

Recovered Water Management Project: Solution Selection

Multi Criteria Analysis formulation and approval
7 May 2025



What is a Multi Criteria Analysis?

- Multi-criteria analysis (MCA) is used to assess multiple criteria, both quantitative and qualitative, to compare different alternatives and options. The MCA process must be transparent, robust, repeatable and apply sound logic (source, NZTA).
- An MCA analysis is particularly relevant on complex problems that do not have a straight forward decision pathway.

Why are we proposing an MCA for the Recovered Water Management project?

- The selection of a discharge site and discharge solution is a complex problem for RLC to solve.
- Some preliminary work has been completed to look at various options, however a site and discharge solution agreement has not yet been able to be reached.
- We seek Council's thoughts, guidance and approval of a Multi Criteria Analysis baseline, as we look to engage and partner with Mana Whenua (and other stakeholders) in the Recovered Water Management site decision making process.
- An agreed MCA baseline will enable the Project delivery team to work proactively in a partnering model, to make decisions, and to bring solutions back to Council.

Background

- The Waste Water Treatment Plant renewal project will be completed and operational in mid 2026, supplying a significantly higher quality fluid 'Recovered Water' to the existing treatment.
- We are continuing to discharge into CNI's land in the Whakarewarewa Forest under a section 124 until we are able to find another solution or commission a new discharge solution.
- We are at a point with the new discharge solution where a multiparty group involving Councils partners and other stakeholders will be invited to consider the issue in detail and work through a collaborative and joint resolution framework, consider options and make recommendations.

The MCA process:

- The following MCA process is for Councillor discussion, formulation, and approval. The RLC project team will take the outcome forwards into discussions with the Mana Whenua working group. *Please note, the proposed MCA should not be viewed as an exhaustive criterion, but considered a robust baseline from which to frame working group discussions and optimisation of this MCA within that group.*
- *The MCA process is run in two stages:*
 - *Stage 1, relevant factors that would preclude a solution from actually being feasible, where a pass in every metric is required for an option/site to proceed into the values scoring phase.*
 - *Stage 2, is run in two parts:*
 - *a- the values scoring phase, where the important values are decided.*
 - *b- the agreed values are then weighted, to produce a preferred solution.*

Stage 1: Proposed Factors

For a site/solution to proceed into the Stage 2 Values scoring phase, a pass would be required in all of these factors.

- Legal and Regulatory compliance : The discharge site and any pipeline route, including technical hurdles, must sit within the various regulatory and compliance frameworks. Key will be meeting our obligations under the National Environmental Standards for Freshwater and any conditions ultimately imposed by Environment Bay of Plenty.
- Technical Factors: The disposal sites/s and conveyance network must be constructable within reasonable grounds. Relatively readily available technologies must be available to overcome technical hurdles, that may include: geotechnical constraints, permeability of the soils, ability to build/access/maintain the system. This does not preclude significant innovation in delivering a solution.

Note, the above two factors are the only 'absolute factors' that RLC Project staff believe are 'set in stone'. The following two factors, are also proposed, but are more open for interpretation:

- Sits within Financial Strategy: The whole of project (capital and operational costs) cost must sit within Councils financial strategy framework. The solution needs to be financially sustainable both now and for future generations.
- Landowner approval: The site and supply network must be able gain approval from the land owner/s. This makes the assumption that a relatively straight forward negotiated process will be achievable, without avenues such as the Public Works Act to procure a site.

Stage 1: Indicative Factors table

This table indicates what Stage 1 would look like in tabular form, assuming the proposed factors were approved.

Factors that make an option non-viable	Pass/Fail	Pass required in <u>all</u> factors to proceed to Values scoring process.
Legal and Regulatory compliance		An option must fit within Councils regulatory obligations.
Sits within Financial Strategy		An option must not significantly affect our rates and overall affordability.
Landowner approval		Council must be able to reach a suitable occupation window with the landowner/s.
Technical feasibility: - Groundwater - Surface water - Geotech - Permeability - Accessibility - Constructability - Operability Infrastructure hurdles		An option must be technically feasible without undue hurdles.

Stage 2: a - Proposed Six Values.

The following are the RLC project team's proposed six values for discussion, formulation and approval by Council:

Relationship with Mana Whenua

- This is intended to capture the views of Mana Whenua, with much of this criterion likely sitting more in the quantitative space. The expansion of this criterion will very much be for Mana Whenua to populate in the working group, as they determine key parameters to ensure appropriate restoration of the Mauri as the recovered water re enters the natural environment

Community Acceptance and Support

- This is intended to pick up wider community values, acknowledging that the discharge site and solution will present both challenges and opportunities for our community. There is potential for overlap in this space with a number of other values, however this will be resolved as the MCA is more strongly interrogated within the working party. An example may be a wet land solution that creates a valuable asset for both the community and also meets Mana Whenua aspirations. Here, outcomes will not be mutually exclusive, as we journey from viewing the recovered water as an asset rather than a waste product.

Te Mana O te Wai/Health of Water alignment

- This is intended to capture Councils obligations and implementation under this regulatory guidance framework. This picks up the myriad of effects that the discharge could have on a site and changes to the receiving environment (air, land, water). A significant amount of technical information will ultimately feed into this value to ensure that we are compliant (an example is the amount of work required to show the pathway that fluid may take from it's irrigation point until it reaches the shores of a Lake, and it's effects along the way).

Total lifecycle cost

- This is intended to capture the capital and operational costs of a certain site and solution, including elements, but not limited to:
 - Site procurement, lease or land use costs in perpetuity.
 - Design, construction and commissioning costs.
 - Maintenance and ongoing operational costs to run the assets.

With many technical aspects feeding into this criterion, the above outcomes will be used to capture the effects of a given site and discharge solution on Councils debt ceiling and ultimately rates.

Intergenerational Value, including environmental outcomes (100 year horizon)

- This is intended to ensure an appropriately wide view is taken when viewing a solution, given the intergenerational nature of key infrastructure such as this. The view horizon would drive decisions now, that are the best for our grandchildren's grandchildren. This value will likely 'borrow', or be informed from many of the other values, as it balances this very long term view.

Wider economic value to the community

- This is intended to pick up the wider economic value to the community, acknowledging that the discharge site and solution will present both challenges and opportunities. There is potential for overlap in this space, however this will be resolved as the MCA is more strongly interrogated within the working party. There sits the potential to see the recovered water as an asset, with the potential to monetise this in the future (if not now). Examples could be a return on investment by sale to industry, use for irrigation for a commercial entity, or horizon planning that sees a value add at some stage in the future around climate change (think drinking water and/or substitution). If we are unable to capitalise on these opportunities now, ideally, we devise a solution that does not preclude innovation in the future.

Stage 2: b - Indicative weightings for discussion:

Table indicating a range of different scoring weights, assuming the six proposed values were approved.

VALUES	Weighting 1	2	3	
Relationship with Mana Whenua	10%	10%	15%	Mana Whenua aspirations to be captured in this value.
Community Acceptance and Support	10%	10%	15%	Our community must be in general agreement with the proffered option.
Te Mana O te Wai alignment	5%	5%	15%	framework.
Total lifecycle cost	50%	40%	25%	The solution must be affordable.
Intergenerational Value, including environmental outcomes (100 year horizon).	5%	30%	25%	The solution must consider and provide the best outcomes for generations to come.
Wider Economic value to community	10%	5%	5%	A solutions ability to add value for the community.
TOTAL	100%	100%	100%	

