

Shotover WWTP Landscape Architectural Peer Review

Date: 14 August 2026
Project name: Shotover WWTP
Attention: Hannah Goslin; Hannah.Goslin@orc.govt.nz
Company: Jacobs Ltd
Prepared by: Nigel Parker, Principal, Registered Landscape Architect

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Dear Hannah,

1.0 Introduction

As requested, I have undertaken, on behalf of Otago Regional Council (Council), a peer review of the submitted Landscape and Natural Character Assessment (LNCA) 27th May, 2026 prepared by Liz Gavin, Senior Principal / Landscape Planner of Boffa Miskell.

This preliminary review has been a desktop review only. As part of the review, I have read the following documents:

- Appendix D1 Landscape and Natural Character Assessment
- Appendix D2 LNCA Graphic Supplement
- Appendix O – Shotover Long Term Draft Conditions

To obtain a general understanding of the project I have also looked over the Air Quality, Water Quality submissions and the Civil Engineering Drawings for the project.

I have not visited the site and the findings expressed in this report will necessarily remain preliminary until a site visit is undertaken. I understand that I will be able to conduct a site visit later in the year to enable finalization of these preliminary findings.

It is noted that for this review to be in line with the *NZILA Te Tangi a te Manu, Landscape Guidelines, July 2022* a site visit will need to be undertaken.

2.0 Description of Application

I understand the application is generally for the installation of a tertiary treatment facility and wastewater disposal pipe that runs along the western side of the Shotover River delta. The tertiary treatment plant will sit within the confines of the existing Wastewater Treatment Ponds. The wastewater disposal pipe ends and discharges into the Kawarau River adjacent to the confluence of the Kawarau and Shotover Rivers. Discharged wastewater will be treated.

I understand that the majority of the pipe's length will be buried beneath the existing Twin Rivers Trail. Once the pipe nears the margins of the Kawarau River it will be installed above existing ground level and placed within an earth mound. The proposed pipe and mound will run parallel to an existing river training bund for approximately 300m. The proposed mound covering the pipe will typically be approximately 1.2m high but will vary in height from 700mm to 3.0m along its length. The area of maximum height is restricted to a localised area.

Near the end of the pipe native planting and nurse crop exotic species will be placed to conceal the pipe and discharge point. River rocks and stones will be carefully placed around and over the discharge point to cover the final 10m of the pipe where it will be submerged beneath the waters of the Kawarau River.

I understand that the treated wastewater will flow through the pipe via gravity and as such there will be no noise generated by pumps or the like from the proposal near the discharge point. I also understand that no odour is expected from the proposal at the discharge point.

I understand that discharged wastewater will be completely mixed in the Kawarau River within 100m upstream of the discharge point and 800m downstream of the discharge point. I understand that within this mixing zone the river water will be safe for recreational use. Although as noted below I seek clarification on this point.

I understand that the proposal is expected to be permanent.

3.0 Landscape Architectural Peer Review

3.1 Technical Review

Having reviewed the submitted documents it is my opinion that the LNCA has provided an assessment of the proposed development in line with the *NZILA Te Tangi a Te Manu, The New Zealand Landscape Assessment Guidelines (July, 2022)*.

3.2 Evaluation of Identified Existing Landscape Values

I have considered the landscape and natural character values of the site and relevant surrounding area identified by the assessment and consider those outlined in the LNCA to be an objective and generally thorough description.

I note that under the Queenstown Lakes District Council Operative District Plan, Appendix 8A – Map 1, dated September 2007, the site appears to be within ONL (WB) – Wakatipu Basin. It is my understanding that these maps are still operative.

If this is the case, then the LNCA has omitted to mention this ONL.

The landscape and natural character values already identified within the LNCA are likely to correlate with the values of ONL (WB), however, a direct identification of the ONL values and assessment against those has not been explicitly included. As such, I have included a request for further clarification below.

3.3 Evaluation of Visual Catchment

I have considered the visual catchment identified by the LNCA and to the extent possible via a desktop study preliminarily find it an objective survey, representative of the potential viewing audiences of the proposal.

3.4 Evaluation of Identified Degree of Natural Character and Landscape Effects

I have considered the assessed degrees of landscape and natural character effects in the LNCA.

My preliminary findings are as follows:

Natural Character Effects

I am in agreement with the findings and assessed degree of effect found within the report.

I agree with the overall Natural Character effect assessed as well as the constituent degrees of effect assessed for the various scales that contributed to the overall effect.

I note that the LNCA uses the term "Moderate Low" rather than the recognised "Low-Moderate" as an assessed degree of effect. Clause 6.21, Page 141 of *NZILA Te Tangi a te Manu, Landscape Assessment Guidelines* recommends the use of the universal 7-point scale to assess Natural Character effects. This is a

minor point and is assumed not to materially affect the conclusions of the report. However, does require the assumption that the two terms are inter-changeable.

It is recommended that for future clarity the use of the term “Moderate Low” is phased out.

Landscape Effects

I agree with the assessed degrees of landscape effect identified by the applicant’s landscape architect for physical and perceptual effect.

I am in agreement, that during construction the degree of landscape effect will be adverse **Moderate** at the local site level and **Low** for the surrounding landscape. I also agree that once the project construction has concluded that the degree of adverse effect for the landscape will be **Low** at the local level and **Very Low** at the wider level.

In forming this opinion, I have balanced the following considerations:

- The short duration and limited extent of identified construction works;
- The removal of established mature exotic trees from the site;
- The nature of the proposal including that the majority of the pipe will be buried and that where above ground the pipe will be placed in an earth mound adjacent to the existing river training bund;
- The size of the earth mound including its length and height;
- The proposed planting plan;
- The proposed rock works to disguise the pipe near the discharge point;
- The lack of adverse acoustic and odour effect;
- The water quality, and the continued ability for recreational activities to occur throughout the reach area of the Kwarau River.

In agreeing with these conclusions, I have assumed that water quality will not worsen from the existing condition. I have assumed that recreational activities will continue to remain possible throughout the “Reach” scale of the Kwarau and Shotover Rivers to the same extent as was the case prior to the emergency discharge, including within the mixing zone. I seek clarification that this is the case and request this later.

Recreational activities are identified as needing to be protected within the Water Conservation (Kwarau) Order 1997 (WCO). Were it to be the case that kayaking and other recreational activities along the river in the mixing section were to be curtailed or constrained then this would increase adverse effects to landscape values. It would also affect the extent of compliance with the WCO from a landscape perspective.

Associative Effects

It is accepted that from a mana whenua perspective the discharge of treated wastewater into the river is tapu and would likely result in **High** to potentially **Very High** cultural associative effects.

Associative landscape effects and landscape assessment generally are to consider both Te Ao Maori and western (Te Ao Pakeha) viewpoints – Clause 3.01, p55 NZILA Te Tangi a te Manu, Landscape Assessment Guidelines.

If the quality of treated water is such that ingestion of the treated water during recreational activity within the mixing zone results in no adverse effects then from a western perspective associative landscape effects to the river would be minimal.

Assuming it is the case that water quality could be ingested without adverse effect, and recreational activity can continue within the mixing zone, then I would assess, from a western view, that associative landscape effects are **Very Low**.

Taking together and synthesising both a western and, what I understand to be the Te Ao Maori viewpoint I would assess associative landscape effects to be **Low - Moderate**.

Given that Mana whenua Associative Values are identified as a subset of Section 6.4.2, (6.4.2.1) I understand that the LNCA has concluded that when taking together these two world viewpoints the identified **High** to potentially **Very High** cultural associative effects have been reduced to **Low**.

I don't agree with this assessment, rather I would give more weight to the Te Ao Maori viewpoint.

Visual Effects

I have reviewed the assessed degrees of visual effect from the identified viewpoints that have contributed to the assigned landscape effects. To the extent, possible from a desktop review I am in preliminary agreement with the LNCA.

Cumulative Landscape Effects

I have reviewed the assessed degree of cumulative landscape effect. To the extent, possible from a desktop review I am in preliminary agreement with the LNCA.

4.0 Request for Additional Information

Could the following be clarified:

- i) Is the site within Outstanding Natural Landscape (WB) as identified on Queenstown Lakes District Council Operative District Plan, Appendix 8A – Map 1, dated September 2007.

If so, please provide a summary of the ONL's landscape values as they relate to the site and assessment of effects specifically against the ONL's values.
- ii) Please confirm if recreational activities can continue within the mixing zone and if any constraints to recreational activities will be engendered by the water quality post the installation of the project?

If recreational activity is constrained, please clarify how and provide a revised assessment of landscape effects.

5.0 Conditions of Consent

It is recommended that all Recommendations of the LNCA found on pages 49 – 50 are included as conditions of consent and as modified below:

- i) Sediment entering the waterway during construction must be managed through an approved construction sediment control plan.
- ii) The type of rock and placement both influence the aesthetic impacts and potential habitat value of the area of modified flow around the outfall structure. This shall be designed and implemented using locally sourced rock of geological similarity to the beach and river stone located at the Delta. Any anchoring system, further developed during detailed design, shall be designed in collaboration with a Registered Landscape Architect to ensure that the design does not detract from visual or natural character values present at the Site.

- iii) Topsoil sourced from the site shall be stockpiled and repurposed (Topsoil in this instance relates to river alluvium rather than organic topsoil.) Disturbed materials shall be returned in situ as well as any material imported to create the substrate that plants are to be planted into at the Outfall Site. This shall ensure visual effects are mitigated. Some imported topsoil can be located at the base of planting pits to provide additional boost to establish plants.
- iv) The Earthworks Contractor shall receive clear instructions to reduce/minimise damages to existing trees, especially those trees adjacent to the stopbank/ training line that have been planted for river engineering purposes. Removal of trees shall be minimised to those required for trench line and conveyance pipe implementation.
- v) Earthworks associated with the conveyance pipeline shall be re-grassed with exotic grass species already present in the area suitable to surviving in the permeable gravelly substrates of the Site that are prone to drought conditions, for example brown top; to enable disturbed soil and earthworks to integrate into the site.
- vi) Plants shall be sourced locally and hardened off prior to planting.
- vii) Detailed Landscape Plans prepared by a Registered Landscape Architect and in accordance with Figure 7 of the LNCA shall be submitted for written approval by ORC, 2 months prior to construction. These plans shall include soft and hard landscaping details and shall nominate quantities of trees and plants.
- viii) A Landscape Management plan shall be submitted for written approval by ORC, 2 months prior to construction detailing maintenance for 24 months post installation and include general horticultural tasks, pest control, replacement and 'Out of Sequence' maintenance that may be required after flood events.

6.0 Conclusion

It is my opinion that the LNCA has provided an assessment of the proposed development in line with the *NZILA Te Tangi a Te Manu, Landscape Assessment Guidelines (July, 2022)*.

I provisionally agree with the assessed degrees of landscape effect identified by the LNCA for physical, perceptual and visual effect, noting the clarifications and qualifications mentioned above in Section 4.

I provisionally agree, that during construction the degree of landscape effect will be adverse **Moderate** at the local site level and **Low** for the surrounding landscape. I also agree that once the project construction has concluded that the degree of adverse effect for the landscape will be **Low** at the local level and **Very Low** at the wider level.

I have reviewed the assessed degrees of visual effect from the identified viewpoints that have contributed to the assigned landscape effects. I consider the extent of visual catchment an objective representation of possible views and agree with the assessed degree of effect.

I don't agree with this assessment's findings with regard associative landscape effects. Given that the Te Ao Maori cultural viewpoint is that there would be **High** to potentially **Very High** cultural effect this does not appear to be adequately weighted within the **Low** associative degree of effect assessed within section 6.4.2.

I would give more weight to the Te Ao Maori viewpoint and assess associative landscape effects to be **Low - Moderate**.

Following receipt of the clarifications sought in Section 4 and a site visit I will be able to finalise my opinions.

Author

A handwritten signature in black ink, appearing to read 'Nigel Parker'.

Nigel Parker, BLA

Principal – NZILA Registered Landscape Architect

