

Item 2: Rockabilly Gully Erosion Remediation Project: Progress Update

SESSION TYPE: Briefing

PURPOSE/DESIRED OUTCOME:

The purpose of this briefing is to provide a progress update on the Rockabilly Gully Erosion Remediation Project.

DATE/START TIME:

Wednesday, 4 March 2026 at 11.05am

TIME BREAKDOWN:

Presentation: 15 mins

Questions or Debate/Discussion: 30 mins

PRESENTERS:

Alison Howie - Project Manager

Christian Wingate - Engineering Manager

Prepared by:



Name: Alison Howie

Title: Project Manger

18 February 2026

Reviewed and Authorised by:



Name: Tony Avery

Title: General Manager of Property &
Infrastructure

19 February 2026

ATTACHMENTS:

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Rockabilly Gully Erosion Remediation Project - Progress update

WUCCB 04 March 2026

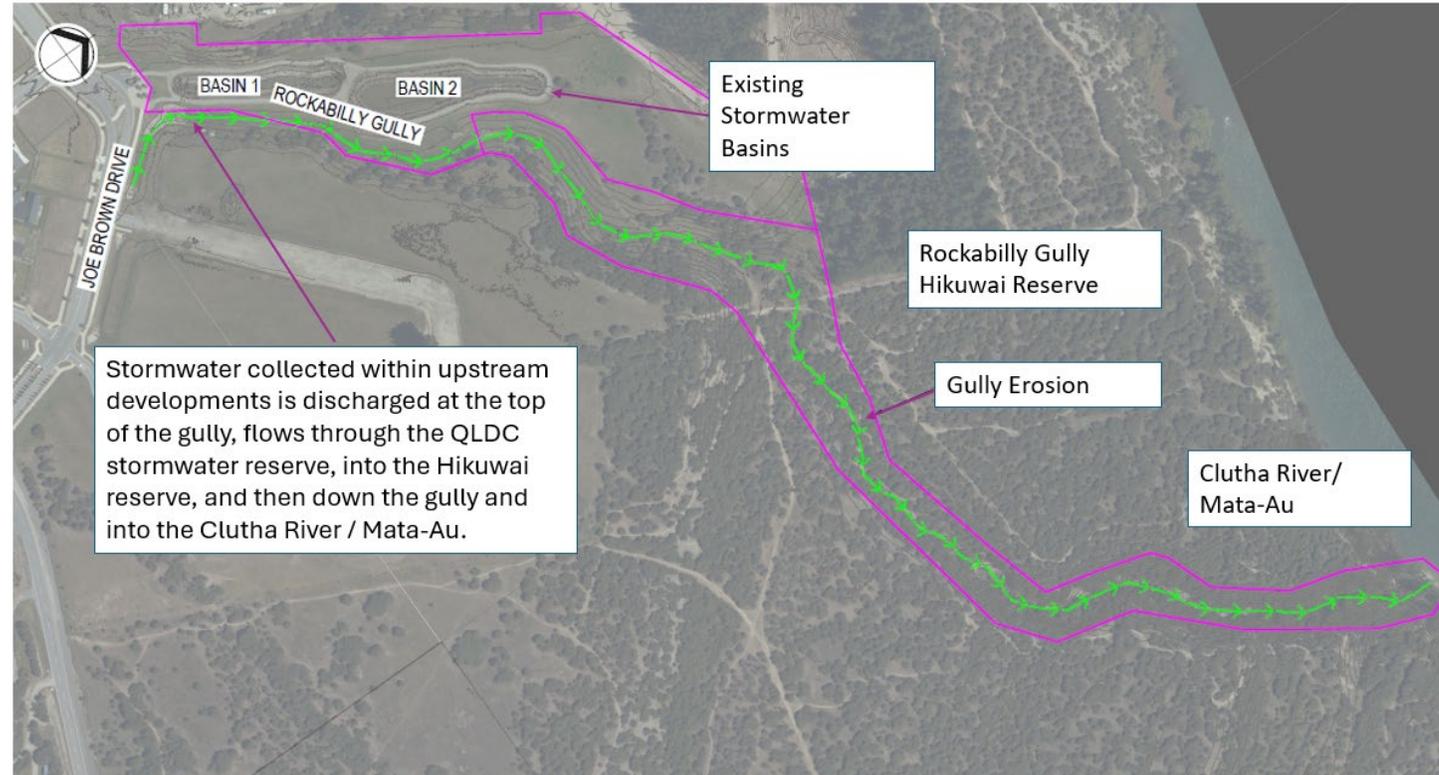
Alison Howie & Christian Wingate

Project Manager & Engineering Manager

Project Purpose

Purpose of the Project

To deliver a long-term stormwater management solution that mitigates erosion in Rockabilly Gully, improves how stormwater enters and flows through the Hikuwai Reserve, and into the Clutha River/ Mata-Au, and ensuring compliance with regional regulatory requirements.

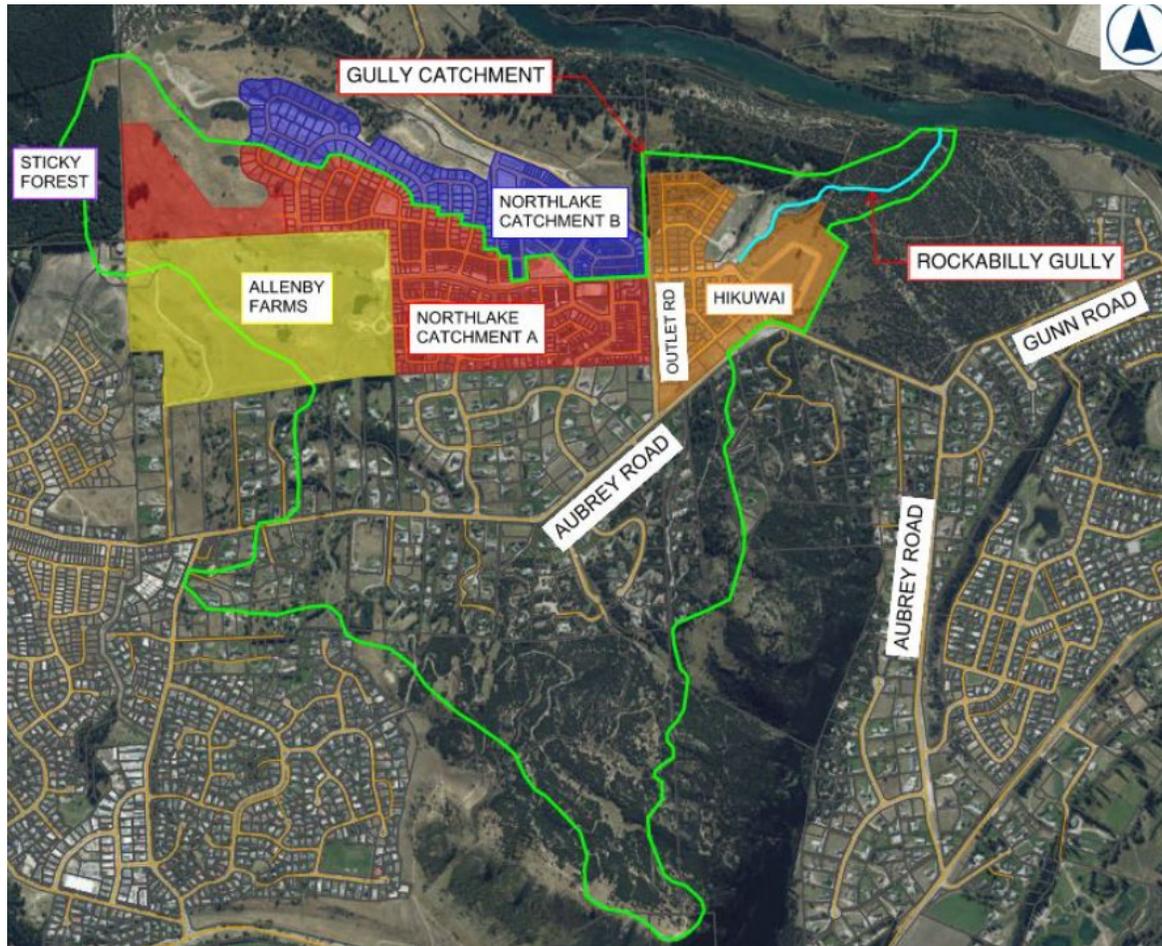


A key component of this work includes the modification of the Hikuwai stormwater ponds and redirection of Northlake (upstream) stormwater flows to reduce the impact of urban runoff on this highly valued natural environment.

Project Background

- **Rockabilly Gully** is a natural gully and ephemeral waterway located within the Hikuwai Reserve, between Wānaka and Albert Town.
- Historically, the surrounding catchment was predominantly rural, with limited impervious area contributing to stormwater runoff. In the late 1990s and early 2000s, rural residential development began on both sides of Aubrey Road. **Since 2016, development has increased significantly.**
- With more roofs and paved areas in the developed catchment, **more stormwater runs off during rainfall than in the natural catchment before development**, leading to more flow in the gully. This is particularly so in smaller rainfall events that happen several times each year.
- The increased flows from these smaller, more frequent rainfall events are a big driver of progressive erosion in the gully. Larger rainfall events also contribute to erosion, but these events occur infrequently.
- In line with historic design guidelines, the existing stormwater network was designed to buffer flows in larger rain events i.e., 10-year ARI and greater. **Currently, flows from the Northlake stormwater basins drain direct to the gully.**
- In October 2021, the Otago Regional Council (ORC) issued an abatement notice requiring Council address the erosion in the gully and sediment entering the Clutha River / Mata-Au.

Wider Stormwater Catchment



- The total Rockabilly Gully catchment is 290 hectares, which includes the 98 ha Northlake (Catchment A) and Allenby Farms developments and the 18 ha Hikuwai development.
- In smaller, more frequent events, the runoff into Rockabilly Gully is dominated by the runoff from the Northlake basins which drain directly to the gully, rather than the remainder of the catchment.
- In the larger events, the contribution from the remainder of the catchment (i.e. lower density residential and rural areas) is larger than the contribution from the Northlake and Hikuwai developments.
- The existing Northlake and Hikuwai Basins were designed to provide storage to buffer flows in large events so that the post-development peak flows are no more than pre-development. This is referred to as flood attenuation storage.
- The project will not improve the flood attenuation in the larger storm events.

Preferred Solution

The project comprises two key areas of work:

1. Stormwater Basin Modifications:

Upgrades to reduce the flows in the gully in the smaller, more frequent rain events.

- Divert those smaller, more frequent flows from the Northlake development into the Hikuwai basin.
- Significantly increase the storage in the Hikuwai basins (to more than three times the storage of the existing basin).
- Change the design of the outlet to the gully to change the way the basins operate; to hold back stormwater in more frequent events and release it slowly to the gully.

2. Gully Erosion Remediation Works:

There is existing erosion in Rockabilly Gully which is progressively getting worse. While the basin works will improve the flow regime in the gully compared to the current situation, the works will not restore the natural flow patterns. Additional mitigation measures, including targeted rock armouring and localised channel stabilisation, are recommended to limit further erosion within the gully.

Scope – New Stormwater Basin



Scope – Gully Remediation

The works in the gully are separated into five areas:

1. Upper Gully (QLDC Reserve)

- Repair erosion and reestablish grass cover below the basins.



2. Upper Gully (DOC Land)

- Shape channel and add rounded gravels/cobbles for a consistent bed.

Scope – Gully Remediation cont.

3. Main Drop / Scour Basin (DOC Land)

- The main drop is an area of major damage within the reserve that needs repairing and made more robust to limit further erosion in this area.
- Shaping and rock armour lining this area with quarried rock designed to be stable in large events i.e. approx. 20 -50 year ARI event.
- Install energy dissipation basin and downstream rock-lined channel.
- Minimise earthworks and vegetation removal; allow for natural revegetation and planting.



Scope – Gully Remediation cont.

4. Lower Gully (DOC Land)

- Supplement natural bed with imported gravels and cobbles.
- Use angular rock for grade control in constrained areas.
- Install toe protection to prevent erosion and slope failure.
- Trim overhanging material; limit vegetation removal and earthworks.



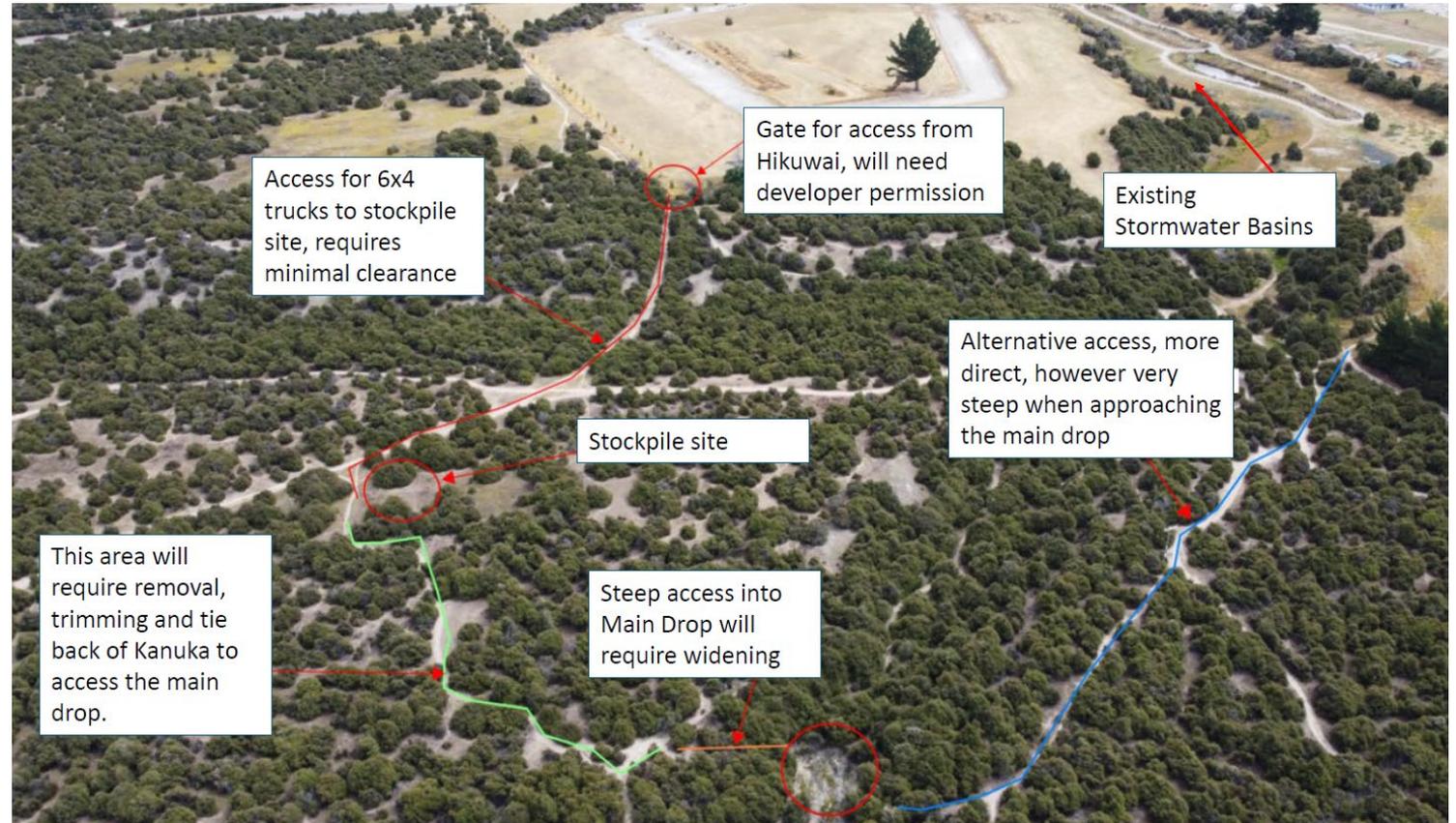
5. Outlet Track Crossing (DOC Land)

- Install angular rock at crossing for grade control.



Constructability Report

- Steep valley terrain and dense tree cover significantly constrain access for undertaking remediation works.
- To address these challenges, a constructability report has been commissioned to inform project programme, cost, access arrangements, and the suite of technical assessments required for consenting, including Environmental Management Plans, Ecological Assessments, and Landscape Plans.



Project Progress Summary



Northlake Attenuation Ponds

Restrictor plates have been installed on the outlet structures to retain more flow during smaller, high-frequency rainfall events.



Technical Options Report

Options Identification and Assessment is complete.

Key issues and a long list of options were developed and refined through a series of workshops to identify the preferred option for each area.



Concept Design

Draft Concept Design is complete.

Overland Flow Path and Floodplain mapping updates are finished, and hydraulic modelling for the extended stormwater basin is underway.



Completed Technical Work

Geotechnical investigations, Environmental Management Plan (Basin), and the Constructability Report are complete.



Ongoing Work

Topographical survey, Landscape Plan, and Ecological Assessment are currently in progress.

Resource Consents & Approvals

The following consents and approvals are required for the project:

- **Resource Consent - QLDC**
For modifications to the existing stormwater basins located within QLDC reserve land.
- **Resource Consent - QLDC and ORC**
For erosion mitigation works within the gully, including installation of rock lining and armouring.
- **DOC Concession**
To carry out erosion mitigation works within the gully within DOC land, supported by an Ecological Assessment and Lizard Management Plan.

Next Steps

- Lodge Earthworks Consent for the basin works (late Feb 2026).
- Hold pre-application meetings with ORC and DOC to seek early feedback on the Concept Design and confirm requirements for Detailed Design.
- Use this feedback to refine the design, confirm technical reporting needs, and finalise the consent application package.

Project Implementation

The project will be delivered as **two separable portions**.

1. **Basin modifications:** Construction of the new stormwater basin is anticipated to commence June 2026.
2. **Gully remediation:** this element of the project requires a more complex consenting pathway including Landscape and Ecological Assessments. Physical works are anticipated to commence late 2026/early 2027.

Benefits of two stage approach:

- Enables early commencement of priority works while progressing with the consents process and supporting technical reports required for the gully remediation.
- Reduces erosion risk.
- Maintains project momentum.

Questions