

Mayor and Councillors
COUNCIL

6 OCTOBER 2011

Meeting Status: **Public**

Purpose of Report: For Information

WATER SUPPLY PROJECT - UPDATE

PURPOSE OF REPORT

- 1 The purpose of this report is to provide an update on progress made within the Water Supply project since the last report to Council in August 2011.

BACKGROUND

- 2 Council's resolution on 19 August 2010 (refer to report AS-10-922):

...approves further drilling, testing, monitoring, modelling and assessment work on the River Recharge with groundwater option with results being reported back to Council and community stakeholders before applying for resource consents.

- 3 At the same time:

... Council confirms the Maungakotukutuku Dam as the second ranked water supply option for the Waikanae/Paraparaumu/Raumati catchment.

That Council authorises the Chief Executive to negotiate the conditional purchase of the Maungakotukutuku Dam site subject to final approval by Council.

- 4 And to continue involving Te Āti Awa ki Whakarongotai in the process with:

... a Cultural Impact assessment be commissioned from local Iwi relating to both preferred options.

- 5 The following table is the amended programme since the 24 August 2011 Council report (refer to report IS-11-313) with updates shown in italics:

<u>Activities</u>	<u>Estimated Completion & Status</u>
Information Review of Solutions	Completed
Solution Selection	Completed
River Recharge Preliminary design/AEE	June 2012
- develop preliminary designs	Partial
- assess environmental effects for resource consent application	Partial
- prepare for statutory assessment, resource consent lodgement	Partial
- consult affected parties	Ongoing
- provide advice on procurement options	

Activities	Estimated Completion & Status
- improve hydrological model	Partial (March 2012)
- <i>understand down-stream ecological effects</i>	Completed
- <i>drill test wells</i>	Progressing (Feb 2012)
- optimise staged development	Partial (May 2012)
- <i>cultural impact assessment</i>	Progressing (Oct 2011)
Maungakotukutuku Dam Land Purchase	2012/13
- <i>cultural impact assessment</i>	Progressing (Oct 2011)
- <i>develop covenant agreement</i>	Progressing
- <i>negotiate purchase agreements</i>	Progressing
Consent Approval	2011/12
- consent application, lodged, processed, including possible hearings	
Detailed Design	
- produce a detailed design reflecting the consent requirements and the solution selected	} 2012 to 2014
Construction	
- procure a contractor to construct the solution	
- manage and monitor the construction	
- commission the built solution	

6 This report provides an update on work streams since end of August 2011.

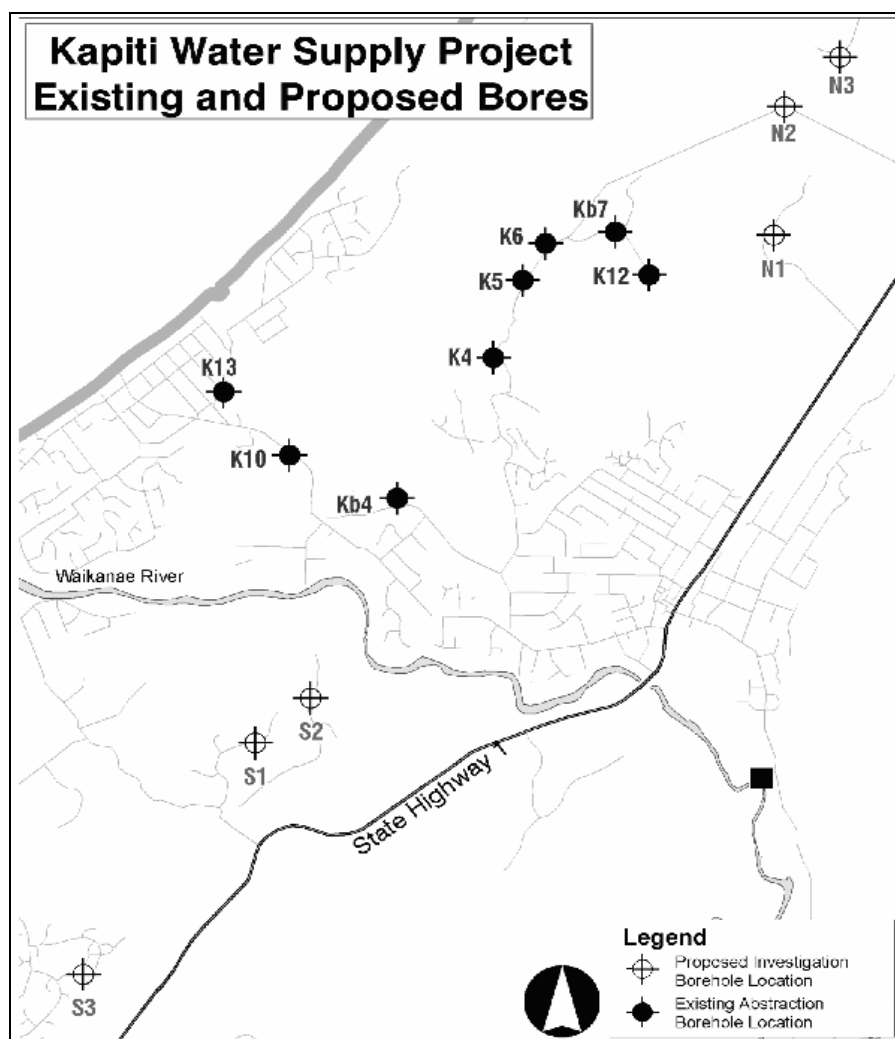
CONSIDERATIONS

Investigation Wells

- 7 The location and order of drilling as set out in the Drilling Strategy (CH2M Beca, 1 November 2010), is being followed with each investigation bore being drilled in succession. This allows the findings from each bore to be interpreted before drilling at the next location. The diagram on the following page shows bore locations.
- 8 Drilling was completed at S1 (Greendale) in late September with a depth of about 95m being reached. Initial analysis of the 3 pump tests indicates that this location would be suitable for a production bore. The estimated yield from N2 (Ngarara Road) and S1 combined is 40-60 l/s. The target yield from all bores is 120 l/s (without meters). The final potential yield will be known when the groundwater model has been updated with all investigation bore findings.
- 9 Drilling at N3 (Kensington) has started and is at a depth of about 20m. It is expected to be completed before the end of November. The residents within 250m received information via three letters leading up to the start of drilling. Each properties owner with a dwelling within 100m of the site has been contacted.

Bore Descriptor

Bore Number	Location	Status
N1	<i>Greenhill Road, Waikanae</i>	<i>Completed – no water</i>
N2	<i>Farmland (Ngarara Road, Waikanae)</i>	<i>Completed – 20-30 l/s</i>
N3	<i>Kensington Drive, Peka Peka</i>	<i>Started</i>
S1	<i>Greendale Drive, Paraparaumu</i>	<i>Completed – 20-30 l/s</i>
S2	<i>King Arthur Drive, Paraparaumu</i>	
S3	<i>Waterstone Ave, Paraparaumu</i>	

Bore Location Map**Expressway**

- 10 Any adverse effects the proposed expressway may have on the water supply solution will be mitigated by the Mackays to Peka Peka project. The Mackays to Peka Peka project is currently reviewing the design at the existing bore K10 location.

Groundwater Model

- 16 Further work on the groundwater model is waiting for the completion of drilling investigations.

River Investigation

- 12 The NIWA river investigations finding report was presented to Corporate Business Committee (refer to report IS-11-349) on 22 September 2011. The Committee resolved:

That the Committee receives report IS-11-349 on the Water Supply Project – River Investigation Findings and note that the findings support Council’s resource consent application for River Recharge with Groundwater solution

- 13 The NIWA report described the methods used to measure the ecological effects of recharging the river with groundwater. An experimental channel replicated the anticipated demand in 2060 with a one in fifty year drought with 70% groundwater to 30% Waikanae River water.

- 14 The experiment measured the effects on three ecological aspects:

- algal growth;
- invertebrate communities; and
- fish communities.

- 15 NIWA’s conclusions are:

- River Recharge with Groundwater is unlikely to increase algal growth.
- River Recharge with Groundwater will not affect invertebrates.
- River Recharge with Groundwater had no adverse effects on fish survival or growth.

Cultural Impact Assessment

- 17 The consultant, Hapai Whenua – Environmental Advocates Ltd has completed a draft cultural impact assessment. The findings are currently being reviewed by Te Āti Awa Water Working Group before it is sent to the wider Iwi seeking submissions. It is expected the final Cultural Impact Assessment report will be adopted by Iwi early November.

Land Purchase

- 18 Wildlands Consultant is currently undertaking the assessment of the environmental values relating to the Department of Conservation covenant at the site of the Maungakotukutuku Dam. The environmental values of the existing covenant and the estimated values after the alteration of the covenant will form the basis for any new covenant agreement.
- 19 Ikaham Holdings has stated their acceptable sale price with a preference to sell the total land parcel rather than just the land required for the dam. The offer is being investigated to better determine the full implications. The potential time delays due

to the complex nature of a partial purchase could be reduced if the complete parcel of land was purchased. Further negotiations will be required before a final agreement can be reached.

- 20 The Council valuer has completed the initial valuation for the Kaitawa Forests land required for the Dam. Council is looking into possible purchase options that could be presented to Kaitawa Forests.
- 21 No further work has been pursued at this stage with the Forestry Manager, Greater Wellington, as any agreement will be subject to the above negotiations.

Consultation

- 22 The Technical Advisory Group met on 5th September 2011 to review the NIWA river investigations technical report. The group is comfortable with the approach proposed to address concerns about algal growth identified by the peer review. They further suggested that, over the next few years, Council and Greater Wellington Regional Council should work together to better understand the natural variations in algal growth in the Waikanae River.
- 23 The Te Āti Awa Water Working Group has been presented the NIWA river investigation findings and has been provided with updates on drilling investigations.
- 24 The project's key stakeholders have been contacted and provided with a copy of NIWA's river investigation report. It is programmed that in April 2012 there will be meetings to discuss any key stakeholder's outstanding concerns.
- 25 A newsletter to interested members of the public who are on the project register was delivered late September. It provides an update on the results of the river investigation and investigation drilling progress.

Financial Considerations

- 26 In the table below the budgets for years 4 & 5 will be subject to final location and number of Stage 1 production bores. Budgets are currently based on a single production bore north of the existing borefield. These will be confirmed at the completion of drilling and groundwater modeling works prior to May 2012.

<i>Financial Year</i>		<i>Actual</i>	<i>Current budget estimate (includes land purchase)</i>
1	2009/10	\$1,610,000	
2	2010/11	\$1,535,000	
3	2011/12		\$2,425,000
4	2012/13		\$4,400,000
5	2013/14		\$2,500,000
		\$3,145,000	\$9,325,000

Programme Considerations

- 27 The programme for the Water Supply project is subject to the final results of the drilling investigation work. In June 2012 the Council will make a decision whether to confirm River Recharge with Groundwater and apply for resource consent. Consent lodgement is expected in July 2012.

RECOMMENDATION

- 28 That the Council receives report IS-11-363 on the Water Supply Project.

Report prepared by:

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