

East Rotoiti/Rotoma Sewerage Scheme

March 2015

The proposed scheme is all about the health of our lakes and communities

The purpose of this update is to tell you about decisions on the East Rotoiti Rotoma Sewerage Scheme.

This is to help you make informed submissions to the Rotorua Lakes Council's Long-term Plan (LTP) through which the scheme needs to be approved.

The aim of the scheme is to keep our lakes clean and to protect public health. Doing nothing is not an option and we've achieved much so far, but Council now needs your support to make further progress.

Rotorua Lakes Council (RLC) has adopted a preferred option for a sewerage scheme for the East Rotoiti and Rotoma communities.

This follows the recommendation of the Rotoma Rotoiti Sewerage Steering Committee (RRSSC).

Bay of Plenty Regional Council is budgeting for a \$4 million extra subsidy.

Rotorua Lakes Council is now progressing the project and is working on community consultation with a sub-committee formed by the RRSSC.

Two information meetings/hui will be held.

Council's draft LTP will be open for submissions in April.

COMMUNITY MEETINGS/HUI

- **Sunday 12 April, 10am at Rotoiti Sports Club**
- **Sunday 26 April, 10am at Rotoma Rotoehu Community Hall (behind the fire station)**

The Preferred Option

The Preferred Option would have both communities connected by sewer pipes to a single local MBR Treatment System and Land Disposal System.

Rotoma properties would be connected through grinder pumps (Low Pressure Grinder Pumps or LPGP) to the sewer pipe system. Properties at east Rotoiti would be connected through Biolytix (or similar) wastewater pre-treatment units.

The use of Biolytix units would be dependent on the outcome of a trial of this system.

If the trial were unsuccessful, Rotoiti properties would also be connected through grinder pumps.

If a land disposal site cannot be found within the lakes' catchments, the proposed scheme would default to all properties being connected by grinder pumps and piped back to the Rotorua Wastewater Treatment Plant.

The Preferred Option is a compromise and differs from the option most favoured in written responses during earlier consultation. The changes came about with wider consultation and investigations, and as information was analysed. The need for resilience in order to protect the lakes was stressed by iwi, along with respecting wahi tapu.

Doing nothing is not an option.

What's happened so far . . .

In December last year Rotorua Lakes Council accepted a "preferred option" for sewerage for the east Rotoiti and Rotoma communities. This followed a recommendation by the Rotoma Rotoiti Sewerage Steering Committee (RRSSC) after a year of community engagement.

The preferred option was developed by the RRSSC following consultation, by combining features of options that had been put to the public. All practicable options were considered.

This is how it happened –

The RRSSC started work with the tensions of previous Environment Court action unresolved. As these were resolved, a wide range of options was considered – as required by the Resource Management Act (RMA). Some options were rejected early on, such as the proposal that had been soundly defeated in the Environment Court. Some options were quite unconventional.

The public was consulted initially on 6 options refined by a technical advisory group (TAG). The written feedback overwhelmingly preferred Option 1 – piping sewage back to Rotorua. The next most liked option was a local treatment plant in the scheme area. Unconventional solutions had very little support.

At this stage iwi were still working through the issues and their views, including their views on cultural impact, had not been obtained.

The RRSSC continued to work through the options, assisted by further professional input from the TAG and from iwi. Members of the RRSSC visited wastewater treatment plants in the Bay of Plenty and beyond, and Biolytix systems in Auckland. Expertise was also provided from Christchurch, regarding post-earthquake wastewater solutions, to ensure the options proposed were resilient.

In light of the consultation and this work, some of the 6 options were dropped, some were continued and others were refined and modified. Two survived to final consideration – piping to the Rotorua wastewater treatment plant; and a single local treatment plant. Less conventional options were dropped, but refined options with no urine separation emerged. First was an option called “5A” which still had Biolytix units at houses but no central treatment plant. This was then refined to become the “October Option” which used Biolytix units for the whole scheme, connected to a single local treatment plant.

Eventually, it became clear that a compromise combining other options was necessary to obtain support from all those represented on the RRSSC.

The 3 options finally under consideration – and their total costs – were:

Option	Name	Description	Estimated Capital Cost	0 & M Cost	NPV
				40 years at 3.5%	
1	Piped to Rotorua	Each property connected by grinder pump to a community pipework, then piped to the Rotorua Wastewater Treatment Plant.	\$26.9M	\$11.27M	\$38.6M
2	Single Local Treatment Plant and Land Treatment System	Each property connected by grinder pump to a community pipework. Both communities connected to a single MBR Treatment System and Land Disposal System.	\$28.94M	\$8.55M	\$37.49M
Combined (preferred option)	Grinder pumps for Rotoma and Biolytix for Rotoiti to a central WWTP and LTS	Properties in Rotoma connected to grinder pumps while properties in Rotoiti connected to a Biolytix units. These are then connected to a community pipework. Both communities are connected to a single MBR Treatment System and Land Disposal system	\$31.73M	\$9.25M	\$40.98M

The RRSSC preferred Option 2 over Option 1 because of cultural preference, greater resilience in the event of earthquakes and minor technical advantages (very long pipeline avoided).

Eventually, it became clear that a compromise combining the last two options was necessary to obtain support from all those represented on the RRSSC.

The first choice in the compromise involved an MBR¹ treatment plant and land disposal in the local area:

- Rotoma houses would be connected by grinder pumps to pipe systems and a local treatment plant. This should enable the Ministry of Health subsidy, with its tight deadlines, to be retained.
- At Lake Rotoiti a trial would be done of Biolytix (or similar units) to connect houses to the piping system and thus to the treatment plant. If the trial is successful, these units would be used at Rotoiti – otherwise grinder pumps will be used.

The RRSSC also recommended a fallback option if no suitable local site for a treatment plant and land disposal area could be obtained. If that happens, it is proposed that wastewater from both Rotoiti and Rotoma be piped to the Rotorua Wastewater Treatment Plant, using grinder pumps to connect houses to the system.

Costs and funding

The following subsidies were available at the start of the work of the RRSSC:

Funding Subsidy Source	Rotoma	Rotoiti
Central Government	\$4,460,000 (MoH ²)	\$10,200,163 (MfE ³)
Bay of Plenty Regional Council	\$1,899,974	\$ 2,719,185
Rotorua Lakes Council	\$ 420,000	\$ 693,000
TOTAL	\$6,779,974	\$13,612,348

Extra \$4m subsidy:

The RRSSC was concerned about the cost of the scheme to households.

An application was made by RRSSC to the Bay of Plenty Regional Council (BOPRC) for an extra \$4m subsidy. The main aim is the preservation of water quality in Lake Rotoma, which is best assured if there is a joint scheme with Rotoiti to keep costs down. The approach to BOPRC was made with encouragement from RLC leadership.

The regional council has generously agreed to include this subsidy in its draft LTP.

The extra subsidy has enabled the cost per households to be equalised between the two communities.

¹ A Membrane Bio-Reactor or MBR is an efficient modern type of wastewater treatment. The most recent addition to the Rotorua Wastewater Treatment Plant is an MBR.

² MoH – Ministry of Health

³ MfE – Ministry for the Environment

Cost per property

The estimated costs per property of the options are shown in the following tables. All available subsidies are taken into account, including the extra \$4m from BOPRC. Costs are GST inclusive.

Lump sum option – indicative cost per household (incl GST)

Option	Capital cost (\$)	Annual operating charge (\$) *
Piped to Rotorua	7,726	389
Single local treatment systems	9,909	389
Combined (Preferred Option)	12,178	389

**Charge averaged over all sewerage schemes in Rotorua district*

Capital cost spread option – indicative cost per household (incl GST)

Option	Capital cost spread over 25 years	Annual Operating Charge*	Total cost per year
Piped to Rotorua	633	389	1,022
Single local treatment systems	812	389	1,201
Combined (Preferred Option)	998	389	1,387

OSET

If the sewerage scheme does not go ahead, the rules of the regional Onsite Effluent Plan (OSET) will apply to all households. Under those rules there are two choices:

- Install an “advanced” wastewater treatment system with nitrogen reduction (AWTS+NR).
- Bring existing septic tank and land disposal field up to standard (if not already compliant) and pay a charge to reduce nutrients elsewhere in the catchment.

OSET systems will not be suitable on some sites because of high water table or lack of space.

For many households the cost of OSET compliant systems is likely to be more than the cost of the preferred sewerage scheme. What’s more, OSET systems do not provide the same benefits for the lakes because nutrient reduction is less.

Community feedback

Preliminary community feedback came from written or electronic responses to information sent out, comments at public meetings/hui and forums.

This feedback overwhelmingly preferred Option 1 – piping sewage back to Rotorua. The next most liked option was a local treatment plant in the scheme area. Unconventional solutions had very little support at this time so were discarded in favour of a simpler option.

Few of the responses appeared to come from iwi, who provided most of their input through their traditional channels.

Ngati Pikia, Ngati Rongomai and Ngati Tarawhai provided written input after research, professional advice and internal discussion. Their preferred option was a local treatment plant and houses connected to community piping by Biolytix units. Their second preference was Option 2 – a local treatment plant and houses connected by grinder pumps. Option 1 of piping back to Rotorua was the option least favoured by these iwi.

Ngati Makino were consulted and while not concerned by the proposed options, awaited further detail as to possible impact on their rohe.

Key considerations which led to the recommended option

Indicative capital costs of the Preferred Option are slightly higher but the difference is within the margin of error. The contribution to most RRSSC goals is similar for both options:

- Community systems of Biolytic units, especially those connected to an MBR plant, are an innovative concept. In the past they have been used for individual households rather than a community scheme. A trial to confirm their performance when used this way will reduce risk.
- A decision on a preferred option needed to be made for Rotoma by 20 February, or the MoH subsidy was likely to be lost. That would have rendered the scheme uneconomic.
- Local iwi preference, on cultural grounds, for Biolytix (or similar) especially referred to the community at the western end of Rotoiti and was based on resilience, so as to protect the lakes as the first consideration.
- During its work the RRSSC was concerned about the cost to the local community. The \$4m extra subsidy has somewhat softened the impact.

Timelines

A detailed programme has been developed for the preferred option for the East Rotoiti/Rotoma Sewerage Scheme. The key considerations in developing the programme are as follows:

- The Lake Rotoma part of the scheme will be finished first, followed immediately by the Lake Rotoiti part of the scheme.
- Lake Rotoma sewerage reticulation and the common wastewater treatment plant and land disposal system of the two communities will be constructed at the same time.

Matters still to be resolved

The local site for the treatment plant and land disposal area (on which engineering investigations are to be done):

Council is currently investigating with landowners the possible use of a site near Emery Store at Rotoiti. Technical testing is being arranged.

Confirmation of any site for treatment and disposal systems will be subject to technical testing.

The RRSSC has recommended that if a site for a treatment plant and land disposal cannot be found within the lakes' catchments, the default option would be for all properties to be connected by grinder pumps and piped back to the Rotorua Wastewater Treatment Plant.

The detail of the Biolytix trial:

Rotorua Lakes Council has engaged an independent consultant to scope and lead the trial and that person will write a proposal which will include the methodology that will be used and how much the trial will cost.

The precise boundary between the Rotoma and Rotoiti parts of the scheme:

A number of houses to the south of Lake Rotoehu lie between lakes Rotoma and Rotoiti. These could be serviced by either grinder pumps or Biolytix units. Discussions will be held with these residents and ratepayers.

What happens now?

The RRSSC sub-committee is helping Council with consultation on the proposed sewerage scheme to ensure everyone is well-informed, understands what's proposed and is able to make informed submissions to Council's Long-term Plan.

Council staff and this sub-committee are meeting regularly and along with Council staff, sub-committee members are available to speak to groups if they wish.

The sub-committee has also organised two public meetings for residents in the affected communities.

- **Sunday 12 April, 10am at Rotoiti Sports Club**
- **Sunday 26 April, 10am at Rotoma Fire Station hall**

These meetings will be an opportunity for residents and landowners to hear more about the preferred option, to ask questions and to assist you if you decide to make a submission to the Council's Long-term Plan.

Members of the sub-committee and Rotorua Lakes Council staff will be present.

Consultation on the Long-term Plan is expected to take place in April and May. There will be a month to make submissions.

The release for public consultation on the draft Long-term Plan will be advertised, as will the date on which submissions will close.

Beyond the Long-term Plan (LTP)

If the decision regarding the east Rotoiti/Rotoma sewerage scheme is favourable, following the LTP consultation process, the proposed option will require resource consent.

For both the treatment plant and land treatment area, site investigations and preliminary design would be the basis of more refined costings.

These will be publicised to all stakeholders who will be able to make their views known as part of the resource consent process.

After the resource consent application is submitted and advertised, further input is possible through the objection process.

If all goes well, the Rotoma part of the scheme is scheduled to be commissioned late 2018 and Rotoiti (after and subject to the Biolytix trial) in 2019.

In conclusion:

Sewerage for the east Rotoiti and Rotoma communities has been a long journey.

The key objectives have consistently been better water quality, especially for Lake Rotoma, and protecting the health of these communities.

Cultural considerations have also been taken into account and cost has been a concern throughout.

All practicable options have been examined by the RRSSC in a community-led process. Consultation has been undertaken with the two communities, including iwi.

Finally, a compromise option was unanimously chosen by stakeholder representatives on the RRSSC. It is designed to best meet the general preferences of all parts of the community.

Doing nothing is not an option.

To find out more please check the Rotorua Lakes Council website where you'll find a Frequently Asked Questions (FAQs) sheet, including more information about Biolytix, and other information regarding the proposed scheme.

A copy of this newsletter will also be online.

Go to: rotorualakescouncil.nz – click on 'Our Services', then 'Water Services' and then 'Lakeside Community Sewerage Schemes' to view the FAQs

Contacts for further information

Contacts for further information				
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