimisation of power usage for the WWTP Facilities
4. Receiving and transfer protocol of chemicals to storage areas at the WWTP Facilities
5. Handling and storage of all chemicals at the WWTP Facilities includes process chemicals, laboratory chemicals and chemicals used for maintenance purposes, in line with HSNO or other current applicable hazardous substances laws and regulations
6. Receiving, handling, transfer and storage of fuels and oils at the WWTP Facilities and Reticulation Networks Facilities
7. Defining and handling procedures of small, medium and large chemical, petroleum and oil spills
8. Emergency/contingency action plans

9. The required health and safety protocols and signage to be implemented in relation to chemicals, fuels and electrical services at the WWTP Facilities and Reticulation Networks Facilities
10. Chemical Base Unit Usage (CBUU) targets that will be measured against flow and load and will be used for benchmarking annual performance and efficiency
11. Details for the optimisation of chemical usage at the WWTP Facilities
12. Outline of training completed by personnel who will handle chemicals and fuel
13. Provision for future reporting.

6.6 TANDEM TRAILER PUMPING UNIT

As at the Commencement Date, Council own a tandem trailer mounted mobile pumping unit which is located at the Rotorua WWTP Facility for the purpose of providing back-up emergency over-pumping capability in the event of a wastewater Reticulation Network or WWTP Facility issue or incident urgently requiring emergency pumping equipment.

Registration of this tandem trailer pumping unit will be transferred from the Council to the Contractor at the Commencement Date, and at the Expiry Date, the registration of the mobile pumping unit in use shall be transferred from the Contractor back to the Council as part of the Handover Obligations. The parties acknowledge that Wastewater Services are the first priority for its usage. The Council may from time to time make a request to the Contractor for the Council to use the tandem trailer mounted mobile pumping unit for other purposes for short durations, in which case the Council shall return the tandem trailer mounted mobile pumping unit to the Contractor in a clean state and fully re-fuelled. The Contractor's approval of a request by the Council to use the tandem trailer mounted mobile pumping unit when it is not otherwise required for Wastewater Services shall not be unreasonably withheld.

The tandem trailer mounted mobile pumping unit shall be the responsibility of the Contractor to operate, maintain and renew and Handover, including:

- obtaining and maintaining currency of all applicable licences, safety certifications and road use approvals (e.g. WOF, registration)
- obtaining and maintaining currency of on-road insurance (third party liability, theft and accidental loss)

For the avoidance of doubt, ownership of the tandem trailer pumping unit remains with Council, as with all other operational wastewater assets (e.g. pumps).

7 Standards, Specifications and Codes

7.1 ORDER OF PRECEDENCE

Refer to section 1.1.3.

7.2 COUNCIL'S ENGINEERING SPECIFICATIONS

The Contractor shall comply with the specifications and standards referred to in Table 4, collectively referred to herein as the "Council's Engineering Specifications" (as amended or replaced by the Council from time to time) unless otherwise agreed in writing by the Administrator.

Unless stated otherwise:

- The Contractor shall comply with all standards, codes and regulations referred to within the documents listed below
- Reference to a standard, specification, code of practice or guideline refers to the latest edition and includes the latest amendments or revisions and applicable replacement standard, specification, code of practice or guideline if a standard, specification, code of practice or guideline becomes superseded.

It is the Contractor's responsibility to make reference to their own set of these publications.

New applicable codes of practice and/or standards may be issued during the Contract Term. The Administrator reserves the right to include these in the Council's Engineering Specifications.

Table 4: Council's Engineering Specifications

Author	Title
NZTA	TNZ G/1 Temporary Traffic Control
Rotorua District Council	Safety in Confined Spaces and Working in Gaseous Atmospheres
Waikato Local Authority Shared Services	Regional Infrastructure Technical Specification
Rotorua District Council	Hydrogen-Sulphide (H ₂ S) Corrosion Protection of Electrical Equipment
NZS 4404:1981	Code of Practice for Urban Land Sub-Division
NZS 7643:1979	Code of Practice for the Installation of unplasticised PVC pipe Systems
Rotorua District Council	Corridor Access Request
Water Services Association of Australia	WSA 07 Pressure Sewerage Code of Australia

7.3 CODES AND STANDARDS

Except as otherwise noted in the Council's Requirements, all materials and workmanship shall comply with the requirements of such Standards, Codes and other related documents issued by Standards New Zealand, as may be applicable to any parts of the carrying out of the Operations. In the event of there being no relevant New Zealand Standard, Code or other related document, Standards and Codes of Standards Australia, British Standards Institution (BSI), the American Society of Testing and Materials (ASTM) or of the International Organisation for Standardization (ISO), shall apply in that order of precedence.

The relevant standards or codes of practice referred to in Schedule shall be used for the carrying out of the Operations. The minimum requirements for the carrying out of the Operations shall however, be those of the relevant New Zealand or Australian standard.

Standard specifications identified by various abbreviations are referred to in this Schedule and on the drawings. Abbreviations used are as follows and relate to standards issued by the following organisations:

AS	Standards Association of Australia
ASTM	American Society for Testing and Materials
AWS	American Welding Society
BS	British Standards Institute
IEC	International Electrotechnical Commission (Geneva)
ISO	International Standards Organisation
NRB	National Roads Board
NZS	Standards Association of New Zealand
NZTA	New Zealand Transport Agency
TELARC	Testing Laboratory Registration Council of New Zealand
TNZ	Transit New Zealand (the predecessor of NZTA)

If there is a discrepancy between documents or a revision of an applicable standard is proposed or an applicable standard becomes obsolete or superseded then the Contractor shall notify the Administrator in writing for clarification.

7.4 ASSET SERVICE LIFE

The Minimum Service Life Requirements to be achieved for various assets are specified in Table 5 - Table 9, Table 18, the Council's Engineering Specifications and the 2017 Wastewater Asset Management Plan (AMP). Where any discrepancy arises, the Minimum Service Life Requirements specified in Table 5 - Table 9, and Table 18 shall take precedence.

Within three months of the Commencement Date the Contractor shall complete the validation and categorisation of Council's wastewater assets into the categories in Table 5 - Table 9 and Table 18 and produce a Condition Assessment criteria dashboard which shall be maintained through the Contract Term and included in the Annual Renewals Work Plan. The Contractor shall also submit to the Council a report at the individual asset level for each Table 19 asset class requested by the Council.

Table 5: Product Service Life Requirements

Product Type	Minimum Service Life Requirement (years)
Bolts, nuts and washers	50
Couplings and Connections	50
Flanges	50
Gaskets	50
Lids on manholes and valve boxes	50
Pipe fittings – metallic and plastic	40
Valve and meter boxes	50

Table 6: Pipe Service Life Requirements

Asset Category	Material	Minimum Service Life Requirement (years)
Wastewater Gravity Mains*	AC-L	50
	CC-L	50
	EW-L	50
	GFRP	50
	GI	50

Asset Category	Material	Minimum Service Life Requirement (years)
	CC-RRJ	60
	AC	65
	FIBR-C	65
	CI	90
	CI-CL	90
	EW	90
	HATHER	90
	HDPE	100
	PDP	100
	PE	100
	UPVC	100
	UPVC-H	100
Public Gravity Laterals*		
Low Pressure Sewers (from on-property pre-treatment system outlet connection onward)	PE	90
Wastewater Rising Mains	AC	60
	CC-RRJ	60
	FIBR-C	60
	CI	90
	DI	90
	HDP	90
	PE	90
	UPVC	90
WWTP - chemical dosing	uPVC	15
WWTP – not chemical dosing	uPVC	50
WWTP – not chemical dosing	PE	50

* Included in Gravity Mains Renewals programme. For Public Gravity Laterals the Minimum Service Life Requirement to be equivalent to Gravity Mains of the same material.

Table 7: Structural and Civil Service Life Requirements

Asset Category	Minimum Service Life Requirement (years)
Building roof - metallic or plastic	25
Building roof – non-ferrous	50
Buildings and Masonry Structures	100
Concrete Tanks (excl STEP Tanks)	100
Fences and Gates	25
Lids on manholes, chambers & valve boxes	50
LPGP Chambers	100
Manholes and Chambers - New	100
Manholes and Chambers - Rehabilitated (lined), manholes and chambers at the Rotorua WWTP Facility and manholes and chambers at pump stations in corrosive environments (both categories)	50
Protective coatings to accessways, handrails, ladders and roof steelwork	20

Asset Category	Minimum Service Life Requirement (years)
Protective coatings to steel surfaces	10
Protective coatings to steel surfaces at category 1 pump stations with highly corrosive environments	5
Roads - Sealed (until reseal)	10
Roads – unsealed	10
Specialist protective coatings to concrete surfaces exposed to hydrogen sulphide	20
Structure – aluminium*	50
Structure – concrete (not listed elsewhere)	50
Structure – FRP	25
Structure – Steel*	40
Tank - FRP/GRP/Plastic Tanks (other than main reactors and LPGP Chambers)	25
Tank – steel	50
WWTP Pond/Lagoon	300

* Includes Accessways, Handrails, Ladders & roof structures

Table 8: Mechanical Service Life Requirements

Asset Category	Minimum Service Life Requirement (years)
Actuators - Electric	10
Actuators – Pneumatic or hydraulic	15
Aeration and Diffuser Systems (excluding blowers, pipework and valves)	10
Air conditioner – ducted, air handling unit or air purifier	20
Air conditioner – split system	7
Blowers	10
Compressors	10
Exempt Assets - refer Appendix N	
Filters, separators and driers (excluding membranes)	10
Generators - fixed	30
Generators - mobile	25
Inlet Works Mechanical Equipment (including screens and conveyors)	15
LPGP Pumps	25*
Membranes	10
Miscellaneous Materials and Equipment Not Specifically Listed Elsewhere	10
Mixers	10
Motors – not electric	30
Process and mechanical equipment (not listed elsewhere)	25
Pumps – chemical dosing	10
Pumps – non chemical dosing (excluding LPGP and STEP pumps)	20
Pumps at pump stations with corrosive environments – category 2	10
Pumps at pump stations with highly corrosive environments - category 1	5
Sludge Dewatering Equipment and Dewatered Sludge conveyors	15

Asset Category	Minimum Service Life Requirement (years)
Valves - Plastic	15
Valves 150NB and larger (non-plastic)	50
Valves smaller than 150NB (non-plastic)	50

* The 25 year Minimum Service Life Requirement for LPGP pumps is the expectation under normal operating conditions and does not include installations subject to misuse by customers. See section 11.5.3 for situations involving customer misuse. The degree of misuse and environment in which the LPGPs operate shall be taken into account by the Parties in agreeing handback conditions for these assets. The current service life in use may be less due to external factors.

Table 9: Electrical Service Life Requirements

Asset Category	Minimum Service Life Requirement (years)
Control Panels and Cabinetry for instrumentation and electrical equipment	30
Electrical componentry and equipment	15
Electrical componentry & equipment – unprotected such as slip ring, electric truck, etc	10
Electrical componentry & equipment at pump stations with corrosive environments - category 2	10
Electrical componentry & equipment at pump stations with highly corrosive environments - category 1	5
HMI	15
HV switchgear	20
Instrumentation, sensors and switches – Field Mounted	10
Instrumentation, sensors and switches – Mounted in panels and switchrooms	15
IT & OT devices (routers, switches but not PCs or servers)	10
Lighting (not globes)	20
Motor starter (not VSD)	20
Motors – electric	20
PCs & servers	5
PLCs, control equipment and communications equipment	15
Transformers	40
UPS (not batteries)	5
UV lamps & ballasts	1
VSD	15

Table 10: List of Pump Stations with Corrosive Environments

Category 1 – Highly Corrosive	Category 2 - Corrosive
3 Ohinemutu	2 Marine Parade
5 Polynesian Pools	11 Whakarewarewa
15 Queen Elizabeth Hospital	28 Hinemaru
27 Government Gardens	31 Hona Rd
61 Landfill Slave	32 Komatsu

The Service Life of items shall meet the minimum atmospheric corrosivity category “Category C5-I: Very High Industrial” as per AS/NZS 2312:2002, Aggressive industrial areas, where the environment may be acidic with a pH of less than 5. All materials and equipment are to be designed to meet the requirements of this exposure standard. The Service Life shall consider the presence of wastewater and wastewater products. All materials shall be specified to be sufficiently resistant to UV light to meet the Minimum Service Life Requirements.

Potentially high levels of sewage derived hydrogen sulphide can be released particularly in areas of turbulence. The design shall account for corrosion protection to meet the required Minimum Service Life Requirements, allowing for the expected high hydrogen sulphide levels within and around the Reticulation Networks and WWTP Facilities pipelines and structures, including in the headspaces of storage and process tanks and concrete structures.

Mechanical and electrical equipment may be assessed on an hours-run basis rather than a period of years.

7.5 SCHEDULE 15 AND THE CONTRACTOR'S GENERAL TECHNICAL SPECIFICATIONS

The parties acknowledge that Schedule 15 is a high-level technical specification setting out the general intent of the standards of workmanship, equipment, materials, service life and redundancy for renewals and capital works undertaken at the WWTP Facilities. It is also acknowledged by the parties that Schedule 15 requires further development of detail in many areas before it could be used as a comprehensive detailed technical specification by trades staff and subcontractors in the implementation of any significant capital works.

It is intended (but not mandatory) that at some time during the Contract Term, Schedule 15 will be adopted by the Contractor as the basis for the first version of the Contractor's General Technical Specifications for all renewals and minor capital works undertaken at the WWTP Facilities thereafter throughout the Contract Term.

It is intended that eventually the Contractor's General Technical Specifications (so developed from Schedule 15) will become the detailed technical specification for an eventual major upgrade of the Rotorua WWTP Facility.

The Contractor's General Technical Specifications, if so developed, would be a living document that may be updated from time to time throughout the Contract Term and handed back to Council at the Expiry Date.

The Contractor may prepare and progressively develop for the Administrator's approval the Contractor's General Technical Specifications for the WWTP Facilities based on the requirements of this Schedule 16, Schedule 15, Good Industry Practice, the Council's Engineering Specifications, the Minimum Service Life Requirements and the reliability and redundancy requirements of section 3.1 of Schedule 15, taking into consideration the environment present at the Rotorua WWTP Facility Site and the lessons learnt as discussed in section 3.7 of Schedule 15.

The Contractor's General Technical Specifications, if and when so produced by the Contractor, shall endeavour, as it is progressively developed, to set out the materials and workmanship requirements of each trade along with the specific codes and standards to be adhered to at the WWTP Facilities.

If and when the Contractor elects to produce the Contractor's General Technical Specifications, the Contractor shall submit the draft of the Contractor's General Technical Specifications to the Administrator for review and approval. The Administrator shall review the draft and provide any comments to the Contractor within 1 month of receipt of the draft. The Contractor shall make any amendments necessary and submit the revised version of Contractor's General Technical Specifications to the Administrator within 1 month of receipt of the Administrator's comments. The Administrator shall review the revised version and either accept or reject the revised amendments within 2 weeks of receipt of the revised version. The Administrator's acceptance of amendments in the revised version shall not be unreasonably withheld.

The Contractor's General Technical Specifications, when approved by the Administrator, shall supersede Schedule 15.

Schedule 15 and the Contractor's General Technical Specifications do not apply to renewals to the Assets to be Decommissioned.

8 Rotorua WWTP Facility and Rotorua LTS Operations

8.1 MOBILISATION AND TRANSITION PERIOD

The Contractor shall include its mobilisation and transition planning for the commencement of the Rotorua WWTP Facility Operations and the Rotorua LTS Operations in its Mobilisation and Transition Plan to be prepared and submitted in accordance with clause 38.5 of the Contract Conditions.

The purpose of the mobilisation and transition period in relation to the Rotorua WWTP Facility Operations and the Rotorua LTS Operations is for the Council's operations personnel to provide on the job training to the Contractor's operations personnel on the specifics of the operation of the Rotorua WWTP Facility and the Rotorua LTS.

The Contractor's mobilisation and transition period for the Rotorua WWTP Facility Operations and the Rotorua LTS Operations shall not commence until the Contractor's Mobilisation and Transition Plan has been approved by the Administrator pursuant to clause 38.5 of the Contract Conditions.

During the mobilisation and transition period, the Council shall ensure the Council's operations team provide assistance and training to the Contractor's personnel (if requested by the Contractor), however the responsibility for the proper carrying out of the Rotorua WWTP Facility Operations and the Rotorua LTS Operations shall be the Contractor's obligation from the Commencement Date.

8.2 ROTORUA WWTP FACILITY OPERATIONS - SCOPE AND OBLIGATIONS

This section sets out the detailed scope of the Rotorua WWTP Facility Operations. The Contractor's Rotorua LTS Operations obligations are set out in section 8.19.

8.2.1 General

The Contractor's Rotorua WWTP Facility Operations obligations include the operation and maintenance of the Rotorua WWTP Facility, including the existing solids processing facilities and the existing Final Effluent lagoons.

The Contractor shall be responsible for carrying out the Rotorua WWTP Facility Operations and undertaking all maintenance, renewals and minor upgrades required to meet the standards required under the applicable Council Resource Consents, KPIs and comply with the requirements of the Contract Documents at the Contractor's Cost.

The Rotorua WWTP Facility Operations shall commence on the Commencement Date and be preceded by the mobilisation and transition period (as set out in clause 8.1). During the mobilisation and transition period, the existing Council operations team will work with the Contractor's operations personnel to jointly operate the Rotorua WWTP Facility. The mobilisation and transition requirements are further detailed in section 8.1. For the avoidance of doubt, the Council shall be responsible for the Rotorua WWTP Facility Operations up to the Commencement Date and the Contractor's responsibility for the Rotorua WWTP Facility Operations shall commence on the Commencement Date.

8.2.2 Acceptance and Treatment of Influent

Subject to section 8.2.3, from the Commencement Date until the Expiry Date the Contractor shall accept and treat all Influent received at the Rotorua WWTP Facility to the standards required under the applicable Council Resource Consents and the Contract Documents.

Subject to section 8.2.3, the Contractor shall operate and maintain the Rotorua WWTP Facility such that the Final Effluent and dewatered biosolids produced meet the average effluent quality achieved prior to the Commencement Date as set out in Appendix V.5 of this Schedule and the required standards, as detailed in sections 8.11 and 9.1 of this Schedule, and shall comply with all current requirements as specified in the Rotorua WWTP Facility Resource Consents other than the Excepted Rotorua WWTP Facility Resource Consent Obligations.

8.2.3 Influent Events Beyond the Contractor's Reasonable Control

An Influent Event is an event determined by the Administrator as being beyond the Contractor's reasonable control, that occurs for a period sufficient to have a material impact on the Contractor's ability to achieve the KPIs and/or on the Contractor's costs of carrying out the Rotorua WWTP Facility Operations, and that arises due to:

1. Subject to the Contractor's compliance with section 8.12, a severe weather event resulting in a Rotorua WWTP Influent flowrate beyond the Rotorua WWTP Facility's capability to fully contain and/or treat to the required standard, or
2. Rotorua WWTP Facility Influent pollutant load being materially and measurably elevated above the 0.72% compound annual growth projection over a rolling 12 month period, as measured by the weekly samples described in section 8.11.1, or
3. The rolling 365 day total (annual) rainfall as measured at the Whakarewarewa Rain Station exceeding 2500mm resulting in elevated annual average daily Influent flow

and for no other reasons.

If the Contractor considers that an Influent Event has occurred or is potentially occurring then the Contractor shall promptly provide an initial notification to the Administrator (an early warning) of any such occurrence, or potential occurrence) and shall within a reasonable time following the issue of the initial notification provide details of:

- the magnitude and duration of the Influent Event, or an indication that the Influent Event is short term or may be of a sustained or indefinite duration; and
- the known or suspected reasons for the occurrence; and
- the known or suspected impacts of the occurrence relative to KPI performance; and/or
- the actions taken by the Contractor to mitigate the impact of the Influent Event and an indication of the Contractor's likely costs to do so.

Such supporting details and information shall include Influent flow and/or Influent quality data and may also include weather station data, photographic records of the physical impacts, calibrated process simulation model scenario modelling outputs, SCADA trends and other supporting evidence.

The Administrator shall review the Contractor's notice and supporting details provided, and shall within 5 Working Days of the receipt of the notice and supporting evidence from the Contractor advise the Contractor if the Administrator determines that an Influent Event has occurred. The Administrator may, at the Administrator's sole discretion, engage an independent peer review of the Contractor's supporting information and/or all procedures that have been followed in collating the supporting information.

During an Influent Event, the Contractor shall endeavour to contain and treat all Influent received at the Rotorua WWTP Facility to the standards required under the applicable Council Resource Consents and the Contract Documents for the duration of the Influent Event.

The Contractor shall not be in default of its Rotorua WWTP Facility Operations performance obligations under the Contract Documents to the extent that any failure to contain and treat all Influent received at the Rotorua WWTP Facility to the required standards arises due to an Influent Event and the Contractor has made all reasonable endeavours to mitigate the impact of the Influent Event and maintain compliance with the KPI's.

The additional costs incurred by the Contractor in endeavouring to treat Influent during an Influent Event and/or in returning the Rotorua WWTP Facility to a compliant Operations condition following an Influent Event shall be payable by the Council determined as for a Mandatory Variation in accordance with clause 43.1.14 of the Contract Conditions.

The Contractor's compliance with the requirements of section 8.12 shall not be deemed to be additional costs incurred due to an Influent Event.

For the purposes of establishing a baseline upon which to determine the basis for any additional Rotorua WWTP Facility Operations costs associated with an Influent Event, the parties acknowledge that:

- the Contractor's estimates provided in Attachment B of Schedule 2 were based on annual Rotorua WWTP Facility Operations cost information provided during the tender phase in NTT08 for the period 1 July 2107 to 30 June 2018 inflated for growth in the Rotorua WWTP Facility catchment of 0.72% compound annual growth over the Contract Term; and
- the Rotorua WWTP Facility Influent flows and pollutant loads over the period 1 July 2107 to 30 June 2018 (i.e. the Influent flows and loads over the period that the cost estimates were extrapolated from) are summarised in Table 11 below.

Table 11: Rotorua WWTP Facility average Influent daily flow and daily mass loads averaged over 12 months ending 30 June 2018

ADF (m ³ /d)	COD (kg/d)	DRP (kg/d)	NH4-N (kg/d)	TKN (kg/d)	TP (Kg/d)	TSS (Kg/d)	Alk (Kg/d)	VSS (Kg/d)
21457	9290	68	662	1000	112	5403	4129	4972

The parties acknowledge that the period 1 July 2107 to 30 June 2018 was a wet period and therefore the operating costs provided in NTT08 are conservatively high.

Any assessment of additional Rotorua WWTP Facility Operations costs associated with an Influent Event shall take into consideration the net effect of the Influent Event on the total Rotorua WWTP Facility Operations costs (i.e. overs and unders) and shall not be limited to only those components of cost that have increased.

Any assessment of additional Rotorua WWTP Facility Operations costs associated with an Influent Event shall be due to a change in Influent loads only and shall not take into consideration changes in unit cost rates of consumables and costs related to supply.

8.3 EXISTING GROUND CONDITIONS AT ROTORUA WWTP FACILITY

8.3.1 Summary of Ground Conditions

The Rotorua WWTP Facility Site is located in an area that was, at various stages, below lake level. As a result of this, the site is underlain by layers of soft lacustrine and swamp deposits. The area is currently geothermally active, being next to the sulphur flats geothermal area. Hydrothermal alteration of parent materials is visible in nearby soils and is likely to be present within this site.

The Rotorua WWTP Facility Site has been occupied by the Rotorua wastewater treatment plant since the 1970's and has been highly modified since that period.

8.3.2 Ground Condition Risks

The Rotorua WWTP Facility Site has poor ground conditions for the construction of civil infrastructure assets. These are generally well documented in the geotechnical reports provided to the Contractor prior to the Reference Date set out in Schedule 1. Ground condition risks that could reasonably be anticipated by a competent contractor having made all reasonable and diligent independent enquiry prior to the Reference Date and taking into account the information relevant to the Rotorua WWTP Facility Site provided by the Council and investigations and reports undertaken by the Contractor during the negotiations prior to award of the Contract, are the Contractor's risks. These include (without limiting the scope of such risks in any way):

- All ground conditions indicated in the geotechnical reports provided to or obtained by the Contractor prior to the submission of the Contractor's Proposal
- documented geothermal risks associated with piling and preloading activities
- ground subsidence and settlement
- risks highlighted due to historic sludge lagoons and documented landfill activities at the site (to the east of the Bardenpho bioreactor) as documented in the Contractor's Site Investigation Report. For the avoidance of doubt, contamination subsequently discovered outside of the investigation area documented in the Contractor's Site Investigation Report would constitute Unforeseen Site Conditions as per Clause 45.1 of the Contract Conditions
- risks associated with aggressive and corrosive ground conditions
- risks associated with elevated ground temperatures
- documented asbestos contamination in the area between the existing Bardenpho reactor and the existing Final Effluent Storage lagoons (refer section 8.3.3 of this Schedule) and as documented in the Contractor's Site Investigation Report. For the avoidance of doubt, asbestos contamination subsequently discovered outside of the documented investigation areas would constitute Unforeseen Site Conditions as per Clause 45.1 of the Contract Conditions.

It should be noted that very poor ground conditions were encountered at the location of the existing storm pump station when it was built. Soft saturated ground was encountered and also landfilled items such as old car bodies. Anecdotal evidence suggests that the area between the storm pump station and the old sludge lagoons (to the west of the Bardenpho reactor) and areas west of this line were the location of historic uncontrolled landfill activities. Very poor ground containing old refuse, old sawdust deposits and old sludge deposits can be expected in this area and the area of the old sludge lagoons.

Any unforeseen contamination or ground conditions encountered on the Rotorua WWTP Facility Site will be Council risks as set out in clause 45.1 of the Contract Conditions.

8.3.3 Asbestos Contamination

Asbestos contamination of the topsoil layer has been identified onsite in the area between the existing Bardenpho reactor and the existing Final Effluent storage lagoons. The area is fenced off with warning signs erected. The parties acknowledge that information relating to the asbestos contamination held by Council has been provided to the Contractor prior to the execution of the Contract.

For the avoidance of doubt, asbestos contamination subsequently discovered outside of the area described above and outside of the investigation area documented in the Contractor's Site Investigation Report would constitute Unforeseen Site Conditions as per Clause 45.1 of the Contract Conditions.

Further details on handling asbestos are described in section 2.9.1.

8.4 ROTORUA WWTP FACILITY BACKGROUND ATMOSPHERIC CONDITIONS

The Rotorua WWTP Facility is located in close proximity to active geothermal features and the background atmospheric hydrogen sulphide levels in the area are relatively high.

The Contractor's renewals and maintenance works shall incorporate all necessary provisions required to protect assets from premature deterioration due to the highly corrosive atmospheric conditions. Particular attention is required to the selection, specification, isolation and protection of metalwork and electrical items.

See Schedule 15 and the Council's Engineering Specifications for further details of specific requirements.

8.5 EXISTING OPERATIONS AND MAINTENANCE INFORMATION

There is no existing electronic Rotorua WWTP Facility or Rotorua LTS Operation and Maintenance Manual. The Contractor shall refer to the hard copy information available at the Rotorua WWTP Facility located in MCC1.

An Operation and Maintenance Manual for the Rotorua WWTP Facility Operations shall be prepared by the Contractor as specified in section 8.18.

8.6 ROTORUA WWTP FACILITY SITE UTILITY SERVICES

Refer to section 6, for details regarding existing site utility services.

8.7 MONITORING AND CONTROL OVERVIEW

The most recent significant control system additions to the Rotorua WWTP Facility prior to the Commencement Date were for the Side Stream MBR plant. The Rotorua WWTP Facility utilises Siemens S7 PLC's with the use of hardwired I/O as well as Profibus networks for controls and communications and Modbus over Ethernet for communications to the site wide SCADA system (see the lessons learnt in section 3.7 of Schedule 15 regarding a significant outage that was caused by a Modbus communications failure in February 2018).

Controllers have dual redundant processors and I/O is distributed across different cards so that back up or redundant signals will still operate if the card of the main signal fails. Power to all controllers and instruments is supplied through a UPS system to maintain continuous monitoring of Rotorua WWTP Facility status and power supply to critical valves and instruments if mains fail.

In 2019 Council upgraded the front-end SCADA at the Rotorua WWTP Facility to Wonderware InTouch System Platform, including an upgrade to the historian system. The upgrade was managed by Horizon Technologies.

8.8 FINAL EFFLUENT RE-USE

The Contractor may re-use Final Effluent as service water at the Rotorua WWTP Facility. The Contractor shall be responsible for consideration, assessment and management of all health risks associated with such use.

8.9 EXISTING SUPPLIERS AND CONTRACTS

8.9.1 Existing Ad-Hoc Suppliers and Service Providers

The parties acknowledge the Council has provided a list of Council's existing suppliers and service providers relative to the Rotorua WWTP Facility Operations and the Rotorua LTS Operations as at the Commencement Date to the Contractor.

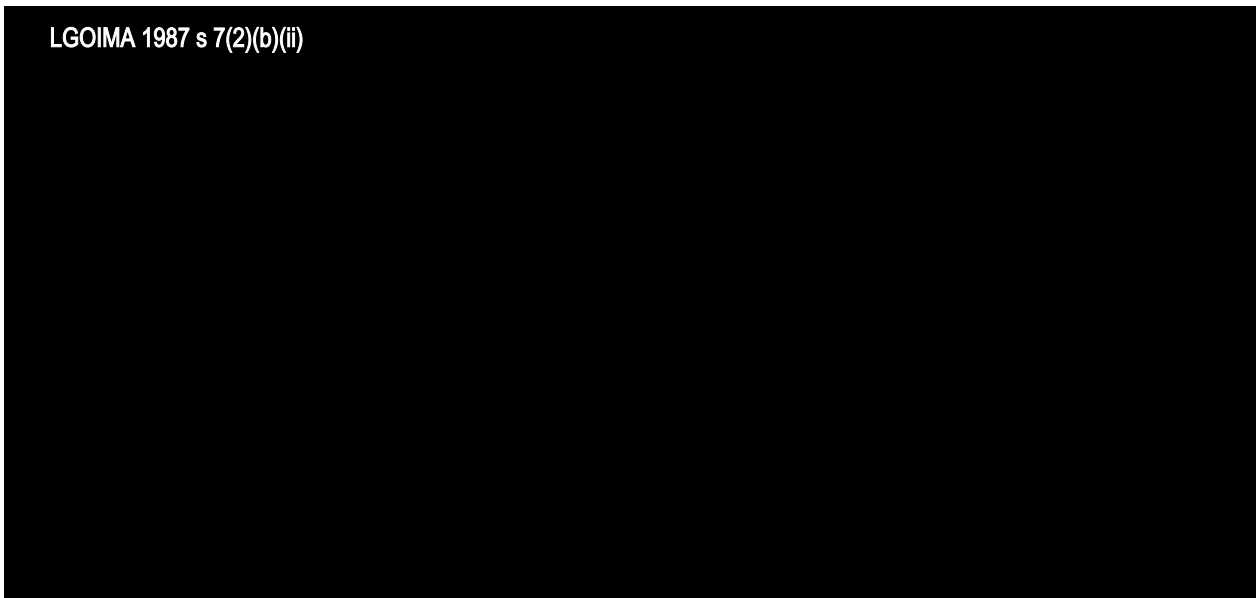
Many of these suppliers and service providers are engaged on a monthly or an ad hoc basis (i.e. they are not tied into any existing contractual arrangements that will endure beyond the Commencement Date). The Contractor may choose whether or not to use these suppliers or service providers at the Contractor's sole discretion. The Council is responsible for the payment of monies and performance of obligations in relation to all arrangements with such suppliers and service providers prior to the Commencement Date. The Contractor is responsible for the payment of monies and performance of obligations in relation to all arrangements with such suppliers and service providers from the Commencement Date.

8.9.2 Existing On-going Contractual Arrangements at Commencement

Council's existing suppliers and service providers that are subject to ongoing contractual arrangements as at the Commencement Date are summarised in Table 12.

Table 12: Summary of Existing Contractual Arrangements

LGOIMA 1987 s 7(2)(b)(ii)



Refer to the referenced sections for further details. The Contractor shall accommodate the requirements set out in this Schedule and all other requirements of the Contract Documents.

8.10 KNOWN ASSET CONDITION ISSUES AT ROTORUA WWTP FACILITY

A number of overdue renewals projects at the Rotorua WWTP Facility were placed on-hold pending the award of this Contract as follows:

8.10.1 Sludge Dewatering Plant

The old dewatering belt presses were at the end of their asset lives and were due for replacement as at the time of negotiation of the Contract.

Prior to the date of execution of the Contract the Council has entered into a separate early works contract with the Contractor, to design and project manage the renewal and upgrade of the old dewatering plant with new equipment that is acceptable to the Contractor. This contract will be a work in progress as at the Commencement Date.

8.10.2 Bardenpho Blowers

The existing Bardenpho aeration blowers were nearing the end of their asset lives and were due for replacement as at the time of negotiation of the Contract.

Prior to the date of execution of the Contract the Council has entered into a separate early works contract with the Contractor, to design and project manage the renewal and upgrade of the old Bardenpho aeration blowers with new equipment that is acceptable to the Contractor. This contract will be a work in progress as at the Commencement Date.

8.11 PERFORMANCE MONITORING AND PERFORMANCE REQUIREMENTS

The Contractor shall ensure that all sample analysis is undertaken by an IANZ accredited laboratory. See also section 8.13.

8.11.1 Influent Sampling and Analysis

For the full duration of the Contract Term the Contractor shall engage the WWTP Laboratory to undertake Rotorua WWTP Facility Influent sampling and analysis (excepting under the circumstances described in section 8.13.1) comprising as a minimum 24 hour flow weighted composite samples at weekly (+/- 1 Working Day) intervals for the following parameters:

- Total Alkalinity
- Chloride
- Filtered Flocculated COD
- Dissolved Reactive Phosphorus
- Ammoniacal Nitrogen
- Total Oil and Grease
- Total Kjeldahl Nitrogen
- Total Phosphorus
- Total Suspended Solids
- Volatile Suspended Solids

For the full duration of the Contract Term the Contractor shall engage the WWTP Laboratory to undertake Rotorua WWTP Facility Influent sampling and analysis (excepting under the circumstances described in section 8.13.1) comprising as a minimum 24-hour flow weighted composite samples three times per week for Chemical Oxygen Demand.

The Contractor shall calculate the approximate daily Influent load (expressed in kg/d) for each parameter listed above for each day of the Contract Term based on the Influent flow for the day multiplied by the nearest (in time) applicable concentration data point of the various parameters. Concentration datapoints that are suspect or are clearly outliers and therefore likely erroneous shall be highlighted and disregarded in the daily mass load calculations. The daily influent loads so calculated shall be used to determine the monthly average daily Influent loads.

The Contractor shall determine:

- the monthly average daily Influent flow (expressed in m³/d),
- the monthly average daily Influent load (expressed in kg/d) for each parameter listed above

for each calendar month throughout the Contract Term. All data and calculations shall be saved in a single consolidated Rotorua WWTP Facility Influent data spreadsheet (in Microsoft excel format as a live document), which shall be made available to the Administrator upon request. The spreadsheet shall be "open" with no locked cells or formulas to enable auditing and tracing of all calculated parameters. The spreadsheet shall include graphical representation of the data for each parameter (flow, concentrations and loads), and rolling average trendlines to enable easy visual reference of increasing or decreasing underlying trends.

The Contractor shall report the applicable monthly average daily Influent flow (expressed in m³/d) and the monthly average daily Influent load (expressed in kg/d) for each parameter listed above along with the applicable monthly total rainfall (measured at the Whakarewarewa Rain Station) in the Operations Monthly Reports.

8.11.2 Final Effluent Sampling and Analysis

The Contractor shall engage the WWTP Laboratory to undertake all Final Effluent sampling and analysis as specified in the Rotorua WWTP Facility Resource Consent (excepting under the circumstances described in section 8.13.1).

There may be minor changes to these requirements when the New Rotorua WWTP Resource Consent is granted, however these requirements (if any) are not known at the date of execution of the Contract and will be treated as a Variation if there are any cost implications.

8.11.3 Receiving Environment Sampling and Analysis

The Contractor shall engage the WWTP Laboratory to undertake all Receiving Environment Sampling and Analysis as specified in the Rotorua WWTP Facility Resource Consent (excepting under the circumstances described in section 8.13.1).

There may be minor changes to these requirements when the New Rotorua WWTP Resource Consent is granted, however these requirements (if any) are not known at the date of execution of the Contract and will be treated as a Variation if there are any cost implications.

8.11.4 Final Effluent Nutrient Concentrations

The various nitrogen and phosphorus species in the Final Effluent do not have specific concentration limits imposed. These parameters can vary in the Final Effluent so long as the annual mass nutrient discharge limits specified in sub-section 8.11.5 below are adhered to.

8.11.5 Final Effluent Annual Nutrient Mass Load Limits

The Rotorua WWTP Facility Resource Consent authorises the discharge of:

- 51T per year of nitrogen (N) (measured at the outlet of the WWTP Facility); and
- 4T per year of phosphorus (P) (measured in the Waipa Stream) to Lake Rotorua from the Rotorua LTS

The Contractor shall comply with these discharge limits for all Final Effluent discharged to the Rotorua LTS (excepting an Influent Event described in section 8.2.3).

8.11.6 Determination of Final Effluent Nutrient Mass Loads

The Final Effluent nutrient mass loads shall be derived by multiplying the daily measured discharge volume from the Rotorua WWTP Facility with the measured weekly 7 day composite sample Final Effluent nutrient concentrations to calculate daily nutrient mass loads discharged. The daily nutrient mass loads discharged so calculated shall be totalised and will be assessed against six-monthly reports as specified in the Rotorua WWTP Facility Resource Consent.

8.11.7 COD, BOD and TSS

Prior to the Commencement Date the Rotorua WWTP Facility has consistently produced a Final Effluent with low BOD, TSS and COD concentrations by virtue of the fact that these parameters must be low in order for the Rotorua WWTP Facility to achieve the required Final Effluent nutrient mass load limits. There are no specific BOD, TSS and COD limits in the Rotorua WWTP Facility Resource Consent conditions.

The Contractor shall, when carrying out the Rotorua WWTP Facility Operations endeavour to ensure that these parameters do not become elevated in the Final Effluent. Elevation of these parameters is often a pre-cursor of treatment process related problems that, if left unattended, could result in deterioration in the nutrient removal performance of the treatment process and eventual non-compliance with the nutrient removal requirements. Therefore, if the Contractor observes that the concentrations of any of these parameters are increasing in the Final Effluent, then the Contractor shall investigate the cause and, if the cause is able to be remedied by the Contractor, the Contractor shall remedy the cause. In the event that the identified cause is beyond the Contractor's reasonable control, the Contractor shall report the cause (with supporting information) and the consequences to the Administrator in writing without unreasonable delay.

Excepting Influent Events beyond the Contractor's reasonable control (see section 8.2.3), the Contractor shall allow for all Operations costs associated with the removal of COD, BOD and TSS pollutant loads. For the avoidance of doubt, any new capital works required to remedy the cause of an elevation in these parameters would be treated as a Variation, however maintenance and renewal of existing equipment and instrumentation would not.

8.11.8 KPI Compliance

The Contractor shall comply with the applicable KPI's set out in Appendix M.

8.12 SEVERE WEATHER AND ROTORUA WWTP FACILITY OPERATIONS

8.12.1 Attendance

From the Commencement Date until end of the Contract Term, the Contractor shall ensure that the Rotorua WWTP Facility is either manned or is actively being monitored remotely by at least one competent operator at all times during periods when severe weather is forecast in the Rotorua wastewater catchment area. Severe weather warnings are issued via email from the Civil Defence Duty Manager at the BOPRC. The Council will arrange for the Contractor to receive the severe weather warning emails. Receipt of a severe weather warning email (or if emails are not able to be transmitted notification by other means) will be the trigger for the Contractor to organise to actively man or monitor the Rotorua WWTP Facility, commencing from the time that the severe weather is forecast to arrive at Rotorua, according to the warning email or notification, until the severe weather has passed and the warning has been lifted.

8.12.2 Planned Maintenance

The Contractor shall avoid undertaking routine maintenance activities when inclement weather (heavy rainfall) is forecast where such maintenance activities would compromise the ability of the Rotorua WWTP Facility to contain and treat wet weather flows. For avoidance of doubt this includes avoiding maintenance activities that would take a membrane train or secondary clarifier out of service when rainfall is forecast.

8.13 LABORATORY SERVICES

The existing water testing laboratory currently located at the Rotorua WWTP Facility Site (WWTP Laboratory) will remain at the Rotorua WWTP Facility site following the Commencement Date.

The WWTP Laboratory operation, equipment and facilities maintenance will remain with Council and is not part of the scope of the Contract.

The Council may re-locate the WWTP Laboratory in the Council's discretion.

The Contractor shall use the services of the WWTP Laboratory as required for the carrying out of the Operations and shall pay for the laboratory testing services provided in accordance with the WWTP Laboratory standard charging from time to time and subject to section 8.13.1 below. The Contractor may use other laboratory testing providers where and only:

- to the extent the WWTP Laboratory does not have the capability to undertake the tests required by the Contractor from time to time; or
- if the WWTP Laboratory does not have current IANZ accreditation; or
- subject to the provisions of section 8.13.1.

The Contractor shall allow the WWTP Laboratory staff reasonable access to the WWTP Laboratory and the Rotorua WWTP Facility and amenities, as required, where the associated costs are covered in the Contract price. For the sake of clarity, this includes the following at the Rotorua WWTP Facility Site:

- a) Ablutions and showers
- b) Allocated lockers
- c) Lunchroom access, including appliances (fridge / dishwasher etc) and tea/coffee/milk supplies
- d) Provision for gate control during normal business hours for visitors and deliveries and after hours as required
- e) Provision of one access card per WWTP Laboratory personnel including the tradewaste and pollution control staff, as required
- f) Available hot desks
- g) Allocated laboratory staff parking spaces
- h) Rubbish and recycling facilities
- i) Landline phones allocated to the WWTP Laboratory as at the date of execution of the Contract.
- j) Reasonable use of meeting room if available
- k) Facilitation of (or provisions for) the delivery of samples, visitor arrivals or couriers at the WWTP Laboratory
- l) Existing storage room or alternative by mutual agreement

The Contractor shall also provide site inductions for existing and new WWTP Laboratory staff.

The parties acknowledge that the water and electricity supplied to the WWTP Laboratory are not separately metered from the supply to the Rotorua WWTP Facility. The Contractor's Monthly Service Payment includes the payment of these utilities for the Rotorua WWTP Facility Site, including the water and electricity used by the WWTP Laboratory.

The Contractor has no obligation to provide the following for the WWTP Laboratory as the associated costs are not provided for in the Contractor's Monthly Service Payment:

- a) Laboratory cleaning
- b) Replacement of lost access cards
- c) Use of the Contractor's photocopier unless by mutual agreement when the WWTP Laboratory's photocopier is not working or undergoing maintenance
- d) Use and issue of PPE equipment
- e) Use of office supplies
- f) Use of the Contractor's WIFI
- g) Use of the Contractor's plant and vehicles
- h) Specific allocation of desk space other than those available in the WWTP Laboratory and portacom buildings which continue to be exclusively used by the WWTP Laboratory
- i) Landline phones allocated to the Contractor
- j) Laboratory laundry provisions

All Council laboratory staff and contractors will be required to complete the Contractor's site specific induction prior to the Commencement Date.

The Council will ensure that the WWTP Laboratory maintains IANZ accreditation.

8.13.1 WWTP Laboratory Services Cost Benchmarking

The Contractor shall have the right to periodically benchmark the WWTP Laboratory services costs against the open market to ensure that the Contractor is paying reasonable market value for the services provided by the WWTP Laboratory.

The benchmark comparison shall be based upon a minimum of two quotations obtained by the Contractor from alternative IANZ accredited laboratories for the full suite of tests undertaken by the WWTP Laboratory for the Contractor over the 12 months preceding the request for quotation. The benchmarking comparison shall include all costs to provide and deliver pre-prepared sample bottles and containers to the Contractor in Rotorua and all costs to preserve, refrigerate and deliver the samples to the alternative IANZ accredited laboratories for analysis. The quotations shall also allow for all costs to provide reports equivalent to those provided by the WWTP Laboratory to the Contractor within the timeframes provided by the WWTP Laboratory to the Contractor.

The Contractor shall notify the Administrator of the Contractor's intention to undertake benchmarking and shall provide the Administrator with a draft of the Contractor's request for quotation and methodology for undertaking the benchmarking comparison for review and approval prior to the Contractor requesting the quotations. The purpose of the Administrator's review will be to ensure that the draft request for quotations and benchmarking methodology will provide a fair and equitable comparison of the total cost to the Contractor of outsourcing the laboratory services versus retaining the services of the on-site WWTP Laboratory. The benchmarking comparison shall take into consideration the costs associated with laboratory communication and reporting to the Contractor, Council and the BOPRC associated with Resource Consents.

Upon the Administrator's approval of the draft request for quotation and benchmarking methodology, the Contractor shall obtain or quotations, undertake the benchmarking in accordance with the approved methodology and submit a Benchmarking Report to the Administrator. The Administrator shall review the Benchmarking Report to ensure that it has been undertaken in accordance with the agreed methodology and that it provides a fair and equitable comparison of the Contractor's laboratory services costs. The Administrator may request amendments to be made the Benchmarking Report if the Administrator considers that it is necessary to do so to provide a fair and equitable comparison.

If the Benchmarking Report, including any amendments requested by the Administrator, highlights that based on the average cost of the alternative quotations received the annual services cost of the WWTP Laboratory are no more than 10% higher than the benchmarking undertaken by the Contractor then no further action will be taken and the requirements of this clause 8.13 shall continue to apply.

If the Benchmarking Report highlights that the annual services costs of the WWTP Laboratory are 10% or more higher than the benchmarking undertaken by the Contractor (based on the average cost of the alternative quotations received) then the Administrator will furnish the Benchmarking Report to the WWTP Laboratory and request the WWTP Laboratory to review the Benchmarking Report and within 20 Working Days of the date of receipt of the Benchmarking Report, by notice in writing either:

1. Accept the Benchmarking Report and review its pricing to align the annual costs associated with the full suite of tests undertaken over the 12 months preceding the request for quotation, including all costs related to sampling and preservation, to within +/-5% of the average of the benchmarked annual services costs (to be applicable as from the commencement of the month following the date the Benchmarking Report is furnished to the WWTP Laboratory);
2. Accept the Benchmarking Report and decline to review its pricing; or
3. Dispute the Benchmarking Report in good faith if it considers that the benchmarking is based on incorrect assumptions or unfair comparisons.

If the WWTP Laboratory elects to proceed in accordance with 1) above then the Contractor shall remain bound by the provisions of this WWTP Laboratory Services clause at the revised pricing provided by the WWTP Laboratory.

If the WWTP Laboratory elects to proceed in accordance with 2) above then the Contractor shall no longer be bound by the requirement in this clause to use the WWTP Laboratory to provide the Contractor's sampling and analysis services. All other provisions relating to the Contractor providing access and accommodation relating to the WWTP Laboratory being located at the Rotorua WWTP Facility shall remain in effect for so long as the WWTP Laboratory remains at the Rotorua WWTP Facility throughout the Contract Term.

If the WWTP Laboratory elects to proceed in accordance with 3) above then the WWTP Laboratory and the Contractor shall attempt to resolve the dispute in good faith. The Administrator shall act as a mediator in these discussions if required and if the dispute cannot be amicably resolved the Administrator may appoint an independent third party to undertake a separate benchmarking exercise for comparison against the benchmarking undertaken by the Contractor. If the benchmarking is established by an independent third party that benchmarking shall be adopted by the WWTP Laboratory and the Contractor and thereafter only options 1) and 2) above shall be available to the WWTP Laboratory.

The Contractor may not undertake WWTP Laboratory Services Cost Benchmarking earlier than 5 years from the Commencement Date and thereafter not more frequently than every 5 years.

The WWTP Laboratory may not revise its sampling and analysis charges to the Contractor earlier than 5 years from the Commencement Date (other than annual CPI increases) and thereafter not more frequently than every 5 years unless it is doing so as a result of 1) above.

8.14 OSET TESTFAC

8.14.1 Background

The OSET TestFac was established at the Rotorua WWTP in 2008 by RLC, BOPRC, the New Zealand Water and Wastes Association (now WaterNZ) and the Small Wastewater and Natural Systems Group (the OSET Partners) to assess small household wastewater treatment systems against the secondary effluent quality requirements of AS/NZS 1547 along with benchmarking effluent quality parameters and energy consumption. The OSET TestFac was upgraded in 2018, funded by the OSET Partners, and as at the Commencement Date is assessing systems against a broader suite of parameters based on the new Australian Standard (AS1546.3-2017). As at the Commencement Date a Memorandum of Understanding (OSET TestFac MOU) is in place between Council and the other OSET Partners whereby Council will continue to operate and monitor the OSET TestFac, participate in the programme and reporting, maintain security and maintain the OSET TestFac. Further details on the OSET TestFac can be found at <https://www.waternz.org.nz/OSET>

Screened and de-gritted raw wastewater is lifted from the primary lift pump station to a manifold system and flowmeters with control valves control the dose of the influent flows to the systems under trial.

Wastewater drainage from the OSET TestFac is collected in the Rotorua WWTP Facility site drainage system (directed to the inlet of the WWTP).

As at the Commencement Date the OSET TestFac consists of 7 test plots. The trials are undertaken on an annual basis with an approximate 2 week window where trialists who have completed the trial have to remove their systems from the site and new trialists have to install their systems prior to the next trial commencing. The test sites are also available for research and development purposes.

The management, operations and maintenance of the OSET TestFac is included in the scope of the Contract until the end of OSET trial 15 in December 2020 with the Contractor's obligations being set out in section 8.14.2.

The parties acknowledge the Contractor has been provided with the OSET TestFac MOU and the OSET NTP Trial 15 Procedures prior to the date of execution of the Contract.

8.14.2 Contractor's Obligations and Obligations of Other Parties until the end of OSET Trial 15 in December 2020

The OSET TestFac MOU and OSET NTP Trial 15 Procedures describes the operation and responsibilities for the current trial 2019-2020 as at the Commencement Date.

The Contractor shall fulfil the Council's obligations with respect to the OSET NTP Trial 15 Procedures and the Council's operational obligations as set out in the OSET TestFac MOU. This includes the nomination of a Contractor employee from the Rotorua WWTP Facility to be a member of the SWANS-MAG and Operations Manager (OM) being responsible for all aspects of managing and operating the OSET TestFac including the logistics and day to day Operations of the OSET TestFac and undertaking the scheduled "stress tests" as set out in OSET NTP Trial 15 Procedures..

RLC charges to the other OSET Partners in accordance with the agreement set out in Appendix B of the OSET TestFac MOU (if any) remains as a responsibility of the Council.

The Contractor shall allow Water NZ approved triallists access to the OSET TestFac along with BOPRC, Water NZ and WRC representatives, subject to these parties complying with the Contractor's site access protocols and requirements. The Contractor shall maintain an OSET TestFac specific sign-in / sign-out register and shall enforce the use of the register, the Contractor's site access protocols and requirements. The Council authorises the Contractor to restrict access to the Rotorua WWTP Facility and the OSET TestFac area to any party or parties who fail to comply with the Contractor's reasonable access requirements. The Contractor shall allow OSET TestFac visitors reasonable access to the lunchroom and ablution facilities at the Rotorua WWTP site.

The Contractor shall carry out maintenance (including grounds keeping) on the OSET TestFac trial site until the end of OSET Trial 15 in December 2020.

The Contractor shall maintain security of the Rotorua WWTP Facility within which the OSET TestFac is located, which includes ensuring the OSET TestFac site is fence and locked at all times, the sign-in/sign out register is filled in and complied with during the test periods including accompanying visitors during the test period (as set out in the OSET TestFac MOU and OSET NTP Trial 15 Procedures).

The Contractor shall continue to provide a supply of screened and de-gritted raw wastewater to the OSET TestFac influent manifold system that complies with AS1546.3-2017 and shall provide drainage from the OSET TestFac to be collected in the Rotorua WWTP site drainage system (directed to the head of the WWTP) until the end of OSET Trial 15 in December 2020.

The WWTP Laboratory is responsible for collecting samples, testing and reporting and maintaining a secure database for Water NZ as part of the official trials which activities are not included in the Contractor's OSET TestFac Operations.

Electronic data from the OSET TestFac (flows, levels, alarms, electricity consumption etc) is monitored by the Rotorua WWTP SCADA system and logged in the site historian system. The Contractor shall ensure that this data continues to be monitored by the Rotorua WWTP SCADA system and is logged in the site historian system. The Contractor shall allow staff or representatives of any of the OSET Partners reasonable access to the relevant SCADA pages when they visit the site and shall furnish the OSET Partners with the relevant electronic data upon request. The Contractor shall not allow the triallists access to data that is not relevant to their specific trial. In particular the Contractor shall not allow triallists access to data pertaining to trials being (or that have been) undertaken by other triallists. Council also has CCTV surveillance cameras monitoring the OSET TestFac. The video footage is recorded at the Councils head offices. The Contractor shall be responsible for ensuring the ongoing operation, maintenance and renewal of the CCTV cameras until the end of OSET Trial 15 in December 2020.

The Contractor's costs to fulfil the obligations set out in this sub-section are covered by the Monthly Service Payments as set out in Schedule 2 through to the end of OSET Trial 15 in December 2020.

8.14.3 OSET TestFac Beyond Completion of Trial 15 in December 2020

The OSET TestFac assets are owned by the OSET Partners.

As at the Commencement Date the Council does not wish to be involved in or provide funding for the operation of the OSET TestFac beyond the completion of OSET Trial 15 in December 2020.

The Council has no objection if the Contractor chooses to enter into a separate arrangement with the other OSET Partners for the continued operation of the OSET TestFac at the Rotorua WWTP Facility beyond the completion of OSET Trial 15 in December 2020, provided that Council does not incur any costs in relation to the continued operation of the OSET TestFac.

The Council has no objection if the Contractor enters into an agreement to purchase the OSET TestFac assets from the OSET Partners at the completion of OSET Trial 15 in December 2020 and continues to operate the OSET TestFac at the Rotorua WWTP Facility beyond the completion of OSET Trial 15 in December 2020, provided that Council does not incur any costs in relation to the continued operation of the OSET TestFac.

In the event that the OSET TestFac ceases to operate at the Rotorua WWTP Facility beyond the completion of OSET Trial 15 in December 2020 then the Council may instruct the Contractor to remove and dispose of the OSET TestFac assets or uplift and relocate the OSET TestFac assets to another location. Any such instruction shall be treated as a Mandatory Variation in accordance with clause 43.1.14 of the Contract Conditions.

8.15 SEPTAGE RECEPTION

A septage reception and campervan dump station is located adjacent to the main driveway entrance to the Rotorua WWTP Facility. Campervans can empty small volumes of waste at the septage reception facility free of charge. Registered and authorised septic tank cartage contractors have swipe card access to the septage reception facility to discharge collected septage into the WWTP inlet. The swipe card system initiates a logging and charging system administered by the Council. The septage reception and campervan dump station discharge point is external to the Rotorua WWTP Facility Site and does not require the septage cartage vehicles or campervans to enter the site in order to use the septage reception facility. The site is CCTV monitored and all users are expected to maintain the cleanliness of the site to a reasonable standard.

Septage is discharged via the logging facility into the Rotorua WWTP reception chamber. There is ability to store septage in a holding tank at the septage discharge point and meter the septage into the reception chamber slowly but this is currently not utilised due to small storage volume and risk of overflow. The metered discharge facility can be reinstated and used by the Contractor as required.

Septage cartage contractors are charged monthly by the Council based on data recorded in a spreadsheet generated by the logging system. For the avoidance of doubt this revenue will continue to be collected by the Council.

The Contractor shall be responsible for operating, maintaining and renewing the campervan dump station and septage reception facility, including emptying of the litter bins, throughout the Contract Term which is covered by the Contractor's Monthly Service Payment.

8.15.1 Trade Waste Consent

The Contractor shall make all reasonable endeavours (by observation and intervention if required) to ensure that all tankered septage waste, tankered trade waste and campervan waste discharged at the septage reception facility is compliant with and discharged in a manner that complies with the applicable Trade Waste Consent. The applicable Trade Waste Consent at the Commencement Date is Trade Waste Consent No. 68.

The Contractor shall report and document any misuse of the septage reception facility and observed non-compliance with the conditions of the applicable Trade Waste Consent to the Council's Trade Waste Officer, if not immediately then at the earliest practicable opportunity.

The Contractor shall be responsible for obtaining replacement Trade Waste Consents required for the ongoing operation of the septage reception facility throughout the Contract Term and shall ensure that copies of the applicable consent are displayed at a location where it is clearly visible to Rotorua WWTP Facility staff and at a location where it is clearly visible to users entering the septage reception facility.

8.16 NIWA MONITORING SITES

There is a geothermal monitoring site and groundwater monitoring bore located in the vicinity of the septage reception and campervan dump station as shown in Figure 3. The Contractor shall allow NIWA staff and NIWA contractors reasonable access to the geothermal monitoring site and groundwater monitoring bore throughout the duration of the Contract Term for the purposes of routine monitoring and periodic maintenance.

Figure 3: Locations of NIWA Monitoring Sites



The Contractor shall, when undertaking all Operations activities, protect the geothermal monitoring site and groundwater monitoring bore from damage due to the Contractor's activities. The Contractor shall make good any damage the Contractor causes.

8.17 PHOSPHORUS LOCKING PLANTS

8.17.1 Rotorua WWTP Facility PLP

As at the Commencement Date, an existing Phosphorus Locking Plant (PLP) (inclusive of alum storage and dosing facilities) is located within the Rotorua WWTP Facility Site which is owned by the Council and is utilised by the Bay of Plenty Regional Council (BOPRC) for the purposes of instream alum dosing into the adjacent Puarenga Stream. A copy of the agreement between Council and the BOPRC (updated 20/05/15 and unsigned) in relation to the use of the PLP by the BOPRC is included in Appendix T and the parties acknowledge a copy of the O&M manual for the operation of the PLP was provided to the Contractor prior to the date of execution of the Contract.

The Rotorua WWTP Facility PLP is controlled directly by the Rotorua WWTP Facility main MCC2 PLC and is monitored by the Rotorua WWTP Facility SCADA system.

For so long as the BOPRC continues to utilise the Rotorua WWTP Facility PLP from the Commencement Date to the end of the Contract Term, all maintenance on the existing infrastructure in the PLP will be undertaken by the BOPRC and their contractors.

For so long as the BOPRC continues to utilise the Rotorua WWTP Facility PLP from the Commencement Date to the end of the Contract Term, the Contractor shall:

1. allow access to the Rotorua WWTP Facility PLP by BOPRC staff and their authorised operations and maintenance Contractor(s) for the purposes of undertaking operations and maintenance activities on the Rotorua WWTP Facility PLP assets
2. allow the BOPRC access to the SCADA data pertinent to the operation of the instream alum dosing, including alum tank storage level and instream dosing pump alarms and status
3. periodically check the Rotorua WWTP Facility PLP and undertake simple operational tasks when warranted, for example: draining of the bund after rain events, responding to alarms and notifying the BOPRC when their attendance is required.
4. maintain oversight of BOPRC activities (and those of BOPRC contractors) to ensure the Contractor's health and safety procedures (as the party in charge of health and safety within the overall Rotorua WWTP Facility) are followed when working with the Rotorua WWTP Facility PLP.

If during the term of the Contract the monitoring and control of the Rotorua WWTP Facility PLP is disconnected from the Rotorua WWTP Facility PLC and SCADA systems (and has its own stand-alone controls and communications directly to BOPRC) then obligation 2 will no longer apply.

8.17.2 Utuhina PLP

As at the Commencement Date, an existing PLP (inclusive of alum storage and dosing facilities) is located at the Depot St wastewater pump station and is utilised by the Bay of Plenty Regional Council (BOPRC) for the purposes of instream alum dosing into the adjacent Utuhina Stream.

Operations and maintenance of the Utuhina PLP facility is undertaken by BOPRC and their contractors. As at the Commencement Date, remote monitoring and alarms from the existing Utuhina PLP are connected via the Council's wastewater telemetry and alarming system (Abbey Systems RTU) at the Depot St pump station, which is centrally monitored at the Rotorua WWTP Facility SCADA system.

For so long as the BOPRC continues to utilise the Utuhina PLP from the Commencement Date to the end of the Contract Term, the Contractor shall:

3. allow access to the Depot St wastewater pump station site by BOPRC staff and their authorised operations and maintenance Contractor(s) for the purposes of undertaking operations and maintenance activities on the Uuhina PLP assets;
4. allow the BOPRC access to the SCADA data pertinent to the operation of the Uuhina PLP instream alum dosing, including alum tank storage level and instream dosing pump alarms and status; and
5. notify the nominated BOPRC contact person of any alarms relating to the Uuhina PLP no later than the end of the Working Day following the date that the alarm was logged.

If during the term of the Contract the monitoring and control of the Uuhina PLP facility is disconnected from the Council's wastewater telemetry and alarming system (and communications are re-routed directly to BOPRC) then obligations 2 and 3 will no longer apply.

8.18 OPERATION AND MAINTENANCE MANUAL

An operation and maintenance manual for the Rotorua WWTP Facility and Rotorua LTS (the Operation and Maintenance Manual) shall be prepared by the Contractor to describe the Operations of the Rotorua WWTP Facility and Rotorua LTS in line with the LTS Management Plan. The Operation and Maintenance Manual shall be submitted to the Administrator for approval no later than 40 Working Days after the Commencement Date.

The Operation and Maintenance Manual shall describe how the operation and maintenance of the Rotorua WWTP Facility and Rotorua LTS will be undertaken during the Contract Term. The Operation and Maintenance Manual as a minimum shall include, but not be limited to, the following:

1. The Rotorua WWTP Facility and Rotorua LTS Operations strategy:
 - a) Normal operation,
 - b) Start-up operation,
 - c) Shutdown operation,
 - d) Summer peak operation,
 - e) Emergency operations
2. Process control and overall process targets
3. The process optimisation strategy
4. Process troubleshooting
5. Sampling and analysis programme
6. SCADA control system operation
7. Alarm management
8. Staff training requirements, including but not limited to:
 - a) Rotorua WWTP Facility specific and Rotorua LTS specific training,
 - b) Wastewater treatment process training,
 - c) Wastewater irrigation equipment operations and maintenance training,
 - d) Equipment training,
 - e) Quality training
9. The maintenance strategy, including integration with activities identified in the Asset Management Plan
10. Procurement, delivery & unloading arrangements for chemicals and other consumables
11. Site security

12. Groundskeeping and Facility maintenance (Rotorua WWTP Facility and Rotorua LTS with maintenance schedules appended)
13. Site safety and hazard management
14. The risk and contingency strategy, including the loss of communication systems
15. Rapid recovery plan in the event of critical control hardware failure
16. The resourcing structure and arrangements required to operate and maintain the Rotorua WWTP Facility and Rotorua LTS, including:
 - a) Staffing organisation including key personnel,
 - b) Shift schedules and call out rosters,
 - c) Staff responsibilities,
 - d) Staff qualification,
 - e) Meetings and attendance requirements
17. Proposed co-ordination arrangements between the Council and the Contractor
18. Management of information technology, documentation, finance and safety
19. External service providers, their roles and responsibilities

8.19 ROTORUA LTS OPERATIONS - SCOPE AND OBLIGATIONS

The Contractor's Rotorua LTS Operations obligations include the operation and maintenance of the Rotorua LTS from the Commencement Date. This includes fulfilling the monitoring and compliance requirements of the Rotorua WWTP Facility Resource Consents.

The Contractor shall continue the operation of the Rotorua LTS in conjunction with the Rotorua WWTP Facility operation via the SCADA HMI. The Contractor shall manage the storage at the Rotorua WWTP Facility and the Rotorua LTS, the effluent pumping from the Rotorua WWTP Facility to the Rotorua LTS and the effluent irrigation to the various Rotorua LTS irrigation blocks.

The Rotorua LTS Operations includes the following operations and maintenance responsibilities:

- All maintenance at the Rotorua WWTP Facility on the Final Effluent storage and pumping system, maintaining the irrigation pump station, rising main from the Rotorua WWTP Facility to the Rotorua LTS (including the cathodic protection system but excluding any rehabilitation or renewal of this system) and storage ponds at the Rotorua LTS, maintaining the hydraulic actuated irrigation valves at the Rotorua LTS
- Routine inspections and maintenance of the Rotorua LTS irrigation system, vegetation clearing, weed spraying, repairing faulty sprinklers and pipe fittings, repairing breakages and blockages, attending to overland flow and ponding issues, attending to call-outs and providing labour if and as required
- Minor metalling, culverting and vegetation clearance of access tracks to maintain access for maintenance vehicles.

The Contractor shall maintain the irrigation system sprinkler lines in the Whakarewarewa Forest in accordance with the LTS Management Plan and as specified below:

- Each line shall be inspected every two months, and the inspection shall occur when the sprinklers are operating
- During the inspection, the Contractor shall note: sprinklers not operating correctly; breakages in the pipes; overland flow; ponding; windfalls. These occurrences shall be recorded and reported in the Operations Monthly Reports

- In addition to removing all windfalls, the Contractor shall maintain a space 1m either side of the sprinkler lines, by 2m high, clear of vegetation. Some flexibility is to be applied on this regard, because it is not desired that large trees or bushes be cut down to achieve this requirement
- Any faults in the sprinkler operations shall be corrected. This may involve repairing the existing sprinkler head or replacing it
- Breakages and blockages shall be repaired using only approved fittings and pipes
- Overland flow and ponding shall be corrected. This will generally involve minor earthworks and sprinkler relocation. Overland flow and ponding of a significant extent shall be reported to the Administrator within 24 hours of being observed
- Known causes of sprinkler head failures or faults are to be reported in the Operations Monthly Reports. Samples of failed or faulty sprinkler heads shall be collected and brought to the monthly meetings so that analysis of the fault cause may be further investigated.

The Contractor may use the existing repair facilities and ablution facilities in the Whakarewarewa Forest, and these facilities are to be kept clean and tidy by the Contractor.

8.19.1 Forestry Easement

The Council operates the Rotorua LTS pursuant to an easement (No. 69A/359) as described in Appendix U (Forestry Easement). The Contractor shall carry out the Rotorua LTS Operations in accordance with the Forestry Easement and shall fulfil the Council's obligations under the Forestry Easement except for the following obligations under the following clauses of the Forestry Easement, which will remain obligations of the Council:

- a) The payment of Annual Fees under clause 3.
- b) The installation of the Rotorua LTS infrastructure under clause 4.
- c) The preparation of the Management Plan under clause 5.1 and the obtaining of the BOPRC approval under clause 5.2.
- d) The payment of compensation under clause 9.
- e) The indemnity provisions in clause 14 but excluding indemnity liability arising out of the act or omission of the Contractor which will be a Contractor liability.
- f) The removal of the Rotorua LTS under clause 17.5.

The Council will:

- a) ensure that the Forestry Easement remains in effect;
- b) maintain the commercial / stakeholder relationships with the forest owner and forest leaseholder; and
- c) be responsible for any costs associated with having to remove, relocate and/or reinstall above-ground irrigation to new irrigation areas if required to allow the leaseholder to undertake harvesting operations.
- d) The Contractor indemnifies the Council for all costs, liabilities and expenses of the Council arising under the Forestry Easement due to the act or omission of the Contractor.

8.20 ROTORUA WWTP FACILITY AND ROTORUA LTS RENEWAL WORKS AND MINOR CAPITAL WORKS

8.20.1 General Requirements

The parties acknowledge that the Rotorua WWTP Facility is likely to undergo a significant upgrade following the expiry or early termination of this Contract. The Contractor shall take into consideration the latest information provided by the Council regarding the timing and requirements of the proposed upgrade when developing and implementing the renewals programme for the Rotorua WWTP Facility and the Rotorua LTS to ensure, insofar as is practicable, that renewals undertaken during the term of this Contract align with the requirements of the proposed upgrade.

All minor capital works and renewals shall be delivered to meet the requirements of the Contract Documents including Contemporary Equivalent standards.

The eventual Rotorua WWTP Facility upgrade solution shall be taken into consideration for each minor capital works and renewals project. This is to ensure that all new and replacement equipment installed at the Rotorua WWTP Facility and the Rotorua LTS during the Contract Term that is intended to remain in service post the eventual upgrade of the Rotorua WWTP Facility is compatible with the upgrade, to avoid the situation where renewals undertaken within the Contract Term are decommissioned prematurely because they are not suitable for incorporation in the eventual upgrade works.

The requirements of the Contractor's General Technical Specifications shall be taken into consideration for each minor capital works and renewals project intended to remain in service post the eventual upgrade of the Rotorua WWTP Facility.

The parties acknowledge that:

- As at the date of execution of the Contract, the existing Rotorua WWTP Facility does not comply with the requirements of Schedule 15 in many respects.
- The eventual upgrade of the Rotorua WWTP Facility is intended to rectify these non-compliances in the areas of the Rotorua WWTP Facility affected by the upgrade, bringing those areas of the Rotorua WWTP Facility into compliance with the requirements of the Contractor's General Technical Specifications.
- The requirements of the Contractor's General Technical Specifications should be met by all renewals and minor capital projects at the Rotorua WWTP Facility and Rotorua LTS where practicable.
- The renewals pricing which underpins the Contractor's Monthly Service Payment is not intended to deliver the same outcomes as the Rotorua WWTP Facility upgrade through numerous minor upgrade projects over the Contract Term and is on a Contemporary Equivalent basis.
- The Contractor's approach to renewals on the Assets to be Decommissioned in Appendix N may need to be revised if, due to changes in the proposed upgrade, these assets are no longer earmarked for decommissioning as part of the future upgrade.

The process for including the requirements of this section in the planning process is described in section 3.9.6 and the determination of cost and cost allocation as set out in section 3.9.5 will apply to apportion costs to renewals, growth or levels of service improvement.

8.20.2 Reliability and Redundancy Requirements

Unless agreed otherwise by the Administrator in writing, all renewals works at the Rotorua WWTP Facility and/or Rotorua LTS shall be undertaken to achieve the same or better levels of reliability and redundancy as are achieved by or required to be achieved by section 3.1 of Schedule 15.

For example:

1. Process controller and critical instrumentation renewals shall be powered by UPS units to prevent loss of control and process critical data upon loss of mains power.
2. Replacement process controllers shall have dual redundant processors and I/O shall be distributed across different cards so that back up or redundant signals will still operate if the card of the main signal should fail.
3. Unless duplicate (duty/standby) control hardware is installed, spares of all replacement/renewal process critical controller hardware shall be held on-site along with the latest version of controller software to minimise downtime in the event of controller hardware failure and/or loss of software from controller memory.

4. When planning for process controller renewals/replacements, consideration shall be given to the option of fully redundant main plant controller infrastructure (i.e. duty/standby PLC's on independent UPS power supplies placed at different locations within the plant).
5. When planning for control system renewals and upgrades, consideration shall be given in the control system architecture design for redundancy of communications pathways to ensure that an alternative pathway is provided for process critical communications in the event of a single point of failure in the communication network(s).

8.21 EXEMPT ASSETS

The Exempt Assets shown in Appendix N is a schedule of a number of existing assets at the Rotorua WWTP Facility and the Rotorua LTS that will be exempt from the Condition Assessment Obligations on Expiry in Section 13.4.

The Contractor shall retain these assets in service for the duration of the Contract and return the assets to the Council at the Expiry Date.

There are three categories of Exempt Assets:

- The Ongoing Exempt Assets shall be handed back in a reasonable/serviceable condition at Handover. The Exempt Assets Schedule includes the Contractor's intended rehabilitation for the care of these assets throughout the Contract Term to ensure that they are responsibly managed for continued long term operation after the Expiry Date.
- The Assets to be Decommissioned include the existing assets at the Rotorua WWTP Facility and the Rotorua LTS at the Commencement Date that are intended to be decommissioned soon after the Expiry Date and are to be handed back in a safe and functional condition at the Expiry Date.
- Redundant Assets that will be managed in a safe condition throughout the Contract Term.
- The Contractor shall undertake the work detailed in the Exempt Assets Schedule unless agreed otherwise with the Administrator. The work proposed in the Exempt Assets Schedule shall be included in the Contractor's Work Plans.

8.22 STORMWATER AND DRAINAGE, ACCESS ROADWAYS, FENCES AND LANDSCAPING

The Contractor shall be responsible for the maintenance and renewals of all existing Rotorua WWTP Facility stormwater, drainage, access roadways, fences, gates and landscaping assets until the Expiry Date. These assets are subject to the Handover Obligations.

8.22.1 Stormwater Discharge Licence

The Contractor shall ensure that all stormwater discharged from the Rotorua WWTP Facility site is compliant with the applicable Rotorua WWTP Facility stormwater discharge licence. The applicable stormwater discharge licence at the Commencement Date is Stormwater Licence No. 1784.

The Contractor shall be responsible for obtaining any amendments to the existing licence, additional consents or replacement stormwater consent(s) required for the discharge of stormwater from the Rotorua WWTP Facility.

9 WWTP Facility By-products Management

9.1 BIOSOLIDS MANAGEMENT

The Contractor shall be responsible for biosolids management for the Rotorua WWTP Facility and Rotomā/Rotoiti WWTP Facility for the full Term of the Contract, including: processing, onsite storage (bins/skip), transportation, disposal/re-use and any associated resource consents that may be required. All costs associated with biosolids management shall be the Contractor's cost and are covered by the applicable WWTP Facility Monthly Service Payment.

The storage of biosolids shall comply with the applicable Council Resource Consents.

As at the Commencement Date the on-site sludge processing / biosolids treatment system at the Rotorua WWTP Facility (prior to collection and further off-site treatment/processing and disposal) is in the process of being upgraded under a separate early works contract designed and project managed by the Contractor with equipment being installed that is deemed by the Contractor to be suitable to produce a biosolid quality suitable for transportation and further off-site processing and/or disposal/re-use by the Contractor.

The method of biosolids management from the WWTP Facilities utilised as at the Commencement Date is the export of biosolids from the sites to a vermicomposting facility under the Vermicomposting Contract. The Vermicomposting Contract provides for the load-out, transportation off-site, further processing (by vermicomposting) and beneficial re-use/disposal of approximately 26 tonnes per day of dewatered sludge by the contractor under the Vermicomposting Contract. The Vermicomposting Contract expires on LGOIMA 1987 s 7(2)(b)(i) Refer to Appendix S for further details regarding the contract.

The existing Vermicomposting Contract will be novated to the Contractor at the Commencement Date pursuant to clause 53.1 of the Contract Conditions. After the LGOIMA 1987 s 7(2)(b)(i) expiry date the Contractor shall be responsible for ongoing biosolids management at the Contractor's cost. Ongoing arrangements may include extending or re-negotiating the Vermicomposting Contract or arranging an alternative biosolids further processing/re-use/disposal avenue. The Contractor shall be responsible for payment of remuneration under the Vermicomposting Contract from the Commencement Date until its expiry, and termination of the Vermicomposting Contract (if applicable), and any alternative biosolids further processing/re-use/disposal contract arrangements and costs. These costs are covered by the applicable WWTP Facility Monthly Service Payments.

Refer also to clause 53 of the Contract Conditions.

9.2 SCREENINGS AND GRIT MANAGEMENT AND DISPOSAL

The Contractor shall be responsible for screenings and grit management for the Rotorua WWTP Facility and the Rotomā/Rotoiti WWTP Facility during the entirety of the Contract, including: processing, onsite storage (bins/skip), transportation, disposal/re-use and any associated resource consents. All costs associated with screenings and grit management, including transportation and disposal, shall be the Contractor's cost and are covered by the applicable WWTP Facility Monthly Service Payments.

The storage of screenings and grit shall comply with the applicable Council Resource Consents.

10 Reticulation Network General Obligations

The following general obligations apply to all Reticulation Networks covered within the scope of this Contract. There are some obligations contained in this section relating to specific Reticulation Networks where it is impractical to separate these out specifically in isolation.

Obligations relating specifically to each separate Reticulation Network are set out in separate sections of this Schedule.

10.1 SUMMARY OF CONTRACTOR OBLIGATIONS

The Contractor shall in relation to the Reticulation Networks Operations (and without limiting the general scope of the Contractor's Operations obligations):

- Operate, manage, maintain and renew the Reticulation Networks in accordance with this Schedule
- Comply with the Health and Safety requirements set out in Section 2
- Establish, maintain and adhere to an Operations Quality Plan in accordance with Section 5
- Prepare, submit and adhere to Contractor's Renewals Work Plans in accordance with Section 3
- Prepare and submit reports in accordance with Section 1.27
- Comply with the Traffic Management requirements of the applicable roading authorities
- Comply with the Environmental Management requirements in accordance with Section 1.31.
- Carry out the Operations in an effective and cost-efficient manner.

10.2 GENERAL OBLIGATIONS

The Contractor shall in relation to the Reticulation Networks Operations:

- Have systems in place and working in ways that ensure the health and safety and wellbeing of the Contractor's personnel, Council's customers and the public
- Undertake renewals of the non-Gravity Mains Reticulation Network assets during the Contract Term, including the planning of renewals work so the condition of the Reticulation Network is maintained to a level such that the Reticulation Network KPI targets specified in Section 4 are met, and the condition of the assets at the end of the Contract Term comply with the Handover Obligations, refer Section 13
- Undertake proactive preventative maintenance sufficient to minimise unscheduled maintenance (due to failures and breakdowns) to a level such that the KPIs are complied with
- React and respond in a timely manner to incidents and Service Requests to maintain the required levels of service and achieve the KPIs
- Provide a 24 hour per day 365 day per year service
- Undertake manhole maintenance, including locating, raising and lowering cast iron entry covers, replacing manhole covers, frames and entry steps, removal of obstructions and sealing areas of inflow and infiltration
- Undertake pipeline maintenance, including inspection, cleaning and clearing of pipelines, jointing repairs, locations of laterals and sewer plugging
- Report faults and condition data
- Clear blockages, repair breakages and cleaning/disinfection of spillage
- Respond to reasonable requests and complaints from the public in a courteous and helpful manner
- Undertake maintenance work involving testing, recording and reporting on all remedial faults detected on trunk, reticulation mains, laterals and connections

- Undertake routine operations and maintenance of On-property Pre-treatment Units within low pressure sewer areas of the Reticulation Networks, including LPGP systems and STEP systems and if included in the Contract (pursuant to clause 52 of the Contract Conditions) the Rotoiti On-property Treatment Units.
- Operate and maintain wastewater pump stations, including fulfilling site maintenance requirements according to the Property Access Conditions, where applicable
- Operate and maintain the Pohutukawa Land Drainage Pump Station, the Tilsley St Stormwater Pump Station and two public toilet block pump stations
- Undertake capital upgrades (as defined in section 3.12) in the Rotorua Reticulation Network during the term of the Contract (may be combined with renewals as described in section 3.9.3).

10.3 CONNECTIONS PRE-QUALIFICATION

The Contractor shall achieve Rotorua Lakes Council pre-qualified 'Approved Contractor' status for making connections to the Public Sewer Reticulation System not later than 30 Working Days prior to the Commencement Date. The Contractor shall apply for and obtain approval for all three categories of work as set out in the application documentation.

10.4 PUMP STATION OPERATIONS

The Contractor shall be responsible for the operation, maintenance and renewals of all Reticulation Network pump stations and the following stormwater/land drainage pump stations and public toilet block pump stations:

- Pohutukawa Land Drainage Pump Station
- Tilsley St Stormwater Pump Station
- Hannahs Bay Toilet Block Pump Station
- Sulphur Point Toilet Block Pump Station.

In undertaking the Operations of the pump stations the Contractor shall maintain compliance with the relevant conditions of the applicable Rotorua Reticulation Network Designations.

10.4.1 Pump Station Washdown

Washdown shall be undertaken as required to meet operation and service level requirements. The Contractor shall ensure that all washdown is collected and disposed of back into the sanitary sewer system. No washdown flow shall enter the stormwater system. Effective bunding and collection means shall be employed to ensure this. The Contractor will be charged by RLC (as water supplier) for water usage based on the standard RLC water supply rates and charges applicable from time to time. This cost is covered by the respective Reticulation Network Monthly Service Payment.

10.4.2 Pump Station Remote Monitoring

As at the Commencement Date all of the Reticulation Network pump stations included within the Operations scope are connected (via radio telemetry) to the Council's SCADA system with the following exceptions:

- Pohutukawa Land Drainage Pump Station
- Hannahs Bay Toilet Block Pump Station
- Sulphur Point Toilet Block Pump Station
- All individual private property LPGP pump stations.

The Contractor shall take over the Operations of the SCADA system to ensure that all pump alarms are wholly functioning. The addition of any new pump station to the Reticulation Networks shall be managed through the vested asset process described in section 1.35.1 of this Schedule and shall then become the responsibility of the Contractor, notwithstanding any third-party defects remediation obligations that may exist.

The Contractor may propose changes/upgrades to the pump station remote monitoring system at the Contractor's cost if the Contractor is of the view that there is a better system. Such proposals shall be forwarded to the Administrator for consideration and approval by the Council. Approval shall not be unreasonably withheld. Any such approval may be subject to conditions and shall be instructed as a Contractor initiated Variation pursuant to clause 43 of the Contract Conditions.

All alarms received from pump stations through the SCADA/remote monitoring system shall be logged and included in the monthly call-out/incident and KPI reporting.

10.4.3 Maintenance and Renewal

The Contractor shall be responsible for developing a maintenance schedule for the Reticulation Networks pump stations such that the level of service KPI targets are met.

Electronic copies of the service logs shall be kept and made available for review by the Administrator as requested.

The planned maintenance shall include, but not be limited to, the items as detailed hereafter at a frequency reasonably determined as optimal by the Contractor:

- Test run each pump and check all alarms, including float, are functioning
- Valve exercising
- Clean wet well walls and remove all large detritus that may block or impair the pumps operation
- Pumps are lifted annually and are cleaned & visually checked: impeller wear, impeller gap, cable condition and cable glands
- Appropriate performance monitoring and condition assessment of civil infrastructure and mechanical/electrical plant.

The Contractor shall renew/replace equipment and plant parts as determined from their maintenance and inspection regime and as necessary to ensure the levels of service are met. All renewals shall be in accordance with Council's Engineering Specifications.

Replacement submersible sewage pumps in the Reticulation Network Pump Stations shall (as a minimum):

- comply with the Council's Engineering Specifications
- be installed with stainless steel lifting chain, guiderails and guiderail holders
- be fitted and configured with seal failure and moisture ingress detection systems which stop the pump when a seal failure is detected, unless this is not available on smaller pump sizes
- meet the Minimum Service Life Requirements set out in Table 8
- be supported by a reputable local New Zealand agent who keeps stocks of all essential spare parts for the installed pump make and model in New Zealand (seals, impellers, wear rings, motors, sensors, etc)
- be selected (in terms of capacity) with due consideration given to projected growth within the catchment it serves
- be selected to operate at a duty point close to the best efficiency point of the pump curve and not near the left or right extremities of the pump curve
- not excessively vibrate in operation
- not exceed 1500 r/min (4 or more pole)
- not be operated beyond the rated speed of the pump where operated by a variable speed drive
- have motors rated to a minimum shaft power output of 110% of the maximum power draw of the driven end of the pump at the rated speed of the pump & motor assembly
- be of non-clogging type capable of passing solids encountered in raw municipal wastewater without overload or faults.

10.4.4 Power Restoration

Refer to section 6.1.1.1.

10.5 LOW PRESSURE SEWER SYSTEMS

The Rotomā portion of the Rotomā/Rotoiti Reticulation Network is a low pressure sewer system with individual household STEP On-property Pre-treatment Units.

The Rotoiti portion of the Rotomā/Rotoiti Reticulation Network is a low pressure sewer system with individual On-property Pre-treatment Units of a type that has not yet been defined at the date of execution of the Contract.

Several satellite communities around Rotorua forming part of the Rotorua Reticulation Network are serviced by low pressure sewer systems with individual household LPGP On-property Pre-treatment Units.

Refer to Section 11.5 and Figure 5 for the definition of the private property to public property interfaces of low pressure sewer systems.

The Contractor shall be responsible for the operation, maintenance and renewal of all public low pressure sewer assets, including the household On-property Pre-treatment Units (e.g. LPGP and STEP units), including periodic de-sludging requirements, pump units and electrical panels.

Reimbursement of cost associated with additional operations and maintenance obligations imposed on the Contractor by the addition of individual On-property Pre-treatment Units to the Reticulation Networks shall be reimbursed to the Contractor by the Council as described in section 1.35.3 and Schedule 2.

10.6 ASSET INSPECTIONS AND MAINTENANCE

The RLC 2018 Wastewater AMP and the asset register in Infor describe the inventory of wastewater assets at the Commencement Date. The Contractor shall develop a routine inspection and maintenance schedule for the following asset classes to ensure Service Level KPIs are met. Asset types shall include, but are not limited to:

- Manholes
- Gravity Sewers
- Sewer Rising Mains
- Low Pressure Sewers
- Valve chambers
- Aerial pipe bridges
- Rising main air valves
- Odour filters (biofilters and activated carbon filters)
- Backflow valves
- Pump Stations
- Generators (mobile and fixed)
- Switchboards.

The renewal or maintenance of any asset shall be carried out in accordance with Council's Engineering Specifications.

10.7 TRADE WASTE

The Contractor shall be responsible for all monitoring and inspections of Trade Waste customers and providing details to the Council in the Operations Monthly Reports.

The legislative enforcement powers relating to Trade Waste customers and billing of Trade Waste customers will remain with the Council.

The Contractor shall be responsible for the detection of non-consented Trade Waste discharges and shall promptly report all such Trade Waste discharges to the Council for further enforcement action (refer also to clause 62.1 of the Contract Conditions).

The Council will notify the Contractor if or when any application is made to the Council for a new Trade Waste permit (or an amendment to an existing Trade Waste permit) for a new (or amended) Trade Waste connection to a Reticulation Network. With the notification, the Council will indicate if it considers the nature of the proposed Trade Waste may:

- potentially cause the Rotomā/Rotoiti WWTP Facility Influent to fall outside of the Rotomā/Rotoiti Influent Envelope; and/or
- potentially have a measurable impact on the Operations of the Rotorua WWTP Facility in terms of operational costs or ability to achieve Rotorua WWTP Facility related KPIs; and/or
- potentially contain substances or parameters that may have a detrimental effect on the Reticulation Network assets, the WWTP Facility assets, the performance of the WWTP Facilities, performance or the quality (e.g. grading) of the biosolids derived from the WWTP Facilities

Upon receipt of such notice the Contractor may issue notice to the Administrator that the Contractor considers that the proposed Trade Waste discharge will have the potential to have a more than minor effect on the Contractor's Operations or ability of the Contractor to meet its obligations under the Contract Documents along with supporting reasons why the Contractor is of that opinion. Upon receipt by the Administrator of such notice the Administrator will convene a meeting between the parties to collaboratively discuss and agree to suitable conditions to be applied to the Trade Waste permit/agreement to mitigate any risks associated with the proposed Trade Waste discharge (on the Reticulation Network and/or downstream WWTP Facility) and to agree on any additional costs to accommodate the proposed Trade Waste discharge. Additional costs incurred by the Contractor associated with changes to the Contractor's obligations relating to additional Trade Waste connections to a Reticulation Network that have a more than minor impact on Operations shall be treated as a Variation in accordance with clause 43 of the Contract Conditions for as long as the Trade Waste Permit is valid.

10.8 ILLEGAL CONNECTIONS AND PRIVATE SEWER I/I

Should the Contractor identify, through its regular day-to-day operations and inspections, through I/I investigations, or otherwise, any illegal or non-complying Reticulation Network connections (e.g. a stormwater direct connect to the sewer reticulation) or I/I from private property connections entering the public sewer network, the Contractor shall collect evidence of the illegal connection or I/I from private property connections (e.g. photographs, CCTV records) and shall report the illegal connection or I/I from private property connections to the Council via the notification procedure as set out in the Incidents, Service Requests and Complaints: Notification, Procedures, Tracking and Close-Out Practice Note. The Contractor shall provide evidence of the illegal connection or private property I/I to the Administrator upon request and shall undertake any investigation works that may be required to collect such evidence.

The Contractor will not have any enforcement obligations in relation to illegal connections or I/I from private property connections. The legislative power for enforcement will remain with the Council.

The issue of illegal connections infringement notices shall remain with Council (refer also to clause 62.2 of the Contract Conditions).

Council shall, in its discretion, use reasonable endeavours to procure require landowners to mitigate private property I/I as set out in clause 62.3 of the Contract Conditions.

10.9 THIRD PARTY DAMAGE/FAULTS

If as a result of either a call out or through their own routine inspection and operation, the Contractor identifies, or has sufficient evidence to reasonably believe, that a Third Party has caused damage to a Reticulation Network asset or the Contractor observes a fault (other than associated with the original call out), they shall report this to the Council via the Council Call Centre. The Contractor shall collect photographic evidence of the third party damage or fault and provide this to the Administrator upon request.

The Contractor shall carry out any repair as necessary as a result of the damage or fault. The Contractor will be reimbursed for the cost of repair of any third party damage on the basis set out for a Mandatory Variation in clause 43.1.14 of the Contract Conditions.

10.10 RENEWALS

Reticulation Network asset renewals (other than those reactive renewals initiated by an emergency, third party damage or fault) shall be implemented in accordance with the agreed Contractor's Renewals Work Plans, refer Section 3.3. All renewal work shall be undertaken in accordance with Council's Engineering Specifications.

All renewed assets shall generally meet or exceed the Minimum Service Life Requirement of the applicable asset class as defined in sections 7.4 and 12.4.9. The Council's asset replacement programme prior to commencement of the Contract reflected to some extent the geothermal influence in the Reticulation Network. For example: the pumps in Ohinemutu were scheduled to be replaced every 5 years whereas the pumps at Barnard Rd were scheduled to be replaced every 25 years. The Contractor shall accordingly make due allowance for additional renewals in geothermal areas over the Contract Term. The Minimum Service Life Requirements defined in section 7.4 reflect the reduced service life of certain asset classes in pump stations affected by corrosive environments.

Unless agreed otherwise by the Administrator in writing, all new low pressure sewers, low pressure sewer renewals, new rising mains and rising main renewals shall use polyethylene pipe conforming with AS/NZS 4130.

10.11 STORMWATER AND DRAINAGE, ACCESS ROADWAYS, FENCES AND GROUNDS MAINTENANCE

The Contractor shall be responsible for the maintenance and renewals of the following applicable ancillary assets associated with all of the Reticulation Network Pump Station sites listed in Appendix Q:

- stormwater,
- drainage, and
- access roadways,

until the Expiry Date. These assets are subject to the property asset maintenance requirements set out in Appendix H as applicable at each site listed in Appendix Q.

A summary list of the Rotorua Reticulation Network pump station sites and the applicable site specific property maintenance requirements of the Contractor as at the Commencement Date with respect to lawn mowing, weed and vegetation control and fence maintenance is provided in Appendix Q.

In addition, some assets that are located on third party land (such as roadways used for access) are subject to the Property Access Conditions as specified in clause 61.2 of the Contract Conditions and Appendix J.

11 Rotorua Wastewater Reticulation Network

The scope of the Operations component of the Contract specific to the Rotorua Reticulation Network is detailed below.

11.1 EXTENT OF ROTORUA WASTEWATER NETWORK

The extent of the Rotorua Reticulation Network is as set out in the Council's GIS system (refer to section 3.6.2) and assets connected to the Rotorua Reticulation Network as described in section 1.35.

11.2 MOBILISATION AND TRANSITION

The Contractor's mobilisation and transition period shall commence no later than 1 month prior to the Commencement Date.

The purpose of mobilisation and transition period is for the Council's operations personnel to provide on the job training to the Contractor's operations personnel on the specifics of the operation of the existing Rotorua Reticulation Network.

During the mobilisation and transition period the Council shall ensure the Council's operations team provide assistance and training to the Contractor's personnel (if requested by the Contractor), however the responsibility for the proper operation and performance of the Rotorua Reticulation Network shall be the Contractor's obligation from the Commencement Date.

The Contractor shall prepare and submit a Mobilisation and Transition Plan as detailed in clause 38.5 of the Contract Conditions.

11.3 GROUNDWATER INFILTRATION

Groundwater infiltration (GWI) is separate and distinguished from inflow resulting from storm events. GWI is a steady 24-hour flow, following a period with no rainfall, that usually varies during the year in relation to the groundwater levels above the sewers. GWI rates are normally estimated from wastewater flows measured in the sewers, or arriving at a WWTP during the early morning hours (between 1am and 5am) when wastewater production is at a minimum and no rainfall has occurred in the catchment in the preceding days, and the flow is therefore GWI plus a small constant wastewater production component.

GWI is a component of I/I. The obligations of the parties in relation to I/I are set out in sections 1.7, 3.8 and 10.8 of this Schedule and clause 62 of the Contract Conditions.

GWI entering the Rotorua Reticulation Network has a significant impact on the annual mass of nutrients discharged in the Final Effluent from the Rotorua WWTP Facility and (therefore) the ability of the Rotorua WWTP Facility to achieve the annual mass limits for total nitrogen stipulated in the Rotorua WWTP Facility Resource Consents in a high rainfall year when groundwater levels are high and therefore GWI entering the Rotorua Reticulation Network is elevated. For this reason, an important objective of Rotorua Reticulation Network renewals, and Gravity Mains Renewals in particular, shall be to reduce the levels of GWI entering the Rotorua Reticulation Network. See the Gravity Mains Renewals Practice Note in Appendix K for further details.

11.4 PUBLIC GRAVITY LATERALS

The scope of the Rotorua Reticulation Network Operations includes maintenance and renewals of all public gravity laterals and access chambers as well as mainline sewer assets.

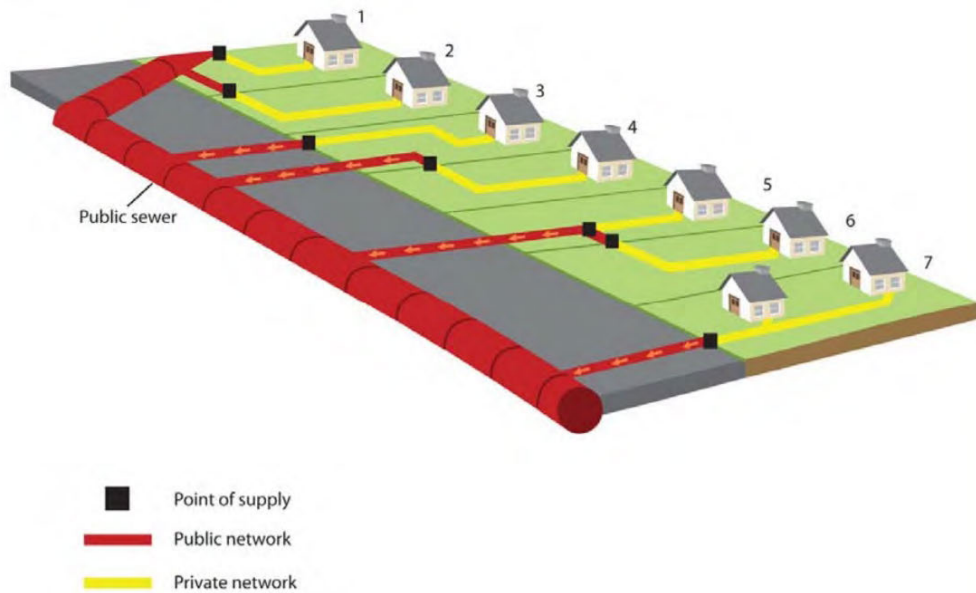
The definition of a Public Gravity Lateral asset is:

- Where a private gravity lateral crosses into the road reserve; and

- Where a private gravity lateral exits from the property into the adjoining property it becomes public.

For a connection to a sewer within the property the transition from private to public is at the first joint of the Wye or Tee off the sewer main.

Figure 4: Gravity Lateral Asset Ownership



11.5 LOW PRESSURE GRINDER PUMP SEWER SYSTEMS

11.5.1 New LPGP Connections

Refer to section 1.35.3.

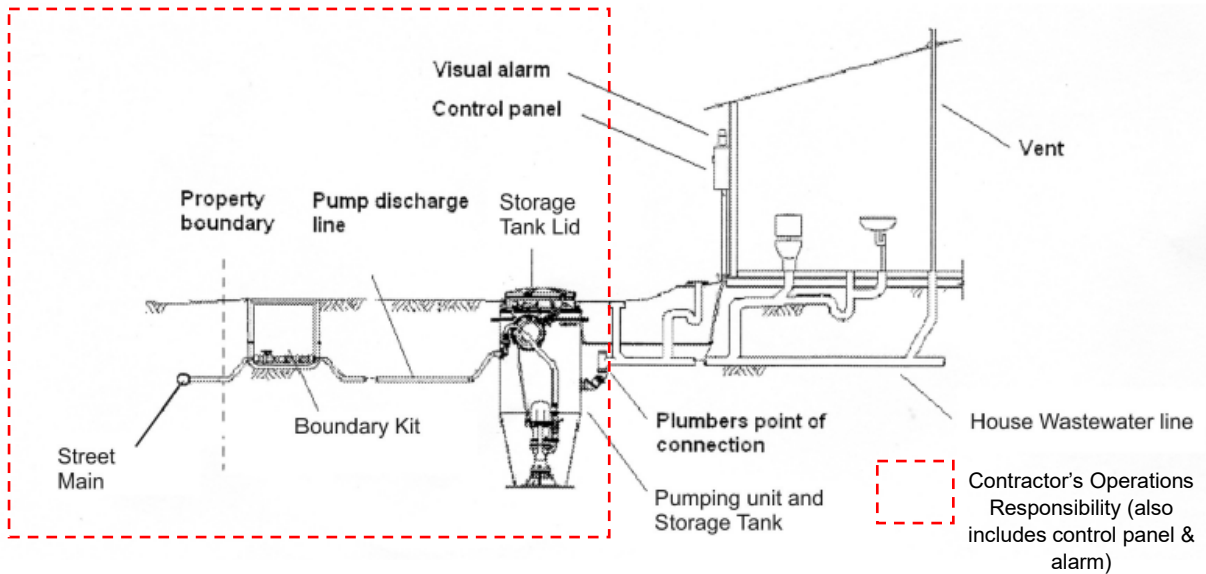
As at the Commencement Date, the owners of new dwellings built in the low pressure sewer areas of the Rotorua Reticulation Network are required to install EOne LPGP on-site wastewater systems. The homeowners are required to have their EOne system installed by one of a list of RLC pre-approved installation contractors (the Contractor is not precluded from applying to become a RLC pre-approved LPGP system installation contractor by virtue of being a party to this Contract).

Council provide all homeowners who have a LPGP system with a manual for the LPGP systems which describes the homeowner's and Council's obligations as to the operation and maintenance of the system.

With the exception of new subdivisions built by developer's contractors (which will be subject to the vested asset handover process as set-out in section 1.35.1), the Contractor shall make the final connection to the low pressure public sewer main of all new LPGP connections in the Rotorua Reticulation Network throughout the Contract Term.

The Contractor shall be responsible from the point of connection of the property lateral to the street main to the point of connection to the boundary kit as shown in Figure 5. The homeowner (via the RLC pre-approved contractor engaged by the homeowner) shall be responsible for all work upstream of the boundary kit outlet connection, including installing: the LPGP chamber and pump, the boundary kit, the gravity connection from the house to the pump chamber, the pump discharge line to the boundary kit, the visual alarm and control panel (typically mounted on the external wall of the nearest building on the property), field wiring and providing a power supply to the control panel.

Figure 5: Typical On-Property Pressure Sewerage System



Source: LPGP Homeowners Manual

11.5.2 On-Site LPGP System Operations

The Contractor shall be responsible for the Operations of all on-site LPGP assets in the Reticulation Networks up to the 'plumbers point of connection' as defined in Figure 5 with the exception of providing the power supply to the LPGP control panel and notification of alarms to the Council Call Centre. The Contractor shall comply with the manufacturer's specific requirements for the operation and maintenance of the on-site LPGP systems.

11.5.3 LPGP System Misuse

As at the Commencement Date, the Council's adopted policies and bylaws as they relate to LPGP system misuse by property owners are under review.

The Contractor shall maintain a register of all instances throughout the Contract term when the Contractor attends to Service Requests related to LPGP assets and the cause of the Service Request relates to mis-use of the LPGP system by the property owner (e.g. blockage caused by flushing of nappies, wet wipes etc). Where such misuse occurs, the Contractor shall attempt on each occasion to communicate with the property owner/occupier and educate the property owner/occupier on what is and is not acceptable to dispose of in the household toilets and wastewater drainage system. If the property owner/occupier is not home at the time of attendance, then the Contractor shall leave (Administrator pre-approved) standard educational correspondence in the property mailbox. For each incident of such misuse, the Contractor shall collect a photographic record of the cause of the Service Request (e.g. the material causing the blockage) and enter the relevant details in the register (e.g. property details, date & time attended, Service Request number, description of the cause of the Service Request, communication with the property owner/occupier etc).

The Contractor shall advise the Administrator (in the Operations Monthly Reports) of the details of any individual properties where more than one misuse Service Request incident has occurred in any 12-month period.

The Contractor may notify the Administrator if the Contractor has attended to any individual properties where more than three misuse incidents have occurred in any 6-month period. Where such a notice is issued the Council shall undertake property owner education and if deemed necessary by Council, enforcement action against the property owner up to the extent permissible in the Council's adopted policies and by-laws in place at the time. If any costs are recoverable by Council from the property owner, this shall be paid to the Contractor. The Contractor shall provide the register and catalogued photographic evidence described in this subsection to the Administrator upon request. Property specific information shall also be provided in support of any notification to the Administrator relating to repeated misuse Service Requests at individual properties.

11.6 UNKNOWN CONDITION OF UNDERGROUND ASSETS AT COMMENCEMENT

The initial period of the Contract Term (to 30 June 2024) has less stringent performance related KPI requirements for the Rotorua Reticulation Network. This allows a period for the Contractor to undertake investigations and renewals/improvement works to ensure the performance of the Rotorua Reticulation Network thereafter meets the Council's Reticulation Network KPI's for service delivery for the period from 1 July 2024 until the expiry of the Contract. The 30 June 2024 date aligns with the LTP/AMP cycle. During the initial period, the Rotorua Reticulation Network performance KPIs specified reflect the performance of the Rotorua Reticulation Network as at the Commencement Date of the Contract.

11.7 COMMUNITY MAJOR EVENT CONTINGENCY PRE-PLANNING

The Contractor shall plan for and put in place (at the Contractor's cost) contingency measures to mitigate risk of overflows during major community and sporting events in and around Rotorua (such as the Rotorua Marathon), where normal access to Rotorua Reticulation Network pump stations may be compromised. Contingency measures proposed by the Contractor shall be outlined in the Contractor's Operations Risk Management Plan (refer to section 1.30).

11.8 GRAVITY PIPELINE RETICULATION INSPECTIONS AND MAINTENANCE

11.8.1 Flushing Sewers

Flushing, cleaning and blockage clearing, roots or otherwise, of sewers, either proactively or reactively, shall be undertaken in accordance with the best practice guidelines in the New Zealand Pipe Inspection Manual (NZPIM).

Proactive flushing of sewers shall be undertaken such that service levels and KPI targets are met.

Reactive flushing may be required as a result of an overflow or incident.

All debris shall be collected at the downstream manhole and disposed of at an appropriate facility. Cleaning debris shall not be washed down to either pump stations nor the Rotorua WWTP Facility.

11.8.2 Sewer CCTV

Rotorua Reticulation Network CCTV inspection whether for condition assessment, I/I source detection or maintenance operations shall be carried out in accordance with NZPIM or its successor. All CCTV, whether proactive or reactive, shall be recorded, stored for later retrieval and coded to NZPIM requirements.

The Contractor's condition assessment CCTV footage, coding and scoring to NZPIM shall be provided to the Administrator upon request. This information may be used to inform the Administrator's reviews of the Contractor's Renewals Work Plans (refer to section 3.3) and the Contractor's I/I Reports.

To meet service levels the Contractor shall carry out regular proactive CCTV inspection to check on the service level of the reticulation. Service level scores of the pipelines shall be recorded for auditing purposes. This information shall also be provided at handover (refer to section 13.6.1 of this Schedule).

For planned CCTV programmes (refer the Contractor's Proposal) that will be used for condition assessments (i.e. to inform the prioritisation of the Gravity Mains Renewals Programme) and/or detection of sources of I/I, the Contractor shall submit the proposed CCTV programme to the Administrator for review and approval at least 20 Working Days prior to the planned commencement date of the CCTV programme. The Administrator's response and/or approval shall be provided within 10 Working Days of the date of submission by the Contractor.

If in the course of executing the approved CCTV programme it becomes apparent to the Contractor that there is a need to make changes to the CCTV programme, the Contractor shall notify the Administrator, provide details of the reasons why the programme needs to be changed, details of how the Contractor proposes to change the programme (e.g. substitutions) and impacts of any changes, The Contractor shall provide such notification as soon as practicable after it becomes apparent to the Contractor that a CCTV programme change is required. CCTV programme changes that entail adjustments to greater than 10% of the approved CCTV programme by pipe length (in a single change or in aggregate of multiple minor changes) shall require re-submission and re-approval of the CCTV programme.

11.9 GRAVITY MAINS RENEWALS

11.9.1 Gravity Mains Renewals Programme Development

The Council and the Contractor shall follow the process for developing the Gravity Mains Renewals Programme outlined in the Practice Note included as Appendix K.

The Contractor shall be responsible for planning and undertaking the individual projects within the agreed Gravity Mains Renewals Programme, covered separately by the Gravity Mains Renewals Payment.

11.9.2 Deviations to Agreed Gravity Mains Renewals Programme

Any proposed deviations to an agreed Gravity Mains Renewals Programme required due to circumstances beyond the Contractor's control or recommended by the Contractor to optimise the Gravity Mains Renewals Programme (for example due to supply chain market forces affecting rates for various Gravity Mains Renewals techniques) shall be referred to the Administrator for consideration and approval. Details shall be provided justifying the recommended deviation, the circumstances giving rise to the need for the deviation or the recommendation for a change, what deviation is proposed, and the implications on the Service Life expectancy of the assets involved. Refer to Appendix K for further details.

12 Rotomā/Rotoiti Wastewater Scheme

12.1 ROTOMĀ/ROTOITI OPERATIONS SCOPE

12.1.1 Rotomā/Rotoiti Operations Scope and Obligations

This section covers the Council's Requirements for the Rotomā/Rotoiti Operations.

The Rotomā/Rotoiti Operations includes:

- The Rotomā/Rotoiti WWTP Facility Operations
- The Rotomā/Rotoiti Reticulation Network Operations (noting that the scope of the Rotoiti Reticulation Network Operations is not defined at the Commencement Date and will be included in the scope by way of an adjustment to the Rotomā/Rotoiti Monthly Service Payment once the details are defined).

The scope of the Rotomā/Rotoiti Operations includes operation, maintenance and renewals of the Rotomā/Rotoiti WWTP Facility from the Commencement Date and the Rotomā/Rotoiti Reticulation Network from the various Taking Over dates to the Expiry Date.

The Contractor shall assume full operating responsibility for the Rotomā/Rotoiti WWTP Facility as set out in the Rotomā/Rotoiti WWTP Facility Taking Over Plan and clause 48.5 of the Contract Conditions.

The Rotomā/Rotoiti WWTP Facility is the Rotomā/Rotoiti WWTP Facility as described in this section of this Schedule.

The Rotomā Reticulation Network is the Reticulation Network covering the Rotomā residential areas as described in this section of this Schedule.

The Rotoiti Reticulation Network is the Reticulation Network covering the Rotoiti residential areas as described in this section of this Schedule.

The contract for the Operations of on-site pre-treatment systems for the Rotoiti Reticulation Network area is intended to be novated from the Council to the Contractor at a later date when the Council has awarded the contract. Refer to clause 52 of the Contract Conditions.

12.2 CULTURAL INDUCTION REQUIREMENTS

All Contractor personnel who will work on the Rotomā/Rotoiti WWTP Facility and the Rotomā/Rotoiti Reticulation Network shall attend a cultural induction and comply with the requirements of the cultural protocols identified during the cultural induction process. All Contractor personnel shall respect the “mana whenua” and “tikanga” cultural values of the land owners affected by the Rotomā/Rotoiti Operations.

12.3 ROTOMĀ/ROTOITI WWTP FACILITY OPERATIONS

12.3.1 Scope and Obligations

The scope of the Rotomā/Rotoiti WWTP Facility Operations includes operation, maintenance, and renewals for the Rotomā/Rotoiti WWTP Facility, Final Effluent conveyance system, LDS and access road.

This scope of the Rotomā/Rotoiti WWTP Facility Operations does not include the following:

- Design and construction of the Rotomā/Rotoiti WWTP Facility
- Commissioning, Testing and performance proving of the Rotomā/Rotoiti WWTP Facility except as described in the Rotomā/Rotoiti WWTP Facility Taking Over Plan (Appendix W).

The Contractor shall assume operating responsibility for the Rotomā/Rotoiti WWTP Facility as set out in the Rotomā/Rotoiti WWTP Facility Taking Over Plan in Appendix W and clause 48.5 of the Contract Conditions.

The Contractor shall do all things necessary from the Commencement Date to the Expiry Date to accept and treat all Influent arriving at the Rotomā/Rotoiti WWTP Facility, operate, maintain and renew the Rotomā/Rotoiti WWTP Facility such that that the Final Effluent produced meets the required standards stipulated in the applicable Council Resource Consent (Refer to Appendix G).

12.3.2 Location

Figure 2 shows the location of the Rotomā/Rotoiti WWTP Facility.

12.3.3 Resource Consents and Designation

The Rotomā/Rotoiti WWTP Facility site is the subject of the Rotomā/Rotoiti WWTP Facility Resource Consents which include a Designation (as set out in the Rotorua District Plan) and an easement instrument between Council and the landowners (see section 12.3.24 of this Schedule).

The Designation (reference RDC451a) in the Rotorua District Plan authorises the use of the Rotomā/Rotoiti WWTP Facility site for the purpose of construction, operation, and maintenance of a wastewater treatment plant and land disposal system. The Designation is included as a Rotomā/Rotoiti WWTP Facility Resource Consent.

The Rotomā/Rotoiti WWTP Facility Resource Consents are referenced in Appendix G.

12.3.4 Detailed Design Documentation

The Contractor will be furnished with a full electronic set of as-built drawings by the Council prior to the Commencement Date.

The O&M manual for the Rotomā/Rotoiti WWTP Facility will be provided to the Contractor in electronic format prior to the Commencement Date. If any inconsistency exists between the Rotomā/Rotoiti WWTP Facility O&M manual and this section 12, the Contractor shall inform the Administrator of the inconsistency and request the Administrator's clarification.

12.3.5 Influent Flows

The exact characteristics and flows of Influent to the Rotomā/Rotoiti WWTP Facility from the Rotomā/Rotoiti Reticulation Network will be unknown until the scheme is fully commissioned (i.e. the Rotoiti Reticulation Network is connected and commissioned, which when connected will comprise approximately 2/3rd of the Influent flow from an on-site pre-treatment system type that is unknown at the date of execution of the Contract).

An assessment of the range of Influent flows from the Rotomā/Rotoiti Reticulation Network was completed for the purpose of sizing the Rotomā/Rotoiti WWTP Facility. This is presented in Table 13.

Table 13: Rotomā/Rotoiti WWTP Facility Influent Flow Projections (when fully commissioned)

Parameter	Units	Min Value	Max Value
Average Daily Flow (ADF)	m ³ /d	332	503
Peak Day Flow (PDF)	m ³ /d	672	1016
Peak Wet Weather Flow (PWWF)	m ³ /d	806	1219
Peak Instantaneous Flow (peak hr)	(L/s)		40 ¹

Source: Rotomā Rotoiti WWTP Basis of Design Report,

1. Reticulation Pumping Station 3 peak instantaneous flow rate with two pumps operating (at commissioning).

A range of flows has been determined to reflect variations in tourism, seasonal and Marae occupancies. The forecast flows include an allowance for future growth, which has been determined by assuming current vacant property lots become developed in the future.

12.3.6 Influent Loads

Influent design loads to the Rotomā/Rotoiti WWTP Facility are summarised in Table 14.

Table 14: Rotomā/Rotoiti WWTP Facility Design Influent Wastewater Loads (when fully commissioned)

Parameter	Ave Daily Load (kg/d)	Peak Daily Load (kg/d)
COD	116	232
BOD	55	110
TSS	69	138
TKN	33	66
TP	3.7	7.3

Source: Rotomā Rotoiti WWTP Basis of Design Report

The Rotomā/Rotoiti Influent Envelope comprises the flows and loads set out in Table 13 and Table 14.

For the purposes of determining actual flows and loads conformance with the Rotomā/Rotoiti Influent Envelope, the actual Influent average mass loads and average flows (as set out in Table 13 and Table 14) shall be determined over any consecutive 12 month rolling average period (based on 52 weekly samples). The Contractor shall, as a minimum, take appropriate samples and measures to determine facility flows and loads on a weekly basis.

12.3.7 Treatment Process

The required Final Effluent quality measured after the WWTP and prior to the LDS is shown in Table 15. These Final Effluent quality parameters are stipulated within Council Resource Consent RM16-384-DC.02 (resource consent conditions for discharge of nutrients to land in the Lake Rotoiti catchment). Refer to Appendix G.

Table 15: Resource Consent Average Final Effluent Concentrations

Parameter	Unit	Statistical Basis	Consent Limit
CBOD ₅	g/m ³	Average	8
TSS	g/m ³	Average	5
TN	g/m ³	Average	7
TP	g/m ³	Average	3
E. Coli	CFU/100ml	Average	50

Note: All values shall be calculated on a 12-month rolling average basis (based on at least 26 fortnightly samples)

The Rotomā/Rotoiti WWTP Facility utilises MBR technology and has been designed to treat the Influent specified in Table 13 and Table 14 to a Final Effluent quality compliant with the Resource Consent parameters shown in Table 15. To achieve the total nitrogen performance requirements, as specified in Table 15, the treatment process at the Rotomā/Rotoiti WWTP Facility is a 4 stage Bardenpho with supplemental carbon dosing to the anoxic zones.

The primary mechanism of phosphorus removal is alum dosing.

12.3.8 Plant Configuration

The process configuration for the Rotomā/Rotoiti WWTP is shown in Figure 6 and the layout is shown in Figure 7. Access to the WWTP is from State Highway 30 via a new sealed access road (see Figure 2).

12.3.9 Acceptance and Treatment of Influent within the Rotomā/Rotoiti Influent Envelope

The Contractor shall assume operating responsibility for the Rotomā/Rotoiti WWTP Facility as set out in the Rotomā/Rotoiti WWTP Facility Taking Over Plan in Appendix W and clause 48.5 of the Contract Conditions.

From the Commencement Date to the Expiry Date the Contractor shall accept and treat all Influent received at the Rotomā/Rotoiti WWTP Facility to the standards required under the applicable Council Resource Consents and the Contract Documents provided such Influent flows and loads fall within the Rotomā/Rotoiti Influent Envelope.

The Contractor's Influent acceptance and treatment obligations under this section shall apply notwithstanding any variability in the relative quantities of any of the pollutant parameters within the Rotomā/Rotoiti Influent Envelope.

12.3.10 Influent Exceeding the Rotomā/Rotoiti Influent Envelope

If the actual Influent received at the Rotomā/Rotoiti WWTP Facility for treatment exceeds the Rotomā/Rotoiti Influent Envelope, the Contractor, for the period of the exceedance, shall endeavour to treat the Influent to the standards required under the applicable Council Resource Consents and the Contract Documents.

The Contractor shall promptly notify the Administrator of any such occurrence that occurs for a period sufficient to have a material impact and shall note the occurrence, the known or suspected reasons for the occurrence, the known or suspected impacts of the occurrence relative to KPI performance and the actions taken.

The Contractor shall not be in default of its performance obligations under the Contract Documents to the extent that any failure to meet the required standards arises due to the Influent exceeding the Rotomā/Rotoiti Influent Envelope.

In the event where the Influent average daily mass loads and average daily flows specified in Table 13 and Table 14 over any consecutive 12-month rolling average period (based on 52 weekly samples) exceed the Rotomā/Rotoiti Influent Envelope, then the additional costs incurred by the Contractor in endeavouring to treat Influent that exceeds the Rotomā/Rotoiti Influent Envelope and/or in returning the Rotomā/Rotoiti WWTP Facility to a compliant operations condition shall be payable by the Council determined as a Mandatory Variation in accordance with clause 43.1.14 of the Contract Conditions.

Any assessment of additional costs shall take into consideration the net effect on the total Rotomā/Rotoiti WWTP Facility Operations costs (i.e. overs and unders) and shall not be limited to only those components of cost that have increased.

Figure 6: Simplified Process Flow Diagram of Rotomā/Rotoiti WWTP

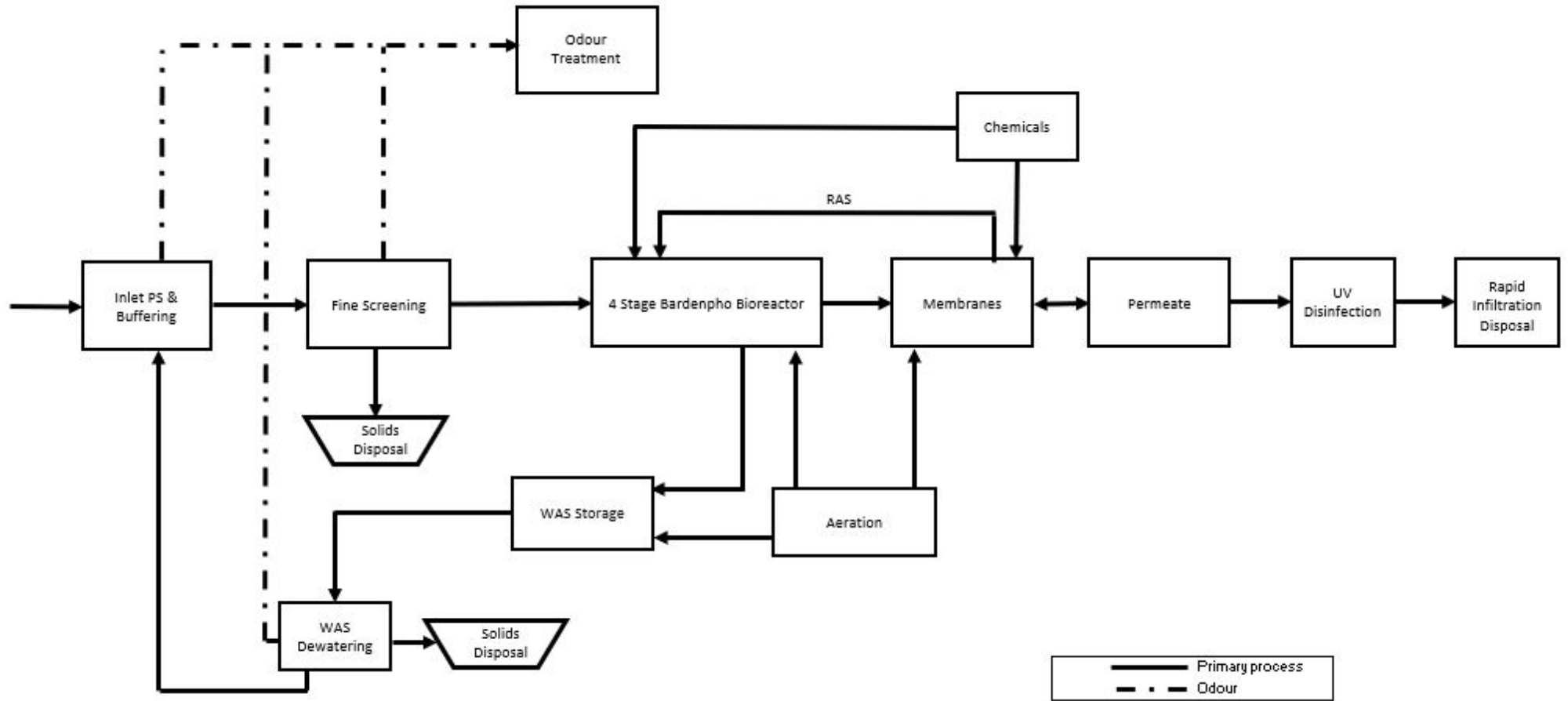
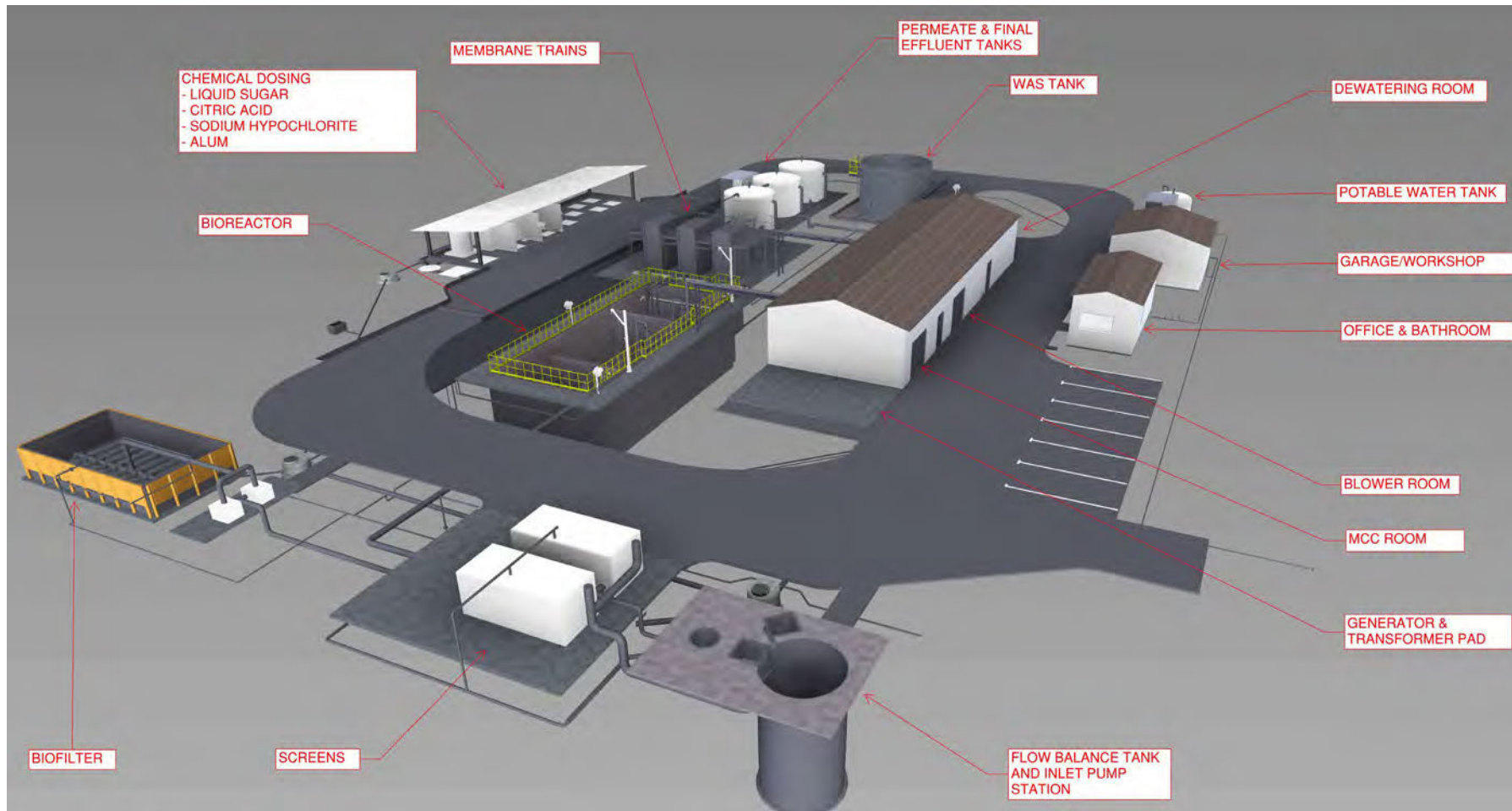


Figure 7: 3D Model View of Rotomā/Rotoiti Wastewater Treatment Plant



12.3.11 Alkalinity Dosing

As at the Commencement Date alkalinity dosing is not provided at the Rotomā/Rotoiti WWTP Facility. However, space has been allowed for within the chemical dosing area for a permanent alkalinity dosing system to be installed if alkalinity dosing is proven to be required to reliably meet the Final Effluent quality.

Should a permanent alkalinity dosing facility be required to reliably meet the Final Effluent quality, the design and construction of this system will be introduced into the Contract scope by way of a Variation in accordance with clause 43 of the Contract Conditions.

12.3.12 Utilities

12.3.12.1 Interfaces and Responsibility

The Contractor shall be responsible for operating, maintaining and renewing all utility related infrastructure that falls within the land parcel boundary of the Rotomā/Rotoiti WWTP Facility Site (i.e. outside of the public road reserve). The ownership and responsibility for any non-wastewater utility infrastructure falling outside of the site boundary of the Rotomā/Rotoiti WWTP Facility Site will be the responsibility of the applicable utility service provider.

12.3.12.2 Potable Water

Potable water will be supplied to the Rotomā/Rotoiti WWTP Facility from the existing potable water network running along SH30. The potable water usage will be metered and the Contractor shall purchase potable water used based on the RLC water supply rates and charges applicable from time to time (refer to section 6.3).

12.3.12.3 Electricity

The transformer for Rotomā/Rotoiti WWTP Facility is located outside of the site boundary fence. The Contractor shall be responsible for all required maintenance and/or renewals of all low voltage cabling from the transformer to the MCC, and all internal cabling within the Rotomā/Rotoiti WWTP Facility.

The electricity supply provider will be responsible for operating and maintaining all HV cabling to the transformer and the transformer itself.

Refer to clause 6.1 for provisions relating to electricity supply.

12.3.12.4 Standby Power

A standby generator will be permanently installed at the Rotomā/Rotoiti WWTP Facility. The generator fuel tank has sufficient storage capacity for 24 hours plant operation at full load. The generator has a rating of 220kVa.

The Contractor shall be responsible for operating, maintaining and renewing the standby generator including (but not limited to) refuelling, routine servicing, regular test operation and maintaining currency of all applicable certifications.

12.3.12.5 Fibre

The Contractor shall be responsible for all fibre optic network cables that fall within the boundary of the Rotomā/Rotoiti WWTP Facility Site.

12.3.12.6 Stormwater and Site Drainage

The Contractor shall be responsible for maintaining and renewing Rotomā/Rotoiti WWTP Facility Site drainage and stormwater infrastructure (including open drainage systems). This includes maintaining drainage free of blockages and vegetation.

12.3.12.7 Service Water

Final Effluent from the Rotomā/Rotoiti WWTP Facility will be used throughout the facility as service water. The service water network includes the use of hose reels for wash down. The protocol at the Rotomā/Rotoiti WWTP Facility around the use of recycled Final Effluent as service water on site shall follow the same procedure as the Rotorua WWTP Facility.

12.3.12.8 Chemical Supply

The Contractor shall be responsible for managing the supply of all chemicals required for the Rotomā/Rotoiti WWTP Facility Operations including (without limitation): carbon (sugar), alum, sodium hypochlorite (hypo), citric acid, polymer and supplemental alkalinity (if required).

The Contractor may, at the Contractor's discretion, request the Administrator to approve (at the Administrator's sole discretion) the use of an alternative carbon source. Alternative carbon sources will only be considered by the Administrator if they introduce no additional hazards to the site, and there is no capital cost or additional operating cost to the Council.

12.3.13 Biosolids Disposal

Refer to section 9.1.

12.3.14 Screenings Disposal

Refer to section 9.2.

12.3.15 Operation, Maintenance, Renewals

12.3.15.1 Operation and Maintenance

The Contractor shall carry out the Rotomā/Rotoiti WWTP Facility Operations in compliance with the applicable KPI's and the applicable Rotomā/Rotoiti WWTP Resource Consents requirements.

Refer to section 12.3.23 regarding operations and maintenance of the LDS.

Refer to section 12.3.26 regarding operations and maintenance of the Rotomā/Rotoiti WWTP Facility to minimise odour.

12.3.15.2 Rotomā/Rotoiti WWTP Facility O&M manual

The O&M manual for the Rotomā/Rotoiti WWTP Facility will be handed over to the Contractor prior to the Commencement Date. The O&M manual for the Rotomā/Rotoiti WWTP Facility will be a live document. The Contractor shall be responsible for updating the Rotomā/Rotoiti WWTP Facility O&M manual as required for the balance of the Contract Term. Any new or alternative procedures operational personnel identify that result in more efficient operation, result in safer operation, or improve compliance shall be added to the Rotomā/Rotoiti WWTP Facility O&M manual.

12.3.15.3 Renewals

The Rotomā/Rotoiti WWTP Facility Operations includes Rotomā/Rotoiti WWTP Facility renewals as required to ensure ongoing compliance with the Rotomā/Rotoiti WWTP Resource Consents, KPI's and to meet the Handover Obligations. Renewals shall comply with the requirements of the Contractor's General Technical Specifications.

12.3.16 Iwi Liaison Requirements

The Rotomā/Rotoiti WWTP Facility Operations includes the provision of assistance to the Council to undertake Iwi liaison as required by the conditions of the Rotomā/Rotoiti WWTP Resource Consents.

As stipulated within the Rotomā/Rotoiti WWTP Resource Consents, local Iwi will have a continued active and effective participation in the operation of the Rotomā/Rotoiti WWTP & LDS Facility throughout the full life operation of the scheme through the formation of an Iwi Wastewater Liaison Group (IWLG). Council will be responsible for constituting and managing the IWLG, however the Contractor will be part of the group as the operator for the duration of the Contract. Also refer to section 1.37.

The Contractor shall consider and liaise with the IWLG, to the extent required by the Rotomā/Rotoiti WWTP Resource Consents (as a minimum requirement), before conducting major works or completing material changes to the process operation of the Rotomā/Rotoiti WWTP Facility.

12.3.17 Site Attendance

The Rotomā/Rotoiti WWTP Facility has been designed to a level of automation to allow for operation without the need for personnel to be stationed permanently on site. However, the Contractor shall make not less than twice weekly visits to the site to ensure the Rotomā/Rotoiti WWTP Facility is operating and is maintained as required.

12.3.18 Sludge Dewatering

12.3.18.1 Attendance

Periodic site attendance will be required to perform dewatering of waste activated sludge (WAS), to replenish the bulk polymer supply to the polymer make-up system and to swap out and remove the dewatered sludge collection bins. The sludge dewatering system was selected based on the criteria shown in Table 16.

Table 16 Rotomā/Rotoiti WWTP Facility Sludge Dewatering Plant Influent Sludge Design Criteria

Parameter	Description / Value	
Sludge Type	Waste Activated Sludge (WAS)	
WAS feed per day (m ³ /d)	25	
WAS feed per day (kgDS/d)	108.1	
Days operation per week (d)	5	
Max hours operation per day (hr)	7	
<i>Sewage Flow Scenario</i>	<i>ADF</i>	<i>PDF</i>
Influent Total Suspended Solids (mg/L)	4325	4291

12.3.18.2 Dewatering Plant Design Criteria and Performance

The performance requirements specified for the sludge dewatering system in the construction contract for the Rotomā/Rotoiti WWTP Facility are shown in Table 17.

Table 17: Rotomā/Rotoiti WWTP Facility Sludge Dewatering Plant Performance Criteria

Performance Criteria	Rate
Minimum Dry Solids Percentage (%DS)	16%
Minimum Capture Rate (%)	>90%
Dewatering Rate (kgDS/hr)	21.62
Polymer Consumption (kg polymer/tonne DS)	< 14kg

Source: MMD

Performance of the dewatering system was tested and verified under site conditions during a 'performance testing' phase after installation and function testing to compare the actual performance against the design criteria shown in shown in Table 16 and the performance requirements shown in Table 17.

The performance testing was undertaken at a slightly higher feed rate than that shown in shown in Table 16 (25.8), polymer consumption was higher than that shown in Table 17 (18.9), solids capture was just below the minimum capture shown in Table 17 (89%) and the sludge cake dry solids percentage was higher than the minimum required in Table 17 (19.9%).

The commissioning report makes recommendations for fine tuning and optimising the dewatering process and performance is expected to improve when the WWTP is fully commissioned and the biological process stabilises. Performance will be monitored according to the Rotomā/Rotoiti WWTP Facility Taking Over Plan.

The actual performance of the dewatering system at the Rotomā/Rotoiti WWTP Facility may be "tuned" by the Contractor to suit the Contractor's own requirements according to the Contractor's arrangements for the disposal/re-use of biosolids.

An equipment warranty period of 1 year was provided by the equipment supplier Sindico.

12.3.19 Future Expansion

Allowances have been made within the design of the Rotomā/Rotoiti WWTP Facility for future expansion as required. The delivery of any expansion work for the Rotomā/Rotoiti WWTP Facility falls outside the scope of this Contract, however it may be included by way of a Variation in accordance with clause 43 of the Contract Conditions. The Contractor shall provide reasonable assistance to Council during the planning, design, construction and commissioning of any future expansion to allow for any works to progress smoothly and without delay.

12.3.20 Sampling and Analysis

The Rotomā/Rotoiti WWTP Facility Influent and Final Effluent sampling and analysis shall be the Contractor's responsibility as part of the carrying out of the Rotomā/Rotoiti WWTP Facility Operations and carried out by the WWTP Laboratory (excepting under the circumstances described in section 8.13.1). Sampling, monitoring, and reporting beyond the Rotomā/Rotoiti WWTP Facility boundaries will be the Council's responsibility.

The Contractor will be responsible for all Rotomā/Rotoiti WWTP Facility Influent, Final Effluent and all in-plant monitoring and reporting to Council.

If any exceedance of Condition 9.1 of Resource Consent RM16-0834-DC.02 occurs, the actions in Conditions 10.16, 10.17 and 10.20 of Resource Consent RM16-0834-DC.02 will be triggered as appropriate and actioned by the Contractor at the Contractor's cost. If on-going non-compliance (10.20) is due to a fault of the Contractor, required actions to reach compliance will be at the Contractor's cost.

12.3.21 Third Party Access to Final Effluent

The Rotomā/Rotoiti WWTP Facility has a connection point provided to allow local Iwi to access the Final Effluent. At the request of the Administrator, the Contractor shall provide Final Effluent exclusively to local Iwi free of charge at the Rotomā/Rotoiti WWTP Facility access point.

12.3.22 Urupa Monitoring

Urupa monitoring falls outside of the scope of this Contract and will be Council's responsibility.

12.3.23 Land Disposal System

Final Effluent shall be discharged to the Rotomā/Rotoiti WWTP Facility LDS by the Contractor.

The Contractor shall ensure that there is no activity undertaken on top of the LDS trenches that may cause damage to the disposal system.

12.3.24 Land Occupation Rights

Council does not own the land on which the Rotomā/Rotoiti WWTP Facility Site is located. The Haumingi 9B 3B Ahu Whenua Trust (landowners) have granted an easement instrument (Rotomā/Rotoiti WWTP Easement Instrument) in favour of RLC permitting the construction and operation of the Rotomā/Rotoiti WWTP Facility on the land. A copy of the Rotomā/Rotoiti WWTP Easement Instrument has been provided to the Contractor prior to the execution of the Contract.

Council will make all payments to the landowners relating to the right of Council to occupy the Rotomā/Rotoiti WWTP Facility Site for the Contract Term.

For the Contract Term, Council will retain overall responsibility for compliance with the conditions set out in the Rotomā/Rotoiti WWTP Easement Instrument. The Contractor shall carry out the Rotomā/Rotoiti WWTP Facility Operations in compliance with the conditions set out in the Rotomā/Rotoiti WWTP Easement Instrument.

One of the Contractor's primary obligations in relation to the Rotomā/Rotoiti WWTP Easement Instrument conditions is fulfilling, on the Council's behalf, the Council's obligations as set out in Schedule 8 - Odour Issues Response Plan relating to the Operation of the Rotomā/Rotoiti WWTP Facility (Odour Issues Response Plan).

12.3.25 Landscaping and Access

A landscape plan for the Rotomā/Rotoiti WWTP Facility was prepared and implemented by Council as part of the Rotomā/Rotoiti WWTP Facility construction contract. The maintenance of landscaping on site to comply with Council's approved landscape plan shall be carried out by the Contractor for the Contract Term.

The Rotomā/Rotoiti WWTP Facility Operations includes ensuring that the access road and road side vegetation is maintained (refer to Appendix G Designation RDC451a, condition 8b regarding roadside vegetation).

12.3.26 Odour

The Contractor shall operate and maintain the Rotomā/Rotoiti WWTP Facility in a manner that minimises the potential for odour generation and odour release and shall comply with the relevant conditions of the Rotomā/Rotoiti WWTP Resource Consents including (without limitation) the Odour Management Plan referred to in Council Resource Consent RM16-0384-DC.01.

The Odour Management Plan will be provided to the Contractor prior to the Commencement Date. The Contractor shall, in the carrying out of the Rotomā/Rotoiti WWTP Facility Operations, comply with the Odour Management Plan.

See also section 12.3.24 regarding the Contractor's obligations with respect to the Odour Issues Response Plan.

12.3.27 Noise

The Contractor shall comply with the noise requirements specified in the relevant conditions of the Rotomā/Rotoiti WWTP Resource Consents.

12.3.28 Signage

Council will erect the initial signage at the Rotomā/Rotoiti WWTP Facility.

The Contractor shall update/modify the signage to reflect the change in operations responsibility (e.g. contact person details) within 10 Working Days of the Commencement Date. The Contractor shall thereafter maintain and renew the signage for the remainder of the Contract Term.

Signage shall comply with the relevant conditions of the Rotomā/Rotoiti WWTP Resource Consents.

12.3.29 Notifications

The Contractor shall be responsible for making notifications as may be required in accordance with the relevant conditions of the Rotomā/Rotoiti WWTP Resource Consents.

12.3.30 Complaints

The Contractor shall be responsible for maintaining a complaint register, responding to and reporting complaints as required by the relevant conditions of the Rotomā/Rotoiti WWTP Resource Consents.

12.3.31 Site Management Plan

The Council has prepared a Site Management Plan (SMP) in accordance with the relevant conditions of the Rotomā/Rotoiti WWTP Resource Consents.

The SMP will be provided to the Contractor prior to the Commencement Date. The Contractor shall, in the carrying out of the Rotomā/Rotoiti WWTP Facility Operations, comply with the SMP.

12.4 ROTOMĀ/ROTOITI RETICULATION NETWORK OPERATIONS

12.4.1 Scope

The scope of the Rotomā/Rotoiti Reticulation Network Operations includes: operation, maintenance, and renewals for the Rotomā/Rotoiti Reticulation Network as set out in this section.

This scope of the Rotomā/Rotoiti Reticulation Network Operations does not include the following:

- Design and construction of the Rotomā/Rotoiti Reticulation Network
- Commissioning of the Rotomā/Rotoiti Reticulation Network.

12.4.2 General Requirements

The requirements of section 9 of this Schedule shall also apply to the Rotomā/Rotoiti Reticulation Network. Where there is any conflict between the requirements of section 10 and this section 12.4, the requirements of section 12.4 shall take precedence.

12.4.3 Extent of Rotomā/Rotoiti Reticulation Network

The Rotomā/Rotoiti Reticulation Network will extend from Matahi Road, on the eastern shore of Lake Rotomā, to the Rotomā/Rotoiti WWTP Facility site. Area of benefit maps of the Rotomā/Rotoiti Reticulation Network are included in Appendix E.

The Rotomā community will be serviced via Septic Tank Effluent Pumping (STEP) pre-treatment systems installed at each property, and on through a low pressure sewer system to the Rotomā/Rotoiti WWTP Facility.

The Rotoiti community will be serviced via approximately 450 On-property Pre-treatment Units installed at each property, and on through a low pressure sewer system to the Rotomā/Rotoiti WWTP Facility.

An estimate of the total asset base for the Rotomā/Rotoiti Reticulation Network is provided in Appendix E, with the exception of the Rotoiti On-property Pre-treatment Units (approximately 450 thereof).

The scope of the Operations of the Rotoiti Network and the Rotoiti On-property Pre-treatment Units is not defined at the Commencement Date.

If the Council enters into a contract for the operation and maintenance of the Rotoiti On-property Pre-treatment Units (either within the On-property Pre-treatment Units supply contract or under a separate contract) that contract may be novated to the Contractor and included in the Rotoiti Reticulation Network Operations pursuant to clause 52 of the Contract Conditions. Alternatively, the parties may agree to include the operation and maintenance of the Rotoiti On-property Pre-treatment Units directly in the Rotoiti Reticulation Network Operations pursuant to clause 52 of the Contract Conditions.

12.4.4 Septic Tank Effluent Pump (STEP) System

12.4.4.1 New STEP Connections

Refer to section 1.35.3.

As at the Commencement Date, the owners of new dwellings built in the low pressure sewer area of the Rotomā Reticulation Network are required to install STEP on-site wastewater systems. The homeowners are required to have the STEP system installed by one of a list of RLC pre-approved installation contractors (the Contractor is not precluded from applying to become a RLC pre-approved STEP system installation contractor by virtue of being a party to this Contract).

Council provide all homeowners who have a STEP system with a manual which describes the homeowner's and Council's obligations for the operation and maintenance of the STEP system.

With the exception of new subdivisions built by developer's contractors (which will be subject to the vested asset handover process as set-out in section 1.35.1), the Contractor shall make the final connection to the public low pressure sewer system of all new STEP connections in the Rotomā/Rotoiti Reticulation Network.

The Contractor shall be responsible for making the final connection from the point of connection of the property lateral to the street main to the point of connection to the outlet of the boundary kit. This is similar to what is shown in Figure 5 for the LPGP systems, however the LPGP pump chamber is replaced with a septic tank with a pump chamber at the outlet end with a STEP installation. The homeowner (via the RLC pre-approved contractor engaged by the homeowner) shall be responsible for all installation work upstream of the boundary kit outlet connection, including installing: the STEP tank and pump, the boundary kit, the gravity connection from the house to the STEP tank inlet, the pump discharge line to the boundary kit, the visual alarm and control panel (typically mounted on the external wall of the nearest building on the property) and providing a power supply to the control panel.

12.4.4.2 On-Site STEP System Operations

The Contractor shall be responsible for the Operations (including periodic desludging of the septic tanks) of all on-site STEP system assets in the Reticulation Networks up to the point of household gravity lateral connection to the inlet of the STEP tank with the exception of providing continuity of power supply to the STEP control panel and notification of alarms to the Council Call Centre (which are the duty of the private property occupier).

The Contractor shall comply with the manufacturer's specific requirements for the Operations of each STEP system.

12.4.5 Rotoiti On-Site Wastewater Pre-Treatment Systems

As at the date of execution of the Contract:

- a) the Council has issued a request for expressions of interest for the supply, installation and operation of on-site pre-treatment systems in the Rotoiti Reticulation Network

- b) the Council intends to issue a request for tender for the supply, installation and operation of on-site pre-treatment systems in the Rotoiti Reticulation Network
- c) the type of on-site pre-treatment system to be installed in the Rotoiti Reticulation Network area is unknown
- d) the parties intend that the contract for the supply, installation and operation of on-site pre-treatment systems for the Rotoiti Reticulation Network will be novated from the Council to the Contractor

all as set out in clause 52 of the Contract Conditions.

The Contractor's obligations with respect to the connection to the public low pressure sewer network of new on-site pre-treatment systems for the Rotoiti Reticulation Network area and Operations of on-site pre-treatment systems in the Rotoiti Reticulation Network area (in addition to the installation and Operations requirements as defined in the contract to be novated to the Contractor) shall generally be the same or similar to the requirements for LPGP and STEP systems as set out in sections 11.5 and 12.4.4.

12.4.6 Low Pressure Sewer System

Refer to Section 10.5.

12.4.7 Standby Power

The pump stations in the Rotomā/Rotoiti Reticulation Network will have the ability to plug in mobile generators.

The Contractor shall provide such additional or mobile generators as are required to ensure continuity of Rotomā/Rotoiti Reticulation Network service.

12.4.8 Inspections and Maintenance

12.4.8.1 Routine Maintenance

The Contractor shall be responsible for developing a maintenance programme and undertaking routine periodic maintenance/inspections of the Rotomā/Rotoiti Reticulation Network as detailed in this clause 12.4.8.

12.4.8.2 STEP Systems

The Contractor shall check the operation of the pump, float switches and high-level alarms at each STEP system installation on not less than a six-monthly basis. A visual inspection of the STEP tanks shall be carried out to check for leaks and examine the scum and sludge layers within the tank.

The Contractor shall develop a regular schedule of STEP tank desludging. Desludging shall initially be undertaken at intervals as recommended by the STEP system supplier. The Contractor may undertake desludging more or less frequently as the Contractor may determine. The desludging of the STEP tanks shall be the Contractor's cost.

Copies of the service logs shall be kept by the Contractor and provided for review by the Administrator as requested.

The maintenance of the STEP pumps shall include, but not be limited to:

- Test run each pump and check all alarms, including float, are functioning
- Valve exercising and checking for leaks
- Clean pump chamber and remove all large detritus that may block or impair pump operation.

The Contractor shall maintain/renew/replace pumps and wearing parts as determined from their maintenance and inspection regime and as necessary to ensure the levels of service are met. All renewals shall be undertaken in accordance with the Council's Engineering Specifications.

12.4.8.3 Pipework

The Contractor shall carry out flushing of the pipelines as required to reduce the risk of blockages and maintain compliance with the KPIs.

Reactive maintenance shall be carried out when required. The Contractor shall isolate the section of pipe to be repaired or maintained in accordance with relevant network access and isolation provisions. All renewal works shall be in accordance with Council's Engineering Specifications.

12.4.8.4 Valves

Rotomā/Rotoiti Reticulation Network valves shall be visually inspected no less than annually and exercised at a minimum interval of 4 years to ensure they are functioning as intended. The Contractor shall be responsible for maintenance, repair or renewal of any faulty or leaking valves.

12.4.8.5 Pump Stations

The operations, maintenance and renewals requirements for Rotomā/Rotoiti Reticulation Network pump stations are as detailed in section 10.4.

12.4.9 Renewals and Replacements

The Contractor shall be responsible for planning for and undertaking Rotomā/Rotoiti Reticulation Network renewals, responding to callouts and addressing faults.

The Rotomā/Rotoiti Reticulation Network has design Minimum Service Life Requirements of assets as set out in Table 18. The Contractor is responsible for undertaking renewals and replacements as required to achieve the Minimum Service Life Requirements specified in Table 18, meet the KPIs and achieve the Handover Obligations.

Table 18: STEP Wastewater Network Service Life

Asset Category	Minimum Service Life Requirement
STEP Tank	50 years
STEP Pump	25 years
PE pipe	50 years
Valves	50 years
Electrical Equipment	15 years

Source: Manufacturer specifications

12.4.10 Construction Defects

The remediation of Rotomā/Rotoiti Reticulation Network construction defects is the Council's responsibility as set out in clause 51 of the Contract Conditions. The Contractor's responsibilities as to the identification, notification and assisting Council to pursue remediation of construction defects are set out in clause 51 of the Contract Conditions.

12.5 ROTOMĀ/ROTOITI WASTEWATER SCHEME COMMISSIONING AND TAKING OVER

The parties acknowledge that:

- a) The completion of construction and commissioning of the Rotomā Reticulation Network and the completion of construction of the Rotomā/Rotoiti WWTP Facility took place prior to the date of execution of the Contract. As at the date of execution of the Contract the Rotomā/Rotoiti WWTP Facility has been commissioned, however it has taken considerable time from the completion of commissioning to achieve stable normal operation as required in order to commence performance proving (the Facility has been under-loaded). Through the Rotomā/Rotoiti WWTP Facility Taking Over Plan, the parties have agreed a process by which the Contractor shall accept responsibility for the Operations of the Rotomā/Rotoiti WWTP Facility.
- b) As set out in clause 48.2 of the Contract Conditions, the Contractor has carried out, or is in the process of carrying out, due diligence as to:
 - the completion of construction, pre-commissioning and commissioning of the Rotoiti/Rotomā WWTP Facility,
 - the initial process optimisation (acclimatisation) of the Rotoiti/Rotomā WWTP Facility,
 - the operation of the Rotoiti/Rotomā WWTP Facility throughout the compliance testing and performance proving period (incomplete),
 - the completion of construction and commissioning of the Rotomā Reticulation Network
- c) The Rotoiti Reticulation Network will be constructed and commissioned by others and the Taking Over of the Rotoiti Reticulation Network will commence after the Commencement Date of the Contract.

A summary of the various construction contracts and major equipment supply packages (the **Rotomā/Rotoiti Contracts**) for the Rotomā/Rotoiti wastewater scheme is provided in Schedule 14 of the Contract Conditions.

Commencement of the Rotomā Reticulation Network Operations shall occur at the Commencement Date. Taking Over of low pressure sewer reticulation infrastructure within the Rotoiti Reticulation Network will occur after the Commencement Date as separate packages around the time of commissioning of each package. The Council will inform the Contractor of the start date for Operations for each package when the date is known to Council and will request a proposal from the Contractor for the Operations of each package as described in Schedule 2. The Taking Over of Operations of other low pressure sewer reticulation infrastructure within the Rotomā/Rotoiti Reticulation Network shall follow the vested asset taking over procedure described in section 1.35.1.

During commissioning of the Rotomā/Rotoiti WWTP Facility, Council prepared, and the Contractor agreed to a Rotomā/Rotoiti WWTP Facility Taking Over Plan. The Rotomā/Rotoiti WWTP Facility Taking Over Plan defines the commissioning, compliance testing and performance proving obligations for the Rotomā/Rotoiti WWTP Facility and the involvement of the Contractor, in the commissioning, compliance testing and performance proving process. The Rotomā/Rotoiti WWTP Facility Taking Over Plan also defines the completion of compliance testing and performance proving and the pre-requisites to be achieved for the Contractor to assume full responsibility for the performance of the Rotomā/Rotoiti WWTP Facility. The Rotomā/Rotoiti WWTP Facility Taking Over Plan has been modified by agreement to reflect the changing status of the WWTP Facility and may continue to be modified by the agreement of both parties. The Rotomā/Rotoiti WWTP Facility Taking Over Plan as at the date of execution of the Contract is included in Appendix W.

The Rotomā/Rotoiti WWTP Facility Operations shall commence on the Commencement Date. The Contractor shall assume operating responsibility for the Rotomā/Rotoiti WWTP Facility as set out in the Rotomā/Rotoiti WWTP Facility Taking Over Plan and clause 48.5 and 48.6 of the Contract Conditions.

Refer also to clauses 48 and 49 of the Contract Conditions as to Taking Over of the Rotomā/Rotoiti WWTP Facility and the Rotomā/Rotoiti Network.

13 Handover Obligations

13.1 SUMMARY

The provisions relating to Handover including completion of the Handover Obligations by the Contractor is described in Part G of the Contract Conditions.

The Handover Obligations are as set out in clause 78.1.2 of the Contract Conditions. The Handover Obligations include:

- The Condition Assessment Obligations; and
- The Expiry Date Obligations.

The Condition Assessment Obligations are the Contractor's obligations relating to the condition of the Reticulation Networks and the WWTP Facilities on Contract expiry in accordance with the Contract Documents as identified pursuant to the Condition Assessment Regime and include the following:

- The return of the WWTP Facilities and the Reticulation Networks to the Council in good order and operating condition, with all required maintenance, renewals and repairs properly completed; and
- Ensuring that the WWTP Facilities and the Reticulation Networks have not less than the applicable Remaining Service Life Expectancy as set out below or as otherwise approved by Council.

The Expiry Date Obligations are all other Handover Obligations that are to be completed by the Contractor on or before the Expiry Date (or earlier termination of the Contract) as set out in the Contract Documents other than the Condition Assessment Obligations.

13.2 HANDOVER MANAGEMENT

13.2.1 Handover Plan

The Contractor shall prepare a Handover Plan. The purpose of this plan is to demonstrate how the Contractor will manage the Handover of the WWTP Facilities, the Reticulation Networks and the Operations in an orderly fashion such that the Handover facilitates the carrying out of the Operations in accordance with the Contract requirements by the Council (or incoming third party contractor) following the Expiry Date.

The Handover Plan shall cover (without limitation) the Contractor's actions to de-mobilise personnel and equipment and how the Contractor will ensure Council (or incoming third party contractor) staff are adequately trained by the Contractor to operate and maintain the WWTP Facilities and the Reticulation Networks immediately after Handover to the required levels of performance.

The Handover Plan must, as a minimum, address:

- How information identified in the Handover Plan will be provided to the Administrator and Council or a third-party Contractor at the end of the Contract
- The transition of staff (if any)
- The induction and/or training of Council or incoming third-party contractor personnel on procedures that are necessary to ensure a safe work environment and the continuity of compliant WWTP Facilities treatment processes and Reticulation Networks operation at Handover
- Identification and mode of Handover of all assets and operational data, correspondence with any Authority, and all other records in a form readily useable by Council (which may include reference to shared data management systems and databases)
- Identification and Handover of software and software licences or other intellectual property use rights

- Identification and Handover of all ongoing service level agreements, maintenance agreements and supplier/manufacture warranties and guarantees
- The transfer of spares, plant and equipment and tools
- The transfer of security entitlements, passes, keys, identification, warrant cards, IT user and administrator logins, or any other similar matters to enable the Council to undertake full and effective operation of the Reticulation Networks and WWTP Facilities
- The transfer of registration from the Contractor to Council of any mobile plant
- Transition of any minor capital works, renewals and incomplete Service Requests in progress
- Any other site-specific requirements
- Any other transition or Handover arrangements Council reasonably deems necessary to include as may be identified throughout the lifetime of the Contract.

The Handover Plan shall be submitted to the Administrator for review and approval not later than 15 months prior to the Expiry Date.

13.2.2 Implementation of the Handover Plan

The Handover Plan shall be implemented by the Contractor, in consultation with Council, as required over the Handover Period.

13.3 PRE-HANDOVER CONDITION ASSESSMENTS

13.3.1 Summary

The Pre-Handover Condition Assessments are intended to provide an up to date view of the Reticulation Networks and the WWTP Facilities assets condition and to inform the Handover Audits as set out in Part G of the Contract Conditions. The first Pre-Handover Condition Assessment on all assets, except Gravity Mains, will be carried out anytime between 36-18 months prior to the Expiry Date (as described section 13.3.2). This asset condition assessment will be undertaken irrespective of whether or not the parties agree to extend the Contract Term.

The second Pre-Handover Asset Condition Assessment will be carried out anytime between 6-7 months prior to the Expiry Date. If the parties agree to extend the Term of the Contract and if both parties agree, this second Pre-Handover Asset Condition Assessment may be dispensed with.

If the Contract is not extended, then the Pre-Handover Asset Condition Assessment information will inform the Eighteen Month Audit and Six Month Audit respectively.

If the parties agree to extend the Contract Term, then the Pre-Handover Asset Condition Assessment information will inform the Work Plan, renewals requirements and Remaining Service Life Expectancy profile of the assets at the extended Expiry Date and will inform the parties discussions as to price and extension terms.

13.3.2 First Pre-Handover Condition Assessment

Irrespective of any agreement to extend the Contract Term, the first Pre-Handover Condition Assessment shall be undertaken in relation to the Initial Expiry Date and each subsequent extended Expiry Date as follows:

- The condition assessment of all above ground WWTP Facilities and Reticulation Networks assets shall be undertaken between 24 months and 18 months prior to the Expiry Date.
- The condition assessment of all below ground WWTP Facilities and Reticulation Networks assets (excluding Gravity Mains) shall be undertaken between 36 months and 18 months prior to the Expiry Date.

The parties shall agree the extent of the first Pre-Handover Condition Assessment with the intended purpose that, should the Handover Period begin, the first Pre-Handover Condition Assessment is a comprehensive assessment of all or nearly all of the assets to inform the Eighteen Month Audit described in clause 80.3 of the Contract Conditions.

If the parties agree to extend the Contract Term, then the first Pre-Handover Condition Assessment will provide an independent view of the current state of the WWTP Facilities and the Reticulation Networks (excepting Gravity Mains) assets and may also inform the Work Plan, renewals requirements and Remaining Service Life Expectancy profile of the assets at the extended Expiry Date.

Asset condition assessments undertaken by the Contractor in the course of Operations that are undertaken within the timeframes listed above can be submitted and used in lieu of condition assessments undertaken by the independent assessor, provided that the independent assessor is able to undertake checks sufficient to validate the accuracy of the Contractors assessments.

13.3.3 Second Pre-Handover Condition Assessment:

The second Pre-Handover Condition Assessment, if required, shall be carried out as follows:

- The condition assessment of the selected above and below ground WWTP Facilities and Reticulation Networks assets shall be undertaken between 7 months and 6 months prior to the Expiry Date.

The parties shall agree the extent of the Second Pre-Handover Condition Assessment with the intended purpose that, during the Handover Period, the Second Pre-Handover Condition Assessment assesses the extent to which the Contractor has completed the Condition Assessment Obligations identified by the Eighteen Month Audit, identifies any issues that have arisen or manifested since the first Pre-Handover Condition Assessment and informs the Six Month Audit described in clause 80.5 of the Contract Conditions.

If the parties agree to extend the Contract Term and both parties are satisfied with the independent view of the current state of the assets provided by the first Pre-Handover Condition Assessment, then the parties may agree the second Pre-Handover Condition Assessment is not required.

13.3.4 Pre-Handover Condition Assessments - General

The parties shall jointly engage (and equally fund) an independent third party(s), as they shall agree to undertake and/or verify the Pre-Handover Condition Assessments.

Asset condition assessments shall be conducted in accordance with Good Industry Practice and as set out below. The outputs of the asset condition assessments shall be integrated into the Asset Management System.

The Pre-Handover Condition Assessments shall include, but not be limited to:

- Photographic, and/or video evidence of all accessible above and below ground assets (including manholes, chambers and wet wells)
- Assessment of rising main condition based on material, age, duty pressure vs rated pressure, surge and fatigue analysis, failure history, actual vs. theoretical operating pressure, and if deemed necessary, coupon testing

The Pre-Handover Condition Assessment(s) shall determine the average Remaining Service Life Expectancy of each class of assets, together with the identification of deficiencies or omissions in asset condition arising from a breach of the Contractor's obligations and housekeeping obligations that need to be attended to by the Contractor before the Expiry Date and any other issues relevant to the Contractor's fulfilment of the Condition Assessment Obligations.

The format and programme of the condition assessments shall be determined by the independent assessor and shall be provided to both parties by the independent assessor for approval at least four (4) weeks prior to the start date of any of the condition assessments not yet undertaken by the Contractor as part of the preceding Operations. The format and programme of the condition assessments shall be prepared separately for the below ground assets and the above ground assets.

The conditions assessments shall provide no major disturbances or deterioration in the carrying out of the Operations.

If the parties are unable to agree as to the independent third party(s) to be appointed to carry out the Pre-Handover Condition Assessments, the terms and conditions applying to such appointment or as to the format and programme of the condition assessments pursuant to the above then the party(s) to be appointed, the terms and conditions applying to the appointment and the format and programme of the condition assessments shall be as shall be reasonably required to fulfil the purposes set out in this section 13 of this Schedule as determined pursuant to the dispute resolution procedures set out in the Contract Conditions provided that each party hereby agrees that the dispute shall be resolved by Independent Expert in accordance with clause 14.8 of the Contract Conditions.

13.4 ASSET CONDITION REQUIREMENTS ON EXPIRY

The parties acknowledge that the general intent is for the Reticulation Networks and WWTP Facilities to be properly and regularly maintained, repaired and renewed throughout the Contract Term in order to preserve their long-term reliability, service life, durability and efficiency such that on the Expiry Date or the earlier termination of the Contract the Reticulation Networks and WWTP Facilities are handed over to Council in a condition that does not require Council to undertake a significant overhaul or immediate replacements in order to continue to provide efficient service and comply with the Council Resource Consents and the performance and asset condition requirements set out in this Schedule.

The parties acknowledge that irrespective of the Handover Obligations and due to critical operational requirements the Contractor, as part of the Contractor's Proposal, has planned to manage the assets in order to minimise operational risks and achieve compliance with the KPI's. The parties also acknowledge that this asset management approach does not override the Handover Obligations.

The Remaining Service Life Expectancy for the WWTP Facilities and the Reticulation Networks (excluding the Gravity Mains and the Exempt Assets described in 13.7.5) as at the Expiry Date shall be that the average of the Remaining Service Life Expectancy of all assets in an asset category (on a category by category basis), shall be greater than or equal to 50% of the Minimum Service Life Requirement of the category of assets (in the case of pipes by overall asset category, not by individual pipe material).

As an exception to the above, the parties acknowledge that the asset classes listed in Table 19 are projected to have lower average Remaining Service Life Expectancies as at the Expiry Date as shown in Table 19.

Table 19: Asset Categories with a Projected Remaining Service Life Expectancy at the Expiry Date of less than 50% of the Minimum Service Life Requirement

Asset Category	Projected Level
Compressors	40%
Concrete tanks	35%
Control panels & cabinetry for instrumentation and electrical equipment	30%
Lighting	30%
LPGP pumps	20%
Mixers	25%
Motor starter (not VSD)	25%
Motors – electric	30%
Pumps – chemical dosing	15%
Pumps – non chemical dosing	40%
Pumps at pump stations with corrosive environments – category 2	30%
Pumps at pump stations with corrosive environments – category 1	30%

Asset Category	Projected Level
Roads unsealed	0%
Valves smaller than 150NB (non-plastic)	30%

Source: Contractor

The Pre-Handover Condition Assessments will inform the Eighteen Month Audit and the Six Month Audit (as described in clause 80 of the Contract Conditions).

Should the Eighteen Month Audit or the Six Month Audit determine that the average of the Remaining Service Life Expectancy of all assets in an asset category is less than 50% (or lower for any asset categories noted as an exception to the 50% level above) of the Minimum Service Life Requirement of that category of assets, the Contractor shall renew or rehabilitate sufficient assets in that category, at the Contractor's cost, to bring the average of the Remaining Service Life Expectancy of all assets in that asset category to at least the minimum requirement at the Expiry Date for the Remaining Service Life Expectancy of that category of assets. Gravity Mains (refer to section 13.2.1) and Exempt Assets (refer to sections 8.21 and 13.7.5) are exempt from this requirement.

The parties acknowledge that as part of the asset renewal planning underpinning the Monthly Service Payment, the Contractor has planned to manage some asset categories to achieve a Remaining Service Life Expectancy at the end of the Contract Term of greater than 50% of the Minimum Service Life Requirement due to the phasing of the life cycle of assets in that category relative to the Contract Term, or due to critical operational requirements. The projected Remaining Service Life Expectancy so derived from the Contractor's Proposal and the end of the Contract Term is provided in Table 20.

The parties also acknowledge that the projected Remaining Service Life Expectancies in Table 20 are not a contractual requirement but are the anticipated outcome of the Contractor's approach to asset management throughout the Contract Term. During the Contract Term, some asset classes may deviate below the projected Remaining Service Life Expectancies in Table 20 due to the rate of condition degradation of the assets, inaccuracies in the initial asset register or other factors beyond the control of the Contractor. In these instances, the Contractor shall provide a report outlining the reasons for deviations from the projected Remaining Service Life Expectancy in Table 20. For the avoidance of doubt, the Contractor is not obliged to meet the projected Remaining Service Life Expectancy in Table 20 at the Expiry Date.

Table 20: Asset Categories with a Projected Remaining Service Life Expectancy at the Expiry Date of 60% or more of the Minimum Service Life Requirement

Asset Category	Projected Level
Accessways, Handrails, Ladders & roof steelwork	80%
Actuators - Electric	80%
Actuators – Pneumatic or hydraulic	80%
Aeration Diffuser System (excluding pipework and valves)	80%
Air conditioner – ducted, air handling unit or air purifier	70%
Blowers	60%
Buildings and Masonry Structures	60%
Filters, separators and driers (excluding membranes)	80%
Generators – fixed	60%
Generators - mobile	80%
HMI	80%
Instrumentation, sensors and switches – Mounted in panels and switchrooms	70%

Asset Category	Projected Level
Manholes and Chambers - Rehabilitated (lined), manholes and chambers at the Rotorua WWTP Facility and manholes and chambers at pump stations in corrosive environments (both categories)	70%
Miscellaneous Materials and Equipment Not Specifically Listed Elsewhere	70%
PCs and servers	70%
PLC's and control equipment	60%
Roads (until reseal)	80%
Sludge Dewatering Equipment and Dewatered Sludge conveyors	80%
Tank - FRP/GRP/Plastic (other than main reactors)	80%
Tank - steel	60%
VSD	60%
WWTP pipework – chemical dosing – uPVC	70%
WWTP pipework – not chemical dosing - uPVC	60%

Source: Contractor

At Handover, without limiting the further asset condition requirements set out in the Contract Documents, all Reticulation Networks and WWTP Facilities planned maintenance and housekeeping shall be up to date as per the Contractor's maintenance plans, the Contractor's routine asset inspection and maintenance schedules and Appendix H.

Any renewals undertaken to bring the assets into compliance with the Handover Obligations shall comply with the Minimum Service Life Requirements and to the same degree of quality as for any other renewal undertaken in accordance with the Contract.

13.4.1 Condition Assessment Obligations for Gravity Mains

The Contractor's Condition Assessment Obligations in relation to the Gravity Mains will be to hand over the Gravity Mains assets with all Gravity Mains Renewals Programme projects, or investigation work which was scheduled for completion, properly completed (unless any changes to the programme are agreed by the Administrator). In addition, the Contractor shall ensure that all routine maintenance and repairs are completed in line with relevant maintenance plans and the network performance is meeting the KPI's defined in Section 4 and Appendix M (unless otherwise agreed with the Administrator).

13.5 UTILITIES, SUPPLIERS AND SERVICE PROVIDERS

As at the Expiry Date or earlier termination of the Contract for any reason, the Contractor shall transfer registration to Council and handover the tandem trailer mounted mobile pumping unit and all mobile generators that are held and used by the Contractor for maintaining Reticulation Networks operating compliance with the KPI's during power outages in good and operable condition with all required maintenance completed and all certifications up to date.

The Contractor shall provide details of all utility service, supplier and service provider arrangements and contracts in place no later than 6 months prior to the Expiry Date (refer clause 13.1.1 – Handover Plan). For contracts where the contract term extends beyond the Expiry Date, the Contractor shall consult with the Administrator and arrange for early termination of the contract or novation of the contract to Council or Council's nominee on Handover as the Council shall so elect.

13.6 RETICULATION NETWORKS

13.6.1 Handover Documentation and Records

As at the Expiry Date or earlier termination of the Contract for any reason, the Contractor shall provide the following documentation in electronic form unless stated otherwise to Council plus any additional documentation relevant to the Operations of the Reticulation Networks:

- All maintenance records and logs for the entirety of the Contract Term
- All design information, including As-Built drawings, final investigations and design reports, calculations and sketches
- Up to date O&M manuals for the pump stations
- PLC and HMI source code backup files including any passwords etc.
- Programming/configuration software list and parameters (including hard copies and soft copies of PLCs, VSDs, transmitters, valves, etc.)
- Active warranties and guarantees
- All records of pipe condition assessment CCTV, coding and scoring to NZPIM undertaken for the entirety of the Contract Term
- Routine periodic gravity pipeline flushing programme
- Health and safety risks and registers including incident reports, near misses etc.
- SCADA and other historical operating records for the entirety of the Contract Term
- Operating data - consumable usage records, utility usage records for the entirety of the Contract Term
- Operation Set points
- Vendor manuals and information
- Routine maintenance schedules and plans
- IP list for new network devices
- Conditions Assessment conducted by a third party
- Keys, passcodes and the like to access all equipment including control panels.

13.6.2 Training

The Contractor shall prepare and conduct formal training to instruct Council or incoming third party contractor staff including: senior engineers, technical staff and operators in all aspects of the Reticulation Networks Operations.

Training shall make thorough use of the following so that the incoming staff become familiar with the Reticulation Networks Operations and the use of the drawings, manuals, SCADA interface:

- Remote SCADA interface
- Summary document of the data transferred between PLCs and across communications systems
- As-built drawings
- O&M manuals.

In addition to the SCADA interface training, the training shall include an emphasis on providing hands on experience of routine operations, local controls, manual adjustments, isolations, and the full functionality of the reticulation systems.

The training shall take place during the final six months of the Contract Term (or earlier termination of the Contract for any reason) with use of the remote SCADA interface, final as-built drawings and the most recent copies of the Operational and Maintenance Manual(s).

The format and content of the training sessions shall be submitted to the Administrator for approval at least four (4) weeks prior to the planned training start date. Training shall be conducted by at least one member of the Contractor's personnel who has been extensively involved in the operations and maintenance of the Reticulation Networks.

13.7 WWTP FACILITIES

13.7.1 General

As at the Expiry Date or earlier termination of the Contract for any reason, the Contractor shall re-calibrate or verify the calibration of all analysers, flowmeters and field instruments in the period between two months and one month prior to the Expiry Date.

The Contractor shall ensure that all WWTP Facility Operations information is up to date at the Expiry Date and reflects all material changes undertaken to the WWTP Facility design, operation or maintenance (including drawings, Operation and Maintenance Manual, Rotomā/Rotoiti O&M manual, SMIs, SOPs, etc.).

The Contractor shall ensure that as at the Expiry Date sufficient chemicals and other utility consumables (where practical) are available for four (4) week's operation and maintenance of the WWTP Facilities after the Expiry Date based on previous consumption records.

13.7.2 Special Tools and Essential Spares

As at the Expiry Date or earlier termination of the Contract for any reason, the Contractor shall provide to the Council any special tools required to perform routine repairs and maintenance on the equipment being handed over.

The Contractor shall ensure that all items of essential spares for process critical equipment are held in stock at the WWTP Facilities for handover to Council at the Expiry Date

13.7.3 Handover Documentation

As at the Expiry Date or earlier termination of the Contract for any reason, the Contractor shall provide the following documentation in electronic format unless stated otherwise to Council plus any additional documentation relevant to the operation and maintenance of the WWTP Facilities:

- All maintenance records and logs for the 5 years preceding the Expiry Date
- All design information, including As-Built drawings, final investigations and design reports, calculations and sketches relating to any modifications undertaken to the WWTP Facilities by the Contractor during the Contract Term
- Up to date Rotomā/Rotoiti WWTP Facility O&M manual
- Up to date Operation and Maintenance Manual
- PLC and HMI source code backup files including any passwords etc.
- Programming/configuration software list and parameters (including hard copies and soft copies/back-up upload files of PLCs, VSDs, transmitters, valves, etc.)
- Active equipment warranties and guarantees
- Health and safety risks and registers including incident reports, near misses etc.
- SCADA and other historical operating records for the past 5 years
- Operating data - consumable usage records, utility usage records for the Contract Term
- Operation Set points
- Vendor manuals and information (electronic where possible)
- Routine maintenance schedule and plan

- IP list for all network devices
- Conditions Assessment(s) conducted by a third party
- Keys, passcodes, security access and the like to access all equipment including control panels.

13.7.4 Training

The Contractor shall prepare and conduct formal training to instruct Council or incoming third party contractor staff including; senior engineers, technical staff and operators in all aspects of the operation and maintenance for each of the WWTP Facilities.

Training shall make thorough use of the following so that the incoming staff become familiar with the WWTP Facilities and the use of the drawings, manuals, SCADA interface:

- Local SCADA interface
- Summary document of the data transferred between PLCs/SCADA/historian/alarm paging system
- As-built drawings
- Rotomā/Rotoiti WWTP Facility O&M manual.

In addition to the SCADA interface training, the training shall include an emphasis on providing hands on experience of routine operations, local controls, manual adjustments, isolations, optimisation of performance, and the full functionality of the WWTP Facilities.

The training shall take place during the final six months of the Contract Term (or earlier termination of the Contract for any reason) with use of the SCADA Interface, final as-built drawings and fully up to date versions of the Operation and Maintenance Manuals.

The format and content of the training sessions shall be submitted to the Administrator for approval at least four weeks prior to the planned training start date. Training shall be conducted by at least one member of the Contractor's personnel who has been extensively involved in the operations and maintenance of the WWTP Facilities.

13.7.5 Exempt Assets

The Contractor shall handover the assets listed in the Exempt Assets Schedule (Appendix N) as Ongoing Exempt Assets that remain in service as at the Expiry Date or earlier termination of the Contract generally in good working order and a reasonable condition as such assets should be if the Contractor had carried out maintenance, repairs and renewals in accordance with the requirements of the Contract Documents.

The Contractor shall handover the Assets to be Decommissioned listed in the Exempt Assets Schedule (Appendix N) that remain in service as at the Expiry Date of the Contract generally in a safe and functioning working condition. The Assets to be Decommissioned have a Remaining Service Life Expectancy requirement at the Expiry Date of zero years.

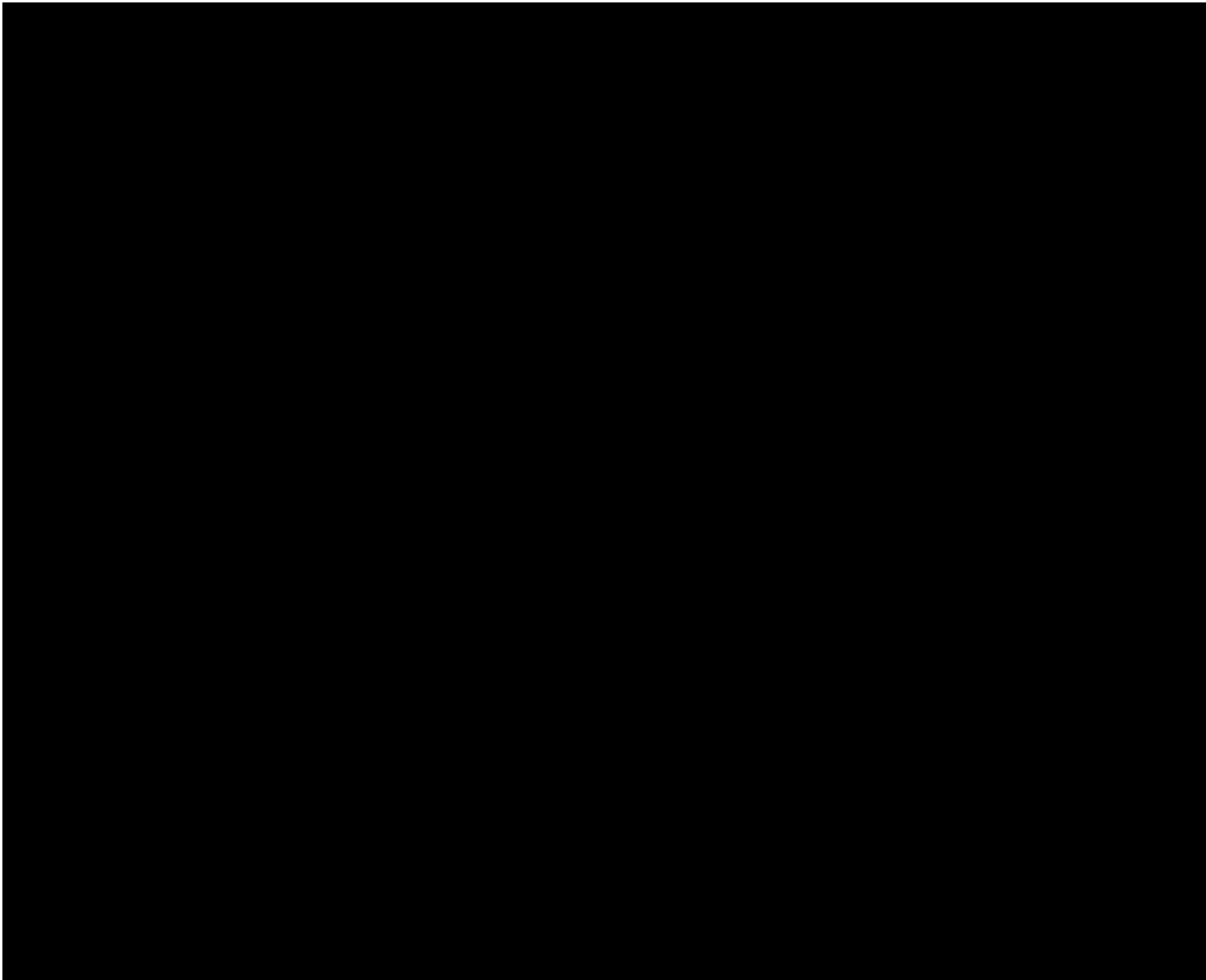
The Contractor shall handover the Redundant Assets listed in the Exempt Assets Schedule (Appendix N) in a safe condition. The Redundant Assets have a Remaining Service Life Expectancy requirement at the Expiry Date of zero years.

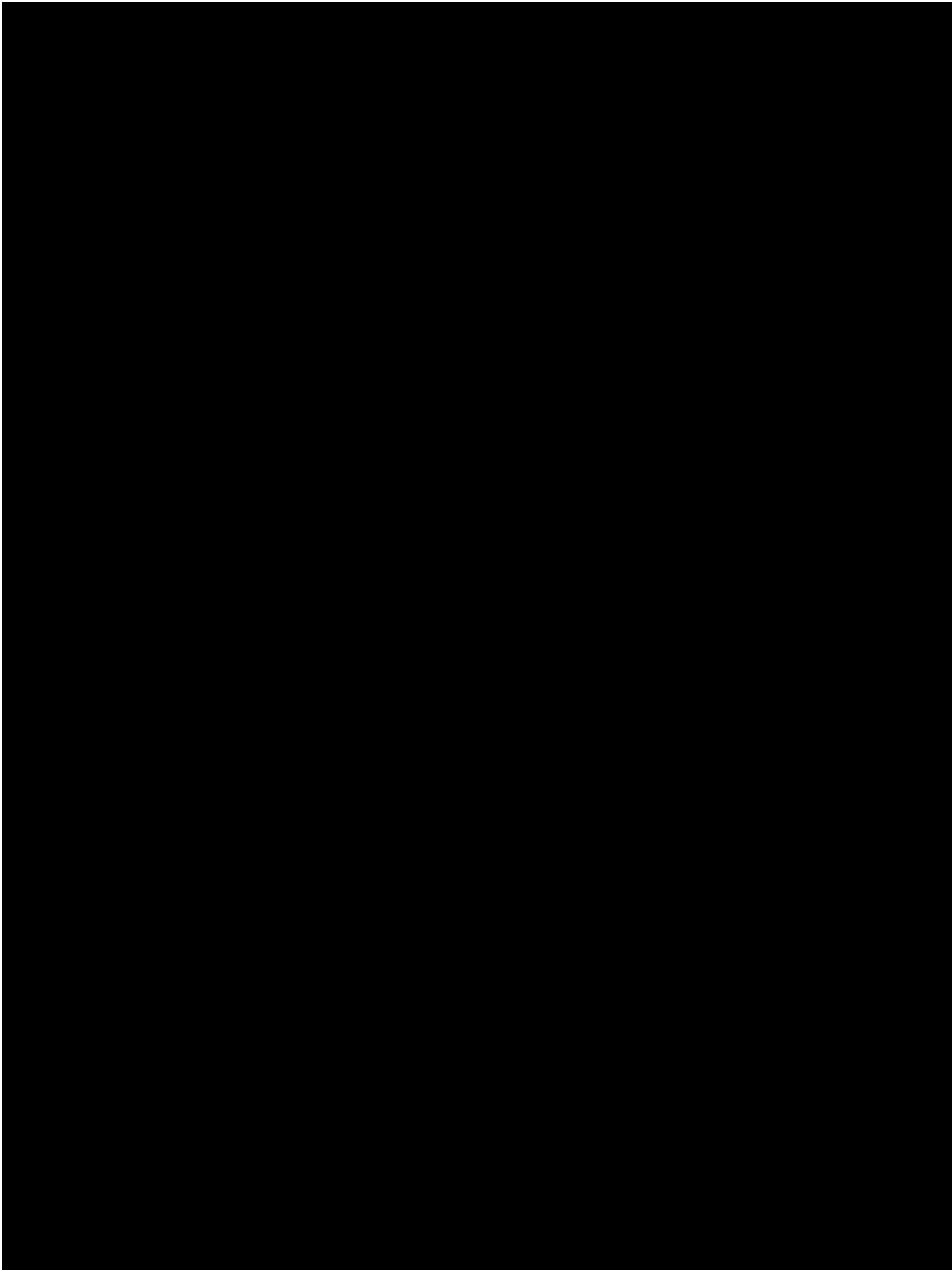
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A. Electricity Supply Details

■ [REDACTED]

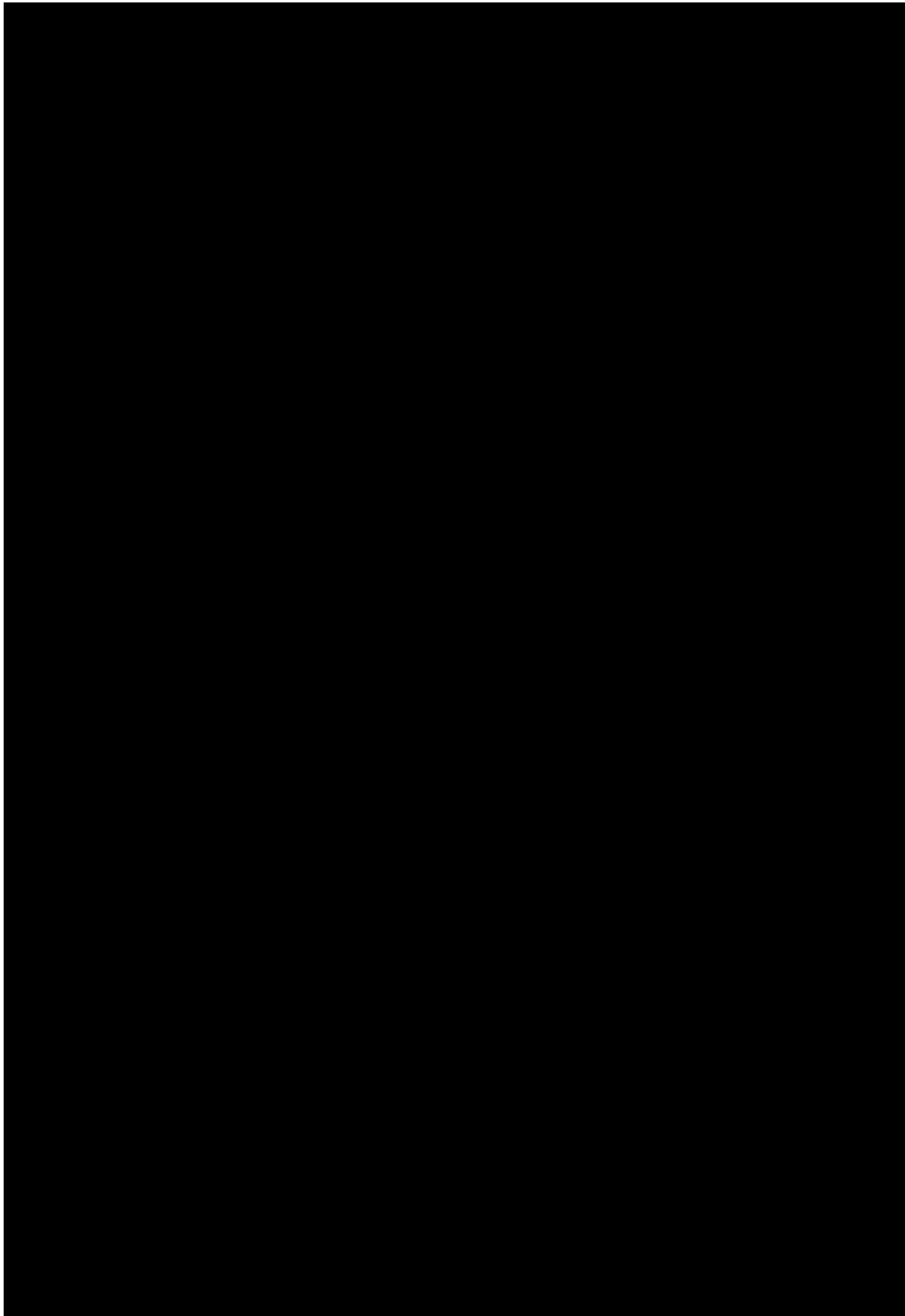




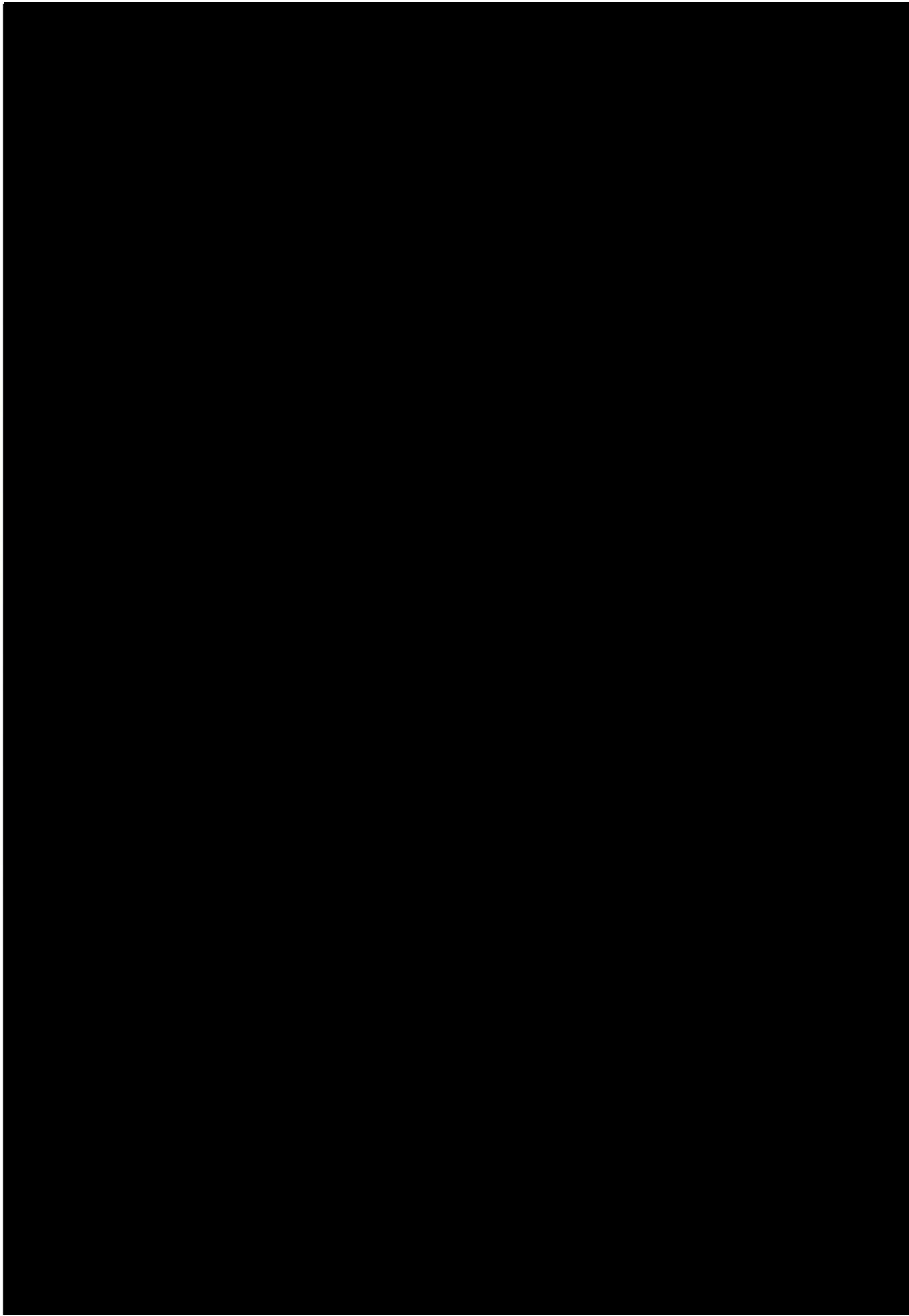


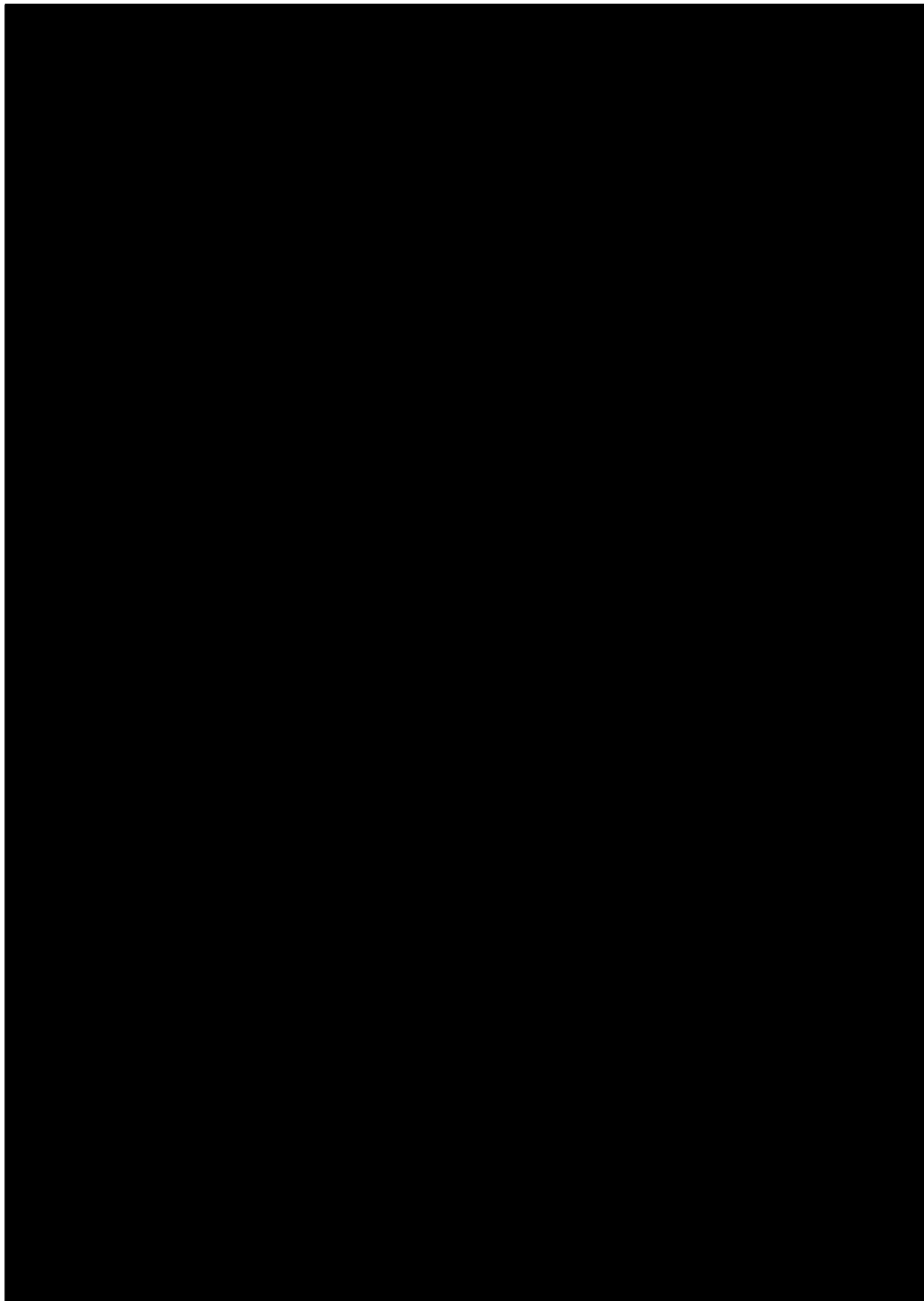


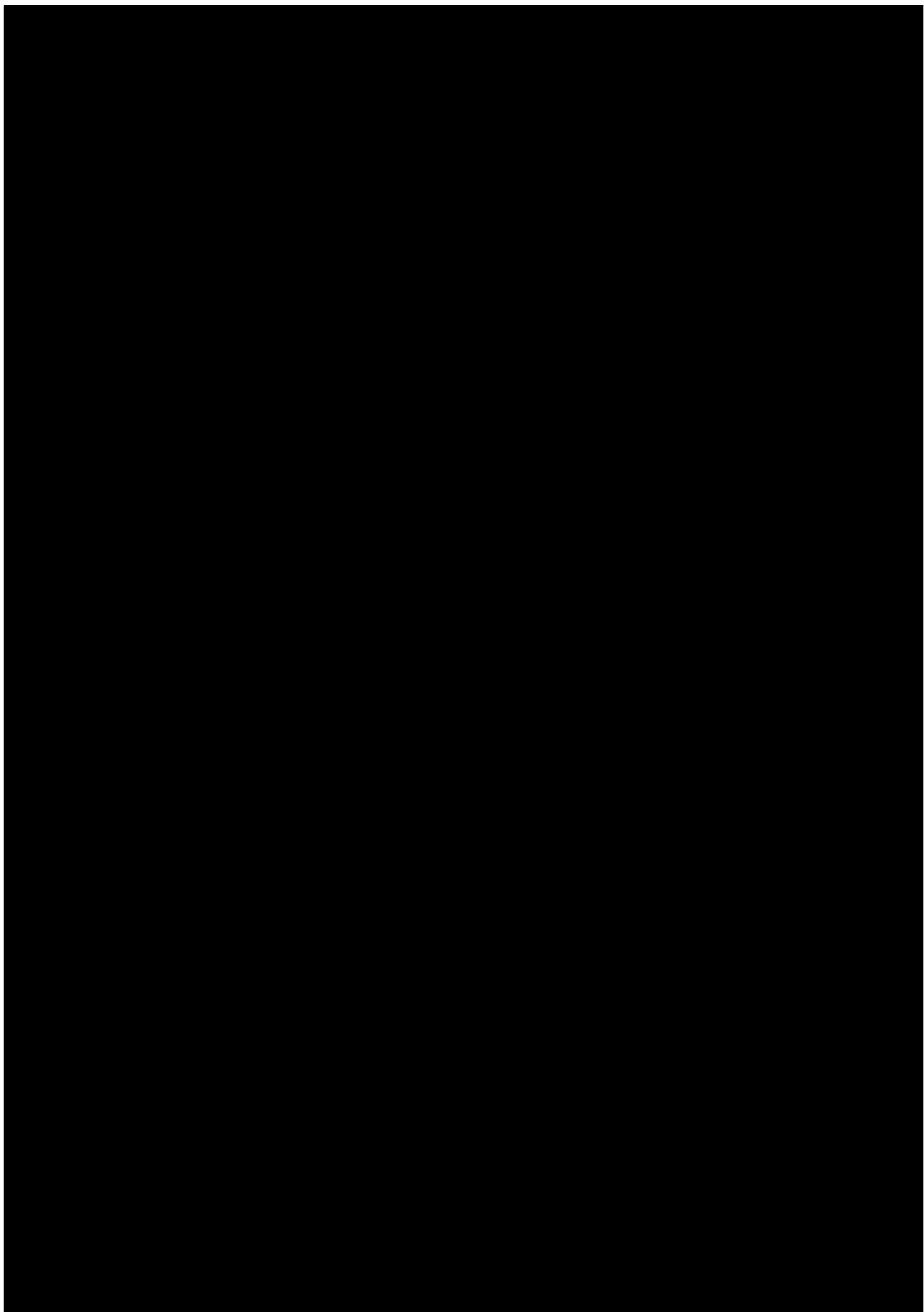




B. Radio Spectrum Licences and Communication Networks Ltd Costs for Telemetry



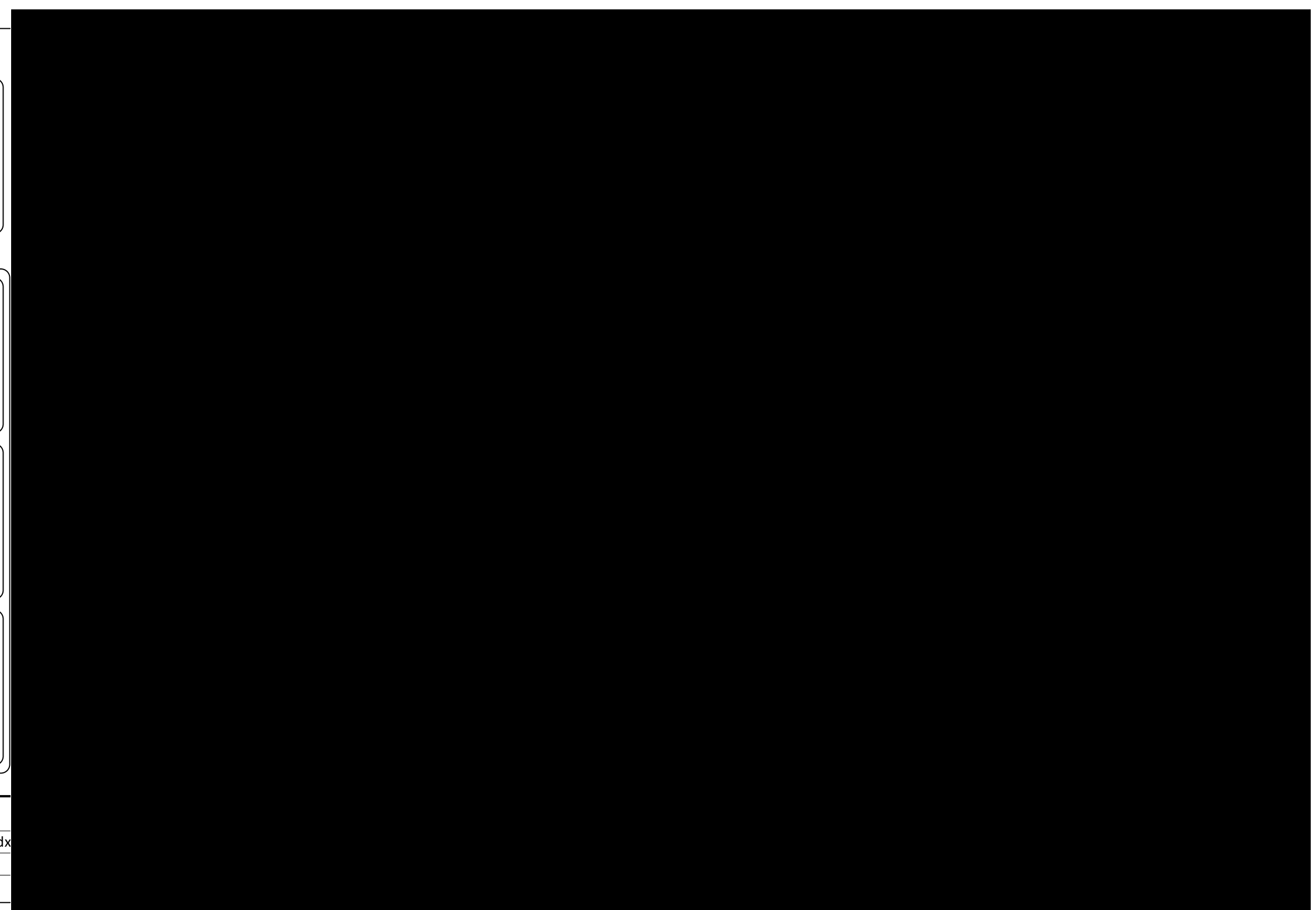




C. Control and Communication Architecture Diagram







dx







D. Rotorua Wastewater Network Catchment Plans as at Commencement

The extent of the Rotorua Reticulation Network at the date of execution of the Contract is recorded in the following:

- 1) The list of assets exported from Council's AMIS (Infor) dated 21 August 2020 and held by both parties.
- 2) The complete set of as-built wastewater Plot Files dated 21 August 2020 and held by both parties.

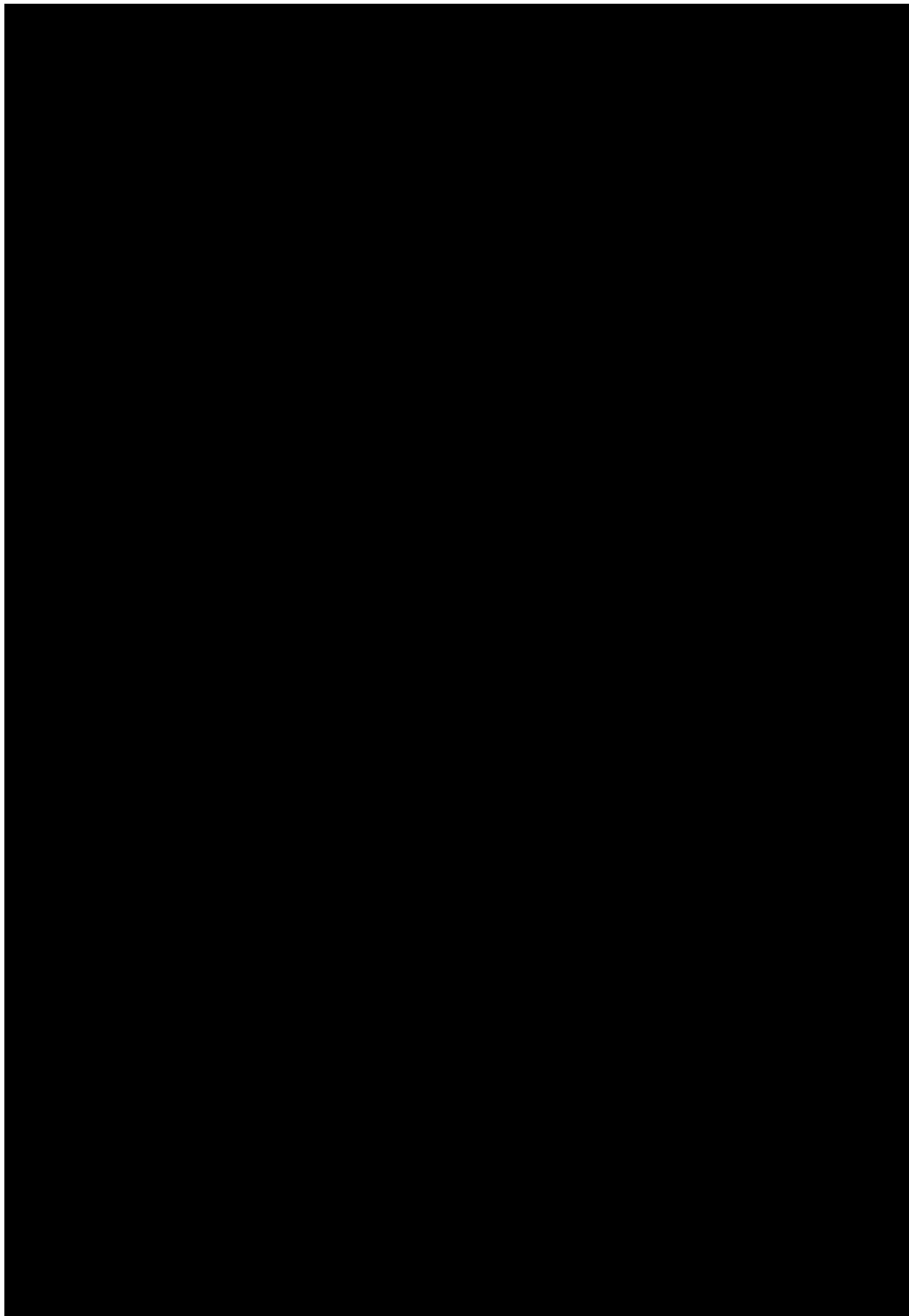
The maps attached on the following pages are indicative of the information referred to above.

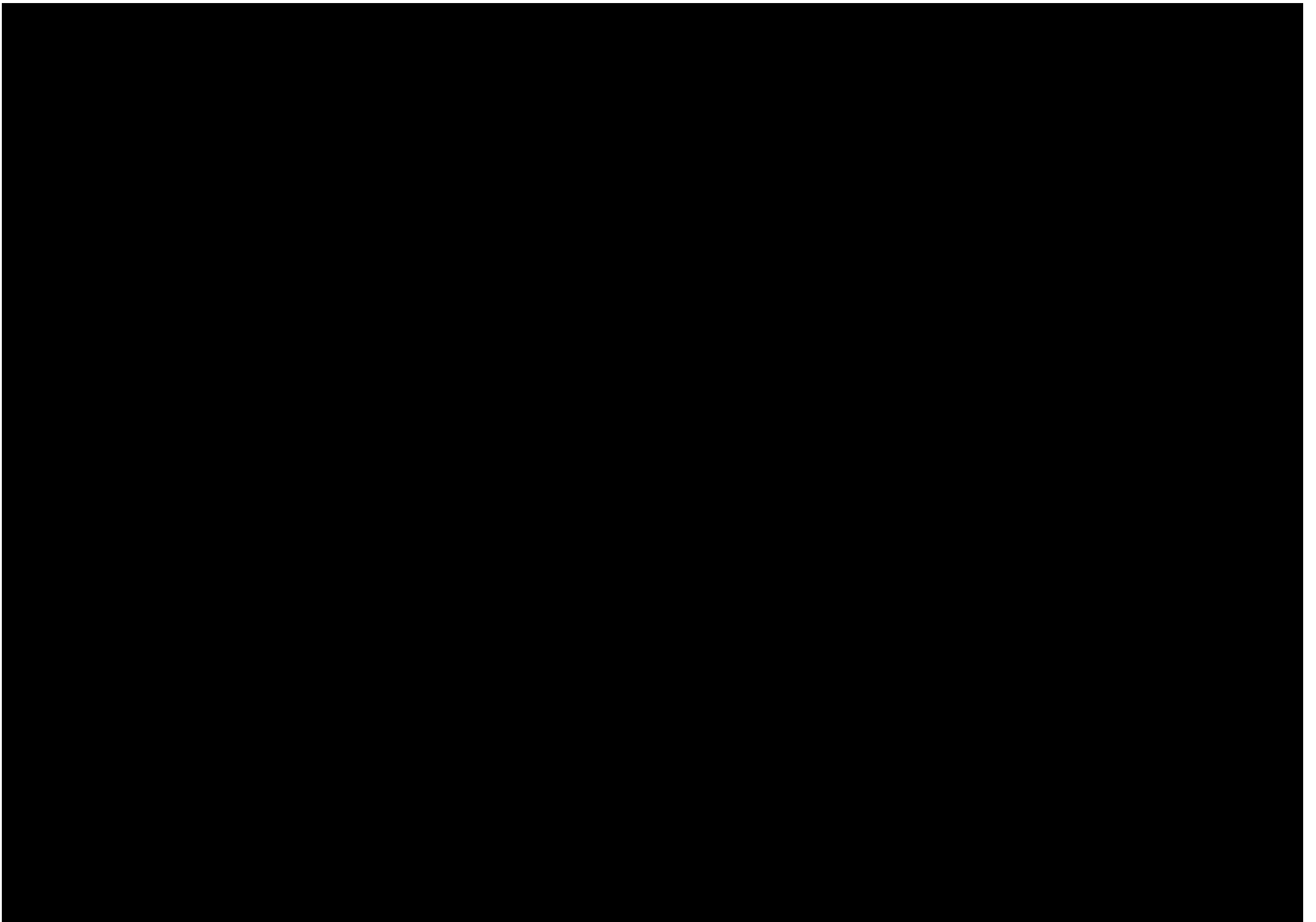
E. Rotomā/Rotoiti Reticulation Network Area of Benefit Maps and Asset Summary

Title	Summary of Rotorua Lakes Council (RLC) Infrastructure Assets
Project	Rotoiti - Rotoma Sewerage Scheme
Project Number:	T01548214
Author:	C FitzGerald
Date:	8/03/2019

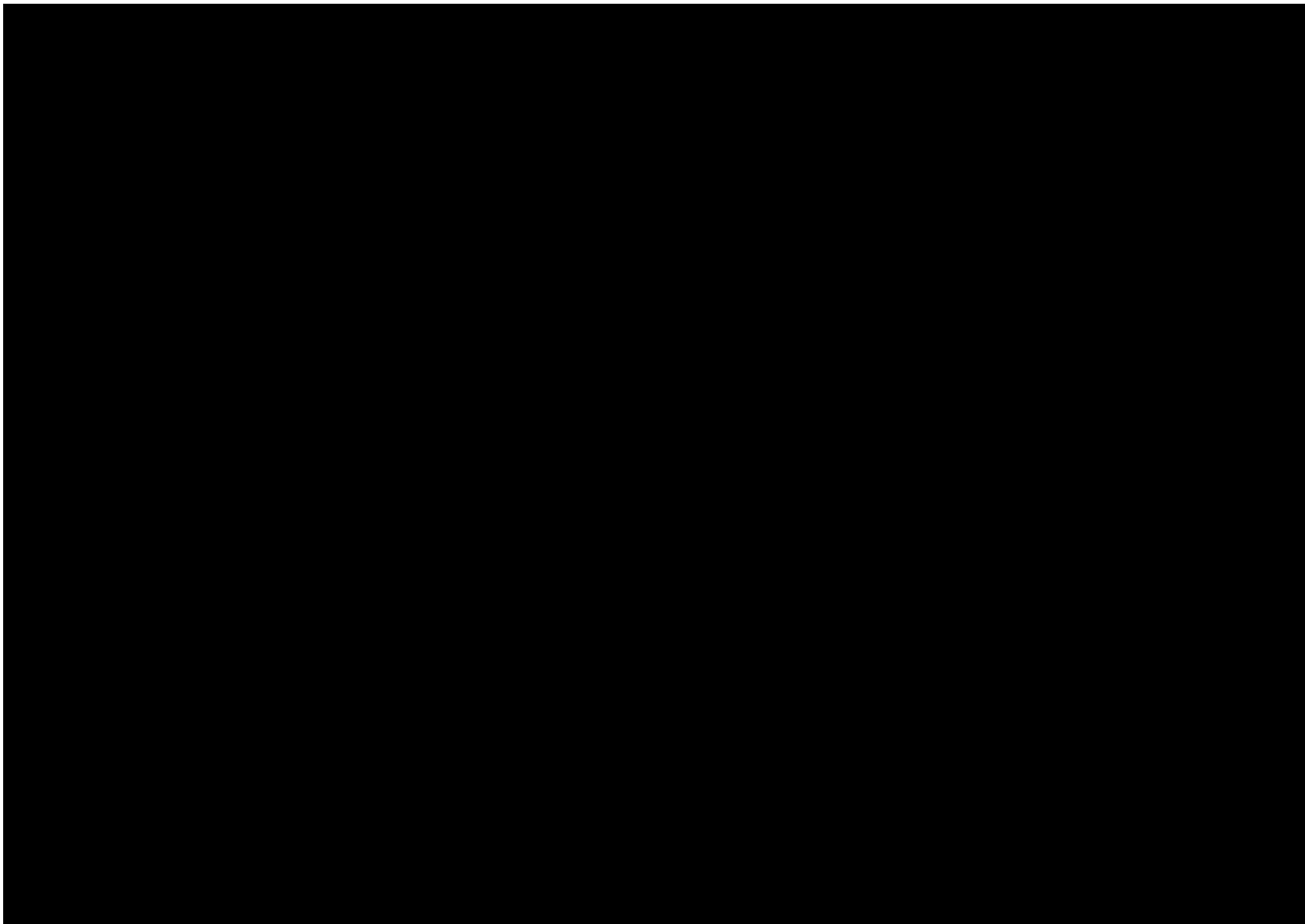
Rotoiti - Rotoma Sewerage Scheme RLC Assets (Based on Estimates and Quantities from SoP)			
	Description	Quantity	Unit
STEP Systems (On - Property)	*Rotoma Only*	242	No.
Pipelines (On - Property)	40 OD PE100 SDR 11	5500	m
Pipelines			
	32 OD PE100 SDR11	6720	m
	50 OD PE100 SDR 11	6626	m
	63 OD PE100 SDR 11	3609	m
	75 OD PE100 SDR 11	2859	m
	90 OD PE100 SDR 11	3135	m
	110 OD PE100 SDR 11	1045	m
	125 OD PE100 SDR 11	1682	m
	140 OD PE100 SDR 11	3174	m
	160 OD PE100 SDR 11	2124	m
	180 OD PE100 SDR 9	1080	m
	180 OD PE100 SDR 11	3586	m
	200 OD PE100 SDR 11	350	m
	225 OD PE100 SDR 9	3159	m
	225 OD PE100 SDR 11	2110	m
	250 OD PE100 SDR 11	800	m
	Total Pipelines	47559	m
Ancillary Fittings			
	Air Valves (inc Odour Filter)	53	No.
	Pressure Sewer Cleanouts	84	No.
	Scour Valves	10	No.
Pump Stations		3	No.
Flushing Systems		3	No.
Flow metering Systems		4	No.

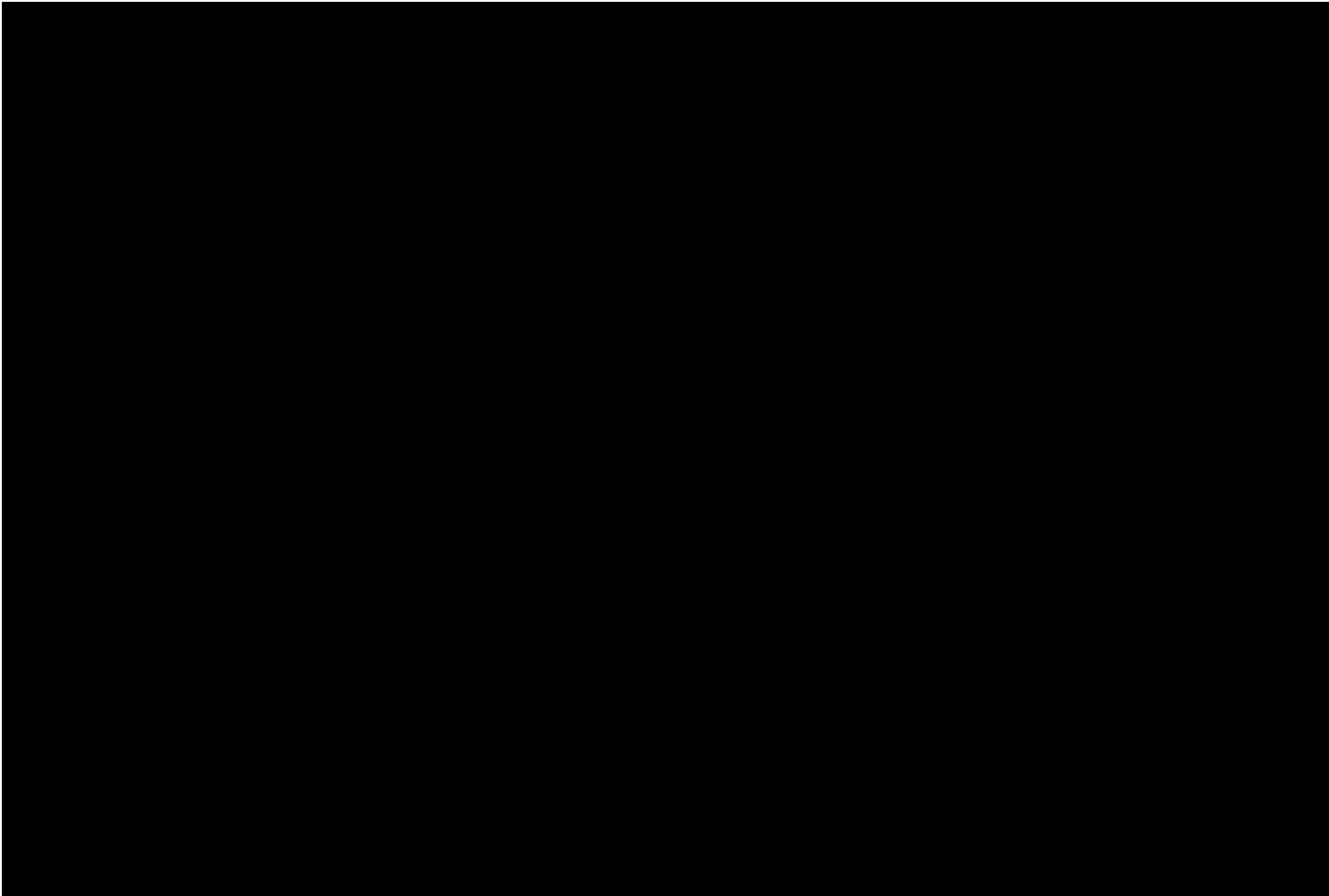
F. VDR Directory of Information

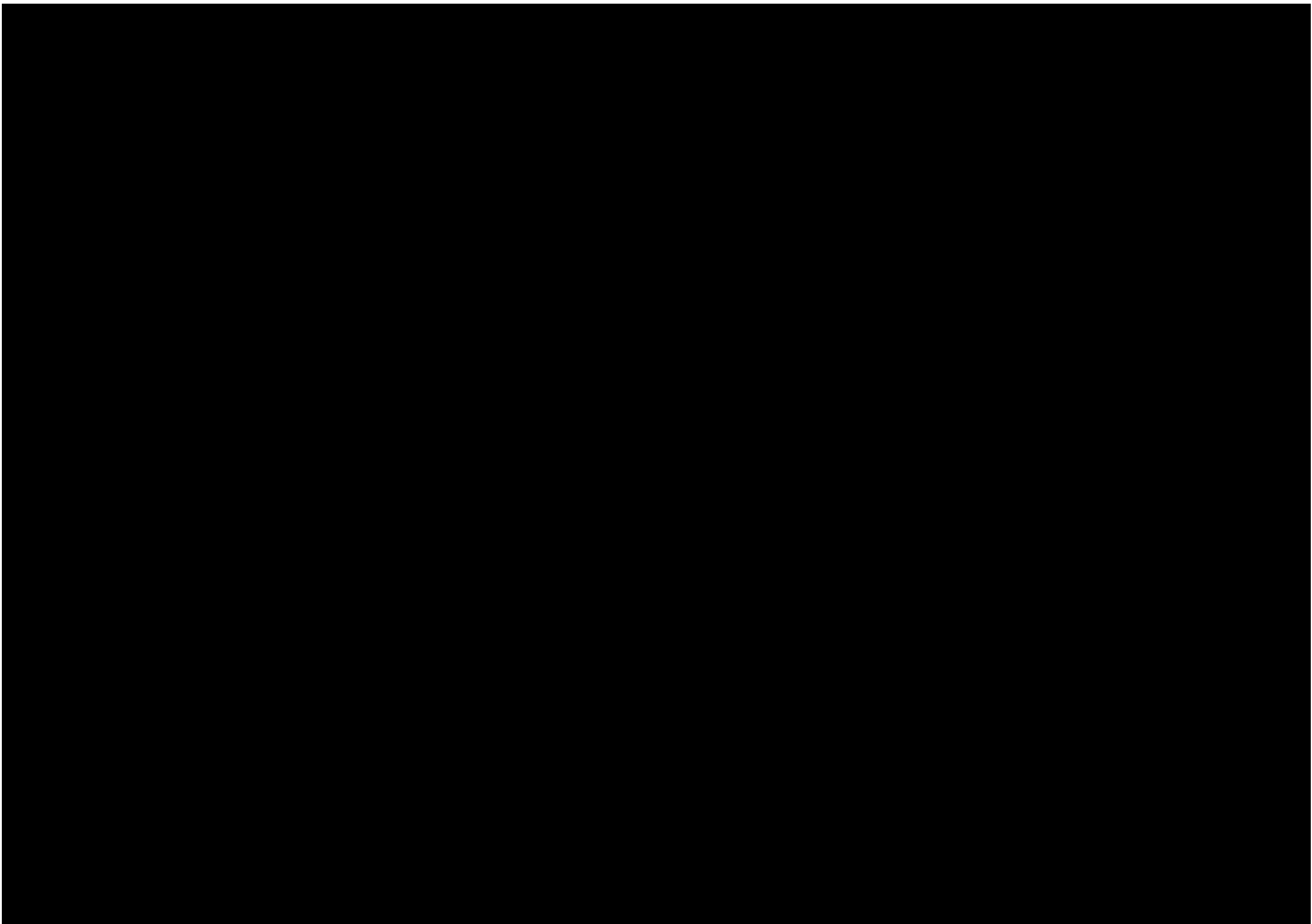


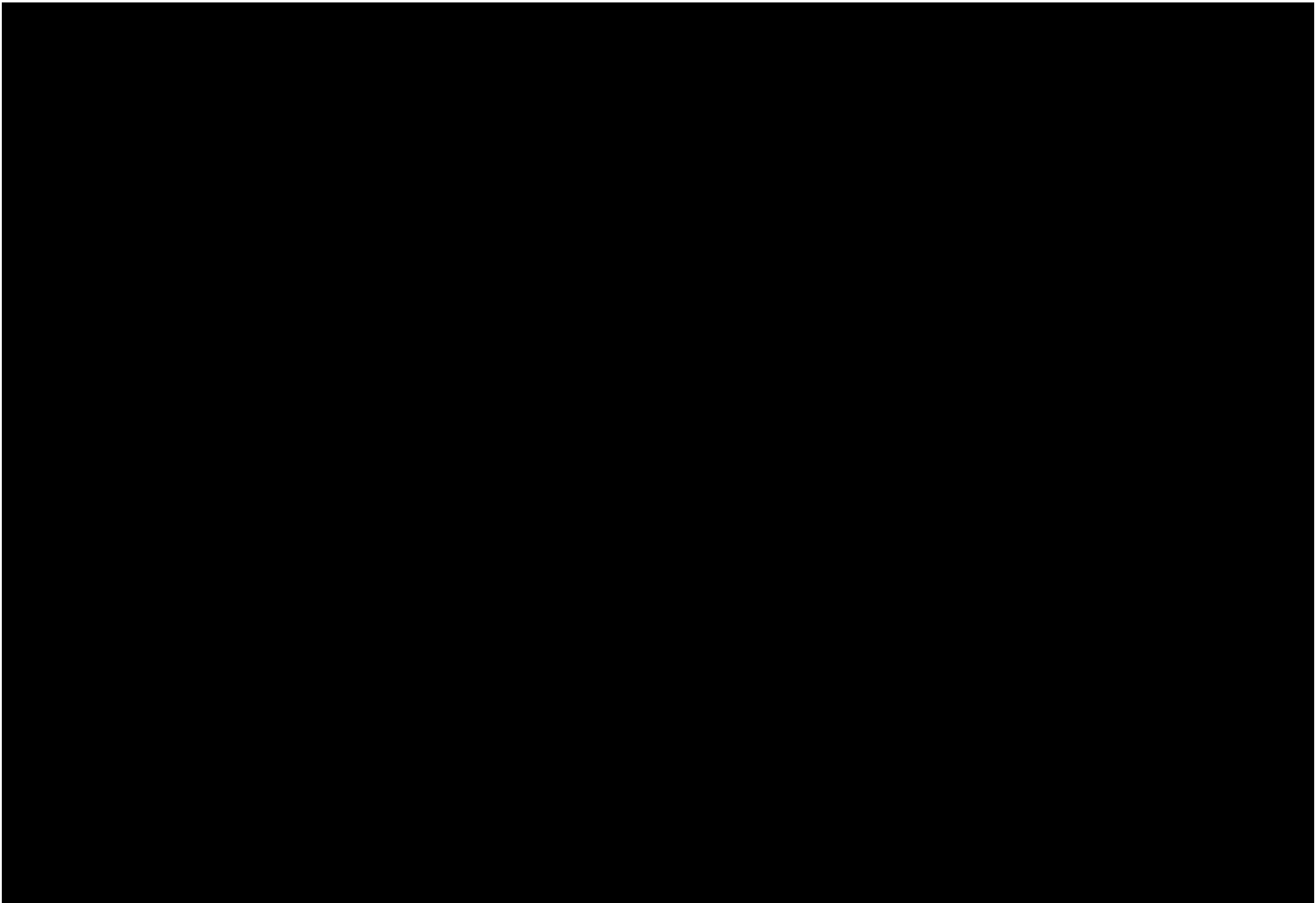


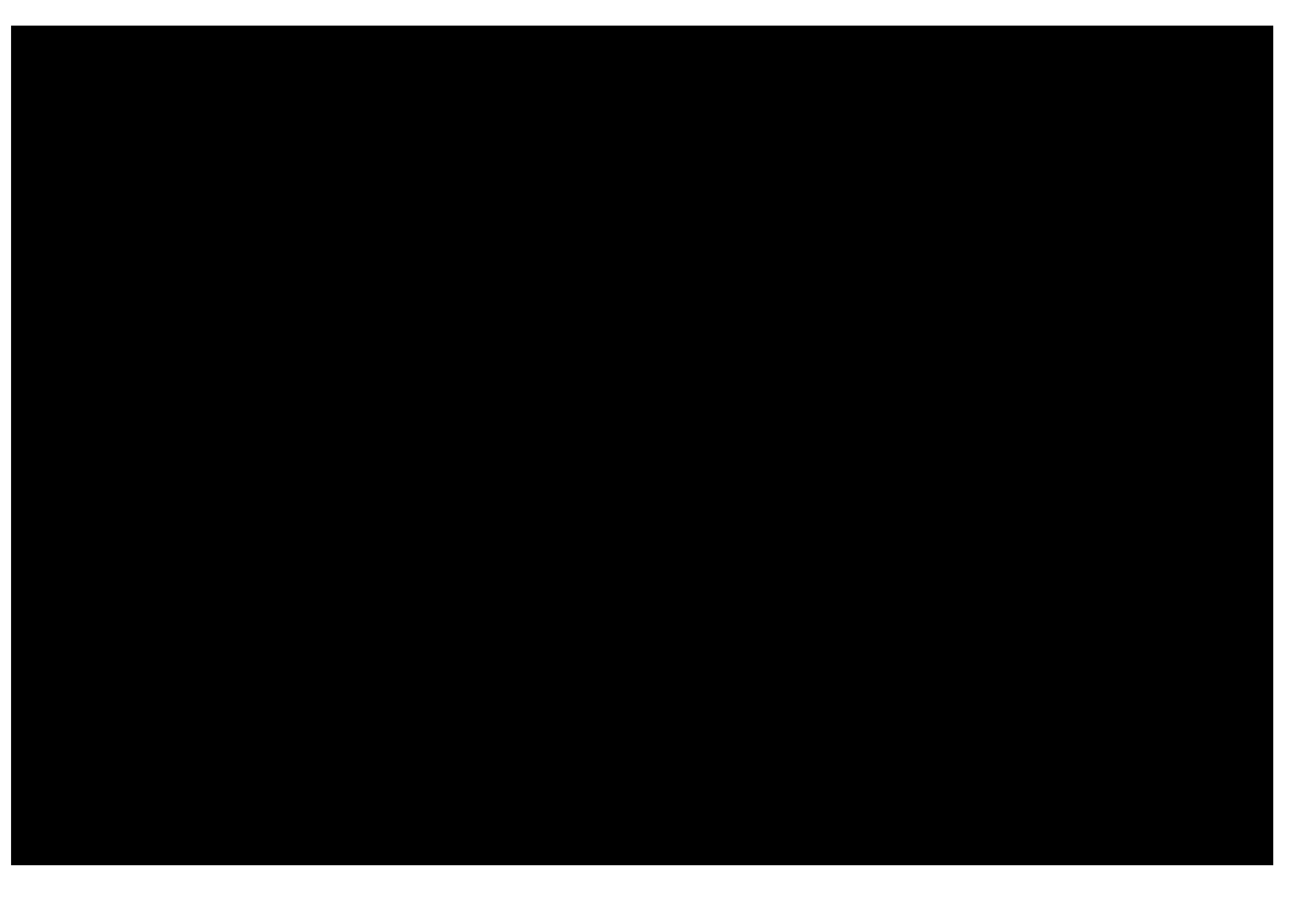


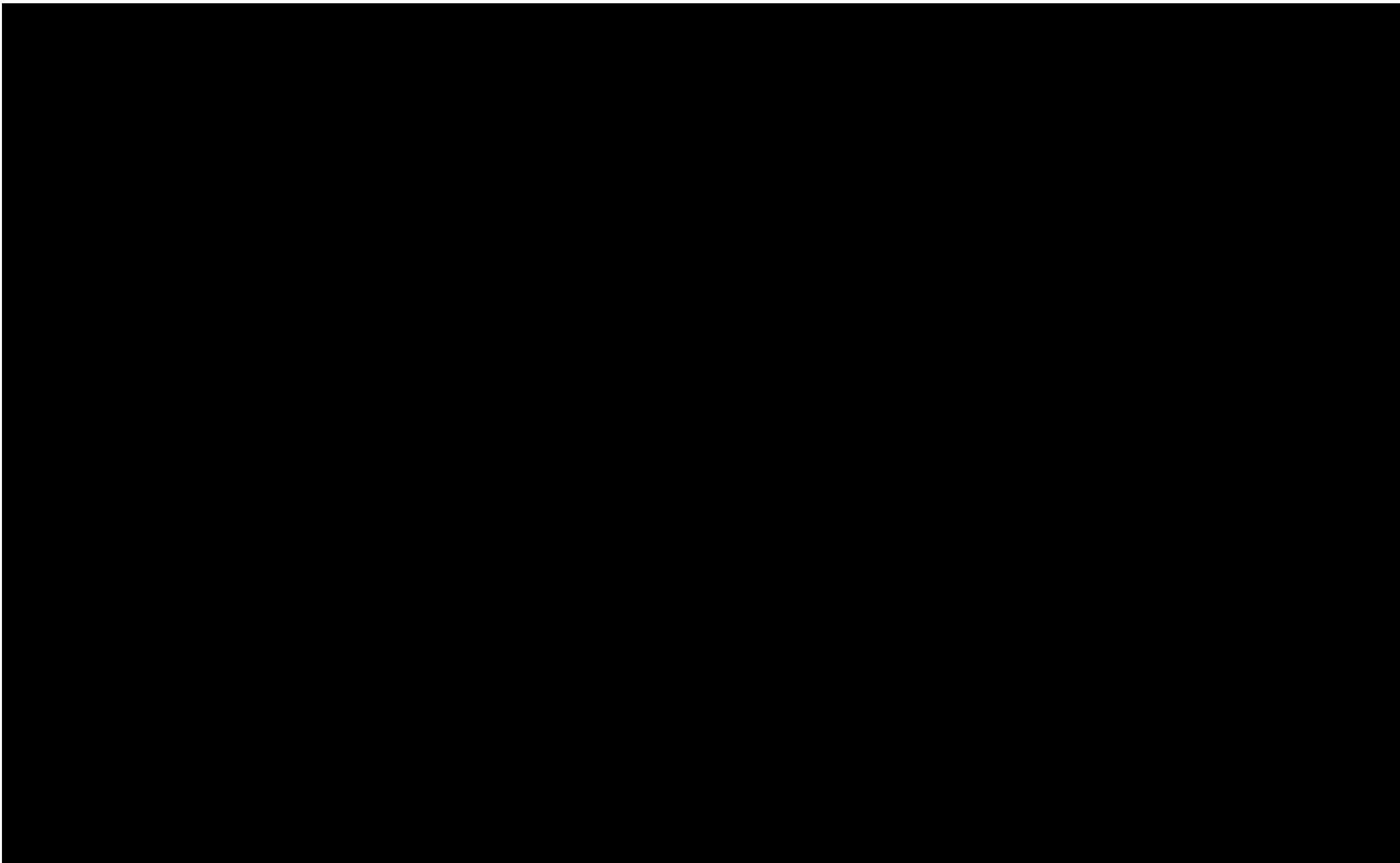


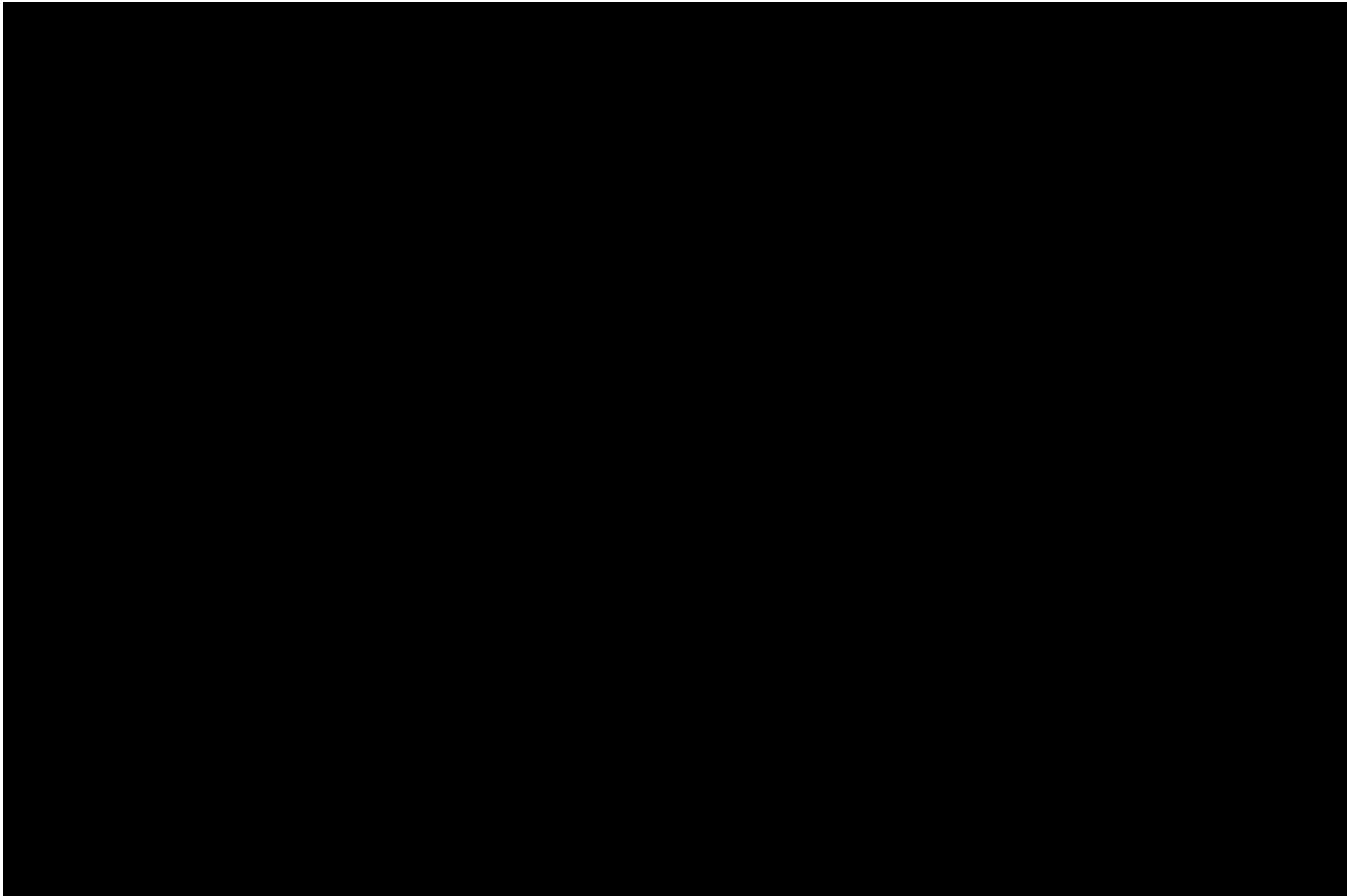




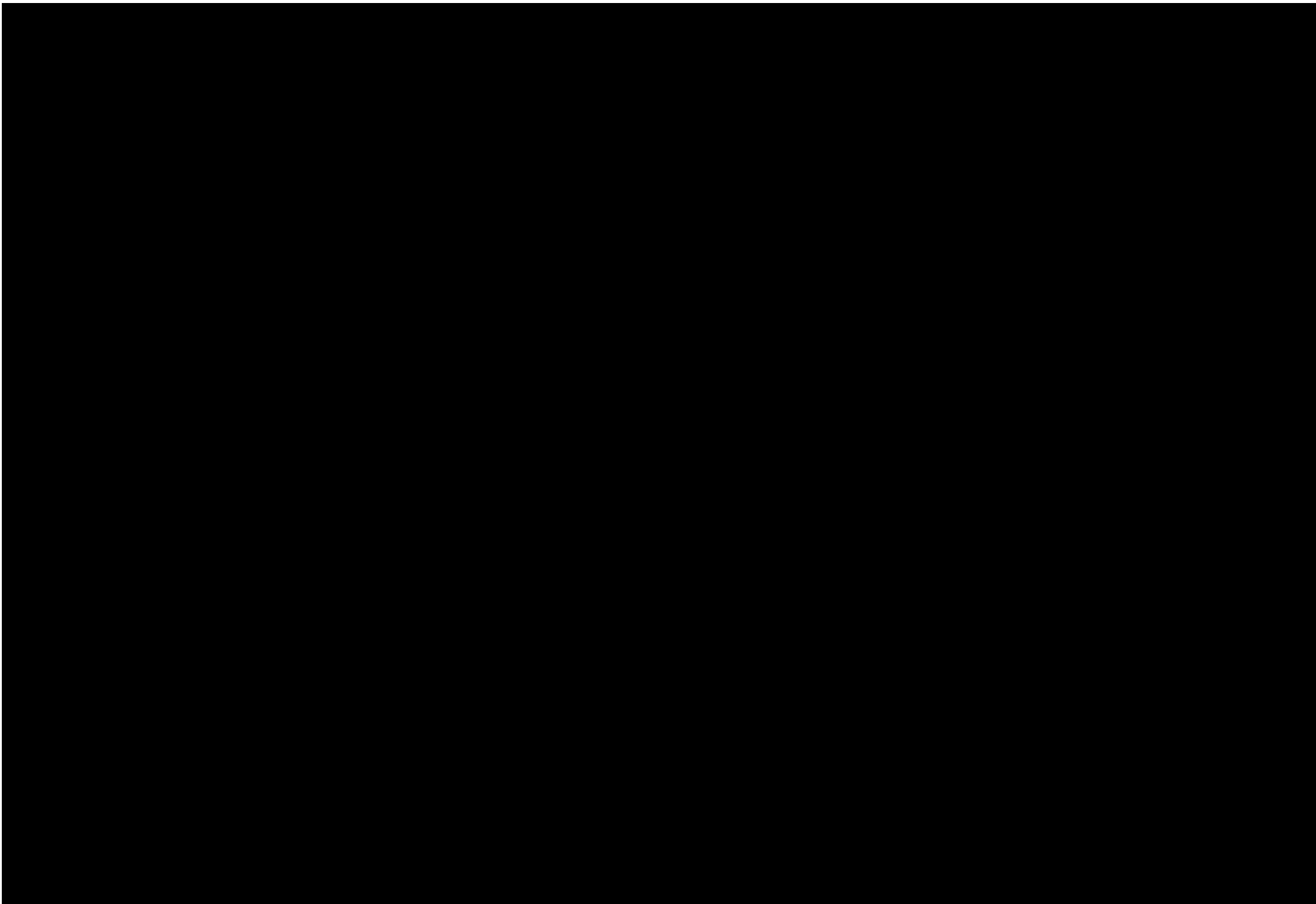


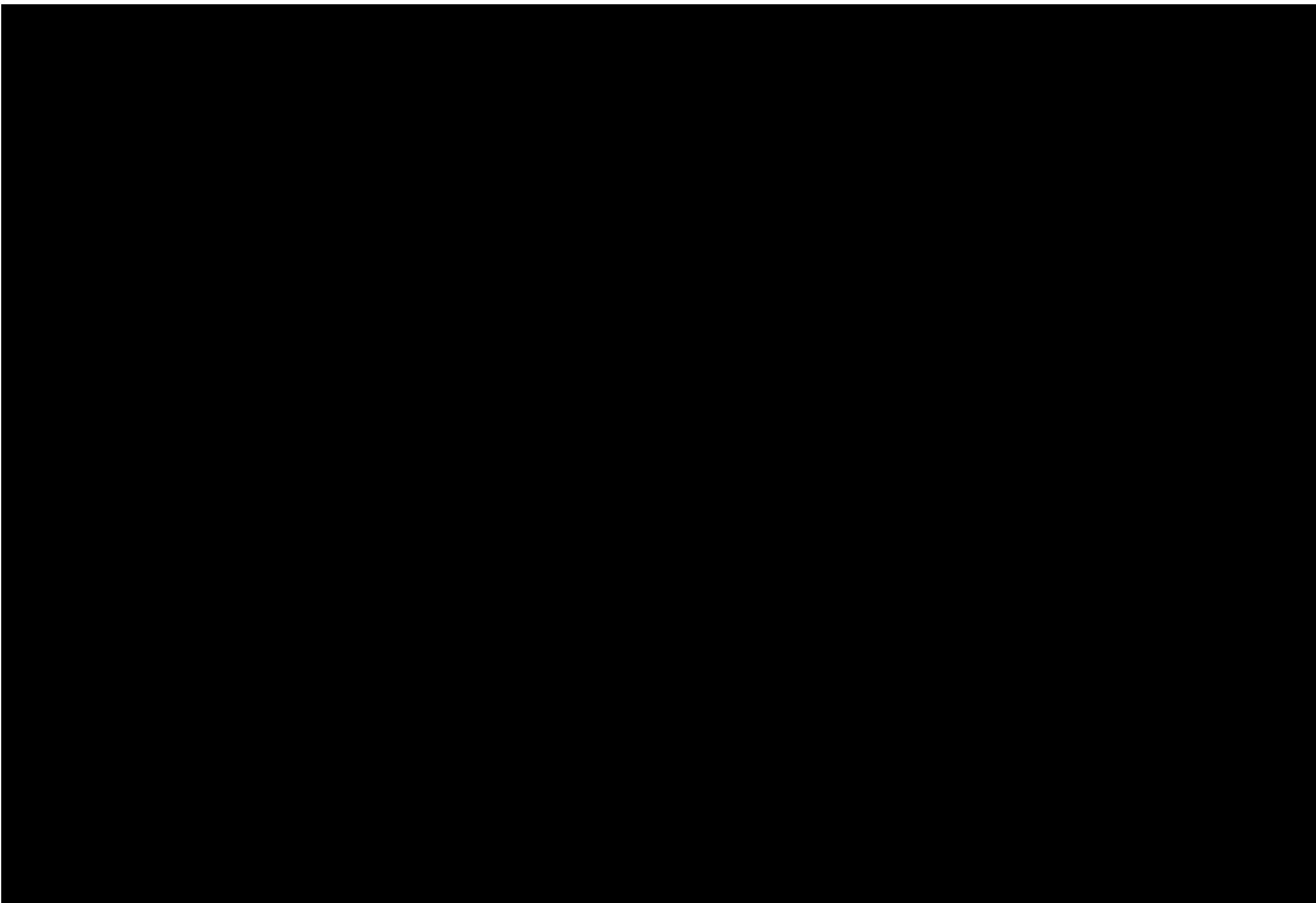


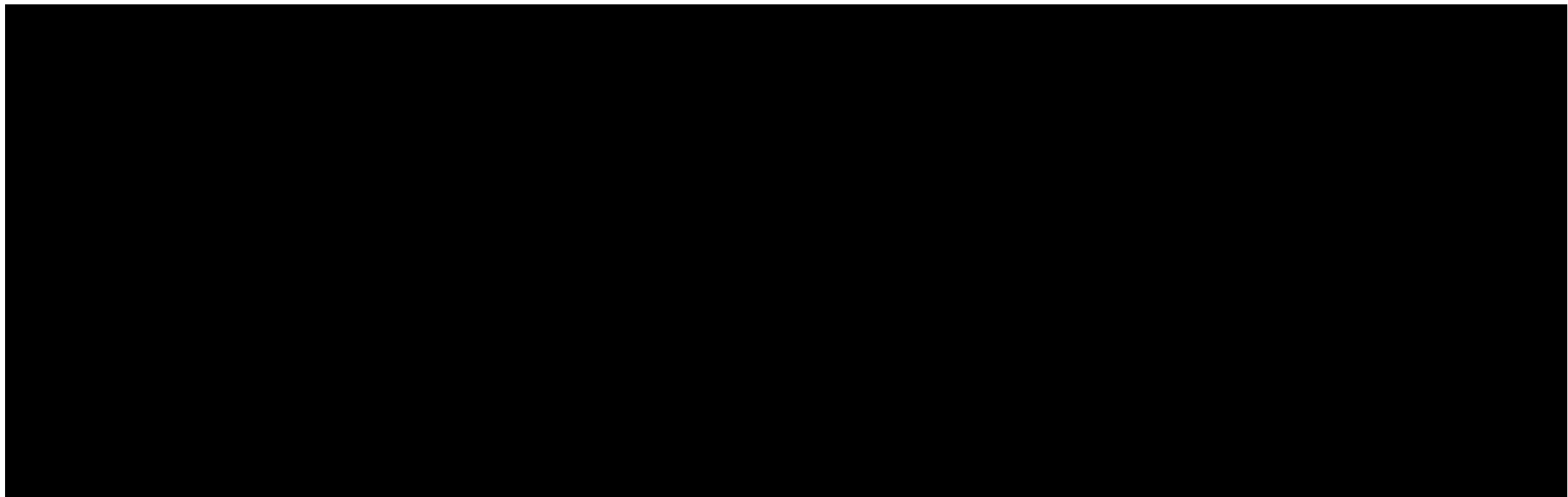




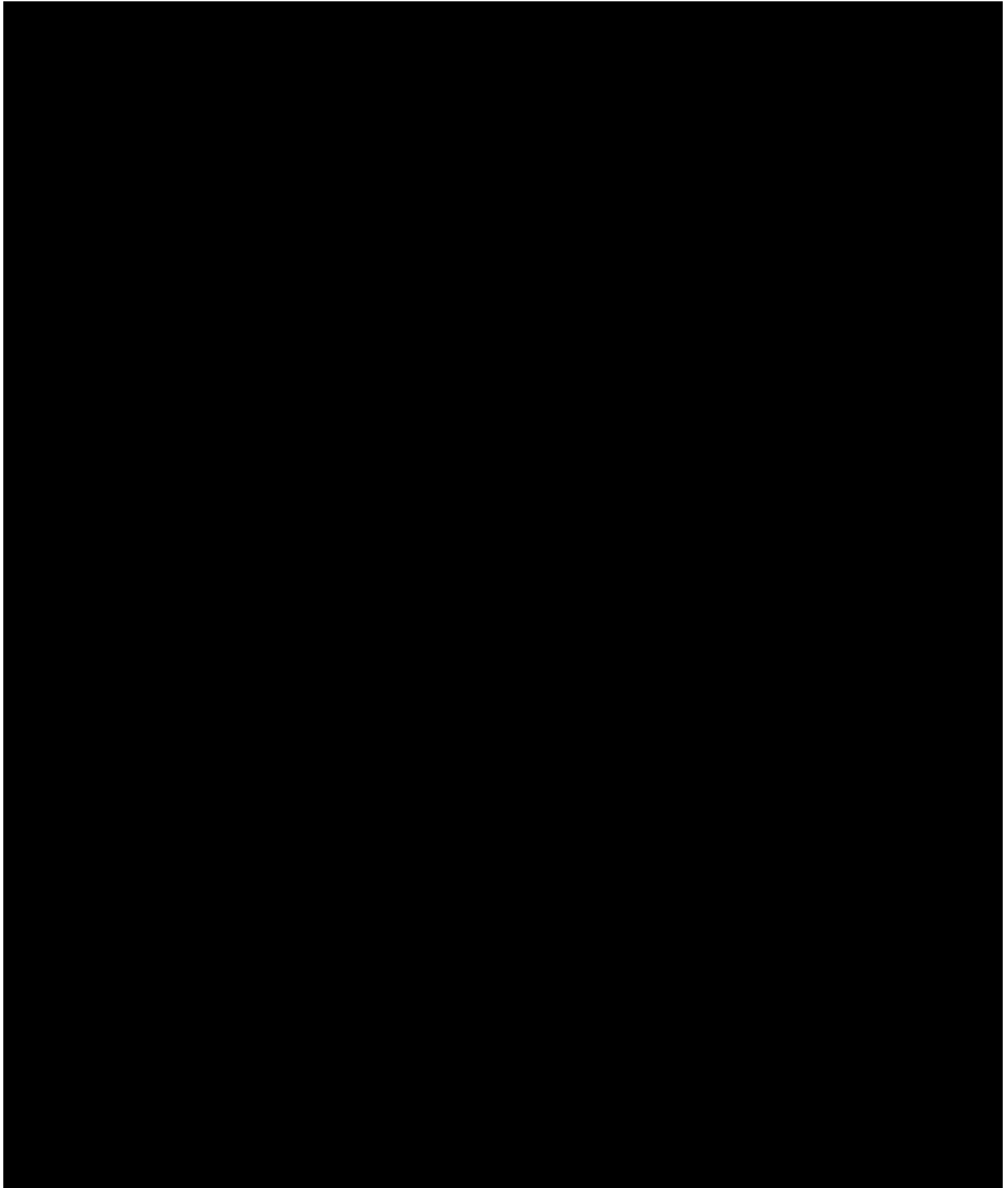


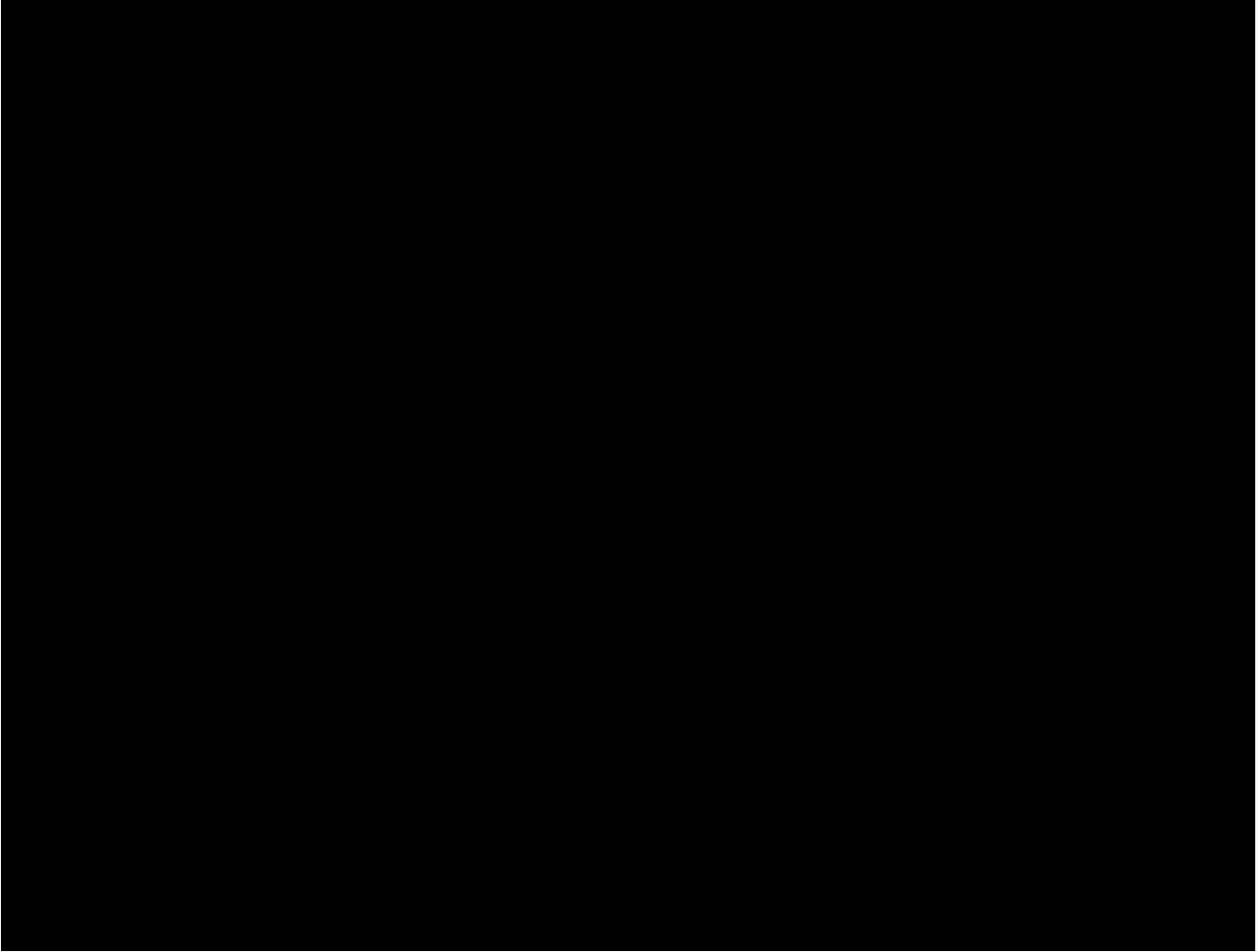






G. Rotomā/Rotoiti Resource Consents & Designation





H. Property Asset Maintenance Requirements

The Contractor shall be responsible for complying with the following general standards for maintenance of property assets at the Facilities. It shall be tailored and amended to suit each individual Facility:

Fences and gates:

- Vertically standing
- No large branches or debris on fence
- Fence/gate is continuous with no gaps
- No holes under the fence/gate
- No dead animals caught in the fence or gate
- No debris or rubbish within 4m of fence
- Gates in position
- Gate not bent or damaged
- Chain/latch functional and lock operable
- Gate opens and closes freely
- Appropriate signs at the gate and along the fence in place and legible.

Road surface continuity:

- No potholes
- No wash outs
- Drainage clear of blockages
- Road furniture in place
- Signs standing straight and legible
- Culverts clear
- Overhanging branches clear
- Vegetation, equipment and debris do not adversely hinder lines of sight, particularly at corners, and intersections.

Power Easement:

- Meets power utility requirements
- Grass short
- No rubbish present, equipment stored in easement
- Power utility assets in good condition.

Ground Areas and Planted Areas:

- Grass mowed or slashed
- No piles, windrows of dried grass or vegetation
- No rubbish present
- No damaged or dead trees
- No blackberries or other pest plants
- Area around all marker posts to be free of vegetation.

Pump Stations and similar type assets:

- Building walls and roof in position, no holes, no rain leaks
- Vermin proofed
- No pest animals/birds living or nesting
- Doors lock and swing freely
- No holes in the doors

Paint work free from graffiti

No corrosion or rusting of assets, internal and external equipment, fixtures and fittings

Lighting and electrical circuits fully functional

Water supply and drainage systems working

Signs and labels legible

Equipment in operational condition

Lifting Equipment certified.

Gantries / monorails certified or tagged as not for use

Piping not leaking.

Lagoons and ponds:

No leaks

No changes on batter profile (i.e. no evidence of slumping)

Walls free from weeds and large vegetation

Wall crest level

Spillway free from rubbish and vegetation

No animal burrows in or near batters

No dead animals in area or in lagoons or basins

Access platforms in good repair and safe to use

Lighting operable

Signs and labels in position and legible.

Chemical & Fuel Storage Facilities

Signage in place and complies with HSNO requirements

HSNO certification current

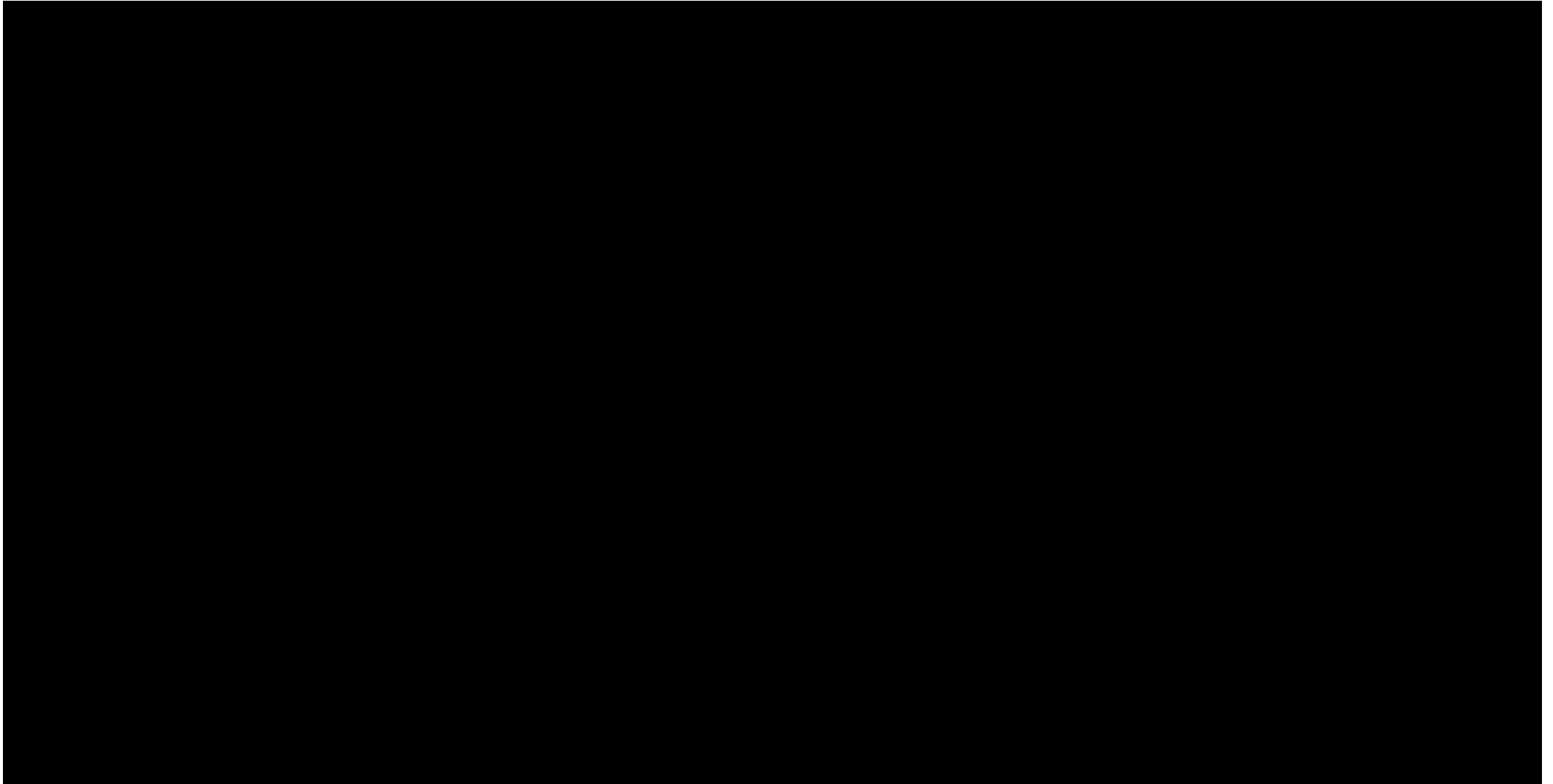
No chemical or fuel leaks

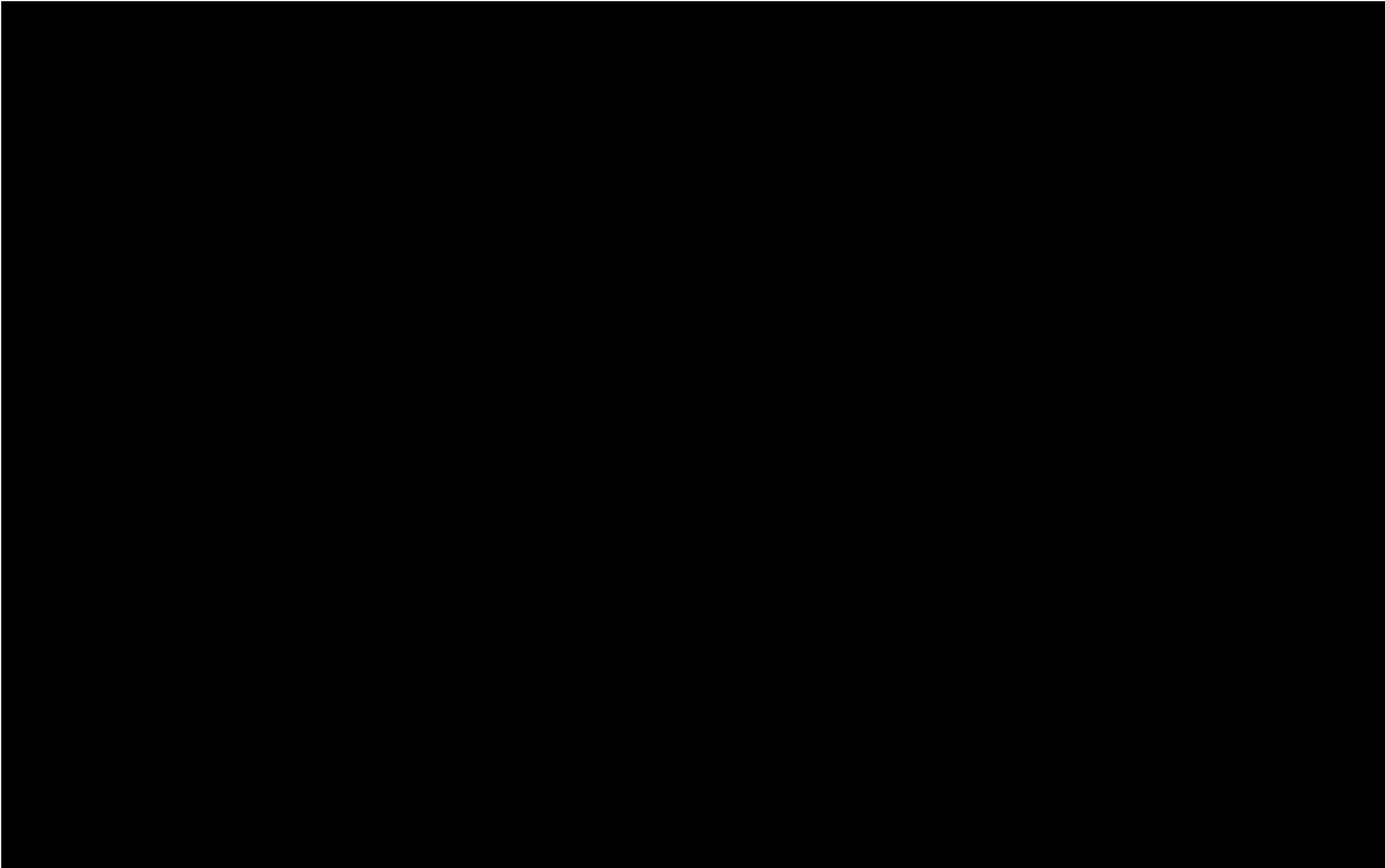
Safety equipment in place, operational and current (eyewash, fire extinguisher, safety shower etc)

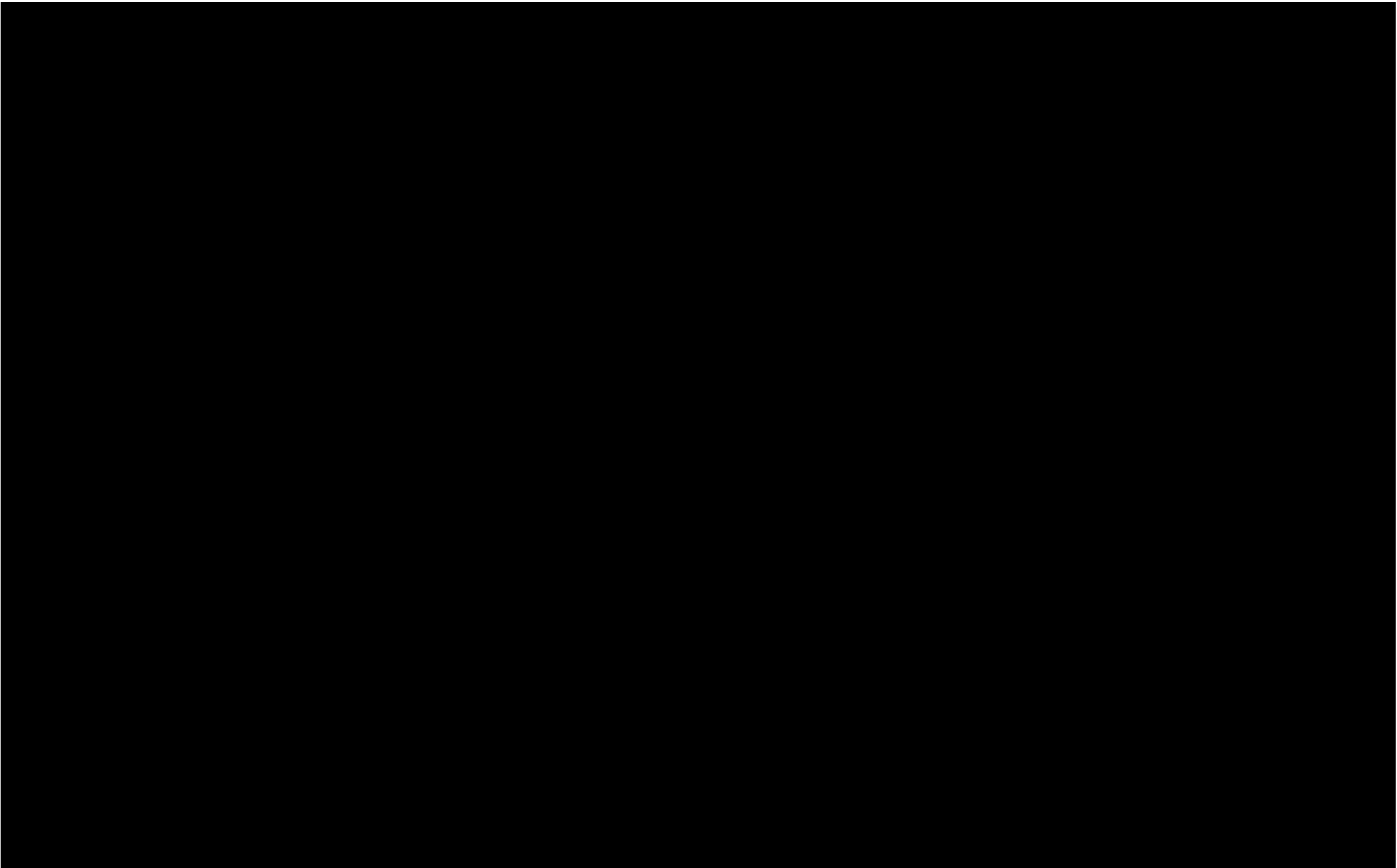
PPE in place and in good condition

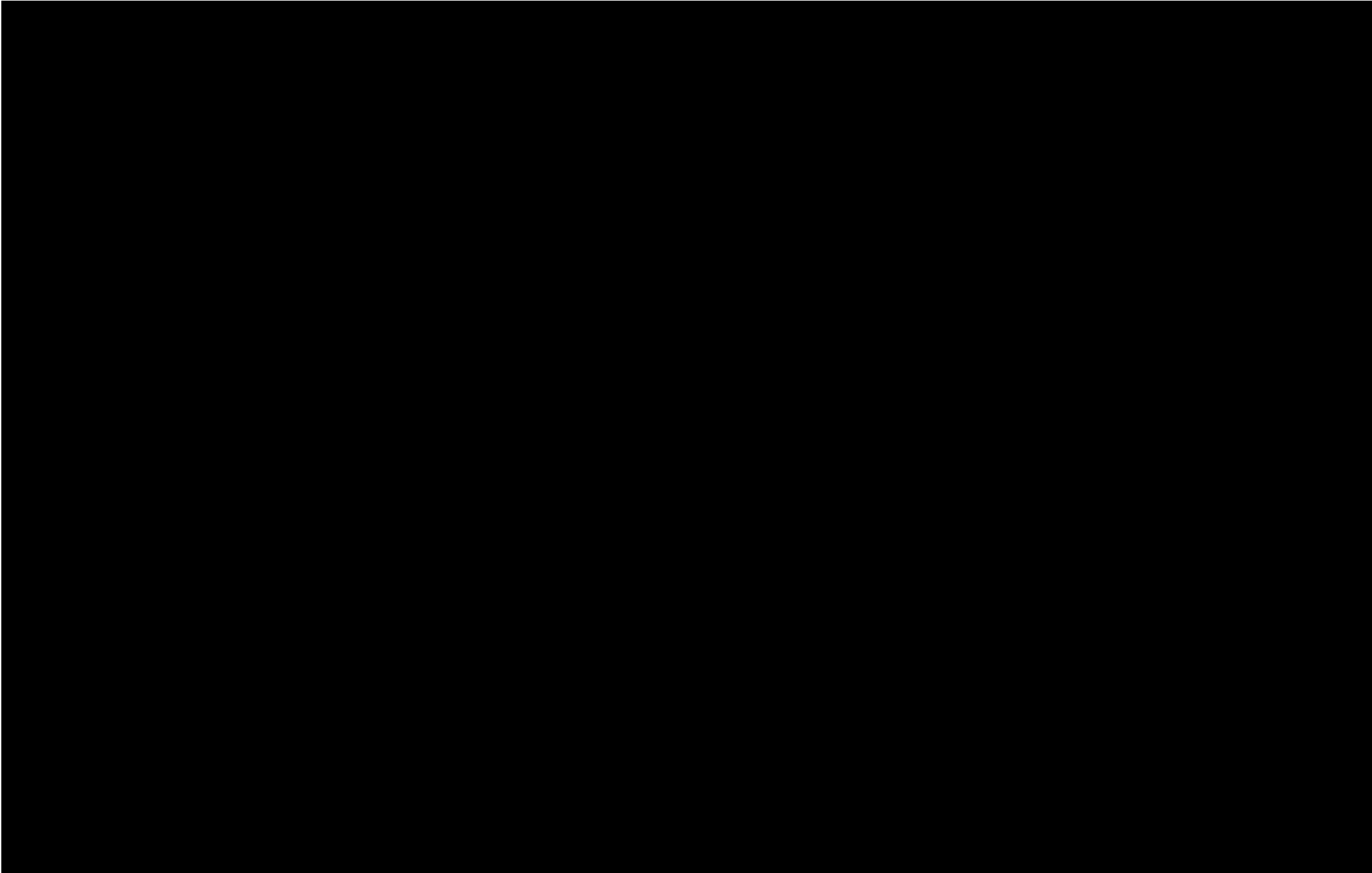
Facility secure and security alarm functional

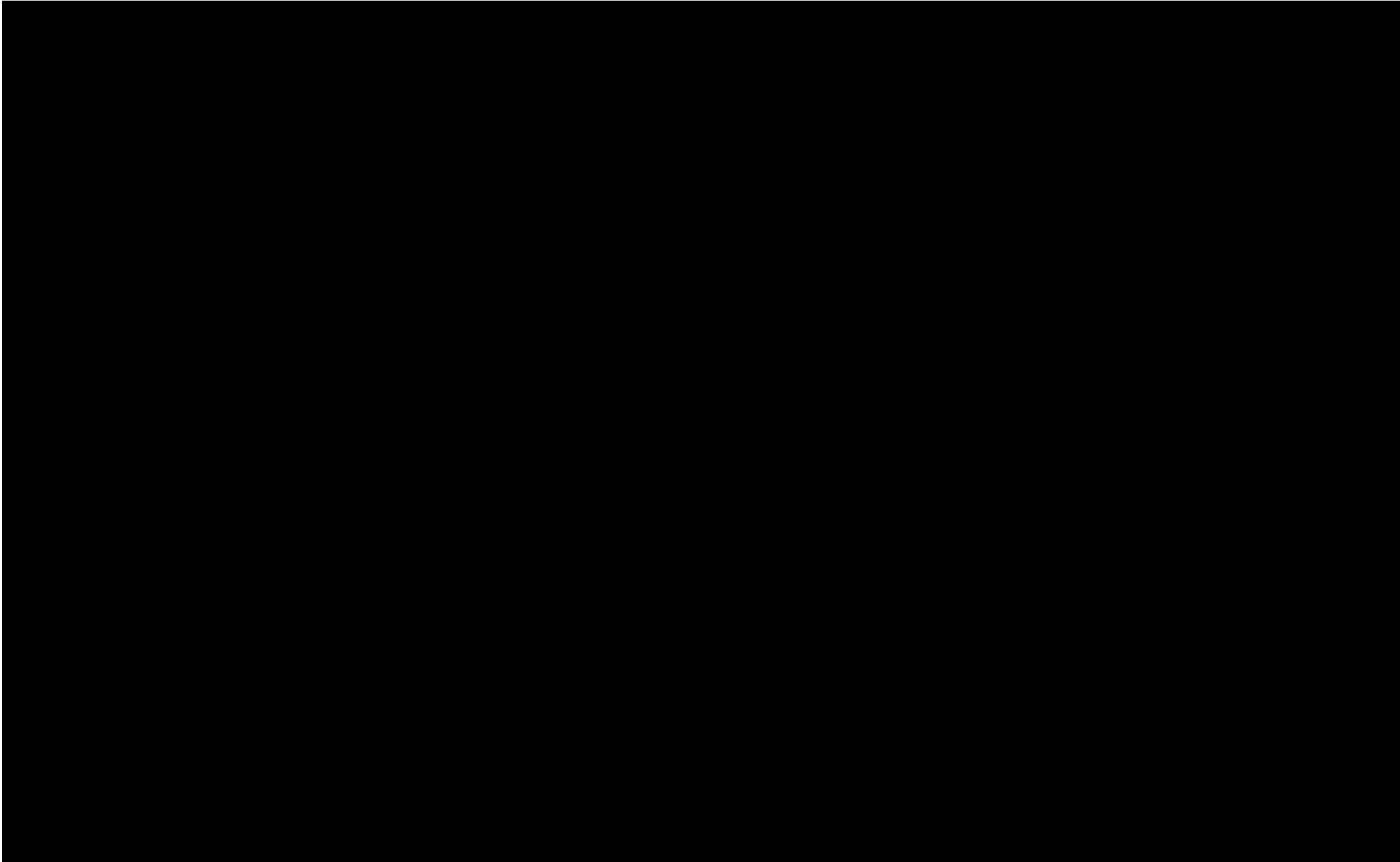
I. Council's wastewater works programme as at the date of execution of the Contract



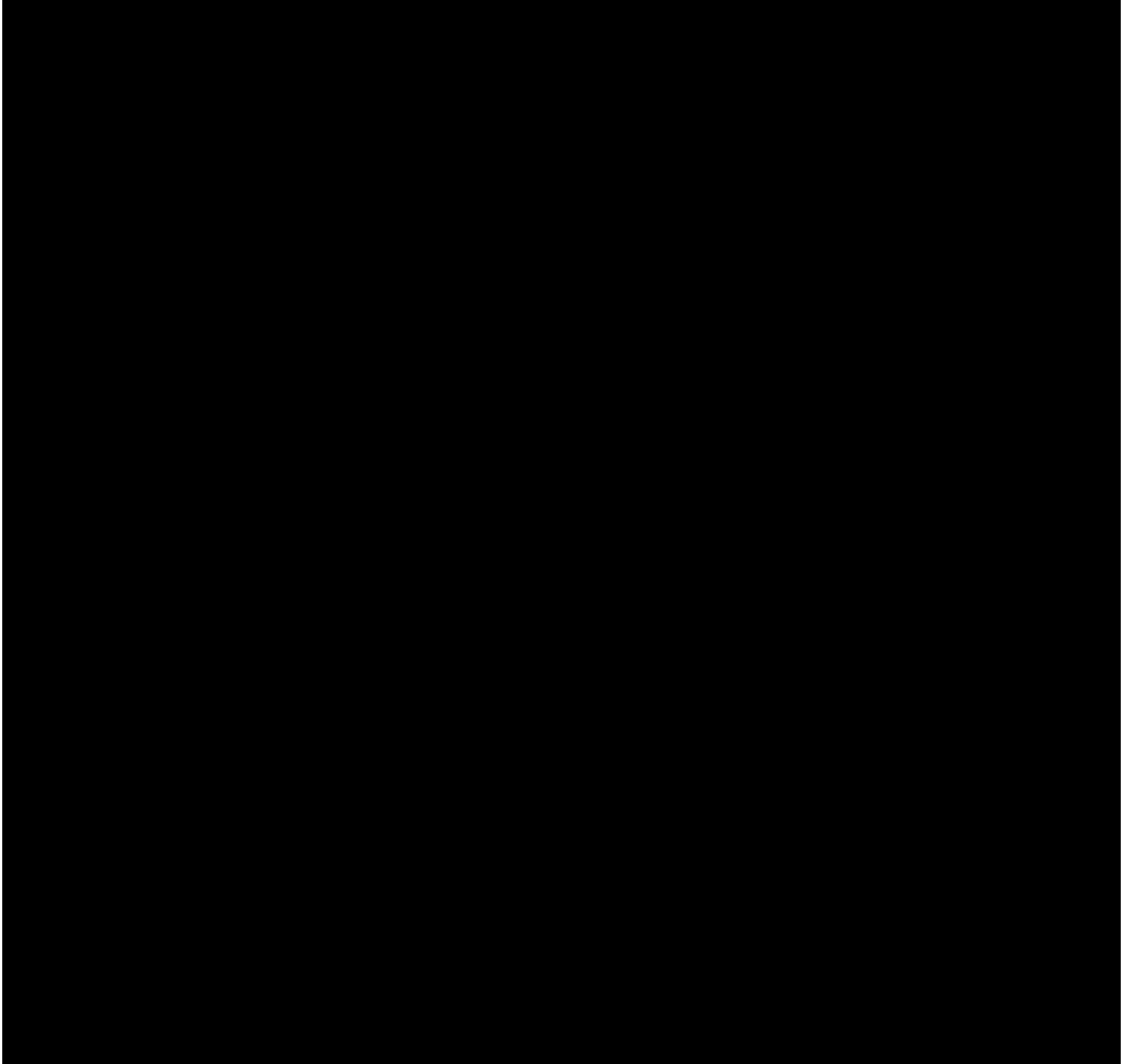


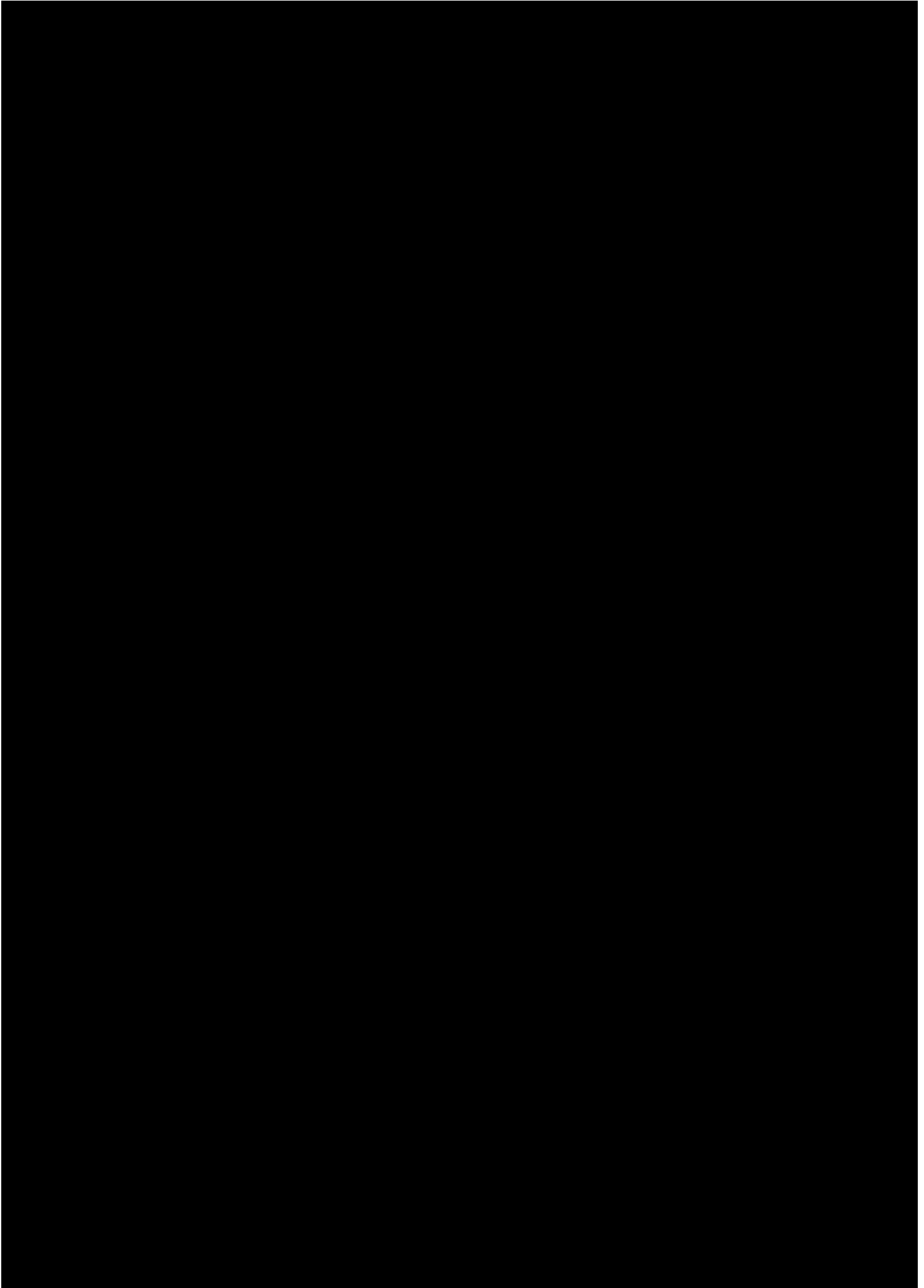






J. Property Access Rights, Easements and Agreements







K. Gravity Mains Renewals Practice Note

K.1 Definitions

Terms defined in the Contract Conditions and used in this Practice Note have the same meaning as set out in the Contract Conditions.

Terms defined in Schedule 16 and used in this Practice Note have the same meaning as set out in Schedule 16.

K.2 Overview

The objective of the parties in relation to Gravity Mains Renewals is to collaboratively optimise the asset management of the Gravity Mains including balancing cost against available budget while maintaining KPI compliance and appropriate risk levels.

K.2.1 Gravity Mains Renewals Payment

The delivery of Gravity Mains Renewals Programme by the Contractor is excluded from the Rotorua Reticulation Network Monthly Service Payment and will be remunerated as part of the monthly payment process as a separate line item the “Gravity Mains Renewals Payment”. Costs associated with maintenance of gravity mains, investigations to determine condition and the development of the Gravity Mains Renewals Programme are included within the Rotorua Reticulation Network Monthly Service Payment amount.

The Gravity Mains Renewals Payment is set for each 3-yearly Gravity Mains Renewals Programme and is payable by the Council by equal (in real terms) monthly payments (or other fixed payment profile as agreed as part of the Programme development) for that three year period as set out in Schedule 2 of the Contract Conditions. In formulating each three yearly Gravity Mains Renewals Programme the Contractor will plan to maintain a cashflow neutral position over the three years of the programme so as to minimise any additional costs related to working capital requirements.

As at the date of execution of the Contract the parties are collaboratively developing a draft Gravity Mains Renewal Programme covering the period July 2021-June 2024.

K.2.2 Schedule of Rates – Gravity Mains Renewals

The Schedule of Rates – Gravity Mains Renewals at the Commencement Date is shown in Schedule 2 Attachment A. The Schedule of Rates includes two different categories of prices:

- Those costs identified as Key Materials and Services, where the price is determined by Market Rate information collected as part of the Contractor’s delivery process, and
- All other costs submitted prior to the Commencement Date and escalated annually according to the rate and formula in Schedule 2 section 3.6.

An updated Schedule of Rates is required to be submitted as part of each Annual Renewals Work Plan.

When developing the next Gravity Mains Renewal Programme or making alterations to the current programme, as per section K.8, the most recent Schedule of Rates – Gravity Mains Renewals shall be used. Each project within a proposed Gravity Mains Renewals Programme is budgeted for using the quantities applicable to the project and the Schedule of Rates to determine a lump sum price for each project which are then summed to determine the overall Gravity Main Renewals Programme budget. This is both the maximum and minimum Council will pay for the delivery of the Programme over the three year period (except for movement in prices for items on the List of Key Materials and Services) regardless of the Contractor's actual cost to deliver the Programme.

The Schedule of Rates at the Commencement Date are those used to develop the initial Base Profile.

K.2.3 Handover Obligations

The Condition Assessment Obligations pertaining to Remaining Service Life Expectancy described in Schedule 16 do not apply to Gravity Mains. The Contractor shall be responsible for:

- carrying out such investigations on the network (funded by the Monthly Service Payments) necessary to determine representative and unbiased asset condition across the network and for different classes of Gravity Mains
- delivering the projects identified in each Gravity Mains Renewals Programme (funded through the Gravity Mains Renewals Payment), and,
- to manage network performance with due regard to the Gravity Mains Renewals Programme and the Base Profile.

The Contractor's Handover Obligations in relation to the Gravity Mains are to hand over the Gravity Mains assets:

- with all Gravity Mains Renewal Programme projects, or investigation work which was scheduled for completion, properly completed (unless any changes to the programme are agreed by the Administrator);
- with all routine maintenance and repairs completed in accordance with relevant maintenance plans; and
- such that the Rotorua Reticulation Network performance is meeting the KPI's defined in Section 4 and Appendix M of Schedule 16.

K.2.4 Council's Engineering Specifications

Renewed Gravity Mains shall meet the Council's Engineering Specifications in Schedule 16 current at the date the renewal work is carried out. It is acknowledged that the failure of an existing asset to meet the capacity requirements of the Council's Engineering Specifications is not by itself considered a driver for a Gravity Mains Renewals project.

K.2.5 The Base Profile

The Gravity Mains Renewals profile set out in Appendix O of Schedule 16 is the Gravity Mains Renewals base profile (**Base Profile**) for the purposes of the development of the Gravity Mains Renewals Programme pursuant to this Practice Note. The Base Profile covers both the anticipated spend and kilometres of gravity main to be renewed over the Contract Term and beyond.

The Base Profile is designed to deliver a nominal target average Remaining Service Life Expectancy of approximately [REDACTED] (subject to programme smoothing) of the Minimum Service Life Requirement over a 25 year period following the Commencement Date, across the different categories of Gravity Mains assets. At the Commencement Date, the Remaining Service Life Expectancy is based on theoretical asset age and therefore remaining life derived from Council's AMIS asset register as at 2018. As more asset condition information becomes available and industry assumptions change (e.g. the Service Life expectancy of relined pipes is better understood over time) the Remaining Service Life Expectancy of the pipes may change. Using the information provided by the Contractor, Council, as the Strategic Asset Manager, will, at the point of development of each Gravity Mains Renewals Programme, choose whether to adjust the Base Profile and Gravity Mains Renewals Programme to either:

- maintain the Base Profile and change the 25-year [REDACTED] target, or
- maintain the 25-year [REDACTED] target and direct the Contractor to adjust the Base Profile accordingly.

It is noted that the decision regarding adjustments to the Base Profile may require incremental adjustments over a number of Gravity Mains Renewals Programme periods in order to manage the impact of changes in the Gravity Mains Renewals Payment. The Contractor may be requested to develop a number of planning scenarios to inform this decision. The cost of developing these scenarios is included within the Monthly Service Payment.

K.3 Not Used

K.4 Initial Gravity Mains Renewal Programme

For the period between the Commencement Date and 1 July 2021 (i.e. Contract year 1) the Gravity Mains Renewals Programme includes a nominal quantity of gravity main renewal allowance only, to the value of [REDACTED]. The parties have agreed that Council will maintain this sum as a contingency within their budget to account for the risk on any Unplanned Gravity Mains Renewals projects which emerge during that period and that there will be no Gravity Mains Renewals Payment for Contract year 1, unless Unplanned Gravity Mains Renewals projects occur. The [REDACTED] forms part of the Base Profile total and any remaining balance at the end of the period shall be available for the following Gravity Mains Renewals Programme.

Prior to July 2021, the Contractor shall complete the initial asset condition assessment begun under the Early Services Agreement and develop a condition-based view of the Remaining Service Life Expectancy of the Gravity Mains. It is noted that this process will only be partially completed to inform the Gravity Mains Renewals Programme developed in 2020/21 but sufficient information should be available to identify the highest priority renewals based on asset condition and network performance. The first fully informed, condition based programme and Base Profile will be developed by 2023.

K.5 3 Yearly Review Process (10-year Renewals Work Plans)

As set out in section 3.3.1 of Schedule 16, the Contractor is required to submit a draft 10-year Renewals Work Plan every three years, by end of June the year before the end of the LTP cycle (i.e. 2023, 2026 and 2029). As part of the development of the 10-year Renewals Work Plan the Contractor shall follow the 3 Yearly Review Process below for Gravity Mains. The first 3 Yearly Review Process shall begin in January 2023, to prepare the Gravity Mains Renewals Programme for 2024-2027.

At the date of execution of the Contract, the parties are collaboratively developing a draft 10-year Renewals Work Plan covering the period July 2021-June 2031.

3 Year Review Process:

1. The Contractor shall analyse condition and performance information of Gravity Mains and update the Base Profile as indicated by the evidence and the agreed method of translation into Remaining Service Life Expectancy, and in line with Council's strategic direction around the targets for average Remaining Service Life Expectancy by asset class at the Expiry Date. The assessment of Remaining Service Life Expectancy may be informed through direct investigations carried out in the network, and/or through changes in industry accepted assumptions (e.g. the Service Life Expectancy of relined pipes may change over time).
2. For renewal projects within the next Gravity Mains Renewals Programme, the Contractor shall carry out a scoping exercise to determine:
 - a. The optimum method of renewal e.g. replace or reline and the appropriate technique
 - b. Important parameters to inform the appropriate rates to be used such as pipe diameter, depth, grade, groundwater conditions and whether the pipe is in an active geothermal area.
 - c. In the case of relining, whether lateral sealing is recommended in addition to the gravity main relining along with justification to support the recommendation.
 - d. Any associated works such as manhole rehabilitation or lateral connection replacement or relining (noting that manhole rehabilitation is funded from the Monthly Service Payment even if completed concurrently with a Gravity Mains Renewals project).
 - e. The anticipated population to be serviced by the renewal, from growth projections communicated to the Contractor (e.g. through the Spatial Plan or other anecdotal information such as discussions with potential developers or District Plan change proposals)
 - f. I/I considerations based on I/I benchmarking work, I/I Reports and agreed optimal I/I management strategies
 - g. Where additional capacity is recommended or required a capacity assessment to determine the replacement pipe size based on actual performance, anticipated population projections, I/I considerations and hydraulic model results as applicable
 - h. Any recommendation to optimise the renewal by redirection or resizing of the new pipe along with justification to support the recommendation (noting that additional operations or maintenance costs of optimised renewals may be included as Variations to the Rotorua Reticulation Network Monthly Service Payment).
3. The Contractor shall escalate the Schedule of Rates – Gravity Mains Renewals in accordance with Schedule 2 of the Contract. This will include the latest Market Rate information for items on the List of Key Materials and Services – Gravity Mains. The Contractor shall then provide an overall budget for the Gravity Mains Renewals Programme based on the scoping work, the updated Schedule of Rates – Gravity Mains Renewals, the application of Contractor's contingency and margin allowances and the accounting of any working capital impacts over the three-year period.
4. In addition to the current requirements of section 3.3.1 of Schedule 16, the Contractor shall include in the draft 10-year Renewals Work Plan submitted to Council by the end of June, the following information specific to Gravity Mains Renewals:
 - a. The adjusted Base Profile from (1) as a graph showing indicative future spends and kilometres of Gravity Mains to renew over the 30-year rolling horizon with supporting

evidence for adjustments made e.g. asset condition investigation information, industry research and network performance data.

- b. The updated Schedule of Rates – Gravity Mains Renewals from (3).
- c. For pipes identified as candidates for renewal in the first three years of the Base Profile, a table of the proposed Gravity Mains Renewals projects by priority, showing for each project:
 - i. Pipe asset information: asset ID, diameter, location, material, age, length
 - ii. Criticality using an agreed scale (representing consequence of failure)
 - iii. Condition score (representing likelihood of failure)
 - iv. Weighted risk score (likelihood x consequence)
 - v. Renewal strategy (replace or reline (and with what technique))
 - vi. Driver for renewals (condition, excessive maintenance, system performance, severity of GWI, optimisation of renewal programme, combination of these)
 - vii. Maintenance history (e.g. frequency of cleaning or Service Requests relating to the Gravity Main)
 - viii. Performance history (e.g. history of overflows in the vicinity or inflow / infiltration information)
 - ix. Potential impact of deferment (e.g. additional maintenance cost impact which may trigger a Variation to the Service Payment, a flag for potential KPI impact – specific to deferring that project, e.g. repeat overflows at Location X are likely to keep occurring)
 - x. Any associated works such as manhole rehabilitation or lateral connection replacement or relining (noting that manhole rehabilitation would be funded from the Contractor's Service Payment even if completed concurrently with a Gravity Mains Renewals project).
 - xi. Cost of renewal based on the updated Schedule of Rates – Gravity Mains Renewals

This becomes the draft Gravity Mains Renewals Programme for the next LTP cycle.

- d. The total budget required for the draft three-year Gravity Mains Renewals Programme based on the adjusted Base Profile and updated Schedule of Rates – Gravity Mains Renewals.
- e. The proposed breakdown of the draft Gravity Mains Renewals Programme into three approximately equal programmes of work.

****Note:** Recommendations whether to replace or reline each pipe and replacement being open trenched or trenchless are expected to be the best solution at the time for that pipe, taking into consideration network optimisation, logistics and value e.g. current market prices, pipe location and access, condition of the lateral connections, disruption and traffic management requirements etc.

**** Note:** The Contractor may choose to fund additional renewals projects based on its own drivers and Contractor benefits derived from carrying out the renewal. See Section K.8 for further details. These will not form part of the Contractor's obligation to deliver the Gravity Mains Renewals Programme.

****Note:** Refer to the Section 3.9.5 for details on incorporating anticipated population growth within the Gravity Mains Renewals Programme.

The 10-year Renewals Work Plan approval process is described in Section 3.3 of Schedule 16 and will include approval of the above. In brief:

5. Workshops will be held between the Contractor and Council in July/August following submission of draft 10-year Renewals Work Plan. At these workshops, Council and the Contractor shall:
 - a. Discuss and agree the justification for and priorities assigned to the Gravity Mains Renewals projects. For the avoidance of doubt, the onus is on the Contractor to prove justification for and priority of a project.
 - b. Agree on the draft Gravity Mains Renewals Programme within the constraints of:
 - i. Available budget
 - ii. Acceptable levels of residual risk and planned maintenance
 - iii. Consideration of any Stakeholder priorities
 - iv. Practicality and efficiency of implementation considerations (i.e. bundling of work into discrete area by area packages)
 - v. Coordination of work with planned work by other utilities and council services
 - c. Discuss the impact of any anticipated population growth and agree to any growth-driven capacity increase to be incorporated into the renewals project (See the Growth Driven Upgrades Practice Note and Section 3.9.5 of Schedule 16 for more information).
 - d. Discuss and agree on the strategic approach to I/I management to the extent it impacts on the draft Gravity Mains Renewals Programme (see I/I Management in section K.8 and section 1.7).
6. Post workshops, the Contractor shall submit a final draft 10-year Renewals Work Plan to the Administrator.
7. Council will use the final draft 10-year Renewals Work Plan to inform the Council's draft LTP to feed into the Council's Business Case review process in November. During this time, Council will review the final draft of the Gravity Mains Renewals Programme and the underlying growth projections, and identify (or confirm) if any of the proposed projects require anything other than a like-for-like replacement of diameter. Further input/information may be sought from the Contractor if any changes are identified.
8. The draft 10 Year Renewals Work Plan becomes the Final 10 Year Renewals Work Plan through the process described in Schedule 16 Section 3.3.1.
9. The Final 10-year Renewals Work Plan shall become the basis of the Contractor's Gravity Mains Renewals Programme for the following three years.

Following finalisation of the LTP and 10-year Renewals Work Plan:

10. The Gravity Mains Renewals Payment will be adjusted to fund the Gravity Mains Renewals Programme at the agreed level for the following year.
11. The Contractor shall deliver on the detailed 3-year Gravity Mains Renewals Programme included within the 10-year Renewals Work Plan. The breakdown of the agreed programme into three annual programmes is at the discretion of the Contractor, with the stated objective in K.2.1 to maintain a cashflow neutral position to the extent it is possible.

K.6 Gravity Mains Renewals Programme Reporting

The Gravity Mains Renewals Programme for the following year shall be included in the Annual Renewals Work Plan according to section 3.4.2 of Schedule 16. Information provided in the Annual Renewals Work Plan shall include asset IDs, location, diameter, age, length, whether renewal or rehabilitation (including the technique) at a minimum for each Gravity Main Renewal project.

Once the Annual Renewals Work Plan is finalised, the KPI for delivering 12 months of work in 15 months will be applied to the applicable year.

In July of each year, the Contractor shall prepare a summary report for the Administrator detailing:

- A record of Unplanned Gravity Mains Renewal projects completed in the previous 12 months and
- Any Gravity Mains Renewals projects removed from the previous programme with revised delivery dates – including the reasons for the revision (the intent being, these projects will have been agreed to be substituted for Unplanned Gravity Mains Renewals during the three-year period).

****Note:** Any Gravity Mains Renewals projects from the previous programme not completed within 15 months will be reported on through the KPI process (KPI is to complete 12-month programme in 15 months)

K.7 Methodology for Determining Required Renewals

As part of the preparation of each Gravity Mains Renewals Programme, each Gravity Main asset in the AMIS asset register will be assessed for:

- Risk score assessment (updated condition score and criticality score):
 - Current asset condition score - based on an agreed approach to deriving Remaining Useful Life (RUL) from the CCTV condition scores or, where CCTV inspections have not been recently carried out, the RUL of the pipe being the design life, adjusted for environmental factors minus the installation date.
 - Asset criticality score (1 to 5) considering known or potential I/I risk, customers served and sensitivity of location and other agreed factors, with 1 representing the lowest criticality and 5 representing the highest criticality. Pipe diameter will be used as an indicator of criticality initially until more detailed criticality assessments are undertaken, likely to be in the first year of the Contract term. Large diameter gravity mains in areas known to experience significant GWI (e.g. in low lying areas in close proximity to the lake) shall be given higher criticality scores to reflect their potential for contributing to the constant volume of GWI arriving at the Rotorua WWTP Facility.
 - Risk score derived as a combination of condition score and criticality score.

The intent is that the data used for prioritising the renewals programme is documented in future revisions of this Practice Note. For the avoidance of doubt, pipes that are known to have significant GWI (e.g. through observed infiltration through joints in CCTV footage) shall be assigned a poor condition score irrespective of the structural condition of the pipe.

- Maintenance assessment (the asset risk that it poses to Operations meeting contractual service levels through):
 - Review of reliability and maintenance history
 - Review of the level of corrective work order history
 - The “worst performing assets” from a maintenance perspective not already on the draft programme due to risk score are added to the draft programme for consideration.
- Financial assessment (the risk that the asset poses to meeting Operations & Maintenance budgets through):
 - Review of maintenance costs, both planned or unplanned
 - “Non financially performing assets” (i.e. those over an agreed threshold) not already on the draft programme due to risk score or maintenance assessment are added to the draft programme.
- Operational assessment (the asset risk that it poses to Operations meeting KPIs through):
 - Critical assets posing undue risks are identified and communicated
 - Risk of KPI non-compliances are reviewed
 - “High KPI non-compliance risk assets” not already on the draft programme due to other assessments are added to the draft programme

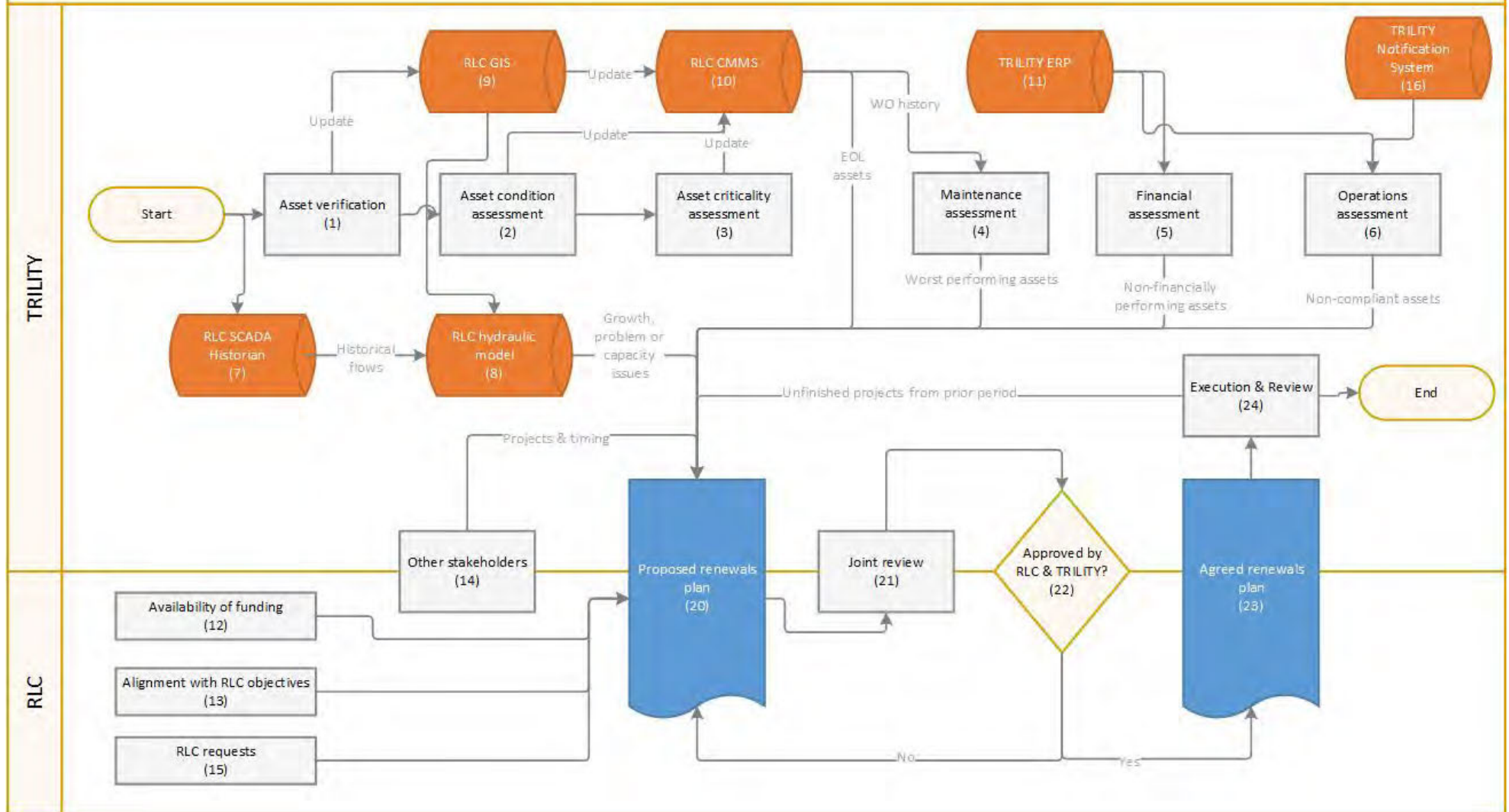
It should be noted that Operational, Financial, Maintenance and Risk Assessments listed above are not in order of priority and that candidate projects originating from each assessment will require prioritisation as part of the development of each Gravity Mains Renewals Programme. The parties acknowledge that managing the volume of GWI entering the Rotorua Reticulation Network is a key component of ensuring the Rotorua WWTP Facility’s long term ability to perform within the annual nutrient discharge limits of the Rotorua WWTP Facility Resource Consent.

The result of these assessments is a prioritised list of renewals projects forming the draft Gravity Mains Renewals Programme. This programme will then be reviewed by the Council and discussed between the Council and the Contractor as part of the workshop process to ensure alignment with Council budget constraints, known areas of future growth, work planned by other utility service providers, known areas of high I/I and other factors. The capacity of gravity mains to be renewed will be discussed at the workshops and opportunities for Optimised Renewals will be explored.

The draft Gravity Mains Renewals Programme is then subject to individual project scoping in order to accurately determine the cost as per step 2 of the 3 Yearly Review Process in K5 (including any agreed capacity increase component).

This process is summarised in the following diagram and each numbered step is explained in the following text.

Methodology for Determining Required Renewals



1. Asset verification

All assets need to be captured in the AMIS asset register. Assets not on the AMIS asset register may miss having maintenance plans created or the capturing of corrective work orders. If there are assets on the register but not in the field, then this can create confusion with the execution of work and waste maintenance resources.

Asset register verification shall be undertaken on a regular basis by the Contractor as part of undertaking routine condition assessment or maintenance tasks. Ad hoc asset verification audits shall also be undertaken by the Contractor where there is evidence that the AMIS asset register does not match the assets in the field.

All data collected by the Contractor during routine asset register verification and asset register verification audits shall be uploaded to the AMIS asset register in a timely manner (even if this is simply updating the date that the asset information was last verified).

2. Asset condition assessment

An agreed condition assessment grading system will be used. For Gravity Mains, there are three potential methods of deriving a condition score:

- h) Where no condition assessment has been undertaken, the asset age will be used as a surrogate for condition.
- i) Where a condition assessment has been undertaken via a CCTV inspection within the past 10 years, reference will be made to the New Zealand guidelines for grading pipework using CCTV to determine a condition score.
- j) Where an alternative, potentially more accurate, condition assessment method has been undertaken (such as core sampling) this will be used to provide a condition score.

The condition assessment scoring system shall be derived from the latest approved version of the New Zealand Pipe Inspection Manual. For all types of Gravity Mains (i.e. different pipe materials), an agreed relationship between condition score and Remaining Service Life will be agreed and documented in the Contractor's 10-year Renewals Work Plan. Where no condition assessment has been undertaken the Remaining Service Life will be based on asset age and theoretical service life. Where a condition assessment has been undertaken (via CCTV or other means) this will supersede the asset age and the relevant condition score will determine the updated Remaining Service Life.

If a significant sample size of CCTV or other condition assessments on a common group of pipe age and material suggests a significant difference between the theoretical (age based) and actual condition of that sample, the ramifications for the entire cohort of that pipe age and material will be considered. If justified, then a global adjustment may be made for the entire cohort, including pipes where actual condition assessment has not yet been undertaken. Before undertaking a global adjustment to Remaining Service Life Expectancy, factors such as groundwater, geothermal conditions and soil type may be considered to limit the global adjustment to less than the entire cohort of that pipe age and material.

The asset condition score will be stored against that asset in the computerised maintenance management system (CMMS). These scores will be date stamped and all scores for the asset will be retained in the CMMS. Both age related condition and condition assessment related condition scores will be kept in the CMMS and easily discernible from one other.

- **Asset criticality assessment**

An agreed criticality assessment scoring system will be used. This scoring system will be derived from Water NZ available scoring or a Council specified scoring system.

The asset criticality score will be stored against that asset in the CMMS. These scores will be date stamped and all scores for the asset will be retained in the CMMS.

- **Maintenance assessment**

Assets with a high level of corrective work, either corrective work order count or corrective work order cost are highlighted in the “worst performing asset” section of the monthly internal maintenance KPI report. A root cause analysis will be undertaken on these worst performing assets on a regular basis. Where the best solution to fix the issue is a renewal or refurbishment, then these projects will be added to the draft programme with the priority ranked against other proposed Gravity Mains Renewals projects on a case by case basis taking into consideration a holistic view of relative risks, costs and renewal benefits.

- **Financial assessment**

The financial assessment of drivers for Gravity Main Renewals is largely irrelevant as the maintenance assessment will highlight excessive maintenance costs.

- **Operations assessment**

Some Gravity Mains assets may be under performing and may pose a high risk of KPI non-compliance. Gravity Mains asset performance issues with potential to adversely impact KPI compliance will be captured in the Contractor’s KPI compliance monitoring system and will be reviewed during the renewals planning process for any renewals project inclusions. Asset criticality score shall be taken into consideration when ranking these assets in the renewals priority.

- **RLC SCADA Historian**

Historical flows and rainfall data, where available, will inform the update and calibration of the hydraulic model. These flows should include both wet weather flows and dry weather flows.

- **RLC hydraulic model**

The output of the hydraulic model will highlight assets with historical lack of capacity issues to be included in the programme. The results of any I/I studies or assessments which highlight specific pipes with infiltration issues will also be considered in the 10-year Renewals Work Plan. This step will require the Contractor to prove reasonable management of I/I not related to Gravity Mains and will also need to carefully separate renewal costs from growth related capital works for funding purposes (also refer to section 3.9.5 of Schedule 16).

- **RLC GIS**

The GIS will update the CMMS for new assets, renewed assets and those assets that have become obsolete.

- **RLC CMMS**

The CMMS will be queried for those assets above an agreed risk score threshold and for work order history.

The asset’s condition score will be multiplied by the asset’s criticality score to determine an asset risk score.

The asset risk score will be stored against that asset in the CMMS. These scores will be date stamped and all scores for the asset will be retained in the CMMS.

The asset risk score will be an automatic calculation by the CMMS when either the asset condition score or asset criticality score is updated.

- **Contractor’s Financial System**

The Contractor’s financial system will be queried for work order costs and operational costs to inform the Maintenance assessment and Financial assessment described above.

- **Availability of funding**

There may be future years where less or more funds are available to fund the proposed Gravity Mains Renewals Programme. Council will indicate this on a rolling 10-year basis as part of the LTP (long term plan). The Contractor will seek to modify the timing of the planned future renewals to accommodate this where possible.

3. Alignment with Council objectives

At times, there may be a requirement to adjust the Gravity Mains Renewals Programme to suit Council's requirements. Council will advise and work with the Contractor on these adjustments to ensure the required outcomes are reflected in the programme.

4. Other stake holders

At times, there may be a requirement to adjust the Gravity Mains Renewals Programme to suit other stakeholder requirements. Council will advise and work with the Contractor on these adjustments to ensure the required outcomes are reflected in the programme.

5. Council requests

From time to time, Council may request adjustments to the Gravity Mains Renewals Programme. Council will advise and work with the Contractor on these adjustments to ensure the required outcomes are reflected in the programme.

6. Contractor's Incident Notification System

As discussed above, the Operations assessment of assets will be informed from the Contractor's Incident Notification system. These notifications include, but are not limited to:

- Safety issues including near misses
- Water quality events
- Overflows, odour complaints and other environmental issues
- Safety audit outcomes.

K.8 Methodology for Altering the Gravity Mains Renewals Programme

K.8.1 Unit Rates for Items on the List of Key Material and Services – Gravity Mains

The Schedule of Rates – Gravity Main Renewals shall include the latest Market Rate information when it is used to prepare the Gravity Main Renewal Programme and budget as described in section K.5.

Anytime the Contractor sources a new procurement contract for items on the List of Key Materials and Services, during the delivery of a particular three year programme, and the Market Rate is different to the rate used to prepare the budget for that Gravity Main Renewal Programme (to the extent that the difference will have a material impact on the cost and/or quantum of work in the Gravity Main Renewal Programme), the Contractor shall make a recommendation to the Administrator with option(s) for optimising the Council's value from the Gravity Main Renewal Programme in light of the new Market Rate information.

By way of example:

- If relining costs rise to a point where pipe replacement is the more economical whole-of-life solution, the Contractor may recommend that some pipes scheduled for relining are instead replaced.

- If relining costs fall, either the Gravity Main Renewal Payment may be decreased accordingly, or additional relining projects may be added to the programme to maintain the same total spend and take advantage of competitive Market Rates.

Further discussion between the parties may be necessary to fully understand the long and short term impacts of the recommendation. The final decision how to adapt the Gravity Mains Renewals Programme in light of the new Market Rate information shall be made by the Administrator.

K.8.2 Physical Delivery Changes

During the physical delivery of an individual project within a Gravity Mains Renewals Programme, it may become apparent to the Contractor that the proposed delivery technique is not a workable solution, or not the optimal solution for that project. For each such event the Contractor shall consult with the Administrator and agree on an alternative delivery technique or other course of action. Such agreement shall be documented by the Contractor and submitted to the Administrator as soon as practicable after agreement is reached.

The change of scope supported by reasons and the documented record of agreement with the Administrator for the change shall be included in the next Operations Monthly Report.

K.9 Impact of Renewals on Maintenance and I/I

K.9.1 Maintenance incurred through Renewals deferred

Maintenance and renewals are inherently linked. Under the proposed structure of the Contract, maintenance costs are part of the fixed price Monthly Service Payment while Gravity Mains Renewals are covered by the Gravity Mains Renewals Payment.

Clarity is needed around when reducing maintenance is the primary driver for the renewal and for additional maintenance costs that might be incurred by the Contractor resulting from Council deferment of a renewal project.

Under the process described above, Council and the Contractor may agree to defer renewals projects on the draft Gravity Mains Renewals Programme.

The parties acknowledge:

- a) That the Contractor has assumed a volume of annual maintenance required for the network of Gravity Mains based on maintenance activities prior to the Reference Date and the Contractor's assumptions about how this level of maintenance will change in the future, through to the end of the Contract.
- b) These baseline assumptions of maintenance were developed on the basis that at least the level of Gravity Mains Renewals is undertaken as contemplated in the initial Base Profile shown in Appendix O of Schedule 16.

Therefore, if there is significant and material deferral of Gravity Mains Renewals, then the Contractor may incur network maintenance costs over and above the Contractor's baseline maintenance budget assumptions. As each Gravity Mains Renewals Programme is developed, the level of deferral shall be discussed by Council and the Contractor at the workshops and compared to the Base Profile. Should the Contractor be able to substantiate significant additional maintenance imposed across the network, then a Variation to the Monthly Service Payment pursuant to clause 43 of the Contract Conditions shall be due in proportion to the increase in incremental maintenance costs.

K.9.2 I/I Management

Refer to sections 1.7 and 3.8 of Schedule 16 for details of the responsibilities for the management and reporting of I/I and funding for I/I investigations, reporting and improvement works.

Where the optimal I/I management strategy involves accelerating or optimising a Gravity Mains Renewals to convey the I/I downstream, any additional costs are considered included within the Monthly Service Payment if the Contractor's I/I Report does not sufficiently prove reasonable management of upstream I/I, or the source is known to be on infrastructure where renewals are covered by the Monthly Service Payment (e.g. manholes and pump stations) but it is not viable for the Contractor to remedy. If approved by the Administrator, the Contractor may elect to pay the marginal cost of additional capacity as part of the upgrade in lieu of reducing upstream I/I to ensure the solution is able to handle anticipated flows. This is intended to apply only in exceptional circumstances as a last resort to managing I/I as it has the potential to bring forward in time upgrades at downstream pump stations and will result in increased Influent flows at the Rotorua WWTP Facility.

The parties acknowledge that managing the volume of GWI entering the Rotorua Reticulation Network is a key component of ensuring the Rotorua WWTP Facility's ability to perform within the annual nutrient discharge limits of the Rotorua WWTP Facility Resource Consent. Therefore I/I solutions that minimise GWI entering the network are preferred over solutions that store I/I or cater for increased I/I volumes.

K.10 Unplanned Gravity Mains Renewals

Unplanned works carried out on Gravity Mains may be considered renewals if the works extend the useful life of the asset beyond its previous design life. For the purpose of this Contract, a repair is considered an Unplanned Gravity Mains Renewal if at least one standard length of pipe is replaced.

The need for an Unplanned Gravity Mains Renewals project arises due to an actual asset structural failure or evidence of an impending asset structural failure. Due to safety or network functionality risks, there may be a need for an Unplanned Gravity Mains Renewals project to be undertaken as urgent works prior to Administrator approval but the Contractor will endeavour to seek proactive approval for addition of an Unplanned Gravity Mains Renewals project to the Gravity Mains Renewals Programme where practicable.

When the need for an Unplanned Gravity Mains Renewals project arises (and this process shall be applied retrospectively to any Unplanned Gravity Mains Renewals required to be implemented as urgent works), the Contractor shall inform the Administrator:

- How the need for an Unplanned Gravity Mains Renewals project has come about
- Which renewal project(s) may be deferred beyond the current Gravity Mains Renewals Programme (i.e. substituted) to allow funding of the Unplanned Gravity Mains Renewals project, based on the lowest priority or lowest risk of the projects proposed to be deferred in the current Gravity Mains Renewals Programme
- How long the substituted project is likely to be delayed for, including any potential impacts of this delay.

The Administrator can either:

- Accept the substitution to the Gravity Mains Renewals Programme recommended by the Contractor
- Request additional information from the Contractor to substantiate the need for the Unplanned Gravity Mains Renewals project or the selection of the project to be substituted
- Reject the substitution and accept the Unplanned Gravity Mains Renewals project as a Variation; or
- In the case of a proactive approval, reject the Unplanned Gravity Mains Renewals project based on the relative risk of the proposed Unplanned Gravity Mains Renewals project. E.g. Gravity Mains with increasing maintenance requirements that can be included in the next Gravity Mains Renewals Programme.

L. Growth-Driven Reticulation Network Upgrades – Practice Note

L.1 Definitions

Terms defined in the Contract Conditions and used in this Practice Note have the same meaning as set out in the Contract Conditions.

Terms defined in Schedule 16 and used in this Practice Note have the same meaning as set out in Schedule 16.

L.2 Overview

L.2.1 Scope

This Practice Note is concerned only with the impact of population growth on the Reticulation Networks, i.e. the civil, mechanical and electrical assets that convey wastewater to the WWTP Facilities. This Practice Note is specifically concerned with proportioning the costs of Reticulation Network upgrades required to increase capacity to accommodate growth (which is a Council responsibility) and ensuring that the incremental costs of growth are separated from the ongoing renewals programme and impacts of inflow and infiltration (I/I) on capacity upgrade requirements if this is not being actively managed (which are Contractor responsibilities).

This Practice Note covers the Rotorua and Rotomā/Rotoiti Reticulation Networks, and the same philosophy and methodology may be applied in the future to other reticulation networks (such as Lake Tarawera) that may be included within the scope of the Contract and may therefore become incorporated into the definition of Reticulation Networks at a later date. However it is focussed on the upgrade of existing infrastructure and not the construction of additional reticulation networks or extensions of existing Reticulation Networks, which is covered elsewhere in the Contract Documents.

This Practice Note does not concern:

- Reticulation Network capacity upgrades that are solely driven by I/I in the applicable Reticulation Network, as I/I is not related to growth.
- Reticulation Network renewals where there is no increase in capacity (to accommodate growth) provided for in the renewals works.
- Impacts on the cost of Operations related to any required upgrades, with the exception of temporary impacts on the cost of Operations related to maintaining the level of service of the agreed optimal long-term outcome for the network being affected by the timing of the actual development. By way of example, this might include a temporary flushing programme to manage flows less than minimum in a large pipe while development upstream of that pipe occurs. In this case, the onus is on the Contractor to prove additional cost of Operations are related to the upgrade and the absence of minimum design flows.
- Impacts of growth on the Rotorua WWTP Facility or Rotomā/Rotoiti WWTP Facility.

It is not the intention of this Practice Note to:

- Create a driver for upgrading parts of the existing Rotorua Reticulation Network that do not meet Council's Engineering Specifications, unless initiated by a development application or arising out of the renewals planning processes.
- Create a containment standard for the network, above which overflows do not contribute towards KPI non-compliance. The KPI non-compliance regime in Schedule 16 applies to all overflows, with excessive rainfall events dealt with under that regime. The Council's Engineering Specifications are used for the assessment of the current infrastructure's ability to handle population growth, and there is no expectation that the existing Rotorua Reticulation Network meets Council's Engineering Specifications in all respects.

L.2.2 Impact of Population Growth on a Reticulation Network

Population growth in a Reticulation Network is considered separately because:

- Actual population growth in discrete parts of the network may be higher or lower than the overall average projected rate and have very significant impacts on localised infrastructure.
- Reticulation Network infrastructure asset upgrades can be more easily staged than WWTP asset upgrades to appropriately meet growth requirements.
- The location, concentration and rate of growth spatially within a Reticulation Network will impact the infrastructure required to convey wastewater to the WWTP and the associated investment.
- The amount of I/I in different parts of a Reticulation Network reduces the capacity available to convey wastewater and needs to be actively managed.

Population growth can occur in different parts of a Reticulation Network in a number of different ways, i.e. due to:

1. An increase in the average number of usually resident occupants per household
2. Infill development in brownfield suburbs with increased higher density housing (including subdivisions)
3. New development in greenfield areas that connect to the existing Reticulation Network.

Population growth by Item (1) is unlikely to be a large source of growth. If the Contractor considers Item (1) is driving a need for capacity upgrades then the onus of proof is on the Contractor. For example, if routine assessment of the model for capacity in different parts of the network, including updating population estimates and checking model theoretical predictions against actual flow (measured or calculated) data, identifies an area where capacity is becoming an issue because:

- Measured ADWF has increased, and
- Checking I/I benchmark parameters shows that I/I is within the Design PWWF allowance, and
- Usually resident population data from the census shows an increase not supported by new development through the development application process.

There may be a case for a financial contribution to the Contractor from Council for a capacity upgrade based on calculated marginal growth in the catchment.

Items (2) and (3) are quantifiable through Council's existing development application process.

L.2.3 Council's Engineering Specifications

Reticulation Network upgrades are generally not driven by the requirement to contain dry weather flow. Conventional wastewater reticulation networks are designed to contain and convey a certain amount of I/I which is defined in Council's Engineering Specifications. The higher of all applicable PWWF design flows would apply in any situation, but Council's Engineering Specifications needs to be referred to for a full understanding of current requirements.

Council's Engineering Specifications may change throughout the Contract but these design requirements will always be defined by Council in some way.

Council also currently uses the concept of Population Equivalents (PE's) to predict the impacts of non-residential developments such as commercial and industrial developments including hotels, motels and other accommodation providers. Using PE's, wastewater design flows generated from all types of properties can be estimated regardless of the land use.

L.3 Development Application Driven Growth

Some areas of the Reticulation Networks are, or may become, more sensitive to growth than others. The Contractor, as the operator of the network and responsible for maintaining the hydraulic model, is best placed to assess the impact of new developments on the Reticulation Networks.

Currently in Schedule 16:

- The Contractor must make the final connection of all new LPGP and STEP systems
- The Contractor is the only authorised contractor to connect new laterals to existing Gravity Mains
- Other authorised contractors are permitted to make connections where laterals already exist, and
- Other contractors may develop greenfield sites with infrastructure that is vested in Council that becomes part of a Reticulation Network.

This means it cannot be assumed that the Contractor will be involved in all new connections within the Reticulation Networks.

The process for determining the need for an upgrade based on a development application (or applications) is described below.

L.3.1 Process – Comparison of Actual Capacity to Calculated PWWF based on Measured ADWF

1. Using the calibrated hydraulic model and other network performance information (e.g. pump station data, network flow monitoring data) to validate the model results, the Contractor will produce and include in the Annual Renewals Work Plan, a map of the network extents that colour codes the areas by catchment showing the remaining capacity available for key trunk Reticulation Network assets and the pump station serving the catchment, as appropriate. The remaining capacity shall be determined by comparing the calculated Design PWWF (determined using the Measured ADWF and the calculation specified in the Council's Engineering Specification) and the existing infrastructure's ability to convey flow (e.g. maximum pumping capacities and a gravity pipes ability to convey flow without surcharging).

Catchments will be defined by pump stations at a minimum and may include sub-catchments within larger pump station catchments.

The map will include limits in each (sub)catchment for how much growth (for example expressed in PE's) is available prior to the need for a hydraulic review of Reticulation Network capacity. This may include a limit of PE's per development application (being a concentrated load on the network) and/or a limit in overall additional PE's that can be connected before a hydraulic assessment of the catchment would be prudent.

2. Council's Development Engineering team will check the catchment map provided as development applications are received and, in addition to advising the Contractor of any proposed new Reticulation Network infrastructure to be vested in Council, refer the details of developments to the Contractor for hydraulic analysis as needed for developments over the limit specified by the Contractor in each catchment. Council will remain the primary contact for the applicant but if detailed discussion is required a three-way meeting between the applicant, the Council and the Contractor may be necessary.

**** Note:** Section 1.35.1 of Schedule 16 states "*The Council will advise the Contractor of any proposed new wastewater infrastructure from new developments to be vested in Council, and new reticulation assets to be added to a Reticulation Network (built by a third party).*"

The Contractor shall, where requested by the Administrator, produce a report for Council on any proposed new infrastructure which will detail the impact on the level of service (if any) in the existing Reticulation Network and identify any potential upgrade works required to manage the identified impacts."

**** Note:** Applications for commercial and industrial premises requiring new or amended Trade Waste consents will be notified to the Contractor under section 10.7 of Schedule 16.

3. Once notification is received by the Contractor, the Contractor shall assess hydraulic impacts on the network using Council's Engineering Specifications to estimate design flows and determine if adequate capacity exists to accommodate the proposed development or not.
4. Where requested to do so by the Administrator the Contractor shall produce a report (as contemplated by section 1.35.1 of Schedule 16) that sets out, if required, proposed solutions to capacity related issues and estimated costs. The report should include:
 - a. Measured ADWF and calculated Design PWWF in the (sub)catchment and downstream to the WWTP before the development
 - b. A review of the calculated additional Design PWWF provided by the applicant as anticipated from the new development
 - c. Existing capacity reserved in the (sub)catchment or downstream for development applications approved that have not yet been connected to the system.
 - d. Current maximum capacities of infrastructure between the point of connection of the proposed development to the Reticulation Network and the WWTP.
 - e. Determination of any shortfalls in capacity that will result from connection of the proposed development
 - f. Proposed optimised solution for increasing network capacity to handle additional flow from the development.
 - g. For any affected assets with capacities less than the Design PWWF (inclusive of the development) that require upgrading as a result of the development:

- i. Relevant asset information e.g. Asset ID, diameter, age, material
 - ii. The remaining service life of the affected assets, i.e. the time remaining until the next planned renewal of the asset.
 - iii. The associated Renewals Credit from the renewals programme already included in the Service Payment (e.g. a pump that is 90% through its service life with 10% remaining would have 90% of the cost of a Contemporary Equivalent replacement credited against the cost of the overall required upgrade).
- h. A diagnosis of quantity and sources of I/I within the catchment based on agreed benchmark reporting of I/I across the network (or in some instances this may simply be reference to an I/I Report prepared previously for the catchment).
- i. I/I investigations and mitigation measures that have been implemented by the Contractor in the catchment e.g.
- i. Known condition and flow information within catchment
 - ii. Renewal history of catchment
 - iii. Other I/I prevention strategies implemented
- (in some instances this may simply be reference to an I/I Report prepared previously for the catchment).
- j. The Contractor's assessment of the level of I/I affecting the catchment and the affected assets requiring capacity upgrades.
- ** Note: I/I as a contributing factor to the capacity upgrade is discussed below in Section L.5.
- k. The cost estimate for the proposed optimised solution separated into civil, mechanical, electrical and electrical supply costs. Each cost area will be further divided into the four cost components of a planned renewal described in section 3.9.5 of Schedule 16 with the following notes:
- i. The renewals component becomes a Renewals Credit (i.e. reduced by the proportion of the Remaining Service Life Expectancy compared to the asset's design Service Life).
 - ii. The growth component shall be the proportion of the total cost of design, preparation and providing a new asset that would provide the capacity required by Council's Engineering Specifications with no level of service improvements, less the Renewals Credit.
 - iii. The I/I component (if any) is calculated as per section 3.9.5 of Schedule 16.
 - iv. The level of service improvement component (if any) is calculated as per section 3.9.5 of Schedule 16.

The funding of each cost component shall also be as per section 3.9.5 of Schedule 16.

****Note:** “Renewals Credit” only applies to assets for which the Contractor is responsible for renewing during the Contract Term funded by the Contractor’s Service Payments. Gravity Mains will have no “Renewals Credit” unless they are in the currently funded 3-year Gravity Mains Renewals Programme. Electrical supply costs to the site will have no “Renewals Credit” as they are outside the scope of the Contract.

5. The Administrator will review the technical basis for the required upgrade, the proposed overall cost and proposed cost apportionment of the upgrade among the four components. If approved by the Administrator, Council will fund the upgrade to be delivered by the Contractor with Council’s portion of the upgrade costs being treated as a Variation. *From Council’s perspective, the growth-driven component of the upgrade may be funded by development contributions.*
6. The timing of the works will be as agreed between the Administrator and the Contractor. This may be outside the 10-year Renewals Work Plan process if the growth was not foreseen when the 10-year Renewals Work Plan was written.

L.4 Planned or Anticipated Growth

Growth projections shall be accommodated in all planned renewals. When Reticulation Network assets such as pipes, pumps or switchboards are due for renewal, consideration shall be given to the projected population growth over the Service Life expectancy of the renewed asset to help ensure premature replacement is not required.

L.4.1 Process

1. As part of the draft 10-year Renewals Work Plan, the Contractor shall supply details of planned Reticulation Network asset renewal projects (existing requirement of section 3.4.1 of Schedule 16). To the extent that Council’s growth projections are communicated to the Contractor (e.g. through the Spatial Plan or other anecdotal information such as discussions with potential developers or District Plan change proposals) the Contractor shall identify assets that may require a change in capacity as part of the renewal project according to Council’s Engineering Specifications.
2. During the review of the 10-year Renewals Work Plan, Council will compare the planned renewals to areas of expected growth and workshop with the Contractor where capacity requirements are likely to change (workshops of the 10-year Renewals Work Plan are a requirement set out in section 3.3.1 of Schedule 16).
3. The final draft of the 10-year Renewals Work Plan that informs Council’s LTP shall show renewals adjusted for anticipated growth across all asset classes.

****Note:** With the exception of Gravity Mains Renewals, all other Contemporary Equivalent renewals are covered by the Monthly Service Payments. Where a change in capacity is required in a planned renewal that is driven by growth (and not I/I) the marginal cost of the change in capacity shall be treated as a Variation pursuant to clause 43 of the Contract Conditions. The marginal cost of the change in capacity shall be the installed cost of the optimised asset less the Renewals Credit of the asset assuming no Remaining Service Life Expectancy (i.e. less the installed cost of a Contemporary Equivalent replacement using the same installation technique). Refer to section 3.9 of Schedule 16 for further details.

L.5 Inflow and Infiltration Management

Inflow and infiltration shall be deemed to be a contributing factor to the upgrade if the degree of actual measured I/I exceeds the PWWF design allowance for I/I in the Council's Engineering Specifications on a regular basis. In this situation the Contractor shall undertake I/I investigations and produce an I/I Report (as detailed in Section 3.8 of Schedule 16) in order to identify the optimal combination of strategies to address the I/I issue.

If the Contractor cannot sufficiently prove the source of the I/I, or the source is known to be on infrastructure the Contractor is responsible for maintaining and renewing but it is not viable for the Contractor to remedy, then if approved by the Administrator, the Contractor may elect to pay the marginal cost of additional capacity as part of the upgrade in lieu of reducing upstream I/I to ensure the solution is able to handle anticipated flows. This is intended to apply only in exceptional circumstances as a last resort to managing I/I as it has the potential to bring forward in time upgrades at downstream pump stations and increased flows at the WWTP. Note this only applies to infrastructure subject to growth-driven upgrades and not where I/I is the sole driver for an upgrade.

Refer to sections 1.7 and 3.8 of Schedule 16 for details of the responsibilities for the management and reporting of I/I and funding for I/I investigations, reporting and improvement works.

M. Key Performance Indicators

Item	KPI Description	Upper Limit
1	Repeat sewer blockages or overflows in wet or dry weather at the same location within a rolling 3-year period within the public network or in a private property (where the private property overflow was due to surcharging within the downstream public network). Limit until 30 June 2024. ¹	6 repeat events in a rolling 3-year period
2	Repeat sewer blockages or overflows in wet or dry weather at the same location within a rolling 3-year period within the public network or in a private property (where the private property overflow was due to surcharging within the downstream public network). Limit after 30 June 2024. ¹	3 repeat events in a rolling 3-year period
3	Wastewater network complaints per 1000 properties per annum. Limit until 30 June 2024.	20
4	Wastewater network complaints per 1000 properties per annum. Limit after 30 June 2024.	16

Note: "complaints" will be defined as "where the Contractor has either failed to respond to customer request within the allocated time, or the response has been inadequate or poorly completed", however this definition may be updated in the Incidents, Service Requests and Complaints: Notification, Procedures, Tracking and Close-Out Practice Note.

Item	KPI Description	Response Time	Service restored (Resolution time)	Completed (Reinstatement time)	Lower Limit
5	Response to Priority 1 situations at the Rotorua WWTP Facility, and Reticulation Network pump stations within the central urban zone as defined on drawing No. 15212 in Appendix D	20 minutes of fault being reported (Remote access) 30 minutes of fault being reported (On-Site)	4 hours of fault being reported	3 working days of service resolution	95%
6	Response to Priority 1 situations at the Rotomā/Rotoiti WWTP Facility, Rotorua LTS and Reticulation Network pump stations outside of the central urban zone as defined on drawing No. 15212 in Appendix D	20 minutes of fault being reported (Remote access) 1 hour of fault being reported (On-Site)	5 hours of fault being reported	3 working days of service resolution	95%
7	Response to Priority 2 situations at the WWTP Facilities, Reticulation Network pump stations and LTS	8 hours of fault being reported	24 hours of fault being reported	5 working days of service resolution	95%

Item	KPI Description	Response Time	Service restored (Resolution time)	Completed (Reinstatement time)	Lower Limit
8	Response to Priority 3 situations at the WWTP Facilities, Reticulation Network pump stations and LTS	2 working Days	5 working Days of the fault being reported	5 working days of service resolution	95%
9	Response to Priority 1 situations in the Reticulation Networks excluding pump stations	60 minutes of fault being reported	4 hours of fault being reported	3 working days of service resolution	95%
10	Response to Priority 2 situations in the Reticulation Networks excluding pump stations	8 hours of fault being reported	24 hours of fault being reported	5 working days of service resolution	95%
11	Response to Priority 3 situations in the Reticulation Networks excluding pump stations	2 working Days	5 working Days of the fault being reported	8 working days of service resolution	95%

Item	KPI Description	Limit
12	Contractor's reports are submitted on time and are accurate and complete (including resource consent reporting requirements)	Minimum of 90%
13	Notify Council of all overflow events within one hour of attendance on site	Minimum of 100%
14	Medical Treatment Injuries per annum (target is zero)	Maximum of 2
15	Contractor's personnel completion of mandatory internal health and safety related training (actual completion vs. planned)	Minimum of 95%
16	Toolbox Talks provided to personnel and sub-contractors (actual completion vs. planned)	Minimum of 90%
17	Site safety inspections and task based safety inspections (actual completion vs. planned)	Minimum of 95%
18	Lost Time Injuries per annum (target is zero)	Maximum of 1
19	Compliance with Contractor's Operations Safety Plan	Minimum of 100%
20	Power restoration to Pump Stations with permanent back-up generators within two minutes of power outage occurring	Minimum of 97%
21	Power restoration to Pump Stations without a permanent backup generator on-site during power outage before overflow (note that this KPI will not be measured during civil defence emergencies).	Minimum of 90%
22	Acceptable number of dry weather overflows per annum per 1000 properties. Target until 30 June 2024.	2
23	Acceptable number of dry weather overflows per 1000 properties per annum. Target after 30 June 2024.	1.5

Item	KPI Description	Limit
24	Contractor compliance with Council Resource Consent Conditions ³	100%
25	WWTP Facility noise and odour complaints from public per annum	5
26	Renewals are completed in line with the Contractor's Annual Renewals Work Plan.	100% of the 12 month programme completed within 15 months subject to any necessary programme adjustments as agreed to by the Administrator.
27	Preventative maintenance tasks are completed in line with the asset inspection and maintenance schedules stored in the AMIS	100% of the 12 month programme completed within 15 months subject to any necessary programme adjustments as agreed to by the Administrator.
28	Compliance with the Contractor's Operations Quality Plan	100%

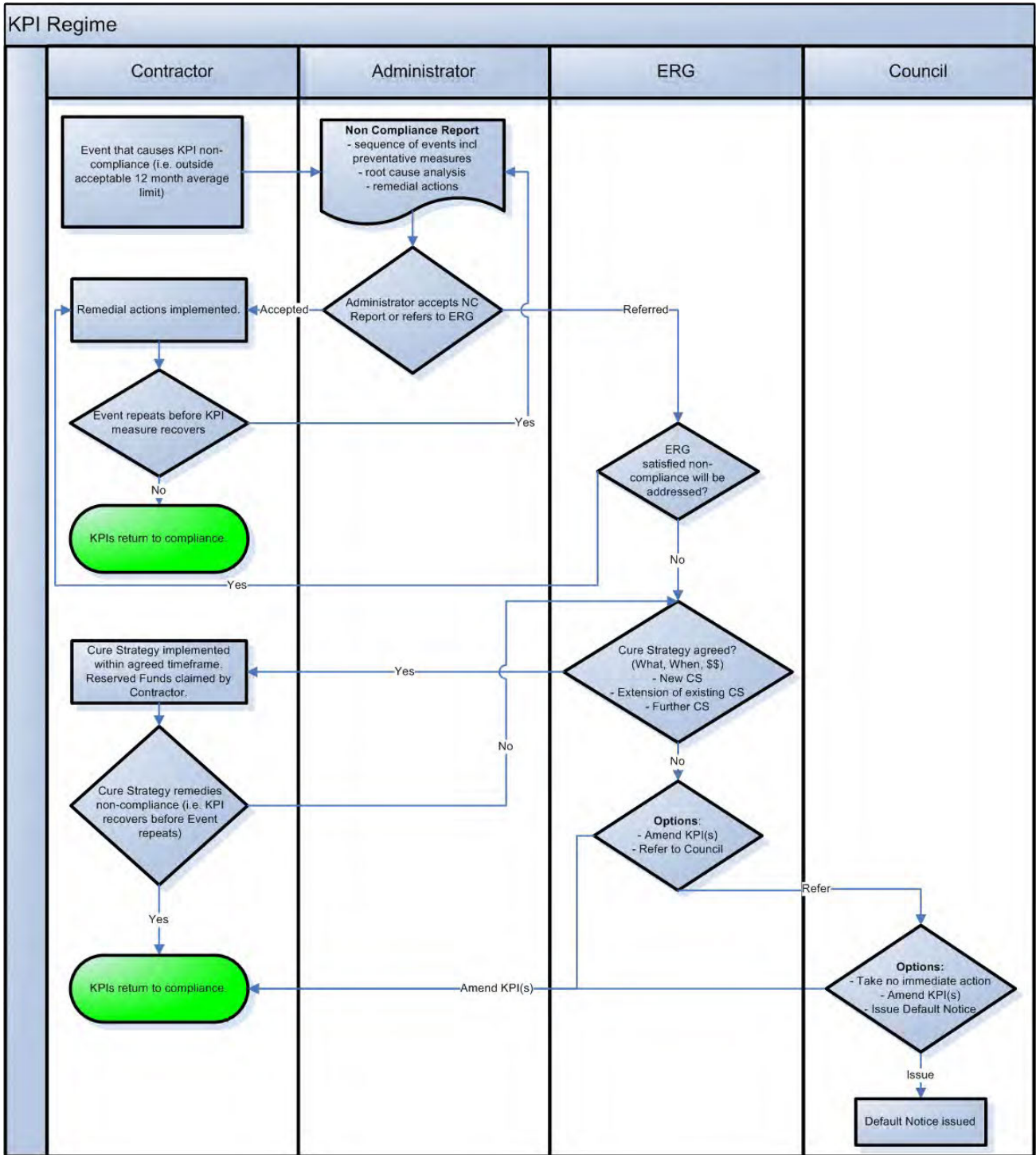
Note (1): If the site of a previous overflow has been artificially prevented from repeat overflows (e.g. bolted manhole lids) then overflows in the immediate vicinity will be considered "at the same location"

Note (2): All H&S KPIS (Items 14 – 19) include all statistics of Subcontractors

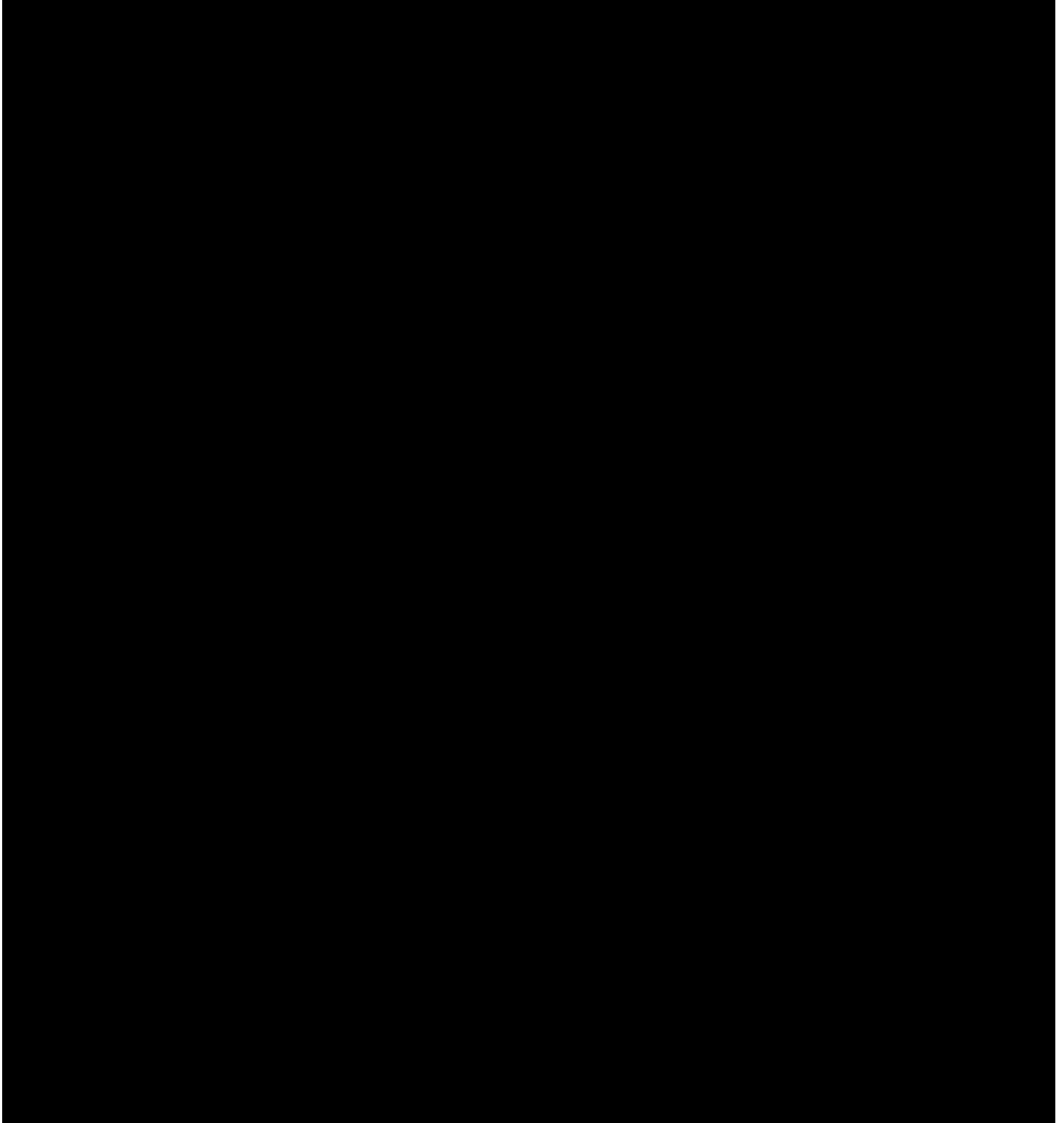
Note (3): Applies to quantitative discharge parameters, not the consent conditions relating to routine reporting requirements which are covered by KPI No. 12.

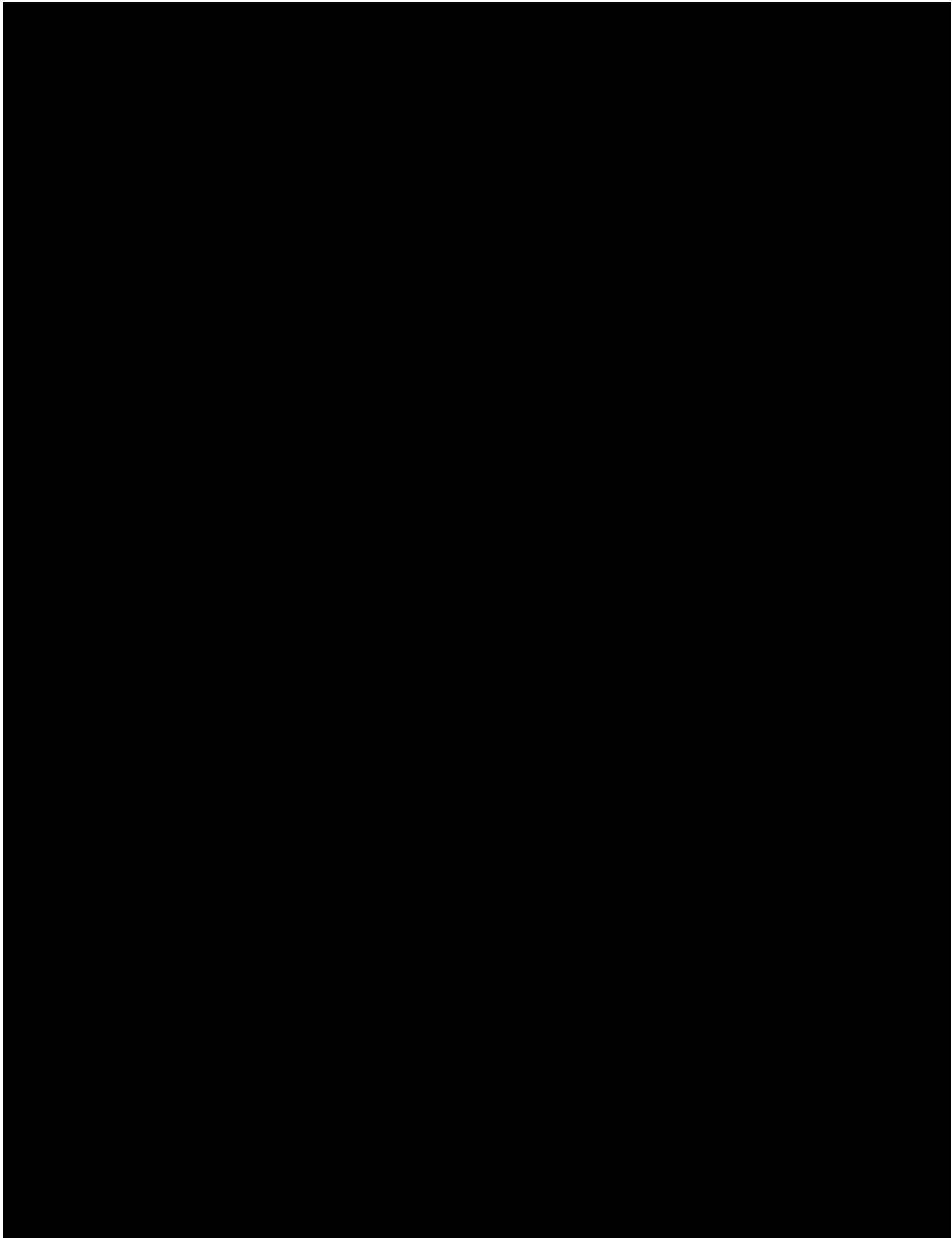
Note (4): Due to reliance on customer reporting of LPGP faults, an overflow due to LPGP failure that only results in that particular households waste spilling is not counted as an overflow. This incident would be subject to the response times measured under KPIS 5-11. If the backflow prevention device failed and caused sewage to flow back out of the network through the LPGP, this would be categorised as an overflow.

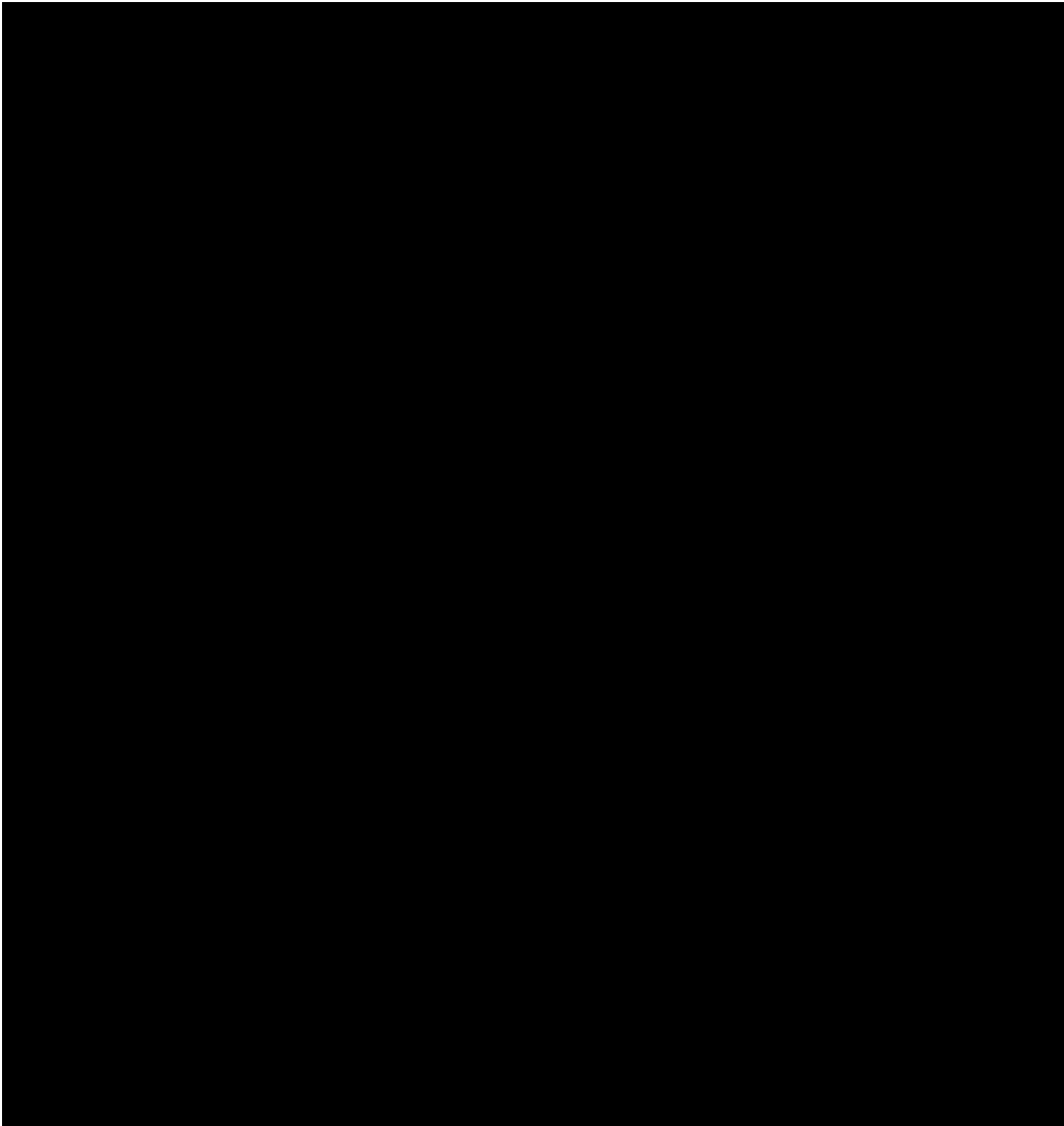
Figure M1: KPI Non-Compliance Flow Chart



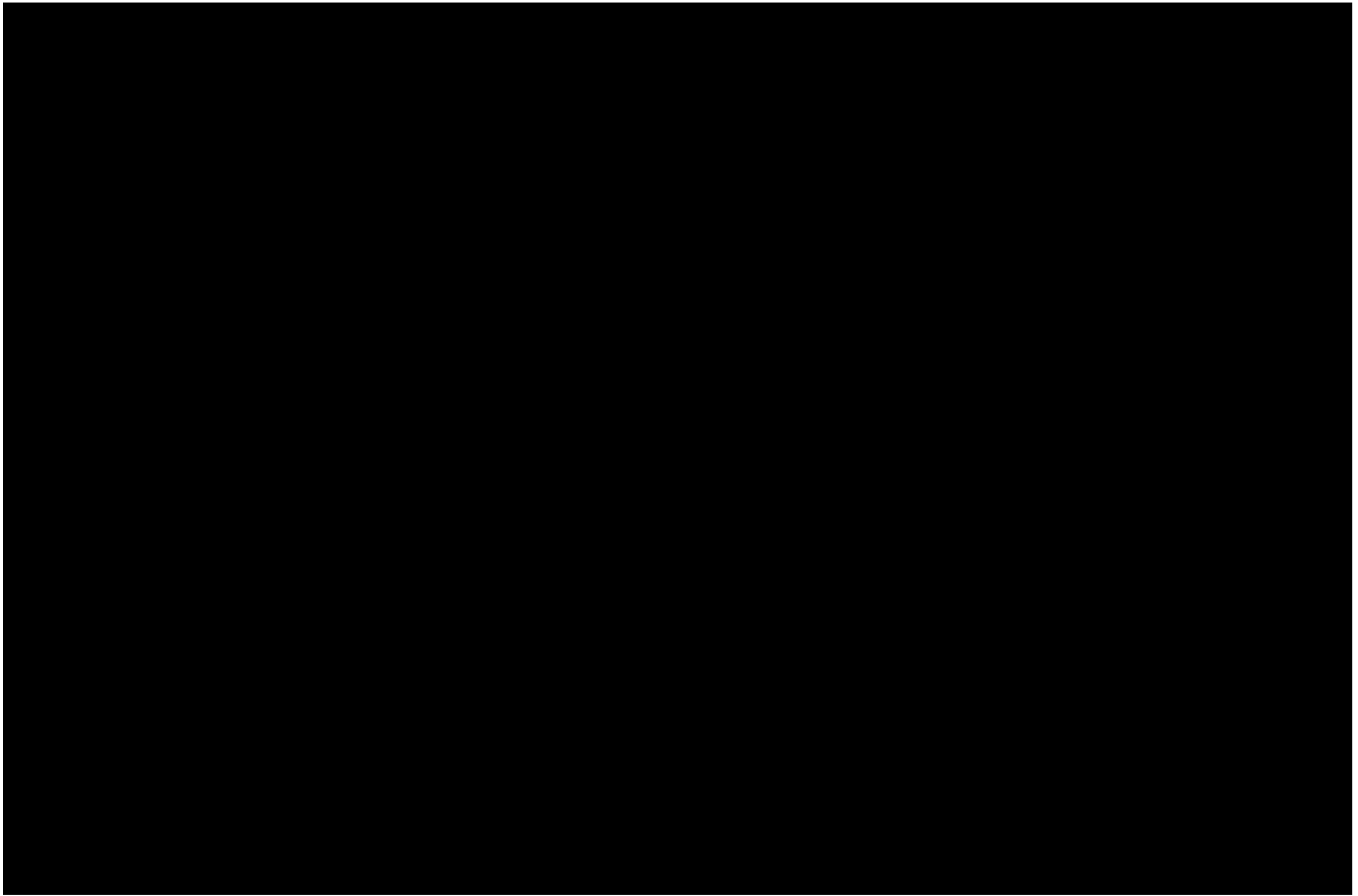
N. Exempt Assets Schedule

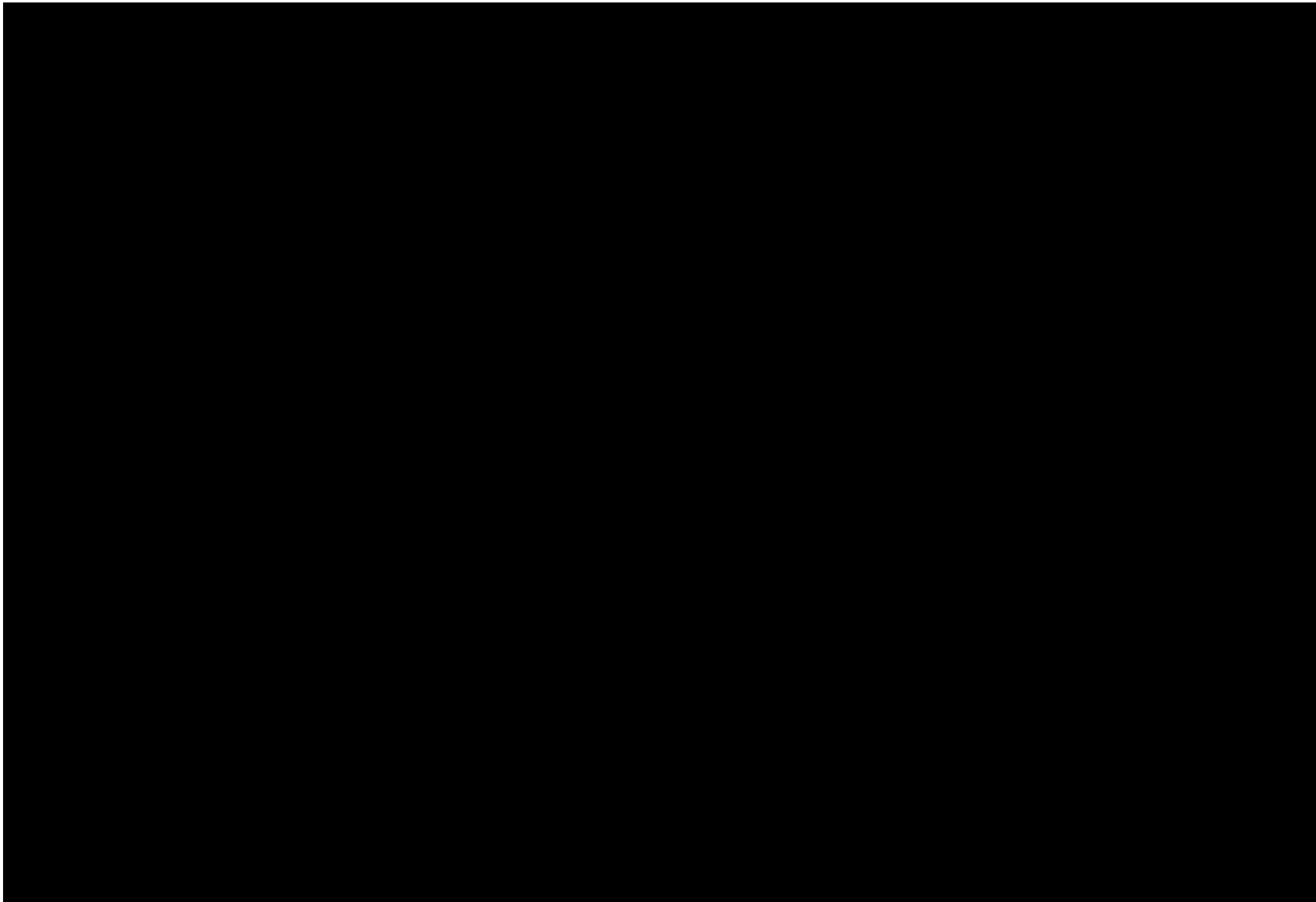


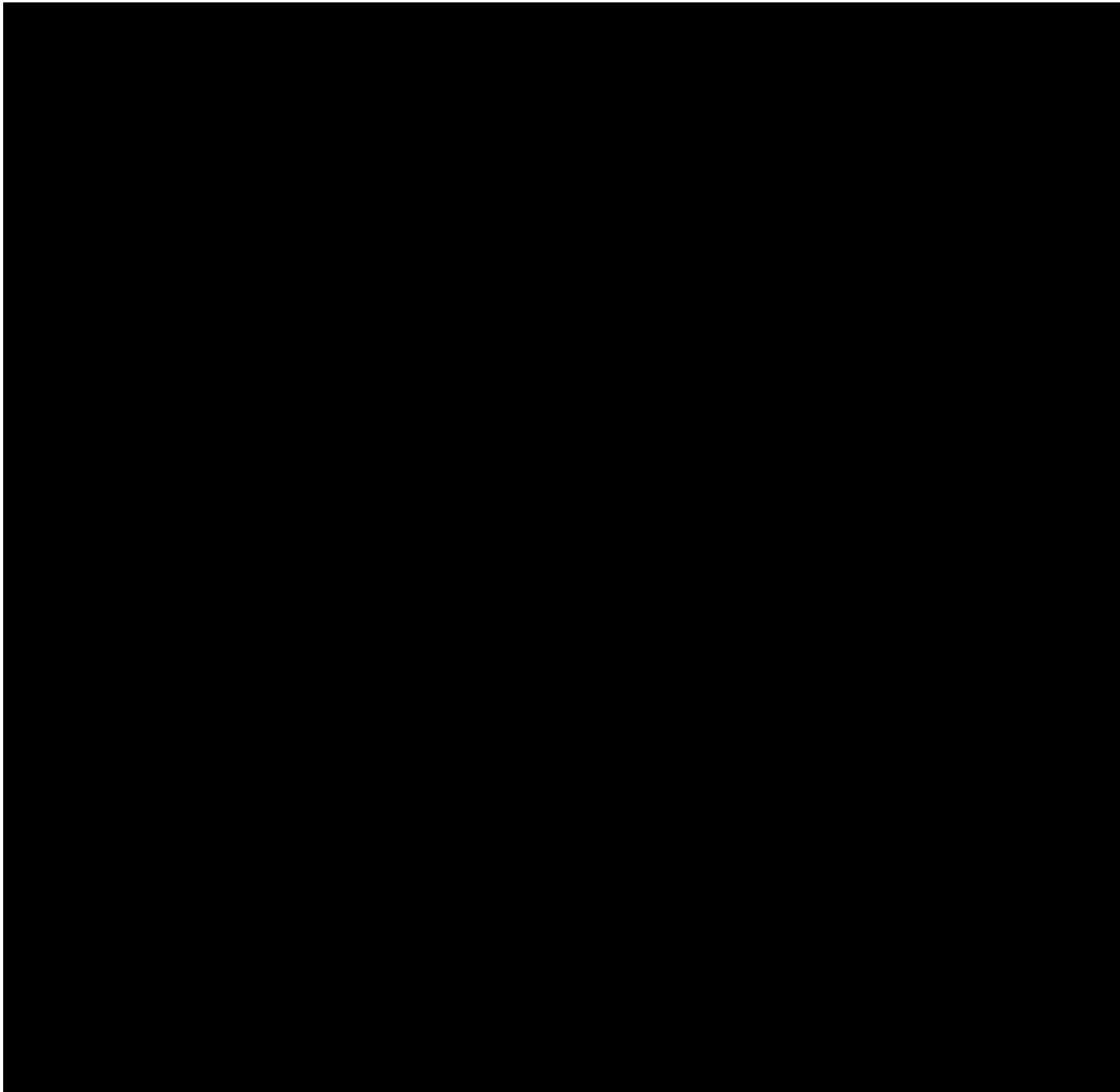




O. Gravity Mains Base Profile at Commencement







P. Not Used

Q. Rotorua Reticulation Network Pump Station Grounds Maintenance Obligations at Commencement

No.	Station	Ground Maintenance Requirements		
		Lawns	Weed/Vegetation control/Spray	Fences
1	MONCUR DRIVE			
2	MARINE PARADE		Y	Y (Bollards)
3	OHINEMUTU		Y	
4	ELIZABETH ST.	Y	Y	Y
5	POLYNESIAN POOLS		Y	
6	DEPOT ST.	Y	Y	
7	NEIL ROAD		Y	
8	BARNARD ROAD		Y	
9	PANUI ROAD	Y	Y	
10	TUARA PLACE		Y	
11	WHAKA-REWA-REWA			
12	KAWAHA PT RAILWAY XING	Y	Y	
13	SUNSET ROAD		Y	
14	HAROLD CRESENT		Y	
15	QUEEN ELIZABETH	Y	Y	
16	MALFROY ROAD	Y	Y	
17	KAWAHA POND		Y	
18	KAWAHA LANDING	Y	Y	
19	KAWAHA COLEMAN		Y	
20	SOLLY PLACE			
21	MANAHI		Y	
22	AQUARIUS DRIVE	Y	Y	Y (Bollards)
23	WYCHWOOD			
24	SALA STREET		Y	
25	SOLLY ESPLANADE			
26	TIHI-O-TONGA	Y	Y	Y
27	GOV. GARDENS		Y	Y
28	HINEMARU STREET	Y	Y	
29	BROOK PLACE	Y	Y	
30	STILLWATER			

No.	Station	Ground Maintenance Requirements		
		Lawns	Weed/Vegetation control/Spray	Fences
31	HONA ROAD	Y	Y	Y
32	KOMATSU			
33	POHUTU-KAWA	Y	Y	Y
34	HOLDEN AVE (FARNWORTH)	Y	Y	
35	WILLOW AVENUE			
36	AIRPORT		Y	Y
37	WALFORD			
38	VAUGHANS RD (Caroll)	Y	Y	
39	HULME PLACE	Y	Y	
40	OAKLAND DRIVE	Y	Y	
41	BROOK-DALE	Y	Y	
42	KINGSLEY DRIVE	Y	Y	
43	RANGINUI STREET		Y	
44	PARAWAI ROAD	Y	Y	Y
45	TAUI STREET		Y	
46	PARAONE			
47	ARNOLD	Y	Y	
48	WAITETI		Y	
49	KOKIRI (MUNRO PL)		Y	
50	WAIKUTA		Y	
51	WESTERN ROAD		Y	
52	MOKOIA		Y	
53	KEITH ROAD		Y	
54	MATAI-KOTARE (Whakatane Turnoff)	Y	Y	Y
55	RESERVE SH33		Y	Y
56	NGARETA RD		Y	Y
57	OKAWA BAY RD		Y	
58	OKAWA PLACE	Y	Y	
59	WAANA ST			
60	LANDFILL GATE	Y	Y	
61	LANDFILL SLAVE	Y	Y	
62	TIKITERE SH30		Y	Y
63	ROKOKAWA RD	Y	Y	Y
64	ISLES RD			
65	CHANNEL RD		Y	Y
66	RANGITAITAIA MARAE		Y	
67	TAKINGA MARAE		Y	
68	HAMURANA RD		Y	Y
69	AIRPORT NORTH		Y	Y

No.	Station	Ground Maintenance Requirements		
		Lawns	Weed/Vegetation control/Spray	Fences
70	LAKE OKEREKA		Y	Y
71	WHANGAMOIA DR		Y	Y
72	OKERE ROAD		Y	Y
73	HAMURANA RD SH33		Y	Y
74	YOUTH PRISON TANK 1			
75	YOUTH PRISON TANK 2			
76	KEITH RD 'B'			
77	FRYER RD		Y	Y
78	LANDFILL RECYCLE			
80	TILSLEY			
81	WAIPA EARLY WARNING			
82	Pohutakawa Land Drainage	Y	Y	
91	SULPHUR POINT			
92	HANNAHS BAY			
93	BRETT RD			
94	LAKE OKARO			
95	WAIKITE HOT POOLS			

R. Rotorua WWTP Facility Resource Consents and Rotorua Reticulation Network Designations

1 Rotorua WWTP Facility Resource Consents

1.1 The Resource Consents for the operation of the Rotorua WWTP Facility are as follows:

Resource Consent No.	Category	Purpose
60739	Rotorua LTS Discharge Resource Consent	Discharge Treated Effluent from the Rotorua District Council Wastewater Treatment Plant on to Land in the Whakarewarewa State Forest; Place, Use and Maintain a Series of Structures in or on the Bed of the Waipa Stream and Associated tributaries; and Discharge Treated Effluent from the Rotorua District Council Wastewater Treatment Plant into Air in the Whakarewarewa State Forest
Designation RDC450 (Refer Rotorua District Plan, Appendix A6, section A6.11.7)	Designation	Designation in the Rotorua District Plan relating to the Rotorua WWTP Facility Site

1.2 The Excepted Rotorua WWTP Facility Resource Consent Obligations are as follows:

Resource Consent No.	Excepted Obligation	Description of Excepted Obligation
60739		
	16.1	s.128 review
	16.2	s.127 review
	18	Payment of administrative charges
	20.1 to 20.4 (inclusive)	Alternative Discharge programme
Designation RDC450		
	Nil	Nil

NOTES:

- The description of the Excepted Resource Consent Obligations in this table is a summary only. Reference should be made to the consent itself for the full wording

2 Rotorua Reticulation Network Designations

2.1 The Designations for the operation of the Rotorua Reticulation Network pump stations are as follows:

Designation Codes	Purpose
RDC1 to RDC72	Designations in the Rotorua District Plan relating to the Rotorua Reticulation Network sewage pump stations.
RDC401 to RDC402	Designations in the Rotorua District Plan relating to the Rotorua Reticulation Network stormwater pump stations.

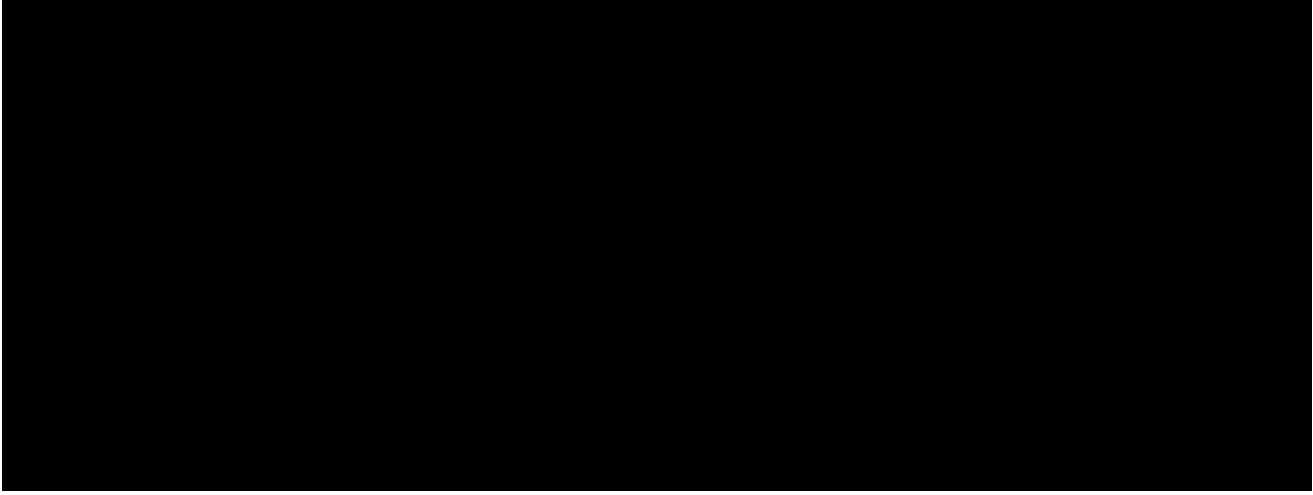
2.2 The Excepted Rotorua Reticulation Network Designation Obligations are as follows:

Designation Codes	Excepted Obligation	Description of Excepted Obligation
RDC1 to RDC72	3	Preparation of new landscape plans is an Excepted Rotorua Reticulation Network Designation Obligation, however maintaining compliance with existing landscape plans in the course of Operations is a Contractor obligation unless agreed otherwise.
RDC401 to RDC402	3	Preparation of new landscape plans is an Excepted Rotorua Reticulation Network Designation Obligation, however maintaining compliance with existing landscape plans in the course of Operations is a Contractor obligation unless agreed otherwise.

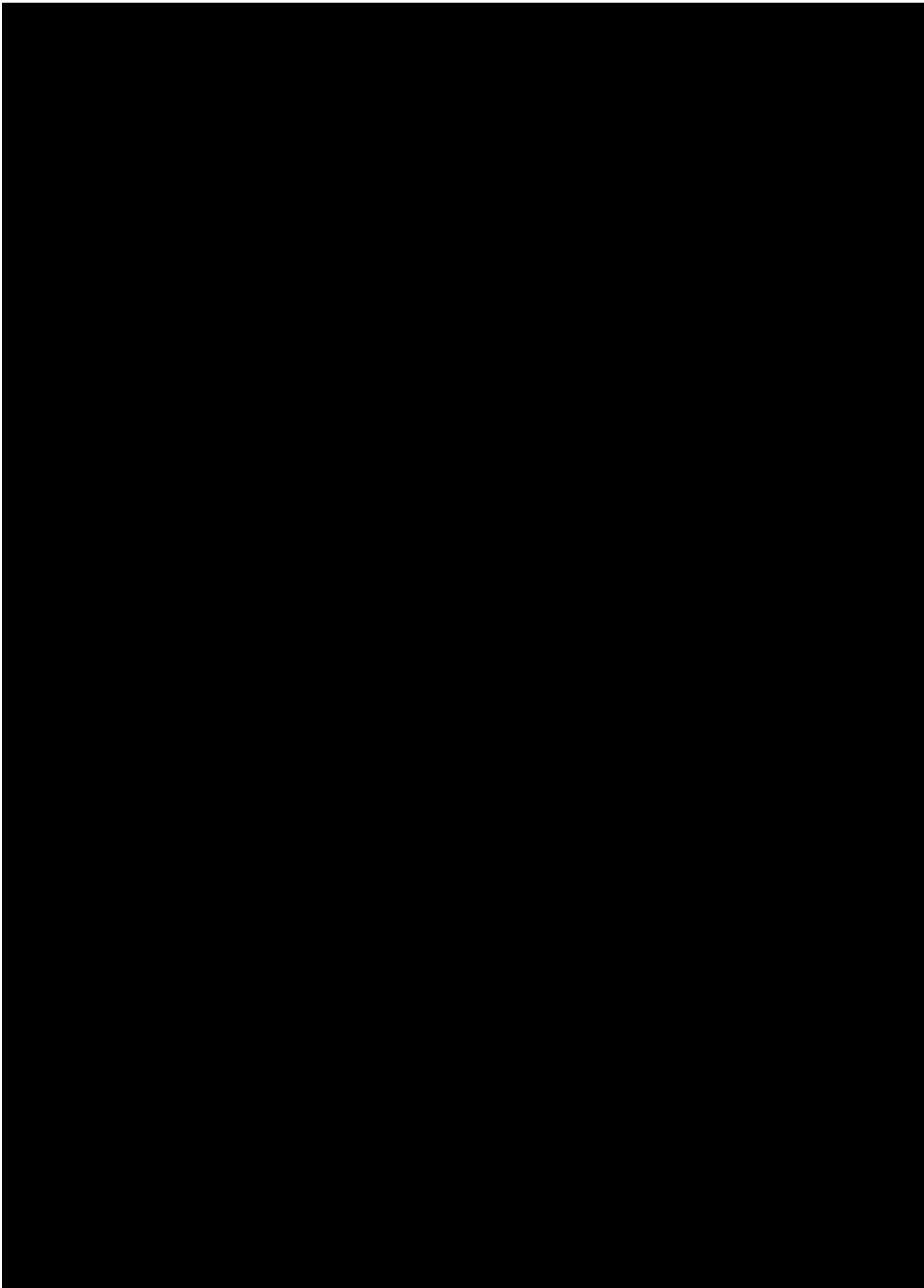
NOTES:

1. The description of the Excepted Rotorua Reticulation Network Designation Obligations in this table is a summary only. Reference should be made to the Designation conditions for the full wording.

S. Vermicomposting Agreement



T. Rotorua WWTP Facility PLP Agreement



U. Forestry Easement

The details of the Forestry Easement (no. 69A/359) for the Rotorua LTS are shown in the document titled "Memorandum of Transfer Sewerage Easement" dated 7 May 1999, included in the Easements and Agreements Reference Documents.

V. Description of Rotorua WWTP Facility and Rotorua LTS

V.1 Rotorua WWTP Facility Site Location

The Rotorua WWTP Facility is located at the southernmost point of Lake Rotorua, adjacent to the Puarenga Stream near its confluence with Lake Rotorua at Sulphur Bay as shown in Figure E1 below.

Figure E8: Rotorua WWTP Facility Site Location Plan



V.2 Brief History & Overview of Current Rotorua WWTP Facility and Rotorua LTS Configuration

The Rotorua WWTP Facility was constructed in 1973 and since its inception the plant has seen many changes with the progressive removal of nutrients. The plant initially comprised secondary treatment with activated sludge and some chemical removal of phosphorus. The treated wastewater was, at this time, discharged to the Puarenga Stream through sand filters.

The second major upgrade occurred in 1991 when the land treatment system (LTS) at Whakarewarewa commenced. This upgrade comprised the addition of the Bardenpho biological nutrient removal system which was designed to improve the removal of nitrogen from the wastewater effluent prior to irrigation to land. Chemical removal of phosphorus was ceased at this time as the soils at the LTS were identified as having high phosphorus retention capacity.

The LTS at Whakarewarewa occupies 430ha of which approximately 240ha is suitable for irrigation. From the Rotorua WWTP Facility, treated wastewater is pumped 3km from the two 6,000m³ storage ponds at the Rotorua WWTP Facility to the LTS. From here it is pumped to the various spray irrigation blocks. The purpose of the Bardenpho and LTS systems was to minimise nutrient inputs to Lake Rotorua associated with wastewater treatment and disposal activities from the Rotorua community. The treated wastewater is irrigated using above ground impact sprinklers.

In 2005, further nitrogen removal was achieved with the installation of methanol dosing. The methanol was replaced with ethanol between 2006 and 2008 as the source of carbon for denitrification. Flow balancing was also introduced where a portion of the diurnal peak inflow is stored and then fed into the Bardenpho reactor during periods of low flow, to create a slightly more stable flow through the Bardenpho. A photograph showing the spatial layout is provided in Figure E4. A schematic diagram of the WWTP and LTS at this stage in its history is shown in Figure E2.

In 2012 the plant throughput capacity was expanded with the installation of a parallel (side-stream) membrane bioreactor (MBR) which treats approximately one third of the inflow. The side stream MBR system includes a combination of activated sludge biological treatment and membrane filtration. The MBR removes nutrients in a similar process to the Bardenpho plant.

The treated wastewater stream currently comprises the two secondary treatment processes in parallel (Bardenpho and MBR) with the two treated wastewater streams currently combined prior to balancing storage, conveyance and discharge to the LTS. A simplified process flow schematic of the existing plant is provided in Figure E3.

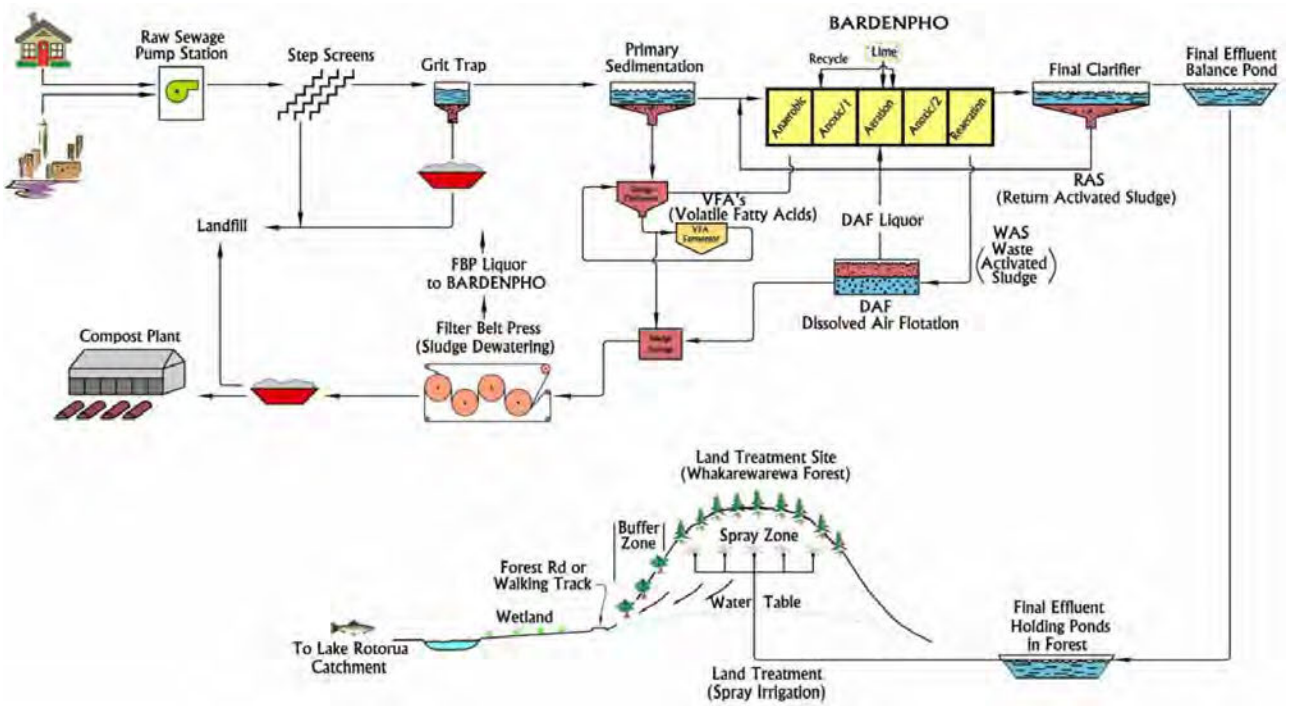
The 2012 upgrade improved the final effluent quality in two ways. Firstly, the load on the Bardenpho plant was reduced by 1/3, which improved the overall performance of the Bardenpho in terms of nitrogen removal and also reduced the carryover of solids from the secondary clarifiers. Secondly, the MBR produces an equivalent effluent quality in terms of the soluble fraction of pollutants as the existing Bardenpho, however the MBR effluent is free of solids (and the nutrient fraction associated with those solids) and thus, overall produces a better effluent quality than the Bardenpho in terms of both suspended solids and nutrients.

The existing plant is designed for a connected population of approximately 80,000.

In terms of solids management at the site, historically at different times Council has utilised: digestion, co-composting of biosolids with solid waste and landfilling for the further treatment/re-use/disposal of biosolids from the site. The current method of biosolids management is dewatering and export of dewatered solids to a vermicomposting plant located off-site for further processing and re-use.

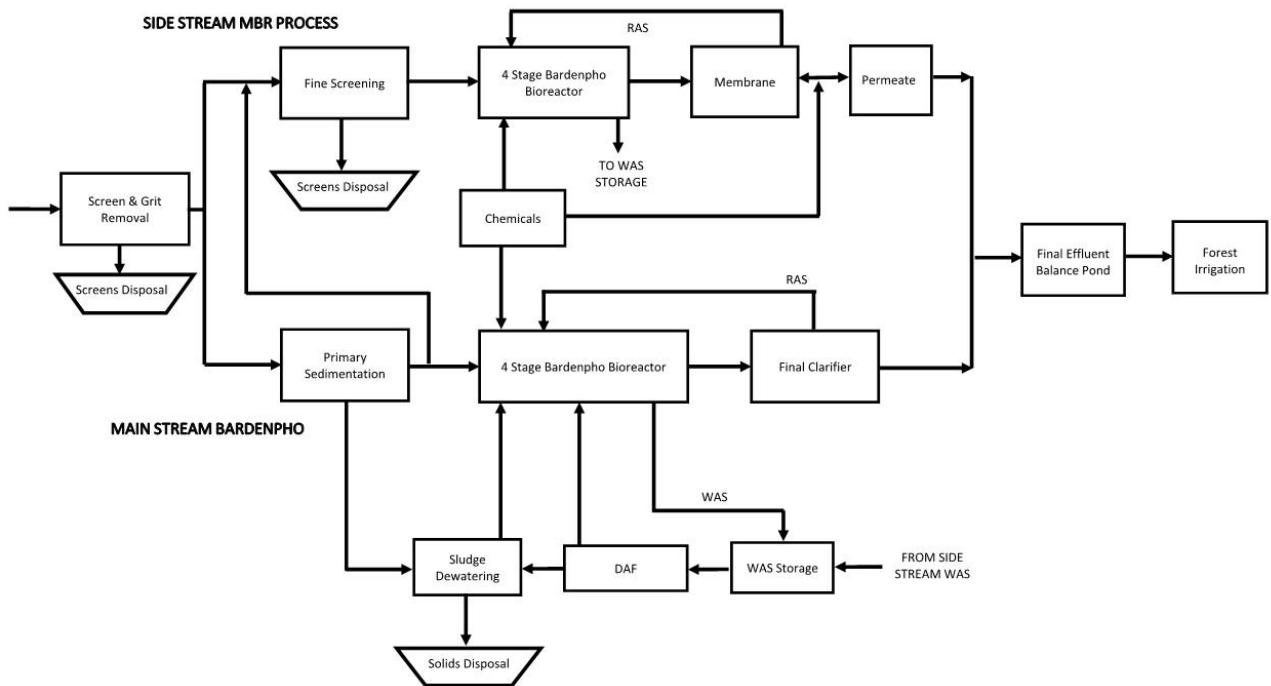
More recently Council have investigated the potential implementation of thermal hydrolysis technology at the Rotorua WWTP Facility using the TERAX process. However, Council decided not to pursue the TERAX option at the site.

Figure E9: Schematic Diagram of the Rotorua WWTP Facility and Current Land Treatment System (not including side stream MBR)



Source: Hydrus, 2013.

Figure E10: Simplified Process Flow Diagram of Rotorua WWTP Facility



Source: Mott MacDonald, 2017.

V.3 Surrounding Land Use

The Facility Site is bounded by the Rotorua compost plant to the west, sports fields to the south, the Ngapuna industrial area across the Puarenga Stream to the east and an active geothermal area to the north between the Facility Site northern boundary and the lake shore. Public walking / cycling tracks are located in close proximity to the Facility Site boundaries.

Other notable activities in close proximity to the Facility Site are a gymnastics facility and BMX track to the southwest of the site.

The Facility Site is accessed via the main eastern arterial road into Rotorua SH 30A (Te Ngae Rd), located on the southern side of the BMX track to the southwest of the site.

V.4 Extent of Sites

Refer to Figure E1 showing the extent of the Rotorua WWTP Facility Site.

Figure E11: Historic Photo of the Rotorua WWTP Facility Site



Refer to the Council's GIS for the route of the treated effluent conveyance pipeline from the Facility Site to the Rotorua LTS.

Refer to the Land Treatment Map showing the extent of the Rotorua LTS set out in Appendix V.6 to this Schedule.

V.5 Rotorua WWTP Facility Capacity and Process Configuration as at 2017

As at December 2017, the Rotorua WWTP Facility treats an average day volume of approximately 18.9ML (2014 average) from 80,000 people (tourists and residents). The influent is mostly domestic in origin with no major industrial discharge into the Reticulation Network. There are some inputs of geothermal water into the reticulation system from draining of mineral pools and some anecdotal evidence of Groundwater Infiltration of geothermal water.

The Rotorua WWTP Facility consists of screening, grit removal, primary sedimentation, activated sludge (5 stage Bardenpho plant) and a side stream MBR (which takes about 1/3 of ADF) and operates in parallel with the Bardenpho plant. The two treated wastewater streams are combined prior to balancing storage, conveyance and discharge to the LTS. A simplified process flow schematic of the existing Rotorua WWTP Facility is provided in Figure E3.

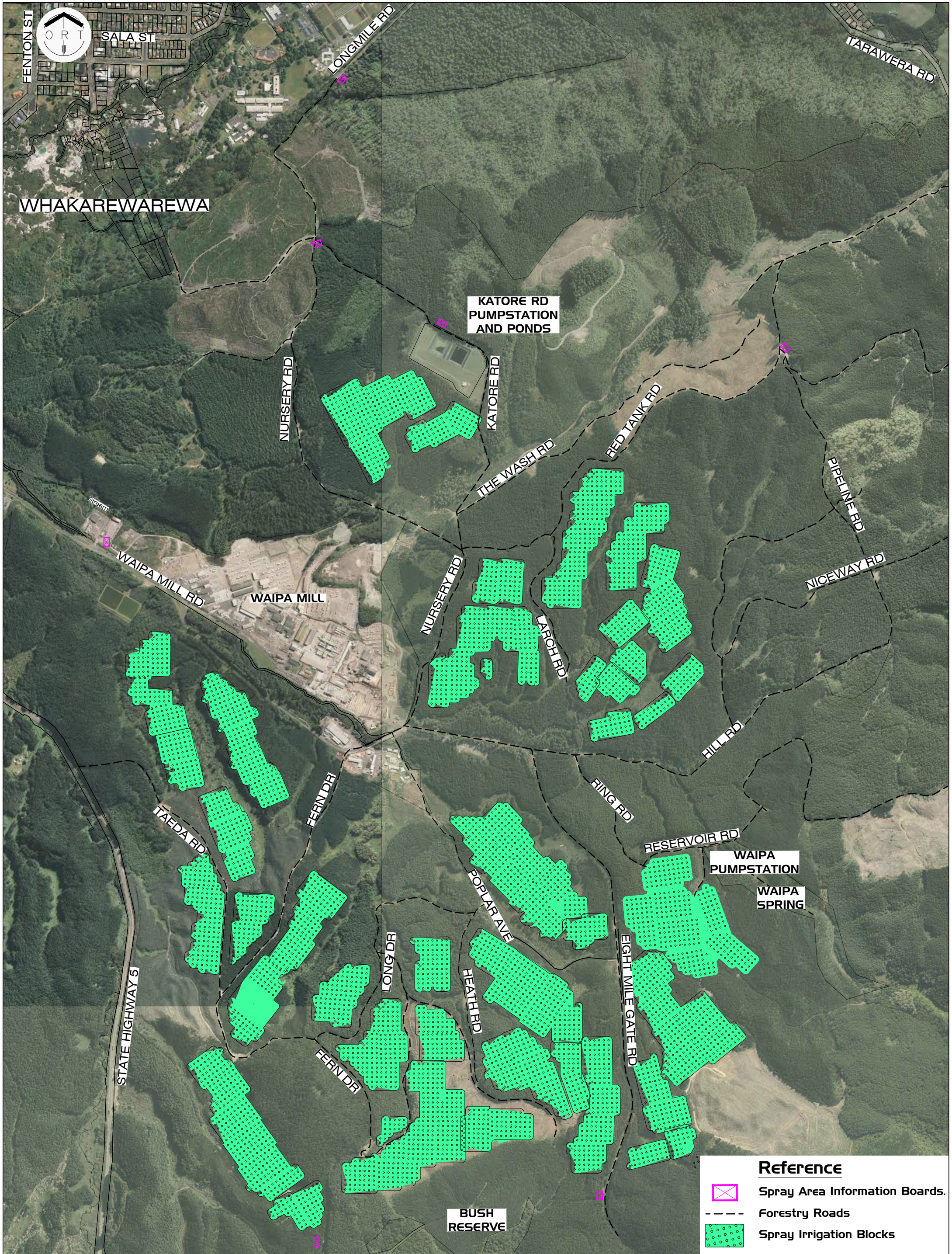
Solids from the Bardenpho process are thickened in dissolved air flotation units and blended with primary solids before dewatering via belt filter presses. The belt presses currently achieve about 16%DS and dewatered sludge cake is transported offsite to a vermicomposting facility.

The plant is required to meet high levels of nitrogen removal and to facilitate this ethanol is dosed to both the Bardenpho and MBR processes. Currently the plant (combined MBR and Bardenpho) achieves the following average effluent quality:

- Total Suspended Solids 25 mg/L
- Total Nitrogen 5.5 mgN/L
- Total Phosphorus 2.5 mgP/L

V.6 Rotorua LTS Map

See overleaf.



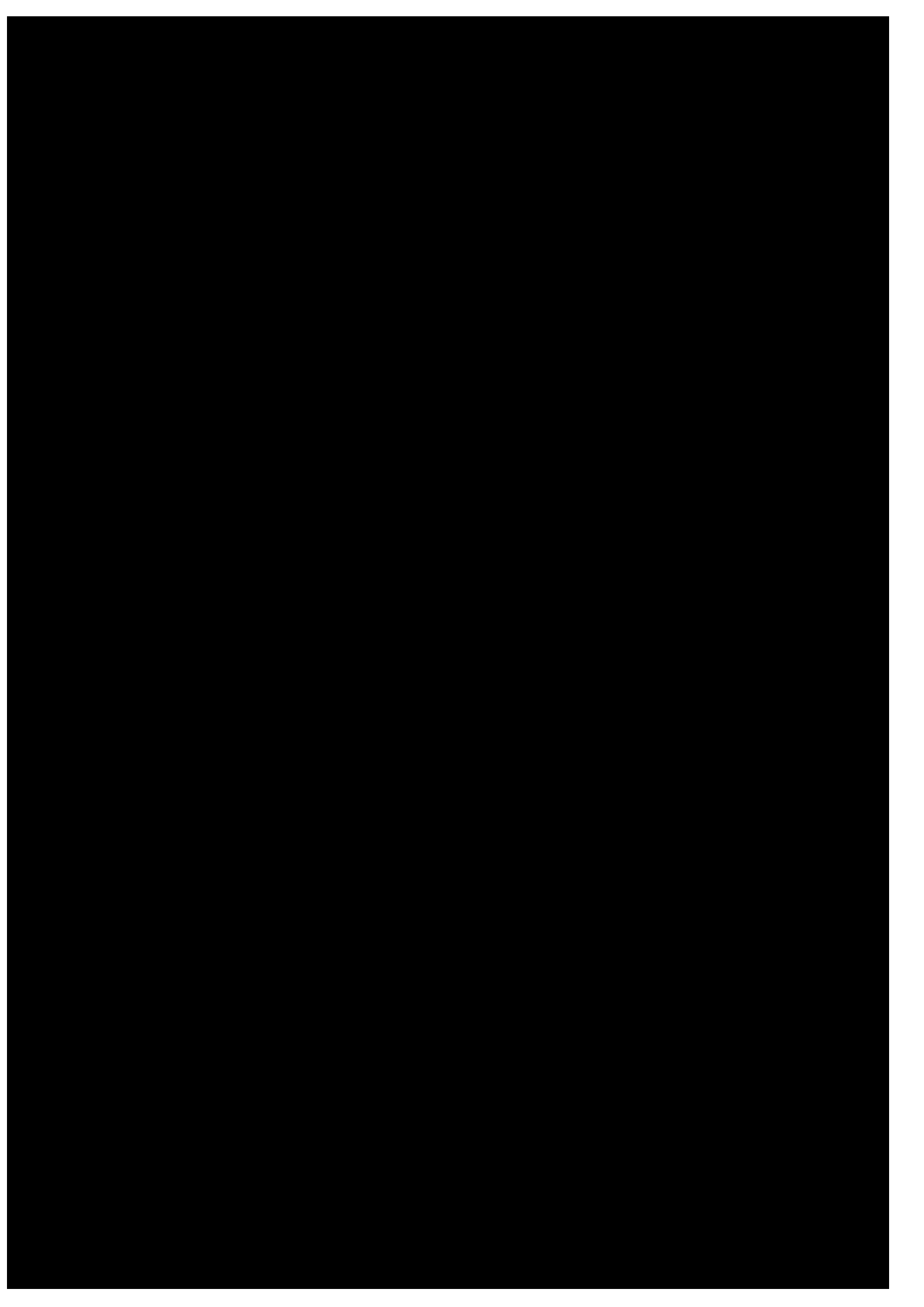
Reference

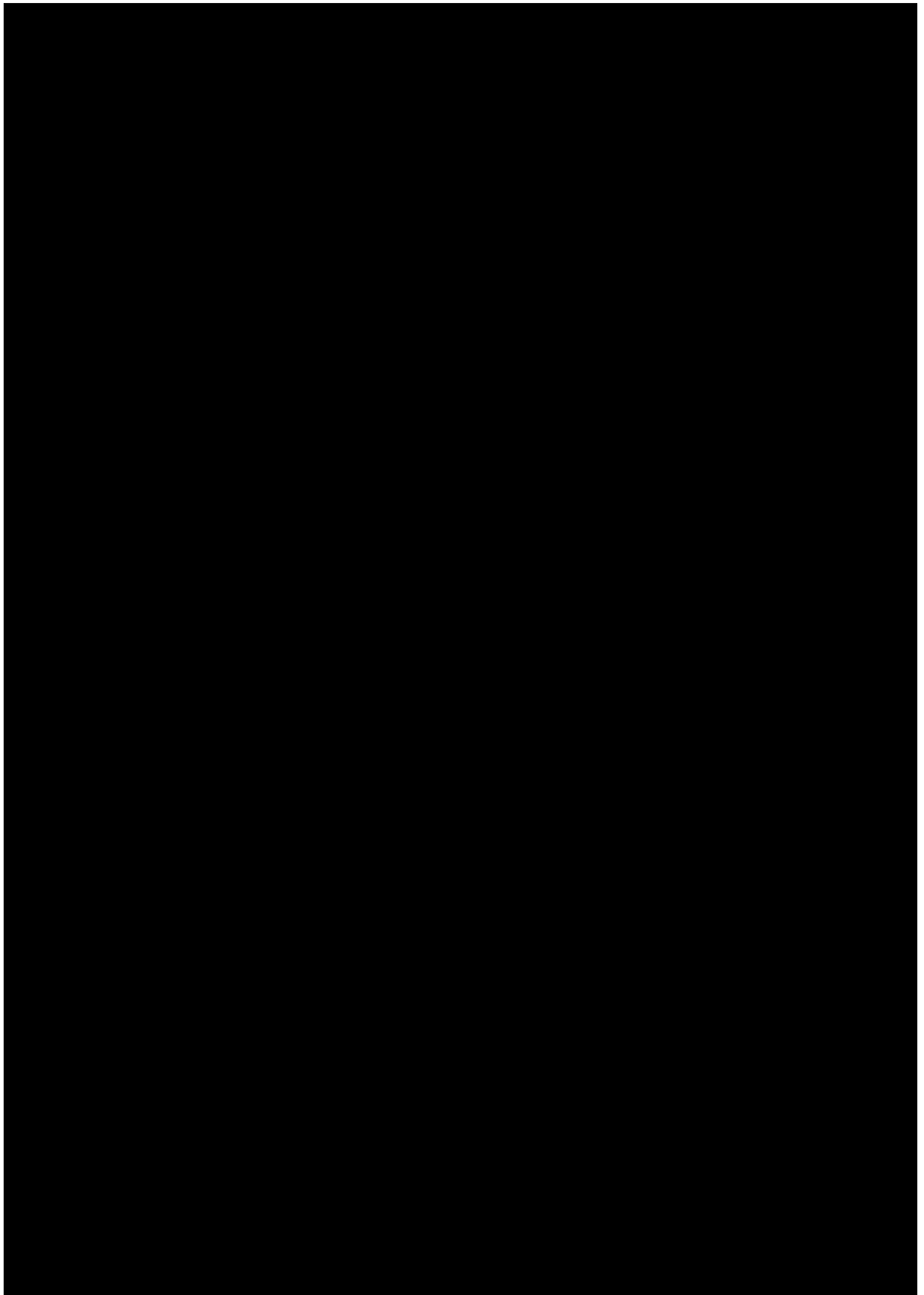
-  Spray Area Information Boards.
-  Forestry Roads
-  Spray Irrigation Blocks

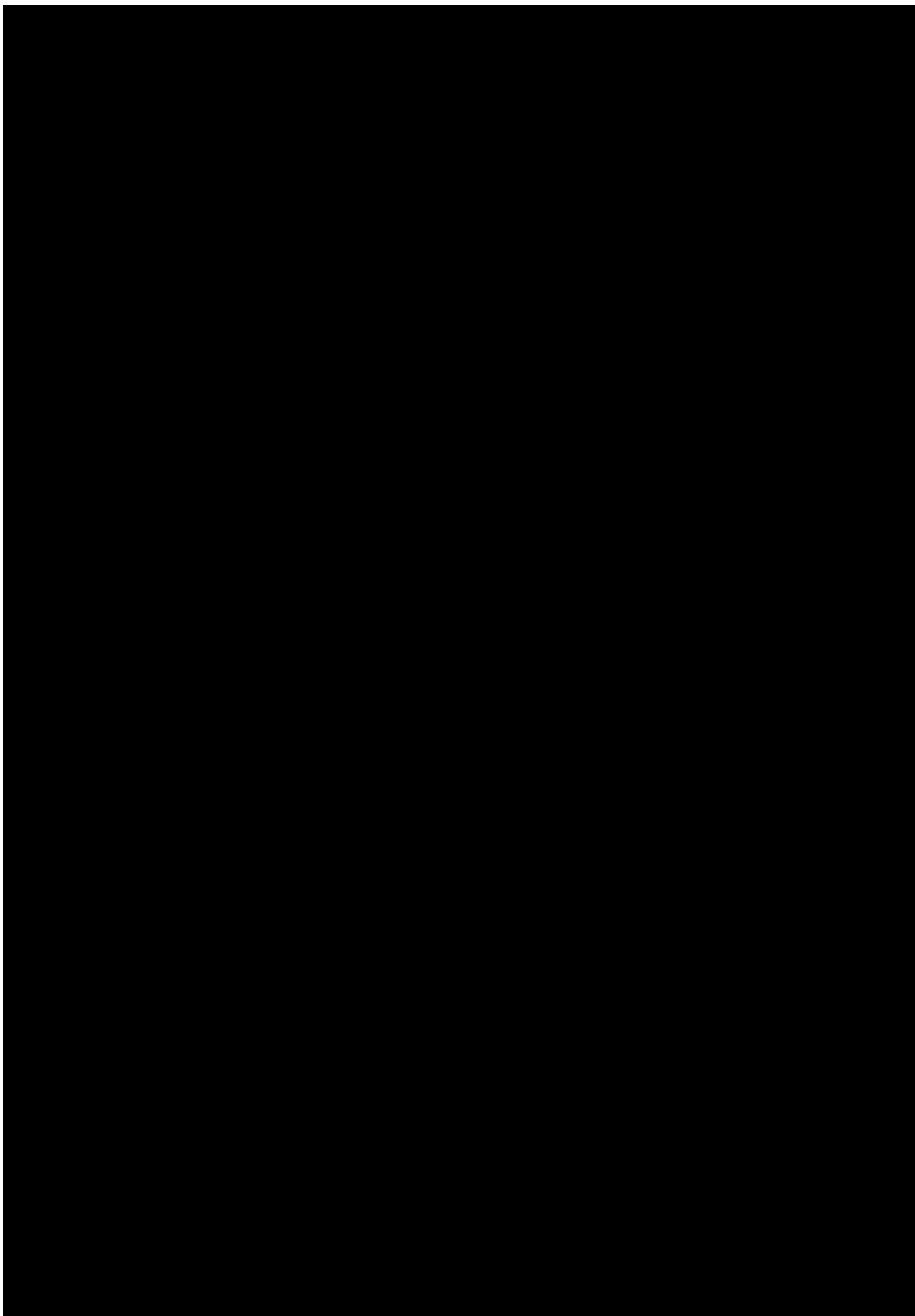
Rotorua Lakes Council LAND TREATMENT MAP

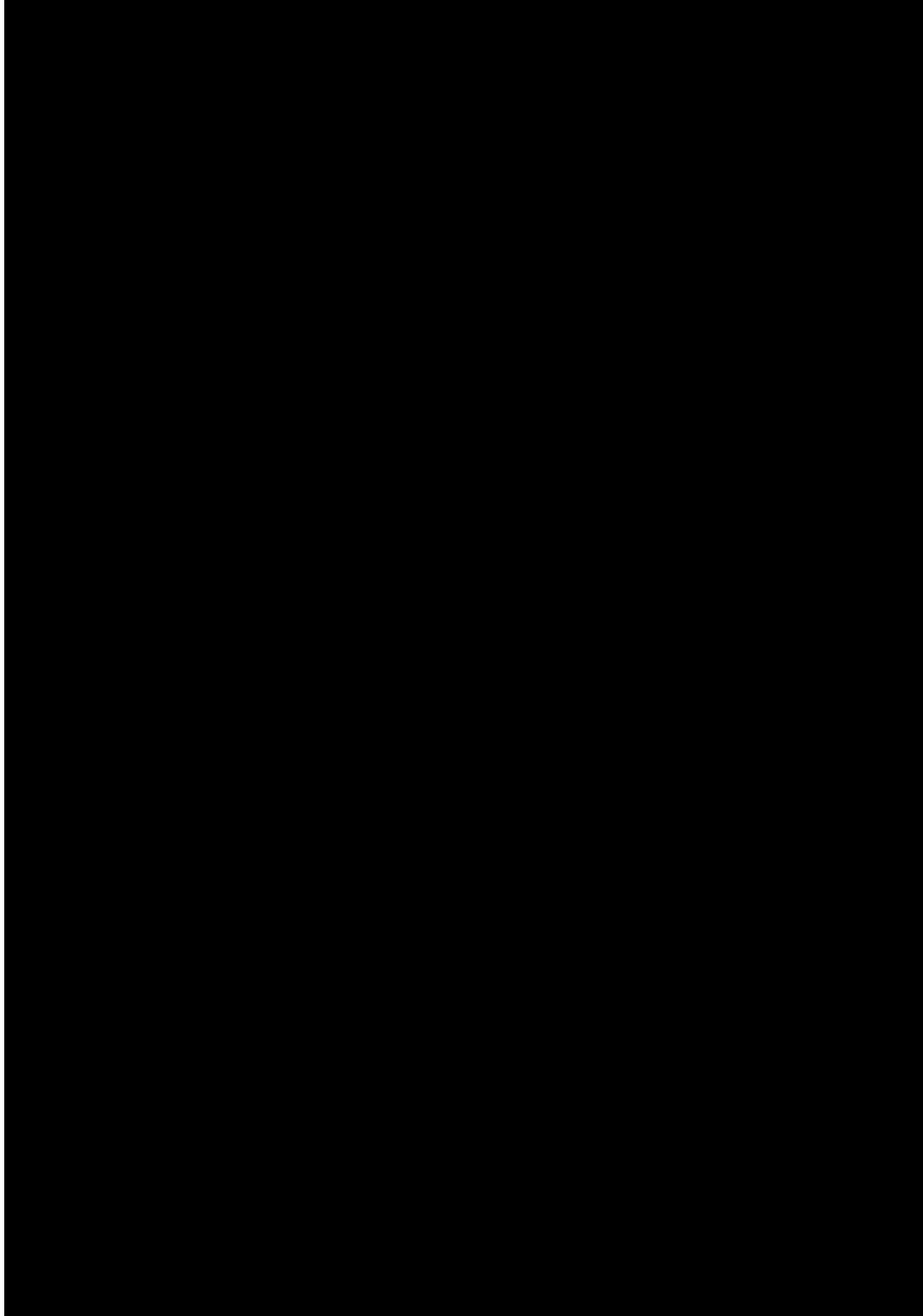
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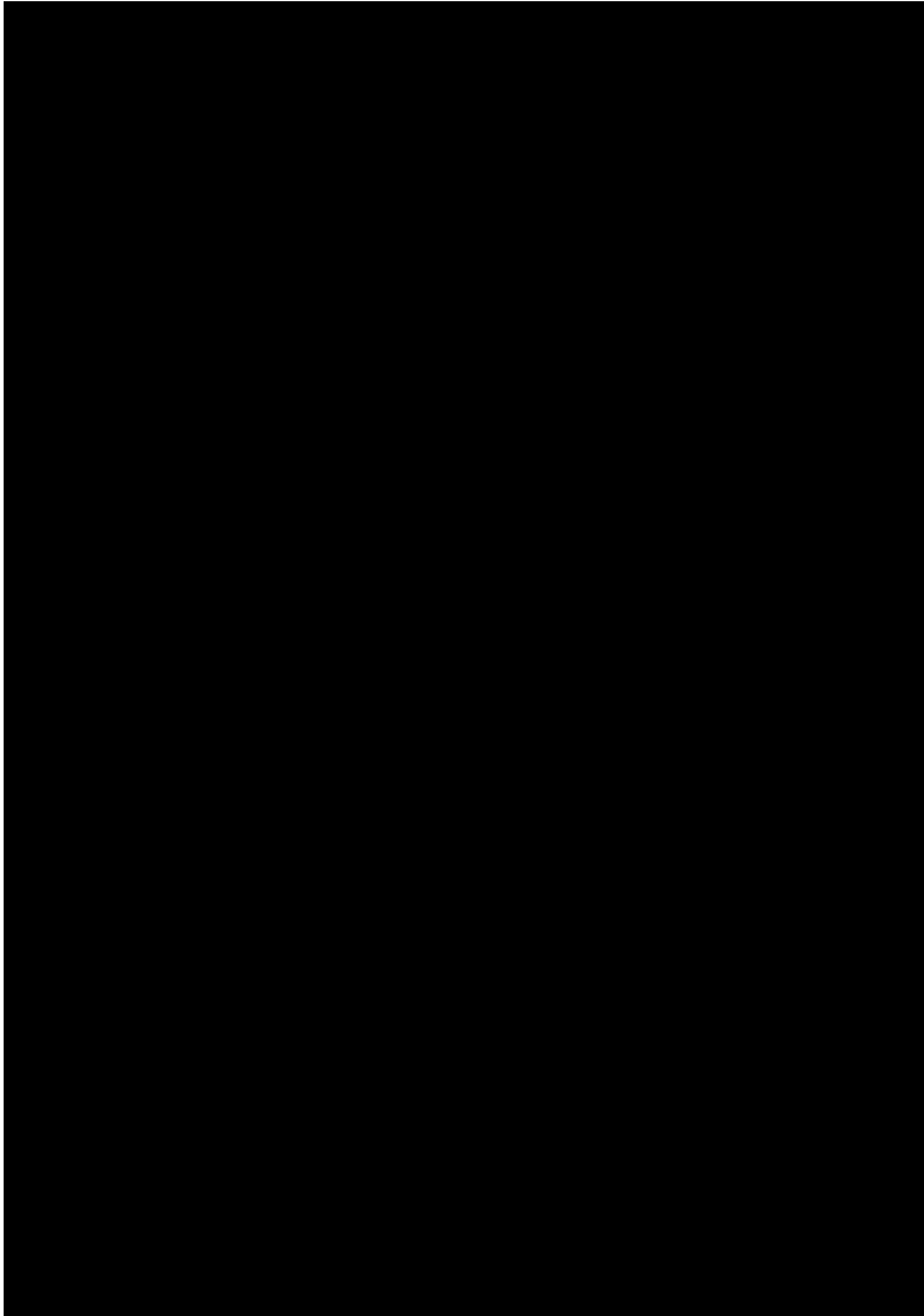
W. Practice Note: Rotoma/Rotoiti WWTP Facility Taking Over Plan

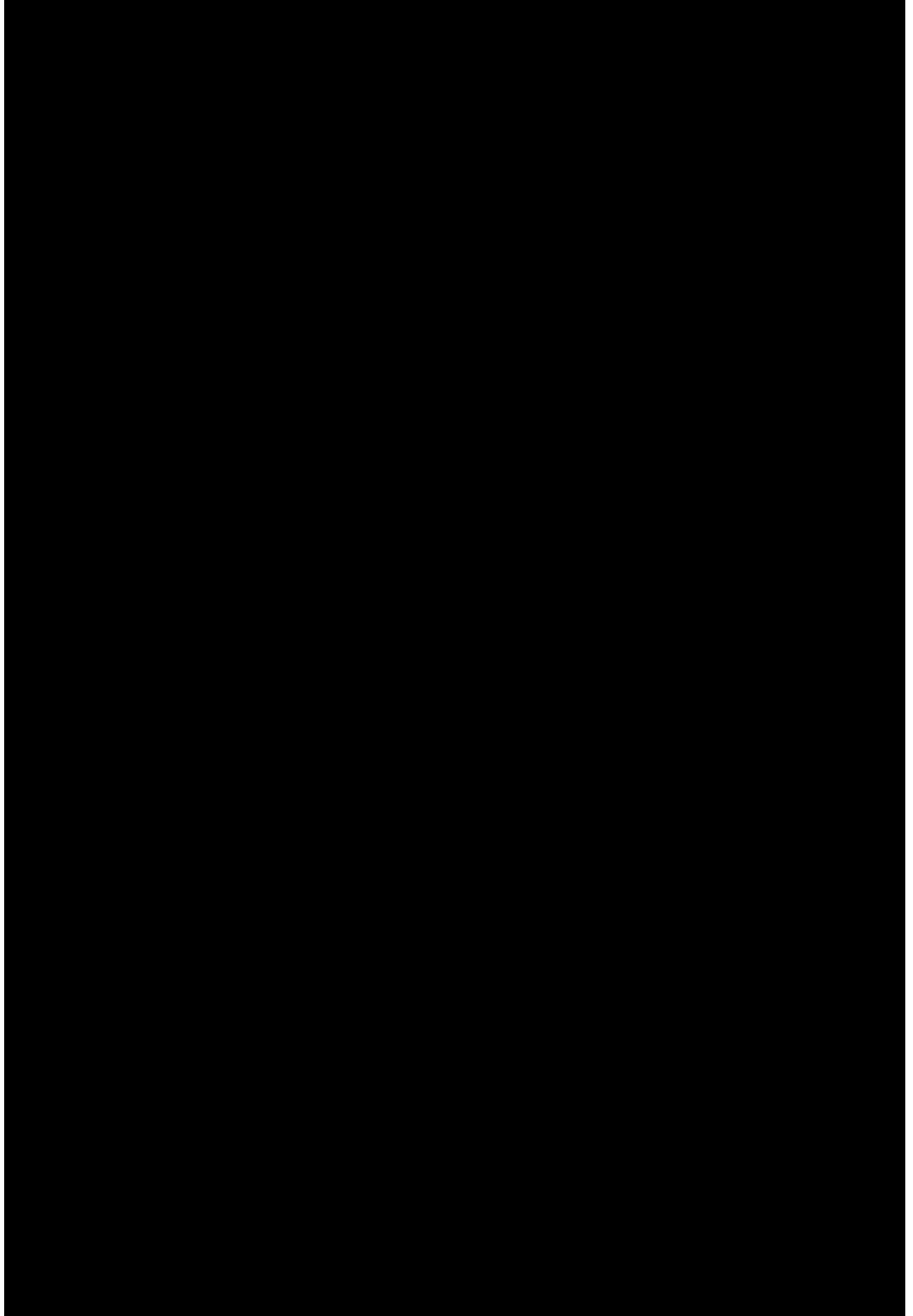


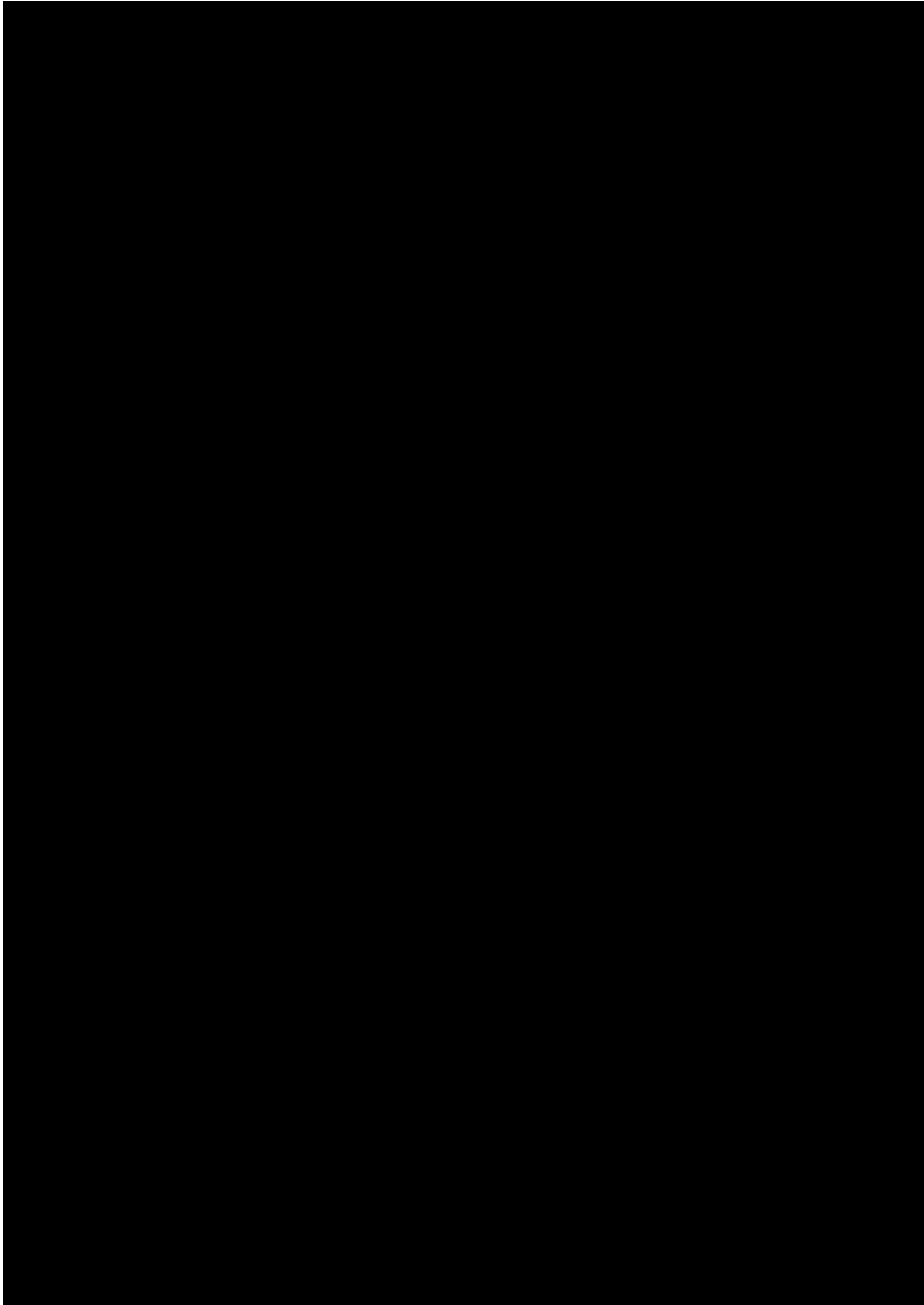


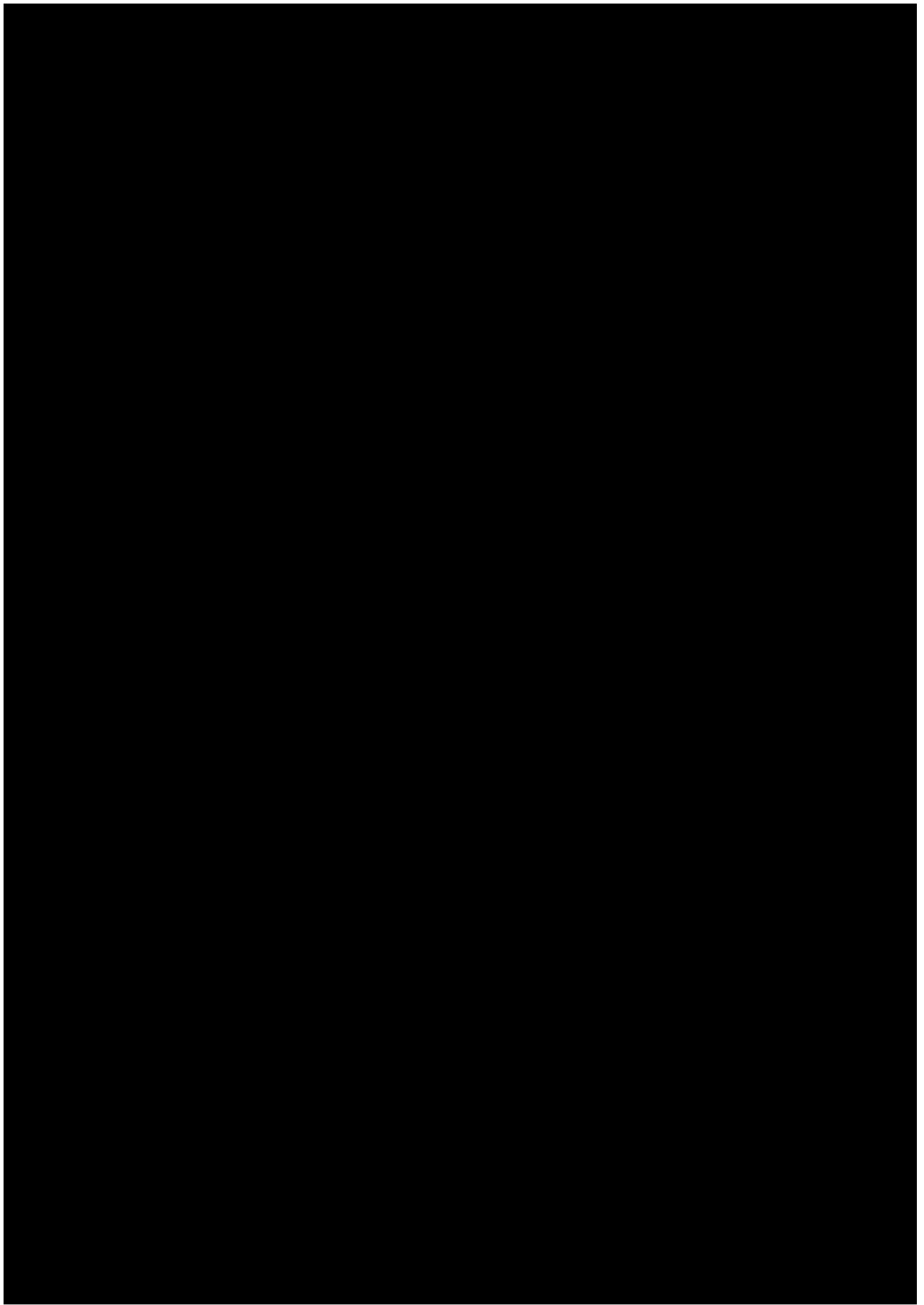


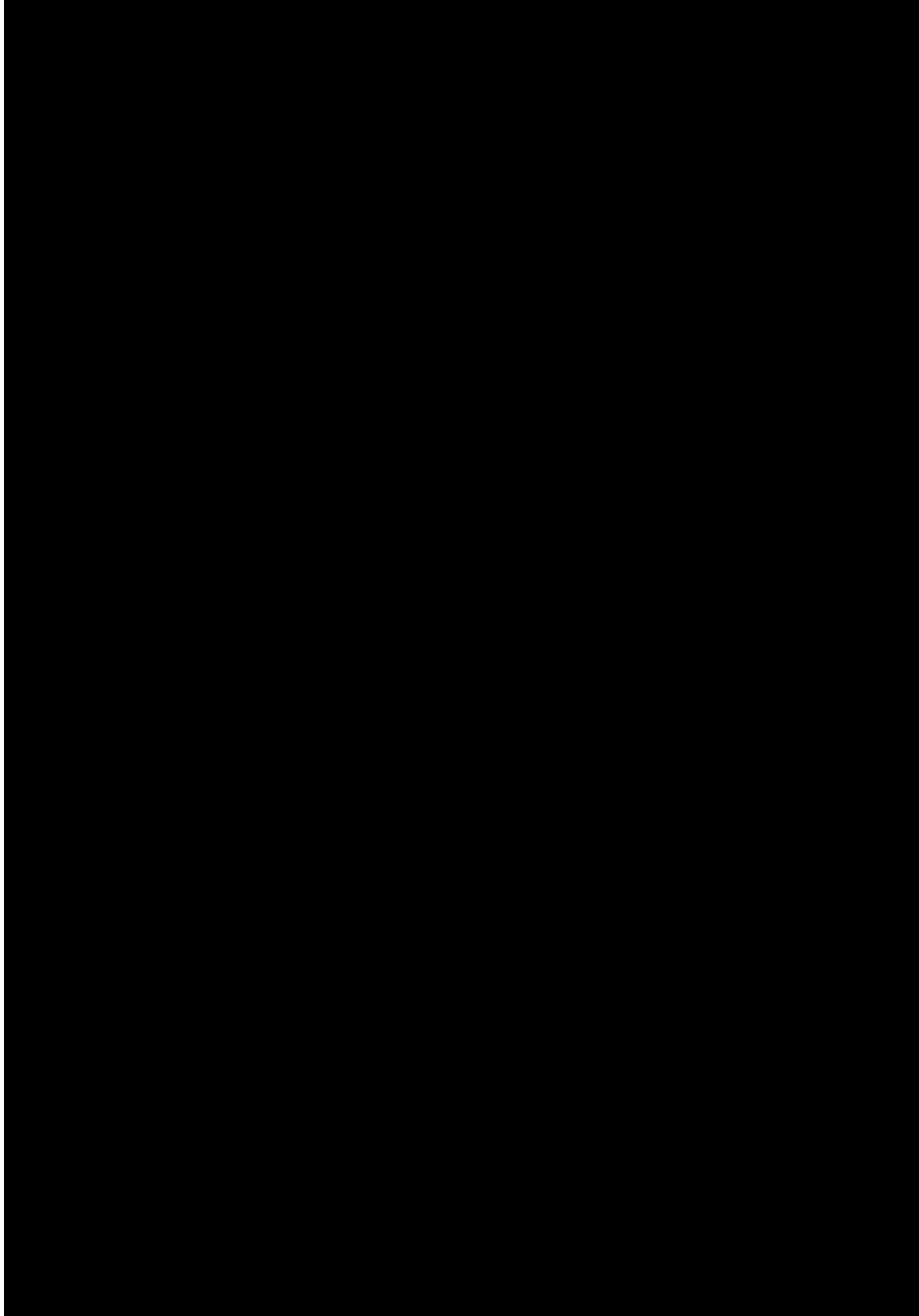




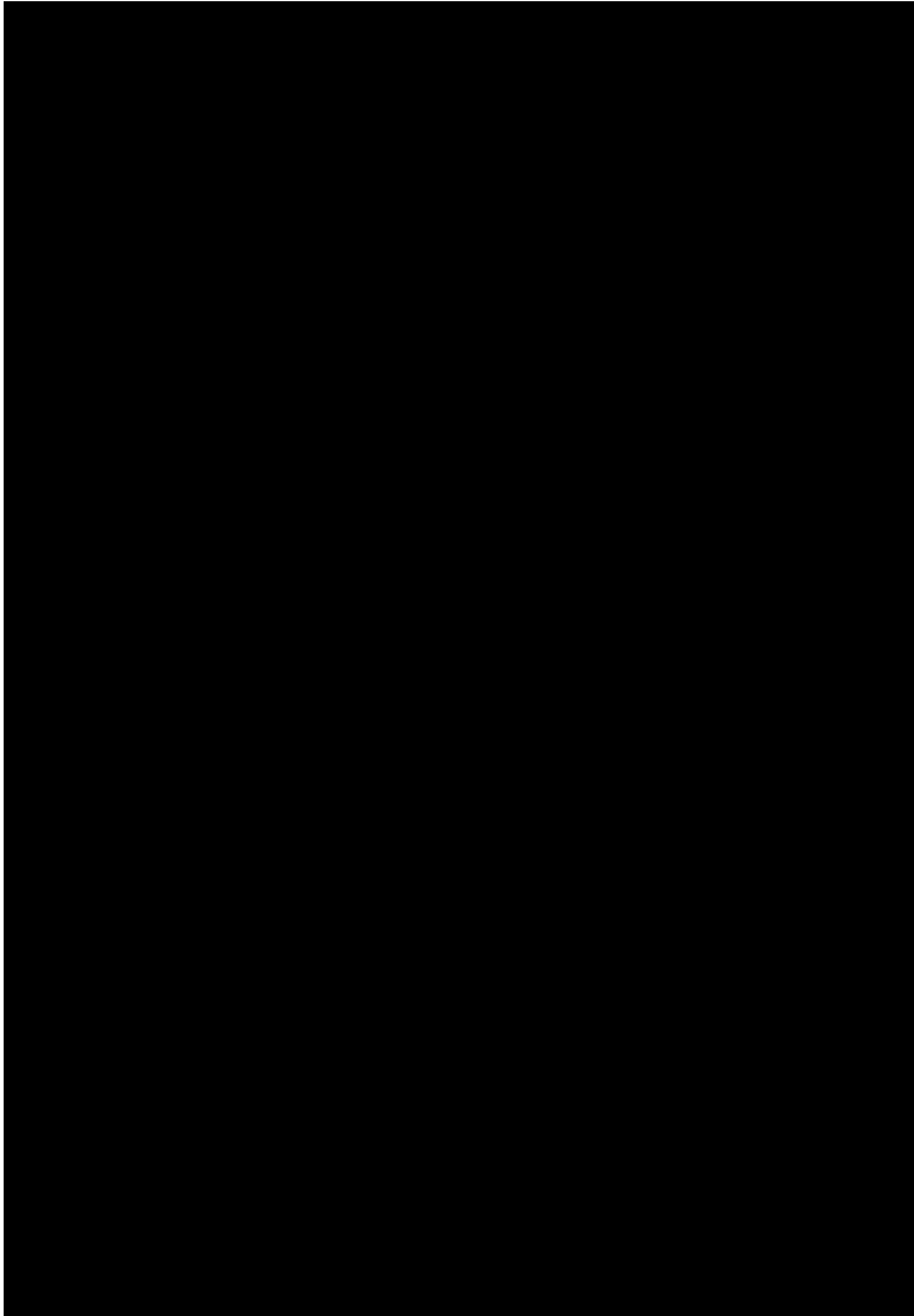


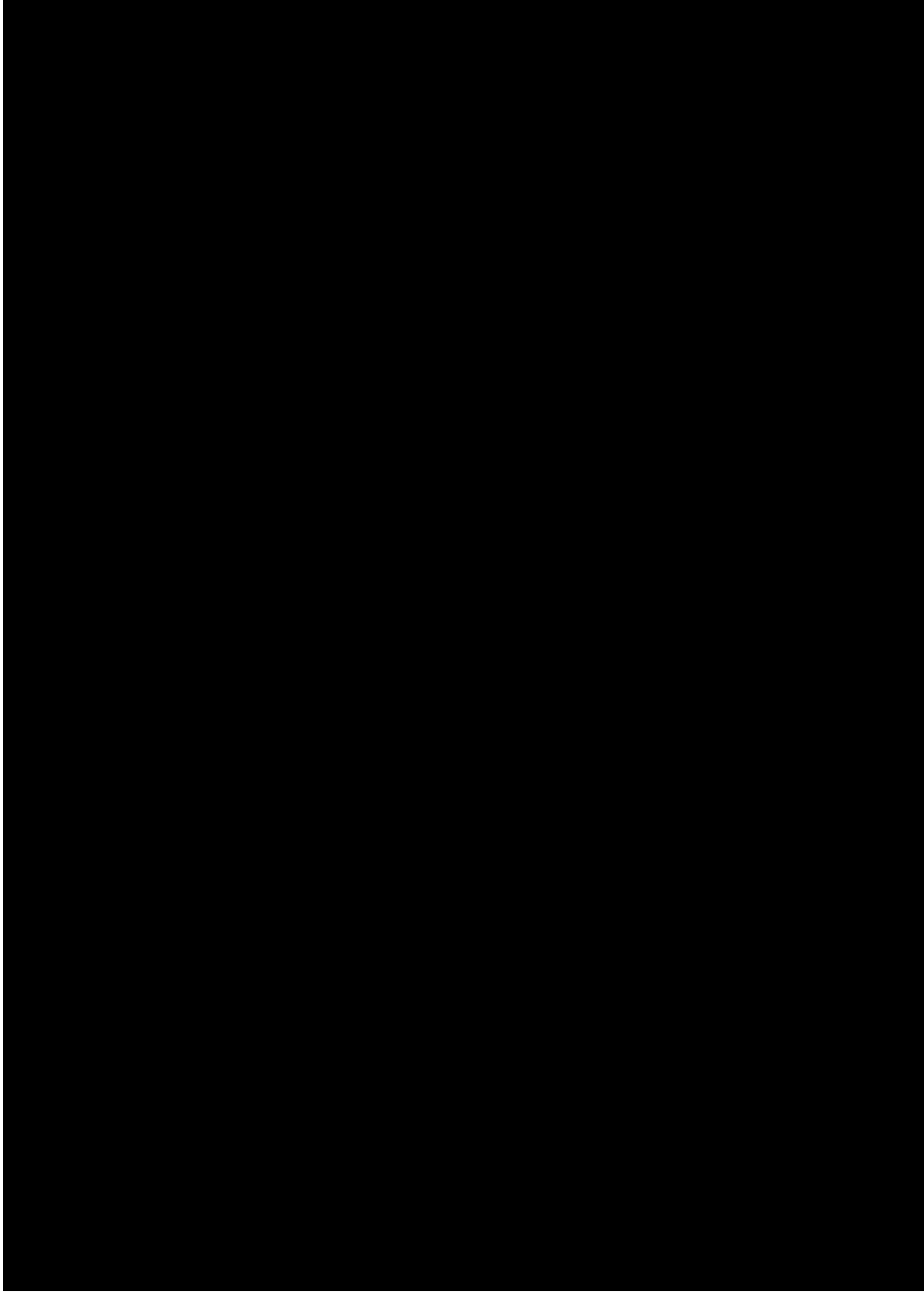


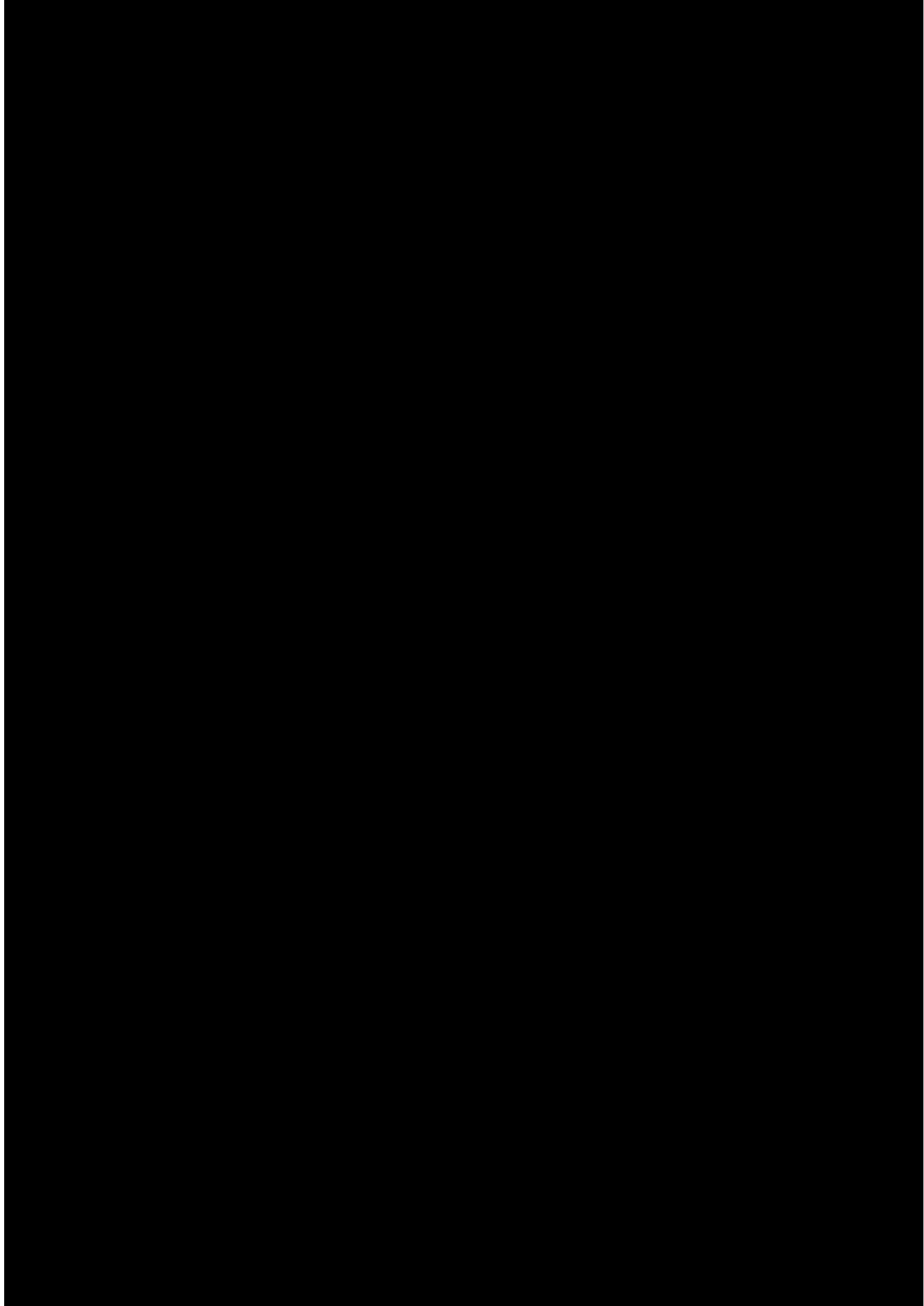


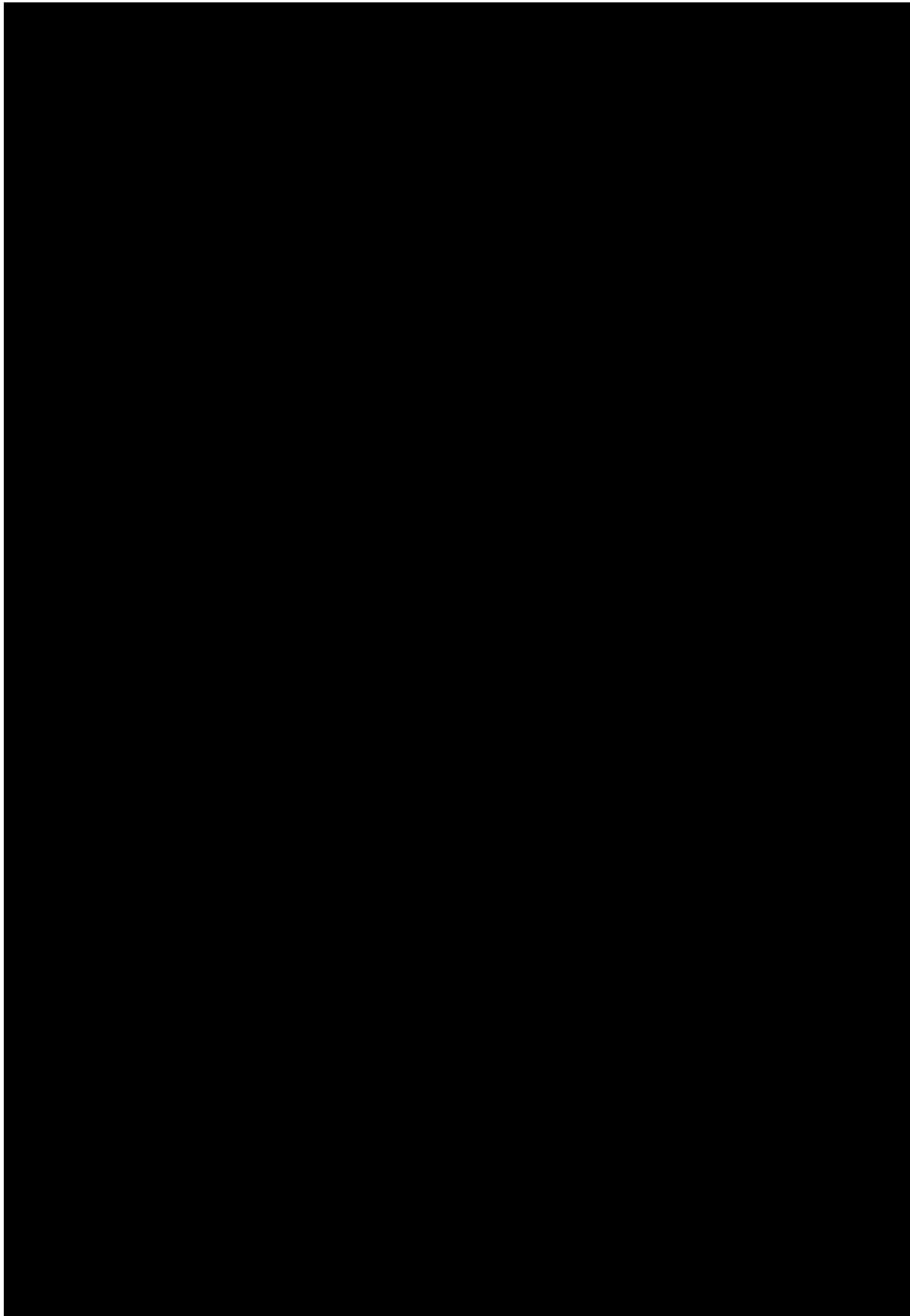


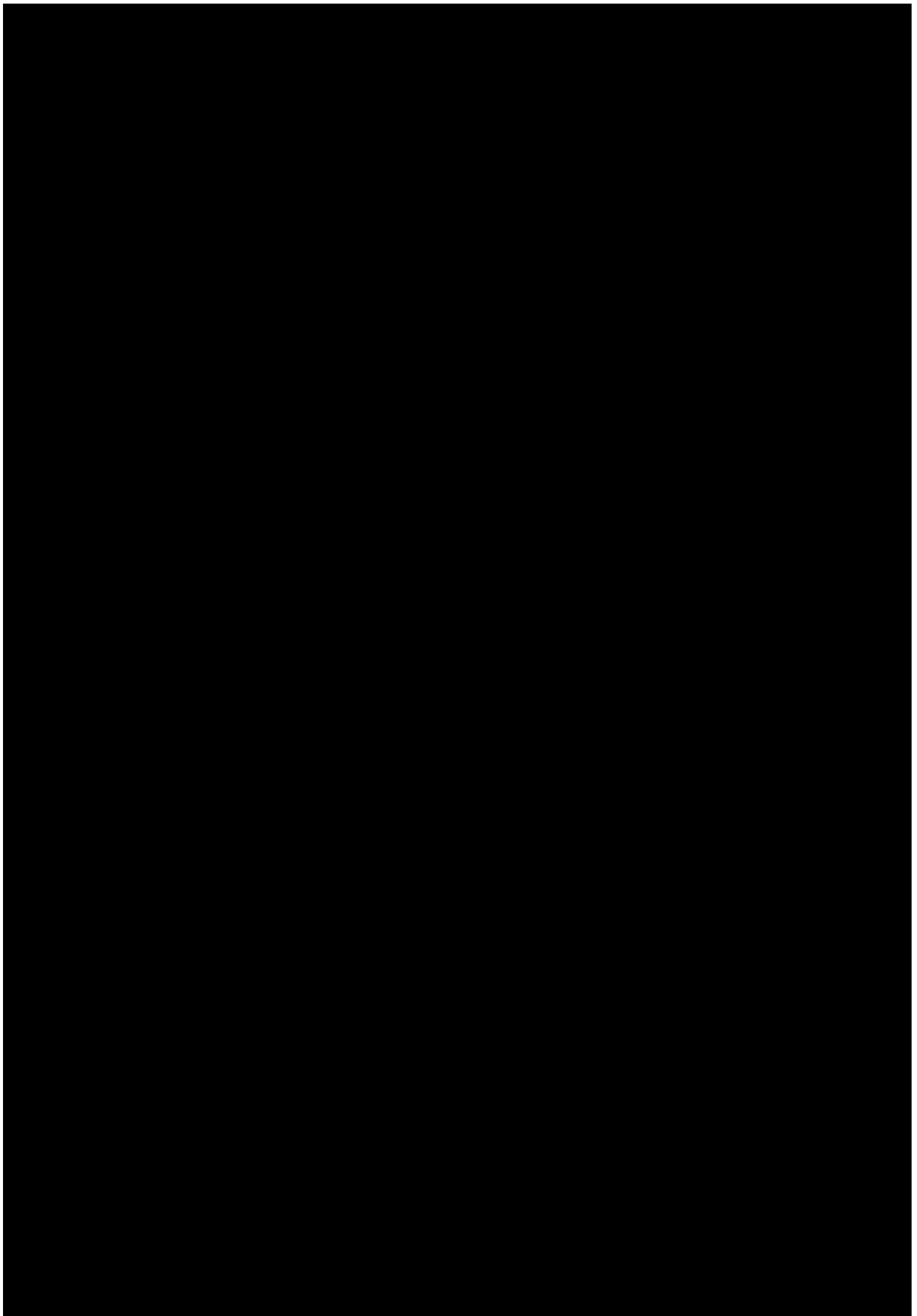


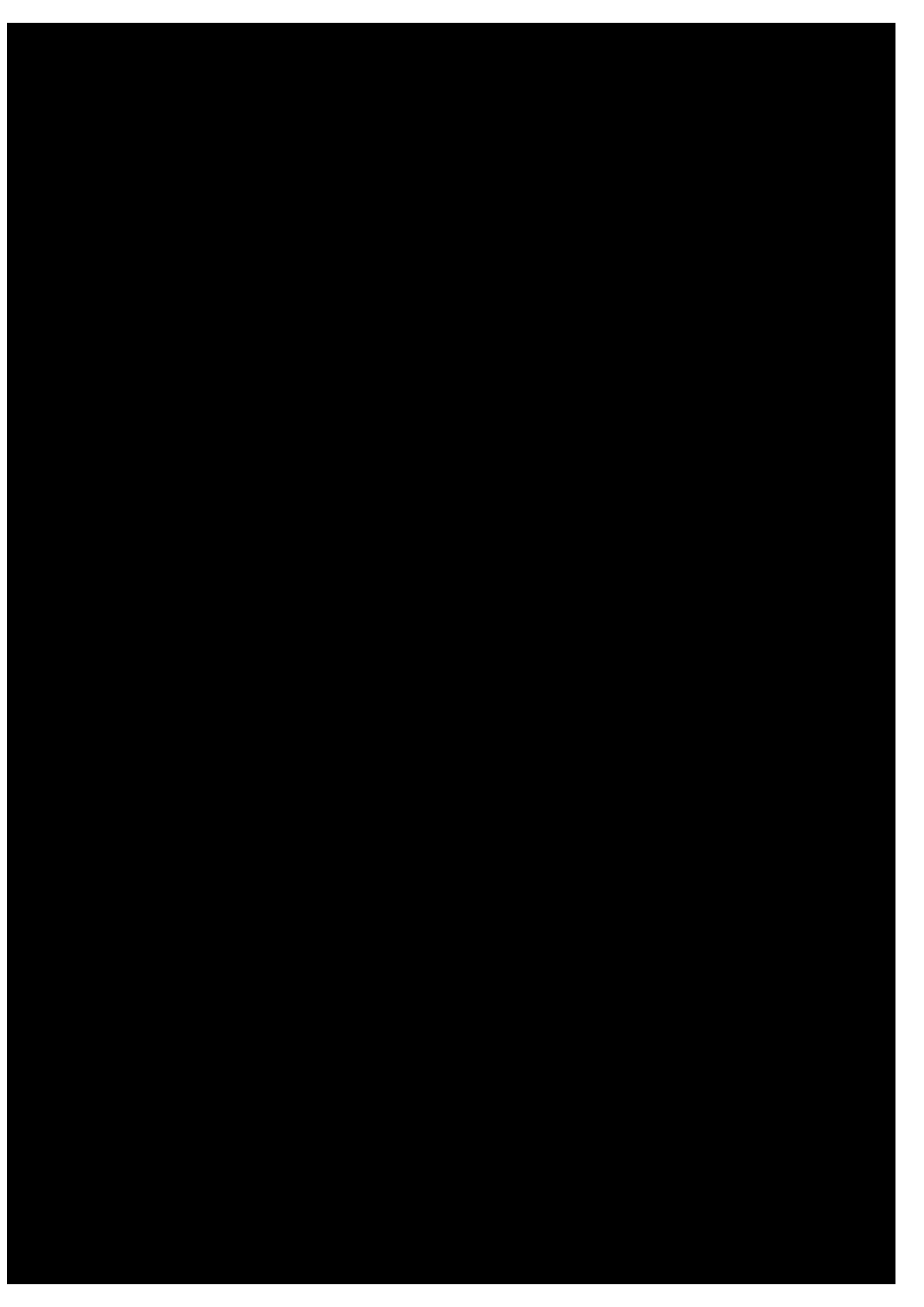


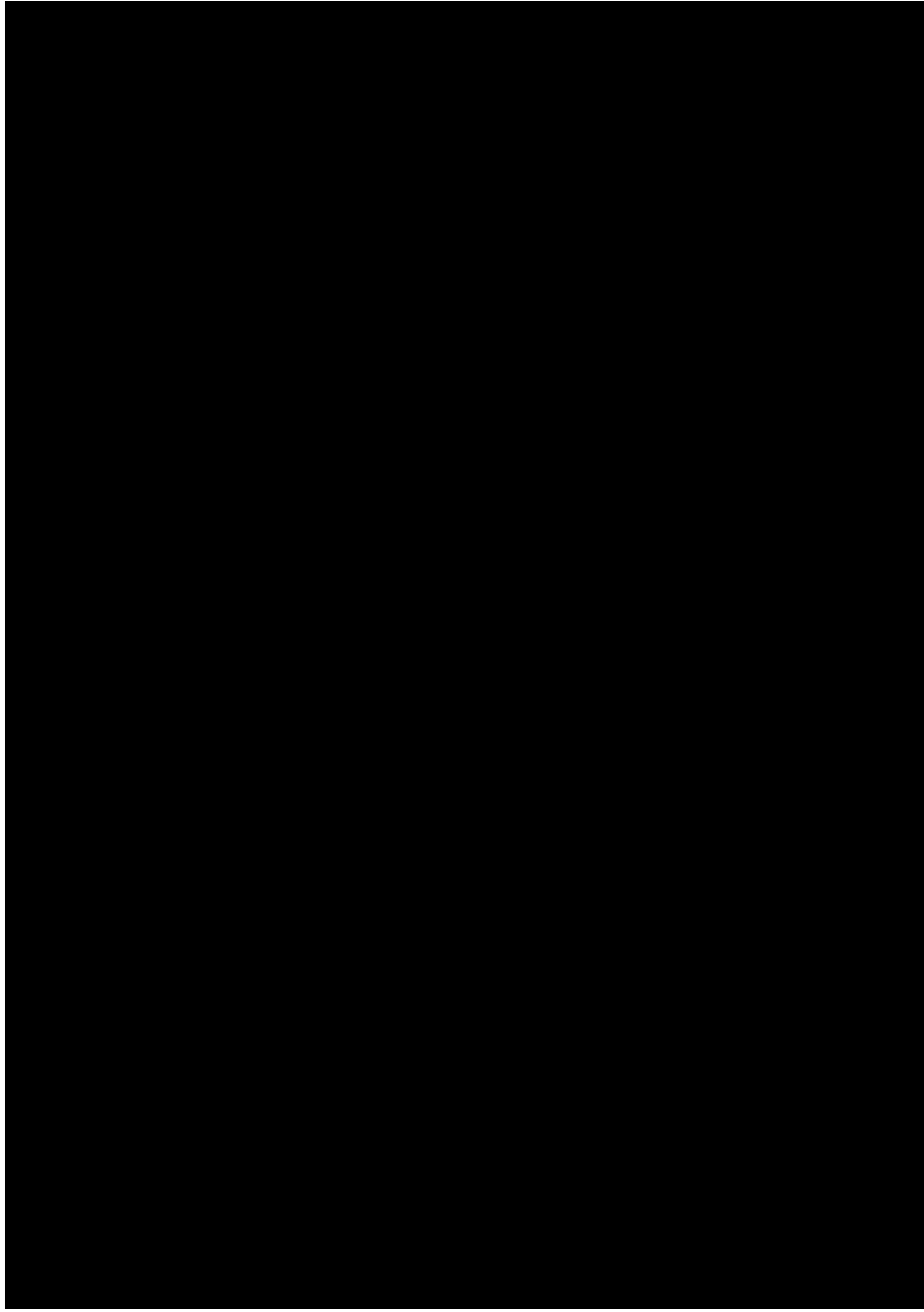


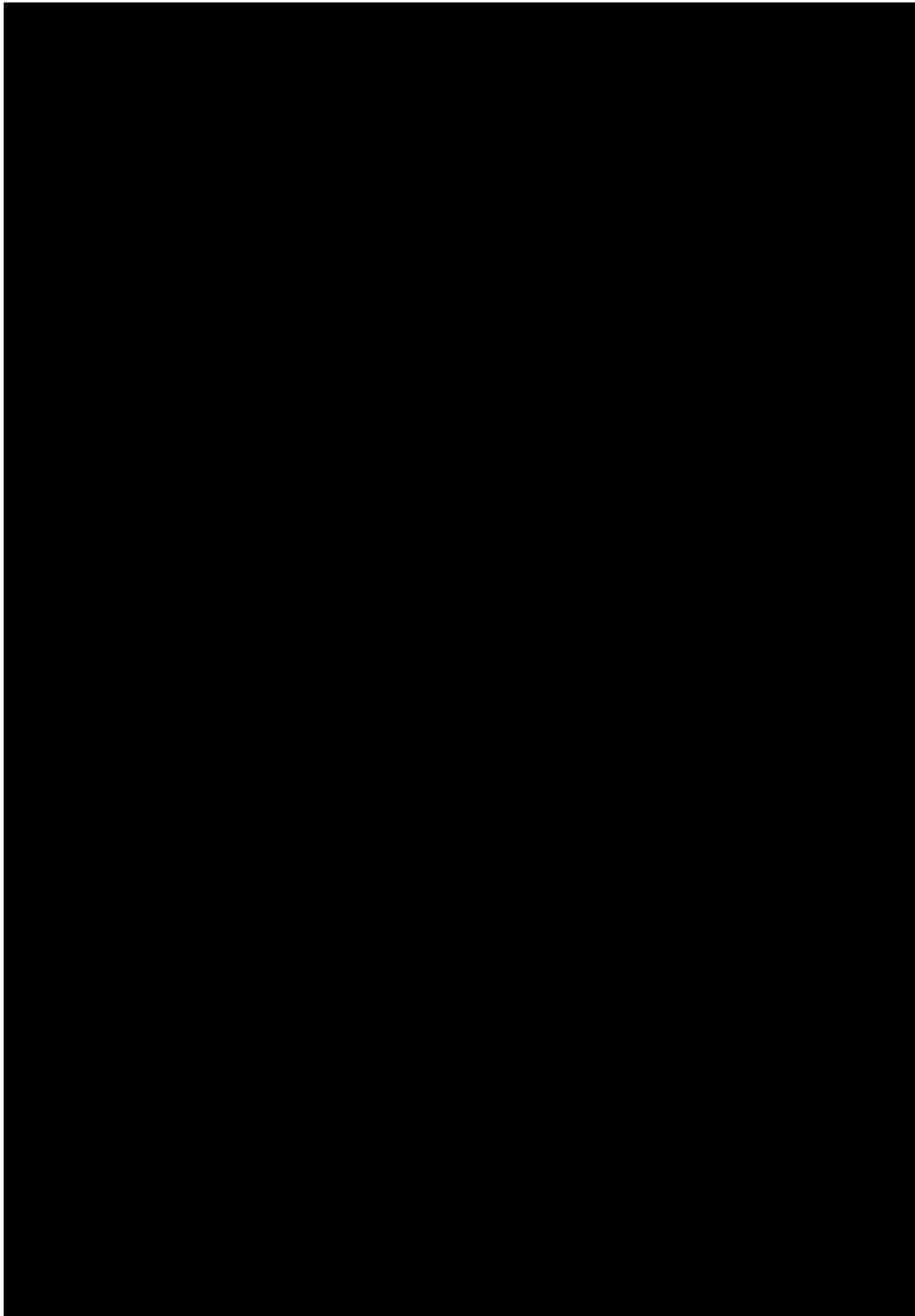


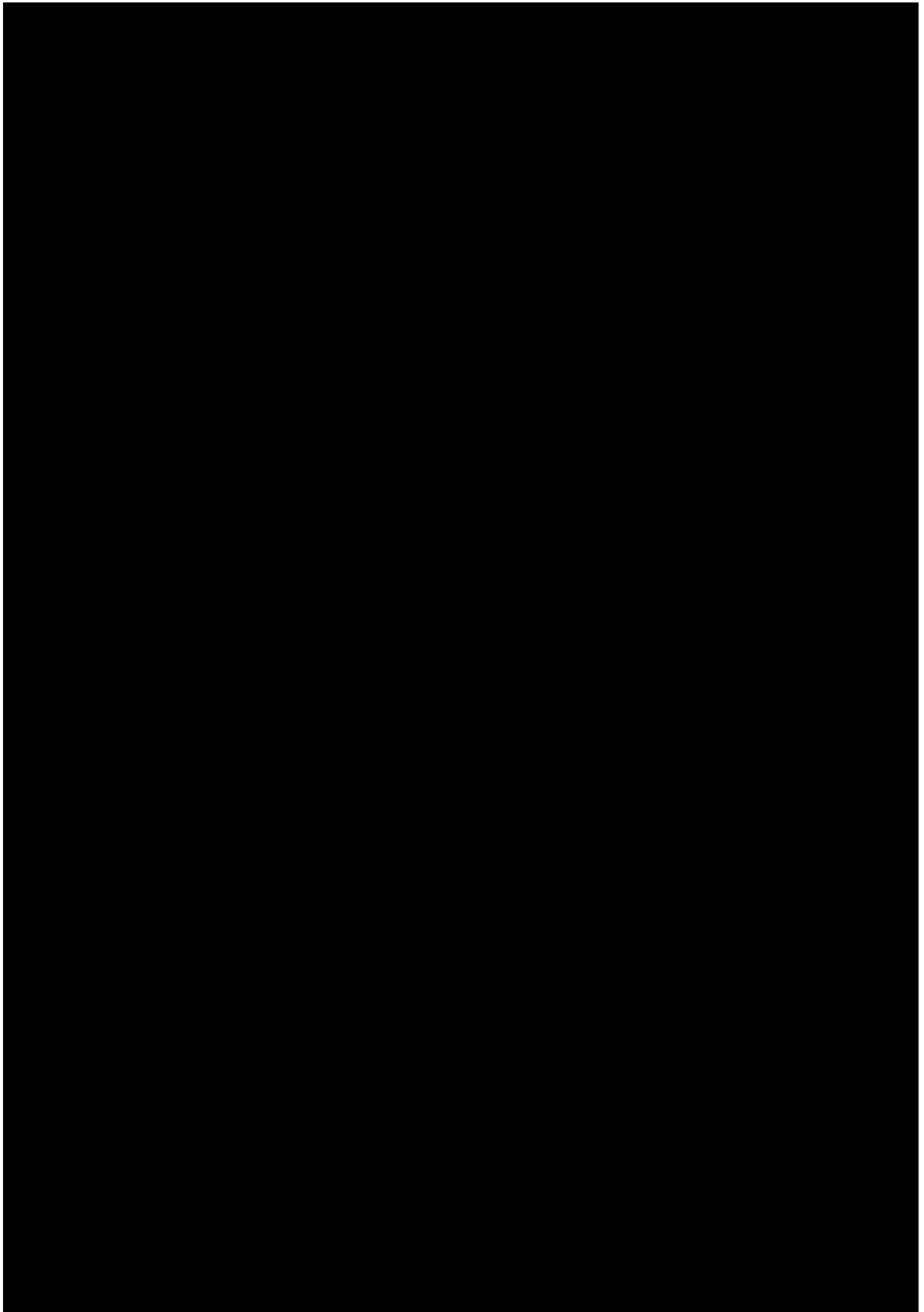


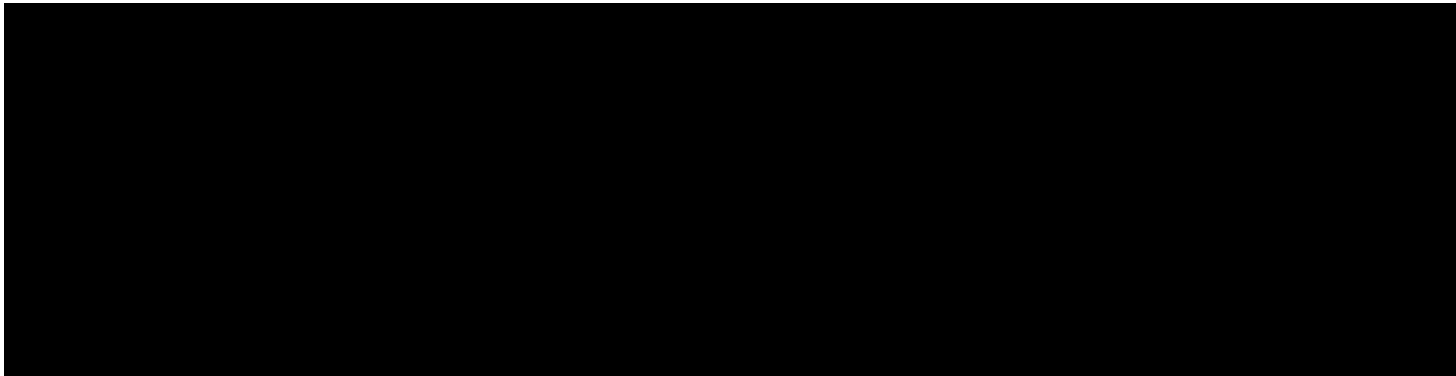




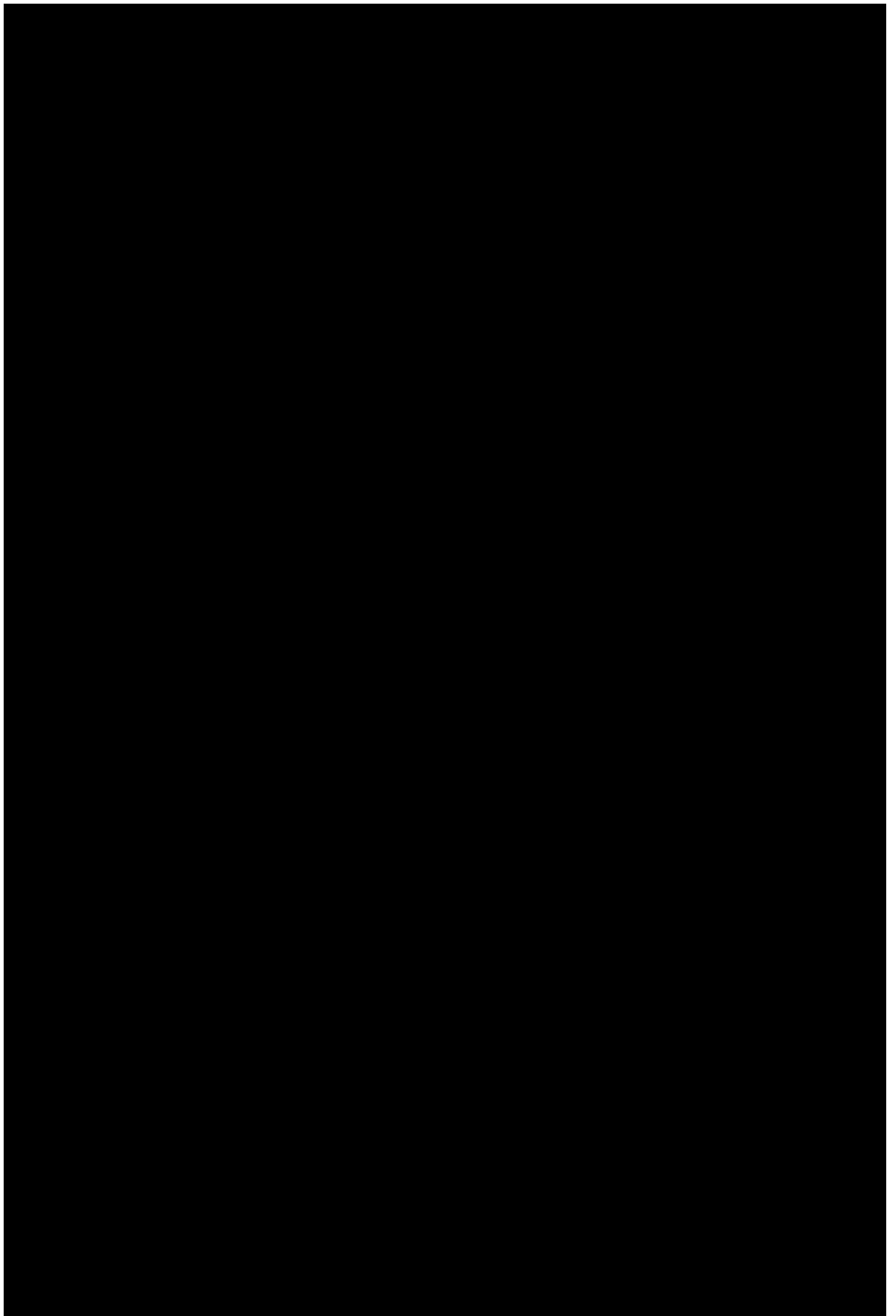


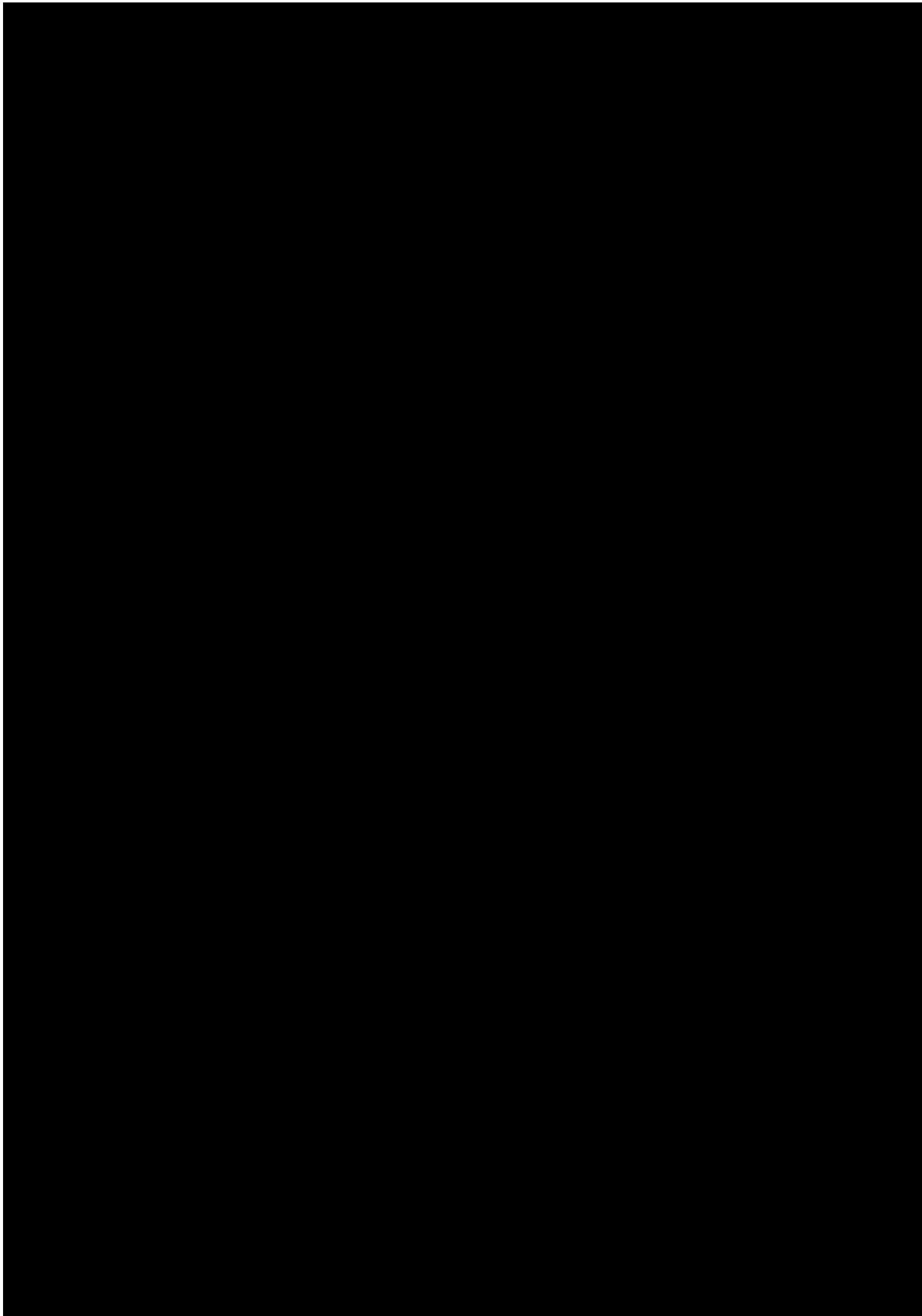


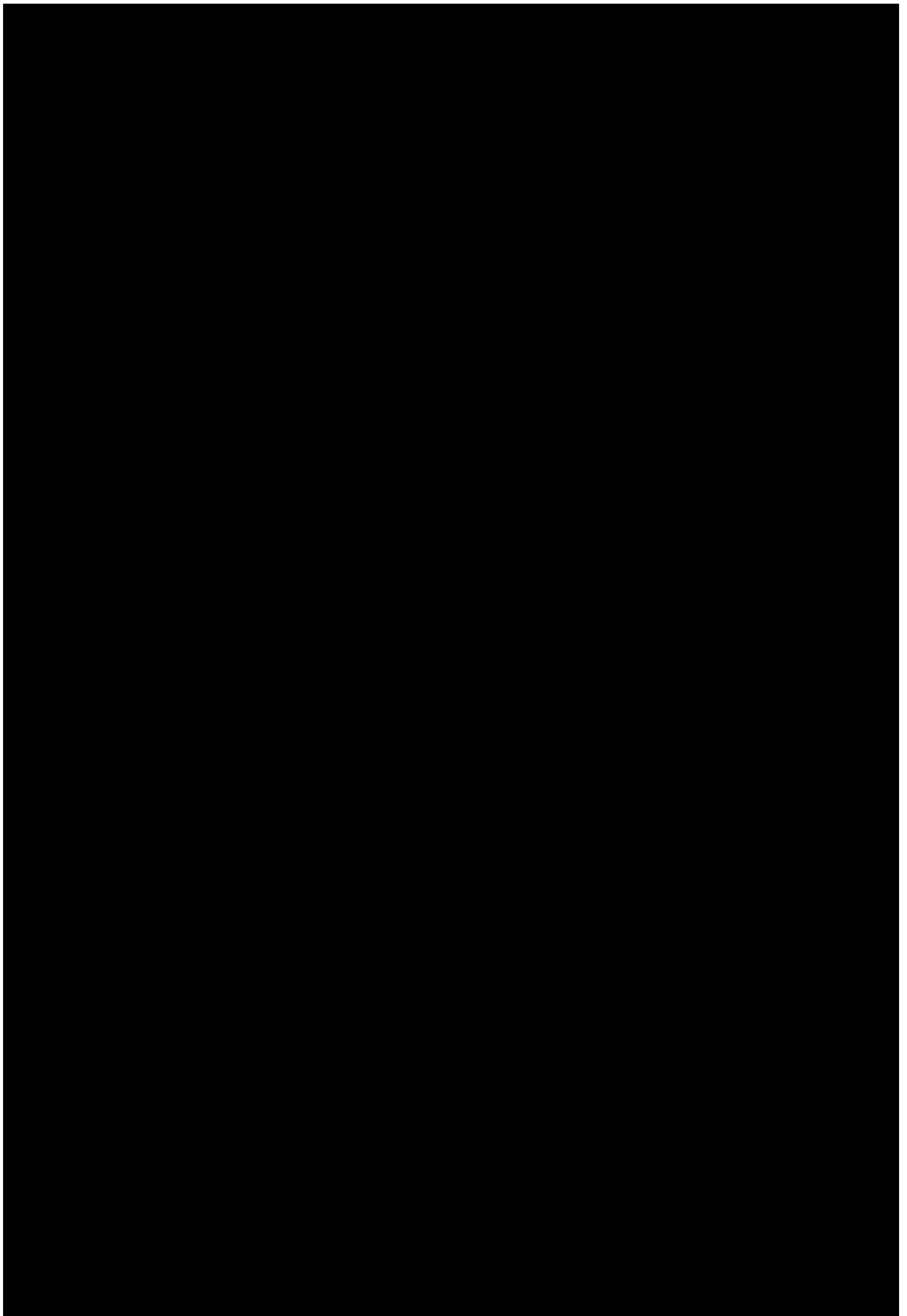


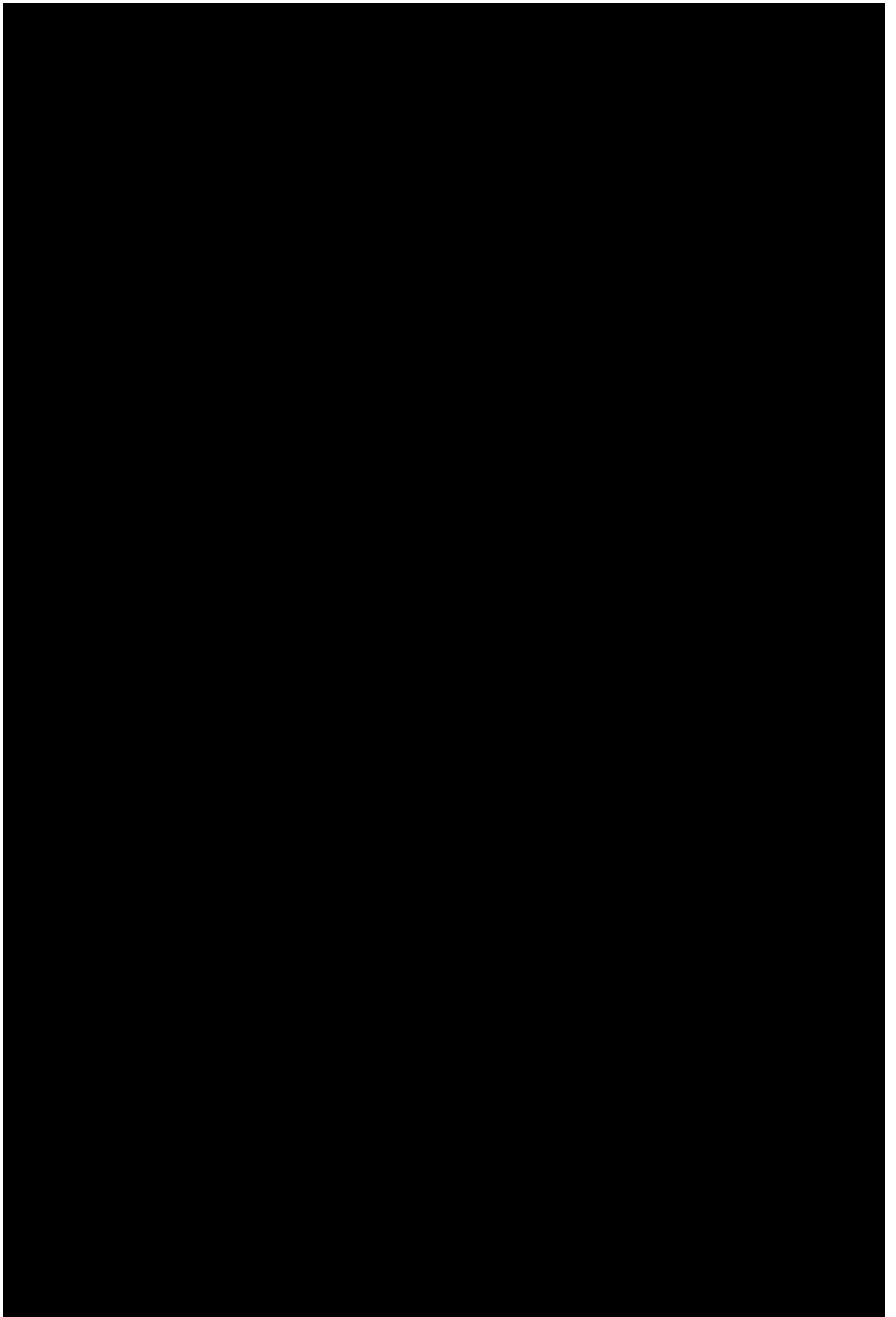


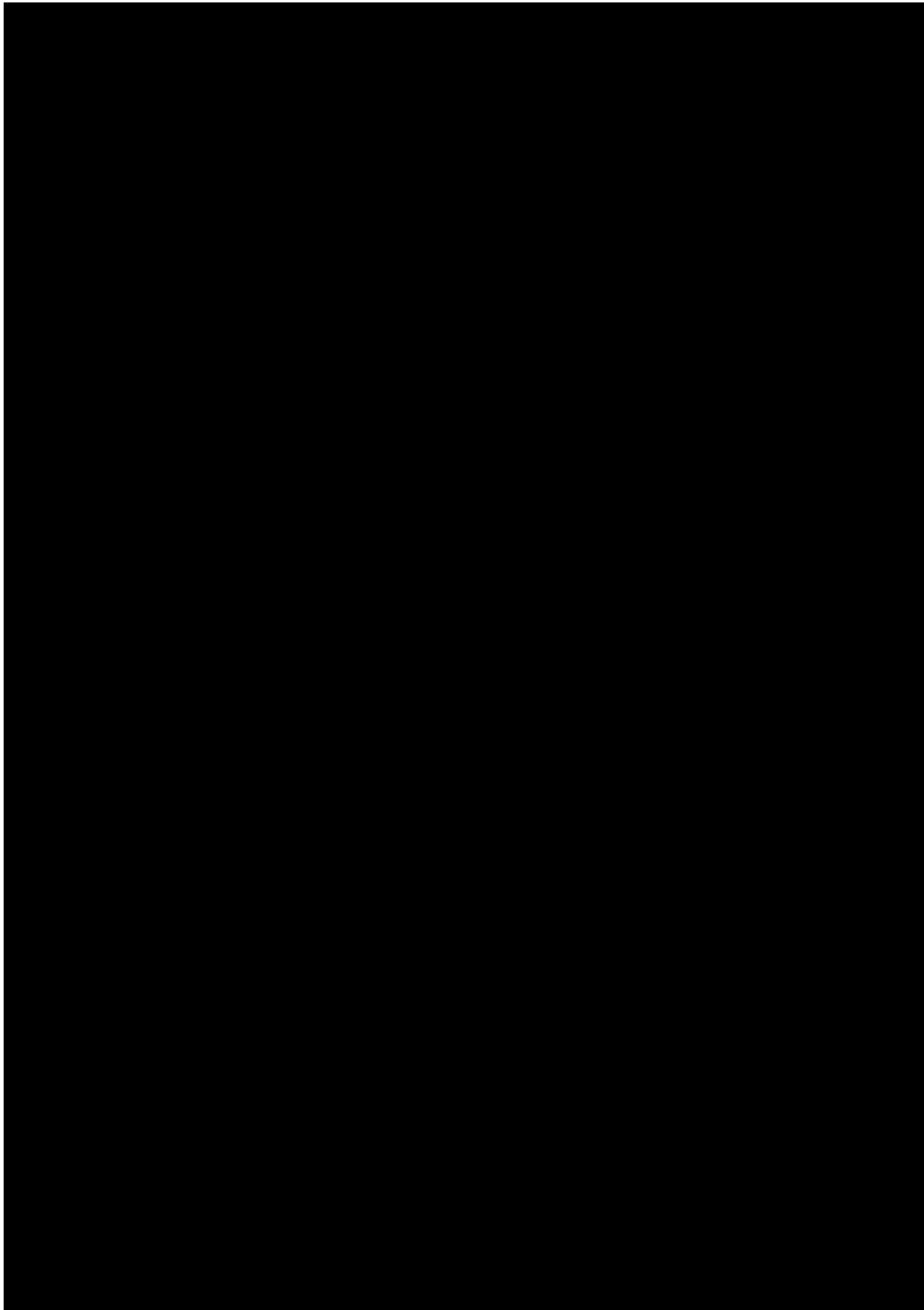


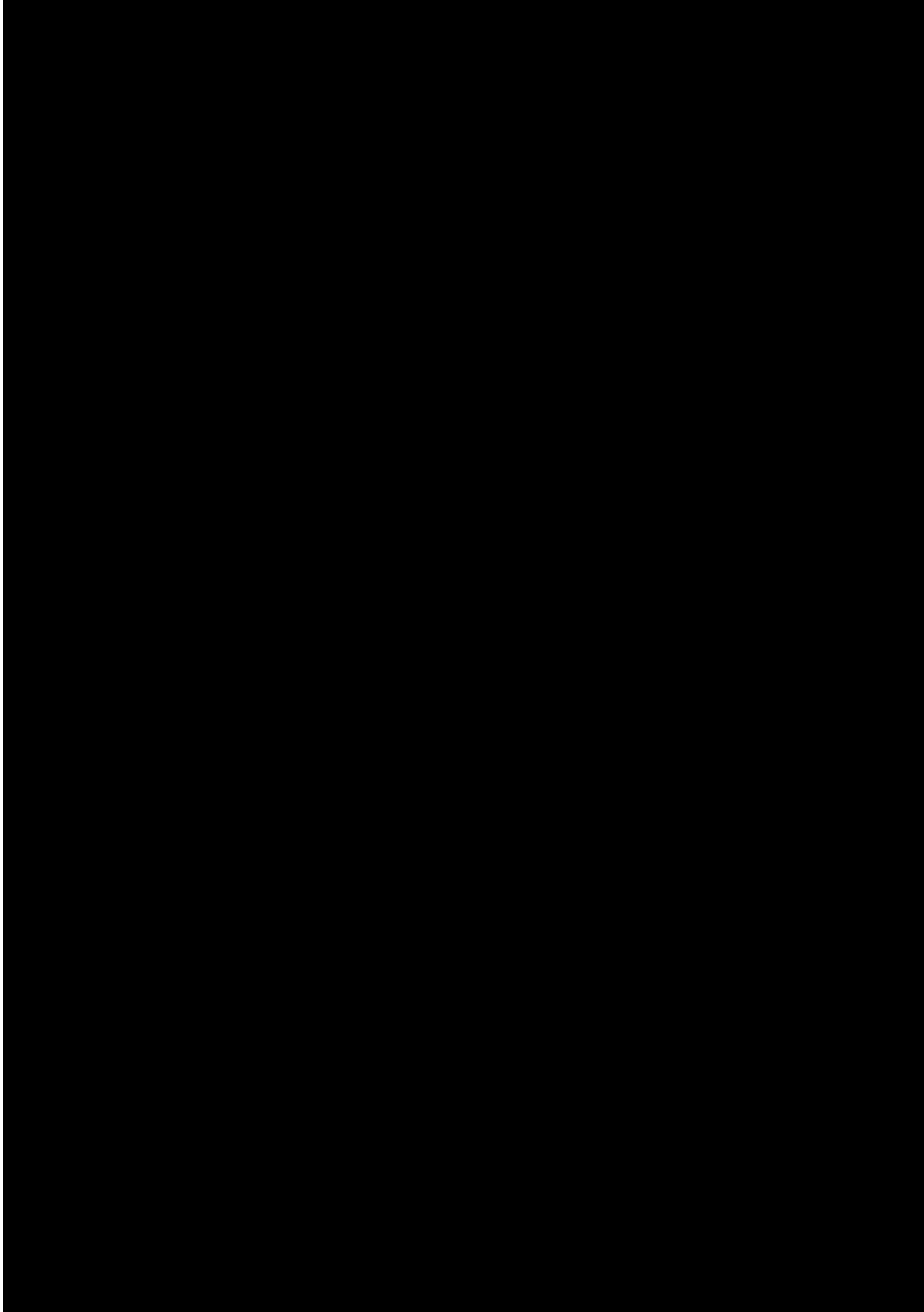


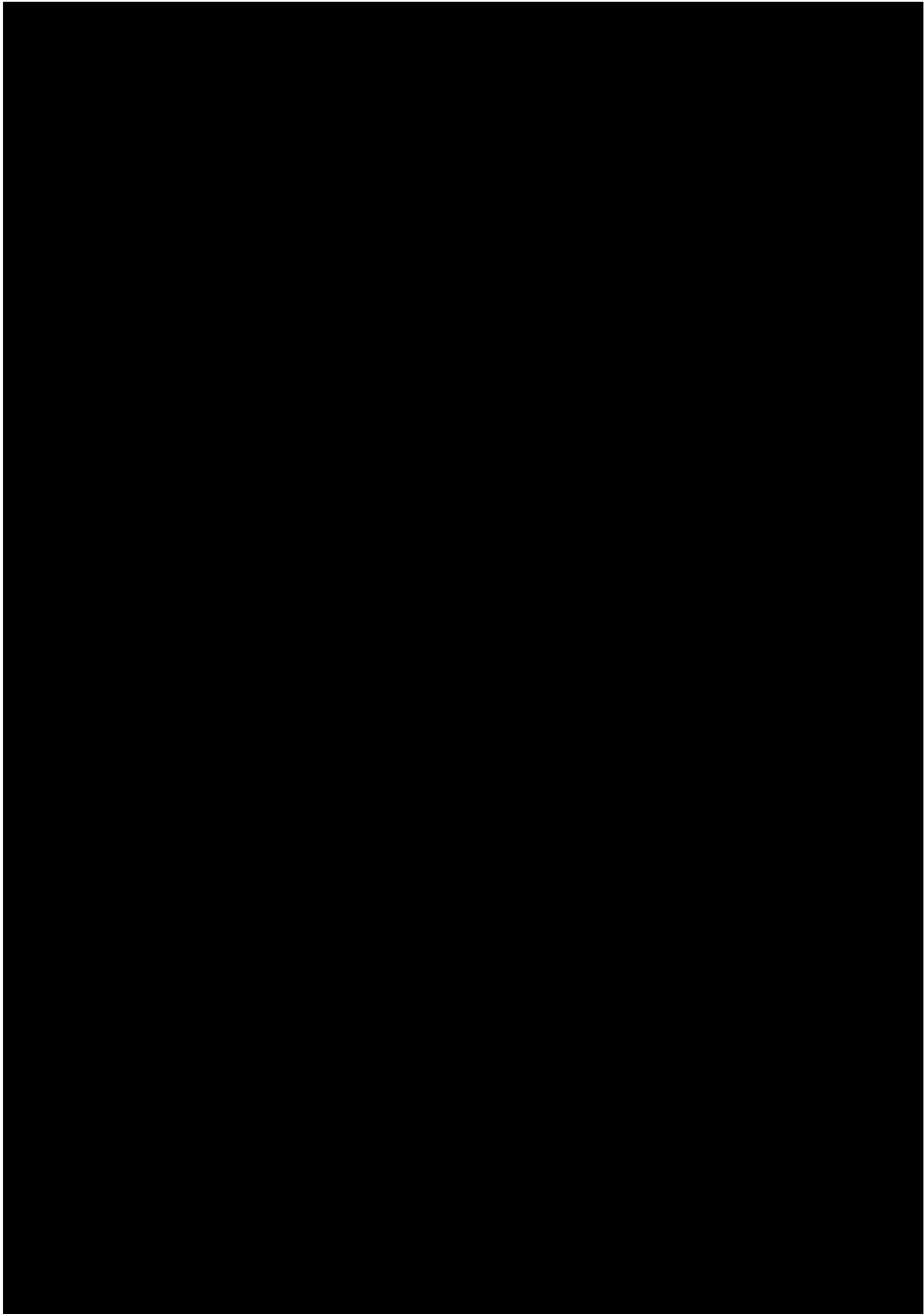


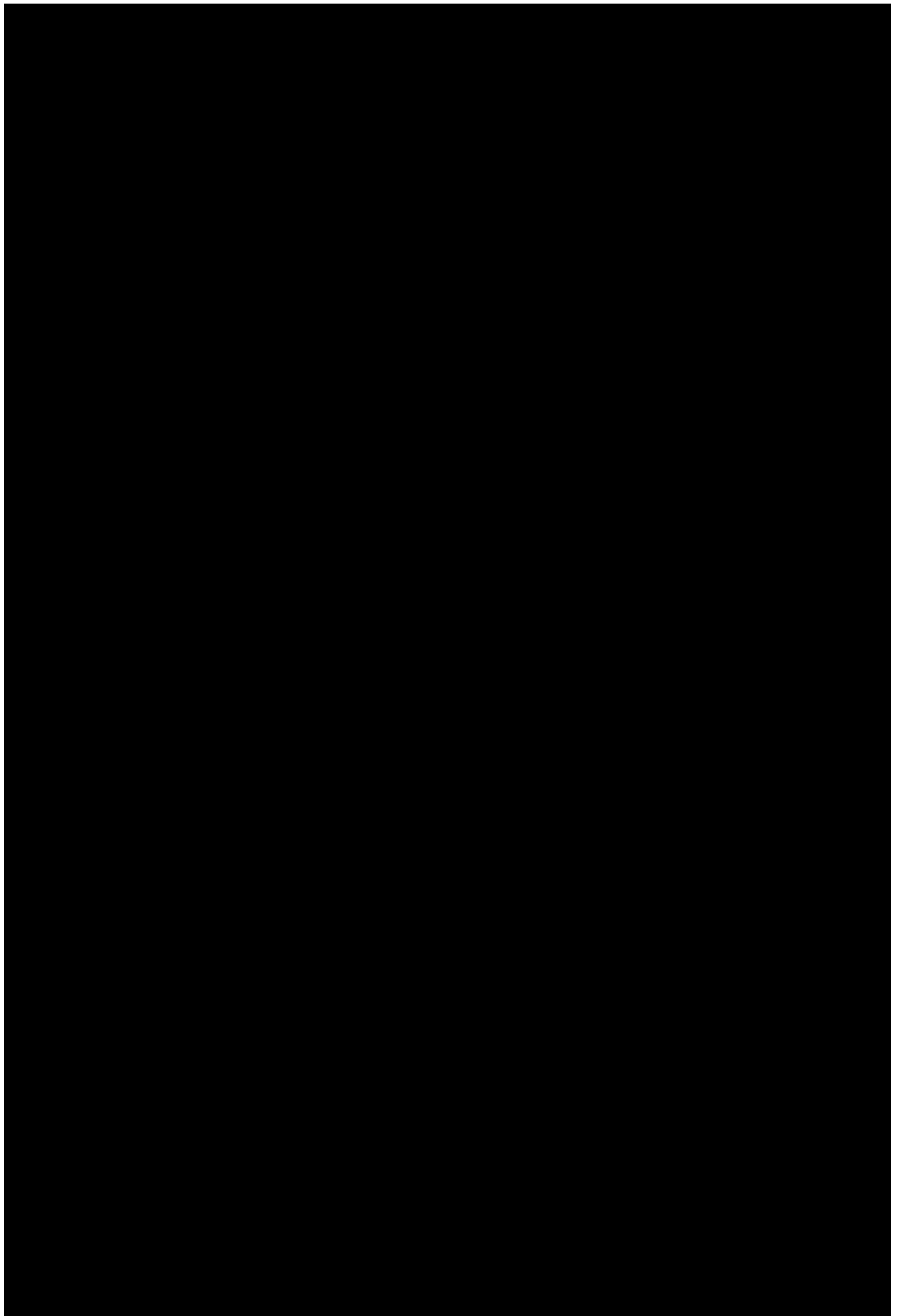












A. Noise and Odour Receptor Boundary



Lake Rotoiti

S Hway 30

Receptor Boundary

PS3

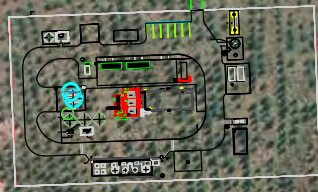
surveyed access road centreline

Receptor Boundary

surveyed access road centreline

Access Road

WWTP



ROTOITI WWTP Receptor Boundaries

Flown 01 2016
Scale 1:2500 @ A4

X. Rotorua WWTP Facility Renewals Flow Chart

