

ROTORUA LAKES COUNCIL

Chairperson and Members
ROTORUA TE ARAWA LAKES STRATEGY GROUP

**ROTOITI ROTOMA SEWERAGE RETICULATION SCHEME (STATUS OF PROJECT)
FUNDING DEED CONTRIBUTION ADJUSTMENT**

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1. PURPOSE

To update the Rotorua Lakes Water Quality Strategy Group on the status of the Rotoiti/Rotomā waste water reticulation and treatment scheme/project.

The report informs members on the scheme's progress and achievements to date and makes recommendations for adjustments to the Deed funding contribution for this scheme/project in line with the eventual actual costs and precedent policy.

2. EXECUTIVE SUMMARY

Household septic tanks and other on-site treatment and disposal systems are an important contributor to degraded lake water quality (through leaching of nitrogen, phosphorus and pathogens). Accordingly, one of the most effective work programmes under the Deed of Funding between the Crown, Te Arawa Lakes Trust, BOPRC and Rotorua Lakes Council is the installation of community wastewater reticulation and treatment schemes (including the Rotoiti/Rotomā scheme).

Some ten years ago, Council developed a proposal to construct a Rotoiti/Rotomā wastewater reticulation and treatment scheme. The attempts cumulated in a failed Environment Court consent application in 2013. The applications failed primarily because of a failure to address the concerns of local iwi in a culturally appropriate manner. The Court considered that iwi had attempted to communicate and consult with the Council in a meaningful way, but that Council had turned away from such an approach. That failure materially contributed to a widening of trust deficit between the local communities, the local iwi and councils.

In 2014 an integrated community steering group (RRSSG) was established. The RRSSG sought to overcome a legacy of significant relationship trust deficit. Following considerable effort it arrived at a new concept: a single treatment plant serving both catchments with wide support and broad consensus from local stakeholders.

This is a complex project involving the need to carefully manage a legacy of poor relationships. RLC's approach now is to seek to understand and address community and iwi concerns, and to work in a way that upholds the Te Arawa partnership. Some of the important features of rebuilding trust and community support have included:

- A long-term land lease agreement for the siting of the WWTP;
- Providing for on-property pre-treatment systems (to a higher standard than any other reticulation scheme to date – STEP at Rotoma, and on-site pre-treatment biological process at Rotoiti);
- A cultural impact team (including technical advisors) to ensure that cultural concerns are addressed at every stage of the project;

- All scheme staff are fully inducted at Taurua Marae (including health and safety and cultural significance of the area);
- Comprehensive cultural monitoring during construction;
- Careful installation of main trunk mains to minimise cultural impacts and to address challenging land terrain.

The project achievements to date are significant, particularly considering the legacy issues and the related challenges including:

- WWTP constructed and operating;
- 22km + 15km of main trunk reticulation constructed and operating;
- 208 (from 212) STEP pre-treatment systems installed and operational at Rotomā.

The remaining work comprises installation of pre-treatment systems at Rotoiti (currently subject to open tender) and connection of Rotoiti homes to the main trunks line (this will require significant engagement in the last half of 2020 to secure approvals from Māori land owners). Through effective collaboration with mana whenua and the wider community, there is an enduring and promising bridging of the legacy trust deficit.

Final actual costs will be confirmed once the final aspects of the scheme are complete. Given the physical works for the scheme started with a heavy cost burden (from the earlier 2013 proposal) and the need to invest upfront to reach consensus, it is expected that there will be variances to the scheme's initial estimate. However, these will be within the overall cost envelope (including the uncertainty factor noted in 2015/16 of 30%).

The Council's project team is attuned to the challenges. The overall water quality objectives and the broad benefits of the project are intergenerational. Every effort continues to be made to balance multifaceted considerations, to deliver the long term goals of the project and to maintain harmonious relationships.

This report seeks the Strategy Group's agreement that officers of the Steering Group (who are already in support) review and adjust the Deed of Funding contribution to this project at 50% of the final actual scheme cost variance (once that has been established).

3. RECOMMENDATIONS:

- That the report be received.**
- The Strategy Group notes the current status of the project and the remaining tasks for project completion.**
- The Strategy Group instructs officers to re-align the Deed Funding contribution to the final actual cost of the project in line with precedent policy.**

4. BACKGROUND

Purpose of the scheme

Household septic tanks and other on-site treatment and disposal systems are an important contributor to degraded lake water quality (through leaching of nitrogen, phosphorus and pathogens). Accordingly, one of the most effective work programmes under the Deed of Funding between the Crown, Te Arawa Lakes Trust, BOPRC and Rotorua Lakes Council is the installation of community wastewater reticulation and treatment schemes (including the Rotoiti/Rotomā scheme).

The funding for the scheme falls under the overall framework of the "Funding Deed" between the Crown, the BOPRC, Te Arawa Lakes Trust and the Rotorua Lakes Council (2007 and the Variations of 2013 and 2015).

Amongst other logistical requirements the Group's obligations under the Deed include:

- Submit work programmes and reports to the Crown in accordance with the provisions of the Deed.
- Enable and progress the interventions diligently and in accordance with the approved works programme.
- Notify the Crown of any matters that are likely to affect the progress of the work programmes' outcomes.
- Act at all times in accordance with the overall intent of this Deed.

History of the scheme (from proposal to construction)

Some ten years ago, Council developed a proposal to address reticulation at Rotoiti/Rotomā, and in 2012/13 applied for resource consents. The applications failed, primarily because of a failure to address the concerns of local iwi in a culturally appropriate manner. The Environment Court considered that iwi had attempted to communicate and consult with the Council in a meaningful way, but that Council had turned away from such an approach. That first failed approach materially contributed to a widening trust deficit between the iwi, Councils and the wider community.

In 2013/14, the Rotoiti Rotomā Sewerage Steering Committee ("RRSSC") was established in a renewed effort to overcome the relationship trust deficit, especially with Iwi, that arose out of the earlier failed proposal. The RRSSC explored common ground and developed a preferred option for the entire benefit area. The RRSSC were supported and advised by the Technical Advisory Group comprising independent, Iwi, BOPRC and RLC experts.

Over three years, the RRSSG, in partnership with both councils, developed a preferred option for the scheme. The preferred option included:

- Both Rotoiti and Rotomā should be reticulated to a single wastewater treatment plant (ie as a single scheme). Although Rotomā is not one of the targeted lakes there was significant concern about the adverse effects of septic tanks on the health of the community through faecal coliform/pathogens contamination (which was also the basis for the MOH funding contribution);
- Low Pressure Grinder Pumps (LPGP) at Rotomā;
- A form of on-site pre-treatment system (STEP) at Rotoiti, and
- A reticulation network connecting both communities to a single Membrane Bioreactor Treatment Plant ("WWTP") and a land-disposal system at Haumingi 9B3B.

The RLC accepted the RRSSC's recommendation on the preferred option. Subsequently the RRSSC recommended a STEP pre-treatment system at Rotomā instead of the originally proposed LPGPs. Guided by our collective commitments to avoid the earlier failed outcome, to overcome the legacy trust deficit with Iwi and after significant engagement with the Rotomā/Rotoiti communities, RLC accepted that recommendation.

In 2016, RLC applied for resource consents for the preferred option. Submissions on those resource consents brought to the surface additional and culturally significant elements from beneficial land owners of Haumingi 9B3B (the proposed site for the WWTP) about the adequacy and depth of consultation within the H9B3B Trust, and the proposed transfer of raw sewage through the piping network to the treatment plant onto their land. The submitters strongly preferred on-property pre-treatment at least to the equivalent of vermifiltration. In order to address the objections so the scheme could be consented, it was agreed:

- The WWTP would only receive wastewater from the reticulation network (no industrial waste or sludge from septic tanks).
- At Rotomā, the STEP system with modified 1.5mm screens would be used (and Rotoehu if that community joins the scheme).
- At Rotoiti:

"Council agreed that pre-treatment to at least the equivalent of STEP level (with 1.5mm screens) will be used for all properties that connect to the WWTP and LDS scheme.

*The Council understands that this is a contentious issue. Assurance is given that the Council, through the resource consent application, recommends an equivalent pre-treatment system for properties if the Biolytix trial is unsuccessful. The use of LPGP will not be considered as a non-pre treatment system would be a breach of the resource consent. In the event that the Biolytix trial is unsuccessful the Council will meet with the RRSSC to revisit the conditions of the resource consent and to consider alternative pre-treatment option. The RRSSC and the Council will determine an appropriate process to report the biolytix results to the Rotoiti community and to propose the alternative pre-treatment system for confirmation by the community.” - **MOU between Submitters and Council , (late 2017, fully signed March 2018)***

The Biolytix system trial assessed whether vermifiltration systems can provide adequate effluent quality, all year round, on real life installations in the Rotoiti environment (without causing physical or environmental nuisance, such as odour, noise or human health risk to the users).

Both BF6 and BF2 were included in the trial. The trial determined that BF6 failed to meet all the set performance criteria but BF2 met the agreed test criteria.

The RRSSC received the trial outcome in late February 2018 and unanimously resolved:

“That Rotorua Lakes Council go to formal tender on Biolytix and STEP or similar systems and as a result of the tenders that this committee meets and Officers make a recommendation to this committee and then this committee to consider a recommendation to the community and the Council.”

A significant effort then took place from the Cultural Impacts Team technical advisors and Council officials to clearly define the system’s expected performance standards, and to ensure robust RFP documents. The tender process has commenced.

5. FUNDING MODEL FOR THE SCHEME

Consistent with the terms of the “Deed”, initial scheme concept estimates are produced that are then refined and confirmed through detail design, the final resource consent conditions, related land agreements and the actual outcomes of tendering/contracting installation costs.

The initial estimated capital cost of the agreed scheme was about \$34.5 million (with uncertainty element of 30%), to be provisionally covered by contributions from:

- Ministry of Health \$4.46 million
- Bay of Plenty Regional Council \$8.6 million
- Ministry for Environment/Deed Funding \$11.6 million and;
- Rotorua Lakes Council to fund the rest through borrowings (recovered from ratepayers).

The Ministry of Health’s funding contribution had a “use it or lose it” deadline, so that there was time pressure to ensure substantial progress by June 2018.

6. COMMUNITY ENGAGEMENT AND HOW MAORI VALUES HAVE BEEN ADDRESSED

Cognisant of the earlier failed resource consent application for the scheme, the RRSSG and the Council’s project team continue to make every effort to engage and consult with Iwi on all aspects of the scheme concept, Māori values, land agreements, detail design and cultural risk mitigation approaches. This has included:

PLATFORM**The RRSSG****FUNCTION**

The community-led Committee that investigated the issues, identified options and made recommendations to RLC. This included representatives from;

- Haumingi 9B3B
- Haumingi 9B1
- Rotomā No1
- Ngāti Mākino Iwi Authority
- Tapuaeharuru Marae
- Punawhakareia Marae Representative
- Ngāti Tamateatutahi Kawiti
- Ngāti Pikiāo
- Rotorua Lakes Community Board
- Bay of Plenty Regional Council
- Rotorua Lakes Council
- Rotomā/Rotoehu Community Association
- Independent members
- RPSC Representative

**RLC and Ngāti Pikiāo
Environmental Society (Heads
of Agreement)**

Ngāti Pikiāo is the Iwi comprising the confederation of hapū that surround Lakes Rotoiti/Rotoehu, Rotomā and Ōkere (the Waterways). A Heads of Agreement provides for a continuing relationship between RLC and NPES, including on-going monitoring of effects.

Cultural Impacts Assessments

Two assessments were completed, one focussed on the impacts on Haumingi 9B3B (the WWTP site), and the other addressing the broader aspects of the scheme.

The Cultural Impacts Team

A CIT was established to provide cultural advice on all aspects of the scheme and includes:

- CIT manager,
- cultural advisor and cultural site monitor for the reticulation network,
- cultural advisor and cultural site monitor for the WWTP site,
- technical advisors for the network and WWTP site,
- researcher.

Cultural Site Monitor

This position aims to give Iwi confidence that cultural matters/ protocols are effectively addressed by RLC as per the Rotoiti Rotomā Sewerage Scheme Cultural Management Plan.

The Cultural Site Monitor is observes all scheme construction activities and provides cultural guidance onsite to contractors and project team members.

PLATFORM**FUNCTION****Haumingi 9B3B**

- **HOA and**
- **Lease Agreement**

The WWTP is constructed on Māori land, which requires a different approach. As such, RLC and the landowner trust agreed an HOA that provides for a broader relationship than a simple lease including;

- How access roads and services will be sited,
- Exchange of land,
- Council contribution to community facilities (sports clubs and marae)
- Process for obtaining resource consent, and finalising easements and lease agreement.

MOU between the RLC and Resource Consent Submitters

A memorandum of understanding agreed in 2017 to overcome objections to the resource consent application. The MOU covers matters such as;

- Requirements for pre-treatment systems,
- Ongoing water quality monitoring,
- Resilience in the network,
- Council contribution to marae.
- Ongoing engagement.

Rotoiti/Rotoma Iwi Liaison Group

Through the IWLG, Iwi have continued active and effective participation in the Scheme throughout its full life. It is mandated in the resource consent conditions.

Specific agreements with mana whenua include:

- The location of the Wastewater Treatment Plant, its configuration, current and future footprint, the access to and provision for essential utilities, were guided by the Land Lease Agreement with Haumingi 9B3B Trust (the land owners). All Iwi under Ngāti Pikiao Environmental Society agreed to the overall scheme and have signed a Heads of Agreement with Rotorua Lakes Council in late 2017.
- Rotomā No.1 Trust has approved the STEP installation on their land under a comprehensive all-sections global approval.

The Council's project team works closely with the Iwi Wastewater Liaison Group, the cultural impact team including the CIT's appointed technical advisors to ensure that they are intimately involved in the design and construction of the plant and all of the reticulation network.

Council has progressed all aspects of the project in an iterative manner, seeking mana whenua comment and feedback on all phases. At every step Council sought to ensure that the project team remains respectful and open-minded on the possible options, and the need reach broad agreements on the phases of the project.

Council worked closely with the CIT and the technical advisors to design and construct a network that is engineered to a much higher standard than would ordinarily be required. This includes engaging expert advice on heritage sites, avoiding sensitive heritage areas, avoiding significant trees, significantly uprating pipe materials (including concrete capping/double sleeving).

7. PROJECT IMPLEMENTATION STATUS

OBJECTIVE	CURRENT STATUS
Construction of the WWTP (consistent with the resource consent conditions and land lease agreement).	WWTP completed and operating. Further testing underway to confirm compliance on effluent characteristics
Installation of STEP pre-treatment systems on each property at Rotomā (service area)	Completed and operating: <ul style="list-style-type: none"> • 208 of 212 installed. • 4 owners refusing to sign consent to install have received statutory obligations letters.
Rotomā/East Rotoiti main trunk (22kms) to the WWTP	Complete and operating
Installation of a pre-treatment system for all properties at Rotoiti (service area)	Currently subject to open competitive tender with criteria addressing cultural values, verified lifecycle and operational life cycle risk parameters. Recommendation to be arrived at in near future.
Main trunk for Rotoiti service area to the WWTP (15 kms)	Mains completed except portions that require Māori Land owners' consents

Landowner approvals are required from some 120+ Māori land blocks before pipelines infrastructure can be installed to connect homes to the main trunk line. Some properties will be straightforward (with a single owner, who can be located). Others require more extensive work (for example, no Māori Land Court title has been issued, or no trustees have been appointed, or owners/trustees cannot be located). We are preparing for that engagement process to begin in the second half of this calendar year.

8. COSTS UPDATE

The key contributors to the expected variance (between initial estimate and the final scheme cost) are:

1. **Time:** Working meaningfully with the community takes longer. Extended operation of the RRSSC, the prolonged consenting process, the cultural monitoring requirements of the consent, Biolytix trial/reports and legal costs to finalise all required land agreements and to secure pipelines access related consents.
2. **Costs to secure the WWTP site:** A Heads of Agreement and Land Lease Agreement to secure land for the WWTP required an access road to be constructed (requiring extensive earthworks), connection to sensitive sites (urupā) and facilitates future papakāinga objectives.
3. **STEP:** The initial estimate provided for LPGP at Rotomā, the agreement to provide STEP added approximately \$1.0m capital cost.
4. **Construction costs increasing:** The construction sector CGPI escalations since the initial estimate was established (based on the Department of Statistics).

Despite the challenges, it is expected that final costs will remain within the 30% uncertainty envelope identified in 2015/16.

Important local community affordability information

The level of deprivation in the Rotoiti/ Rotomā community is quite high. Data collected by iwi to understand the ability of ahi kaa whanau to meet the net costs of the project records:

- There are 114 Ahi Kaa properties/whānau. Some 97% of these are within the Rotoiti portion of the scheme.
- The median household income is \$48,000.

The anticipated cost of the scheme will be a very hard challenge for most of these property owners.

Precedent Funding Policy of the “Deed”

The “Deed” was utilised to contribute to costs of earlier schemes. In broad context the Deed funding contributes 50% of the actual costs of the schemes and programmes of works.

Earlier waste water reticulation schemes completed were:
(Rounded Figures, Millions)

Lake	Sewerage Scheme	Estimated Budget per lake as per August 2008 funding deed (pages 25-27)	Initial Estimated Cost for each scheme	Actual cost for each scheme As progressed	Deed Funds Variance per lake (+/-)
Rotorua		\$28.50	\$28.50	\$23.20	- \$5.30
	Hinemoa Point				
	Brunswick/Rotokawa				
	Hamurana/Awahou				
Okareka		\$9.70	\$9.70	\$7.90	- \$1.80

5. SUMMARY & CONCLUSION

The project is a key mechanism to achieve the “Deed” objectives. Septic tank leachate adds nitrogen, phosphorus and pathogens to the lakes – harming water quality (and mauri) of the lake and creating health risks to the communities. There is a present public health risk from poor or failing septic tank systems and safe on-site sewage disposal is not possible in many low lying areas. The completed scheme will significantly improve lake water quality and the protection of public health.

The Regional and Lakes Councils, Te Arawa Lakes Trust and the Crown are all committed to restoring lake water quality, respecting traditional cultural values and community expectations. This commitment is also reflected in the Rotorua Lakes Water Quality programme.

The scheme, despite significant legacy relationship challenges, has made major progress since the earlier Environment Court failure. This is a complex undertaking and we have successfully navigated major challenges reconciling divergent community views, delivering a technically sound scheme, and containing the actual costs inside an acceptable and affordable fiscal envelope.

There is no doubt that the scheme for these communities and eventually Rotoehu is the most effective way to contribute to the objectives of the “Deed” and will have intergenerational benefits.

Every effort has been made and will continue to be made to manage the scheme’s technical, cultural, environmental and costs considerations.

Consistent with precedent Deed Funding policy this report highlights progress made to date, notes remaining challenges and seeks agreement from the Strategy Group for officers to commence reconciling Deed funding to the final actual scheme costs.

