

Subject: Managed Aquifer Recharge Trial

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Meeting Date: 9 September 2015

Report to ENVIRONMENTAL PLANNING & REGULATIONS Committee for noting

SUMMARY

A trial of Managed Aquifer Recharge (MAR) is being considered for the Makauri Aquifer, in order to identify whether this is a possible method to recharge the aquifer.

There has been substantial progress on the technical work required to support the resource consent application for the proposed trial to inject water from overflows from the Mangapoike Dams into the Makauri Aquifer. This report provides an update on actions taken and on milestones that will be actioned over the coming summer.

Council has agreed to the acceptance of funds from Eastland Community Trust and from the Ministry of Primary Industries Irrigation Acceleration fund, totalling \$460,000 to enable a trial to be completed.

Resource consents are required and Council has given approval for Bay of Plenty Regional Council to process the consents. Council also has resolved that the resource consents be publicly notified. The decision on the resource consents will be made by independent commissioners and Council will appoint those commissioners.

Consultation with iwi and the community is ongoing and this has attracted some social media interest. With this increased interest in the project updates have been provided on the Council website have been undertaken include a question and answer section to allow better information to circulate through the community.

RECOMMENDATIONS

That the Committee

1. receives the report



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Keywords: Managed Aquifer Recharge trial

1. BACKGROUND

Council in partnership with HortNZ, Leaderbrand, Wi Pere Trust and other community stakeholders has been investigating Managed Aquifer Recharge (MAR) for the Makauri Aquifer for the last two years. Early investigations were funded through EnviroLink and the Irrigation Acceleration Fund. These confirmed that MAR is a viable option for the Makauri Aquifer, and that a trial project was warranted.

Two options have been investigated – recharge through infiltration areas during winter, and direct injection of water into the aquifer via a bore.

A Masterate student, has been investigating possible infiltration sites over the summer of 2014/2015, however it appears that because of the degree of modification of the Waipaoa River channel, and associated landuse, options are limited for this type of approach.

Direct recharge via a bore appears to be a viable option, with a bore located near the Waipaoa Augmentation Plant and water available from the Mangapoike Dams when they are full and spilling over.

Funding applications to the Eastland Community Trust and MPI Irrigation Acceleration Fund for a trial of direct recharge MAR have been successful. Council approved the uplift of these funds at its meeting of 21 May 2015. There is also provision in the LTP for Council support for the trial, to cover the costs of resource consenting, staff time and science work not covered by the funding applications.

Golder Associates, who have undertaken the technical work to date, have now completed the technical work to inform a resource consent application.

TROTAK have also been engaged to undertake a cultural impact assessment.

Because of the economic and environmental significance of the Makauri Aquifer, a high degree of scrutiny and interest in a trial is expected. With Council as the applicant, external processing of the resource consent will be undertaken and independent commissioners appointed to make decisions.

The Council resolved on 27 August 2015 to delegate the authority to the Bay of Plenty Regional Council to process the resource consents required on behalf of the Council. The Council also resolved to require public notification of the resource consents, so that any interested community member is able to participate in the process.

Should consent be granted, then the actual timing of the trial MAR will depend on availability of water. The intention is to use water from the spill over of the Mangapoike Dams during winter when the dams are full as the source of water for the trial. Because of the dry weather experienced over 2015 to date, and the predicted continuance of the current El nino, there may not be water available for the trial during the winter of 2016. Should there not be water available over the 2016 or 2017 winters, then a trial may proceed using water from the Waipaoa River during the winter season of 2018, so resource consents will seek that water source as an alternative option.

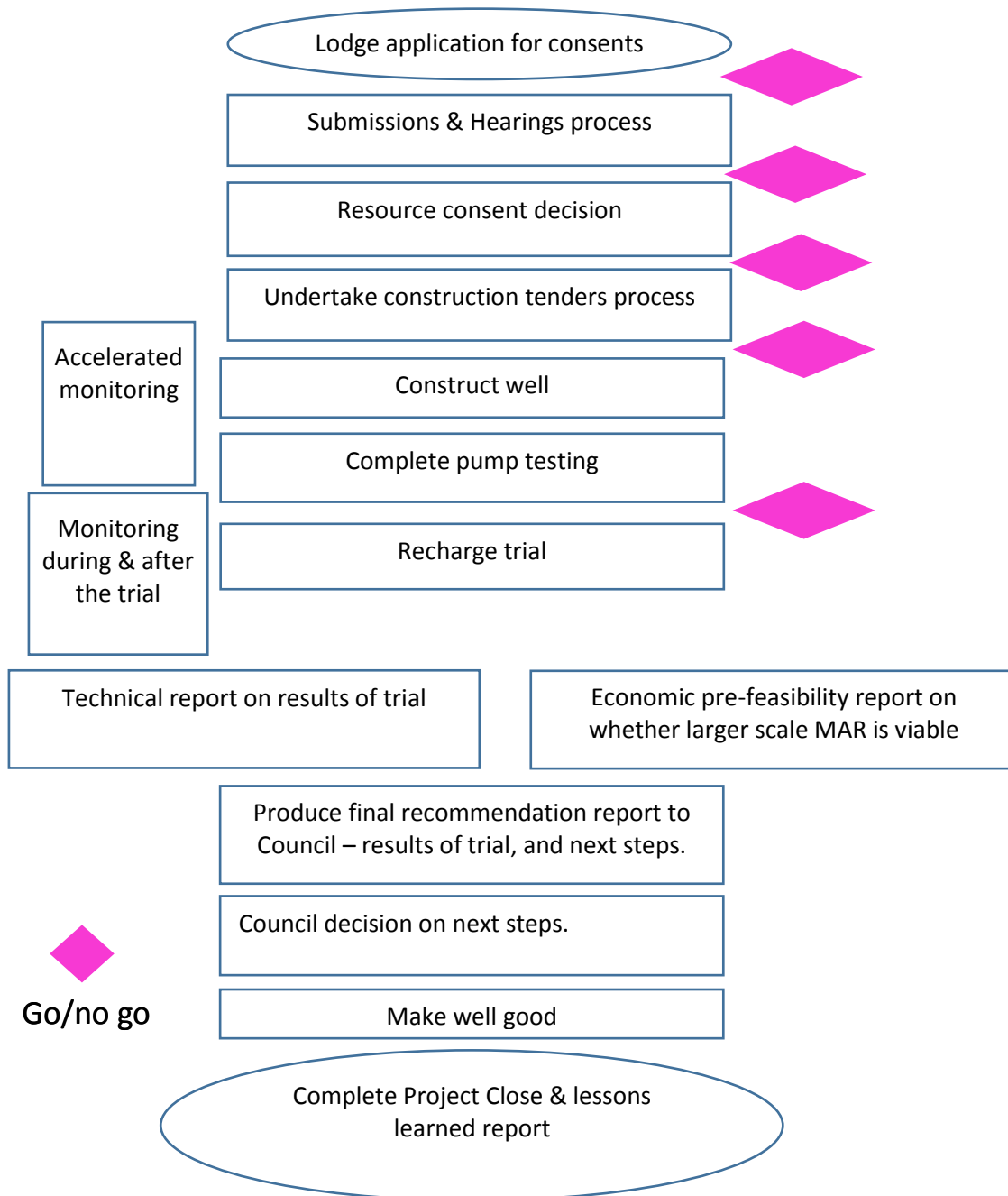
Council is following a GO/NO GO process in determining how the trial replenishment of the Makauri aquifer will proceed. This process is based on Australian guidelines for managing MAR decisions.

Reports from Golder Associates have lead through the first decision points, being:

- the Makauri Aquifer has the right qualities which suit direct recharge;
- the water quality issues are manageable – in part due to the high quality of the Mangapoike Dams water compared with the aquifer water; and
- resource consents should be applied for.

During recent consultation activities some social media activity has identified that some sections of the community may require more detailed background and information about the proposed trial.

Overall Process – High Level



2. DISCUSSION

The Social media pages featuring MAR have been helpful in generating interest but some misinformed comment has been identified.

The Social Media comments appear to be assuming a widespread injection programme that will have potentially wide ranging effects on the Makauri aquifer. The actual effect of the injection water is unlikely to influence water quality beyond a sixty metre radius of the trial bore location. This is within the whole area of 6,000 ha that the Makauri aquifer lies under.

The social media attention has identified that the consultation programme needs to be expanded up to provide more details and to allow those interested in the project to have access to information about the project. Accordingly the Managed Aquifer Recharge trial information on the GDC website has been moved to a more accessible position on the Council Website under Major Projects. A Frequently Asked Questions (FAQ) section has been added to this page to accompany the key technical reports that have been available for some time. The FAQ section is appended to this report.

A new stakeholder reference group is also being set up to include a wider range of interests and ensure that concerns about any potential risks of the trial are well understood and addressed through the process.

3. SIGNIFICANCE

A significant decision is one that has a high degree of significance in terms of its impact on either the well-being of Gisborne; persons likely to be affected by or with an interest in that activity; and/or the costs to, or capacity of, the Gisborne District Council to provide for the well-being of the district.

A decision to allow a trial that will increase knowledge about the effects of injecting water into the Makauri Aquifer and assist in characterising the aquifer and interaction with water bearing formations under Poverty Bay has a low degree of significance according to Council's Significance Policy.

4. COMMUNITY OUTCOMES

The MAR Trial will contribute to an Environmentally Sustainable Tairāwhiti by increasing knowledge that may lead to replenishment of the Makauri aquifer and provide for a more sustainable use of groundwater resources. This will support economic performance within the region.

5. LEVELS OF SERVICE

The proposed managed Aquifer Recharge Trial will not alter levels of service.

6. FINANCIAL

The funding to complete the trial has been confirmed by Eastland Community Trust and Ministry of Primary Industry Irrigation Acceleration Fund. Council will provide the water and will provide in-kind support through staff time.

7. CONSULTATION

A consultation plan for the MAR Pilot trial is currently being completed. This includes work that is being completed through a contract with Te Runanga o Turanganui a Kiwa (TRoTAK). Five hui have been completed with Iwi in the areas of interest, a social media introduction to MAR has been managed by TRoTAK and a Cultural Impact Assessment is due for completion by TRoTAK by the end of August.

8. APPENDIX

Gisborne District Council website Managed Aquifer Recharge Trial: Frequently Asked Questions