

Report to the Environment Committee
from Tamsin Mitchell, Resource Advisor

A discharge permit application to discharge supernatant from the Wainuiomata Water Treatment Plant, Water Group, Wellington Regional Council.

1. Purpose

To allow the Committee to consider and decide on a Discharge Permit application to the Wellington Regional Council from the Water Group, Wellington Regional Council under the Resource Management Act 1991.

2. Application

2.1 Applicant

Water Group
Wellington Regional Council
PO Box 11-646
WELLINGTON

2.2 Permit Applied for

WGN 000071 [20200]

A discharge permit to intermittently discharge supernatant from the washwater recovery plant, Wainuiomata Water Treatment Plant complex, into the Wainuiomata River.

3. Location

The Wainuiomata River, approximately three km upstream of Richard Prouse Park at or about map reference NZMS 260: R27; 771.917 on land with a legal description Part Section 104 Wainuiomata District L/T 20C/867.

4. **Background, Statutory Requirements and Assessment of Effects**

See Attachment 1.

5. **Negotiation of Consent Conditions**

The recommended conditions have been agreed to by the applicant and all the submitters. I am satisfied that the conditions are sufficient to avoid, remedy or mitigate any adverse environmental effects associated with the proposed discharge.

6. **Communication**

The matters referred to in this report are part of a statutory process, and this process is the appropriate way of communicating the information.

7. **Recommendation**

That the Committee, under delegated authority by the Wellington Regional Council, grant in accordance with sections 105 and 108 of the Resource Management Act 1991, discharge permit WGN 000071 to Water Group, Wellington Regional Council, to intermittently discharge supernatant from the wash washwater recovery plant, Wainuiomata Water Treatment Plant complex, into the Wainuiomata River, subject to the following conditions.

- (1) *Supernatant may only be discharged into the Wainuiomata River:*
 - (a) *When the turbidity of raw water entering the treatment plant exceeds 4 NTU and for a period of 48 hours immediately after the turbidity of the raw water entering the treatment plant falls below 4 NTU; and/or*
 - (b) *During the first five minutes of each supernatant tank pump cycle, or until supernatant turbidity drops below 6 NTU; and/or*
 - (c) *At other times during pumping out of the supernatant tank when the turbidity of the supernatant exceeds 6 NTU.*
- (2) *The rate of discharge of supernatant to the Wainuiomata River shall not:*
 - (a) *exceed 50 L/s at any time; and*
 - (b) *exceed 25 percent of the upstream river flow as measured at the Wainuiomata River Intake at or about map reference NZMS:R27;783.924.*
- (3) *The permit holder shall monitor analytes in the supernatant as follows:*

- (a) *At no less than weekly intervals for supernatant discharged to the Wainuiomata River -*
- *pH;*
 - *aluminium residual (acid soluble) (g/m³);*
 - *chlorine residual (g/m³); and*
 - *carbon dioxide (g/m³).*
- (b) *On a continuous basis for supernatant produced by the washwater recovery plant -*
- *turbidity (NTU).*

Note: The frequency of monitoring may be reviewed by the Manager, Consents Management, Wellington Regional Council upon receipt of the annual report required by condition 6 of this permit.

- (4) *The permit holder shall monitor the discharge of supernatant to the Wainuiomata River on a continuous basis for the following parameters:*
- *rate of discharge (L/s); and*
 - *volume of discharge (m³/day);*
- (5) *The permit holder shall provide an annual report, that summarises the results of the monitoring for the preceding financial year to 30 June, as required by conditions 3 and 4 of this permit. The report shall be provided to the Manager, Consents Management, Wellington Regional Council by 31 July each year.*
- (6) *The permit holder shall provide an annual report that analyses the results of 12 months of supernatant monitoring for the preceding financial year to 30 June, as required by condition 3 of this permit.*

The analysis shall determine whether there is any statistically significant (with 95 percent confidence):

- (a) *increase in the central tendency or increase in the 95 percentile of the concentration of analytes in the supernatant;*
- (b) *change in the central tendency or change in the 95 percentile of the pH of the supernatant;*

from that found in the supernatant over the period January 1999 to June 1999 which is summarised in Table 2 of the document entitled Wainuiomata water treatment plant: supernatant discharge consent application and assessment of environmental effects dated November 1999.

The report shall be provided to the Manager, Consents Management, Wellington Regional Council by 31 July each year.

- (7) *The permit holder shall undertake an annual study during the months of January to March to the satisfaction of the Manager, Consents Management, Wellington Regional Council, to assess the effects of the discharge, after reasonable mixing, on downstream macroinvertebrate communities and periphyton. The results and interpretation of any studies undertaken shall be*

provided to the Manager, Consents Management, Wellington Regional Council, by 30 June each year.

Reasonable mixing shall be deemed to have occurred immediately downstream of the lower Wainuiomata Dam at or about map reference NZMS 260:R27;768.913.

- (8) *The permit holder shall, within one calendar month, undertake whole effluent toxicity testing (WETT) of representative samples of supernatant using upstream river water as diluent when:*
- (a) *Results of analysis required by condition 6 indicate there has been a statistically significant increase in the concentration of analytes and/or change in pH in the supernatant; or*
 - (b) *Results of the study required by condition 7 indicate that the discharge, after reasonable mixing, is having significant adverse effects on macroinvertebrate communities and periphyton; or*
 - (c) *Requested by the Manager, Consents Management, Wellington Regional Council to do so.*

*The test organisms used in acute toxicity tests shall include, but not be limited to, Rainbow Trout (*Oncorhynchus mykiss*) and the freshwater amphipod (*Paracalliope fluviatilis*). The test organism(s) used in chronic toxicity tests shall include, but not be limited to, the freshwater green alga (*Selenastrum capricornutum*). The whole effluent toxicity testing (WETT) shall be carried out by a recognised practitioner to the satisfaction of the Manager, Consents Management, Wellington Regional Council. The permit holder shall provide the results of any toxicity testing required by condition 8 of this permit to the Manager, Consents Management, Wellington Regional Council within two calendar months of the completion of the toxicity testing.*

- (9) *The permit holder shall keep and maintain all such records as are necessary to demonstrate compliance with conditions 1 and 2 of this permit. Such records shall be made available to the Manager, Consents Management, Wellington Regional Council upon request*
- (10) *All monitoring methods and procedures shall be to the satisfaction of the Manager, Consents Management, Wellington Regional Council*
- (11) *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, within three months of receipt of monitoring results required by conditions 5, 6, 7 or 8 of this permit or within six months of the 1st, 3rd, 5th, 7th, 9th, 11th and 13th anniversary of the commencement of this permit, for any of the following purposes:*
- (a) *To deal with any adverse effects on the environment which may arise from the exercise of this permit;*
 - (b) *To review the adequacy of any monitoring requirements so as to incorporate into the permit any modification to any monitoring which*

may be necessary to deal with any adverse effects on the environment which may arise from the exercise of this permit.

In terms of (11)(a) the review may be triggered by, but not limited to, the following:

- *If the results of the whole effluent toxicity testing (WETT), carried out under condition 8 of this permit indicate, in respect of any freshwater fish species or amphipod species, that the no observable effect concentration (NOEC) for supernatant is less than 50 percent; and/or indicate, in respect of any freshwater algae species, that the EC₅₀ for supernatant is less than 20 percent; or*
- *If the results of the study carried out under condition 7 indicate that the discharge, after reasonable mixing, is having significant adverse effects on macroinvertebrate communities and periphyton.*

In the event of the above review provisions being invoked by the Wellington Regional Council, the permit holder shall pay all reasonable and actual costs associated with the review.

- (12) *In terms of section 123(d) of the Resource Management Act 1991, the period for which consent is granted is limited to fifteen years from the date of commencement of this permit.*

Report prepared by:

Report approved for submission by:

TAMSIN MITCHELL
Resource Advisor, Consents Management

ROB FORLONG
Manager, Consents Management

JANE BRADBURY
Divisional Manager, Environment

Attachments:

