

# The Effect on the Kaukapakapa River

## Water Intake & Discharges

Genesis Energy have made applications for fifteen resource consents, including:

### **Auckland Regional Council**

**Water permit** – To take and use up to 2,400m<sup>3</sup> of water per day and 876,000m<sup>3</sup> of water per year from the tidal reaches of the Kaukapakapa River

**Land use consent** – To undertake works in, on and/or under the bed of the Kaukapakapa River, and/or to disturb and remove vegetation in relation to the construction of water intake, outfall and jetty structures

**Discharge permit** – To discharge up to 1,900m<sup>3</sup> of wastewater per day from the wastewater treatment pond to the Kaukapakapa River

**Water permit & discharge permit** – To divert and discharge stormwater (up to 5.0m<sup>3</sup> per second) from the power station site to the Kaukapakapa River at various locations

**Water permit & discharge permit** – To divert and discharge stormwater (up to 0.77m<sup>3</sup> per second) from the transmission substation area to the Kaukapakapa River.

### **Rodney District Council**

**Land use consent** – To undertake works on or over the surface of the Kaukapakapa River, and/or to disturb and remove vegetation in relation to the construction of water intake, outfall and jetty structures

*“Potentially contaminated stormwater (from outside chemical storage and transformer banded areas), air-cooled condenser washing wastes, and all wastewater from the power station, including neutralised demineralisation plant wastes, condensate polishing wastes, steam drains, boiler blowdown water, Kaukapakapa River water treatment wastes, and non-hazardous laboratory wastes, will be collected in the wastewater detention pond before being discharged to the Kaukapakapa River.”*

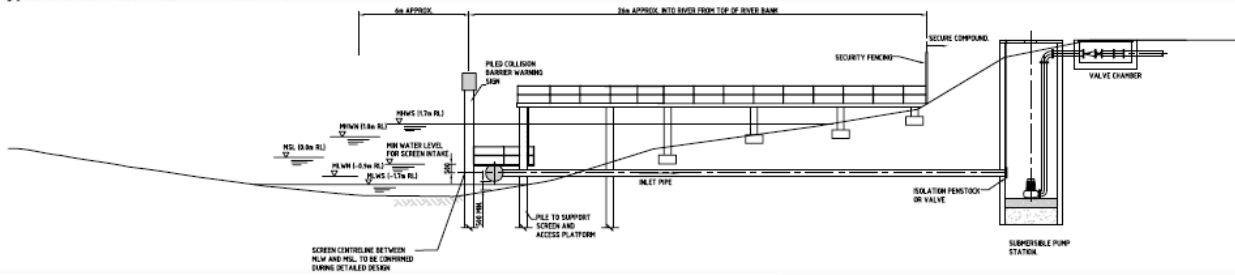
Parameter	Minimum	Maximum
pH	6.1	6.4
Temperature	21.3	36.9
Ammoniacal-nitrogen	1.1	15.0
Nitrate-nitrogen	0.066	0.64
Total suspended solids	2.9	24.4
Copper	0.011	0.023
Zinc	0.024	0.046
Sodium	5600	11700
Chloride	8900	19700
Sulphate	1900	3900

All data g/m<sup>3</sup> except for pH and temperature (°C).

## What Genesis Energy Wants to Build

Genesis Energy has applied to build intake and discharge structures on the Kaukapakapa River. The intake structure will be up to 30m long, and the discharge structure, 30 metres further downstream, will also extend 30m into the river. Diagrams provided show a *“Typical Discharge Structure Cross Section”* and *“Kaukapakapa River Intake Typical Cross Section”*. Both structures appear to stop just short of half way across the river, leaving a navigable channel for small vessels only.

Typical intake structure cross section



However the above diagram may not give a true representation of the actual river bed at that point, and how far the intake structure will reach across the river. A technical report included in Genesis Energy’s applications, *Rodney Power Station Kaukapakapa River Estuary Environment & Effects of Discharge*, includes the cross section diagram below, representing the area of river bed where the structures are proposed to be built. If the intake and discharge structures are to extend for 30m from the right bank, their construction will leave only about a third of the river navigable at high tide.

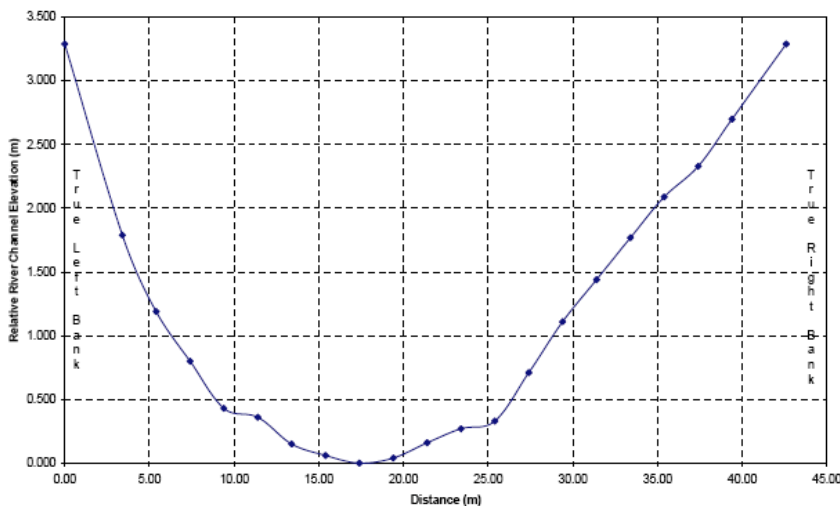


Fig. 4.1: Typical cross-section of the Kaukapakapa River, downstream of the Paunganui Bridge.

## Recreational Use of the River

“Golder Kingett Mitchell (2007a) carried out an investigation on behalf of the RDC, into the recreational use of the Kaipara, Kumeu and Kaukapakapa Rivers over a period between December 2006 and February 2007. The investigation methods comprised of a questionnaire distributed by the RDC and a field survey undertaken by Golder Kingett Mitchell. The questionnaire asked residents to select categories of activities that they had engaged in near the river within the past year (i.e. kayaking/boating, picnicking, walking, swimming), while the field survey looked for obvious signs of recreational use along the river.”

The RDC questionnaire (Dec. 2006) was solely for the purpose of investigating a wastewater project in Kumeu. It asked residents only about their use of the Kaipara River, and no questionnaires were distributed in Helensville, Parakai or Kaukapakapa. The field survey by Golder Kingett Mitchell was for a period of sixteen days and concentrated on the Kumeu end of the Kaipara River. The fact remains that no survey has been completed as to who uses the Kaukapakapa River, and for what purposes.

“Genesis Energy is carrying out further investigations into uses of the Kaukapakapa River since the RDC survey, and will make the results available at the hearing into the

*applications.”*

## Things to Consider in your Submissions

1. Do you use the Kaukapakapa River, for what purpose, and how often? (food gathering, recreational activities, tourism, bird-watching, etc)
2. How important is the Kaukapakapa River to you, and to the local community?
3. The Kaukapakapa River’s historical importance and status as an inland waterway.
4. Will the building of intake and discharge structures affect how you use the river?
5. Will power station discharges into the river affect how you use the river?
6. If you operate a vessel on the river, will the intake and discharge structures impede you travelling beyond that point? For example, the ‘Kewpie Too’ cruise boat currently travels past the intake structure site on its river cruises.
7. Are you satisfied with the amount of consultation Genesis has carried out, and have they contacted you directly? Detail any consultation you have had with them. Describe where your property is in relation to the river and power station site. Mark it on a map and include it in your submission.
8. Are Golder Kingett Mitchell and Genesis Energy’s ecological and recreational studies of the river accurate and comprehensive?
9. RDC has applied for resource consent to remove weeds and silt from a 7km stretch of the river, upstream of the power station site. Any river clearance will have a significant effect further downstream at the power station site (tidal flows, water quality, etc). How will this affect the river modelling already carried out?
10. A public jetty/slipway at the end of Downer Access Road has been proposed as part of the Kaukapakapa Structure Plan. Will an intake structure downstream affect this?
11. The temperature of the river was recorded as high as 26 degrees at the height of summer. Genesis have stated that 30 degrees is a lethal temperature for fish, yet the discharges into the river are proposed to range up to 36.9 degrees? Discharges into the river will be at a maximum rate of 115 litres per second. Genesis state that *“The discharge of wastewater from the site will not result in any adverse effects on the microbiological water quality in the Kaukapakapa River, or result in any increased public health risk to any users of the river.”* Given the proposed temperature, chemical composition and rate of discharges, do you agree that the discharges will not result in any adverse effects on the river?
12. A flood inundation study has recently been completed for the Kaukapakapa catchment area. Has this been taken into account in river modelling?

## Where do I Find Information?

### **Genesis Energy’s Assessment of Environmental Effects March 2008**

*(available on CD, at RDC service centres, and downloadable from council websites)*

Pages 23-27	Section 3.3 Ecological Setting
Pages 54-92	Sections on Water Requirements, Water Supply, Kaukapakapa River Abstraction, Water Treatment, Wastewater, Stormwater & Hazardous Substances Management
Pages 108	Section 5.7 Water Supply
Pages 202-225	Section 5.8 Discharges of Wastewater
Page 226-230	Section 5.9 Stormwater
Page 310-317	RMA Matters - Regional Council Jurisdiction
Pages 328-329	Auckland Regional Policy Statement on Water Quality, and Water Conservation and Allocation

## **Technical Reports supporting Genesis Energy's Applications**

*(available on CD, at RDC service centres, and downloadable from council websites)*

\* Kaukapakapa River Estuary Environment & Effects of Power Station Discharge, Golder Kingett Mitchell

\* Stormwater Management Plans & Options, Beca

\* Rodney Power Station Project - Outline Systems Description: Water Supply, Treatment and Discharge Systems, Beca

## **Section 92 and Clause 23 Requests for Further Information**

*(available on CD, at RDC service centres, and downloadable from council websites)*

\* Includes the Golder Kingett Mitchell report "*Recreational Usage Survey of the Kumeu/Kaipara and Kaukapakapa Rivers – April 2007*"

## **The 4th Schedule to the RMA**

Specifically the following clauses:

Clause 1(d) Actual or Potential Effects on the Environment

Clause 1(f) Discharge of Contaminants

Clause 1(g) Mitigation Measures

Clause 1(h) Interested or Affected Parties

Clause 2(a) Wider Effects

Clause 2(b) Physical Effects

Clause 2(c) Effect on Ecosystems

Clause 2(d) Effect on Natural and Physical Resources

Clause 2(e) Discharge of Contaminants

**Proposed Auckland Regional Plan: Air, Land & Water** (ARC website)

**Auckland Regional Policy Statement** (ARC website)

**Vision Rodney** (RDC website)

**Operative Rodney District Plan** (RDC Website)

Specific Issues:

\* Adverse effects of development on significant landscapes and natural features

\* Loss of significant indigenous vegetation, wetlands and habitats.

\* Protection and restoration of inland water quality and flow.

**Proposed Rodney District Plan 2000** (RDC Website)

Rural Zone Objectives, specifically

### **Objective 7.3.8**

To manage, protect and enhance the biodiversity of native ecosystems by avoiding, remedying or mitigating the adverse effects of subdivision, land use and development on native plant and wildlife values.

### **Objective 7.3.11**

To avoid, remedy or mitigate the adverse effects of subdivision and land use, including vegetation clearance, earthworks, stormwater and waste water treatment and disposal on water quality.

Information on these sheets

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