

**Decision of the  
Wellington Regional Council Hearing Committee on  
Resource Consent Application WAR 020074**

**Discharge to Water  
Discharge to Land  
Discharge to Air**

29 November 2002

**Hearing committee:**

Euan McQueen (Chairperson)  
Liz Mellish  
Helen Tobin

**Applications WAR 020074 (1), (3) and (4) are granted for a seven-year term  
(subject to consent conditions)**

**Application WAR 020074 (2) is declined**

## **1.0 Application details**

Masterton District Council applied to the Wellington Regional Council for resource consents relating to the continued operation of Masterton wastewater treatment system. The resource consents applied for are:

- *WAR 020074 (1) Discharge to Water* – to discharge treated sewage from the Masterton oxidation ponds to the Makoura Stream, at a maximum flow rate of 35,000 m<sup>3</sup>/day and at a peak flow of 700 litres/second.
- *WAR 020074 (2) Discharge to Water* – to discharge treated sewage from the Masterton oxidation ponds to the Ruamahanga River, at a maximum flow rate of 35,000 m<sup>3</sup>/day and at a peak flow of 700 litres/second.
- *WAR 020074 (3) Discharge to Land* – to discharge treated sewage to land from the Masterton oxidation ponds due to seepage through the ponds.
- *WAR 020074 (4) Discharge to Air* – to discharge contaminants to air from the Masterton wastewater treatment plant.

A consent term of 10 years was sought.

## **2.0 Preamble**

The sewage discharge from Masterton's wastewater treatment plant requires resource consent from Wellington Regional Council. Accordingly, Wellington Regional Council appointed a Hearing Committee comprising Appointee Euan McQueen and Commissioners Liz Mellish and Helen Tobin to hear and determine the applications.

In compiling this decision, the Hearing Committee has read and considered the application and assessment of effects on the environment, all of the submissions, the reports of the Wellington Regional Council officer, all the evidence presented at the hearing by the applicant and submitters, the relevant provisions of the Wellington Regional Policy Statement, Air Quality Management Plan, Discharge to Land Plan, Regional Freshwater Plan and the relevant provisions of the Resource Management Act 1991.

The Committee wish to acknowledge the contributions and help received from Regional Council staff, the applicant and its counsel, and submitters during the hearing.

## **3.0 The proposal**

Masterton District Council currently discharges treated sewage effluent to the Makoura Stream from the two-stage Masterton oxidation ponds at Homebush, Masterton. The resource consent application WAR 020074 is required to ensure that the discharge is lawful, as the existing consent (Right No. 860009 issued under the Water and Soil Conservation Act 1967) expired in 1996. This expired right consented to the discharge to water. Under the Resource Management Act 1991 consents for discharge to air and discharge to land are also required.

An application for the consents was originally made in 1996, but was put on hold under Section 92 of the Resource Management Act 1991, pending further information. The applications considered at this hearing were received in June 2002 and effectively replace the 1996 applications.

The applicant proposed to continue to operate and upgrade the existing oxidation ponds with discharge to either the Makoura Stream or directly to the Ruamahanga River. In that context the applications WAR 020074 (1) and WAR 020074 (2) were to be considered independently (although the discharge will occur at one location only). The applications allowed for the consideration of two locations so that the most appropriate river discharge location could be decided.

While the applications were for consents to allow the continuation of a discharge from the existing system, it quickly became apparent that the important consideration was to provide groundwork for the establishment of a long term upgrade of the system. This upgrade would be for a system that would continue to discharge to water (upgraded to a higher environmental standard), or by way of a new system to be developed discharging to land.

#### **4.0 Resource consent process**

The applications were notified in accordance with Section 93 of the Resource Management Act on 12 June 2002, and the closing date for submissions was 10 July 2002. Wellington Regional Council received 33 submissions, as summarised in the Officer's Report.

A pre-hearing meeting was held on Thursday 8 August 2002 (notes are included in the Officer's Report). The meeting was attended by submitters and representatives of Masterton District Council and Wellington Regional Council.

The hearing commenced on 30 September 2002 in the Frank Cody Lounge and Council Chambers of the Masterton District Council buildings. The Committee visited the Masterton sewage ponds and discharge location prior to the hearing. The applicant, Wellington Regional Council officers, and 24 submitters were heard (Appendix A). The hearing was adjourned on 2 October 2002 after three full days of hearings.

Following the adjournment, the Hearing Committee requested clarification from the applicant of some points relating to the changes that it proposed to the conditions of consent, as originally recommended by the officer for the Wellington Regional Council in his report on the applications. A response was received on 15 October. The conditions as proposed by Masterton District Council were sent to all submitters who wished to be heard and the Wellington Regional Council for further comment. The comments were received by 23 October and sent to Masterton District Council for the applicant's right of reply. The reply was received on 6 November. The hearing was officially closed by the Committee on 11 November 2002.

This further round of comments and reply allowed for agreement on some aspects of the new consent conditions to be reached. There was consensus between the parties as to the need for a long term upgrade of the overall wastewater system. However, there was still significant divergence in the detail, in particular as to conditions that laid down the path to be followed in achieving the upgrade. Submissions made by a number of the submitters to the hearing diverged again in terms of the requirements requested, in particular with regard to the time period that might be appropriate to allow continuation of the present effluent discharge.

#### **5.0 Statutory requirements**

The activity is a discretionary activity under Rule 5 of the Regional Freshwater Plan, Rule 8 of the Discharges to Land Plan and Rule 23 of the Regional Air Quality Management Plan. Therefore resource consents are required under Sections 15(1)(a) and 15(2)(a) of the Resource Management Act 1991. The Officer's Report details specifically the statutory criteria for the application, which the Committee have taken into account in making their decision:

- The Resource Management Act 1991;
- The Wellington Regional Policy Statement;
- The Regional Freshwater Plan;

- The Discharges to Land Plan;
- The Regional Air Quality Management Plan.

## **6.0 Matters to be considered**

Section 104 of the Resource Management Act 1991 outlines the matters to be considered when making a decision on a resource consent application. The relevant subsections of Section 104 are (a), (c), (d), and (i), which relate to:

- Any actual and potential effects on the environment of allowing the activity;
- The Wellington Regional Policy Statement;
- Objectives, policies and rules in relevant Regional Plans;
- Any other relevant matters.

In deciding on the applications the Hearing Committee believes that matters under Section 104 of the Resource Management Act 1991 have been appropriately considered and addressed.

Section 104 matters are subject to the purpose and principles of the Act set out in Part II. The Part II matters of relevance are:

- Purpose of the Act;
- Relationship with Maori;
- Kaitiakitangata;
- Maintenance and enhancement of amenity values;
- Intrinsic values of ecosystems;
- Heritage values;
- Maintenance and enhancement of the quality of the environment;
- Trout and salmon;
- Treaty of Waitangi;
- Actual or potential effects on the environment;
- Other relevant matters;
- Nature of the discharge and sensitivity of the receiving environment;
- Alternatives to the activity.

These matters have been discussed in this decision where appropriate. The Committee considers that the granting of these consents, subject to conditions, is not inconsistent with the purpose and principles set out in Part II.

## **7.0 Background to the decisions**

Masterton, like many towns and cities in New Zealand, is built on a floodplain; in Masterton's case that of the Ruamahanga River. Masterton has over the decades enhanced its waste disposal processes through the various phases from basic on-site disposal to septic tanks, to a reticulated system and (in the 1970s) to a series of oxidation ponds with a discharge to water.

The ponds are designed as a series of three – two primary and a secondary oxidation pond. The influent is screened and solids removed before being split between the primary ponds. Discharge from the secondary pond is direct to the Makoura Stream. The system was designed for the Masterton urban population, which has remained relatively static at about 18,000 people for the last decade. The wastewater system also provides for a number of minor industries and it is expected that it may serve an area of land to be zoned industrial in the Carterton district.

Since its inception the waste water system has carried higher than planned loadings. In addition to wastewater there is a large amount of stormwater and groundwater infiltration to the system – flows have been recorded of stormwater at double and groundwater at triple the levels of sewage. The severe overloading means that the ponds are unable to operate within their design capacity, retention times are shortened and 'short circuiting' occurs between the primary and secondary ponds. High flows are associated with rainfall events and the system is vulnerable to variations in rainfall, although the relationship is not entirely clear. There have been occurrences where pathogen levels in the effluent have exceeded acceptable limits.

Nevertheless we note that for much of the time the effluent is of an acceptable standard, in part due to the dilution effect. We were told that such overloading problems are not dissimilar to other medium sized urban areas in NZ served by a pond system. Proposed short term improvements, in particular to increase aerator operation and improve pond mixing, will make some improvement to quality of the discharge.

The ponds are situated close to the Ruamahanga River channel, and are at risk from flooding. They are built on unconsolidated river gravels, and the ponds' lining is limited in its effectiveness, which also contributes to the problems of groundwater infiltration and leakage.

There was some comment from submitters at the hearing about the inherent risk to the integrity of the sewage ponds from natural hazards. These include a flood in the Ruamahanga River of such size that the river may change course near the sewage ponds, breach the ponds' walls and thus allow the effluent to flow into the river. Such an event would also effectively destroy the ability to process Masterton's sewage. The second major risk is seismic, from an earthquake of sufficient magnitude to break the sewage pond banks, or at least weaken them to a point where serious leakage occurs. These factors should be noted in the strategic planning about the location of Masterton's sewage treatment plant.

Given the community expectations of 40 years ago in regard to river water quality, and the general understanding at the time of river course behaviour, the siting of the ponds was even then at the margins of acceptability. Certainly there were objections to the discharge

proposal at the time of the hearing and approval for construction of the ponds from nearby landholders, noting the risks of seepage, flooding and quality of effluent.

The Ruamahanga River, which receives the discharge via the Makoura Stream, is a regionally significant waterway. It is a major natural feature that binds the whole district together physically, recreationally, and spiritually. Nevertheless it has been for many years a receptacle for farm, industrial, and human wastes in varying degrees of dilution. Farm discharges have steadily diminished in recent years. We were informed of recent consents granted for discharge from sewerage systems for Greytown and Martinborough, where the standard of discharge is being improved.

During the hearing it became clear to the Committee that there was a deep concern about the time taken to bring an application for the discharges to a hearing. The concern was not only with the delay, but also with the need to solve problems which are perceived to have emerged over recent years with Masterton's sewage disposal system.

The applicant is now faced with a challenge to improve the quality of the discharge. Masterton is not unique in this regard: as standards of waste treatment and water discharge quality have been raised over the years many urban areas have had to meet similar challenges. We believe it is essential that a full investigation of the options be undertaken before the final decision is made. This could involve a change of both site and method.

Improvements in the physical and environmental quality of Masterton's sewage disposal methods (and in the longer term its sewage disposal and stormwater reticulation systems) will have a significant impact on the water quality of the Ruamahanga River, which is identified in the Freshwater Plan as needing enhancement for contact recreation purposes. Improvements to this part of the river will benefit all users, including residents of Carterton and South Wairarapa. We had evidence from operators of tourism ventures mainly based in the lower reaches, who were concerned at the maintenance of water quality of the river.

There is now a clear responsibility on the applicant to evaluate options, define the choices, and decide on the preferred course of action taking into account the goal of implementing a project which gives a discharge of high quality to land or water. There is also a responsibility for the Wellington Regional Council and Masterton District Council to work in partnership with a common goal (as set out above), each party with particular responsibilities to fulfil – and the overriding goal to reflect common aspirations about environmental standards in the future.

## **8.0 Reasons for the decisions**

The current system for collecting, treating and disposing of domestic sewage and trade effluent from Masterton is an essential activity for the health and safety of the community. Accordingly, we consider that it is simply not practical to decline this application in its entirety. The discharge must continue. Having said this, the conditions of the consents had to be determined. The criteria used to determine these conditions follow.

## 8.1 Conditions - criteria

The Committee considered a wealth of expert evidence from the applicant, and sincere and thoughtful submissions from those opposing the case. Comments in Section 7 refer to the broad context within which the applications may be considered. More specific criteria have been taken into account in determining the conditions. These are set out below.

- (a) They must be fair and reasonable.
- (b) They must be, in the Committee's view, achievable.
- (c) They should allow reasonable flexibility to the applicant to choose a course of action which both fits the ability to provide, and meets appropriate environmental measures.
- (d) They call for a sense of urgency on the applicant's part to resolve what is clearly an increasingly unsatisfactory situation to many members of the community.
- (e) They require robust and continuing consultation with the community and with Iwi as the process of examining options continues.
- (f) Monitoring standards are set at a high standard, and it is important that monitoring programmes provide adequate data for the determination of future options, but with the opportunity for review once procedures are well established and proven.
- (g) Reporting to and liaison with Wellington Regional Council is important.

## 8.2 Point of discharge

The consent sought to discharge treated sewage directly to the Ruamahanga River (WAR 020074 (2)) has been declined. We acknowledge that the Makoura Stream is in poor condition and dominated by effluent flows from the wastewater plant. Maintaining the outfall at its existing location will not allow the enhancement of the stream for aquatic ecosystem purposes in terms of Policy 5.2.9 of the Regional Freshwater Plan. However, the continuation of this discharge for the term of the consent is unlikely to further degrade the standard of this waterway and the required interim improvements may improve the present situation.

The effects of the outfall on the Makoura Stream must be weighed against the rationale for its relocation to the Ruamahanga River via a rock filter. There was a lack of conclusive evidence to support this proposal. Masterton District Council is still investigating the options for a long term discharge. A land treatment is possible, in which case a relocated outfall would become redundant. In the event that a land disposal is not feasible and a discharge to the river is preferred, evidence from Masterton District Council was to the effect that a multi-port diffuser may be the preferred means, in which case again the rock filter would become redundant. Hence we consider granting this consent would have determined a path that appears to be costly, will give little overall solution to current problems, and is essentially a palliative.

In granting the consent WAR 020074 (1) (to discharge sewage effluent to the Makoura Stream) it is also recognised that the continued long term discharge of sewage effluent to water without a substantial upgrade in the level of treatment is not an acceptable situation. Opposition to a water discharge was reiterated by the large number of written and oral

submissions from iwi, local residents, downstream landowners, and recreational users of the Ruamahanga River. Tangata whenua are fundamentally opposed to the discharge of human waste to water, and this was expressed in submissions from Rangitaane o Wairarapa and Ngati Kahungunu ki Wairarapa.

### **8.3 Riparian restoration**

The Committee appreciates submissions regarding riparian restoration of the Makoura Stream. At some time, concurrent with the cessation of the discharge, this will have immense benefits for the stream. However, as was noted by the counsel for the applicant, planting would be on private land – outside the area of the applications and beyond the scope of this consent.

### **8.4 Consent duration**

Consents WAR 020074 (1), (3) and (4) have been granted with a seven year term from the date of commencement. A ten year term was sought by the applicant.

Section 107 of the Act restricts the grant of discharge permits that may result in certain effects in the receiving waters, unless the discharge is of a temporary nature. Masterton District Council submitted that 10 years was consistent with Section 107, to allow time for the long term upgrade to be implemented. Based on the evidence presented at the hearing, the Committee believes that the investigations and implementation of upgrade works is achievable within seven years, that this is a reasonable time to allow, and is within the limits of what may viably be termed ‘temporary’.

We acknowledge the views of the many submitters who requested a shorter term, but consider a shorter term could put at risk achieving the requirements for further and full investigation of options. The Committee considers that the seven year term will, to some extent, alleviate submitters’ concerns regarding the duration of the existing discharge. Consequently the Committee considers that it is appropriate to grant this application as a temporary discharge of seven years.

Although the counsel for one submitter suggested a shorter consent term could be given as the provisions of Section 124 would apply if the applicant lodges a new application within the legal timeframes, legal advice to the Committee was to the effect that this is not necessarily the case. If the new consent application is for a discharge to land then the provisions of Section 124 would not apply. Hence the Committee thinks it is more appropriate to impose a duration which allows for a realistic timeframe for investigations and implementation of upgrade works.

### **8.5 Upgrades to the treatment plant**

The consent conditions provide a timeframe within which options for a long term solution to Masterton’s effluent disposal can be investigated and implemented. Any local authority likes to avoid big chunks of expenditure in the short term. Masterton District Council now faces such a situation, and has shown in its closing submissions to the hearing an acceptance of the principles – the need for change, the need to search for a long term solution, and the need to manage the interim period while the long term solution is defined and implemented. And, the need to act promptly. The specific goals now need to be



defined, and the means to achieve them set out clearly so that the Council's constituents have a good understanding of what is involved.

The consent requires the long term upgrade to the plant to be implemented within the seven-year timeframe. A programme of investigations required to reach a decision on the long term upgrade option is set out in the conditions. A number of timeframes are included in the conditions to ensure that the conditions are enforceable; legal advice to the Committee suggested that such timeframes were necessary. The timeframes imposed were set with the aim of allowing enough time for thorough investigations, consultation and actual implementation of the works before the expiry of the consent.

We note that in some areas the times appear more generous than those proposed by the applicant in its description of the proposed programme. However we expect that the additional time will be required to provide for further investigations and consultation to comply with all conditions of the consent. We consider that the timing will in fact be tight. A review clause allows for some variation in the programme times, but cannot of course change the overall duration of this consent.

As well as requiring the investigations and implementation of the long term upgrade, a consent condition requires interim upgrades to be made to the treatment plant. These measures are proposed by the applicant and are expected to increase retention time and improve effluent water quality during the duration of this consent.

## **8.6 Consultation**

The number and quality of submissions on the applications, both written and oral, gave an indication of the importance of thorough community consultation. In particular, submitters were keen to be involved in the decision making process for the long term upgrade options. The Committee has imposed several conditions relating to community consultation, Iwi consultation, liaison and public reporting which reflect this desire, as well as being consistent with the principles of the Resource Management Act 1991 and the Treaty of Waitangi.

Under the Treaty, Masterton District Council has a specific relationship with the two organisations, Ngati Kahungunu and Rangitaane, representing Mana Whenua. The Iwi have responsibilities as Kaitiaki for the two waterways involved. The submissions from the Iwi lacked the information required as to the cultural and spiritual values that Iwi hold. It is necessary to have details regarding Waahi Tapu sites close to the operating site and discharge area. To gain this information more work needs to be done by Iwi, in association with the Masterton District Council. The consultation between Treaty partners needs recognition and understanding by both parties that each have governance roles and that the best solution is a pragmatic decision jointly reached. Within this context a stand-alone condition relating to Iwi consultation has been imposed.

## **8.7 Monitoring**

Stringent monitoring is an important component of a discharge consent, particularly where the receiving environment is used for contact recreation, where the impacts of the discharge are to some extent uncertain, and where community concern about the impacts is strong. As part of this consent, effluent discharge monitoring, receiving water monitoring, and groundwater quality monitoring is required.

There are a number of requirements for reporting the results of the tests to the Wellington Regional Council. On the whole these were agreed between the two parties. We accept the Wellington Regional Council recommendation that all analyses are to be carried out by an independently accredited testing laboratory to ensure the reliability of results.

We note also that several parts of the review condition relate to the monitoring regime, including a reassessment after 12 months of data collection. It is important that the parties work closely in assessing the ongoing results of all monitoring. Adequate and appropriate data collection is necessary to the satisfactory determination of a long term upgrade.

#### **8.7.1 Effluent monitoring**

Continued monitoring of the effluent stream was acknowledged to be essential in determining a long term upgrade option. The regime proposed by the applicant, even as modified after the final round of clarification of proposed conditions, was significantly short of that proposed by the Wellington Regional Council. Submitters on the whole backed the Wellington Regional Council's proposals regarding monitoring parameters.

The monitoring condition for the effluent discharge is based on the New Zealand Municipal Wastewater Monitoring Guidelines (September 2002) (as recommended by the Wellington Regional Council), and the Committee feels the monitoring frequency is adequate to reflect the risk to the environment. Wellington Regional Council suggested continuous monitoring of dissolved oxygen and temperature; however the Committee notes the argument of the applicant that these parameters only change slowly. The applicant put forward monthly readings, we have required them to be weekly.

#### **8.7.2 Receiving water**

The Committee had extensive evidence presented about the current monitoring of receiving waters, namely the Makoura Stream and the Ruamahanga River. The detailed regime of monitoring which the Committee has accepted was proposed by the Wellington Regional Council and generally agreed to by the applicant. It was accepted that monitoring should continue at existing locations, the location by Wardells Bridge probably representing the most important site. All of the river in this area is classified under the Regional Freshwater Plan as needing enhancement for Contact Recreation purposes, and Wardells Bridge has traditionally been an important point for public access to the river. We have also required monitoring at a further point (downstream of the bridge), to be decided between the Wellington Regional Council and Masterton District Council.

Extensive evidence was presented to the hearing as to the nature of flow in the Ruamahanga River and dynamics of the effluent mixing. Initially the Wellington Regional Council Officer's report asked for definition of 'mixing zones' – to be some 20 metres downstream of the confluence of the Makoura Stream, if the discharge continued into that stream. The applicant's case was that mixing zone definition was not required for the purposes of this consent, which is to allow continuation of the discharge on a temporary basis (and in reality, that full mixing may not be achieved for up to 3 kilometres downstream). A further monitoring location will provide data to assist such definition in the future; however, the Committee accepts that hydrodynamic modelling is likely to be required to fully determine mixing characteristics.

Weekly monitoring of *E. coli* in the receiving waters over summer is required as a result of use of the Ruamahanga River for contact recreation purposes. This is consistent with the Ministry for the Environment and Ministry of Health's "Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas" (2002).

In declining the consent to move the outfall from the Makoura Stream, we acknowledge that water quality here will continue to be compromised for the term of this consent. Existing monitoring should nevertheless continue, and effects of changes that may occur in the discharge should be noted.

### **8.7.3 Groundwater**

Concern was raised by several adjacent landowners that leakage from the ponds may be affecting the groundwater quality, and thence the quality of the Ruamahanga River water. The Committee accepts the evidence of Masterton District Council that, notwithstanding degradation of the groundwater adjacent to the ponds, tests showed there was little effect on the river water that could be attributed to leakage. Nevertheless the existing programme of groundwater monitoring will be continued. This is mainly aimed at keeping a continued watch on the situation as to seepage from the ponds. It is hoped that this monitoring will alleviate concerns of submitters regarding the potential impacts of seepage.

The applicant's evidence was also that there was no evidence of any effects from the ponds on private bores. These were either upstream or too far away. However, it was agreed that a further bore will be installed, to confirm that the flow direction is not toward any private bore.

### **8.8 Discharge standard**

An important aspect of this decision is the standard of effluent discharge. A wealth of information was presented to the Committee regarding the current standard of effluent, what could be achieved in the interim, and what could be aimed for in the longer term. In particular data was given to us by the applicant, derived from monitoring over the last two years, as a basis for its recommendation for an ongoing effluent quality standard for the duration of this consent. This is a standard which the Homebush plant can currently achieve.

We also received many submissions that higher effluent standards should be imposed on the applicant as part of this consent. We appreciate the concern behind the impatience of the submitters to see an improvement in the quality of the effluent. We appreciate also that the applicant went to some length to attempt to meet this concern, suggesting the inclusion of a standard to be met by the long term upgrade (by way of a consent condition). The criteria proposed were similar to the standards recently adopted at Martinborough to be implemented there within a time line (of seven years) and we understand derived from the Tasmanian standards for effluents from AMT (accepted modern technology) plants.

However, we do not think it is sensible to anticipate what will be deemed appropriate in the longer term future – this should be determined at the time of a future hearing. Rather we wish to ensure that there is no deterioration in effluent quality, and thence increased

effect on the receiving environment, in the period until a suitable long term option is put in place.

The Committee recognises that it is likely no upgrades are required to meet the standards of the condition. The Committee is also aware that there is currently a move towards using 'percentile' standards, rather than a geometric mean alone. However, we based the standard on a geometric mean of a minimum of 20 consecutive samples as proposed by the applicant.

The decision was made in the context of the following points:

- The standard must be achievable;
- The standard only applies to the interim consent; and
- Improvements beyond this standard will occur as a result of the interim upgrade works required.

### **8.9 Risk assessment**

Comments were made in Section 7 regarding the risk to the ponds from natural hazards. We realise that siting of the ponds was not an issue for consideration by the Committee. However, it is an issue that was raised by several submitters and must be taken into account when deciding upon long term disposal options. A condition has been included requiring the consent holder to carry out an assessment of the risks to the treatment plant from natural hazards.

### **8.10 Inflow and outflow volumes**

The Wellington Regional Council officer recommended a condition requiring the outflow from the ponds to be reduced over the duration of the consent. Masterton District Council submitted that this was not achievable.

It was outlined in Section 8.1 that the Committee has a goal of setting achievable conditions. Hence there is no condition in the consent requiring outflow from the ponds to be reduced below the discharge rate stated in the application. Having stated this, a condition requires the consent holder to report annually on progress with sewer rehabilitation, reduction of cross connections and infiltration reduction. It is anticipated that these works will lead to a reduction in inflow (and hence outflow).

### **8.11 Discharge to air**

During the hearing, no concerns were raised about odour from the ponds. However, it is a potential adverse effect, and a condition has been set requiring the implementation of a Management Plan to address odour and aerosol discharges.

Several submitters raised concerns as to the noise generated by the aerator operation and that this may increase with installation of the new aerators. The parties agreed that the condition proposed to control objectionable effects of the air discharge should include noise. We adopt the concept but have amended the wording to specify that the noise is that arising from the aerators, and that consideration of this is part of the Management Plan to be implemented under the condition.

## **9.0 Decision**

Pursuant to the powers delegated to us by the Wellington Regional Council under Section 34 of the Resource Management Act 1991, we the appointed Hearing Committee **decline** the resource consent application WAR 020074 (2) to discharge treated sewage effluent directly to the Ruamahanga River.

Pursuant to the powers delegated to us by the Wellington Regional Council under Section 34 of the Resource Management Act 1991, we the appointed Hearing Committee hereby **grant** the resource consent applications WAR 020074 (1), (3) and (4) for a seven year term subject to the conditions outlined in Schedule 1. The consents are granted pursuant to Sections 104, 105, and 108 of the Resource Management Act 1991.

Euan McQueen  
(Chairperson)

Liz Mellish

Helen Tobin

## **Schedule 1: Consent conditions**

### **General Conditions for WAR 020074 (1), (3) and (4)**

#### **Activity in accordance with application**

1. The location and character of the discharge of the treated wastewater shall be in general accordance with that described in the document entitled “Masterton District Council – Assessment of Environmental Effects for Wastewater Treatment Plant”, but subject to any modifications required to comply with any of the conditions of consent.

#### **Short term upgrades**

2. The consent holder shall have completed the following interim upgrades within six months of the date of commencement of the consent:
  - Installation of cage aerators in the primary ponds;
  - Pond mixing improvements including modifying the inlet pipes to primary ponds and installing stub baffles;
  - Installation of a screen on the outlet of the secondary pond.
3. The consent holder shall carry out investigations into the risks, costs and benefits of installing in-series maturation ponds and rock filters in the existing oxidation ponds. Notwithstanding any other condition the consent holder shall report to the Wellington Regional Council (Manager, Planning and Resources) on progress and results of these investigations within two years of commencement of this consent.

#### **Reticulation infiltration**

4. The consent holder shall report annually to the Wellington Regional Council (Manager, Planning and Resources) on progress with sewer rehabilitation, reduction of cross connections with stormwater pipes, and inflow/infiltration reduction. This report shall include a trend analysis of flows.

#### **Long-term wastewater effluent disposal options**

5. Upon expiry of WAR 020074 (1) and (3) the consent holder shall meet the requirements of section 107(1) of the RMA and the Wellington Regional Fresh Water Plan (operative November 1999).
6. The consent holder shall implement a long-term upgrade of its wastewater reticulation, treatment and disposal system by the expiry of this consent in the manner set out in Conditions 7-17.

*Note: the “Long term upgrade” means: Any upgrades of the sewage reticulation and treatment and disposal system which the consent holder intends to seek consents for before the expiry of the WAR 020074.*

**Programme of investigations**

7. The consent holder shall establish a programme for the investigations required as soon as practicable and no later than three months from the commencement of this consent. Such investigations shall include, but shall not be limited to, the following:
  - all the investigations already initiated, including the current investigations of Rapid Infiltration at the Homebush and Manaia Road sites. These investigations are to be continued and completed as soon as possible allowing for access and consent processes;
  - investigations into leakage from the existing oxidation ponds to establish the permeability of the pond linings, and investigations into the costs and benefits of minimizing leakage from the existing oxidation ponds;
  - any further investigations required to meet the conditions of this consent.
8. The consent holder shall prepare a full assessment of the risk to the sewage treatment system from natural hazards, including those that may derive from the location of the oxidation ponds in close proximity to the Ruamahunga River, and the consequent risks that may arise from future floods and other dynamics of that River. This assessment shall be prepared no later than one year from the commencement of this consent.

**Reporting on investigations**

9. The consent holder shall provide six monthly progress reports to the Wellington Regional Council (Manager, Planning and Resources) of all works associated with the investigation of options including progress and outcomes, and outlining short listed options for the long term upgrade.
10. In addition to the reporting required under Condition 9, the consent holder shall provide at least one public Issues and Options report on the progress and outcome of the investigation of options, and outlining short-listed options for the long term upgrade. The first report shall be issued within one year from the commencement of this consent.
11. In addition to the requirements of Conditions 9 - 10 the consent holder shall publish a 6 monthly newsletter or circular outlining progress on compliance with the conditions on these consents and progress against the programme set out in Conditions 7 - 8. This shall be sent to all submitters and local newspapers, and shall be available at the public libraries of Masterton District Council, Carterton District Council and South Wairarapa District Council.

**Consultation**

12. At an early stage in the process of investigations under Conditions 7 - 8, the consent holder shall commence community consultation regarding the long term upgrade options.

13. The consent holder shall commence consultation with the Iwi authorities of Ngati Kahungunu and Rangitaane at an early stage and agree on the consultation process including adequate time for the Iwi authorities to confer with Iwi members.

*Note: This will provide for the Iwi authorities to outline procedures and provide information to their members, and to receive their support in their decision making process.*

14. Without limiting the generality of Conditions 12 – 13, the consent holder, in partnership with Ngati Kahungunu and Rangitaane, shall approach Hospital Authorities, the Wairarapa District Health Board and Funeral Directors Association to investigate methods of disposal of waste which could be regarded as culturally offensive.

#### **Decision and implementation of long term upgrade**

15. The consent holder shall make a decision on the long term upgrade option, following consultation and technical investigations, no later than two years from the commencement of this consent.
16. The consent holder shall lodge any resource consent applications required for the long term upgrade option, along with any notices of requirement or land use consents that may be necessary as soon as practicable after the decision on the long term upgrade option being made under Condition 15.
17. The consent holder shall ensure there is legal access to the land necessary to implement the long term upgrade option prior to lodging any required resource consent applications.

#### **Review of conditions**

18. If the Wellington Regional Council considers that the consent holder is not making sufficient progress in carrying out the matters listed in Conditions 7 - 17 it may review consents WAR 020074 pursuant to Condition 21.

#### **Mitigation steps**

19. In the event of any treatment plant failure, which would result in any deterioration in discharge quality affecting the receiving environment and be in breach of any condition of this consent, the consent holder shall:
  - Take immediate steps to remedy and mitigate any adverse effects on the environment caused by the failure;
  - Notify the Medical Officer of Health in accordance with Public Health Service's Response Manual for Sewage Discharges;
  - Advise the Wellington Regional Council (Manager, Planning and Resources) as soon as practicable after the malfunction has been detected;
  - Advise local Iwi authorities;



- If required by the Wellington Regional Council (Manager, Planning and Resources), provide within 24 hours after notification a written report detailing the manner and cause of that malfunction and the steps taken to mitigate its effects and to prevent recurrence.

**Risk communication strategy**

20. The consent holder shall within nine months of the date of commencement of this consent develop and implement a risk communication strategy to notify potentially affected persons of the potential health effects of the discharge. The risk communication strategy will be developed in consultation with the Public Health Service. The Risk Management Strategy shall include the erection of appropriate warning signage in the vicinity of the outfall.

**Review of conditions**

21. The Wellington Regional Council may review any or all conditions of this consent by giving notice of its intention to do so in accordance with Section 128 of the Resource Management Act 1991 at any time within three months of 30 June for each year for the term of this consent for any of the following purposes:
- 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;
  - To review the adequacy of the monitoring requirements so as to incorporate into this permit any modifications to the monitoring that may be necessary to deal with the adverse effects on the environment arising from the exercise of this permit;
  - To reassess the monitoring requirements when the effects of the treated sewage discharge are adequately established;
  - To reassess monitoring requirements after 12 months of data collection as required under this consent.
  - To reassess conditions relating to the programme of investigations for the long term upgrade if the Wellington Regional Council feels that insufficient progress is being made.
22. The consent holder may apply (at any time) for a review of consent conditions under Section 127 of the Resource Management Act 1991.

**Charges**

23. A resource management charge, set in accordance with Section 36(2) of the Resource Management Act 1991 shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of resource consents and for the carrying out of its functions under Section 35 (duty to gather information, monitor and keep records) of the Act.

### **Transfer of permit**

24. The consent holder's interest in this consent may not be transferred to any owner or occupier of the site pursuant to Section 137 of the Resource Management Act 1991, unless that owner or occupier has assumed the Masterton District Council's responsibilities for the treatment and disposal of municipal wastewater.

### **Operational records**

25. The consent holder shall keep operational logs, which identify changes in the operating procedures, and unusual or significant events that occur at the plant. These records shall be made available to the Wellington Regional Council (Manager, Planning and Resources) on request.

### **Specific Consent Conditions**

#### ***WAR 020074 (1) – Discharge to Makoura Stream***

#### **Consent term**

26. The consent term shall be for a seven-year period from the date of commencement of the consent.

#### **Discharge rate**

27. The peak discharge rate from the Masterton oxidation ponds to the Makoura Stream shall not be more than 700 litres/second, with a maximum daily total no more than 35,000 m<sup>3</sup>.

#### **General monitoring**

28. All analysis carried out for Conditions 31, 34, 35 and 38 shall be undertaken using an independently accredited testing laboratory approved for the tests detailed in this condition. Methods shall be standard methods, as detailed in the Standard Methods for the Examination of Water and Wastewater, 1995 19<sup>th</sup> edition by American Public Health Association and American Water Works Association and Water Environment Federation, and any subsequent editions.
29. Commencing within two months of the commencement of this consent, and at three monthly intervals or on request, the consent holder shall forward all results of the sampling undertaken for compliance with Conditions 31, 34, 35 and 38 to the Wellington Regional Council (Manager, Planning and Resources) in a format agreed to between the consent holder and Wellington Regional Council.
30. The consent holder shall provide an annual report by 31 May each year to the Wellington Regional Council (Manager, Planning & Resources) providing:
  - The results of the monitoring undertaken for Conditions 31, 34, 35 and 38, analysis and interpretation of the results, and an assessment of the impact of the discharge on the receiving environment;

- Details of any treatment plant failure and steps taken to rectify the failure;
- The progress and details of the Trade Waste Bylaw implementation.

#### Discharge monitoring and quality

31. The consent holder shall monitor the discharge from Pond 3 according to the frequency, constituents and detection limits specified in Table 1.

**Table 1 Discharge monitoring required under Condition 31**

Constituent	Monitoring Frequency	Detection Limit
Flow (influent and effluent)	Continuously	10%
pH	As per <i>E. coli</i>	0.1 pH
Temperature	Weekly	0.1 °C
<b>Colour and Clarity:</b>		
Total Suspended Solids	Fortnightly	0.1 g/m <sup>3</sup>
Total Solids	Monthly	0.1 g/m <sup>3</sup>
Colour	As per <i>E. coli</i>	
Foam and Scum	As per <i>E. coli</i>	
<b>Oxygen Demand:</b>		
Dissolved Oxygen	Weekly	0.2 g/m <sup>3</sup>
BOD <sub>5</sub>	Fortnightly	1 g/m <sup>3</sup>
<b>Nutrients:</b>		
Total Nitrogen	Monthly	0.1 g/m <sup>3</sup>
Nitrite-N	Monthly	0.1 g/m <sup>3</sup>
Nitrate-N	Monthly	0.1 g/m <sup>3</sup>
Total Kjeldahl Nitrogen	Monthly	0.1 g/m <sup>3</sup>
Ammonia-N	Fortnightly	0.1 g/m <sup>3</sup>
Dissolved reactive phosphorus	Monthly	0.1 g/m <sup>3</sup>
Total phosphorus	Monthly	0.1 g/m <sup>3</sup>
<b>Metals &amp; Metalloids:</b>		
Cd, Cu, Ni, Pb, Zn, Hg, As, Ag, Cr	Annually	0.001 g/m <sup>3</sup>
Alkalinity & hardness	Annually	0.1 g/m <sup>3</sup>
<b>Organics:</b>		
Total Petroleum Hydrocarbons (TPH), Poly Aromatic Hydrocarbons (PAH), Semi Volatile Organic Hydrocarbons (SVOC), Volatile Organic Hydrocarbons (VOC)	Annually	0.001 g/m <sup>3</sup>
<b>Pathogens &amp; Indicators:</b>		
<i>E. coli</i>	Weekly (1 <sup>st</sup> December – 31 <sup>st</sup> March), Fortnightly (1 <sup>st</sup> April - 30 <sup>th</sup> November)	cfu/100mls

32. Within 6 months of commencement of the consent, the discharge shall comply with the standards specified in Table 2. The standards in the table are the geometric mean of a minimum of 20 consecutive samples. The results of analysis

to assess compliance with this condition shall be forwarded to the Wellington Regional Council with the monitoring results submitted under Condition 29.

**Table 2 Discharge quality standards to be met under Condition 32**

Parameter	Unit	Standard
<i>E. coli</i>	cfu/100 ml	1200
BOD <sub>5</sub>	g/m <sup>3</sup>	32
Suspended Solids	g/m <sup>3</sup>	42
Total Nitrogen	g/m <sup>3</sup>	13
Ammonia-N	g/m <sup>3</sup>	2.0 (summer) 7.0 (winter)
Total Phosphorus	g/m <sup>3</sup>	3.3

*Note: 'Summer' is defined as the period 1 November to 30 April inclusive  
'Winter' is defined as the period 1 May to 31 October inclusive*

33. The consent holder shall ensure that flow measuring devices capable of continuously measuring flows of magnitudes up to and beyond the peak flow rate are installed at inlet and outlet, and are maintained to ensure that measurement error is no more than  $\pm 10\%$ .

#### **Sampling after Rainfall Events**

34. The consent holder shall collect and analyse samples of the discharge from Pond 3 after rainfall events in excess of 10mm/24 hours measured at the Colombo Road rainfall gauge. The samples shall be collected within 12 to 24 hours of 10 mm or more rain having fallen. The amount of rainfall and time of reading and corresponding sampling shall be recorded. Further samples are to be taken at 24 to 48 hour intervals for a period of 3 to 10 days after the recorded rainfall event. Samples are to be analysed for *E. coli* and Total Suspended Solids. The sampling intervals may be adjusted to reflect the patterns established from previous rainfall events, after discussion with Wellington Regional Council (Manager, Planning and Resources).

The sampling shall continue until four events are recorded providing for a range of events that would be expected in any one year (e.g. 10, 20, 30 and 40 mm/24hr) to assist in determining the effect of localised events. This monitoring shall occur within the first 12 months of the granting of this consent. At the end of this monitoring period a report shall be submitted to the Wellington Regional Council (Manager, Planning and Resources) detailing trends and potential effects on discharge quality and any further investigations needed to substantiate the findings.

#### **Receiving Water Monitoring**

35. The consent holder shall monitor receiving water quality at the frequencies and detection levels specified in Table 3.

Table 3 Receiving water quality monitoring required under Condition 35

Constituent	Unit	Detection Limit	Frequency
<b>Field measurements:</b>			
pH	pH	0.1	Monthly
Conductivity	µS/cm	0.1	Monthly
Dissolved Oxygen	g/m <sup>3</sup>	0.01	Monthly
Dissolved Oxygen percent saturation (by calculation)		5%	Monthly
Black Disc	Metres	0.1	Monthly
Colour	Munsell	-	Monthly
<b>Bacteriological analysis:</b>			
<i>E. coli</i>		10	Weekly (1 <sup>st</sup> December – 31 <sup>st</sup> March), Monthly 1 <sup>st</sup> April – 30 <sup>th</sup> November
<b>Nutrients:</b>			
Ammonia-N	g/m <sup>3</sup>	0.01	Monthly
Nitrate-N	g/m <sup>3</sup>	0.002	Monthly
Nitrite-N	g/m <sup>3</sup>	0.002	Monthly
Total Kjeldahl Nitrogen	g/m <sup>3</sup>	0.1	Monthly
Total Nitrogen (by calculation)	g/m <sup>3</sup>	0.1	Monthly
Total Phosphorus	g/m <sup>3</sup>	0.004	Monthly
Dissolved Reactive Phosphorus	g/m <sup>3</sup>	0.004	Monthly
<b>Biological Analysis:</b>			
Macroinvertebrate analysis (species composition and abundance – to SQMCI level of identification)			Annually
Periphyton taxonomic and biomass assessment (qualitative and quantitative)			Annually
<b>Miscellaneous:</b>			
Turbidity	NTU	0.05	Monthly
Total Organic Carbon (TOC)	g/m <sup>3</sup>	0.5	Monthly

36. The locations of the sampling carried out under Condition 35 shall be in accordance with the locations specified in the document “Masterton District Council – Assessment of Environmental Effects for Wastewater Treatment Plant”. These are:

- Makoura Stream, upstream of the discharge from pond 3;
- Makoura Stream, downstream of the discharge from pond 3;
- Ruamahanga River, upstream of the confluence with the Makoura Stream;
- Ruamahanga River at Wardells Bridge;

In addition to the four sites specified above, a fifth Ruamahanga River site shall be sampled downstream of Wardells Bridge, with the specific location to be decided between the consent holder and the Wellington Regional Council.

**WAR 020074 (3) – Discharge to Land from Ponds****Consent term**

37. The consent term shall be for a seven-year period from the date of commencement of the consent.

**Groundwater Monitoring**

38. The consent holder shall monitor groundwater quality at three monthly intervals for the parameters with detection limits as specified in Table 4.

The existing regime of monitoring bores shall continue, with the consent holder installing one additional monitoring bore between the west embankment of pond 3 and the Makoura Stream. The exact location of this bore can depend upon access available. The consent holder shall include a schedule of bores sampled and a diagram of their location when forwarding the results to the Wellington Regional Council as required under Condition 29.

The samples for analysis are to be taken using standard groundwater sampling methodology as detailed in the New Zealand guidelines for the collection of groundwater samples for chemical and isotopic analyses (Rosen *et al.*, 1999: Geological & Nuclear Sciences Publication 99/9).

**Table 4 Groundwater quality monitoring required under Condition 38**

<b>Constituent</b>	<b>Unit</b>	<b>Detection Limit</b>
<b>Field measurements</b>		
pH	pH	0.1
Conductivity	uS/cm	0.1
Dissolved Oxygen	g/m <sup>3</sup>	0.01
<b>Bacteriological analysis</b>		
<i>E. coli</i>		10
<b>Nutrient</b>		
Ammonia-N	g/m <sup>3</sup>	0.01
Nitrate-N	g/m <sup>3</sup>	0.002
Nitrite-N	g/m <sup>3</sup>	0.002
Total Kjeldahl Nitrogen	g/m <sup>3</sup>	0.1
Total Nitrogen (by calculation)	g/m <sup>3</sup>	0.1
Total Phosphorus	g/m <sup>3</sup>	0.004
Dissolved Reactive Phosphorus	g/m <sup>3</sup>	0.004
Anion/cation profile (HCO <sub>3</sub> , Ca, Mg, Hardness, Na, K, Cl, SO <sub>4</sub> ) <i>NB: As part of the above analysis, an ion balance of each sample shall be reported.</i>	g/m <sup>3</sup>	0.01
<b>Miscellaneous</b>		
Total Organic Carbon	g/m <sup>3</sup>	0.5

***WAR 020074 (4) – Discharge to Air***

**Consent term**

39. The consent term shall be for a seven-year period from the date of commencement of the consent.

**Mitigation Measures**

40. The consent holder shall develop and implement a Management Plan to address odour, aerosol discharges and noise arising from operation of the aerators. The Management Plan shall include but not be limited to recording of events which create an objectionable odour/aerosol occurrence and unreasonable noise, and measures and maintenance regimes to prevent objectionable odour/aerosol and unreasonable noise occurrence. The Plan shall be revised prior to incorporating any alterations to the treatment and disposal system carried out during the term of this consent.

*Ends*

## **Appendix A – List of parties heard at the Hearing**

Wellington Regional Council

Masterton District Council represented by counsel Phillip Milne, and witnesses Steve Kerr, Humphrey Archer, Graeme Proffitt, Robert Fullerton, Stephen Karaitiana.

### **Submitters to the application**

Wendy Harris, Department of Conservation

Miranda Robinson, Fish & Game NZ

Mike Gray, South Wairarapa District Council

George Mikaera, Wellington Conservation Board

Robert Jones, Wairarapa Heritage Association

Kevin Campbell, Wairarapa Health

Dane Rimene, Rangitaane o Wairarapa

Joanna Philps

James Philps

Jim Hedley

David Holmes

Stuart Forbes (represented by counsel Andrew Beatson)

John Wardell

John Murphy, Adventure Jet

John McCosh

Roger Ternant

Leo Vollebregt

Roger Steeby (represented by counsel Catherine Somerville and witness Robert Christie)

John Monk

Jim Bicknell

*John McCosh also spoke on behalf of Wairarapa Business Association*

*Jim Hedley also spoke on behalf of Pauline Hedley, Edward Lee and Gerard Vollebregt*