

Report to the Rural Services and Wairarapa Committee
from Rob Robson, Senior Resource Advisor

Resource Consent Application from Carterton District Council to Discharge Treated Domestic Sewage to Mangatarere Stream

1. Purpose

To seek approval from the Rural Services and Wairarapa Committee for a resource consent application from Carterton District Council under the Resource Management Act 1991.

2. The Activity

Carterton District Council have applied for resource consent to discharge treated domestic sewage to water from the Carterton District oxidation ponds. The application is listed as follows:

WAR 950148

To discharge treated domestic sewage from the Carterton District oxidation ponds, at a maximum rate of 3,270 cubic metres per day, to the Mangatarere Stream, at or about map reference NZMS 260 S26 201 154.

3. Background

See attachment to report.

4. Recommendation

That the Committee, under delegated authority by Wellington Regional Council, grant, pursuant to sections 105 and 108 of the Resource Management Act 1991, the following consent to Carterton District Council:

Discharge Permit WAR 950148 to discharge treated domestic sewage from the Carterton District oxidation ponds, at a maximum rate of 3,270 cubic metres per day, to the Mangatarere Stream, at or about map reference NZMS 260 S26 201 154, subject to the following conditions:

- (1) *This consent is subject to all relevant provisions of the Resource Management Act 1991, its amendments and any regulations made thereunder. It is the obligation of the consent holder to comply with all the statutory requirements relating to the exercise thereof.*
- (2) *This consent is subject to the Wellington Regional Council or its servants, or its agents, being permitted access at all reasonable times for the purpose of carrying out inspections, measurements and the taking of samples.*
- (3) *An annual charge, set in accordance with section 36(2) of the Resource Management Act 1991, shall be paid to the Wellington Regional Council for carrying out its functions under section 35 (duty to gather information, monitor and keep records) of the Resource Management Act 1991.*
- (4) *The location, volumes, rates of discharge, and character of the discharge of treated sewage shall be as described in the document entitled **Carterton District Council Oxidation Pond Discharge : Assessment of Environmental Effects** dated October 1997 prepared for Carterton District Council by Good Earth Matters Consulting Limited, but subject to the provisions of condition 11 and also any modifications required to comply with any of the conditions of consent.*
- (5) *In the event of any wastewater treatment facility failure that would result in any deterioration in quality of effluent discharging to Mangatarere Stream and be in breach of any condition of this permit, the permit holder shall :*
 - (a) *Take immediate steps to remedy and mitigate any adverse effects on the environment caused by any releases of such effluent. Such steps shall be to the satisfaction of the Manager, Planning and Resources, Wellington Regional Council;*
 - (b) *Immediately notify the Medical Officer of Health (c/- the Health Protection Officer, Choice Health) in accordance with the Public Health Service's Response Manual for Sewage Discharges.*
 - (c) *Notify the Manager, Planning and Resources, Wellington Regional Council, within 24 hours after the malfunction of the wastewater treatment facility has been detected.*
 - (d) *If required by the Manager, Planning and Resources, Wellington Regional Council, provide within 24 hours a written report to the Manager, detailing, manner and cause of that malfunction and the nature of the released effluent, and the steps taken (and being taken if appropriate) to remedy and control that release, and to prevent any further such releases of untreated or partially treated effluent.*
- (6) *The permit holder's interest in this consent may not be transferred to any owner or occupier of the site unless that owner or occupier has assumed the Carterton*

District Council's responsibilities for the treatment and disposal of sewage.

- (7) *The Wellington Regional Council may review any or all conditions of this permit by giving notice of its intention to do so pursuant to section 128 of the Resource Management Act 1991, at any time within six months of the second, fifth, and seventh anniversary of the date of grant of this permit for either of the following purposes:*
- (a) *To deal with any adverse effects on the receiving environment which may arise from the exercise of this permit and which it is appropriate to deal with at a later stage;*
 - (b) *To review the adequacy of the monitoring requirements so as to incorporate into the permit any modification to monitoring which may be necessary to deal with any adverse effects on the environment arising from the management or operation of the wastewater treatment facility.*
- (8) *The permit holder may apply, pursuant to section 127 of the Resource Management Act 1991, for a change or cancellation of any condition of the discharge permit (except the term of the permit), at any time after six months of issuance of this permit and annually thereafter.*
- (9) *All methods and procedures for monitoring shall be to the satisfaction of the Manager, Planning and Resources, Wellington Regional Council. All analysis carried out for conditions 16 and 21 shall be undertaken using standard methods as detailed in the "Standard Methods For The Examination of Water and Wastewater, 1995" 19th edition by American Public Health Association (A.P.H.A) and American Water Works Association (A.W.W.A) and Water Environment Federation (W.E.F) and any subsequent updates.*
- (10) *Commencing within three months after the date of commencement of this permit and at three monthly intervals thereafter or on request, the permit holder shall forward all results of the sampling undertaken for compliance with conditions 16 and 21 to the Manager, Planning and Resources, Wellington Regional Council.*
- (11) *The permit holder shall by 31 December 2002 only discharge treated sewage into the Mangatarere Stream on a seasonally related basis. After 31 December 2002 there shall be no summer discharge of treated sewage to the Mangatarere Stream except as follows:*
- *where any adopted system for land disposal of effluent temporarily malfunctions; or*
 - *where as certified by the Manager, Planning and Resources, Wellington Regional Council, the soil moisture status of any adopted land disposal area renders that area temporarily unsuitable for the discharge of the effluent.*

For the purposes of this condition summer is defined as 1 January to 31 March

inclusive.

- (12) *Any “summer” discharge (summer as defined condition 11) of treated sewage to the Mangatarere Stream due to a temporary malfunction of any adopted system for discharging the effluent to land shall not continue for a period greater than 1 calendar week and shall be reported to the Manager, Planning and Resources, Wellington Regional Council, within 24 hours.*
- (13) *The permit holder shall by 31 June 1999 install mechanical aerators in the oxidation ponds.*
- (14) *The permit holder shall place and maintain appropriate signs on the banks of Mangatarere Stream at or about the point of discharge advising of the presence of the discharge of treated wastewater from the Carterton oxidation ponds. The sites and wordings of the signage shall be to the satisfaction of the Manager, Planning and Resources, Wellington Regional Council. The said signage shall be placed within 3 months after the date of commencement of this permit.*
- (15) *The permit holder shall maintain records of the daily volumes of waste entering the sewage treatment plant and volumes of wastewater discharged to Mangatarere Stream and these shall be made available upon request to the Manager, Planning and Resources, Wellington Regional Council.*
- (16) *Each month the permit holder shall collect a grab sample of the discharge at the discharge point as shown on the attached plan and also grab samples of the waters of the Mangatarere Stream at or about sites upstream and downstream of the discharge point as also shown on the attached plan. Sampling shall commence within 3 months after the date of commencement of this permit. All said samples shall be representative and analysed for the following water quality criteria:*

<i>pH</i>	
<i>Temperature</i>	<i>°C</i>
<i>Conductivity</i>	<i>µS/cm</i>
<i>Turbidity</i>	<i>gm⁻³</i>
<i>Dissolved oxygen</i>	<i>gm⁻³</i>
<i>Suspended solids</i>	<i>gm⁻³</i>
<i>BOD₅ [unfiltered (total)]</i>	<i>gm⁻³</i>
<i>Total nitrogen</i>	<i>gm⁻³</i>
<i>Ammonia (un-ionised as NH₃)</i>	<i>gm⁻³</i>
<i>Ammoniacal nitrogen (NH₄⁺-N)</i>	<i>gm⁻³</i>
<i>Nitrate (NO₃-N)</i>	<i>gm⁻³</i>
<i>Dissolved inorganic nitrogen</i>	<i>gm⁻³</i>
<i>Total Phosphorous</i>	<i>gm⁻³</i>
<i>Dissolved reactive phosphorus</i>	<i>gm⁻³</i>
<i>Faecal Coliform Bacteria</i>	<i>per 100ml</i>
<i>E. Coli</i>	<i>per 100ml</i>

- (17) *The results of operational monitoring undertaken on the effluent quality within the*

ponds shall be made available to the Manager, Planning and Resources, Wellington Regional Council, if requested.

(18) *The permit holder shall arrange for macroinvertebrate monitoring of an upstream and a downstream site on the Mangatarere Stream (as shown on the attached plan) twice yearly in March and September. This monitoring shall be either be undertaken by the Wellington Regional Council, or by a consultant whose competence is to the satisfaction of the Manager, Planning and Resources, Wellington Regional Council. The permit holder shall provide the results of the macroinvertebrate monitoring to the Manager annually.*

(19) *The discharge shall not cause any of the following effects in Mangatarere Stream after reasonable mixing:*

- *The production of any conspicuous oil or grease films, scums or foams or floatable or suspended material.*
- *Any conspicuous change in colour or visual clarity.*
- *The rendering of fresh water unsuitable for consumption by farm animals.*
- *Any significant adverse effect on aquatic life.*
- *A change of more than 3° Celsius in the natural temperature of the water.*
- *Undesirable biological growths.*

After 31 December 2002 “reasonable mixing” shall be deemed to have occurred within 40 metres of the effluent discharge point to Mangatarere Stream (as shown on the attached plan) as measured downstream in the active channel of that stream.

(20) *The permit holder shall provide to the satisfaction of the Manager, Planning and Resources, Wellington Regional Council, an appropriate place at the outlet of oxidation pond No. 2 to sample the treatment plant effluent before it flows to Mangatarere Stream.*

(21) *The permit holder shall sample the sewage treatment plant effluent when its discharge is to the Mangatarere Stream by means of a grab sample taken at the sample point provided in the preceding condition. Samples shall be taken on at least 10 different days during each calendar month and every sample taken shall be tested for the following parameters:*

- *Faecal coliforms (No./100mL)*
- *Suspended solids (g/m³)*
- *BOD₅ [unfiltered (total)] (g/m³)*

(22) *Before 31 December 2002, the following effluent sampling quality criteria shall apply to the treatment plant effluent as sampled in the preceding condition.*

Compliance shall be based on a running geometric mean and ninety percentile calculated using 40 test results.

(a) Biochemical Oxygen Demand

The geometric mean of 40 consecutive BOD₅ sample values shall not exceed 25 g/m³ and no more than 10 percent of 40 consecutive values shall exceed 50 g/m³.

(b) Suspended solids

The geometric mean of 40 consecutive suspended solids sample values shall not exceed 45 g/m³ and no more than 10 percent of 40 consecutive values shall exceed 90 g/m³.

(c) Faecal Coliforms

The geometric mean of 40 consecutive faecal coliform values shall not exceed 5,000 per 100 millilitres.

(23) After 31 December 2002 the following effluent sampling quality criteria shall apply to the treatment plant effluent as sampled in condition 21. Compliance shall be based on a running geometric mean and ninety percentile calculated using 40 test results.

(a) Biochemical Oxygen Demand

The geometric mean of 40 consecutive BOD₅ sample values shall not exceed 25 g/m³ and no more than 10 percent of 40 consecutive values shall exceed 50 g/m³.

(b) Suspended solids

The geometric mean of 40 consecutive suspended solids sample values shall not exceed 45 g/m³ and no more than 10 percent of 40 consecutive values shall exceed 90 g/m³.

(c) Faecal Coliforms

The geometric mean of 40 consecutive faecal coliform values shall not exceed 3,000 per 100 millilitres and no more than 10 percent of 40 consecutive values shall exceed 25,000 per 100 millilitres.

(24) The permit holder shall keep operational logs which identify changes in the operating procedures and unusual events that occur at the plant. These records shall be supplied to the Manager, Planning and Resources, Wellington Regional Council, upon request.

Consent duration

(25) *This permit shall expire 10 years after its commencement.*

Report prepared by:

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Approved for submission:

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Attachments: (1)