

Proposed conditions (QLDC, 15 November 2019)

Scope and purpose of consent	QLDC comment
<p>Grant of consent</p> <p>Otago Regional Council (“the Consent Authority”) grants Queenstown Lakes District Council (“the Consent Holder”) consent to discharge wastewater overflows from the Consent Holder’s reticulated wastewater network to water, and to land in circumstances where it may enter water, only where these arise as a result of blockages, breakages, system failures, and capacity exceedance due to storm events in excess of 1 in 5 years annual recurrence interval.</p>	<p><i>This statement sets out what will be authorised by the consent (if granted).</i></p> <p><i>QLDC has hydraulic models that demonstrate that networks achieve containment of a 1 in 5 year (20% AEP) on a peak day. This is a high level of service when compared nationally and internationally, with only a handful of councils reporting similar levels of service nationally.</i></p>
<p>Purpose of Consent</p> <p>To require the Consent Holder to achieve environmental improvements - within a regulatory framework that provides for transparency, community involvement, staged network improvements and accountability - by requiring the adoption of the best practicable option to avoid and minimise overflows from the wastewater reticulation network, with the major focus and priority being on avoidance.</p>	<p><i>This statement sets out the purpose of granting the consent, including a focus on requiring the best practicable option of staged network improvements and overflow avoidance measures.</i></p>
<p>Unauthorised Discharges</p> <p>An overflow is not authorised under this consent if the overflow reaches any surface water body and any of the following circumstances or combination of circumstances apply:</p> <ul style="list-style-type: none"> a) The discharge reached water for 24 hours or more; or b) The discharge, after reasonable mixing (*see note 1 below), resulted in: <ul style="list-style-type: none"> (i) one-day minimum dissolved oxygen concentration of less than 4mg/L; or (ii) ammoniacal nitrogen concentration of more than 2.2mg/L (adjusted for pH and temperature); or (iii) any significant adverse effects on aquatic life or public health; or. c) The Consent Holder’s response did not result in the ceasing of the discharge to water within 6 hours of the Consent Holder being notified (or otherwise first becoming aware of) the discharge; or d) The overflow was caused by the action or inaction of the Consent Holder as a result of: <ul style="list-style-type: none"> (i) a lack of maintenance of the wastewater network; or (ii) a lack of investment in the capacity of the wastewater network. <p><i>Note 1: Reasonable mixing – For the purposes of clause (b) above, the</i></p>	<p><i>This statement sets out what is NOT authorised by the consent.</i></p> <p><i>As such, it has not been numbered as a “condition of consent” but rather it has been included as a statement that defines the scope of the consent by setting out what is not included.</i></p> <p><i>The intention is to ensure that QLDC is able to be held to account (through potential enforcement action) in the stated circumstances.</i></p> <p><i>A duration limit has been added – refer clause (a).</i></p> <p><i>The “bottom line” standards in clause (b) have been added, as suggested in the summary evidence of Dr Michael Greer for ORC, dated 7 November.</i></p>

Comment [AC1]: These track changes are in response to ORC comment.

Comment [AC2]: No change made in response to ORC and Kai Tahu comments.

QLDC considers that this clause could potentially be deleted but its preference is that it remains as it does add useful context. It needs to be read in conjunction with the above “grant of consent” clause rather than duplicate it.

	<p>area of “reasonable mixing” shall be:</p> <ol style="list-style-type: none"> 1. <u>For rivers and streams artificial watercourse locations with flowing water present at all times:</u> <ol style="list-style-type: none"> a) <u>—seven times the wetted bed width at the time of the discharge up to a maximum of 200 metres downstream of the point of discharge along the longest axis of zone; and</u> b) <u>Occupies no greater than two-thirds of the wetted channel width for that location (for a braided river, the wetted channel width is the width of water in the braid receiving the discharge).</u> 2. <u>For river and artificial watercourse locations with intermittent flows: No longer than 20 metres at times of flow.</u> 3. <u>For lake locations: an arc with a radius of 50 metres from the point of discharge at lake water edge</u> 4. <u>There shall be no reasonable mixing zone applicable where any discharge occurs at a location within 100 metres of a community drinking water intake.</u> <p>point of discharge, or such other distance as determined by a site-specific mixing study undertaken by an independent and suitably qualified and experienced ecologist.</p> <p>Note 2: Discharges from wastewater treatment plants are not within the scope of, and are not authorised by, this consent.</p>	<p>A note has been added to define the term “reasonable mixing” as used in clause (b).</p> <p>All clauses are stand alone, separated by the word “or”. For example, clause (b) would apply irrespective of duration or QLDC response time.</p> <p>Clause (d) is included as it relates to QLDC’s intent to be held to account for its own actions or inactions (where matters are within its reasonable control). However, it is accepted that the wording is open to variable interpretation which is not ideal. As such, QLDC considers it could be deleted should the Panel wish, particularly now that clauses (a), (b) and (c) are in the form proposed. <u>Alternatively, clause (d) could commence with the words “An evaluation undertaken by an independent appropriately qualified professional concludes that ...” or similar.</u></p>
Conditions of consent		
1.	<p>Authorised Discharges to be in General Accordance with Application and Evidence</p> <p><u>Activities-Discharges</u> undertaken in accordance with this consent shall <u>must</u> be in general accordance with the discharge permit application lodged with the Consent Authority on 8 April 2019 and subsequent amendments made to the application on 5 June 2019 and 13 September 2019 and in general accordance with the Consent Authority’s Holder’s evidence to the hearing that commenced 4 November 2019. If there are any inconsistencies between the application and this consent, the conditions of consent shall <u>will</u> prevail.</p>	<p><i>This condition ensures that activities are undertaken in accordance with the application and evidence presented, but as modified by (and in compliance with) the conditions below.</i></p>
2.	<p>Physical Scope of Network Consent</p> <p>This Network Consent <u>Discharge Permit</u> authorises wastewater overflow discharges from <u>within the areas shown as “areas of assessments” on the attached maps</u> for the following areas:</p> <ol style="list-style-type: none"> a) Wastewater collection networks owned and/or operated by the Consent Holder at the commencement of this consent, located in: <ol style="list-style-type: none"> (i) Queenstown including Arthurs Point, Fernhill / Sunshine Bay, Frankton, Kelvin Heights, Hanley Farms, Shotover Country and Lakes Hayes Estate, Lake Hayes, and Arrowtown; (ii) Wanaka and Albert Town; (iii) Lake Hāwea; 	<p><i>This condition specifies the current and known future areas where the consent would apply. <u>The areas were defined on maps in the AEE and, for ease of future reference and to remove uncertainty, it is suggested that the AEE maps be attached to the consent.</u></i></p> <p><i>Future reticulation is subject to design scrutiny and approval</i></p>

Comment [AC3]: These track changes are in response to ORC and Kai Tahu comments.

Comment [AC4]: An “arc with a radius of 50 metres” from a point of discharge at the lake edge seems to make more sense than a “circle with diameter of 50 metres” as ORC suggested.

Comment [AC5]: These track changes are in response to ORC comments but are different to the ORC suggestions. The proposed wording is based on advice from Dr Neale Hudson.

Comment [AC6]: These track changes (and elsewhere throughout this document where similar changes are proposed) are in response to ORC comments.

Comment [AC7]: This track change is in response to comments (made during the hearing more so than in the latest round of comments from submitters) that there should be more certainty regarding the location of networks covered by the consent. The maps contained in the AEE provide this certainty.

	<p>(iv) Luggate; and (v) Cardrona township.</p> <p>b) Future wastewater collection networks which at the commencement of this consent either do not exist, or are not owned and/or operated by the Consent Holder but have the potential to be in the future, and will link to an existing treatment plant in the following areas:</p> <p>(i) Queenstown (as described in (a)(i) above) (ii) Wanaka, Wanaka Airport and Albert Town (iii) Hāwea Flat; (iv) Glendhu Bay; (v) Luggate; (vi) Jacks Point and Village; (vii) Coneburn (industrial zoned area and special housing area); and (viii) Millbrook Resort area.</p> <p>c) Future wastewater collection networks which at the commencement of this consent either do not exist, or are not owned and/or operated by the Consent Holder but have the potential to be in the future and will link to a new treatment plant/consent, in the following areas:</p> <p>(i) Kingston; (ii) Glenorchy; (iii) Cardrona;</p> <p>Refer to Condition 14 for design requirements applicable to future wastewater collection networks.</p>	<p><i>through subdivision consent processes under the RMA and QLDC's Land Development and Subdivision Code of Practice 2018 and associated engineering approval processes under the Local Government Act. Other design requirements are set out in Condition 14 below.</i></p> <p><i>The previous clause (b) has been split into two clauses (b) and (c) based on whether they would link to existing or new treatment plants. Hanley Farms as been included in (a) as it is largely complete and operational now.</i></p> <p><i>Hawea is likely to be connected to the Wanaka WWTP, but business case just being finalised.</i></p> <p><i>Hawea Flat, if reticulated, would likely connect to the solution for Hawea.</i></p> <p><i>It should be noted that Kingston application for a WWTP consent is imminent.</i></p> <p><i>Cardrona have an existing WWTP and consent, but it is intended that will be decommissioned and an expanded network will connect to the WWTP built by Mt Cardrona Station (existing consent).</i></p>
3.	<p>Access</p> <p>The Consent Holder shall must ensure that access to relevant parts of the wastewater network is available at all reasonable times to the Consent Authority or its agents for the purpose of carrying out inspections, surveys, investigations, tests, measurements and to take samples.</p>	<p><i>This condition ensures access to the network for monitoring and enforcement purposes</i></p>
4.	<p>Lapsing of Consent</p> <p>For the purposes of Section 125 of the Resource Management Act 1991, this consent will not lapse.</p>	<p><i>This condition reflects the fact that there is no need to specify a period within which the consent may be given effect (the RMA default period being 5 years). The activities to which the consent relates are existing and ongoing (periodically).</i></p>
5.	<p>Duration of Consent</p> <p>The duration of this consent in accordance with section 123 of the Resource Management Act 1991 shall be 20 years.</p>	<p><i>This condition sets out the proposed duration of the consent.</i></p>

6.	<p>Review of Consent Conditions</p> <p>(a) The Consent Authority may, in accordance with section 128 and 129 of the Resource Management Act, within three months of the Annual Monitoring Report being provided in any year in accordance with condition 15 serve notice on the Consent Holder of its intention to review the conditions of this consent. Any such review shall<u>must</u> be for the purpose of reviewing the effectiveness of these conditions in avoiding, remedying or mitigating any adverse effects on the environment resulting from the wastewater overflows authorised by this consent.</p> <p>(b) The primary purpose of this consent (refer statement preceding Conditions) is to require the Consent Holder to adopt the best practicable option combination of measures to avoid and minimise overflows from the wastewater reticulation network, with the major focus and priority being on avoidance. Given this, the occurrence of more than three authorised or unauthorised overflow incidents per 10,000 wastewater network connections (based on demand units) reaching water in each of two consecutive financial years (ending 30 June each year) is a circumstance when the Consent Authority may initiate a review to evaluate the effectiveness of these conditions.</p> <p>(c) The review of conditions may include:</p> <p>(i) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; and/or</p> <p>(ii) Reviewing the effectiveness of conditions relating to the Wastewater Overflow Response Management Plan (Condition 7), the Wastewater Education and Awareness Management Plan (Condition 12) and the Network Improvements Management Plan (Condition 13); and/or</p> <p>(iii) Addition of new condition(s) as necessary to avoid, remedy or mitigate any unforeseen adverse effects on the environment, including in response to any independent evaluation report in accordance with Condition 16.</p>	<p><i>This condition is intended to ensure that there is an <u>annual</u> opportunity for any condition of this consent to be reviewed by ORC (that is any, some or all conditions).</i></p> <p><i>The condition may, or may not, be invoked in any given year as it would be up to the discretion of ORC. It is a safeguard intended to ensure that the conditions are, and remain, effective.</i></p> <p><i>Clause (b) reflects the purpose of the consent, being to ensure the recent trend of improvement is continued or maintained (within the context of a growing district and the unpredictable pattern of events and third party actions that cause overflows). The proposed guideline of three overflow incidents reaching water per 10,000 connections equates to 7.5 overflow incidents reaching water where there are, for example, 25,000 connections (by comparison the current network has 24,600 connections).</i></p>
7.	<p>Wastewater Overflow Response Management Plan</p> <p>(a) The Consent Holder shall<u>must</u> prepare a Wastewater Overflow Response Management Plan which shall<u>must</u> have the objective of minimising the duration and effects of any overflow, particularly any overflow that reaches a surface water body.</p> <p>(b) The Wastewater Overflow Response Management Plan <u>must be prepared by a suitably experienced and qualified person</u> and must shall set out the procedures to be followed in the event of a wastewater overflow. It must include:</p> <p>(i) How the Consent Holder is notified of an overflow;</p> <p>(ii) How the wastewater overflow is to be cleaned up, including when it is appropriate to check underwater areas where there is a potential for wastewater or solids to build up;</p> <p>(iii) <u>Where an overflow to land occurs in a location that is sensitive to Kai Tahu (as identified in this Wastewater</u></p>	<p><i>This condition sets out the requirement for the first of three management plans, this one relating to response procedures.</i></p> <p><i>A draft Wastewater Overflow Response Management Plan was attached to the evidence of Erin Moogan for QLDC. It will be updated to reflect the final conditions of consent.</i></p> <p><i>The condition provides opportunities for ORC, Public Health South and Kai Tahu to</i></p>

Comment [AC8]: These track changes are in response to ORC comments (but noting that QLDC has not amended the overflow frequency as per ORC suggestion).

QLDC notes Kai Tahu's view that this review trigger is unnecessary as it could be misinterpreted. QLDC's view is that it serves a useful purpose but it is not opposed to this clause being deleted if this option is preferred by the Hearing Panel.

Comment [AC9]: These track changes are in response to ORC comments. However, the requirement for the author to be "independent" has been omitted. The draft WORMP has already been prepared (attached to Ms Moogan's evidence) and while it will need to be updated, it should not need to be done by a person independent of QLDC given the checks and balances proposed later in this condition.

In response to ORC comment, the timeframe for preparation is not included here as it is already set out in clause (c) below.

<p>Overflow Response Management Plan), protocols for notifying Kai Tahu, via Aukaha and Te Ao Marama Incorporated.</p> <p>(iii)(iv) Where an overflow appears to have reached surface water, protocols for:</p> <ol style="list-style-type: none"> 1. notifying the Consent Authority, Public Health South and Kai Tahu, via Aukaha and Te Ao Marama Incorporated (the plan to include email and phone contact details for each) and for advising the public in any manner that may subsequently be directed by Public Health South. 2. monitoring dissolved oxygen (DO) levels and temperature with a probe continuouslycontinuous logger for one week; and 3. collecting water samples to test for e. coli, dissolved reactive phosphorous (DRP), nitrite-nitrate nitrogen (NNN), ammoniacal-nitrogen (NH₄-N) and pH; and 4. visual inspection and photographic survey; and 5. where required by Condition 10, ecological survey and reporting; <p>(iv)(v) The format and content for an Incident Report where an overflow appears to have reached surface water, or land in a location that is sensitive to Kai Tahu (as identified in this Wastewater Overflow Response Management Plan), including but not limited to the information listed in Condition 11 of this consent;</p> <p>(v)(vi) Trigger points for a review/investigation process e.g. if there has previously been repeat overflows occurring at the same asset, or in the same immediate area;</p> <p>(vi)(vii) If an investigation is triggered in (vi) above, the review process to be undertaken to ascertain the underlying cause and recommend potential remediation if required;</p> <p>(vii)(viii) How lessons learnt from each overflow incident are to be conducted, including timeframes, and how any lessons learnt are to be implemented and then monitored going forward; and</p> <p>(viii)(ix) A copy of these consent conditions as an appendix.</p>	<p>review the draft and provide feedback (refer clauses (c) and (d) and also for ORC to certify the final management plan (refer clause (f)).</p> <p>Clause (b)(iii), sub-clause 1 now reflect the intent to notify the specified parties whenever an overflow reached water or entered any stormwater sump (and therefore potentially reached water). Refer also Condition 9 (Notification). It is proposed that overflows that were clearly confined to land and did not enter the stormwater system would not be notified and reported on (other than by way of the annual monitoring report).</p> <p>Clause (b)(iii) has been amended to include additional monitoring requirements for DO and additional water sampling requirements as recommended in paragraph 2.13 of Dr Greer's summary evidence on behalf of ORC, dated 7 November.</p>
<p>(c) Within 20 working days of the commencement of this consent, the Consent Holder mustshall provide the draft Wastewater Overflow Response Management Plan to the Consent Authority, Public Health South and Kāi Tahu (via Aukaha and Te Ao Marama Incorporated) with an invitation to provide any feedback within a further period of 20-30 working days.</p>	
<p>(d) The Consent Holder shallmust take into account any feedback received when finalising the Wastewater Overflow Response Management Plan.</p>	<p>When providing comments on these proposed conditions, ORC is requested to nominate which specific manager role should be specified in this condition. In Mr Christopher's reply evidence dated 7</p>
<p>(e) Within two months of the commencement of this consent, the final Wastewater Overflow Response Management Plan must be provided to the Consent Authority, Public Health South and to Kāi Tahu (via Aukaha and Te Ao Marama Incorporated) along with an explanation of any changes that it has made, or not made, after considering any feedback received.</p>	<p>November, he indicated that such specificity about the certification role is desirable.</p>
<p>(f) If satisfied that the objective in clause (a) is met and that the Management Plan contains the information in clause (b), the Consent Authority's Manager Compliance shall certify that it meets the requirements of this Condition. Within 5 working days of being certified, the Consent Holder must issue the Management Plan to</p>	

Comment [AC10]: These track changes are in response to Kai Tahu comments.

Comment [AC11]: This track change is in response to ORC comment.

Comment [AC12]: This track change is in response to Kai Tahu comments.

Comment [AC13]: This track change is in response to Kai Tahu comments.

Comment [AC14]: This track change is in response to ORC comments.

	<p>its wastewater network operations and maintenance contractors and then implement and adhere to it throughout the duration of this consent.</p> <p>(g) The Management Plan must be reviewed at least every three years after the issue of the previous version in order to ensure latest best practice is incorporated where practicable and that contact details in clause (b) remain up to date. Updated versions of the Management Plan must be provided to the Consent Authority within five working days of issue to the Consent Holder wastewater network operations and maintenance contractors.</p>	
8 .	<p>Maintain Records of All Overflows</p> <p>The Consent Holder must maintain a record of all wastewater overflows <u>(whether or not they are authorised by this consent)</u>. This record must include:</p> <ul style="list-style-type: none"> a) The specific location where the overflow occurred; b) The estimated start time of the overflow and any assumptions that the estimate is based on. c) The day and time the overflow was notified to the Consent Holder (or its operations and maintenance contractors); d) The day and time that the respondent person(s) was onsite at the overflow location; e) The day and time that the overflow was stopped; f) The estimated flow rate and the total volume of the wastewater discharged and any assumptions that the estimate is based on. g) If the overflow reached a waterbody or if it only had the potential to reach a waterbody; h) Where an overflow has reached a waterbody, actions taken by the responding person(s) to physically clean up the overflow at the site including, cleaning up spilled material; i) The cause of the overflow if this can be determined; j) Any other actions undertaken in terms of maintenance, remedial works or renewal to fix the underlying cause of the overflow; k) Date of the last maintenance undertaken prior to this incident in the vicinity of the overflow and the nature of that maintenance. l) When the Consent Authority, Public Health South, and Kāi Tahu were notified of the overflow and the date that this occurred. <p>This record shall<u>must</u> be <u>made</u> available, on request, to the Consent Authority.</p>	<p><i>This condition has been re-ordered from the previous draft, so as to provide a more logical order. This condition ensures that comprehensive records are maintained.</i></p> <p><i>This condition applies to all overflows, whether or not a discharge reaches water.</i></p> <p><i>This condition will ensure that a comprehensive database of all overflows is maintained.</i></p>
9 .	<p>Notification of Wastewater Overflows that Reach Water <u>or Sensitive Locations on Land</u></p> <p>a) When the Consent Holder first becomes aware, by any means, of an overflow that reached water or entered any stormwater sump (and therefore potentially reached water), the Consent Holder shall<u>must promptly</u> notify the Consent Authority, Public Health South, and Kāi Tahu (via Aukaha and Te Ao Marama Incorporated) as soon as practicable in accordance with Condition 7(b). The Consent Holder shall<u>must also</u> advise the public <u>using signs and</u> in any <u>other</u> manner that may subsequently be directed by Public Health South in accordance with the Health Act 1956 or its successor.</p> <p>a)b) <u>When the Consent Holder first becomes aware, by any means, of an overflow to land in a location that is sensitive to Kai Tahu (as identified in the Wastewater Overflow Response Management Plan), the Consent Holder must promptly notify the Consent Authority and Kāi Tahu (via Aukaha and Te Ao Marama Incorporated) in accordance</u></p>	<p><i>This condition applies to all overflows that reached water or entered any stormwater sump (and therefore potentially reached water).</i></p> <p><i>Overflows that were clearly confined to land will not be notified and reported on (other than by way of the annual monitoring report).</i></p>

Comment [AC15]: This track change is in response to ORC comments.

Comment [AC16]: In response to an ORC comment, QLDC notes that under Condition 9 (Notification of overflows that reach water) and Condition 11 (Incident Reports), ORC will be notified of all incidents that reach water or potentially reach water via stormwater sumps. For those incidents, it will not be a case of having to request details. ORC, Kai Tahu and Public Health South will be notified.

In contrast, Condition 8 relates to the overall data base that is, and will continue to be, maintained based on the accumulation of all incidents, including those to just land.

Comment [AC17]: This track change is in response to ORC comments.

	with Condition 7(b)	
10.	<p>Visual and ecological assessment</p> <p>(a) Where the discharge it is identified that an overflow has reached a surface waterbody (i.e. stream, river or lake), a person trained and experienced in immediate response procedures, identifying effects and collecting water samples (who may be a contractor working on behalf of the Consent Holder) shall-must undertake the following tasks within, and immediately outside of, the area of reasonable mixing (*see Note 1 below) of the discharge:</p> <p>1. Collect water samples as required by Condition 7(b)(iiiiv) within, at the boundary, and outside of the area of reasonable mixing (*see Note 1 below) of the discharge; and</p> <p>1-2. Deploy a test for dissolved oxygen (DO) logger immediately outside the area of reasonable mixing (*see Note 1 below) that measures and records DO concentration, DO saturation and temperature at 15 minute intervals; and</p> <p>2-3. Undertake an inspection and photographic survey of the water body/waterbodies within and outside the area of reasonable mixing looking for signs of:</p> <ul style="list-style-type: none"> (i) Any emission of objectionable odour; (ii) Any conspicuous oil or grease films, scums or foams, or floatable or suspended materials (including any deposited solids); (iii) Any conspicuous change in the colour or visual clarity; (iv) Growths of sewage fungus or filamentous algae; (v) Dead/distressed aquatic life (e.g. fish). Any dead fish shall-must be collected, identified, counted and measured. <p>(b) The results of the e-coli tests, visual inspection and photographic survey shall-must be reported to the Consent Authority, Public Health South and Kāi Tahu (via Aukaha and Te Ao Marama Incorporated) within three days of the discharge occurring.</p> <p>(c) Should any of the effects in clause (a)(32)(ii) to (v) above be observed, a survey mustshall be undertaken as soon as reasonably practicable by an independent, suitably qualified and experienced freshwater ecologist. In flowing waters, this survey mustshall be undertaken in the affected waterbody immediately upstream and downstream of where the discharge entered the waterbody and in any other waterbody that may be affected by the wastewater discharge. In lakes, the survey shall-must be undertaken in the vicinity of where the discharge entered the water. As a minimum, the survey shall-must include the following:</p> <ul style="list-style-type: none"> (i) Physicochemical conditions (dissolved oxygen concentration, dissolved oxygen % saturation, pH, specific conductance); (ii) Water samples mustshall be collected and analysed for 5-day soluble carbonaceous BOD, dissolved reactive phosphorous (DRP), total phosphorous (TP), nitrite-nitrate nitrogen (NNN), total nitrogen (TN), ammoniacal nitrogen (NH₄-N), total and volatile suspended solids; (iii) The extent of deposited solids; (iv) Periphyton cover, including heterotrophic growths (sewage fungus), following protocol RAM-2 of Biggs 2000; (v) Macroinvertebrate community composition (including calculation of the macroinvertebrate community index 	<p><i>This condition applies to any overflow that reaches a surface water body. It sets out a process whereby:</i></p> <p><i>Firstly, the initial trained response team who stop the discharge and clear the blockage and/or repair the network as necessary also, with training, insert a DO monitoring probe (and secure it to monitor for a week) and also collect water samples and undertake a photographic survey.</i></p> <p><i>Secondly, the e-coli test results and photos will be sent promptly to ORC, Public Health South and Kai Tahu (refer clause (b)).</i></p> <p><i>It should be noted that the time for other lab-test results to be returned (typically 10 days or so) is such that they will be provided as soon as available in the subsequent Incident Report – refer Condition 11.</i></p> <p><i>Lastly, where any of the effects in clause (a)(2) have been observed, a further comprehensive assessment is required by an independent ecologist, with subsequent report. The parameters in clause (c)(ii) have been amended to include those suggested by both Dr Olsen (for QLDC) and Dr Greer (for ORC).</i></p>

Comment [AC18]: This track change is in response to Kai Tahu comments.

Comment [AC19]: This track change is in response to ORC comments. However, the requirement for the first responder to be "independent" has been omitted as this is not practical. QLDC's trained contractors will undertake the first responder tasks but they cannot be considered to be independent due to the nature of their contract with QLDC.

	<p>(MCI);</p> <p>(vi) Collection, identification, enumeration and measurement of any dead fish observed.</p> <p>(d) Where clause (c) is applicable, a report must<u>shall</u> be prepared containing the results of the initial response observations (as set out in clause (b) above), the results of the ecological survey (as set out in clause (c) above, and conclusions regarding the ecological effects of the discharge including whether, after reasonable mixing, it gave rise to all or any of the following effects in the receiving waters:</p> <p>(i) any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;</p> <p>(ii) any conspicuous change in the colour or visual clarity;</p> <p>(iii) any emission of objectionable odour;</p> <p>(iv) the rendering of fresh water unsuitable for consumption by farm animals;</p> <p>(v) any significant adverse effects on aquatic life.</p> <p>(e) The report shall<u>must</u> be provided to the Consent Authority, Public Health South and Kāi Tahu (via Aukaha and Te Ao Marama Incorporated within 90 days of the discharge occurring.</p> <p>Note 1: Reasonable mixing – The area of “reasonable mixing” shall be:</p> <p>1. <u>For rivers and streams artificial watercourse locations with flowing water present at all times:</u></p> <p>a) <u>seven times the wetted bed width at the time of the discharge up to a maximum of 200 metres downstream of the point of discharge, along the longest axis of zone; and</u></p> <p>b) <u>occupies no greater than two-thirds of the wetted channel width for that location (for a braided river, the wetted channel width is the width of water in the braid receiving the discharge).</u></p> <p>2. <u>For river and artificial watercourse locations with intermittent flows: No longer than 20 metres at times of flow.</u></p> <p>3. <u>For lake locations: an arc with a radius of— 50 metres from the point of discharge at lake water edge.</u></p> <p>4. <u>There shall be no reasonable mixing zone applicable where any discharge occurs at a location within 100 metres of a community drinking water intake.</u></p> <p>, or such other distance as determined by a site-specific mixing study undertaken by an independent and suitably qualified and experienced ecologist.</p>	<p><i>It is noted that due to typical timeframes for getting independent lab tests back for some parameters (particularly MCI results), the timeframe of 90 days has been retained.</i></p>
11.	<p>Incident Reports for Wastewater Overflows that Reach Water <u>or Sensitive Locations on Land</u></p> <p>In relation to any overflow that reached water or entered any stormwater sump (and therefore potentially reached water), <u>and also any overflow to land in a location that is sensitive to Kai Tahu (as identified in the Wastewater Overflow Response Management Plan)</u>, the Incident Report required under Condition 7(b)(v) shall<u>must</u> be sent within 20 working days of the incident to the Consent Authority, Public Health South, and Kāi</p>	<p><i>This condition requires an Incident Report to be submitted for all overflows that reached water or entered any stormwater sump (and therefore potentially reached water). <u>In response to</u></i></p>

Comment [AC20]: These track changes are in response to ORC and Kai Tahu comments. See other comments above under “Unauthorised discharges”.

ORC suggested that there be a simple reference here to the identical Note about reasonable mixing that is set out under Unauthorised Discharges in the Scope and Purpose of Consent section. QLDC is not opposed to that (as reduction of duplication is generally a good idea) but in this instance it has a slight preference for duplicating the Note here (for ease of reference when reading Condition 10).

QLDC will be satisfied to go with whichever formatting option is the Panel's preference.

	<p>Tahu (via Aukaha and Te Ao Marama Incorporated).</p> <p>The incident report shall<u>must</u> include:</p> <p>a) The address of the overflow and a topographical map showing the location of the overflow; and</p> <p>b) The information set out in Condition 8 (Maintain Records); and</p> <p>c) The results of water sampling where undertaken in accordance with Condition 7(b)(iii<u>iv</u>).</p> <p>d) Any learning outcomes, including any recommended improvements to the Wastewater Overflow Response Management Plan.</p>	<p>comments by Kai Tahu, this has been amended to also apply to an overflows to land in locations sensitive to Kai Tahu.</p> <p><i>By way of summary, the process for such overflows that reach, or potentially reach, water is:</i></p> <ul style="list-style-type: none"> • Immediate notification in accordance with Condition 9; • Preliminary response (e-coli results and photographic survey results) within 3 days in accordance with Condition 10(a) and (b); • Incident report within 20 days in accordance with this condition (as soon as possible within this maximum timeframe, noting that timing is primarily determined by lab test timeframes). • Where specified effects are observed, a full independent ecological survey and assessment in accordance with Condition 10(c) and (d).
12.	<p>Wastewater Education and Awareness Management Plan</p> <p>(a) Within two months of the commencement of this consent, a suitably qualified and experienced person employed or engaged by the Consent Holder shall<u>must</u> prepare a Wastewater Education and Awareness Management Plan which has shall have the objective of educating and raising awareness throughout the community, including residents, the construction industry, food industry, hotel and accommodation sector and visitors to the District, on how the wastewater system should be used.</p> <p>(b) The methods (e.g. media, social media, newsletters, print material, meetings) the Consent Holder may use to educate the community is not prescribed by this consent, but the following must be covered in education content (in no particular order and not all to be covered in every education initiative):</p> <p>(i) What should go down wastewater pipes – i.e. only water, human waste, toilet paper, and soaps;</p> <p>(ii) The implications of putting other things down the wastewater pipes for domestic and commercial connections (i.e. breakages and blockages potentially resulting in a wastewater overflow into the community environment);</p> <p>(iii) The importance of protecting exposed/open wastewater pipes within construction sites and not allowing construction material/debris to enter the wastewater network;</p>	<p><i>This condition sets out the requirement for the second of three management plans, this one relating to education and awareness.</i></p> <p><i>This condition is important given the third-party cause of the majority of overflows.</i></p> <p><i>The condition now incorporates several of the suggestions made by submitters, including Mr James Bohm. There is provision for ORC to certify the management plan (refer clause (d)) and also for annual evaluations and reviews, with stakeholder input.</i></p> <p><i>The final management plan (after each annual update) will be made publicly available via</i></p>

Comment [AC21]: These track changes are in response to ORC comments. However, the requirement for the author to be “independent” has been omitted. This is a core component of the QLDC’s functions. This should not need to be done by a person independent of QLDC given the checks and balances (including consultation and independent review provisions) proposed later in this condition.

	<p>(iv) The correct process for obtaining approved connections to the Consent Holder's stormwater and wastewater networks and the importance of engaging appropriately qualified trades people;</p> <p>(v) What sort of trees to avoid planting in the vicinity of wastewater pipes.</p> <p>(c) The Wastewater Education and Awareness Management Plan must set out for the following financial year:</p> <p>(i) Activities related to education about, and enforcement of, the requirements of the Consent Holder's Trade Waste Bylaw</p> <p>(ii) The education activities that are proposed with construction, food and tourism industries to communicate the above information, and the timing for these activities through the year;</p> <p>(iii) The wider community education activities that are proposed to communicate the above information, and the timing for these activities through the year;</p> <p>(iv) Any other initiatives the Consent Holder is undertaking through the improvement of systems and / or changes to, or development of, bylaws which will subsequently assist in educating about the correct use of the wastewater network.</p> <p>(d) If satisfied that the objective in clause (a) is met and that the Management Plan contains the information in clauses (b) and (c), the Consent Authority's <u>Manager Compliance</u> shall certify that it meets the requirements of this Condition.</p> <p>(e) The Wastewater Education and Awareness Management Plan must be <u>implemented and then</u> reviewed and updated annually. Prior to each annual update, the Consent Holder <u>shall-must</u> implement an evaluation of the actions undertaken in the preceding year and <u>shall-must</u> forward the results to the Consent Authority, Public Health South and Kāi Tahu (via Aukaha and Te Ao Marama Incorporated) with an invitation to provide feedback.</p> <p>(f) The Consent Holder <u>shall-must</u> take into account any feedback received under clause (e) when finalising the annual update to the Wastewater Education and Awareness Management Plan for the next financial year.</p> <p>(g) The final Wastewater Education and Awareness Management Plan (and each annual update thereof) <u>shall-must</u> be submitted to the Consent Authority, Public Health South and Kāi Tahu (via Aukaha and Te Ao Marama Incorporated) and <u>shall-must</u> also be made available on the Consent Holder's website.</p> <p>(h) After the Wastewater Education and Awareness Management Plan has been in place and implemented for three years, and prior to the Annual update that is to be implemented for the fourth year, the Consent Holder <u>shall-must</u> appoint an <u>independent and</u> suitably qualified behavioural expert to <u>independently</u> evaluate, and then prepare a report on, the effectiveness of the implementation of the Wastewater Education and Awareness Management Plan and any recommended improvements. The report <u>shall-must</u> be submitted to Consent Authority, Public Health South and Kāi Tahu (via Aukaha and Te Ao Marama Incorporated) and also made available on the Consent Holder's website, in both cases with an invitation to provide feedback. The Consent Holder <u>shall-must</u> take into account both the report and any feedback received when finalising the Wastewater Education and Awareness Management Plan update</p>	<p>QLDC website and also sent to ORC, Public Health South and Kai Tahu.</p> <p>Clause (h) requires an independent, qualified behavioural expert to evaluate the Management Plan and initiatives undertaken after the first 3 years, to assess their effectiveness in changing behaviours.</p> <p>When providing comments on these proposed conditions, ORC is requested to nominate which specific manager role should be specified in this condition (clause (d)). In Mr Christopher's reply evidence dated 7 November, he indicated that such specificity about the certification role is desirable.</p>
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Comment [AC22]: This track change is in response to ORC comments.

Comment [AC23]: This track change is in response to ORC comments.

	for the next financial year.	
	(i) Annual updates of the activities undertaken in accordance with the Wastewater Education and Awareness Management Plan shall <u>must</u> be included in the Annual Monitoring Report required by Condition 15.	
13.	<p>Network Improvements Management Plan</p> <p>(a) Within eight months of the commencement of this consent the Consent Holder shall <u>must</u> prepare a draft Network Improvements Management Plan which shall have <u>has</u> the objective of ensuring that a review of its entire current wastewater network (excluding wastewater treatment plants) is undertaken and that the combination of measures that collectively is the best practicable option to prevent or minimise overflows reaching water is identified. The review shall <u>must</u> prioritise those parts of the network within 20 metres of a waterbody specified in Schedule 1A (Natural Values), 1B (Water Supply Values) or 1D (Kai Tahu Values) of the Regional Plan: Water for Otago <u>and shall also prioritise Bullock Creek, Luggate Creek, Horne Creek and Mill Creek</u>. Preventative or minimisation measures could include, but are not limited to:</p> <ul style="list-style-type: none"> (i) Providing or increasing storage capacity; (ii) Providing standby generators at pump stations; (iii) Preventative inspection programme including CCTV inspections with priority areas and frequencies specified (iv) Installing alarms which notify a potential problem in the network; (v) Constructing overflow ponding areas or diversion flow paths which particularly direct or hold an overflow away from waterbodies or public places. <p>(b) The draft Network Improvements Management Plan shall <u>must</u> contain the following details:</p> <ul style="list-style-type: none"> (i) A summary of the methodology undertaken for the review of the network; (ii) The combination of measures that the Consent Holder regards as the best practicable option to prevent or minimise overflows reaching water, including details of the infrastructure locations where it is practicable to implement preventative measures, what these are, and the proposed timeframe for implementing them, and whether or not the implementation is subject to funding approvals via the public consultation through the Long Term Plan process; (iii) The reasons why preventative maintenance is not appropriate or practicable in any areas. <p>(c) The Consent Holder must provide the draft Network Improvements Management Plan to the Consent Authority, Public Health South and Kāi Tahu (via Aukaha and Te Ao Marama Incorporated), along with an invitation to meet to discuss and then provide feedback within a period of three months, The Consent Holder shall <u>must</u> take into account any feedback received when finalising the Network Improvements Management Plan and <u>must then forward</u> it, within one month of receiving feedback, to the Consent Authority, <u>Public Health South and to Kāi Tahu (via Aukaha and Te Ao Marama Incorporated)</u> <u>along with an explanation of any changes that it has made, or not made, after considering any feedback received, for certification under clause</u></p>	<p><i>This condition sets out the requirement for the third of three management plans, this one relating to the identification and prioritisation of network improvements to prevent and minimise overflows.</i></p> <p><i>This condition requires priority to be given to parts of the network close to highly sensitive receiving environments as set out in the following schedules to the Regional Plan: Water for Otago:</i></p> <ul style="list-style-type: none"> • 1A (Natural Values); • 1B (Water Supply Values); • 1D (Kai Tahu Values) <p><i>The condition provides opportunities for ORC, Public Health South and Kai Tahu to review the draft and provide feedback (refer clause (c)) and also for ORC to certify the final management plan (refer clause (d)).</i></p> <p><i>Based on ORC reply evidence of 7 November, the timeframes have been reduced so that there is an overall 12 month timetable comprising:</i></p> <ul style="list-style-type: none"> • 8 months – prepare draft • 3 months – consultation and feedback with ORC, Kai Tahu • 1 month – for QLDC to finalise <p><i>When providing comments on these proposed conditions, ORC is requested to nominate which specific manager role should be specified in this condition (clause (d)). In Mr Christopher's reply evidence dated 7 November, he indicated that such specificity</i></p>

Comment [AC24]: These four creeks have been added in response to Kai Tahu comments, and also on further reflection on points made by several submitters during the hearing. These are sensitive creeks warranting priority attention.

Comment [AC25]: This track change is in response to Kai Tahu comments.

	<p>(d).</p> <p>(d) If satisfied that the objective in clause (a) is met and that the Network Improvements Management Plan contains the information required by clause (b), the Consent Authority's <u>Manager Compliance</u> shall certify that it meets the requirements of this Condition.</p> <p><u>Note 1: The Consent Authority's certification of the Network Improvements Management Plan will confirm, amongst other things, that the Consent Holder has identified in the Plan a combination of measures that collectively it considers to be the best practicable option to prevent or minimise overflows reaching water. While this condition allows for the Consent Authority and other specified stakeholders to review and have input into the draft Plan, the subsequent certification by the Consent Authority is not able to be used as part of any defence of a prosecution in relation to any unauthorised discharges.</u></p>	<p>about the certification role is desirable.</p>
14.	<p>Future Wastewater Networks</p> <p>Prior to accepting the vesting of new or extended wastewater network assets, the Consent Holder shall<u>must</u> ensure that they have been designed and constructed to the following requirements (to the extent practicable and relevant at each location):</p> <p>a) Wastewater pipes, manholes, and pump stations (and any associated visual screening) must be located and/or designed such that any overflow occurs to land and not water; <u>Note: 'to land' is satisfied if this is to a storage tank, ponding area, or diversion flow path which directs an overflow away from a waterbody or public area</u></p> <p>b) Pump stations must be designed with at least 9 hours emergency storage capacity and redundancy in the configuration of pumps.</p> <p>c) Unless justified by way of a specific risk assessment <u>that is undertaken by an independent, suitably qualified and experienced professional and provided to the Consent Authority,</u> wastewater pipes, manholes, and pump stations must<u>shall</u> not be located within 100 metres of any community drinking water intake <u>or any waahi tapu, nohoanga or mahinga kai sites identified as a sensitive location in the Wastewater Overflow Response Management Plan;</u></p> <p>d) Design capacity is to allow for future capacity required for potential upstream development, as zoned in the district plan at the time or as reasonably foreseeable;</p> <p>e) The wastewater pipes, manholes, and pump stations must be easily accessible by personnel and vehicles responding to an overflow event;</p> <p>f) Mitigation measures are implemented, where practicable, to prevent overflows reaching water from below ground infrastructure that is located within a high water table area;</p> <p>g) Wastewater network infrastructure conforms with Queenstown Lakes District Council's Land Development and Subdivision Code of Practice 2018 (based on NZS 4404); and</p>	<p><i>This condition sets out various design requirements that will apply to new/extended wastewater reticulation that becomes part of the QLDC wastewater network.</i></p> <p><i>As noted previously, future reticulation is subject to design scrutiny and approval through subdivision consent processes under the RMA and QLDC's Land Development and Subdivision Code of Practice 2018 and associated engineering approval processes under the Local Government Act.</i></p> <p><i>Clause (c) has been amended to refer to a specific distance as a default buffer that applies in relation to any community water intake (whether bore or surface water intake), subject to any site-specific risk assessment.</i></p> <p><i>A previous clause that referred to a specific NZS for buried pipelines has been deleted as this is covered by compliance with the Land Development and Subdivision Code of Practice (clause (g)).</i></p>
15.	<p>Annual Monitoring Report</p> <p>The Consent Holder shall<u>must</u> prepare an Annual Monitoring Report by 1 September each year. The report shall<u>must</u> cover the previous financial</p>	<p><i>This condition provides for an annual monitoring report to be</i></p>

Comment [AC26]: This track change is in response to ORC comments.

Comment [AC27]: This track change is in response to ORC comments.

Comment [AC28]: This track change is in response to ORC comments.

Comment [AC29]: This track change is in response to Kai Tahu comments.

<p>year (1 July to 30 June) and provide, where required below, information for the current financial year.</p> <p>The Annual Monitoring Report must include the following information (in no particular order):</p> <ul style="list-style-type: none"> a) The data collected under Condition 4 of this consent and comparison between the subject year's data and the corresponding data from previous years to identify trends; b) A copy of, or a link to, the Wastewater Education and Awareness Management Plan required under Condition 12 of this consent; c) A summary (including evidence) of the education initiatives undertaken by the Consent Holder in accordance with Condition 12 of this consent for the previous financial year; d) The work that the Consent Holder has undertaken in the previous financial year in response to feedback received in relation to previous annual monitoring reports and to reduce the likelihood of blockages to the wastewater pipes from tree root ingress, and the work it intends to undertake in regard to this matter in the current financial year; e) Confirmation of the wastewater networks that are owned and/or operated by the Consent Holder (including any extensions or new networks added in the previous financial year in accordance with Condition 2); f) Confirmation including evidence that the Consent Holder has implemented a wastewater preventative inspection programme by CCTV or other technology, and how this was implemented in the previous financial year; g) A summary of any wastewater maintenance or remedial works beyond "business as usual operating and maintaining the network" implemented in the previous financial year; h) Whether any areas of the network were identified as having repeat overflows and what works were undertaken to fix these problem areas; i) A summary of the wastewater capital investment works that were implemented in the previous financial year; j) Subsequent to the first Annual Monitoring Report a summary of the wastewater capital investment works that were programmed for the previous financial year but did not get implemented, the reasons why, and what was implemented instead; and k) The wastewater capital investment works that are programmed to be implemented in the current financial year. <p><i>Note: For clarity the Annual Monitoring Report does not need to include information relating to wastewater treatment plants in the Queenstown Lakes District, unless in relation to capital works investment where it would be helpful as supporting evidence to network improvements.</i></p> <p>The Annual Monitoring Report shall<u>must</u> be submitted to the Consent Authority, Public Health South and Kāi Tahu (via Aukaha and Te Ao Marama Incorporated) and shall<u>must</u> also be made available on the Consent Holder's website, with an invitation to provide feedback. Refer to clause (d) above for how any feedback shall<u>must</u> be addressed in the subsequent Annual Monitoring Report.</p>	<p><i>provided to ORC, Public Health South and made available on QLDC's website.</i></p> <p><i>This covers all overflows.</i></p>
<p>16. Independent evaluation report</p> <p>If requested by the Consent Authority in writing within three months prior to the fifth anniversary of the commencement of this consent, or any fifth anniversary thereafter, the Consent Holder shall<u>must</u> commission a report from an independent appropriately suitably<u>appropriately suitably</u> qualified and experienced<u>and experienced</u> professional who has been approved by the Consent Authority as to</p>	<p><i>This condition provides the opportunity for ORC to require an independent evaluation report to be prepared after the</i></p>

<p>qualifications and experience to:</p> <p>a) Review and assess the Network Improvements Management Plan required by Condition 13 and the implementation progress made.</p> <p>b) Certify the extent to which the design and operation, including preventative maintenance, of the wastewater network continues to be the best practicable option for ensuring ongoing compliance with the conditions of this consent; and:</p> <p>c) Evaluate and report on new developments in wastewater network technology including:</p> <ul style="list-style-type: none"> (i) A comparison of the new developments in technology available in the preceding five years; (ii) Any improvements that could be expected by adopting that technology; (iii) The feasibility of adopting that technology; and: (iv) If applicable, to make recommendations on how the robustness and performance of the wastewater network should be maintained and enhanced to achieve ongoing compliance with the conditions of this consent and the timescale within which technological or process/procedural enhancements should be implemented, taking into account the cost/ benefit. <p>A draft of any report required under this condition shall<u>must</u> be supplied to the Consent Authority, Public Health South and Kāi Tahu (via Aukaha and Te Ao Marama Incorporated) within three months of the Consent Authority's request with an invitation to provide feedback within a further period of one month<u>30 working days</u>.</p> <p>The final report shall<u>must</u> be submitted within one month of receiving any feedback to the Consent Authority, Public Health South and Kāi Tahu (via Aukaha and Te Ao Marama Incorporated) and shall<u>must</u> also be made available on the Consent Holder's website.</p>	<p><i>first five years of the consent, and potentially at five year intervals thereafter, to review the Network Improvements Management Plan and also evaluate new technology that could be applied to further enhance the environmental performance of the network.</i></p> <p><i>There is provision for a draft report to to ORC, Public Health South and Kai Tahu and provision of feedback.</i></p> <p><i>The final report would be required to be submitted to ORC, Public Health South and Kai Tahu and be made available to the public by way of QLDC's website.</i></p> <p><i>It is noted that Condition 6(c)(iii) (Review Condition) provides for a review of conditions to address recommendations from this independent evaluation report.</i></p>
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Comment [AC30]: These track changes are in response to ORC comments.

Comment [AC31]: This track change is in response to Kai Tahu comments.