

## Regional Plan: Water for Otago (1998)

The below table provides an assessment of the proposed activities against the relevant rules of the RPW. With regards to the outfall, it is yet to be determined whether this will consist of the rock outfall indicative design provided with this application, or a subsurface diffuser that discharges directly into the river. Where applicable, an assessment of RPW rules against both outfall designs has been provided below.

Table A: Assessment against the Regional Plan: Water for Otago (1998)

Rule	Activity Standard	Activity Status/Comments
<b>Temporary excavations dewatering</b>		
12.2.2.2	<p>Except as provided for by Rules 12.2.1.1 to 12.2.2.1, the taking and use of groundwater is a permitted activity, providing:</p> <p>(a) No lawful take of water is adversely affected as a result of the taking; and</p> <p>(b) The water is not taken from any aquifer identified in Schedule 2C; and</p> <p>(c) The water is not taken from within 100 metres of any wetland, lake or river; and</p> <p>(d) [Repealed – 1 March 2012]</p> <p>(e) [Repealed – 1 March 2012]</p> <p>(f) The take is for a volume no greater than 50,000 litres per day, at any landholding, from the following aquifers:</p> <p style="padding-left: 40px;">(i) Lower Waitaki Plains Groundwater Protection Zone A (as identified on Maps C15 and C16); and</p> <p style="padding-left: 40px;">(ii) Inch Clutha Gravel (as identified on Maps C26 and C27); and</p> <p>(g) Except as provided by Condition (f) above, the take is for a volume no greater than 25,000 litres per day, at any landholding, elsewhere in Otago; and</p>	<p>Trenching works for the effluent pipe, and excavations for the outfall, may require groundwater dewatering. With regards to the rule conditions in relation to this activity:</p> <p>a) No lawful water take will be adversely affected;</p> <p>b) The aquifer from which groundwater may be dewatered (Shotover Alluvial Ribbon Aquifer) is not listed in Schedule 2C;</p> <p>c) For most of the works, possible groundwater dewatering will be well over 100 m from the wetted bed of the Kawarau River. If dewatering is required for the end section of the discharge pipe, however, or for the outfall construction, this will be within 100 m of the river.</p> <p>d) N/A</p> <p>e) N/A</p> <p>f) N/A (not one of the listed aquifers)</p> <p>g) Based on the preliminary design, it is difficult to determine whether the take may exceed 25 m<sup>3</sup> on any given day. Taking a conservative approach, it is possible that this limit may occasionally be exceeded.</p> <p>h) Backflow-prevention devices will be fitted to dewatering equipment, as appropriate.</p> <p>i) Suspension of groundwater takes would need to be addressed on a case-by-case basis. It is likely that once construction starts, dewatering will need to occur regardless of any aquifer take cessation mandate.</p> <p>Overall, the proposal likely cannot comply with all of the conditions of this rule.</p>

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	<p>(h) No back-flow of any contaminated water occurs to the aquifer; and</p> <p>(i) The taking of groundwater is not suspended. The Otago Regional Council may, by public notice, suspend the taking of water under this rule if the taking of water, under a resource consent has had to cease in accordance with Rule 12.2.3.5, for the aquifer from which the taking of water under this rule is occurring.</p>	<p>Similarly, Rules 12.2.2.5 and 12.2.2.6 provide for takes within 100 m of any river, and include take limits of no more than 3 days per month (Rule 12.2.2.5) or 25,000 l/day (Rule 12.2.2.6). It is possible that these limits will be exceeded by the potential dewatering activities, therefore these rules also cannot be complied with.</p>
12.2.2.4	<p>Except as provided for by Rule 12.2.1.1, the taking and use of groundwater from within 100 metres of the main stem of the Clutha/Mata-Au or Kawarau Rivers, or from within 100 metres of Lakes Wanaka, Hawea, Wakatipu, Dunstan or Roxburgh, is a permitted activity, providing:</p> <p>(a) The take does not exceed 100 litres per second, nor 1,000,000 litres per day; and</p> <p>(b) No more than one such take occurs per landholding; and</p> <p>(c) No back-flow of any contaminated water occurs to the water body; and</p> <p>(d) The take is not within 100 metres of any wetland or other lake or river; and</p> <p>(e) No lawful take of water, and no wetland or other lake or river, is adversely affected as a result of the taking.</p>	<p>The final section of the discharge pipe, along with the outfall, will be within 100 m of the wetted bed of the Kawarau River. If dewatering is required for these works:</p> <ol style="list-style-type: none"> <li>a) The take will not exceed 100 l/s, however there is a small possibility that it may exceed 1,000 m<sup>3</sup>/day;</li> <li>b) Dewatering is only likely to take place in the sections being actively working on at any one time. On this basis, it is assumed that only one dewatering take will occur per landholding;</li> <li>c) Backflow-prevention devices will be fitted to dewatering equipment, as appropriate.</li> <li>d) The closest alternative river is the Shotover River, the wetted bed of which is likely to be more than 100 m from any dewatering activities; and</li> <li>e) No other lawful water take will be affected by the dewatering. Groundwater and surface water effects are assessed in Section 6 of the AEE, however given the relatively low rates and volumes of take expected to be required for dewatering, and the short duration, adverse effects on the Shotover River due to the take are expected to be insignificant.</li> </ol> <p>Based on the preliminary design, there is only a low probability of exceeding 1,000 m<sup>3</sup> abstraction per day. On this basis, dewatering within 100 m of the Kawarau River is considered a <b>permitted activity</b>.</p>

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12.2.3.2 A	<p>Except as provided for by 12.0.1.3, 12.2.1A.3 and 12.2.3.1A, the taking and use of groundwater is a <b>restricted discretionary</b> activity, if:</p> <p>(a) The volume sought is within:</p> <ul style="list-style-type: none"> <li>(i) The maximum allocation limit identified in Schedule 4A; or</li> <li>(ii) 50% of the mean annual recharge calculated under Schedule 4D, for any aquifer not identified in Schedule 4A; or</li> <li>(iii) That volume specified in an existing resource consent where the assessed maximum annual take of the aquifer exceeds its maximum allocation limit; and</li> </ul> <p>(b) It is subject to any aquifer restriction identified in Schedule 4B; and</p> <p>(c) Where the rate of surface water depletion is greater than 5 l/s, as calculated using Schedule 5A:</p> <ul style="list-style-type: none"> <li>(i) Primary surface water allocation is available; and</li> <li>(ii) For the Waitaki catchment, allocation to activities set out in Table 12.1.4.2 is available.</li> </ul> <p>The matters to which the Otago Regional Council has restricted the exercise of its discretion are set out in Rule 12.2.3.4.</p>	<p>Rule 12.2.2.4 provides for the take and use of groundwater within 100 m of the Kawarau River as a permitted activity. For any dewatering required for the discharge pipe outside of this proximity band:</p> <ul style="list-style-type: none"> <li>a) The dewatering volume is yet to be determined, and will vary based on both specific location and timing. All of the take will be within the Shotover Alluvial Ribbon Aquifer, which is reported via ORC's Consents in Otago interface to have an available allocation of ~5,991 l/s, and a total existing allocation (as at May 13, 2026) of ~456 l/s. There is no annual limit set for the aquifer, presumably on the basis that it is a surface water-derived aquifer. On this basis, the rate of take from dewatering will be well within the total allocated rate for the aquifer.</li> <li>b) There are no restrictions set for the aquifer under Schedule 4B;</li> <li>c) The rate of surface water depletion is unlikely to be greater than 5 l/s for dewatering activities, further noting that there is no set primary allocation limit for the Kawarau River mainstem, as per Policy 6.4.1(i).</li> </ul> <p>As such, the take of groundwater for dewatering associated with discharge pipe installation more than 100 m from the river is a <b>restricted discretionary activity</b> and requires resource consent. The associated Rule 12.2.3.4 matters for council discretion are set out below.</p> <ul style="list-style-type: none"> <li>(i) The maximum allocation limit for the aquifer; and</li> <li>(iA) The assessed maximum annual take for the aquifer; and</li> <li>(ii) The mean annual recharge of the aquifer; and</li> <li>(iii) The effect of the take on the hydrodynamic properties of the aquifer and the vulnerability of the aquifer to compaction; and</li> <li>(iv) Whether any part of the take would constitute allocation from any connected perennial surface water body, and the availability of that allocation; and</li> <li>(v) The rate, volume, timing and frequency of groundwater to be taken and used; and</li> <li>(vi) The proposed methods of take, delivery and application of the groundwater taken; and</li> <li>(vii) The source of groundwater available to be taken; and</li> <li>(viii) The location of the use of the groundwater, when it will be taken out of a local catchment; and</li> </ul>

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		<p>(ix) In the case of takes from an aquifer identified in Schedule 4B, the restrictions for the aquifer (as identified in that schedule) to be applied to the take of groundwater, if consent is granted; and</p> <p>(x) The consent being exercised or suspended in accordance with any Council approved rationing regime; and</p> <p>(xi) Any adverse effect on the existing quality of groundwater in the aquifer; and (xii) Any irreversible or long term degradation of soils arising from the use of water for irrigation; and</p> <p>(xiii) Any actual or potential effects on any surface water body; and</p> <p>(xiv) Any adverse effect on the habitat of any indigenous freshwater fish species that are listed in Schedule 1AA; and</p> <p>(xv) Any effect on any Regionally Significant Wetland or on a regionally significant wetland value; and</p> <p>(xvi) Any financial contribution for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected; and</p> <p>(xvii) Any adverse effect on any lawful take of water, if consent is granted, including potential bore interference; and</p> <p>(xviii) Whether the taking of water under a water permit should be restricted to allow the exercise of another water permit; and</p> <p>(xix) Any arrangement for cooperation with other takers or users; and</p> <p>(xx) Any water storage facility available for the groundwater taken, and its capacity; and</p> <p>(xxi) The duration of the resource consent; and</p> <p>(xxii) The information, monitoring and metering requirements; and</p> <p>(xxiii) Any bond; and</p> <p>(xxiv) The review of conditions of the resource consent; and</p> <p>(xxv) For resource consents in the Waitaki catchment the matters in (i) to (xxi) above, as well as matters in Policies 6.6A.1 to 6.6A.6.</p>
<b>Surface water diversion</b>		
12.3.2.3	Unless prohibited by Rules 12.3.1.1 to 12.3.1.4, the diversion of water carried out for the purposes of allowing the erection, placement, repair or	While not anticipated at this stage, there is the potential for a minor diversion of Kawarau River flows around any cofferdam-type structure required to isolate the outfall construction

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	<p>maintenance of a lawful structure, is a permitted activity, providing:</p> <p>(a) The course of the water always remains within the bed of the lake or river; and</p> <p>(b) The course of the water is returned to its normal course following the completion of the repair or maintenance, and no more than one month after the diversion occurs; and</p> <p>(c) No lawful take of water is adversely affected as a result of the diversion; and</p> <p>(d) Any structure within a Regionally Significant Wetland was lawfully established prior to 2 July 2011; and</p> <p>(e) There is no change to the water level range or hydrological function of any Regionally Significant Wetland; and</p> <p>(f) There is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland; and</p> <p>(g) The diversion does not cause any erosion, land instability, sedimentation or property damage.</p>	<p>site from actively flowing water in the river. In the event that this is required, an assessment against Rule 12.3.2.3 is provided below.</p> <ul style="list-style-type: none"> <li>(a) All Kawarau River flows will remain in the bed of the river for the duration of the instream works;</li> <li>(b) As above – no change in the course of the river will occur;</li> <li>(c) No lawful water take will be adversely affected by the diversion, particularly given the high bed load of the Shotover River shortly downstream, and provided the ESCP is implemented as detailed;</li> <li>(d) N/A – not within a RSW;</li> <li>(e) No change to the water level range or hydrological function of any RSW is expected, should a minor river diversion occur due to the works;</li> <li>(f) No damage to flora or fauna in any RSW will occur; and</li> <li>(g) The diversion itself is unlikely to cause any erosion, land instability, sedimentation or property damage. There is a small risk of instream erosion and/or sedimentation in the process of establishing any diversion (e.g. sheet piles for a cofferdam), however this will be mitigated via a detailed ESCP, subject to council’s approval, prior to start of works.</li> </ul> <p>Given the activity is not prohibited by Rules 12.3.1.1 to 12.3.1.4, and in light of the consent being sought to authorise the placement of an outfall on the bed of the river (thereby rendering it a lawful structure), any diversion required for the outfall construction is considered a <b>permitted activity</b> under Rule 12.3.2.3.</p>
<b>Treated effluent discharge</b>		
<b>12A.1.3</b>	<p>The discharge of human sewage through any existing on-site waste water treatment system onto or into land is a <b>permitted</b> activity, providing:</p> <p>(a) The discharge was lawfully carried out without resource consent prior to 28 February 1998; and</p> <p>(b) There is no direct discharge of human sewage, or effluent derived from it, to water in any water</p>	<p>The applicant is proposing to discharge treated human sewage through an existing treatment system onto or into land. In relation to the rule conditions:</p> <ul style="list-style-type: none"> <li>a) The discharge was subject to a resource consent prior to 28 February 1998.</li> <li>b) While the proposed discharge is to land, it is very close to the Kawarau River, and could be construed as a direct discharge to water.</li> <li>c) Effluent from the system will be discharge into property not owned by the applicant.</li> </ul>

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	<p>body, drain, water race, or the coastal marine area; and</p> <p>(c) Effluent from the system does not run off to any other person's property; and</p> <p>(d) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.</p>	<p>d) The discharge is not expected to cause or exacerbate flooding, however there is a minor risk of localised erosion and/or sedimentation due to the discharge.</p> <p>Overall, the proposal cannot comply with all of the conditions of this rule.</p>
<p><b>12A.1.4</b></p>	<p>The discharge of human sewage through any on-site waste water treatment system, installed after 28 February 1998, onto or into land is a <b>permitted</b> activity, providing:</p> <p>(a) The discharge does not exceed 2000 litres per day (calculated as a weekly average); and</p> <p>(b) The discharge does not occur within the A zone of any Groundwater Protection Zone, as identified on the C-series maps, nor in the area of the Lake Hayes catchment, as identified on Map B6; and</p> <p>(c) The system's disposal field is sited more than 50 metres from any surface water body or mean high water springs; and</p> <p>(d) The system's disposal field is sited more than 50 metres from any bore which:</p> <p style="padding-left: 40px;">(i) Existed before the commencement of the discharge activity; and</p> <p style="padding-left: 40px;">(ii) Is used to supply water for domestic needs or drinking water for livestock; and</p> <p>(e) There is no direct discharge of human sewage, or effluent derived from it, to water in any drain or water race, or to groundwater; and</p>	<p>The wastewater treatment system pre-dates 28 February 1998, however the proposed treated wastewater disposal system will be installed after this date and is not to land. However:</p> <ul style="list-style-type: none"> <li>• The discharge will far exceed 2000 litres per day;</li> <li>• The discharge location is within 50 metres of the Kawarau River;</li> <li>• The discharge is to Crown Land (not owned by the applicant); and</li> <li>• there is a minor risk of localised erosion and/or sedimentation due to the discharge.</li> </ul> <p>As such, the proposed activity cannot comply with all of the conditions of this rule.</p>

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	(f) Effluent from the system does not run off to any other person's property; and (g) The discharge does not cause flooding of any other person's property, erosion, land instability, sedimentation or property damage.			
<b>12.A.2.1</b>	Except as provided for by Rules 12.A.1.1 to 12.A.1.4, the discharge of human sewage to water, or onto or into land in circumstances where it may enter water, is a <b>discretionary</b> activity.	As the proposed discharge cannot meet the applicable permitted activity rules, the activity is <b>discretionary</b> and resource consent is required.		
<b>12.B.4.1</b>	The discharge of water (excluding stormwater) or any contaminant from an industrial or trade premises or a consented dam to water or to land is a discretionary activity, unless it is permitted by Rule 12.B.1.6, 12.B.1.7, 12.B.1.10 or 12.B.1.11.	While the majority of wastewater treated at the Shotover WWTP comprises human sewage, a smaller component comprises industrial or trade waste. As there are no relevant permitted activity rules under 12.B, the discharge of treated water or associated contaminants from industrial or trade premises from the WWTP is a <b>discretionary</b> activity, and resource consent is required.		
<b>Riverbed works</b>				
<b>13.2.1.2</b>	The placement of any pipe, line, or cable on or under the bed of a lake or river, or any Regionally Significant Wetland, is a <b>permitted</b> activity, providing: (a) The pipe, line, or cable does not impede the flow of water or debris, or is installed and maintained so it results in no flooding, erosion or sedimentation; and (b) The location of the pipe, line, or cable is identified by markers on the banks of the river or lake; and (c) The pipe, line, or cable is maintained in good repair.	The applicant is proposing to install a 1000 mm diameter pipe from the WWTP to the start of the outfall. Some of the pipeline may be located on or in what is considered riverbed. With regards to the rule conditions: a) The main effluent pipe is well outside of the typical wetted bed of the Kawarau River and Shotover River, and so is not expected to impede the flow of water or	The rock outfall design will feature a buried, large-diameter HDPE pipe above the waterline, connecting two a series of smaller-diameter corrugated HDPE pipes on/under the wetted riverbed. With regards to the rule conditions: a) Pipes associated with the outfall component of the disposal system will be either on or under the riverbed, with the pipes themselves considered unlikely to impede water	The subsurface diffuser outfall design is yet to be developed. With regards to the rule conditions: a) The outfall diffuser pipe will be either on or under the riverbed, and unlikely to impede water flow. The pipe is not expected to exacerbate flooding, erosion or sedimentation, other than possible

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		<p>debris. The pipe will not result in or exacerbate flooding, erosion or sedimentation.</p> <p>b) Regardless of riverbed definition, the likelihood of the main pipe being inundated via either Kawarau River or Shotover River flows is relatively low. Where the pipe is above-ground, it will likely be signposted for the safety of the public.</p> <p>c) The pipe will be maintained in good repair, via a regular maintenance regime</p>	<p>flow. The rock/rip rap that may surround any pipes on the riverbed may impede fluvial debris, however this is largely irrelevant with respect to this clause. The pipes are not expected to exacerbate flooding, erosion or sedimentation, other than possible minor sedimentation effects during their installation.</p> <p>b) Any outfall pipes will be identified by markers in the wetted riverbed, where appropriate to do so.</p> <p>c) The pipes will be maintained in good repair, via a regular maintenance regime.</p>	<p>minor sedimentation effects during installation.</p> <p>b) Any outfall pipes will be identified by markers in the wetted riverbed, where appropriate to do so.</p> <p>c) The pipe will be maintained in good repair, via a regular maintenance regime.</p>
		<p>Based on the above, the placement of the proposed pipes on the bed of the river is considered a <b>permitted</b> activity.</p>		
<p><b>13.2.1.4</b></p>	<p>The erection or placement of any flow or level recording device, outfall or intake structure or navigational aid structure, that is fixed in, on or under the bed of any lake or river, or any Regionally Significant Wetland, is a <b>permitted activity</b>, providing:</p>	<p><b>Rock outfall</b></p> <p>‘Outfall’ is not defined in the RPW or the RMA, however taking a conservative approach it is assumed that all of the proposed rock outfall (the rip rap dispersal apron at the end of the pipeline) constitutes an outfall under the</p>	<p><b>Subsurface diffuser outfall</b></p> <p>a) The structure will likely exceed 2 m<sup>2</sup> in area.</p> <p>b) The structure is not expected to cause or exacerbate flooding, and any effects on erosion are expected</p>	

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	<p>(a) The structure does not exceed 2 square metres in area provided that in respect of any flow or level recording device any catwalk to the nearest bank shall be excluded from the area calculation; and</p> <p>(b) The structure, or its erection or placement, does not cause any flooding or erosion; and</p> <p>(c) The Otago Regional Council is notified of the location and nature of the structure, at least seven working days prior to commencing the erection or placement; and</p> <p>(d) Except in the case of a navigational aid, or the sight board of any gauge, any visible part of the structure is of a neutral colour to blend in with the surroundings; and</p> <p>(e) The structure is maintained in good repair; and</p> <p>(f) The site is left tidy following the erection or placement.</p>	<p>RPW. An assessment against the rule conditions is provided as follows:</p> <ul style="list-style-type: none"> <li>a) The structure will exceed 2 m<sup>2</sup> in area.</li> <li>b) The structure is not expected to cause or exacerbate flooding, however there may be minor erosion around the pipe and rock apron when higher flows in the Kawarau River and/or Shotover River occur during flood events.</li> <li>c) This application constitutes notification to the ORC.</li> <li>d) Rock that blends with the surrounding environment will be used, but is to be confirmed following detailed design</li> <li>e) The structure will be maintained in good repair.</li> <li>f) The site will be left tidy following installation of the pipe and pad.</li> </ul> <p>As it is likely that the structure will exceed 2 square metres in area within the technical riverbed demarcation, it cannot comply with this rule. As such, this is a <b>discretionary</b> activity under Rule 13.2.3.1 and requires resource consent.</p>	<p>to be temporary only (during construction/installation).</p> <ul style="list-style-type: none"> <li>c) This application constitutes notification to the ORC.</li> <li>d) TBD following detailed design</li> <li>e) The structure will be maintained in good repair.</li> <li>f) The site will be left tidy following installation of the pipe and pad.</li> </ul> <p>As it is likely that the structure will exceed 2 square metres in area within the technical riverbed demarcation, it is assumed that it cannot comply with this rule. As such, this is a <b>discretionary</b> activity under Rule 13.2.3.1 and requires resource consent.</p>
13.3.1.1	<p>The repair or maintenance of any lawful structure in, on, under or over the bed of a lake or river, or any Regionally Significant Wetland, is a permitted activity providing:</p>	<p>The applicant will need to undertake maintenance and/or repairs on the pipe and outfall from time to time, during it's operational lifetime. On the assumption that the above permitted activity conditions will continue to be complied with, and the resource consent under Rule 13.2.3.1 is granted and maintained (if required), the structure will be lawful and no permanent changes to the scale, nature of function of the structures are expected.</p>	

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	(a) There is no permanent change to the scale, nature or functions of the structure.	This activity is therefore <b>permitted</b> .
<b>13.5.1.1</b>	<p>The disturbance of the bed of any lake or river, or any Regionally Significant Wetland, and any resulting discharge or deposition of bed material associated with:</p> <p>(i) The erection, placement, extension, alteration, replacement, reconstruction, repair, maintenance, demolition or removal, of any structure that is fixed in, on, under or over the bed of any lake or river, or the wetland; or</p> <p>(ii) The clearance of debris or alluvium from within, or immediately surrounding, any structure in order to safeguard the function or structural integrity of the structure; or</p> <p>(iii) The maintenance or reinstatement of a water intake, in order to enable the exercise of a lawful take of water,</p> <p>is a <b>permitted</b> activity, providing:</p> <p>(a) Except in the case of the demolition or removal of a structure, the structure is lawfully established; and</p> <p>(b) Except in the case of (i), there is no increase in the scale of the existing structure; and</p> <p>(c) If work is undertaken between 1 May and 30 September inclusive, the Department of Conservation and the relevant Fish and Game Council will be notified as soon as reasonably practicable in advance; and</p>	<p>Disturbance of the Kawarau River or Shotover River beds will occur as a result of the outfall installation, and potentially also installation of the final section of the associated pipeline (depending on riverbed delineation).</p> <p>Periodic clearance of alluvium or debris from around the outfall structure may also be required, particularly given the structure's proximity to a high bedload river (Kimi-ākau/ Shotover River).</p> <p>These activities are assessed against the rule conditions as follows:</p> <ol style="list-style-type: none"> <li>a) The structures will be lawfully established, as specified above.</li> <li>b) The removal of alluvium or debris will not result in the increase in the scale of the existing structures.</li> <li>c) DOC and Fish and Game Council will be notified in advance of any associated works taking place between 1 May and 30 September.</li> <li>d) The bed disturbance will be limited to the smallest extent necessary to undertake the work.</li> <li>e) The bed disturbance will not cause flooding or erosion.</li> <li>f) The outfall will extend into the wetted bed of the Kawarau River. At this stage, it is assumed that works to install this section of the structure in the wetted bed will take more than 10 hours. Any subsequent maintenance work associated with the structure in the wetted bed is not expected to take more than 10 hours.</li> <li>g) Steps will be taken to minimise the release of sediment into the river during the disturbance, including the implementation of an ESCP or EMP that will establish mitigation measures for controlling sediment-laden runoff generated by the structure installation within and adjacent to the river bed (see AEE Section 2.6.5).</li> <li>h) No lawful take of water from the Kawarau River will be adversely affected by the works.</li> <li>i) The site will be left tidy following installation and maintenance works.</li> <li>j) N/A</li> </ol>

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	<p>(d) The bed or wetland disturbance is limited to the extent necessary to undertake the work; and</p> <p>(e) The bed or wetland disturbance does not cause any flooding or erosion; and</p> <p>(f) The time necessary to carry out and complete the whole of the work within the wetted bed of the lake or river does not exceed 10 hours in duration; and</p> <p>(g) All reasonable steps are taken to minimise the release of sediment to the lake or river during the disturbance, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 200 metres downstream of the disturbance; and</p> <p>(h) No lawful take of water is adversely affected as a result of the bed or wetland disturbance; and</p> <p>(i) The site is left tidy following completion of the activity; and</p> <p>(j) Except for activities covered by Rules 13.2.1.5, 13.2.1.6, or 13.2.1.8, there is no change to the water level range or hydrological function of any Regionally Significant Wetland; and</p> <p>(k) Except for activities covered by Rules 13.2.1.5, 13.2.1.6, or 13.2.1.8, there is no damage to fauna, or New Zealand native flora, in or on any Regionally Significant Wetland.</p>	<p>k) N/A</p> <p>As it is possible that instream works will exceed 10 hours in duration, this rule cannot be fully complied with. As such, this is a <b>discretionary</b> activity under Rule 13.5.3.1 and requires resource consent.</p>
13.5.1.2	<p>The disturbance of the bed of any river for the purpose of clearing any material that has accumulated as a result of a storm event, excluding alluvium, in order to maintain the flood carrying capacity of the bed of the river, and any resulting</p>	<p>Bed disturbance as part of routine maintenance on the discharge pipe and outfall to clear material other than alluvium is possible but unlikely – potentially consisting of occasional build up of storm-derived vegetation debris. If this occurs:</p> <ul style="list-style-type: none"> <li>a) Bed disturbance will be limited to that required to clear the debris;</li> <li>b) Bed disturbance will not cause flooding or erosion;</li> </ul>

Rule	Activity Standard	Activity Status/Comments
	<p>discharge or deposition of bed material, is a permitted activity, providing:</p> <p>(a) The bed disturbance is limited to the extent necessary to clear the debris; and</p> <p>(b) The bed disturbance does not cause any flooding or erosion; and</p> <p>(c) The time necessary to carry out and complete the whole of the work within the wetted bed does not exceed 10 hours in duration; and</p> <p>(d) All reasonable steps are taken to minimise the release of sediment to the lake or river during the activity, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 200 metres downstream of the disturbance; and</p> <p>(e) No lawful take of water is adversely affected as a result of the bed disturbance; and</p> <p>(f) The site is left tidy following completion of the activity</p>	<p>c) It is expected that the maintenance works within the wetted bed will take less than 10 hours;</p> <p>d) Steps will be taken to minimise the release of sediment from the maintenance works. If significant works are required, a job-specific ESCP may be developed to mitigate the water quality risk;</p> <p>e) No lawful water take will be adversely effected; and</p> <p>f) The site will be left tidy following completion of the maintenance work.</p> <p>This activity is therefore <b>permitted</b>.</p>
13.5.1.3	<p>The disturbance or reclamation of, or the deposition of any substance in, on or under, either the bed of any lake or river, or any Regionally Significant Wetland, and any resulting discharge of bed material, for the purpose of:</p> <p>(i) The erection, placement, extension, alteration, replacement, reconstruction, repair, maintenance, demolition or removal, of any structure carried out under Rules 13.2.1.1 to 13.2.1.7B, 13.3.1.1, 13.3.1.2 or 13.4.1.1; or</p>	<p>The proposal may involve the disturbance of the bed of the Kowarau River for the purpose of placement, repair and/or maintenance of structures carried out under Rules 13.2.1.2 (pipe) and 13.2.1.4 (outfall). In relation to the rule conditions:</p> <p>a) The structure will be lawfully established;</p> <p>b) Repair or maintenance will not result in changes to the original scale of the structure;</p> <p>c) Works within the wetted bed are not expected to exceed 10 hours in duration;</p> <p>d) Steps will be taken to minimise the release of sediment from the maintenance works. If significant works are required, a job-specific ESCP may be developed to mitigate the water quality risk;</p> <p>e) No lawful water take will be adversely effected; and</p> <p>f) If deposition of materials (such as rock/rip rap) is required, it will be certified cleanfill;</p>

Rule	Activity Standard	Activity Status/Comments
	<p>(ii) The repair or maintenance of any defence against water constructed or placed by artificial means, is a <b>permitted</b> activity providing:</p> <p>(a) The structure or defence against water is lawfully established; and</p> <p>(b) There is no change to the original scale of the structure or defence against water; and</p> <p>(c) The time necessary to carry out and complete the whole of the work within the wetted bed of the lake or river does not exceed 10 hours in duration; and</p> <p>(d) All reasonable steps are taken to minimise the release of sediment to the lake, river or wetland during the activity, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 200 metres downstream of the activity; and</p> <p>(e) No lawful take of water is adversely affected as a result of the activity; and</p> <p>(f) In the case of reclamation or deposition, only cleanfill is used; and</p> <p>(g) The site is left tidy following completion of the activity; and</p> <p>(h) Except for activities covered by Rules 13.2.1.5, 13.2.1.6, or 13.2.1.8, there is no change to the water level range or hydrological function of any Regionally Significant Wetland; and</p> <p>(i) Except for activities covered by Rules 13.2.1.5, 13.2.1.6, or 13.2.1.8, there is no damage to fauna,</p>	<p>g) The site will be left tidy following completion of works;</p> <p>h) N/A; and</p> <p>i) N/A.</p> <p>This activity is therefore <b>permitted</b>.</p>

Rule	Activity Standard	Activity Status/Comments
	or New Zealand native flora, in or on any Regionally Significant Wetland.	
13.5.1.6	<p>Except as provided for by Rule 13.5.1.1, the extraction of alluvium within the bed of a river is a <b>permitted</b> activity, providing:</p> <p>(a) No person takes more than 20 cubic metres in any month; and</p> <p>(b) The alluvium is not taken from the wet bed of the river and the surface of the remaining alluvium is not left lower than the level of the water in the river; and</p> <p>(c) The area from which the material is taken is smoothed over, as far as practicable; and</p> <p>(d) The activity is not carried out within 20 metres of any structure which has foundations in the river bed, or any ford or pipeline; and</p> <p>(e) No material is taken directly from the bank or from any defence against water.</p>	<p>While the intent of this rule appears to be controlling extraction of alluvium for commercial/personal use (i.e. to use as aggregate elsewhere), extraction of bed material may be required to install the outfall on the riverbed. With regards to the rule conditions:</p> <ul style="list-style-type: none"> <li>a) The consent holder may be required to extract more than 20 m<sup>3</sup> from the riverbed within a month in order to install the outfall;</li> <li>b) Alluvium will be extracted from the wetted riverbed;</li> <li>c) The extraction area will be battered back smoothly to the surrounding natural bed contours;</li> <li>d) Instream works will not be close to any existing structure on the riverbed; and</li> <li>e) There is a possibility of excavations taking place on the true left bank of the Kawarau River.</li> </ul> <p>As the activity cannot comply with several of the rule conditions, the excavation of bed material in relation to the outfall construction is a <b>restricted discretionary activity</b> under Rule 13.5.2.1 and requires resource consent. In considering any resource consent for the extraction of alluvium in terms of this rule, the Otago Regional Council will restrict the exercise of its discretion to the following:</p> <p>(a) Any adverse effects of the activity on:</p> <ul style="list-style-type: none"> <li>(i) Any natural and human use value identified in Schedule 1 for any affected water body;</li> <li>(ii) The natural character of any affected water body;</li> <li>(iii) Any amenity value supported by any affected water body; and</li> <li>(iv) Any heritage value associated with any affected water body; and</li> </ul> <p>(b) Any effect on any Regionally Significant Wetland or on any regionally significant wetland value; and</p> <p>(c) Any financial contribution for regionally significant wetland values or Regionally Significant Wetlands that are adversely affected;</p> <p>(d) Any adverse effect on a defence against water; and</p>

Rule	Activity Standard	Activity Status/Comments
		<p>(e) The quantity of alluvium to be extracted, and the location and the method of removal; and  (f) Any adverse effect on existing public access; and (g) The duration of the resource consent; and  (h) The information and monitoring requirements; and  (i) Any existing lawful activity associated with any affected water body; and  (j) Any bond; and</p> <p>The review of conditions of the resource consent. Except in the case of extraction from the wet bed of a lake or river, or within a Regionally Significant Wetland, the Consent Authority is precluded from giving public notification of an application for a resource consent under this rule.</p>
<p><b>13.6.2.1</b></p>	<p>The introduction or planting of any plant to or on the bed of any lake or river for the purpose of remedying or mitigating the adverse effects of flooding, erosion, or non-point source discharge of contaminants, or to restore or enhance habitat, is a <b>permitted</b> activity providing:</p> <p>(a) Crack Willow <i>Salix fragilis</i> or Grey Willow <i>Salix cinerea</i> is not introduced to an area where it does not currently exist; and  (b) The plant is not any pest plant listed in the Pest Management Strategy for Otago 2009; and  (c) All reasonable steps are taken to minimise the release of sediment to the lake or river during the introduction or planting, and there is no conspicuous change in the colour or visual clarity of the water body beyond a distance of 100 metres downstream of the introduction or planting; and  (d) The introduction or planting does not cause any flooding or erosion; and</p>	<p>The current preliminary design includes possible planting around the proposed outfall, partially with the intent of reducing erosion associated with the new outfall. While a detailed planting plan and species list is yet to be developed, the applicant can confirm that:</p> <ol style="list-style-type: none"> <li>a) These species will not be planted;</li> <li>b) No listed pest plant will be planted;</li> <li>c) The planting component of the activity will be included in the controls developed as part of a detailed erosion and sediment control plan for the pipeline and outfall construction, in order to ensure that all reasonable steps are taken to prevent sedimentation in the adjacent river;</li> <li>d) Planting will help to alleviate erosion, and the planting plan will be developed to ensure that flooding is not exacerbated; and</li> <li>e) The site will be left tidy following planting.</li> </ol> <p>This activity is therefore <b>permitted</b>.</p>

Rule	Activity Standard	Activity Status/Comments
	(e) The site is left tidy following the introduction or planting	
<b>13.6.3.1</b>	Except as provided for by Rules 13.6.1.1 to 13.6.2.1, the introduction or planting of vegetation to the bed of any lake or river, or any Regionally Significant Wetland, is a <b>discretionary</b> activity.	If council considers that Rule 13.6.2.1 is not applicable to the planting activities associated with the proposed outfall, this activity is a <b>discretionary</b> activity under Rule 13.6.3.1 and requires resource consent.
<b>14.3.1.1</b>	The alteration or reconstruction of any defence against water, other than on the bed of any lake or river, is a permitted activity providing: (a) There is no permanent change to the scale, nature or function of the defence against water.	The preliminary design for the treated effluent discharge pipe indicates that there may be minor placement of fill over the lower southern batter of the ORC training line. This may constitute an alteration of a defence against water, noting that it is the opposite side of the training line (facing the Shotover River) that provides the flood-mitigation function.  Despite the proposed fill placement, it is considered that there will be no permanent change to the scale, nature or function of the training line. This activity is therefore <b>permitted</b> .
<b>14.4.1.1</b>	The erection or placement of any structure, other than a defence against water, within 7 metres of the margin of any lake, or within 7 metres of the top of the bank of any river, is a permitted activity, providing: (a) It does not result in the physical prevention or obstruction of access for works to avoid or mitigate any natural hazard; and (b) The Otago Regional Council is notified in writing, of the location and nature of the structure, at least seven working days prior to commencing the erection or placement.	The proposed outfall will be placed within 7 metres from the Kawarau River top of bank. With regards to the rule conditions: a) The outfall will not result in the physical prevention or obstruction of access for works to avoid/mitigate natural hazards (in this case, flood hazard); and b) ORC will be notified at least 7 days prior to start of works on the outfall.  This activity is therefore <b>permitted</b> .

### Regional Plan: Air for Otago (1998)

The proposed activity has the potential to discharge odour to air via discharge of treated liquid effluent at the new Kawarau River outfall. The potential for odour generation from the existing activities at the WWTP is currently authorised via RM13.215.01. Given both the recent and ongoing WWTP

upgrades, and considering the proposed alternative discharge mechanism to the Kawarau river, the present application is seeking to replace RM13.215.01 and any consent authorising discharge to air associated with the short-term discharge to the Shotover River, once the long-term disposal infrastructure is operational.

Rule	Activity Standard	Activity Status/Comments
<b>Discharges to air from liquid municipal, industrial and trade waste</b>		
16.3.7.1	<p>The discharge of contaminants into air from the storage, transfer, treatment or disposal (including land application of treated effluent and sludge, but excluding the burning of sludge and associated solids) of liquid-borne municipal, industrial or trade waste, where the influent liquid waste does not exceed a BOD<sub>5</sub> of 850 kg per day; is a <b>permitted activity</b>, providing:</p> <p>(a) Ponds constructed after 1 January 2002 are located at least 150 metres from the closest part of the boundary of the property; and</p> <p>(b) Land application does not occur within:</p> <ul style="list-style-type: none"> <li>(i) 150 metres from any residential dwelling on a neighbouring property or from a building used for employment purposes on a neighbouring property; and</li> <li>(ii) 20 metres from a formed public road; and</li> <li>(iii) 150 metres from any public amenity area or place of public assembly, excluding formed public roads, and</li> </ul> <p>(c) Any discharge of odour, particulate matter, droplets or gases is not noxious, dangerous, offensive or objectionable at or beyond the boundary of the property.</p>	<p>The influent raw wastewater BOD<sub>5</sub> concentration at the WWTP generally ranges from 234.6 to 414.4 g/m<sup>3</sup>. Based on the current average flow and median BOD of 283 mg/L, the average incoming BOD<sub>5</sub> is over 3400 kg/day on average. This exceeds 850 kg/day for permitted activity threshold</p> <p>As this exceeds 850 kg/day, the activity cannot comply with this rule.</p> <p>The activity therefore requires resource consent as a <b>discretionary activity</b> under Rule 16.3.7.3.</p>
<b>Temporary discharges to air from infrastructure upgrades</b>		
16.3.13.1	<p>The discharge of contaminants into air from:</p> <p>(1) Vehicle engine maintenance and servicing; or</p> <p>(2) Building and construction activities, including road construction and maintenance, but excluding the remediation of asphalt surfaces (seal burning); or</p> <p>(3) Any outdoor general engineering activity; or</p> <p>(4) Using a smoke tracer to test underground drains or sewers; or</p>	<p>As part of both the wastewater treatment plant upgrades and excavations required for the effluent pipeline and outfall, there is the potential for generation of dust.</p> <p>Any discharge of dust (particulate matter) from the works is unlikely to be considered noxious, dangerous, offensive or objectionable at or</p>

Rule	Activity Standard	Activity Status/Comments
	<p>(5) Fertiliser application; or</p> <p>(6) The engine exhaust of any motor vehicle, train or aircraft on an industrial or trade premises; or</p> <p>(7) Any smokeless heater frost-fighting device not using waste oil;</p> <p>is a <b>permitted activity</b>, providing any discharge of smoke, odour, particulate matter or gas is not noxious, dangerous, offensive or objectionable at or beyond the boundary of the property.</p>	<p>beyond the property within which the works are taking place. With regards to the effluent discharge infrastructure works proposed, development and implementation of an environmental management plan (EMP), which will include dust management, will further mitigate this risk.</p> <p>This activity is therefore <b>permitted</b>.</p>

### Resource Management (National Environmental Standards for Freshwater) Regulations 2020

Rule	Activity Standard	Activity Status/Comments
<b>Effects on natural inland wetlands</b>		
Part 3, Subpart 1	Concerns certain activities within up to 100 m from natural inland wetlands.	The closest known natural wetland is the Shotover River Confluence Swamp, approximately 570 m from the (according to ORC's <i>Consents in Otago</i> GIS viewer). As such, Subpart 1 is not considered applicable to the proposal.
<b>Passage of fish affected by structures</b>		
Part 3, Subpart 3	<p>The purpose of this subpart is to deal with the effects on the passage of fish of the placement, use, alteration, extension, or reconstruction of any of the following structures in, on, over, or under the bed of any river or connected area:</p> <p>(a) a culvert:</p> <p>(b) a weir:</p> <p>(c) a flap gate (whether passive or non-passive):</p>	The proposed outfall does not meet the definition of any of these structures, noting that 'culvert' is defined under the NES as a pipe, box structure, or covered or arched channel that has an inlet and outlet that is in, and that connects the water or bed of, the same river or connected area.

Rule	Activity Standard	Activity Status/Comments
	(d) a dam: (e) a ford.	

### Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007

The National Environmental Standards for Sources of Human Drinking Water (NES-DW) includes standards governing monitoring of water supplies and protection of abstraction points, water treatment plants and distribution networks. Regulation 6 of the NES-DW relates to discharge permits with the potential to affect certain drinking-water supplies.

Regulation	Activity Standard	Activity Status/Comments
6	Regulations 7 and 8 only apply to an activity that has the potential to affect a registered drinking-water supply that provides no fewer than 501 people with drinking water for not less than 60 days each calendar year.	The nearest downstream water supply that supplies more than 501 people is the township of Cromwell. As assessed in Section 5, the discharge of treated effluent will not cause the downstream water quality below the mixing zone to no longer meet health quality criteria or increase by more than a minor amount.  Regulations 7 and 8 are therefore not applicable to the proposal.
11	Regulation 12 only applies to an activity that has the potential to affect a registered drinking-water supply that provides no fewer than 25 people with drinking water for not less than 60 days each calendar year.	The nearest known consented downstream water take that provides drinking water for more than 25 people is for Queenstown Bungy Ltd at their Kawarau bridge operations, approximately 11km downstream, however it appears they source their water from a small tributary of the Kawarau River. As concluded in the assessment of effects on water quality in Section 5, the discharge of treated effluent will not result in any events

Regulation	Activity Standard	Activity Status/Comments
		resulting in a significant adverse effect on water quality at this location. Regulation 12 is therefore not applicable to the proposal.

## Resource Management (National Environmental Standards for Air Quality) Regulations 2004

The National Environmental Standards for Air Quality (NES-AQ) govern air quality via the imposition of five priority contaminants in Schedule 1, which are:

- Carbon monoxide
- Nitrogen dioxide
- Ozone
- PM<sub>10</sub>
- Sulphur dioxide

The standards apply at any location that is in an airshed, in the open air and where people are likely to be exposed to the contaminant. However, where the discharge of a Schedule 1 contaminant is expressly allowed by a resource consent, the relevant NES-AQ standards are not applicable.

Regulation	Activity Standard	Activity Status/Comments
4	A discharge of a contaminant to air from an activity specified in any of regulations 6 to 12 is prohibited, except to the extent that the regulation provides otherwise.	<p>Regulations 6 to 12 concern the following activities:</p> <ul style="list-style-type: none"> <li>• Lighting of fires and burning of waste at landfill</li> <li>• Burning tyres</li> <li>• Burning bitumen</li> <li>• Burning coated wire</li> <li>• Buring oil</li> <li>• Incinerators at schools and healthcare institutions</li> <li>• High-temperature hazardous waste incinerators</li> </ul> <p>As the proposal does not involve any of these activities, Regulation 4 is not applicable.</p>
13	(1) The ambient air quality standard for a contaminant specified in the first column of the table in Schedule 1 is that the contaminant must not exceed its threshold concentration	The air quality contaminant of concern, with regards to the proposal, is odour. Given that none of the Schedule 1 listed contaminants are likely to be discharged to air in relation to the proposal, Regulation 13 is not applicable.

Regulation	Activity Standard	Activity Status/Comments
	<p>in an airshed unless the exceedance is a permissible exceedance.</p> <p>(2) The ambient air quality standard for a contaminant is breached if the contaminant exceeds its threshold concentration in an airshed and the exceedance is not a permissible exceedance.</p>	