

Resource Management Act 1991 (“the Act”)

Decision by Independent Hearings Commissioner on an application to discharge an average of 1,300m³/day of treated wastewater from the Winton Wastewater Treatment Plant into the Winton Stream by Southland District Council, APP-20233188

Introduction

- [1] Southland District Council seeks resource consent to discharge an average of 1,300 m³/day of treated wastewater from the existing Winton Wastewater Treatment Plant into the Winton Stream. Consent is sought for what is essentially a continuation of the existing discharge, albeit for a short term of five years. The wastewater is screened, then treated in an oxidation pond, passes through a constructed wetland cell, and is then discharged into the Winton Stream via a diffuser pipe.
- [2] The application was publicly notified on 18 July 2023 and no submissions were received. Pursuant to section 100 of the Act, a hearing need not be held unless the applicant requests it, or the consent authority considers that a hearing is necessary. The applicant has not asked to be heard and I consider that I have all the relevant information available to me to make a determination on the resource consent application, on the papers.
- [3] I have been delegated the necessary powers to determine this application pursuant to Section 34A of the Act.
- [4] Section 113(3) of Act provides that a decision prepared under subsection (1) may, —
- (a) instead of repeating material, cross-refer to all or a part of—
 - (i) the assessment of environmental effects provided by the applicant concerned:
 - (ii) any report prepared under section 41C, 42A, or 92; or

(b) adopt all or a part of the assessment or report and cross-refer to the material accordingly.

[5] In the spirit of section 113(3) of the Act and to avoid unnecessary repetition, I intend to cross-refer to the application and to the Section 42A report accordingly.

Description of the Proposal

[6] The proposal is described in the application prepared by GHD Limited WSP Opus and dated 1 June 2023 (“Application”) and the Section 42A report. I have summarised the proposal at [1] above.

[7] The Application discusses in some detail a staged consenting approach which will provide for the existing discharge in the short term, while the design is underway to meet the long term desired outcome of a land-based discharge system.

[8] From the information provided in the Application, it is clear that the applicant is committed to a land-based treatment system. The three phases of the proposed land-based system are described in the Application. Phase 1, described as ‘optioneering’, has been completed with the preferred treatment option having been decided upon. The Application states that funding for the new land-based system has been approved in the applicant’s LTCCP.

[9] Phase 2, Design, is underway, based on a requirement for approximately 70 hectares of land to accommodate the land-based system. The Application states that the biggest challenge is to find sufficient and suitable land which the applicant (as at March 2023) is yet to secure, although initial discussions with landowners are apparently underway. Phase 3, is the Construction stage.

[10] The Application explains that a new long term consent will be applied for once the design for the land-based system has been sufficiently developed. The expected timeframe to lodge a resource consent application for the land-based system is the first half of 2024.

[11] The applicant seeks a five year consent period to effectively maintain the status quo, which it states will enable it to finalise the long-term detailed design to upgrade to the land-based wastewater treatment system.

Consent status

[12] The status of the application is for a non-complying activity under Rule 33A (b) of the proposed Southland Water and Land Plan (“SWLP”)¹. Rule 33A provides:

- 33A (a) The discharge of effluent or bio-solids from a community sewerage scheme into water in a river, lake, artificial watercourse, modified watercourse or a natural wetland where the Appendix E – Receiving Water Quality Standards are met and the discharge does not reduce the water quality below those standards at the downstream edge of the reasonable mixing zone the discharge is a discretionary activity;
- (b) The discharge of effluent or bio-solids from a community sewerage scheme into water in a river, lake, artificial watercourse, modified watercourse or natural wetland where Rule 33A (a) is not met the discharge is a non complying activity.

Officer’s recommendation

[13] Mr West, Principal Consents Officer for Environment Southland on this application, recommends that the application be approved².

Statutory Considerations

Section 104 – matters to be considered

[14] I discuss my consideration of the actual and potential effects on the environment of allowing the activity³ together with any relevant provisions specified in s104 (1) (b) below.

[15] Pursuant to section 104(2A), when considering an application affected by section 124, I am to have regard to the value of the investment to the existing consent holder. I acknowledge the existing wastewater system would have been a significant cost to the community when it was built. The current system has been in place for some time and appears to have been adequately maintained by the applicant and will have a capital value.

¹ The Application addresses the Regional Water Plan for Southland and Rule 2, under which the proposal is also a non complying activity. Mr West’s advice is that Rule 33A is now operative and as such, Rule 2 ceases to have effect.

² Although he describes his recommendation as “tentative and pragmatic”, based on his ‘application’ of Policy 26A [1.6]

³ S104(1)(a)

[16] Section 104(2D) does not appear to have any application to the proposal and I need not consider it further⁴.

Section 104(1) (a) – any actual and potential effects on the environment

[17] Mr West has identified the key effects of relevance at paragraph 2.5.2 of his report. These are addressed below.

Positive Effects

[18] The positive effects and community benefits of a wastewater system are acknowledged.

Effects on cultural and spiritual values

[19] Mr West's report discusses the general preference for waste water to be treated and then discharged to land via wetlands and riparian areas.⁵ He notes that the applicant had consulted with Te Ao Marama Inc. prior to lodging the application and neither it nor Te Runanga o Ngai Tahu made submissions. While in itself, a lack of submission is not evidence those parties consider adverse effects from the discharge to water acceptable, it may indicate that their focus is on change towards the longer term investigations and consenting to land. Mr West refers to a discussion he had with a representative of one of the parties, noting a key factor in their decision not to submit in opposition was due to the extent of consultation undertaken and the applicant's commitment to a land-based discharge option.

[20] Notwithstanding the lack of opposing submissions, I accept Mr West's opinion that overall, the discharge will likely have adverse effects on cultural and spiritual values.

Water quality effects

[21] Section 3.1.1.2 of the Application provides information on wastewater flows. These are summarised at paragraph 2.5.11 of Mr West's report. He goes on to note that the wetland component of the system was added to mitigate adverse effects on cultural and spiritual values, and was also anticipated to further mitigate the water chemistry of the discharge by plant uptake of nutrients, and reduced pathogens due to exposure to sunlight/ultraviolet light and by filtration.

⁴ Section 6.3.1 of the application states that Taumata Arowai has not yet commenced its oversight role for wastewater, and there are no current wastewater performance standards to be considered.

⁵ At [2.5.6] referring to Section 3.5.2 in Te Tangi Taurira.

[22] Mr West identifies that in general, the quality of waste water has been consistent, but the applicant has identified elevated spikes in the Biochemical Oxygen Demand and suspended solids and E. Coli concentrations. Mr West discusses the results of water quality monitoring in Winton Stream from paragraph 2.5.15 of his report.⁶ The Application states that the current water quality trends are unlikely to improve over the five year consent period sought, and absent any upgrades to the existing system, the wastewater discharge will continue to degrade water quality which adversely affects various sensitive human and ecological receptors within the receiving and downstream environment.⁷ While the effects of the discharge are considered to be more than minor, the applicant maintains that with the proposed mitigation measures employed, the discharge will not result in any further degradation of water quality in Winton Stream, in the short term. By this I understand the applicant to be saying that while water quality will not be improved, it will be maintained (albeit in its current degraded state).

Ecological effects

[23] The application contains a report prepared by 4Sight Consulting Limited which concludes that the discharge is adversely affecting aspects of the biological communities of Winton Stream, and conditions for biological communities are poor upstream and downstream of the discharge. The applicant acknowledges that the discharge is and will continue to have an adverse effect on aquatic ecology that is more than minor.

Effects on Water Supplies

[24] There is a registered human drinking water supply take for Invercargill City and a supply to a meat works operation from the Oreti River about 18.8 km and 23.8 km respectively downstream of the discharge into Winton Stream. At that distance, and allowing for the dilution in the Oreti River, and because those takes are treated, I accept Mr West's opinion that the discharge is unlikely to have a measurable effect on water quality at the intakes.

Public Health risk

[25] Mr West observes that the applicants monitoring has shown that there are elevated concentrations of E. Coli upstream of the discharge, and the discharge has only minor effect on E. Coli concentrations in Winton stream. While there is a health risk associated with contact with the waters of the stream, or from consuming mahinga kai collected from it, that risk is present

⁶ With particular reference to Suspended Solids, Ammoniacal Nitrogen, Nitrate Nitrogen, Dissolved Reactive Phosphorus, E. Coli, Dissolved Oxygen, Temperature

⁷ At 5.2.1

upstream of the discharge. Mr West observes that a sign near the outfall serves to warn the public of the presence of the wastewater discharge.

- [26] The Application states that so far as other river users are concerned, Winton Stream does not appear to support any recreational activities, and access to the stream is limited. Notwithstanding, the Application describes actual and potential effects on other users as more than minor given there is no certainty around the use of Winton Stream downstream of the discharge point.

Amenity Values

- [27] I accept Mr West's opinion that due to the modified nature of the Winton Stream and the limited public access to it, the discharge will only have a minor adverse effect on amenity values, other than during low flows where the discharge results in a conspicuous change in the colour or clarity of the stream which may adversely affect the amenity of the stream.

Overall consideration of effects

- [28] There is no dispute that the adverse effects will when considered in the round are more than minor.

Section 104(1) (b)

- [29] Under section 104(1) (b) of the Act, I must have regard to any *relevant* provisions of:
- (i) a national environmental standard;
 - (ii) other regulations;
 - (iii) a national policy statement;
 - (iv) a New Zealand coastal policy statement;
 - (v) a regional policy statement or proposed regional policy statement;
 - (vi) a plan or proposed plan;
- [30] Under section 104(1) (c), I must also have regard to any other matter the consent authority considers relevant and reasonably necessary to determine the application.
- [31] I record that the relevant instruments requiring my consideration in this case are the:
- (a) National Policy Statement on Fresh Water Management 2020 ("NPS");
 - (b) Southland Regional Policy Statement 2017;

- (c) Proposed Southland Water and Land Plan;
- (d) National Environmental Standards for Sources of Human Drinking Water Regulations 2007 (“NES-HDWR”); and
- (e) Under s104(1)(c), Te Tangi a Tauria Iwi Management Plan

NPS

- [32] Mr West’s report sets out the relevant provisions of the NPS. I do not repeat those here.
- [33] I agree with Mr West, that the planned transition from the current system to a land-based one is a relevant matter when considering the consistency or otherwise of the application with the NPS provisions. I also agree with Mr West that it is appropriate to consider the effects of the proposal in the context of the wider scheme which is to convert to land-based disposal within five years.
- [34] While no application has yet been made for the land-based system, as I have noted above, the applicant has made a commitment to it, and has taken steps towards implementation of a land-based scheme. It would be artificial not to consider the current proposal in the context of part of the bigger and longer term solution that is aimed to the goal of avoiding adverse effects on water quality⁸. From a practical perspective, there are steps to be taken before the discharge can be made to land. In particular, I agree with Mr West’s opinion that considered in this context, the proposal is not inconsistent with Policies 1, 7, 9 and 10.

Regional Policy Statement

- [35] Again, Mr West’s report sets out the relevant provisions. Mr West observes that the RPS includes definitions of infrastructure, critical infrastructure and regionally significant infrastructure⁹. I agree with Mr West that the waste water system is by definition both *critical infrastructure* and *regionally significant infrastructure*. I agree with Mr West’s interpretation of policies INF.1 and INF.2, as providing support for assessing the proposal as part of the wider upgrade to a land-based wastewater system.

⁸ Mr West’s s42A report appended legal advice from the applicant provided in respect of a previous discharge consent application. This advice was to the effect that the consent authority could, for the purposes of assessing consistency with the policy framework, view the application in the wider context of a move/transition to land-based disposal (the Upukerora Discharge consent application).

⁹ At paragraph 3.7.3

[36] The transition to land based disposal is consistent with Policy WQUAL.8 and in the short term, sewerage will be treated prior to disposal to water. Over the limited term of the consent period sought, the proposal will be inconsistent with Policies WQUAL1 and 2, which seek to maintain or improve water quality. In this regard, I note the Application describes a robust monitoring regime and sets specific triggers for a range of contaminants that are to be maintained to prevent *further* reduction in water quality, but relies on the longer term strategy and land-based facility to implement and give effect to these water quality policies.

[37] Mr West observes with respect to Policies TW.1 and TW.4 that the applicant has consulted with Te Ao Marama Inc. about its longer term strategy for land based discharge.

Proposed Southland Water and Land Plan

[38] Mr West observes that some provisions of the SWLP can be treated as operative, including Rule 33A and the objectives and policies he references from paragraph 3.8.3. As above, Mr West's report includes the relevant provisions. Of those cited, Objective 6 and Policies 13, 15B, 17A and 26A are of particular relevance.

[39] I agree with Mr West that Policy 26A is an important counter-balancing policy. Policy 26A states:

Recognise and provide for the sustainable and effective development, operation, maintenance and upgrading of regionally and nationally significant infrastructure in a way that avoids where practicable, or otherwise remedies or mitigates, adverse effects on the environment.

[40] As emphasised in the Application, the proposal is part of a transition to a land-based discharge system that will ultimately avoid the adverse effects on water quality arising from operation of the current system. The overall water quality in the Winton Stream is degraded, but the applicant maintains it will be improved once wastewater is applied to land.

[41] I agree with Mr West that Policy 26A recognises and provides for upgrades to regionally significant infrastructure. I find that the proposal is consistent with Policy 26A when considered as part of the longer term solution to upgrade the wastewater scheme to a land-based one. I agree with Mr West when he observes that on the face of it, the proposal is in conflict with Objective 6 and Policy 15B. The proposal will not improve the degraded water quality in the Winton Stream in the short term, but improvement will occur over time, as the system is upgraded to land-based disposal.

- [42] The applicant acknowledges that the short term continuation of the discharge to the Winton Stream does not align with all of the SLWP objectives and policies, however the long term strategy which is to be implemented during the tenure of the short term consent will better give effect to the current planning framework.
- [43] I also agree with Mr West's application of Policy 13(2) which is to 'manage' discharges to enable achievement of (in this case) Policy 15B. An upgrade of the system over time to a land-based one is consistent with this policy. In the circumstances of this application, Policy 15B is better achieved by consenting a staged transitional approach which works towards improving water quality, rather than declining the consent outright.

NES-HDWR

- [44] The existing drinking water supply is discussed above. I accept Mr West's opinion that it is unlikely during normal operation that the discharge will contravene Regulation 7 of the NES-HDWR. A condition of consent has been included requiring notification to Invercargill City Council in the event of a spill of treated untreated waste water that could adversely affect downstream water quality¹⁰.

Section 104(1) (c) Te Tangi a Taurira

- [45] As noted by Mr West, consideration of this plan is required by policy TW.3 of the RPS. Again Mr West sets out the relevant provisions in his report. As Mr West observes, the applicant has consulted with Te Ao Marama Inc, and that entity, together with Te Runanga o Ngai Tahu were served with notice of the application. Again, I agree with Mr West, that the proposal can only be considered consistent with Policy 3.5.10.3, and 3.5.2.6 when considered as part of the staged transition to discharge to land. The proposal is consistent with Policy 3.5.12.4 given that the alternative of discharge to land is an option being pursued, and consent is being sought for a shorter duration of five years in order to allow implementation of the land-based discharge option.
- [46] Mr West points to a number of indicators of stream health for water quality that are used by tangata whenua to assess stream health, and that would indicate that the Winton Stream is

¹⁰ Condition 15

adversely impacted by the applicants discharge.¹¹ This is consistent with the analysis contained in the application.

Section 104D – Consideration of Applications for Non-Complying Activities

- [47] In accordance with Section 104D, I may only grant consent to a non complying activity if I am satisfied that the adverse effects of the activity on the environment are minor, or the application is for an activity that will not be contrary to the objectives and policies of a relevant plan or proposed plan.
- [48] The effects on the environment are more than minor. The application cannot therefore pass the s104D (1) (a) gateway.
- [49] With respect to relevant objectives and policies of the operative and proposed regional plans, to pass the second gateway the proposal must not be contrary to the same. Contrary means “opposed in nature, different or opposed to”. I agree with Mr West that the direction of policies under the SWLP seek to enhance degraded water quality such as occurring in the Winton Stream. On the face of it the proposal is opposed in nature to objectives and policies running in that direction. However, as Mr West points out, there are policies running the other way to which the proposal finds some support, and others to which it is not contrary, particularly when applied in the context described above of implementation of the wider land-based scheme.
- [50] The Environment Court has held that the evaluation under s104(1)(b) is not an approach focused on each relevant provision, but rather something more of a holistic approach.¹² In this regard, I am persuaded by Mr West’s reasoning that the proposal and its effects should be viewed in the context of the bigger picture which is the conversion of the system to land-based disposal, and in respect of which, the Application contains statements that such a system is planned to be effective within the next five years. Furthermore, in practical terms, the discharge sought by this consent cannot cease immediately given there is no alternative disposal system that is available nor consented.

¹¹ At paragraph 3.9.7

¹² *SKP Incorporated v Auckland Council* [2018] NZEnvC 81

s104G – Activities affecting drinking water supply source

- [51] This section relates to a source of drinking water supply that is registered under section 55 of the Water Services Act 2021, and applies more broadly such that effects on drinking water supplies can be considered for activities in addition to discharges of contaminants. As above, the assessment is that the proposed discharge will not adversely affect Invercargill City's water supply take.

Section 105

- [52] Under section 105(1) of the RMA I must have regard to the nature of the discharge and the sensitivity of the receiving environment to adverse effects; the applicant's reasons for the proposed choice; and possible alternative methods of discharge, including discharge into any other receiving environment.
- [53] I have discussed the nature of the discharge and the sensitivity of the receiving environment in preceding sections of this decision. Section 1.2.2 of the Application discusses the options considered for waste water treatment and disposal. The applicant is progressing its plans to proceed with land based discharge after consultation with affected parties. The applicant explains however that there are no alternatives to a short-term continuance of the existing treatment and discharge to the Winton stream pending the consenting and construction of the land-based option.
- [54] I am satisfied that I have had appropriate regard to section 105 matters.

Section 107

- [55] Under section 104(3) (c) (i) of the Act, I must not grant a consent contrary to section 107. That latter section states that I shall not grant a discharge permit if, after reasonable mixing, the contaminant water discharged (either by itself or in combination with the same, similar, or other contaminants or water), would be likely to give rise to all or any of a list of water quality effects.
- [56] There are exceptions to the restrictions in s107 (1) in that consent can be granted if I am satisfied that (a) exceptional circumstances justify the granting of the consent, or (b) the discharge is of a temporary nature, or (c) the discharges is associated with necessary maintenance work - and in respect of all of the above, the discharge is consistent with the purpose of the Act to do so.

[57] Of the effects listed in s107 (1), the Application identifies that the discharge may give rise to a conspicuous change in the colour or clarity of the stream after reasonable mixing during low flow periods. The application refers to *Horowhenua District Council* [2015] NZEnvC 45, in support of the position that the discharge can be regarded as temporary¹³, and that exceptional circumstances exist for the purposes of s107. The exceptional circumstance identified is that there is no practicable alternative to the continued discharge until such time as the alternative discharge to land can be implemented.

[58] I accept Mr West's opinion that in the circumstances and particularly bearing in mind the relevance of Policy 26A, exemptions under s107(2) exist, and it is consistent with the purpose of the Act to grant consent.

Conditions

[59] Mr West discusses conditions from part 4.4 of his report and with minor amendments, supports the conditions proposed by the applicant. His amendments are incorporated into the conditions appended to his report.

Part 2 and Other Matters

[60] Mr West's report contains a comprehensive discussion of Part 2 of the Act from paragraph 3.2.1, noting that considerations under s104 are subject to Part 2.

[61] Relevant matters for my consideration under Part 2 include s5, s6 (a), (d), and (e), s7 (a), (aa), (d), (f) and (h). To a large degree, these section 6 and 7 matters are incorporated into and addressed in the relevant objectives and policies of the regional plans. Objectives and policies in the SLWP, and Te Tangi a Taurira address and provide for those matters in section 6(e). As above, I have found the application is not inconsistent with that policy framework. In turn I am satisfied that in making my decision I have recognised and provided for s6 (e) matters.

[62] In making my decision I have had particular regard to the matters in section 7 listed above. I agree with the opinion expressed by Mr West, that over the longer term, the proposal is not in conflict with the section 7 matters identified and I am satisfied that the quality of the environment will be maintained as a result of the transition to a land-based discharge of wastewater.

¹³ In *Horowhenua* the consent period was two years. The Act permits a maximum consent period of 35 years.

[63] In the end result, I am satisfied that a grant of consent, subject to the conditions I have imposed, will accord with the RMA's sustainable management purpose. I share Mr West's view however, that consent can be only granted by the narrowest of margins. Influential in Mr West's recommendation, and my acceptance of it, is the applicants stated intention and indicative timeframes to implement the land-based discharge system. The applicant has given itself a tight timeframe to consent and commission that system, although any longer period would likely have crossed beyond what could be considered as 'temporary' so far as s107(2) is concerned, or a timeframe that would be acceptable to Te Ao Marama Inc and/or Te Runanga Ngai Tahu.

Determination

[64] Pursuant to section 104B of the Act and the powers delegated to me by the Southland Regional Council under section 34A of the Resource Management Act 1991, having read the Application, Mr West's officer's report, and having considered the various requirements of the Act, I find that:

- (a) The actual and potential adverse effects of the activity on the environment are more than minor;
- (b) Overall the proposal is **not contrary** the relevant objectives and policies of the relevant regional plans;
- (c) The proposal is consistent with Part 2 of the Act and the purpose of the Act would be best achieved by granting consent.

[65] I therefore **grant** the application lodged by Southland District Council for the reasons listed above and as further set out in the body of this decision.

[66] The conditions of consent are set out in Appendix A. This consent will expire on 8 December 2028.



Jayne Macdonald

Hearings Commissioner

Dated: 25 October 2023

Appendix A: Conditions of Consent

General conditions

1. This consent authorises the discharge of treated wastewater from the Winton Wastewater Treatment Plant into the Winton Stream, at an average flow of 1,300m³/ day at the location described above, as described in the resource consent application of June 2023¹⁴.
 - a. the average daily flow volume shall be determined by calculating the annual volume (1 January – 31 December) and dividing the aggregate volume by 365 days.

2. The consent holder shall undertake monthly samples during the period 1 November to 31 March each year, and at least once during the period 1 June to 31 August each year, and monitor both:
 - a. the discharge of treated sewage effluent to Winton Stream by taking a representative sample of the discharge at the outfall (manhole combining wetland cells) to the receiving waters, at about NZTM2000 1239472E - 4877088N, and analysing the sample for the following:
 - i. pH
 - ii. Temperature
 - iii. Electrical Conductivity
 - iv. Dissolved Oxygen concentration
 - v. Carbonaceous Biochemical Oxygen Demand (cBOD5) concentration
 - vi. Total Suspended Solids concentration
 - vii. E. Coli concentration
 - viii. Nitrate Nitrogen concentration
 - ix. Total Ammoniacal Nitrogen concentration
 - x. Total Nitrogen concentration
 - xi. Dissolved Reactive Phosphorus concentration
 - xii. Total Phosphorus concentration; and

 - b. the receiving waters, 5 metres upstream and 100 metres downstream of the point of discharge, by taking representative samples and analysing each sample for the following:
 - i. pH
 - ii. Temperature
 - iii. Electrical Conductivity
 - iv. Dissolved Oxygen concentration
 - v. Turbidity
 - vi. E. Coli concentration
 - vii. Nitrate Nitrogen concentration
 - viii. Total Ammoniacal Nitrogen concentration
 - ix. Total Nitrogen concentration
 - x. Dissolved Reactive Phosphorus concentration
 - xi. Total Phosphorus concentration.

3. Samples collected for discharge and receiving water monitoring shall conform with the following:
 - a. the monitoring occasions specified in Condition 2 are to be at least 21 days apart, and the monitoring occasions between 1 November and 31 March are to occur, as far as is practicable, when the flow in the Winton stream is low and the water clarity is clear (ie. stream bed visible).

¹⁴ Environment Southland filing reference A920412

- b. The discharge and receiving water samples shall be taken at about the same time, within a one-hour period, on each monitoring occasion.
 - c. Representative samples referred to in Condition 2 refer to grab samples.
 - d. Sample collection, preservation and analysis, shall be carried out in accordance with the most recent edition of APHA "Standard Methods for the Examination of Water and Wastewater".
 - e. the monitoring and analyses are to be carried out by a laboratory with IANZ registration or equivalent, or as agreed to, in writing, by the Consent Authority
 - f. the results of analysis, carried out in accordance with Condition 2, shall be supplied to the Consent Authority no later than 20 working days from the end of the month in which the samples are taken. The methods of analysis are to be specified with the results.
4. The discharge of treated sewage effluent:
- a. shall be subject to the following mean concentration trigger levels:
 - i. 50 g/m³ BOD₅ concentration
 - ii. 100 g/m³ Suspended Solids concentration
 - iii. 5 g/m³ Dissolved Reactive Phosphorus concentration
 - iv. 30 g/m³ Ammoniacal Nitrogen concentration
 - v. 10,000 cfu/100mL E. Coli concentration
 - b. in the event of any exceedance of the mean concentration trigger levels stipulated in Condition (4)(a):
 - i. the wastewater discharge must be monitored at least once every seven days for one month; and
 - ii. a report must be submitted to the Consent Authority within 20 working days and include the following details:
 - 1. Sampling date and method
 - 2. Sampling results and analysis
 - 3. Potential reason for concentration exceedance
 - 4. Any actions required or taken to restore treatment performance
 - c. For the purposes of Conditions 4(a) and 4(b), the mean shall be the average concentration from any four consecutive samples taken in accordance with Condition 2(a).

Water Quality Standards

5. The consent holder shall monitor and analyse the change in effect of the discharge against the following water quality standards in the Winton stream (Classified as lowland hard bed):
- a. when measured inside of the zone of reasonable mixing:
 - i. There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats; and
 - b. when measured outside of the zone of reasonable mixing:
 - i. The temperature of the water:
 - 1. shall not exceed 23°C;
 - 2. the daily maximum ambient water temperature shall not be increased by more than 3°C when the natural or existing water temperature is 16°C or less, as a result of any discharge;
 - 3. if the natural or existing water temperature is above 16°C, the natural or existing water temperature shall not be exceeded by more than 1°C as a result of any discharge; and
 - ii. The pH of the water shall be within the range 6.5 to 9, and there shall be no pH change in water due to a discharge that results in a loss of biological diversity or a change in community composition;

- iii. The change in sediment cover must not exceed 10%;
 - iv. The concentration of dissolved oxygen in water shall exceed 80% of saturation concentration;
 - v. When the flow is below the median flow, the visual clarity of the water shall not be less than 1.6 metres, except where the water is naturally low in clarity as a result of high concentrations of tannins, in which case the natural colour and clarity shall not be altered¹⁵;
 - vi. The concentration of total ammonia shall not exceed the values specified in Table 1, "Ammonia standards for Lowland surface water bodies";
 - vii. For the period 1 November through to 30 April, filamentous algae of greater than 2 cm long shall not cover more than 30% of the visible stream bed. Growths of diatoms and cyanobacteria greater than 0.3 cm thick shall not cover more than 60% of the visible stream bed¹⁶;
 - viii. Biomass shall not exceed 35 grams per square metre for either filamentous algae or diatoms and cyanobacteria¹⁷;
 - ix. Chlorophyll a shall not exceed 120 milligrams per square metre for filamentous algae and 200 milligrams per square metre for diatoms and cyanobacteria¹⁸;
 - x. The Macroinvertebrate Community Index shall exceed a score of 90 and the Semi-Quantitative Macroinvertebrate Community Index shall exceed a score of 4.5;
 - xi. There shall be no bacterial or fungal slime growths visible to the naked eye as obvious plumose growths or mats;
 - xii. The concentration of faecal coliforms shall not exceed 1,000 coliforms per 100 millilitres; and
 - xii. Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.
- c. For the purpose of this condition, the zone of reasonable mixing in the Winton stream shall extend from 5 metres upstream of the discharge point to 100 metres downstream of the discharge point.
- d. The monitoring and analysis undertaken under this condition shall be in accordance with the requirements set out in Condition 2 and the findings shall be reported to the Consent Authority (Email: escompliance@es.govt.nz) in accordance with Condition 19.

Table 1	
Ammonia standards for Lowland surface water bodies¹⁹	
Total Ammoniacal Nitrogen Freshwater Trigger Values in mg/m³	
at different pH	
(Temperature is not taken into account)	
pH	NH₄⁺ - N + NH₃ - N mg/m³
6.0	2570
6.1	2555
6.2	2540

¹⁵ Visual clarity is assessed using the black disc method or other comparable method employed by the Consent Authority

¹⁶ Applies to the part of the bed that can be seen from the bank during summer low flows or walked on.

¹⁷ Expressed in terms of reach biomass per unit of exposed strata (i.e., tops and sides of stones) averaged across the full width of the stream or river

¹⁸ Expressed in terms of reach biomass per unit of exposed strata (i.e., tops and sides of stones) averaged across the full width of the stream or river

¹⁹ Source: Appendix E of the proposed Southland Water & Land Plan, 1 March 2021 version

6.3	2520
6.4	2490
6.5	2460
6.6	2430
6.7	2380
6.8	2330
6.9	2260
7.0	2180
7.1	2090
7.2	1990
7.3	1880
7.4	1750
7.5	1610
7.6	1470
7.7	1320
7.8	1180
7.9	1030
8.0	900
8.1	780
8.2	660
8.3	560
8.4	480
8.5	400
8.6	340
8.7	290
8.8	240
8.9	210
9.0	180

Winton Stream Survey

6. The consent holder shall undertake more intensive environmental monitoring within three years following grant of consent, between the months of January and March. The survey shall be as follows:
 - a. The survey shall be undertaken at a time when the flow conditions in Winton stream is low, for a period of at least twenty consecutive days.
 - b. The survey shall occur at two sites, one between 100 metres and 5 metres upstream of the discharge point, and one between 100 metres and 250 metres downstream of the discharge point.
 - c. The following parameters are to be surveyed:
 - i. Macroinvertebrates.
 - ii. Periphyton.
 - iii. Sediment.
 - iv. Biomass.
 - v. The 'lowland hard bed' standards.
 - d. The methodology for this monitoring regime shall be submitted to the consent authority for approval prior to the monitoring commencing.

- e. The macroinvertebrate fauna monitoring results shall be presented as a species inventory together with mean relative abundances, and shall be summarised as a total number of species and total number of organisms per square metre. The mean total invertebrate densities at each site shall be compared statistically using the Mann Whitney U Test to assess the significance ($p < 0.05$) of any difference that may occur.
7. The consent holder shall submit a report to the Council's Compliance Manager within 20 working days of the completion of the required field work described in Condition 6. This report shall include but not be limited to the following details:
- a. Description of survey sites
 - b. Survey and analysis technique
 - c. Assessment against discharge triggers and water quality standards
 - d. Assessments of water quality, sediment, periphyton, and benthic macroinvertebrates
 - e. Assessment against previous biological surveys and identification of trends.
- The consent holder shall maintain a flow meter at the Winton WWTP to measure wastewater influent volumes.

Operation and Management of the WWTP

8. The consent holder shall maintain signage in a prominent place near the outfall to Winton Stream informing the public of the discharge of treated wastewater and associated health risks. The sign shall include a contact number for the consent holder.
9. The consent holder shall ensure that the wetland is maintained in such a manner that it does not discharge treated wastewater to land in a manner that may enter the groundwater.
10. There shall be no addition of nitrogen, phosphorus or sulphur based chemicals to the treatment system without the authorisation of the Council's Director of Environmental Management.
11. The Consent Holder shall prepare an Operations Management Plan (OMP) for the Winton Wastewater Treatment Plant (WWTP). All future scheme operations and maintenance activities will be included in the OMP and adhere to the OMP. The purpose of the OMP is to outline the operation and maintenance of the Winton WWTP and wastewater discharge systems. The OMP will clearly outline the operation and maintenance of the Winton WWTP and wastewater treatment and disposal systems, including:
- a. A description of the system's operating procedures (including manufacturer's specifications);
 - b. Roles and responsibilities for on-site activities and on-site staff training procedures.
 - c. Condition inspection and maintenance schedules (including manufacturer's specifications) for all plant infrastructure, including but not limited to; pumps, flow meters, valves.
 - d. Operational and compliance monitoring procedures.
 - e. A description of 'normal operating conditions'.
 - f. A protocol for odour management including:
 - i. A description of the treatment and disposal system components and their operation relevant to the management of odours.
 - ii. Routine odour monitoring.
 - iii. Complaints receipt, investigation and reporting procedures.

- iv. Contingency measures to manage adverse odours.
 - g. Procedures for dealing with emergency discharge events, treatment failures or exceedance of trigger values.
 - h. Description of wetland management practices and ongoing monitoring requirements.
12. The consent holder shall operate and maintain the Winton wastewater treatment system in accordance with the O & M Plan and make it available to the Council's Compliance Manager on request.
 13. The consent holder shall update the O & M Plan if there are any changes or upgrades to the Winton wastewater treatment system or its operation.
 14. The consent holder shall maintain a log of inspections and works carried out on the treatment system, and make the log available, upon request, to the Council's Compliance Manager or a Health Protection Officer

Accidental Discharge Protocol

15. In the event of an accidental or emergency discharge of partially treated or untreated wastewater to land or water, the consent holder (or the consent holder's agent) shall notify, as soon as reasonably practicable, the following parties:
 - a. the Consent Authority (ph 03 211 5115)
 - b. Te Ao Marama Inc (ph 03 931 1242)
 - c. The operator of the Branxholme Water Treatment Plant (Invercargill City Council ph 03 211 1777)
 - d. Alliance Group Limited, Lorneville (ph 03 215 6400)

Advice Note: accidental or emergency discharge of wastewater also include any wet weather or dry weather overflows from any part of the wastewater treatment plant.

16. When informing Environment Southland of any accidental or emergency discharge of wastewater to land or water, as specified in Condition (15), the Consent Holder shall provide the following information:
 - a. The date, time, location and estimated volume of the discharge;
 - b. The cause of the discharge;
 - c. Clean up procedures undertaken;
 - d. Measures to be undertaken to prevent a recurrence of the accidental discharge.

Groundwater monitoring

17. The consent holder shall take a sample from the groundwater monitoring well E46/0812 located in the property at 154 Winton-Lorneville Road within three years following grant of consent, between the months of May and July. The sample shall be analysed for faecal coliform (MPN/100ml) concentrations and Nitrate Nitrogen (g/m³) concentrations. The results of analysis shall be supplied to the landowner, and the Consent Authority (Email: escompliance@es.govt.nz) no later than 20 working days from the end of the month in which the samples are taken.

Complaints

18. The consent holder shall maintain a register of complaints received about the wastewater treatment and disposal system. The register shall record the response and actions taken to each complaint.

Annual Reporting

19. The consent holder shall submit an annual report to the Council's Compliance Manager by 31 July each year. This report shall include but not be limited to the following details completed during the reporting year:
- a. Summary of wastewater influent and comparison to WWTP system capacity.
 - b. Assessment of water sampling data and comparison between upstream and downstream monitoring sites;
 - c. Assessment against water quality standards for "lowland hard bed" beyond the mixing zone and discharge trigger levels;
 - d. Description of planned and unplanned maintenance activities;
 - e. Description of any maintenance or operations failures and actions taken;
 - f. Assessment of consent conditions and demonstrating compliance within consent;
 - g. Description of any system updates or changes to the operation and any improvement of the WWTP;
 - h. Description of any accidental or emergency discharges and actions taken;
 - i. Summary of results associated with implementation of the Stormwater Infiltration Program.
 - j. Summary of any complaints associated with the WWTP or discharge to Winton Stream.

Advice note: The reporting year starts 1 January and finishes 31 December of each year.

Review of consent

20. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action being taken by the Consent Authority in relation to the exercise of this consent, for the purposes of:
- a. Determining whether the conditions of this permit are adequate to deal with any adverse effect on the environment, including cumulative effects, which may arise from the exercise of the permit, and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the permit;
 - b. Ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, relevant plans and/or the Environment Southland Regional Policy Statement;
 - c. Amending the monitoring programme to be undertaken;
 - d. Adding or adjusting compliance limits;
 - e. Ensuring the Oreti Freshwater Management Unit meets the freshwater objectives and freshwater quality limits set in an operative regional plan or National Policy Statement for Freshwater Management; and
 - f. Requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this permit.

21. This resource consent shall not be exercised until discharge permit AUTH-202026 is surrendered or has expired.