

DRAFT WWTP Timeline

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Introduction

This report outlines the timeline of what has happened at the Shotover Wastewater Treatment Plant (WWTP) that led to the decision by Queenstown Lakes District Council (QLDC) discharging treated effluent to the Shotover River.

We have spent several months drawing together as much evidence as we could to be able to create a timeline of events. Many of the documents we have accessed have had to be requested under the Local Government Act information requests (LGOIMA). QLDC can take up to 20 working days to supply the requested information so it has taken some time to draw all the information together. We are waiting on several pieces of information related to costs.

We believe there have been major failures in communication throughout the period that this report covers. Additionally, we feel there has been a lack of transparency between council staff and councillors, QLDC and Queenstown Airport Corporation (QAC), as well as council and the public. There appears to be no accountability for those responsible for plant failures or a lack of communication.

This report seeks to provide a timeline of events to provide clarity and greater understanding on how we got to the point where discharging treated effluent to the Shotover River was considered the best option.

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Sources

A number of sources were used to compile this timeline, including (but not limited to):

- Mott MacDonald report
- Affidavits presented to the Environment Court
- Emails provided by QLDC
- QLDC Resource Consent Application
- Application for Enforcement Order from the Environment Court
- LGOIMA requests submitted to QLDC and ORC by QLCA
- Meetings with QAC and QLDC staff
- A range of media reports from Crux, Lakes Weekly Bulletin, Newsroom, and The Platform
- Videos and minutes of QLDC full council meetings, Audit, Risk and Finance Committee meetings, and Infrastructure Committee meetings
- QLDC and ORC water testing results

Context

QLDC began discharging treated effluent to the Shotover River on 31 March 2025. This followed several years of problems with the disposal field. These problems included overflows outside the perimeter fence of the disposal field, equipment failures, operational mistakes which resulted in blockages in the disposal field drainage system, and an increasing

number of birds settling on the ponded areas of the disposal field. The increasing number of birds was the result of blockages in the disposal field which caused water to pond and birds to begin using this as a living and breeding environment.

Discharging to the river would normally require a resource consent application to Otago Regional Council (ORC). However, QLDC made the decision to utilise section 330A of the Resource Management Act.¹

330A Resource consents for emergency works

- (1) Where an activity is undertaken under [section 330](#), the person (other than the occupier), authority, network utility operator, or lifeline utility who or which undertook the activity shall advise the appropriate consent authority, within 7 days, that the activity has been undertaken.
- (2) Where such an activity, but for [section 330](#), contravenes any of [sections 9, 12, 13, 14, and 15](#) and the adverse effects of the activity continue, then the person (other than the occupier), authority, network utility operator, or lifeline utility who or which undertook the activity shall apply in writing to the appropriate consent authority for any necessary resource consents required in respect of the activity within 20 working days of the notification under subsection (1).
- (3) If the application is made within the time stated in subsection (2), the activity may continue until the application for a resource consent and any appeals have been finally determined.

QLDC has a designation requiring them to manage the risk of birds in the WWTP:

Sewage Treatment Works Designation (STWDA) is identified in the Proposed District Plan (ePlan) Chapter 37: C.33 Designation # 46)¹ and RM 970647. The Designation specifies the conditions under which the Sewage Treatment Works Designation Area (STWDA) must be managed. The conditions applicable to this report have been copied below.

Condition 11 of the STWDA designation specifies that: The Requiring Authority shall design, develop and manage the public work so that it does not attract any birds that are hazardous to aircraft or may endanger aircraft operations. The bird species that have been observed at the airport and which may be hazardous to aircraft are gull, oyster catcher, hawk, spur-wing plover and duck.

Condition 12 of the STWDA designation requires that: 6 months prior to any work being carried out in accordance with the Outline Plan, monitoring of bird activity shall be undertaken by a suitably qualified person experienced in wildlife observation to determine a baseline of bird activity. Subsequently, from the date any work is carried out in accordance with the Outline Plan, the site and surrounding area shall be monitored monthly by a suitable qualified person experienced in wildlife observation and approved by the Territorial Authority. This person will monitor bird activity in and around the site as an impartial observer to enable any increased bird activity as a result of the work to be identified.

¹ [Section 330A of the Resource Management Act](#)

QLDC are also required to monitor the treated effluent and report the test results to ORC monthly.

The key issues related to the disposal field include:

- Blockages in the disposal field caused water to pond which then overflowed out on to the Shotover Delta.
- Ponding in the disposal field attracted birds which pose a bird strike risk due to the field's proximity to the airport runway (the field sits just beneath the end of the runway - see Figure 1).
- Failures in the wastewater treatment plant caused levels of E. coli, total suspended solids, nitrogen, phosphorous, and BOD5 levels to exceed resource consent levels at various times.

Figure 1. Map showing proximity of disposal field to the airport runway²



² [Map included in the Resource Consent Application](#)

Costs

The costs of the Enforcement Order from ORC were \$274,047.50 (not including GST), excluding mediation costs. QLDC's contribution towards this was \$235,000 (not including GST). The cost to ORC for monitoring consent compliance and responding to incidents was \$42,316 (excluding GST).³

We do not know what the costs to QLDC have been for repairs, monitoring, or other work related to the disposal field. We also do not know what the costs have been to QLDC for their legal counsel or other costs related to attending the Environment Court.

We wrote to QLDC on 29 August, 2025 asking for details on the costs, detailing costs related to the Environment Court process together with costs related to the repairs and maintenance of the disposal field. If QLDC chooses to share this information as per our request, it may take up to 20 working days before it is released. They may choose to decline our request on the basis of commercial sensitivity.

Pre 2019

In May 2015, Downer was awarded the contract to build Stage 1 of the upgraded WWTP to consist of an MLE process and UV disinfection.

In 2017, Stage 1 upgrades were completed including the MLE.

2019

Jan 2019

Disposal field completed as part of the Stage 2 upgrades. Initially, the design was to be a gravel platform that was estimated to cost \$21 million due to the cost of buying imported gravel (the originally intended gravel was used in the airport). This was changed to a dose and drain (DAD) system, reducing the cost to \$5.3 million and allowing the disposal field to come online four years earlier than planned.⁴ Once online in Jan 2019 (completion of Stage 2 of the upgrades), discharge to the river is stopped (resource consent RM13.215.03.V2).

³ [Shotover Wastewater Treatment Plant page on the ORC website](#)

⁴ [Paper outlining the reasoning for a switch to a Dose and Drain system by Lowe Environmental Impact Ltd](#)

NOTE: QLCA was advised by a wastewater expert that the DAD system chosen was designed for stormwater and was never tested for real-world conditions with wastewater that could potentially contain solids.

Oct 2019

Senior Construction Engineer at QLDC reports the disposal field is operating well and anticipated to be able to be used without expansion for 10-20 years longer than initially thought.⁵

Dec 2019

Floods cause the disposal field to underperform.⁶ There is no further information available to clarify details but our understanding is that silt entered the disposal field at this point as a result of the flooding.

2021

Feb 2021

23 February 2021

ORC, during an incident inspection, first became aware of sludge in the disposal field together with treated and untreated wastewater, which was discharging beyond the perimeter fence.⁷ This is believed to be “carryover from the treatment process”.

Mar 2021

23 March 2021

During an resource consent audit, two ORC enforcement officers visited the site and found that the volume within the disposal field was similar to that which was observed the previous month, and also found evidence of effluent having seeped out of the disposal field into the

⁵ [Senior Construction Engineer, QLDC, report on disposal field](#)

⁶ Mott MacDonald Report, page 15

⁷ Affidavit presented to the Environment Court - S. L. Reed, part 1, page 10

public area which ran for about 30 metres down the track towards the river. The officers observed ponding at seven locations within the disposal field.⁸

May 2021

18 May 2021

An ORC enforcement officer made an unannounced visit and found that the pond had increased in length and depth compared to the two previous visits in February and March. The enforcement officer also noticed that the wastewater seeping outside the field now ran 50m toward the river.⁹

24 May 2021

ORC issued a consent audit report to QLDC, stating that there was significant non-compliance with the resource consent.

27 May 2021

Abatement (EN.RMA.21.0025) and infringement (EN.RMA.21.0024) notices issued by ORC for non-compliance in relation to ponding and surface run-off. QLDC is given until 25 Aug 2021 to resolve the problems.¹⁰

Queenstown Lakes District Council (QLDC) must cease and continue to cease the following activity:

Discharging treated wastewater to land, namely land approximately 1.25 kilometres south south-east of the intersection of State Highway 6 and Tuckers Beach Road, Queenstown from the QLDC Shotover Wastewater Treatment Plant - without complying with the following conditions of resource consent RM13.215.03.V2:

- A. Condition 15, which requires that QLDC submit a record of complaints and malfunctions to the Consent Authority within two weeks after any complaint or malfunction occurring together with the remedial measures taken or proposed to be undertaken. (by Jun 11, 2021)*
- B. Condition 20, which requires that no ponding or surface run-off of treated wastewater shall occur as a result of the exercise of this consent. (by Aug 25, 2021)*

⁸ Ibid.

⁹ Ibid., 6.

¹⁰ Ibid.

The Council gives notice that QLDC must take steps to exclude the public from any areas which may be contaminated with treated wastewater.

Jul 2021

During investigation of problems it is found that silt has infiltrated the basket spaces.

2021-2022

ORC visits finds varying degrees of ponding and groundwater mounding within and outside the disposal field.¹¹

2022

Aug 2022

3 August 2022

QLDC requests an extension to comply with abatement notice EN.RMA.21.0025 (from 2021). An extension is granted by ORC to 25 August 2022 with ORC requiring QLDC to give weekly updates on ponding levels, engineering works, fencing and signage.

QLDC subsequently requests an extension to comply with EN.RMA.21.0025. ORC grants an extension to 25 November 2022.¹²

Dec 2022

15 December 2022

QLDC request an extension to comply with the abatement notice EN.RMA.21.0025 (from 2021). An extension is granted to 25 May 2023.¹³

¹¹ Affidavit presented to the Environment Court

¹² Ibid.

¹³ Ibid.

2023

Mar 2023

QLDC engages Beca Limited to investigate the viability of the disposal field and the causes of sludge accumulation. Beca identifies that sludge is likely coming from the oxidation ponds and solids come from the clarifier when high flows are reached. They conclude the field is too small because of clogging and a shallow water table, it is difficult to clean and maintain baskets in the disposal field because they are buried in trenches, and the site is prone to erosion and floods. They also state that the disposal field may be able to be remediated but the cost would be high.¹⁴

May 2023

15 May 2023

QLDC requests an extension to comply with the abatement notice EN.RMA.21.0025 (from 2021) on the basis of them already engaging Beca Limited to review the operational capacity of the disposal field and determine the source of organic matter entering the field [note that organic matter entering the disposal field would cause the baskets to become clogged and the field not to operate as intended]. QLDC are granted an extension to comply by 25 Nov 2023.¹⁵

Jun 2023

9 June 2023

QLDC advises ORC that ponding is occurring outside the perimeter fence.¹⁶

15 June 2023

An ORC site visit finds ponding no longer occurring outside the perimeter fence but ponding inside the fence has increased noticeably. A meeting took place between the ORC and the QLDC to discuss the ongoing failure of the disposal field. Affidavits explain what was discussed in this meeting (emphasis added)¹⁷

¹⁴ Mott MacDonald Report

¹⁵ Affidavit presented to the Environment Court.

¹⁶ Ibid.

¹⁷ Ibid.

*During this meeting QLDC stated that they cannot manage the field as it is throughout winter, and that ratepayer's money would be better spent on the longer-term solution. **There was a discussion for a 2-year short term consent to discharge to the Shotover River directly via the previously consented outfall as an 'alternative and interim discharge' whilst the disposal field is repaired, modified or relocated entirely (possibly occupying the footprint of one of the oxidation ponds which are to be decommissioned earlier than planned).** QLDC plan to line the flow channel with rip rap to create as much land contact as possible during this time. IWI is attending the site next week to discuss this proposal. QLDC are hopeful that consent application can be expected by ORC consents in a matter of months.*

NOTE: This is the first time discharge to river appears in the documents we have available to us. We have been unable to find any documentation that outlines what the outcome of those further discussions were or any explanation of why QLDC did not follow up consent applications.

Jul 2023

Downer contract ends and Veolia is awarded the contract to operate and maintain the plant.

25 July 2023

The ecologist monthly report to QLDC (GHD external contractor) stating:

"I thought I'd send a quick email after each monitoring visit so you know what's happening for the birds down there as the project tracks."¹⁸

NOTE: The external contractor was working for GHD and contracted to QLDC to work on the MLE installation. There is no evidence that the ecologist reports were sent to anyone other than this contractor or that they were forwarded them to anyone else at QLDC.

Aug 2023

9 August 2023

All 8 piezometers go offline due to a cable fault.¹⁹ They are offline until September 2023.

29 August 2023

The ecologist report to QLDC (external contractor) - highlights that:

¹⁸ Monthly report sent by ecologist engaged to carry out bird counts at the plant.

¹⁹ Piezometers are used to measure groundwater levels around the disposal field.

“Elsewhere stilts and dotterels were heard on the Disposal field. I therefore undertook a survey along the eastern fence line to determine use of that area by those species. There were 12 pied stilts and 2 male banded dotterel behaving territorially, which indicates potential breeding (males build the nest scrape).

Please advise the contractors working in the disposal field that it is an offence under the Wildlife Act to disturb the nesting of these species. Do you know what the work program is in that area? The stilts and dotterels both hatched chicks in there last year. They are obviously still settling in so it would be good to see where they settle and give them space.”

The external contractor responds on August 31st:

“My contract isn’t dealing with the disposal field, but I will forward this on to those I think are handling it to make sure they are aware. I’ll see if I can get an update on the programme of works.”²⁰

NOTE: Why are the bird count reports only going to an external contractor to QLDC from GHD, if they are not responsible for the disposal field? We have asked QLDC staff if they received copies of these reports at this time.

Sep 2023

25 September 2023

The ecologist report to QLDC (external contractor) - mentions birds settled on the disposal field. The external contractor responds the following day and says:

“yes the team are making good progress”.

It is unclear what team he is referring to or the work they are making progress on.

Oct 2023

30 October 2023

The ecologist report to QLDC (external contractor) reporting observation of nesting and chicks on the disposal field. External contractor of QLDC responds on November 2nd that:

“things seem to be going well on site.”

They do not mention the disposal field in their response.

²⁰ Monthly report sent by ecologist engaged to carry out bird counts at the plant.

Nov 2023

20 November 2023

QLDC request an extension to comply with abatement notice EN.RM.21.0025 (from 2021) on the basis that further work is being undertaken and the planned decommissioning of the oxidation ponds (scheduled to commence in Dec 2025) will resolve the problems as they are the likely source of solids entering the disposal field. An extension is granted requiring QLDC to comply by 25 May 2024.

27 November 2023

Both centrifuges malfunction, making them inoperable. As a result, sludge that should be removed before the disposal field moves through the plant. GEA are engaged to carry out repairs on centrifuges.

Dec 2023

3 December 2023

The ecologist report to QLDC (external contractor) - no mention of the disposal field.

4 December 2023

First complaints of odour reported by the community.

15 December 2023

A large crack is discovered in the MLE outlet pipe and repaired. The crack was causing less oxygen to be available to the diffusers which was resulting in the odour.

20 December 2023

An inspection of the aeration system finds multiple problems that cause solids to enter the disposal field (acknowledged by QLDC in Jan 2025).

27 December 2023

ORC Enforcement Officers carry out inspection where they noted partially treated discharge flowing “*like a small river*” through the boundary fence and ponding in the Delta. It was slightly discoloured, silt laden, and smelled of sewage. They reported it was likely to have

entered the Shotover River, Kawarau River and/or groundwater. Samples tested showed contaminants higher than consent levels allowed.²¹

28 December 2023

QLDC advises ORC that wastewater is discharging outside the perimeter fence. ORC officers visit the site and find discharge flowing onto the Shotover Delta a further 20 metres and more extensive ponding is evident. Samples taken from this area show extremely high levels of suspended solids, total nitrogen and E. coli with evidence that the effluent is not fully treated and believed to have entered the Kawarau River.²²

Table 1. Test Results Taken by ORC on 27 and 28 December 2023

Parameter	Resource Consent 95th Percentile	Resource Consent Annual Mean Limits	Disposal Field Discharge 27/12/2023	Disposal Field Discharge 28/12/2023	Ponding at Shotover Delta 28/12/2023
BOD5 (g/m ³)	50	30	43	Sample received too late	Sample received too late
TSS (g/m ³)	50	30	198	200	7.9
TN (g/m ³)	35	23	58	54.8	5.88
E. coli (CFU/100mL)	260	260	38,000	41,060	387.3

30 December 2023

QLDC notifies ORC they are working towards stopping the discharge of partially treated wastewater beyond the disposal field perimeter fence. There is no indication in the available documentation that explains what is being done to stop the discharge.²³

31 December 2023

The ecologist sends monthly report to QLDC (lexternal contractor), stating:

“Waterfowl numbers are continuing to increase. Please talk to your contractors about driving slowly around the ponds so as not to flush them into the air.”

No mention of the disposal field.

²¹ Affidavit presented to the Environment Court.

²² Ibid.

²³ Ibid., 12.

2024

Jan 2024

15 January 2024

ORC carries out a site visit to the WWTP following QLDC reporting there had been an “overflow event” from Pond 3. Veolia advised ORC that they thought the second pump did not operate as it should have and the alarm did not go off. The ORC officer notes that the wastewater is running towards the Shotover River and pooling in the vegetation outside the plant.²⁴

17 January 2024

QLDC release a public statement stating that:²⁵

“the disposal system has experienced performance issues which has resulted in persistent ponding within the field, along with periodic spillover of treated water beyond the designated site. Put simply, the treated water is not soaking into the ground at the rate it was designed to.”

They do not acknowledge that the ORC findings from less than a month earlier determined that the effluent overflowing onto the Shotover Delta was not fully treated and just less than three weeks earlier QLDC had acknowledged to ORC they were working to prevent this overflow. Samples taken by ORC just eight days later show E. coli levels that seriously question whether the effluent leaking into the delta is fully treated.

20 January 2024

Repairs and replacements fix the odour problem and return the plant to compliance levels.

25 January 2024

ORC makes a site visit and finds discharge flowing through another part of the perimeter fence and ponding in a publicly accessible area between the perimeter fence and the Twin Rivers Trail (approx. 100m x 3m). Samples are taken and found to be excessively higher than resource consent allows for suspended solids and E. Coli. A further sample is taken from the autosampler just before the disposal field and found to meet consent levels for E. coli but exceeds consent levels for total suspended solids.²⁶

²⁴ Mott MacDonald Report.

²⁵ QLDC statement published by Crux

²⁶ Affidavit presented to the Environment Court

Table 2. Test Results Taken by ORC on 25 January 2024

Parameter	Resource Consent 95th Percentile	Resource Consent Annual Mean Limits	Disposal Field Breach Discharge 25/1/2024	Ponding on Shotover Delta 25/1/2024	Final effluent at autosampler 25/1/2024
BOD5 (g/m ³)	50	30	22	11	17
TSS (g/m ³)	50	30	520	780	35
TN (g/m ³)	35	23	Not analysed	Not analysed	Not analysed
E. coli (CFU/100mL)	260	260	5,000	3,700	16

Feb 2024

Early February

Earth bund walls are built around the perimeter of and within the disposal field (unconsented) to prevent overflow beyond the fence which results in the disposal field resembling an oxidation pond containing 1m of water. ORC are not advised of this construction.

21 February 2024

ORC makes a site visit and finds ponded areas south of the disposal field which smells like sewage and has green algae growing in them and there is an extensive sludge crust noted where the discharge had been happening on 27 & 28 Dec 2023. Samples are taken and found to contain arsenic, cadmium, chromium, copper, lead, nickel, zinc, and extremely high levels of faecal coliforms (3.5 million units) and E. Coli (2.5 million CFU/ml). There is no consent for any effluent to be discharged outside the disposal field perimeter with any levels of acceptable E. Coli. The earth bund walls begin crumbling and collapsing during the visit and discharge begins flowing beyond the perimeter fence.²⁷

Table 3. Test Results Taken by ORC on 21 February 2024

Parameter	Resource Consent 95th Percentile	Shotover Delta Wastewater Crust and Ponding
Total recoverable arsenic	n/a	8
Total recoverable cadmium	n/a	0.18
Total recoverable chromium	n/a	13

²⁷ Ibid.

Parameter	Resource Consent 95th Percentile	Shotover Delta Wastewater Crust and Ponding
Total recoverable copper	n/a	79
Total recoverable lead	n/a	15.8
Total recoverable nickel	n/a	16
Total recoverable zinc	n/a	16
Faecal coliforms	n/a	3,500,000
E. coli (CFU/100ml)	20	2,500,000

Mar 2024

3 March 2024

ORC receives a notification from a member of the public that there is a burst pipe from the wastewater plant into the Shotover. An ORC officer visits the site and finds that the bund wall has been breached (a 2m wide gap in the bund wall) and discharge is ponding on the Shotover Delta. The officer notes that the look and smell of the discharge indicates that it is not fully treated.²⁸

7 March 2024

At the Audit, Risk and Finance Committee meeting, Tony Avery [50:58] tells the committee that there is ongoing non-compliance.

“Apparently, the system is not performing as designed so we’re getting discharges outside of its current [inaudible].”

18 March 2024

ORC serves QLDC with an abatement notice (EN.RMA.24.0012) to stop discharging effluent that is not properly treated. The abatement notice requires untreated effluent to stop immediately. ORC notes breaches in wastewater quality, wastewater ponding in the disposal field and overflowing through the boundary fence.²⁹

31 March 2024

The ecologist report to QLDC (external contractor) - no mention of the disposal field. There does not appear to have been any monthly report produced in Jan or Feb 2024.

²⁸ Ibid.

²⁹ [Abatement notice EN.RMA.24.0012 issued by ORC, accessed on Crux website](#)

Apr 2024

30 April 2024

A public excluded workshop (½ hour long) was run on April 30th, 2024, to brief Councillors on

*“the current status of the effluent disposal field at the Shotover Wastewater Treatment Plant (WWTP) and describe the proposed way forward to deal with the issue”.*³⁰

May 2024

7 May 2024

The ecologist sends monthly report to QLDC (external contractor) stating:

“Waterfowl numbers continue to diminish, but it also appears that the flocks present are using the disposal field to the south of the ponds as well.”

20 May 2024

QLDC requests an extension to comply with abatement notice EN.RMA.21.0025 (from 2021) on the basis that QLDC have assigned \$66 million of funding through the long term plan, engaged a planning consultant, started dialogue with Aukaha and Te Ao Mārama, and invested in the robustness of the existing site. ORC grants an extension to 25 Aug 2024.

27 May 2024

The pre-anoxic and anoxic zone mixers fail at the WWTP causing a loss of nitrification and solids passing through the system, described as a “catastrophic failure”. The cause of the failure is said to be due to mechanical seals not being replaced by the previous contractor in 2022, as per the manufacturers recommendations.

30 May 2024

There is some kind of correspondence from QLDC stating that the disposal field is unable to operate as designed and consented. This correspondence is mentioned in some documentation but we have been unable to find it.

³⁰ <https://www.qldc.govt.nz/media/sklpdaij/3-shotover-wwtp-cover-sheet.pdf>

Jun 2024

11 June 2024

Clr Gladding raises questions at the Audit, Risk and Finance committee meeting (from 3:50 on the [video recording](#)) about the ongoing disposal field problems, abatement notices and the need to find a solution regarding why the council staff have determined there has been no change to the risk context. QLDC staff (Tony Avery) responds that:

“as it happens we have had no, what I would call material changes in risk and our risk register during that period. There have been a number of what I would deem to be fairly minor changes including the addition of treatment plans”.

NOTE: Since the last meeting on 7 Mar 2024, there have been two catastrophic plant failures and QLDC stated on May 30 2024 that the disposal field could not operate as designed and consented. Tony Avery [at 21:00 of the video] states that there has been no change in the risk profile of the disposal field, ongoing issues including odour, been working with the ORC on the issues, the treatment plant is now back in operation and meeting consent requirements - the issue is the ponding of the effluent and its dispersal into the ground. It will require a new consent application - council has put \$70 million into the long-term plan to fund solutions so no change to risk. At 23:15 of the video, Clr Gladding adds that she has concerns about the risk being determined to not have changed, given previously the problems were considered solvable and now they are considered not solvable. Concerned that things are not being reported in the right way and in a timely way so that governance is aware.

18 June 2024

Bird strike at the airport with Virgin plane on take-off that is rerouted to Invercargill. In conversations with QAC, it was thought that the cause was possibly a duck flying over the airfield from the direction of the high school returning to the area of the WWTP.

19 June 2024

QAC risk committee (SORC) meeting - discuss bird strike risk management - acknowledged bird strike the previous week. No unredacted discussion in the minutes related to SWWTP.

24 June 2024

The ecologist report to QLDC (external contractor) states:

“The disposal field was added to the survey from August 2023 and uses a travelling transect count rather than a 5-minute/ stationery count method. The disposal field is a 4-ha fenced of gravel area and is being maintained free of weeds. It has retained surface water and while

this may not have been by design, waterfowl, including grey teal, paradise shelduck, mallards, and scaup, pied stilts and banded dotterel along with welcome swallows have recognised the habitat.

The very high flow (600 cumec) on the Shotover River in September 2023 may have displaced dotterel into the disposal field as it been used in previous years and the dotterel have now identified it as breeding habitat.

Land disposal of treated wastewater – earthworks are underway within the disposal field. There has been some movement of waterfowl onto areas of open water in the disposal field but again, due to the level of activity, those birds are likely to be regularly disturbed. Breeding and use by a range of waders and waterfowl is occurring and the closer proximity to the aerodrome eastern takeoff requires this area to be managed to minimise surface water.

Construction crews involved with the oxidation pond decommissioning work and disposal field work should maintain activity that avoids flushing flocks of waterfowl from the ponds into the air, e.g. reduced driving speeds and avoiding unnecessary travel around the pond perimeter once birds are settled.

Construction work within the disposal field should aim for completion prior to the breeding season and avoid the creation of ponds due to the closer proximity to the eastern approach/ take-off area of the Queenstown Aerodrome.”

Jul 2024

July 2024 - August 2024

Treatment plant failure (failure of the mixing systems) results in partially treated effluent being discharged into the disposal field. Confirmed by QLDC in Jan 2025.

18 July 2024

Infrastructure committee workshop held. The WWTP was not discussed. Note that the date on the minutes says the meeting took place on June 18th, not July 18th.

26 July 2024

The ecologist sends monthly report to QLDC (external contractor & QLDC Staff), stating:

“As the oxidation ponds drain, based on previous discussions with Fish and Game and my ecological assessment for the pond decommissioning work, waterfowl will look for alternative sites to moult through the summer (after the breeding season).”

The ecologist points out that it is not just the number of birds using the disposal field but also that works going on in the area (to repair the field) can cause birds to take flight which increases the risk of bird strike.

31 July 2024

Meeting between QLDC (external contractor), QAC, and ecologist to discuss planned decommissioning of the ponds 1-3. QAC advised:

“This was an introductory discussion on pond works status, upcoming activities, and integration with QAC Wildlife Management Planning. No minutes were taken.”

During the meeting, it becomes clear to QAC that there is standing water in the disposal field that is not resolving. This is the first time QAC are aware of any problems with the ponding in the disposal field³¹.

Aug 2024

13 August 2024

Mott McDonald are engaged to provide recommendations on resolving the problems - they attend a meeting with QLDC, ORC and Veolia.

21 August 2024

QLDC requests a further extension of abatement notice EN.RMA.21.0025 (from 2021) to Feb 2025. In this letter, QLDC state that the disposal field “*remains relatively stable*” and that they have installed rapid infiltration basins which could be expanded if necessary. They also note that the quality of treated effluent has degraded due to plant failures which has led to elevated nitrogen levels and solids in the disposal field negatively impacting its ability to drain. ORC grants an extension to 30 Sep 2024.

27 August 2024

The ecologist report advises QLDC (External contractor & QLDC Staff) that, while there are less birds on the oxidation ponds, the numbers have increased on the disposal field, and that there is a need to manage the ponding on the disposal field:

“The data suggests that total waterfowl numbers using the ponds is starting to dip, while there is an uptick in use of the disposal field following the availability of surface water.”

³¹ This information was shared by QAC in a private meeting with QLCA.

The increased presence of surface water in the disposal field is likely to attract increased use by waterfowl to this habitat bringing these species closer to the eastern takeoff/ approach path of Queenstown Aerodrome ...recommends QLDC develop plans to manage this situation and the potential for increased risk to aviation in consultation with QAC.”

A further memo from the ecologist to QLDC (external contractor & QLDC Staff) states:

“After our meeting with the QAC Aerodrome safety team on 31st July, I undertook to update the charts for the monitoring results in the Shotover Wastewater Treatment Area.

I recommend that you reach out to QAC Staff and her team to keep the parties informed about management of the two projects for the decommissioning and the disposal field management.

Let me know how I can support this process.

I will defer to your [sic] regarding how you share these results with the QAC team. However, I do recommend that these results are shared with QAC as required by the conditions of the Designation Area.”

The external contractor replies:

“As suggested, I will share this with [REDACTED] at QAC for information.

[REDACTED] can you please share as needed with the disposal field team? I’m happy to act as point of contact to share any ongoing project updates with QAC (in terms of major work activities or changes etc.) if that helps.”

28 August 2024

Veolia submit an incident investigation report identifying multiple failures in the MLE system that started in May 2024. They speculate these were caused by a lack of maintenance by the previous operator. [Speaking with a wastewater expert, QLCA was told this is common - the initial contractor has a seven year contract and does not carry out adequate maintenance and repairs as a cost-saving measure, then the contract ends and they walk away without liability - we have no idea if this was the case for the Shotover WWTP].

29 August 2024

Infrastructure committee meets for the first time since 16 May 2024. No discussion on the WWTP or the concerns about bird numbers on the disposal field.

Sep 2024

September-November

Heavy rains over three months causes the disposal field to fill as it is blocked and not draining properly.

12 September 2024

At the Audit, Risk and Finance Committee meeting, the risk report highlighted the failure of the disposal field, identifying its impact on risk as a significant change. This has never been highlighted as a significant change in any previous risk reports. It was stated:

two [risks] have a residual risk rating that is 'very high'; RISK10013 'unexpected change in cost or funding' and RISK10021 'Ineffective operations, maintenance or renewal of property or infrastructure assets leading to failure(s)'.

Both RISK10013 and RISK10021 have treatment plans in place, with current and future controls to mitigate the level of risk exposure.

Risk Update: Failure in the operation of the Shotover wastewater disposal field

10. In early 2021, QLDC became aware of a failure in the operation of the Shotover wastewater disposal field. The current field is not functioning in accordance with the original design nor the associated resource consent for discharges to land. The non-performance has led to permanent standing water and the occasional discharge of treated effluent beyond the designated disposal area.

11. In light of the on-going non-conformance the Otago Regional Council (ORC) has issued two abatement notices to the QLDC. Additional expenditure has been incurred in managing the non- performance of the field, and new capital investment has had to be provisioned through the consultation draft 2024-2034 Long Term Plan. Since December 2023, the treatment plant itself has suffered two significant mechanical failures associated with the reactor tank (aeration diffusers and mixing systems), which has led to discharge of effluent to the disposal field that does not meet the quality requirements of the resource consent conditions. In these events the effluent has had elevated solids concentrations that exacerbate the performance issues experienced at the disposal field.

12. A risk review has been completed of associated risks by the Infrastructure and Operations Team and has been summarised below:

- Public Health – there is a risk of human or animal exposure to the treated wastewater in situations where the treated effluent discharges beyond the fenced area and could*

lead to illness. This risk is low when the plant is performing normally as the effluent has pathogen levels below the bathing standard. The primary mitigation for this risk has been the recent construction of new deeper soakage basins which are proving effective at improving soakage rates, coupled with frequent inspections of the field (both in person and via CCTV).

- Environmental – there is a risk that the performance of the disposal field degrades effluent quality and leads to poorer environmental outcomes. This risk is low when the treatment plant is performing well as the receiving environment (and path to it) is broadly the same i.e. the effluent is still soaking through the gravels. It should be noted that the disposal field was not designed to provide treatment of the wastewater. However, as the treated wastewater is ponding with exposure to ultra-violet light (UV) prior to soaking away, some degree of degradation in the effluent quality is expected. The best mitigation for this is effective operation and maintenance of the treatment plant to ensure the best quality effluent is being discharged into the field, coupled with maximising the soakage within the field to reduce ponding time. The two process challenges reflect that the current mitigation is not effective, QLDC are working to utilise contractual mechanisms and increased internal resourcing to achieve improved management of the facility.*

- Regulatory Action – there is a risk that the ORC will take further regulatory action, such as prosecution, leading to financial and reputational damage. To mitigate this risk QLDC are regularly communicating with the ORC, sharing updates on progress with both the interim and longer-term solutions.*

- Reputational – there is a risk that the community and iwi will lose confidence in QLDC due to the prolonged challenges and/or through regulatory action.*

- Business Continuity – there is a risk that a suitable disposal solution cannot be found, limiting the ability of the Shotover Wastewater Treatment Plant (WWTP) to service future growth or even the current connected population. There is a low risk that a technical solution does not exist, however, alignment between the affordability and cultural appropriateness of the solution is a potential challenge. The primary mitigation to this risk is to ensure early engagement with iwi through the development and assessment of options. It should also be noted that uncertainty around the future capacity of the Shotover WWTP is impacting planning around key growth areas (such as the Southern Corridor).*

This was not discussed in the meeting.

14 September 2024

Source: Environment Court affidavits

A large pipe is installed by QLDC toward the perimeter fence to prevent the bund wall from collapsing. No public notices can be found on the QLDC website to tell the public about the discharge flowing into the Shotover Delta and no record can be found to indicate that signage has been placed in the delta area.

15 September 2024

Source: Environment Court affidavits

ORC visit the WWTP following a call the previous night from QLDC advising of a breach of the bund wall. During the visit, the ORC officer notes high levels of ponding throughout the disposal field. The ORC officer was advised by Veolia that the previous day, in response to rising ponding, had installed a pipe to control the discharge. This pipe led out the perimeter fence and into the Shotover Delta to prevent the bund wall collapsing further and creating a much larger uncontrolled discharge. Veolia advised ORC that the daily flows to the disposal field had been higher than normal over the last few days and that the oxidation ponds had no further capacity without causing Pond 3 to overflow.

18-22 September 2024

Wastewater is discharging for five days beyond the perimeter fence.

24 September 2024

QAC SORC meeting - discuss wildlife management. *Management have reported that [redacted] have provided key findings and recommendations which are being worked through. A Work Plan will be developed before the December SORC meeting.*

Minutes make no mention of the WWTP. The report recommends that a Wildlife Hazard Committee is established between QAC, QLDC, and other stakeholders. Also states that a meeting was held with QLDC and NSN to discuss decommissioning plans and likely impact on birds. NOTE: THE FOOTER ON THIS REPORT SAYS SEPTEMBER BUT THE FILE NAME INDICATES NOVEMBER.

30 September - 3 October 2024

Wastewater is discharging for four days beyond perimeter fence.

Oct 2024

1 October 2024

QLDC requests a further extension to comply with abatement notice EN.RMA.21.0025 (issued 2021). ORC grants an extension to 31 Oct 2024.

3 October 2024

The ecologist report to QLDC (external contractor & QLDC Staff). Report only gives counts but no specific mention of the disposal field.

25 October 2024

The ecologist report to QLDC (external contractor & QLDC Staff) stating:

“However, there is an increase in waterfowl use of the Disposal Field. Monitoring of that area started in August 2023 with the arrival of areas of open water.

The purpose of the monitoring for QLDC is the identification of activities that may increase risk or hazards to aviation. Increasing areas of open water close to the eastern end of the Queenstown Aerodrome may contribute to an increased risk to aviation if waterfowl use the habitat.

If waterfowl use the habitat, then it is important that the risk of disturbance or events that cause them to flush and take flight from the site are minimised, i.e. ensure predictable movements in vehicles (which can act as a hide), and minimise walking around in the fields where birds are nesting or roosting. Avoid rapid dewatering/ flooding of the field that causes birds to move in/ out of the area.

It is also important that we understand the patterns of bird activity and bird movement to/ from the ponds and Disposal Field to determine how best to manage the site with respect to any potential risk/ hazard for aviation going forward with this year’s dewatering of Pond 1 providing a potential indication of how this may go – even though numbers using that pond are comparatively low.

Some of the questions around management of the Oxidation Ponds and Disposal Field include:

- *where will the birds go if they are displaced from the site?*
- *Will they become disturbed such that the flight activity around/ across the eastern end of the aerodrome increases such that it poses an increased risk to aviation?*

To address these questions, I recommend the addition of further monitoring sessions, additional to the existing program.

I also recommend that you both continue to engage with QAC Staff at QAC regarding progress and management of the Shotover Wastewater Treatment Area.”

Note there is no indication in the provided documents of whether or when the external contractor or QLDC infrastructure staff engaged with QAC.

29 October 2024

Infringement notice is issued by ORC for 14-18 Sep and 27-30 Sep unconsented discharges.

Nov 2024

Date unknown

CAA carries out an audit of the airport and makes the recommendation to QAC:

“The QAC should now move beyond data collection and increase its level of activity in managing wildlife outside of its boundary. In particular, the known locations of birds in the Shotover Delta and around the Wastewater Treatment area.”

5-15 November 2024

Wastewater is discharging for 11 days beyond perimeter fence.

9 November 2024

Veolia advises ORC that the disposal field is discharging beyond the perimeter fence. ORC officers visit the site and find discharge flowing through the pipe installed by QLDC and creating a large flooded area on the Shotover Delta.

19 November 2024

ORC visits the site and notes a substantial flow outside the perimeter fence, “like a small river” with extensive ponding in a publicly accessible part of the Shotover Delta. The flow in some places is “half way up my gumboots”. The ORC officer notes that there had been no notification from QLDC or Veolia that it had got this bad. The discharge contains small red invertebrates, green algae and sludge and is believed by the ORC officer to be reaching the Kawarau River.

Infringement notice is issued by ORC for 26 Oct-5 Nov for unconsented discharge.

19 November 2024

QLDC reported in Crux as saying: *“Council has been in regular contact with ORC about some ongoing challenges at Shotover Waste Water Treatment Plan (WWTP). These are exacerbated during and after periods of heavy rainfall like we have seen in recent months. No untreated or partially treated effluent has been or is being released from the WWTP during this time.”* (email to Crux from QLDC). ORC site visits on four occasions in Nov and Dec 2024 found discharge beyond the perimeter fence which ORC noted appeared to be treated based on samples taken.

At the media standup in Mar 2025, QLDC state that “we've seen issues with disposal fields since 2021 and quite a dramatic deterioration around August, September last year, which has resulted in continuous or almost continuous spillage from the site into areas on the Delta. As pointed out, that is highly treated wastewater.”

20 November 2024

Otago Regional Council staff conduct wastewater sampling around the Shotover Wastewater Treatment Plant disposal field.

10 samples are collected from different locations and tested for the routine set of tests. Additionally, seven of these locations are tested for Microbial Source Tracking (MST). MST is a scientific method that uses genetic markers in bacteria to identify the source of bacterial contamination. This analysis aims to determine whether human effluent is present.

The MST results only detects human MST markers on one of the seven samples and that was just over the level of detection. However, caution is advised as this result is based on a single sample and close to the detection limit. The other 6 samples were below detection limits, and this includes all samples taken from the disposal field itself.

The routine testing results were received by ORC on 3 December 2024. The laboratory analysed E.coli samples to a range of “less than 1000 CFU/100ml”. Whilst specific values would be more useful, they indicate that E.coli levels were not high at the discharge point and did not increase across the sampled area. We have since undertaken further sampling.

Source: Richard Saunders, ORC Chief Executive

<https://www.orc.govt.nz/your-council/latest-news/news/2024/december/update-on-monitoring-of-shotover-wastewater-treatment-plant/>

24 November 2024

Email from ecologist to QLDC (external contractor & QLDC Staff):

“I strongly recommend we record observations of landing attempts and any associated behaviour, i.e. a diversion to pond 2 or 3, leave the area, direction of flight to and from area, plane activity (ie jet/ ATR incoming/ outgoing; helicopter incoming/ outgoing; small plane flying around to join the cross runway/ approach/ takeoff from eastern runway (Threshold 23).

The disposal fields as you are also no doubt aware are well flooded with the internal berms underwater, although with shallow water covering the berms in places. All species known on the disposal field have increased this month. The disposal field is currently holding more waterfowl than all the oxidation ponds combined.

Based on observations to date, I expect the waterfowl to continue to select the disposal field due to the higher water quality and relative separation from other activities.

The issue with the increasing numbers is the proximity to the eastern aerodrome threshold; I urge you to have a conversation with the team at Queenstown Aerodrome to discuss how this area is going to be managed through the summer.

I also urge you to remind all your contractors about the importance of not undertaking activity likely to flush waterfowl into the air.

Most importantly, do not try to disperse or disturb them intentionally without prior knowledge of flight schedules and consideration for which direction flights are coming in/ flying out from the Queenstown Airport. A discussion with the QAC wildlife management team may be beneficial to improving understanding between all parties.

██████, may I share my monitoring observations with Queenstown Airport Corporation Aviation Safety/Risk Management Team?

██████, I know you have been in touch with QAC Staff already.

I will also be recommending that QAC undertake monitoring (as outlined above) of behaviour around the drainage of Pond 1 as it provides an insight into what may happen with Ponds 2 and then 3.

This is an opportunity for collaboration and to share resources as the identification and management of aviation risk is the purpose behind my monitoring and the designation conditions require the findings to be shared with QAC.”

The external contractor replies to the ecologist the following day and copies QLDC infrastructure staff:

“As recommended, please continue to record landing attempts as you see them, if this is important to report on.

I’ll leave ████████ to respond if required on the activities at the disposal field.”

Note there is no recorded reply from [REDACTED]

28 November 2024

Infrastructure committee meets for the first time since 29 Aug 2024. No discussion of the WWTP or the concerns about birds.

28 November 2024

QLDC (external contractor) is advised by email from QAC (QAC Staff) that QAC “*would like to have a chat to you [QLDC] about the wastewater disposal fields in the Shotover Delta. And in particular that this area is attracting a larger number of birds and has the potential to increase bird strike risk for aviation.*”

28 November 2024

An update on the shotover plant is given in a presentation to an Infrastructure Committee workshop. There was no mention in the minutes of any problems or concerns with the functioning of the plant or the disposal field or any discussion that took place in relation to problems.

- Clarifier tank and MLE structural works complete, mechanical installation commenced, pond one dredged. PC due late 2025.
- 2250m³ low carbon concrete (35% fly ash) successfully placed; a record for the most ‘ecrete’ used on a project in the region.

Shotover WWTP (FY25-27) – detailed design complete, planning permissions obtained, construction to commence early 2026.

- **Project Shotover Stage 3** (FY25-27) – clarifier tank and MLE tank structural works complete, and mechanical/electrical installation underway. Pond 1 decommissioning also underway with desludging due for completion by mid-2025.

Dec 2024

1 December 2024

QLDC advise the media that “*For clarity, all of the treated effluent disposed of from this plant passes into the rivers (through gravels into shallow groundwater) in line with our consent with ORC*

No untreated or partially treated effluent has been or is being released from the WWTP during this time, i.e. when high levels of rainfall in September and October put additional pressure on the disposal field.

These (ongoing challenges) are exacerbated during and after periods of heavy rainfall like we have seen in recent months. No untreated or partially treated effluent has been or is being released from the WWTP (Shotover sewage plant) during this time.

Unfortunately, given the nature of the issues there isn't a solution that can be readily implemented to enable immediate compliance, and ORC is fully aware of this.” ([Crux article](#))

3 December 2024

ORC makes a site visit and finds discharge is still flowing through the pipe and in other places along the perimeter fence, with ponding the worst that had been observed previously. The ORC officer takes a sample from the UV plant with a Veolia staff member present and notes there were tiny invertebrates swimming in the sample. The Veolia staff member says they have no concerns about the operation of the UV plant. Samples taken from this day indicate the discharge is treated.

More recent sample results: Preliminary results for samples taken on 3 December show that any discharge is highly treated. The E.coli result for the discharge from the disposal field was less than 10 CFU/100ml. These test results will undergo further analysis and review by staff.

Source: Richard Saunders, ORC Chief Executive

<https://www.orc.govt.nz/your-council/latest-news/news/2024/december/update-on-monitoring-of-shotover-wastewater-treatment-plant/>

3 December 2024

QLDC requests a further extension to abatement notice EN.RMA.21.0025 (from 2021) citing ongoing soakage problems. There is no documentation available to determine whether this extension was granted and for how long, but shortly after this request, the case is referred to the Environment Court.

5 December 2024

At the Audit, Risk and Finance Committee (AFRC) meeting, Cllr Gladding asks if there can be an opportunity to do a deep dive into a topic, using it as an example of how treatment plans are produced and they can better understand the process - says that councillors have never seen a treatment plan. Also asks how progress on mitigating risks can be tracked so councillors understand that progress. Chair of the committee and other committee members say that the progress on resolving issues sit with the Infrastructure Committee (note there are no Infrastructure Committee Meetings or Workshops where the WWTP was on the agenda to be discussed). Cllr Gladding is told there is no need to change the way issues or topics are brought to the AFRC and no need to provide any further information. Also that councillors can be confident that risks are being addressed effectively.

6-16 December 2024

Six visits are made by ORC during this period. On all visits the discharge through the perimeter fence is continuing. Samples taken on 6 Dec could not be tested as they had arrived at the lab too late. Those taken on 9 Dec indicate the discharge is treated but exceeds levels for total suspended solids. Those taken on 12 Dec indicate the discharge is treated and no consent levels are exceeded.

10 December 2024

ORC state that *“ORC tests in recent months shows the discharge is well treated and complies with the limits set in consent conditions, while the detected limits are well below the contact recreation guidelines.”* QLDC published results, however, show that biochemical oxygen demand and total suspended solids exceeded consent levels from Aug 1, 2024 through to Nov 4, 2024, and total nitrogen levels exceeded resource consent from Dec 2023 through to Dec 2024. <https://www.qldc.govt.nz/media/v2bnpxj/shotover-wastewater-lab-results-002.pdf>

A recent news report of high exceedances of conditions in discharges at the plant relates to an on-site issue of a mechanical failure in the plant during last December and January this year. This was reported on at the time and prompted ORC to issue infringement notices. These notices are a form of compliance action.

“We’ve issued two abatement notices and a total of six infringement notices since 2021. The operation of the site is being closed monitored, with regular testing and visits from staff.”

Source: Richard Saunders, ORC Chief Executive

<https://www.orc.govt.nz/your-council/latest-news/news/2024/december/update-on-monitoring-of-shotover-wastewater-treatment-plant/>

11 December 2024

QAC SORC meeting: No mention of WWTP in minutes. Minutes state that a draft report with recommendations been received (from ecologist?) and a work plan is being developed from the Risk Assessment.

16 December 2024

Phone call takes place between QLDC and Queenstown Airport Corporation (QAC) to discuss disposal field and birds. QLDC advises QAC in email before the phone call that they *“are actively exploring what we can do to alleviate the ponding at the site – but the situation is complex and options somewhat limited.”*

19 December 2024

ORC officer confirms that the discharge had been continuous for 34 days. While lab results show the discharge is treated, the officer notes that while there is no identified environmental risk to the Shotover or Kawarau Rivers, this continuous discharge affects the public amenity value of the Shotover Delta.

23 December 2024

The ecologist report to QLDC (external contractor & QLDC Staff), copying in QAC. Report just contains a count - no specific info about the disposal field.

2025

Jan 2025

13 January 2025

Mott MacDonald provide a report to the Environment Court with recommendations on how to resolve the problems with the disposal field. They note that the potential solutions are unlikely to resolve all ponding and will have limited success in resolving the problems due to the shallow groundwater, rapid changes in water levels (e.g., heavy rainfall events), and inherent flaws in the design of the disposal field.

20 January 2025

Enforcement Order set by the Environment Court require a monthly report with progress on remediating the disposal field, starting from this date.³²

22 January 2025

The Environment Court acknowledges the request by ORC for an Enforcement Order to require QLDC to provide regular reporting, remediate the disposal field, amend their Operations and Maintenance Manual, provide staff training, improve sampling and monitoring, improve operational practices, install a calamity pond, fill the ponding area on the Shotover Delta with aggregate, establish a plan in case of failures, and pay all costs associated with the Enforcement Order. The Enforcement Order states:³³

³² [Application for Enforcement Order RNV-2025-CHC](#)

³³ [Application for Enforcement Order RNV-2025-CHC](#)

“The respondent take daily samples of wastewater after UV treatment at the autosampler and provide daily sampling results to ORC immediately upon detecting an "event", which is any occurrence which results in treated effluent having levels of total suspended solids, biological oxygen demand, total nitrogen, ammoniacal-nitrogen and/or E Coli which exceed the 95th percentile limits specified in the relevant resource consent whether or not the 95th percentile condition is contravened when annual results are considered. Daily sample results will be provided to ORC for at least three weeks following any event.”

The Enforcement Order requires QLDC to:

1. Provide a monthly report to ORC detailing progress on remediating the disposal field.
2. Apply for necessary consents by 28 February 2025.
3. Fill ponding on the Shotover Delta with aggregate without delay.
4. Provide a monitoring and response plan for overtopping and flooding into the Shotover Delta by 28 February 2025 and implement the plan by 31 March 2025.
5. Immediately strengthen the bund around the field with engineering advice to prevent uncontrolled overflow.
6. Direct any overflows to buried channels by 31 March 2025.
7. Apply for resource consent for a long-term solution for the disposal field by 31 December 2025, complete the engineering design by 31 March 2026, and implement the solution by 31 December 2026.

22 January 2025

The ecologist report to QLDC states:

“On Sunday, the ponds were quiet with no work in progress. However, Shoveler flushed from the margins of the pond on my arrival, a large flock of about 150 mostly shoveler but some teal and mallards took flight, most moved onto the water to join others, most of those that took flight flew low over the ponds and resettled within a few minutes. A flock of about 20 made wider circles at varying heights around and over the ponds and appeared to circle across the eastern approach of threshold 05 at least twice before flying towards Lake Hayes and being lost from sight. Fortunately, no planes were present during this time although a total of 4 jets took off into the east wind from the eastern threshold over the half hour that these observations were made.

This observation highlights the risk of having high numbers of waterfowl present at this site. Most of the time, they are settled and quiet. It is common for birds roosting on the pond margins to flush onto the water, and as the flock builds, the counts require additional time to allow them to settle on the water or climb back on to the berms away from the road before counts can commence. It is less frequent for birds to take flight, but it does happen.”

23 January 2025

Media release from ORC:

Two abatement notices are in place and 10 infringements have been issued since the start of 2024. Five of these infringement notices have been issued this year (2025) relating to issues that happened on site towards the end of 2024.

All the (5) new notices that have been issued, relate to the alleged discharge of contaminants (namely treated wastewater) to land on the Shotover Delta in circumstances which may result in contaminant (or any other contaminant entering water; namely groundwater), the Shotover River and/or Kawarau River.³⁴

27 January 2025

Tony Avery sends a memo entitled “Shotover WWTP Fact Sheet” to all councillors³⁵. We were alerted to the presence of the memo and submitted a LGOIMA request for its contents. The first seven pages of the memo explains the history of the plant and the disposal field problems. It is not until the very end of page seven that a brief mention is made that it has been decided that a discharge to water is necessary.

“As a result of these factors and given the need for timely implementation and surety of outcomes, sole reliance on land application as an option for managing excess wastewater flow was not considered a viable option.

The recommended approach was therefore to pursue a full or partial return to a direct to water discharge, utilising the historical discharge channel. Such an approach would require a new, short term, discharge consent to be obtained.

Doing so would achieve an immediate improvement in the control and management of the treated water on the delta, and also enable the existing field to be dried out and maintenance more effectively undertaken. However, we are cognisant of Iwi concerns around this approach and are looking to gauge the ORC’s and Iwi reaction to such a step well before any consent application is lodged.”

NOTE: We have lots of questions about this memo.

- Why was this not brought to the attention of councillors more overtly? The accompanying email did not highlight a discharge to water being imminent. There was no summary at the beginning of the memo to highlight the one significant change which was a proposal to discharge to the river. The mention of discharge to water was

³⁴ [ORC lodges Enforcement Order claim with Environment Court](#)

³⁵ LGOIMA request for the memo sent to councillors by the CEO

not mentioned until page 7 of the attached document. Up until that point, the memo seems like an innocuous potted history of what has happened on the plant.

- Why was no workshop arranged to discuss this with councillors to allow them to ask questions and get clarity on the options that were considered and why this was the best approach? Under the Local Government Act, Councillors should be presented with options on a decision such as this.
- How were ORC and Iwi advised about this plan and what was their response? (our understanding is that Iwi were never informed that a discharge to the river was being considered and were unaware of this until the end of March.)
- Why was there no follow up with councillors on the ORC and Iwi response?
- Was it intentional to “hide” the information at the end of the memo and not highlight the change in discharge to councillors?
- The memo highlights that a “full or partial” discharge to the river was the recommended approach. Why was a partial discharge not considered?
- Any councillor who read this memo would rightfully anticipate that a recommendation was going to be brought to them to based on the contents of the memo. Why was this not done? Instead, councillors were told on March 20 2025 that the decision had been made and the full discharge would be in place for five years.

It is worth noting that the memo was sent, without any explanation in the accompanying email that there was a significant shift in thinking in how to resolve the problems, the title of the email was “Fact Sheet” without highlighting in either the title of the memo or in a summary at the beginning, that there was a significant change, and that information which was critical to councillors being informed was almost at the end of the document. While councillors should all have read the full document, it was titled “Fact Sheet” which in the first six pages just appears to be a summary of the historical issues with the disposal field. Discharging to river is such a significant change it should have been highlighted and followed up with a workshop to allow questions to be asked and councillors to be well informed. Councillors should have been able to discuss the options, including a partial vs. full discharge, and been able to make a decision on how long this would continue for. In using section 330 of the Resource Management Act, the CEO was able to make the decision to discharge and to determine how long that discharge would continue for without any councillor input.

Feb 2025

5 February 2025

Meeting between QLDC (QLDC Infrastructure Staff) and QAC to explore options for managing the disposal field. QAC advised “*Minutes were not taken at this meeting. It was a discussion.*”

QAC investigates netting - it is out of stock in NZ due to it being the height of cherry season. Stock can be procured from overseas but will be three months before it arrives and can be installed.

10 February 2025

Councillors invited to attend a site visit to the plant.

Mar 2025

11 March 2025

In a full council workshop, the minutes note that discussion included:³⁶

“Challenges with Shotover wastewater treatment project. Challenges/ enabling disposal system on QAC land. This option was explored previously, as well as in Wānaka. Issues with attracting birds into airspace.”

It is not clear how much discussion took place or what questions were asked as workshops were not recorded at this point.

11 March 2025

Phone call takes place between QLDC (Infrastructure staff) and QAC to discuss disposal field and birds.

13 March 2025

SORC meeting at QAC: Report states:

“Standing water is a favoured habitat for birds in our region, particularly larger waterfowl, which pose a significant hazard to aviation. Because the flooded dispersal field lies partially underneath the threshold of runway 23, the risk posed by bird activity has increased.

Management has met with the WWTP project lead to better understand what is happening with the dispersal field and to formally raise our concerns about the risk introduced by the water accumulating in the field.

Management believes the standing water in the dispersal field represents an unacceptable risk to aviation.

As a result, management is taking the following action.

³⁶ [QLDC Full Council Workshop Minutes 11 March 2025](#)

1. Immediately deploy resources to carry out wildlife control in the area around the dispersal field to keep the standing water clear of bird activity.

2. Initiated the design and procurement of a netting solution to cover the dispersal field and make the site unavailable to birds.”

18 March 2025

A LGOIMA request is sent to QLDC asking when QLDC requested Veolia to build the bund wall around the disposal field. QLDC responded on 19 March 2025 that Veolia were requested to build the wall in April 2024 to limit discharges outside the disposal field. Veolia contracted Beaver to do the work. The work was authorised by QLDC’s Property and Infrastructure General Manager.³⁷

19 March 2025

QAC meet with QLDC (a regular quarterly scheduled meeting) - QAC highlights concerns to the QLDC of ponding water on the disposal field attracting birdlife and the possible risk this has in bird strike rates.

20 March 2025

QLDC tells Councillors at a closed to the public workshop that bird strike risks and public health risks mean an emergency under s 330 of the Resource Management Act will be implemented within the next 3-7 days where they will discharge treated effluent (12,000 m³/day) directly to the Shotover River. They say they have explored alternatives and there are no other feasible options. No evidence is presented and Councillors have no opportunity for questions.

21 March 2025

QLDC invite journalists to the Shotover plant next Wednesday to be told about the emergency plans. Attendees must request an invitation and wear PPE for the standup.

22 March 2025

The ecologist reporting to QLDC notes “*On 22 March 2025 when travelling between monitoring stations, a large flock of mallards (about 100 birds) was observed flying over the delta willows at 9:05 a.m. The main flock was detected flying over the willows from the direction of the Disposal Field, it split into two sub-flocks, each with about 50 mallards. The flocks wheeled around the oxidation ponds before flying southwest towards the Queenstown*

³⁷ [LGOIMA request related to the building of the bund wall - LG25-0061](#)

Airport. The ZQN Emergency Services was notified; they observed one of the flocks flying east of the aerodrome transiting south across the Kawarau River.”

24 March 2025

The ecologist noted 6 paradise shell ducks flying near the flight path at the same time a plane was coming in to land. They shared the photograph with QAC. They note in their April report (part of the resource consent application) that:

“After consultation with QAC, I considered the situation described above, i.e. the design, development and management of the wastewater treatment plant has resulted in an increased risk to aircraft operations. This risk is heightened by the continuing effects of the planned decommissioning works of Ponds 1, 2 and 3 and the enclosed nature of the Disposal Field making the waterfowl easier to startle.

In light of these findings, and others, I recommended that given the high level of unsettled waterfowl activity and the displacement of waterfowl into the unanticipated open water habitat of the Disposal Field close to the Airport, that the Disposal Field be drained by percolation into the ground of the Disposal Field and the site be kept dry and free of weeds. It will otherwise attract and hold waterfowl displaced by the Pond decommissioning works.”

25 March 2025

QAC send a legal letter to QLDC demanding they take “urgent action” to remediate the problem with birds settling on the disposal field. They say that if this is not done they will take action, which would most likely be a netting solution.

26 March 2025

Media Standup and protest takes place.

27 March 2025

Explanation of the bird strike emergency from the media standup:

On Wednesday last week, Lewers, council chief executive Mike Theelen, Queenstown Airport Corporation chief executive Glen Sowry, and the airport board’s chair Simon Flood, attended their regular quarterly meeting.

Lewers tells Newsroom the potential for bird-strike by water fowl on the disposal field’s ponds was a late addition to the agenda. (The same issue was raised in court-ordered mediation, to which the corporation was a party, he confirmed.)

Sowry “made it very clear” at the “open and frank discussion” there had been “an escalation” in the likelihood of an inadvertent bird-strike, Lewers says. The matter had been raised with the corporation’s board, which deemed the risk “not acceptable”, the mayor says.

Lewers adds: “It’s a very low likelihood but a very high consequence event if it were to occur.”

After the Wednesday afternoon meeting, Theelen sought advice, which was that emergency powers could be used. Lewers was informed before Thursday morning’s confidential briefing for councillors.³⁸

30 March 2025

QLCA submits a request to QLDC asking a number of questions for clarity on bird netting, public safety, contingency plans, and test result transparency. See LG25-0094 in the documents list below for the full response from QLDC.

31 March 2025

QLDC begins discharging directly to the Shotover River.

Apr 2025

29 April 2025

Presentation to QLDC on short list options for a long-term solution to the WWTP³⁹.

May 2025

QLCA notes that the aerators on the oxidation ponds are not operating.

1 May 2025

Resource consent application from QLDC to ORC to discharge to the Shotover River.⁴⁰

1 May 2025

A LGOIMA request is sent to QLDC asking for “A comprehensive report outlining the findings and any environmental assessments conducted.” QLDC respond on 28 May 2025, refusing to

³⁸ [Wastewater bird-strike risk unacceptable - Mayor Told: David Williams, Newsroom](#)

³⁹ [Presentation to on disposal options for the WWTP](#) and a [summary of short-list options](#)

⁴⁰ [Resource consent application to discharge to the Shotover River](#)

supply the information on the basis “that the document alleged to contain the information requested does not exist or, despite reasonable efforts to locate it, cannot be found.”⁴¹

5 May 2025

QLCA requests QLDC to send all emails and meeting minutes between QLDC and QAC related to bird strike concerns. QLDC responds (LG25-0122) attaching seven emails. They note that “With respect to the meetings, no formal minutes or action points were recorded.” The emails provided only show the setting up of meetings between QLDC and QAC.⁴²

NOTE: Section 17 of the Public Records Act requires:

“Every public office and local authority must create and maintain full and accurate records of its affairs, in accordance with normal, prudent business practice, including the records of any matter that is contracted out to an independent contractor.”⁴³

We are aware that there is a quarterly meeting between QLDC and QAC Chief Executives. On at least one occasion, the bird strike concerns were added to the agenda of that quarterly meeting (in March 2025 we believe). We also believe that this meeting is minuted from conversations with QAC staff. However, QLDC did not provide minutes of any of these meetings.

Jun 2025

19 June 2025

ORC send two letters to QLDC requesting further information in relation to their resource application.⁴⁴

27 June 2025

QLDC send a letter to ORC requesting the resource consent application be referred to the Environment Court.⁴⁵

⁴¹ [Request for information on environmental assessments - LG25-0119](#)

⁴² [Request for correspondence related to bird strike risk between QLDC and QAC - LG25-122](#)

⁴³ [s. 17 Public Records Act 2005](#)

⁴⁴ Further information requested by ORC in relation to consent application [RM.25.206](#) and [RM.25.177](#)

⁴⁵ [Request for referral to the Environment Court](#)

Jul 2025

7 July 2025

QLDC test results show total suspended solids level at the point where the treated effluent leaves the UV plant to exceed consent levels. The level should be no higher than 30 cfu/100ml, but the level is 49.5.⁴⁶

10 July 2025

Response from QLDC to ORC stating they will respond to the ORC questions (requested on 19 June 2025) by 11 August 2025.⁴⁷

11 July 2025

ORC grants QLDC's request to refer the resource consent application to the Environment Court.⁴⁸

14 July 2025

QLDC test results show total suspended solids level at the point where the treated effluent leaves the UV plant to exceed consent levels. The level should be no higher than 30 cfu/100ml, but the level is 33.1.⁴⁹

24 July 2025

QLDC test results show *E. coli* levels at the point where the treated effluent leaves the UV plant to exceed consent levels. The level should be no higher than 260 cfu/100ml, but the level is 900.⁵⁰

NOTE: The Enforcement Order issued during the Environment Court findings requires QLDC to provide daily samples to ORC for at least three weeks at any time the consent levels are breached. We are not aware of whether this was done over July and August 2025 when the consent levels were breached multiple times.⁵¹

⁴⁶ [Shotover Wastewater Treatment Plant Lab Results 7 July 2025](#)

⁴⁷ [Response from QLDC to ORC related to ORC questions on resource application](#)

⁴⁸ [ORC grants QLDC right to refer the matter to the Environment Court](#)

⁴⁹ [Shotover Wastewater Treatment Plant Lab Results 14 July 2025](#)

⁵⁰ [QLDC River Monitoring Data July 2025](#)

⁵¹ [Application for Enforcement Order RNV-2025-CHC](#)

28 July 2025

ORC test results show *E. coli* levels at the point where the treated effluent enters the Shotover River to exceed consent levels. The level should be no higher than 260 cfu/100ml, but the level is 340.⁵²

Aug 2025

Anticipated date by QLDC for a decision to be made on preferred long term solution for wastewater treatment.

6 August 2025

QLDC test results show *E. coli* levels at the point where the treated effluent leaves the UV plant to exceed consent levels. The level should be no higher than 260 cfu/100ml, but the level is 310.⁵³

7 August 2025

QLDC tests show elevated levels where the treated effluent leaves the UV plant of:⁵⁴

- Biochemical oxygen demand 73.8 mg/L (consent 30 mg/L)
- *E. coli* 2700 cfu/100mL (consent 260 cfu/100mL)
- Total nitrogen 26.2 mg/L (consent 23 mg/L)
- Total suspended solids 52.7 mg/L (consent 30 mg/L)

NOTE: We cannot find any evidence that QLDC notified the public for this test or the one taken the previous day that *E. coli* levels were elevated. We asked QLDC on 30 March 2025 how they would advise the public about the discharge. Their response was: “*Council publishes sampling test results which will appropriately inform the public*”.⁵⁵ In the media standup in March 2025, QLDC stated: “*if we have an issue with the treatment plant, we'll be very transparent with the community, but we're working as hard as possible to ensure that we've got adequate contingency plans in place to ensure that does not occur.*”

13 August 2025

Landpro (acting on behalf of QLDC) respond to questions raised by ORC in the resource consent application. Landpro engage Boffa Miskell to carry out a freshwater ecology report as

⁵² [ORC Lab test Results 28 July 2025](#)

⁵³ [Landcorp report to ORC, p. 36](#)

⁵⁴ [Shotover Wastewater Treatment Plant Lab Results 7 August 2025](#)

⁵⁵ [LGOIMA request from QLCA to QLDC LG25-0095](#)

part of the resource consent application to discharge to the river. In the opening of their report, Boffa Miskell state:

“We have relied on reports and information provided by others; we have not collected any freshwater ecology information ourselves or visited the site.”⁵⁶

NOTE: This is significant because it means we do not have an up to date ecology report that can inform us whether there are any current impacts on the river ecosystem, whether there is a risk of future long-term impacts (bearing in mind it is intended for this discharge to continue for at least five years), and whether there are any strategies for minimising those impacts.

Key points in the report:

- Some nutrient levels in the treated effluent may be elevated and contribute to periphyton growth and ecosystem health changes.
- A detailed microbial risk study (QMRA) has not been done as there is limited use of the Shotover River for bathing so it wasn't considered necessary to assess public health risks.

27 August 2025

Second MLE processor installed and begins a trial period. If the trial period is successful, the MLE plant will be fully operational.⁵⁷

Sep 2025

Mayor Glyn Lewers, in a Mayoral election debate, claims that one of the reasons for the plant to fail was unanticipated growth. He says that the growth figures used were from the global financial crisis period (2007-2009) even though the disposal field was being designed and built in 2017-2018. When asked about the problems being related to problems within the main part of the plant allowing solids into the disposal field, he denied this and said no, the solids came from the oxidation ponds. This is not supported by the affidavits or reports presented to the Environment Court.

Oct 2025

Anticipated date by QLDC for the second MLE processor to come online and pond 1 will begin being decommissioned so it can be used to better manage stormwater and be available as a calamity basin in case of plant failure.

⁵⁶ [Appendix C - Freshwater Ecology Report prepared by Boffa Miskell](#)

⁵⁷ Email from QLDC to QLCA

Dec 2025

31 December 2025

Deadline set by the Environment Court to complete the installation of a second MLE plant and a calamity pond.⁵⁸

NOTE: The MLE installation is ahead of schedule.

May 2026

Estimated date by QLDC for resource consent to be submitted for a new long-term option.

Dec 2030

Anticipated date by QLDC that a new treatment plant long-term solution will be available and discharge to the Shotover River will cease.

Costs

1. Costs related to attending the Environment Court hearing on the Enforcement Order from ORC in December 2024 identifying:
 - a. Penalties
 - b. legal costs for QLDC representation
 - c. ORC costs QLDC had to pay
 - d. costs of reports that QLDC required for the hearing
 - e. consultant costs related to the hearing
 - f. any additional costs related to the hearing

The costs incurred by QLDC in relation to attending the Environment Court hearing on the Enforcement Order issued by the Otago Regional Council (ORC) in December 2024 total \$596,519.94.

2. Total costs for repairs and mitigation/remediation activities for the disposal field between January 2021 and March 2025. Total costs for any reports, consultants, and contractors required to repair or remediate the disposal field between January 2021 and March 2025.

The total costs incurred for repairs, mitigation, and remediation activities related to the disposal field between January 2021 and March 2025 are \$1,823,677.82. These

⁵⁸ [Application for Enforcement Order RNV-2025-CHC](#)

costs also include associated expenses for reports, consultants, and contractors, as it has not been practicable to separate these items.

3. Total costs of fines/penalties related to ORC infringement and abatement orders.

The total costs incurred in relation to fines and penalties arising from ORC infringement and abatement orders are \$5,739.13.

Overall costs related to the failure of the disposal field, not including QLDC staff costs, have been \$2.4 million. This equates to about 1% on the rates for all QLDC ratepayers.
