WAIORA MANUHEREKIA

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Hills Creek Middle Wetland

Site Details

- **Landowner:** Rowena McDiarmid
- **Primary contact:** Rowena McDiarmid.
- **Location**
  - Coordinates: 44°57'50.5"S 169°54'19.6"E
  - Ecological District: Maniototo
  - Ecological Region: Central Otago
- **Wetland dimensions:** The reach included in this wetland site is 780 m long and 375 m wide at its widest point.

Site Map

**existing fence lines are indicative only*

Current wetland condition photos

Photos taken November 21st 2024.

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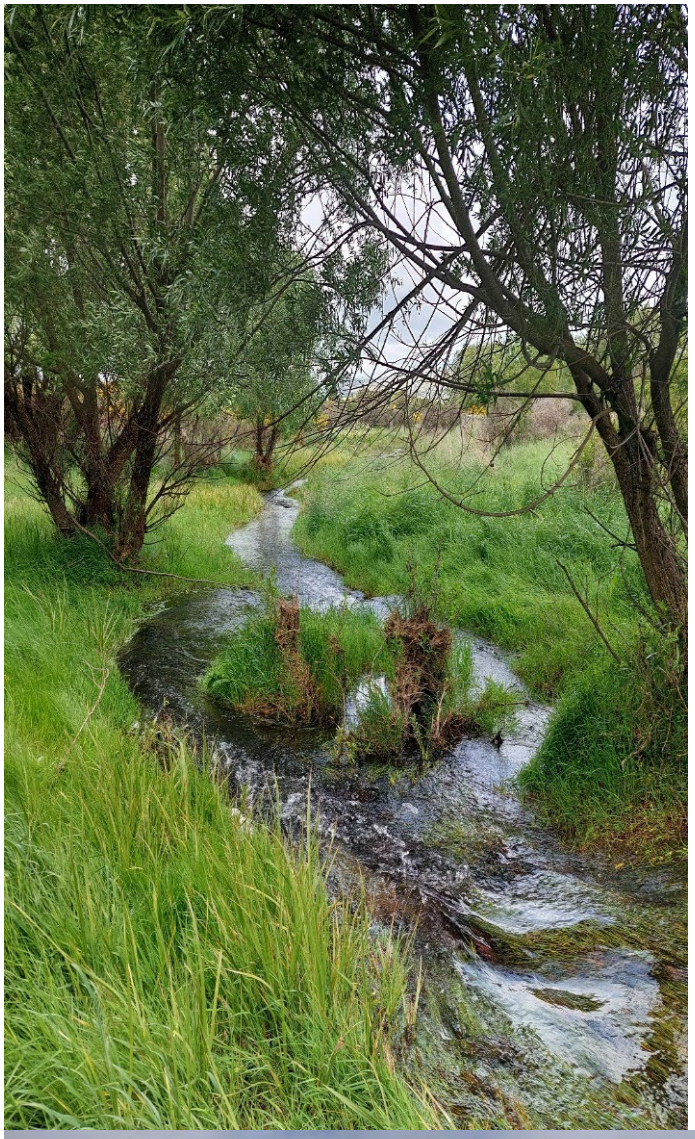

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Site Description

General

Primary hydrosystem: Palustrine
Secondary hydrosystem: Riverine
Primary wetland class: Marsh
Secondary wetland class: swamp
Primary wetland form: flat
Secondary wetland form: floodplain
Primary structural class: grassland
Secondary structural class: sedgeland

Current Vegetation

Vegetation within the wetland is dominated by exotic wetland grasses, including blue sweet grass and creeping bent, exotic herbs are also present including lotus and stitchwort. Some indigenous species are present including sharp spike sedge and rautahi. Pukio is common along the edges of flowing water and water cress is occasional in places. Terrestrial vegetation is dominated by pasture grasses with gorse and broom dominant on the upper banks. Matagouri is also present in these areas and scattered elderberry trees are present.
Crack willow was present in the interior of the wetland, however, at the time of the site visit these had been removed.

Special Features

This site is connected to the 'Hills Creek Spring Wetland' site upstream. Downstream is the 'Hills Creek South Wetland' which is also being restored.

Nearby Natural Areas

The catchment originates from Mt Ida in the Hawkdun Ranges with the Pool Burn gorge located further downstream. These ranges and gorges support habitat for many indigenous plant species that have largely disappeared from the lowland areas.
The main stem of Hills Creek provides habitat for Central Otago roundhead Galaxias (*Galaxias anomalus*), brown trout and various native plant species. The spring channels support a variety of freshwater dependant plants, including submerge macrophytes such as *Potamogeton*.

Wildlife

The dynamic gravel beds and perennial flow of Hills Creek supports nesting habitat for a variety of birds, including Pied Oystercatchers (*Haematopus finschi*), Pied Stilts (*Himantopus leucocephalus*), Banded Dotterels (*Charadrius bicinctus*) and Black-fronted terns (*Chlidonias albostriatus*). The stream supports important habitat for native fish species, particularly the Central Otago roundhead galaxias (*Galaxias anomalus*), kōaro (*Galaxias brevipinnis*), long-fin eel (*Anguilla dieffenbachii*) and Upland bully (*Gobiomorphus breviceps*). The waterways also provided habitat for a productive brown trout sports fishery.

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Site History

Before the land was developed for agriculture, it is likely that the terrestrial area would have been Cool Forest and scrub (CLF13; Otago Regional Council Otago Ecosystems and Habitat Mapping). This ecosystem could have included Matai and broadleaf species.

Description of water flow and drainage

Hills Creek originates in the Hawkdun ranges and is fed by tributaries on the Idaburn Hills and surrounding plains.

Current condition

This wetland area is hydrologically functioning well and contains some native values. However, exotic species make up the greater proportion of vegetation cover.

Enhancement Proposal

Vision

Restored wetland ecosystem and surrounding marshes which supports diverse native flora and fauna that protect Hills Creek from poor water quality and improve the habitat available for native bird and fish life.

Objectives

Control invasive woody species (gorse, broom and willow), maintain and extend stock exclusion from wetland areas, and facilitate the regeneration of native plant species.

Expected outcomes

Fencing & Planting

This stretch of Hills Creek has already been fenced from stock. This should be maintained.

Weed control

Crack willows present within the site have been mechanically removed with a digger. Gorse and broom are to be carefully sprayed, either by hand or with a drone, taking care not to damage surrounding native species. Control of these woody weeds will allow native species to regeneration to a wider extent.

Sedimentation

Sedimentation from surrounding land use will accumulate in wetland vegetation along the margins of this wetland before it can enter the waterway. Floods will continue to re-mobilise these sediments, but as vegetation re-establishes, the effects of sediment remobilisation will lessen. Preventing stock from accessing waterway will also prevent the re-mobilisation of

sediments.

Total Investment

Fencing: $0
Planting: $0
Weeds: $5,750
Total: $5,750

Funding source

Weed control – Waiora Manuherekia
Ongoing weed maintenance – Landowner.

Monitoring

Annual photopoint monitoring to be used to track changes in the wetland.
Annual SHMAK monitoring can be used to track improvements in ecosystem health.