

Roxburgh Rohe Snapshot (Clutha FMU)

This snapshot summarises what ORC knows about the, to help create a vision for its freshwater.

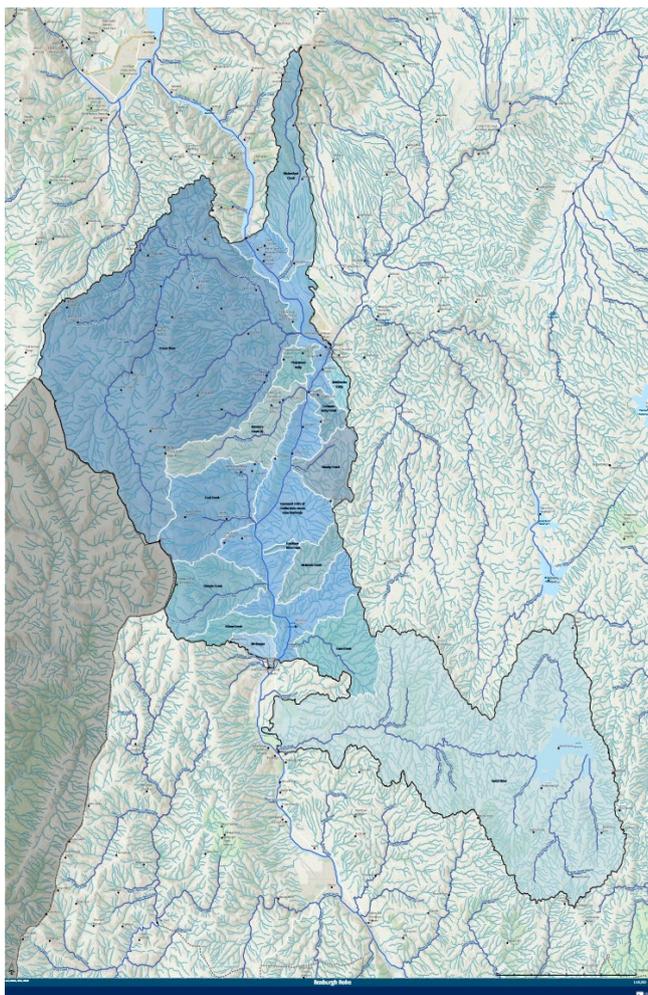
The Rohe is part of the Mata-Au FMU. In creating a vision for the Rohe, we also need to think about a vision for the whole Clutha River/Mata-Au which encompasses Ki Uta Ki Tai – from the mountains to the sea – and how they fit together.

The Roxburgh Rohe extends from Clyde Dam to Lake Onslow, encompassing Clyde and Alexandra urban settlements. Fraser River (The Earnsclough) and Teviot River both run through the Rohe, feeding into the Clutha/Mata-Au. Lake Roxburgh is situated roughly in the middle of the Rohe, and Fraser Dam is located in the top left.

Brief history

The Roxburgh Rohe includes Alexandra and Clyde, which are its most populated areas. Roxburgh township sits just outside the Rohe boundary, however the history and hydrology associated with the Rohe heavily influences the township. All three towns were amongst the main centres during the Otago gold rush of the 1860s. Post gold rush, economic activities across the Rohe utilised the abandoned mining races for the irrigation of stone fruit orchards and livestock pastures. Hydroelectric power generation is equally ingrained into the history of the Rohe, with the Roxburgh Dam being one of the oldest hydroelectric dams on the Clutha River/Mata-Au (1956), and the Clyde Dam, commissioned in 1992, being the third largest hydro dam in New Zealand. A railway line was developed during the gold mining period to transport materials in and out of central Otago, however the rail line was decommissioned in 1989 and later turned into a recreational cycle way as a tourism endeavour.

The Mata-au River takes its name from a Ngāi Tahu whakapapa that traces the genealogy of water. On that basis, the Mata-au is seen as a descendant of the creation traditions. The river was part of a mahika kai¹ trail that led inland and was also very important in the transportation of pounamu for trading. The river and its tributaries supported seasonal settlements and plentiful mahika kai. Rights to travel on the river and to use its resources were a focus for strategic marriages that strengthened whakapapa connections and tribal identity. Numerous tauraka waka,² urupā and battlegrounds along



¹ The customary gathering of food and natural materials, the places where those resources are gathered, and the transfer of knowledge, custom, and practice that goes along with it.

² Canoe landing places

the river also contribute to the importance of the wāhi tūpuna³ values associated with the river and surrounding lands.

The traditional name of Lake Roxburgh is Kā Moana Haehae, which refers to the joining of two waterways. In this case it refers to the confluence of the Mata-au and Manuherikia Rivers over which the lake lies. The river and the areas around it that now lie under the lake were important for mahika kai.

Geography and hydrology

The Roxburgh Rohe is the smallest Rohe in the Clutha/Mata-Au FMU, covering just over 1000 Kilometres² between the Clyde Dam and Lake Onslow, encompassing both the Teviot and Fraser (Earnsclough) rivers including parts of the Clutha River/Mata-Au. Parts of the Rohe experience a climate of extremes with winters typically around or below zero degrees, while in summer, temperatures are often above 30 degrees. The Teviot River junctions with the Clutha River/Mata-Au at Roxburgh township, and it was the historical damming of the Upper Teviot River that produced Lake Onslow. Fraser River starts from the Old Man Range to the Fraser Dam, and then connects with the Clutha River/Mata-Au about 4km west of Alexandra township. Damming has had an effect on the life cycle of migratory fish such as eels, and despite fish passage being provided for fish passages is still impacted upon. The creeks on the true right of the Clutha River/Mata-Au , such as Coal Creek, Shingle Creek and Obelisk Creek, provide for water abstraction.

Water Quality

The Roxburgh Rohe has generally very good water quality, the main Stem Clutha River/Mata-Au between Clyde and Roxburgh has excellent water quality. The tributaries generally have excellent water quality in their upper reaches with only minor degradation as they flow through more intensive landscapes.

Lake Onslow has excellent water quality with low nutrient concentrations, this flows into the Teviot River which also has excellent water quality.

Freshwater values and challenges

	What’s special about Roxburgh rohe:	What isn’t working so well:
Kāi Tahu values	<ul style="list-style-type: none"> • The significance of the Mata-au/ Clutha River in Kāi Tahu traditions and history • The ongoing relationship of mana whenua with wāhi tupuna⁴ • Mahika kai values 	<ul style="list-style-type: none"> • Loss of connections to wāhi tupuna from damming and other modification of water bodies and land • Dams interrupting continuity of flow from the mountains to the sea • Effects of water body modification and environmental degradation on mauri and on mahika kai <ul style="list-style-type: none"> • Loss of access to mahika kai and other significant areas

³ Cultural landscape, encompassing places where the tūpuna travelled, stayed, gathered and used resources, and the associated stories and traditions that transcend the generations.

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Environment	<ul style="list-style-type: none"> • Galaxiids present, • Wetlands, high natural character and landscapes • Lake Onslow, Teviot River, Fraser River, Lake Roxburgh, Clutha River/Mata-Au 	<ul style="list-style-type: none"> • Water quantity in the creeks • Little data on some waterbodies i.e. Teviot River, Lake Onslow tributaries, and tributaries on the true left of the Clutha/ Mata-Au
Economy	<ul style="list-style-type: none"> • Hydro-dams and power stations, , Roxburgh Dam, Clyde Dam, Fraser Dam • Irrigation, mining, orchards, tourism, vineyards 	<ul style="list-style-type: none"> • Wate quantity pressures to support irrigation (creeks) • Climate Change resilience
Social	<ul style="list-style-type: none"> • Cycling trails, hunting, walking trails, fishing, wine tours, festivals • Clyde and Alexandra drinking water supplied by groundwater bores • Historical values including historic gold mining sites, Central Otago Railway relics, Historical buildings 	<ul style="list-style-type: none"> • land intensification pressures