

ORC NOTIFICATION RECOMMENDING REPORT

ID Ref: 1249070055-39831
Application No: RM23.680
Prepared For: Staff Consents Panel
Prepared By: Alexa Harrington, Senior Consents Planner
Date: 12 June 2024

Subject: **Water Permit Application RM23.680 by Dingleburn Station Limited to dam, discharge and take and use surface water from the Silver Burn, for the purpose of hydroelectricity generation, Lake Hāwea**

1. Purpose

To report and make recommendations under sections 95A-G of the Resource Management Act 1991 (the Act) on the notification decision for the above application.

2. Background Information

Applicant: Dingleburn Station Limited

Applicant's Agent: McKeague Consultancy Limited

Site address or location: Dingleburn Station, Dingle Burn Station Road, Dingle Burn

Legal descriptions of the site: Section 1-3, 5-12 Survey Office Plan 365657 and Lot 3 Deposited Plan 443814

Map reference (NZTM2000): E1311733 N5072286 (point of take)

Consents sought:

- RM23.680.01 Water Permit to take and use surface water from the Silver Burn
- RM23.680.02 Water Permit to dam water in the Silver Burn
- RM23.680.03 Discharge Permit to continuously discharge water from a weir into the Silver Burn

Purpose: for the purpose of hydroelectricity generation.

Section 124 timeframes:

- This is an application for a new activity and so section 124 does not apply.

At this stage there are no principal issues in contention that need to be raised.

2.2 Summary

I recommend the application is processed on a non-notified basis.

3. Description of Proposed Activity

McKeague Consultancy Limited has provided a description of the proposal in the Application titled: Silver Burn Hydro-electricity Generation Consents dated 31 August 2023. This description is adopted for this report. The key points of the activity are explained below:

The subject hydroelectricity scheme has been operational on Dingleburn Station since 1962. The Applicant believed that they had consent for the activities on Dingleburn Station and it was brought to the Applicant's attention no record of consents was in ORC database. The application describes that this scheme is a fundamental component of the electricity supply to Dingleburn Station. The supply provides electricity to two households, a

woolshed, workshop, and multiple accommodation facilities. The existing scheme infrastructure includes penstocks, a powerhouse and powerlines. The application describes that given the remote location of the farm, this type of system is required to provide an ongoing, reliable source of energy. There are no power lines to the property so generating their own power is the Applicant's only option to supply power to the property. A new consent is sought for an existing activity that has been historically unconsented.

The hydroelectricity intake is located directly below a waterfall in the Silver Burn and consists of a small weir which directs water into the penstock. At the bottom of the waterfall there is a pool and the water take is from within this pool. The location of the point of take is shown in Figure 1 and photos of the pool and the intake are in Figure 2.

The applicant is seeking a new water permit to take up to 5,184 cubic metres per day (m^3/day) from the Silver Burn at a maximum rate of 57.5 litres per second (L/s). During January to April the maximum rate of take is 28 L/s and May to December 54 L/s. All of the water abstracted is returned to the Silver Burn approximately 180 metres (m) downstream of the point of take.

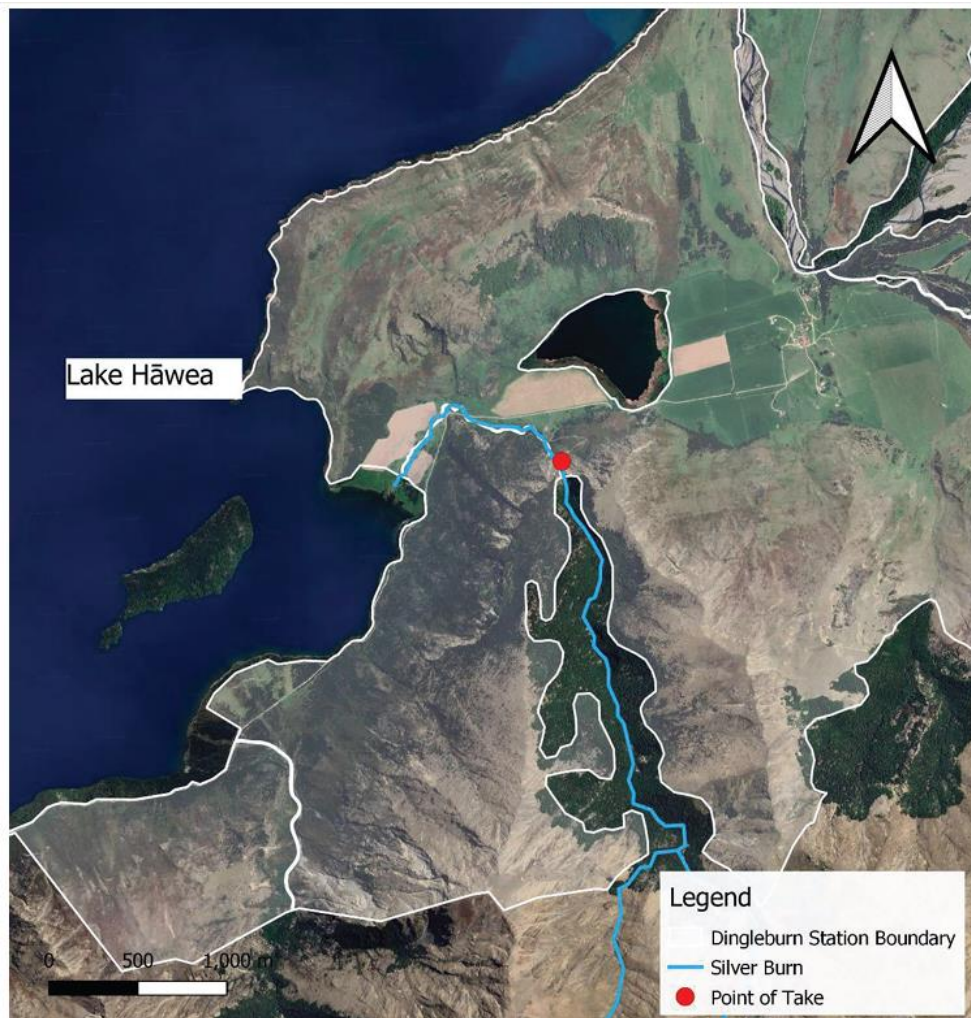


Figure 1: Location of point of take (marked with red dot) (Source: Application)

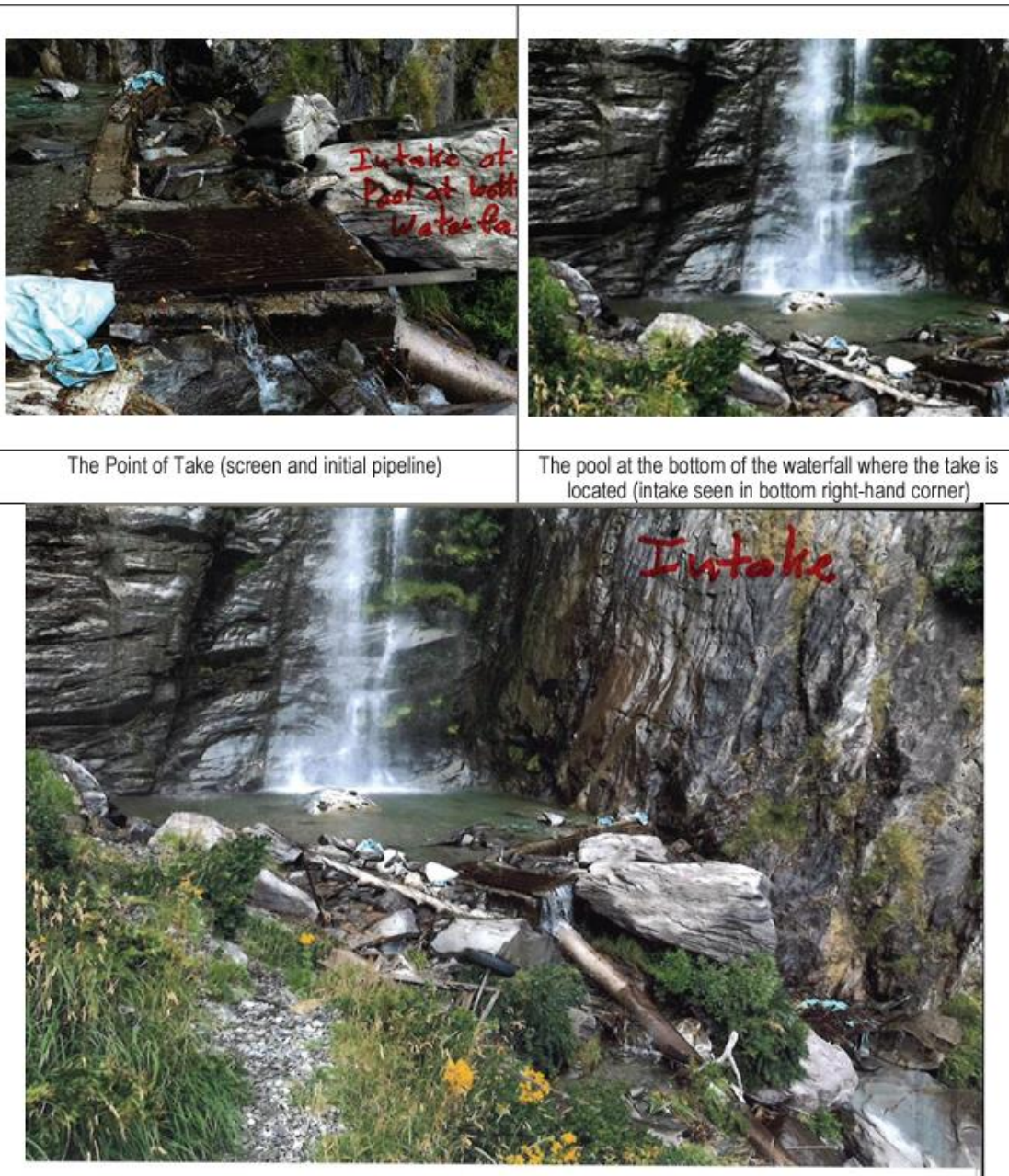


Figure 2: Photos showing the location of point of take, the weir, intake and waterfall (Source: Application)

As shown in the photographs in Figure 2, water flows over the intake structure to the true right of the Silver Burn as well as over the weir. As shown in the photographs in Figure 2, the wall of the pool has been formed by some significantly sized rocks. Due to the size of the rocks, they remain loosely packed and provide some level of seepage which ensures a residual flow is maintained in the Silver Burn at all times. The pool at the base of the waterfall is not lined and the Applicant has agreed to a condition of consent requiring that the pool must not be lined at any time.

The residual flow left in the stream after abstraction is approximately 57.5 L/s during low flow times if the take is operating at maximum rate.

The weir sits at the bottom of a natural waterfall and the top of a steep decline in the creek. The natural pool formation has been utilised in the hydro scheme. The weir is

approximately 35 centimetres (cm) high and has been established with rocks and concrete to form a wall and intake structure. The weir helps direct water from the pond into the pipeline. The current weir has been in place since 1996 when the scheme was upgraded. There are no signs of instability of the weir. The maximum depth of the pool is estimated to be approximately 0.5m and the surface area of the dam is estimated at 25 square metres (m²), with an estimated volume of water dammed being 12.5 m³. The height of the intake weir is small compared to the height of the surrounding rocks above and below the intake and is not considered to act as a fish barrier.

The intake structure is on the true right of the Silver Burn and only has access to a portion of the Silver Burn as water continues to flow over the weir on the side that does not have the intake. Once water enters the intake, it flows down a penstock into the powerhouse. The first 10 m of the penstock is 45 cm in diameter. The remaining length of the penstock is 18 cm in diameter. The penstock has a 91 m head which enables the system to have adequate water pressure to generate power. The amount of water used to generate electricity is controlled by way of two interchangeable restricter nozzles at the exit of the penstock. There are two small nozzles which are both 21 millimetres (mm) in size and two large nozzles which are both 31 mm in size. They can be used interchangeably to control the amount of water the system uses based on electricity needs. The application describes that generally, the 21 mm nozzles which use 13 L/s each are used throughout the summer months when there is less demand for electricity. Throughout the winter when more electricity is required, the 31 mm nozzles which use 27 L/s each are used. Once water is used to generate electricity at the powerhouse, water moves through a concrete flume for approximately 2 m and is then returned to the Silver Burn. The distance between the point of take and the discharge back to the Silver Burn is 180m. There is no delay in the water being returned to the Silver Burn and is immediately returned. Figure 3 below provides a schematic diagram of the system. Figure 4 below provides a marked aerial photo of the system.

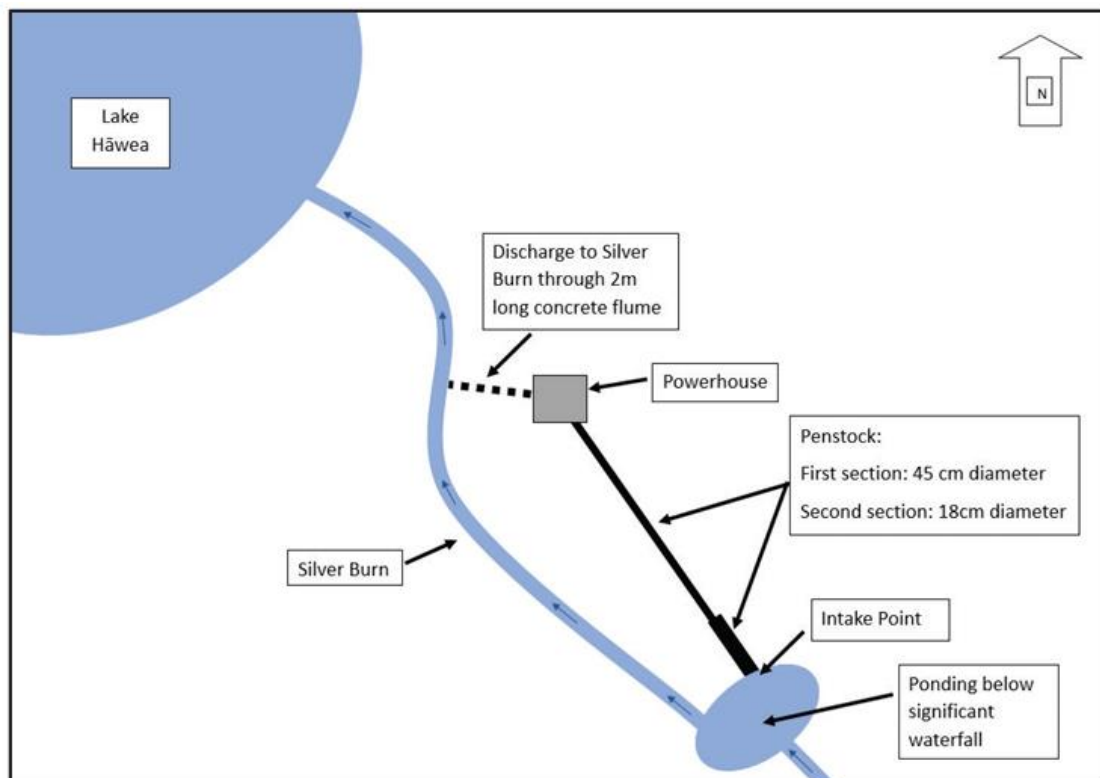


Figure 3: Schematic diagram of this system (Source: Application)



Figure 4: Aerial photo showing the location of the system (Source: Application)

Water is proposed to be taken for up to 24 hours per day at peak times. The water will only be used for the purpose of hydroelectricity generation.

The Applicant has provided the following documentation with the application:

- Resource consent application and supporting information report signed by the applicant and dated 1 September 2023; and
- Further information request s92(1), dated 14 September 2023.

3.1 Description of the Environment

The environment is adequately described in the application for consent and is not duplicated here. The description is adopted for the purpose of this report. The key aspects of the environment are:

Dingleburn Station is a 7,000-hectare (Ha) sheep and cattle station which is located on the eastern side of Lake Hāwea. The Station runs approximately 10,000 merino sheep and 350 cattle. The farm is very isolated, with the only vehicle access being a narrow and winding gravel road (Dingleburn Station Road) up the side of Lake Hāwea which is very steep in places. Other access is by water or air. There are two families in separate houses living and working on the Dingleburn Station.

Figure 5 below shows the Dingleburn Station boundary, the vehicle access road, and the location of the homestead and yard area.

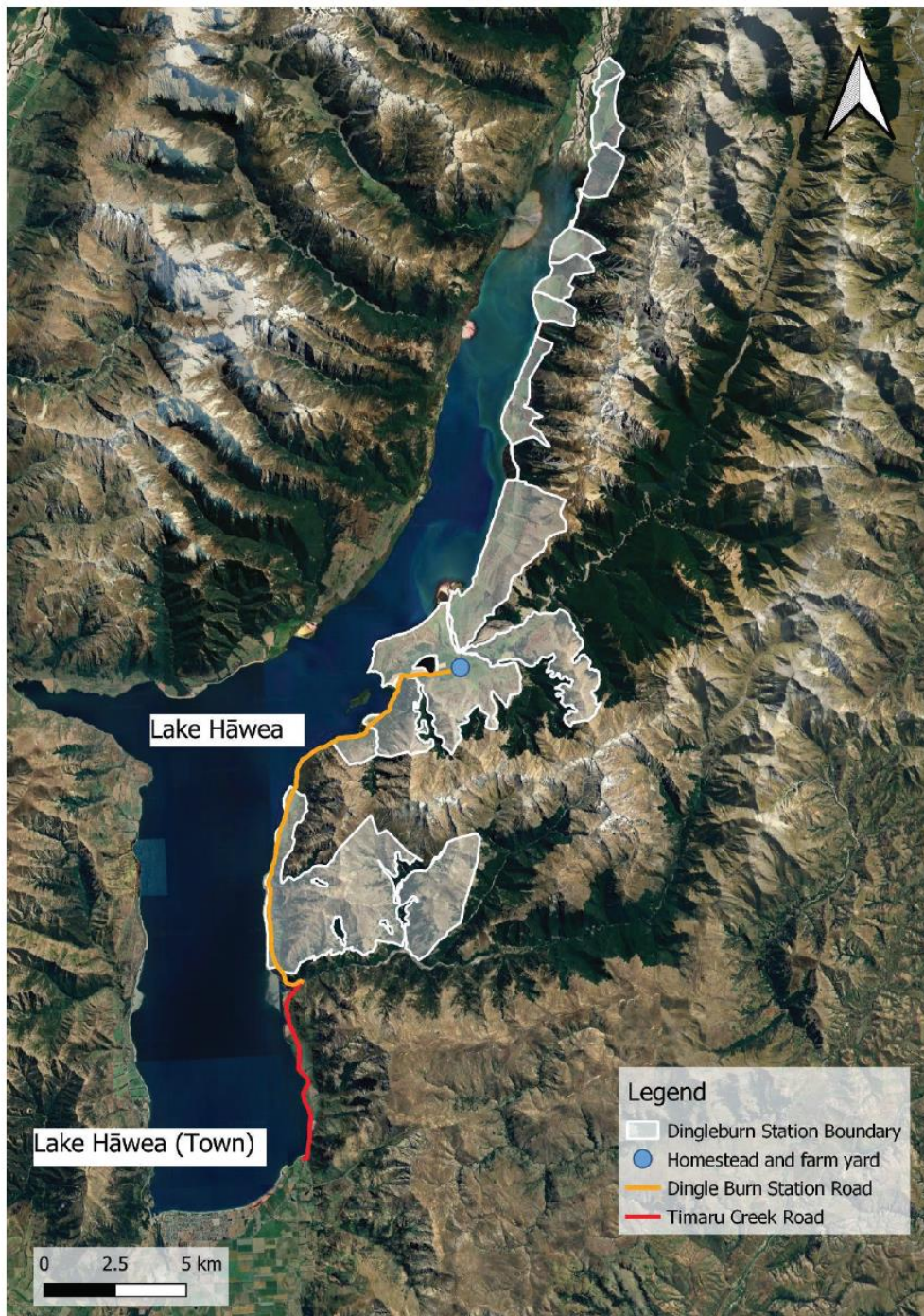


Figure 5: Dingleburn Station boundary and location of access road, homestead and farm areas (Source: Application)

Lake Hāwea is located in the upper Clutha/Mata-au catchment and has a surface area of approximately 125 square kilometres (km²) and is up to 8 kilometres (km) wide. Lake Hāwea is primarily fed by the Hunter River, and other significant tributaries include the Timaru Creek and the Dingle Burn. The lake water level was raised artificially by 20 m in 1958 by a new dam at the Hāwea township. This was done to provide extra water to generate power at the Roxburgh dam. Water from Lake Hāwea leaves via the Hāwea River and joins the Clutha River/Mata-au 3 km downstream.

Lake Hāwea, in combination with Lakes Wānaka and Whakatipu, and the Shotover River, makes up two-thirds of water in the Clutha River/Mata-au therefore is a large contributor to

the volume of water in Clutha/Mata-au catchment. The Silver Burn is a small tributary of Lake Hāwea. Lake Hāwea has many recreational values. These include fishing, boating, swimming, kayaking and water sports. The area surrounding Lake Hāwea is also used for picnicking, walking, biking, and other activities. There are many recreational options and Lake Hāwea is very popular, especially during the summer months.

The Silver Burn catchment is in steep high country and extends up to Dingle Peak (1062 metres above sea level). Silver Burn then drops down to Lake level taking a steep descent. There are a series of waterfalls approximately 1.5 km upstream of the confluence with Lake Hāwea, which are marked on the topographic map as being 72 m high. This is shown in Figure 6 below.

The application includes information the ORC has provided to the applicant in incomplete application RM23.009. The science work undertaken concluded that the 7 day mean annual low flow (MALF) of the Silver Burn is 115l/s. This is adopted in the application. There are no existing consented surface water takes from the Silver Burn catchment.



Figure 2 New Zealand topographic map showing point of take and waterfalls.

Figure 6: Topographic map showing location of the point of take and surrounding topography (Source: Application)

Schedule 1 of the Regional Plan: Water

Schedule 1A of the Regional Plan: Water for Otago (RPW) outlines the natural and human use values of Otago's surface water bodies. The Silver Burn is not identified in the Schedule, however Lake Hāwea is recognised as having the following values:

- Large water body supporting high numbers of particular species, or habitat variety, which can provide for diverse life cycle requirements of a particular species, or a range of species.
- Sand bed composition of importance to resident biota.

- Absence of aquatic pest plants identified in the Pest Plant Management Strategy for the Otago Region.
- Presence of significant areas for development of juvenile trout and salmon.
- Significant presence of trout, salmon and eel.
- Scenic values within the wider landscape context of the surrounding mountains, particularly colour of the water.

Schedule 1AA of the RPW identifies Otago resident native freshwater fish and their threat status. Based, on an eDNA sample taken approximately 130 m upstream from the confluence of Lake Hawea and the Silver Burn. The eDNA sampling recorded four species of fish; two introduced fish, rainbow and brown trout and two indigenous fish, common bully and koaro. The koaro are recorded in Schedule 1AA with a threat status of “declining”.

Schedule 1B of the RPW identifies water takes used for public supply purposes (current at the time the RPW was notified in 1998), while Schedule 1C identifies registered historic places which occur in, on, under or over the beds or margins of lakes and rivers. There are no Schedule 1B and 1C values in the RPW listed in close proximity to the proposed activity.

Schedule 1D of the RPW identifies the spiritual and cultural beliefs, values and uses associated with water bodies of significance to Kai Tahu. Lake Hāwea is identified as having the following values:

- ***Kaitiakitanga:*** the exercise of guardianship by Kai Tahu, including the ethic of stewardship.
- ***Mauri:*** life force.
- ***Waahi tapu and/or Waiwhakaheke:*** sacred places; sites, areas and values of spiritual values of importance to Kai Tahu.
- ***Waahi taoka:*** treasured resource; values, sites and resources that are valued.
- ***Mahika kai:*** places where food is procured or produced.
- ***Kohanga:*** important nursery/spawning areas for native fisheries and/or breeding grounds for birds.
- ***Trails:*** sites and water bodies which formed part of traditional routes, including tauraka waka (landing place for canoes).

Regionally Significant Wetlands

There is a wetland located at Dingle Burn Station. This wetland is identified as Regionally Significant in Schedule 9 of the RPW and is named the Dingle Lagoon. All activities proposed in the current application include the take, the weir, and the discharge of water back to the Silver Burn are located approximately 500 m south of, and downstream from, Dingle Lagoon.

Climate and Soils

GrowOtago indicates that the median annual rainfall at the site is between 1,001-1,250 mm and that the median potential evapotranspiration in January and February is 201-205 mm. NIWA Grow Otago indicates that the soils at the site are likely to be a combination of pallic, brown and raw soils. These soils are moderately drained with moderately high to low plant available water.

Site Visit

A site visit was not undertaken for this application by the report writer as there was sufficient photographic evidence, plans and aerial mapping information of the site to understand the nature of the proposal and receiving environment. In addition to this, a member of the ORC Compliance Team recently completed an inspection of the site and confirmed that the geography and infrastructure present is consistent with the description provided in the application.

4. Status of the Application

4.1 Regional Plan Water

Taking and use of surface water

The Applicant proposes to immediately return all water abstracted for the purpose of hydroelectricity generation back to the Silver Burn at the discharge point. As set out below, the proposed take does therefore not form part of primary allocation, as all of the water taken is immediately returned to the source water body. For completeness, it is noted that even if the proposal was considered primary allocation, the proposed take would also not be a prohibited activity under Rule 12.0.1.2 of the RPW, given the amount of water taken does not exceed the primary allocation limit, as discussed below.

Rule 12.1.5.1 of the Regional Plan Water for Otago (RPW) states the following:

Except as provided for by Rules 12.1.1.1 to 12.1.4.7, the taking and use of surface water is a discretionary activity.

- Rule 12.1.4.1 is not applicable as the take is not a retake.
- Rule 12.1.4.2 is not applicable as the take is not from any of the catchments listed in Schedule 2A.
- Rule 12.1.4.3 is not applicable as the Silver Burn catchment is not listed in Schedule 2B.
- Rules 12.1.4.4 and 12.1.4.5 are not applicable the take is new and was not applied for or granted prior to 28 February 1998.
- Rule 12.1.4.6 and 12.1.4.7 are not applicable as the application is not for primary or supplementary allocation.

The taking and use of water for hydroelectricity generation is not explicitly provided for by any by rule from 12.1.1.1 to 12.1.4.7 of the RPW. Specifically, when the same amount of water taken is discharged back into the same waterbody. The proposed take has been operational on Dingleburn Station since 1962. The take is new as the activity has been unconsented. The taking and use of water is considered a **discretionary activity** under rule 12.1.5.1 of the RPW.

The Council may grant or decline the application, and if granted may impose conditions under Section 108 of the Act.

Damming

The weir at the point of take impounds water and is therefore a dam. The catchment upstream of the weir exceeds 50 ha, as such the weir cannot meet Rule 12.3.2.1 of the RPW. Rule 12.3.3.1 of the RPW states that the damming of water, which has previously been authorised by a resource consent or other lawful authority, is a restricted discretionary

activity. This activity does not meet Rule 12.3.3.1 as the activity has not previously been authorised by a resource consent or other lawful authority. The damming activity therefore a **discretionary activity** in accordance with Rule 12.3.4.1(i) of the RPW, which states the following:

*12.3.4.1 (i) Except as provided for by Rules 12.3.1.1 to 12.3.3.1 and except in the Waitaki catchment, the damming or diversion of water is a **discretionary activity**.*

Discharging from dam (weir)

The intake weir continuously discharges water into the Silver Burn downstream. This discharge does not comply with Rule 12.C.1.2 because the damming activity is not permitted, as described in the section above.

The discharge of water to water is a **discretionary activity** under Rule 12.C.3.2 of the RPW.

4.3 NES-FW Consent requirements

The National Environmental Standard for Fresh Water (NES-FW) does not apply to structures that were in rivers before the commencement date of the standard, being 2 September 2020. The subject weir was constructed in 1996 and therefore is not captured by this standard. The lawfulness of existing structures is outside of the scope of the NES-FW.

As described in Section 3.1 of this report, there is a wetland located at Dingle Burn Station. This wetland is a natural inland wetland named the Dingle Lagoon. All activities proposed in the current application include the take, the weir, and the discharge of water back to the Silver Burn are located approximately 500 m south of, and downstream from, Dingle Lagoon. No rules in the NES-FW related to wetlands are triggered by the proposal.

No additional consents are required for the application under the NES-FW.

4.4 Overall activity status

Overall, the application is a **discretionary activity**. The Council may grant or decline the application and if granted may impose conditions under Section 108 of the Act.

4.5 Permitted Activity Rules

The discharge of water into the Silver Burn associated with the generation of hydroelectricity consists of water from the Silver Burn Catchment back to the same catchment. The discharge does not result in flooding, erosion, land instability, or property damage. The discharge does not result in any change in visual clarity or increased sedimentation in the Silver Burn. The discharge does not have or cause any odour, oil, or grease film.

The discharge of water is able to comply with all of the conditions of permitted activity rule 12.C.1 of the RPW.

5. Assessment of Adverse Environmental Effects

Although the proposed water take and use is a full discretionary activity under Rule 12.1.5.1 of the RPW. The matters of restricted discretion set out in Rule 12.1.4.8 provide a basis for considering the effects of the activity, and these are considered in the assessment below, however, Council's discretion is not restricted to these matters.

5.1 Effects on Available Water Allocation and Surface Water Allocation Availability

Primary allocation is defined by Policy 6.4.2(a) of the RPW:

“To define the primary allocation limit for each catchment, from which surface water takes and connected groundwater takes may be granted, as the greater of:

(5) That specified in Schedule 2A, but where no limit is specified in Schedule 2A, 50% of the 7-day mean annual low flow; or

(b) The sum of consented maximum instantaneous, or consented 7-day, takes of:

(i) Surface water as at: 19 February 2005 in the Welcome Creek catchment; or 7 July 2000 in the Waianakarua catchment; or 28 February 1998 in any other catchment; and

(ii) Connected groundwater as at 10 April 2010, less any quantity in a consent where:

(1) In a catchment in Schedule 2A, the consent has a minimum flow that was set higher than that required by Schedule 2A.

(2) All of the water taken is immediately returned to the source water body.

(3) All of the water being taken had been delivered to the source water body for the purpose of the subsequent take.

(4) The consent has been surrendered or has expired (except for the quantity granted to the existing consent holder in a new consent).

(5) The consent has been cancelled (except where the quantity has been transferred to a new consent under Section 136(5)).

(6) The consent has lapsed.”

The RPW provides for the taking of surface water by defining allocation quantities able to be taken, while providing for water body levels. As there are no current water takes out of the Silver Burn, in accordance with Policy 6.4.2(a) of the RPW, the modelled primary allocation limit for the Silver Burn Catchment is 57.5 L/s (50% of the 7-day mean annual flow of 115L/s). The Applicant is applying to take up to 57.5 L/s.

As all of the water proposed to be taken is immediately returned to the source water body, the proposed take is not allocated as either primary or supplementary allocation. All of the water is returned upstream of any downstream water users intakes.

Notwithstanding this, even if all of the water taken was *not* immediately returned to the source water body and the take *was* considered primary allocation, under 6.4.2(2), the take would not cause the catchment to exceed its primary allocation threshold of 57.5 L/s and would therefore not be prohibited by rule 12.0.1.2.

The hydro scheme has been operational since 1962 and a flow has been always maintained below the take. There has been no observed adverse effects on flow and the existing values downstream of the take. Based on this, no effects on the surface water allocation availability in the subject catchment will occur as a result of the proposal.

5.2 Effects of the rate, volume, timing and frequency of water to be taken and used

The application describes that the timing and frequency of the take will vary across the seasons as more electricity is required during the cooler winter months compared with warmer summer months. The electricity generated in the powerhouse is a direct reflection of the water taken. During the summer months typically two smaller nozzles are used, and during the winter larger nozzles are used.

The application proposes that a residual flow of 57.5 L/s will be maintained in the Silver Burn. As noted above, the application, including the proposed residual flow, was reviewed by a member of the ORC Resource Science Unit who considered that the proposed residual flow rate was appropriate for the take and that in addition to water overtopping the weir, the natural seepage that occurs in the pool will ensure that that residual flow is maintained.

The effect of the proposed rate, volume, timing and frequency of water to be taken and used on the subject catchment is anticipated to be less than minor.

5.3 The effects of the proposed methods of take, delivery and application of the water taken

As described in the notification report, water will be taken from the Silver Burn via the existing intake and pipe infrastructure used to abstract water. From the point of take it will enter the penstock and be pipes to the generators. No change to the intake structure is proposed as part of the application.

The proposed method of take, delivery and application of the water abstracted is considered to be appropriate and effects are anticipated to be less than minor.

5.4 The source of water available to be taken and the location of the use of the water, when it will be taken out of a local catchment

The application describes that all of the water abstracted will be immediately returned to the Silver Burn 180 m downstream of the point of take. All of the water abstracted will remain within the Silver Burn catchment. The penstock is located parallel to the bed of the Silver Burn and within the same parcel of land. This means the abstracted water will be transported a short physical distance away from the creek before it is returned. The use of the water is occurring as close as practical to the source.

5.5 Competing lawful local demand for that water

The proposal will not result in any competition with local, lawful demand for the water. There are no other water takes within the Silver Burn. All of the water taken will be immediately returned to the Silver Burn upstream of any activities by other water users and within the same parcel of privately owned land.

Based on this, the effects on competing lawful local demand for the water are assessed as being less than minor.

5.6 Minimum Flows

Minimum flows may be set for a river or catchment for the purpose of restricting primary allocation takes of water. A minimum flow provides for the maintenance of aquatic ecosystem and natural character values of water bodies, while providing for the sustainable taking of water for use. When a minimum flow is breached, all consents to take water as primary allocation (with some exceptions), must cease.

Policy 6.4.4 of the RPW states that for new takes in a catchment outside Schedule 2A, minimum flows will be set on a case by case basis, recognising the water use needs of the water users while providing for the aquatic ecosystems and natural character of the

watercourse. Consents will be subject to a review clause to enable any minimum flow added to Schedule 2A to be applied.

The application states that as all water abstracted will be returned back to the Silver Burn upstream of other water users intakes, imposing a minimum flow below the proposed point of discharge is not necessary. A residual flow proposed of 57.5L/s ensuring a flow of water is always maintained.

5.7 Effects on Fish and Instream Values

The taking and use of water and the use of damming structure has the potential to effect the ecological values of the Silver Burn. NIWA's Freshwater Fish Database for the Silver Burn shows that one fish survey has been completed below the point of take and no species were recorded.

An eDNA sample has been completed downstream of the site and provided with the application, recording four species of fish; two introduced fish, rainbow and brown trout and two indigenous fish, common bully and koaro. The sampling location is approximately 130 metres upstream from the confluence of Lake Hāwea and some distance downstream of the weir.

The application was reviewed by a member of the Council's Resource Science Unit who noted, the following:

It is highly unlikely that common bully would be found much further up the Silver Burn catchment than where it was recorded during the eDNA sampling. Although the common bully might be occupying the lagoon. Both rainbow and brown trout do have the ability to negotiate much further upstream than where they were recorded. Both salmonid species prefer stable habitats: photographs provided by the applicant show that the Silver Burn has a steep gradient and could be described as boisterous – photographs also indicate that the bed is mobile. Bed movement makes for less than optimum habitat for both salmonid species. Although there is potential for both species to occupy this effected reach of the Silver Burn, (more so brown trout than rainbow trout) densities would be low.

Koaro, is commonly referred to as one of New Zealand whitebait species. Many, if not all, diadromous galaxiid species that make up the whitebait catch can form self-sustaining landlocked populations. In this situation the galaxiid uses a lake/ or an ICOLL like the coastal koaro populations use the sea. It has been known for decades that Lake Hawea holds a population of koaro, with the galaxiid being recorded within numerous tributaries of the lake. Koaro favours clear, moderate to fast flowing waters – it also has an incredible climbing ability negotiating past significant waterfalls. Their distribution is generally quite sparse even when are locally common. Therefore, there is the potential for koaro to occupy the effected reach of Silver Burn, whether they are there is uncertain.

Whether confirming the presence of koaro would justify the change in the overall management of the scheme or provide specific conditions or management practices is unlikely.

The effects of the scheme on instream values although is unknown, I would consider them less than minor.

The photographs suggest that wall of the pool has been formed by some significant sized rocks. Therefore, due to the size of the rocks they should be loosely packed and thereby providing some level of seepage.

Therefore, a condition preventing the lining of the pool which would prevent a seepage should be considered.

The applicant has agreed to a condition requiring that the pool cannot be lined. A residual flow may be set at the point of take, for the purpose of providing for instream values of the source water body.

The means and timing of the take, and the rate at which water is proposed to be taken, described in Section 2 of this report, are not anticipated to have any adverse effects on instream values.

The applicant proposed not to install a fish screen in the intake, as the topography of the creek upstream and downstream of the take and weir as well as the lack of fish species recorded mean that uptake and entrapment of fish is very unlikely. The technical auditor agreed that due to these factors, a fish screen was not required.

As described in Section 3.1 of this report, there is a wetland located at Dingle Burn Station. This wetland is a natural inland wetland named the Dingle Lagoon. All activities proposed in the current application include the take, the weir, and the discharge of water back to the Silver Burn are located approximately 500 m south of, and downstream from, Dingle Lagoon.

There are no Regionally Significant Wetlands or any known regionally significant wetland values that will be affected by the proposed water take.

5.8 Cumulative Effects

In accordance with Section 3 of the Act, the definition of ‘effect’ includes *any cumulative effect which arises over time or in combination with other effects*. There is no definition for ‘cumulative effect’ under the Act, other than what is outlined above. The Oxford English dictionary defines ‘cumulative’ as meaning *‘having a result that increases in strength or importance each time more of something is added’* and *‘including all the amounts that have been added previously’*. Westlaw NZ expands on this definition by drawing from case law. This case law advises that a cumulative effect is an effect that will occur as opposed to a ‘potential effect’.

The proposal is not expected to give rise to adverse cumulative effect on the environment, as the potential effects are relatively certain and no significant adverse effects on water resources are anticipated due to the proposal. Any unforeseen adverse effects that may result from the proposal can also be mitigated as a term of consent applied for is relatively short (6 years).

Cumulative effects are not anticipated as a result of the proposal.

5.9 Efficiency of Water Take and Use

The application states that the take and conveyance system has been upgraded over the years and is fit-for-purpose and designed to efficiently take and convey water without leakage or losses. The taking of water is considered to be efficient.

5.10 Efficiency of Water Transport, Storage and Application System

The Applicant is seeking to take surface water for hydroelectricity generation, with all the water taken subsequently returned to the same watercourse. The application describes that the hydro system will be designed to take, convey, generate, and discharge water up to the maximum rate sought of 57.5L/s. This rate has been sought based on discussions with Council's hydrologist and in conjunction with feasibility calculations. However, it should be noted that the Applicant can only physically take 54 L/s with the winter nozzles (31 mm each). The electricity generated will be used to power the applicant's farm buildings and houses, as no other power sources are available. As such the water take is considered to be nearly 100 % efficient.

Total Volumes Recommended

Taking into consideration the use of water proposed and volumes applied for the following rate of take, monthly and seasonal limits are recommended to be imposed to ensure that the quantity of water granted to take is no more than that required for the purpose of use:

January to April

- 28 L/s
- 2,419 m³/day
- 74,995 m³/month
- 224,985 m³/year

May to December

- 54 L/s
- 4,644 m³/day
- 143,964 m³/month
- 1,295,676 m³/year

5.11 Effects on Other Water Users

There are no other consented water takes from the Silver Burn. No effects on other water users are anticipated as all of the water taken will be returned to the creek 180 m and within the applicant's boundary.

It is considered that any adverse effects on other water users will be less than minor.

5.12 Effects on Natural Character, Public Access, Amenity and Recreation

The application was reviewed by a member of the Council's Resource Science Unit, who noted that the scheme has the ability during specific flows to take all if not most of the surface flows. The 180m is the distance to where the scheme discharges back into the Silver Burn. The pool associated with the weir appears to be formed naturally, as a result of the waterfall scouring out the bed and creating a pool.

Council's RSU have stated that provided the pool is not lined the seepage would provide a form of a residual flow and mitigate the effects of the scheme on natural flow characteristics and amenity values will be mitigated.

Amenity values relates to effects on aesthetic values and recreational opportunities. The Applicant has stated that the Silver Burn is not used for recreational opportunities. Based on this, no impacts on recreational opportunities are expected. There is no public access in the vicinity of the point of take and in the upper reaches of the Silver Burn due to the steep terrain, the proposal will not change or reduce public access.

The natural character of the Silver Burn in the lower stretches would be altered as a result of the proposal, given the changes to the natural flow characteristics and the presence of the small weir, penstocks, a small powerhouse, discharge channel and overhead powerlines, however this effect is assessed as being less than minor.

5.13 Effects on Kai Tahu Values

Lake Hāwea has numerous cultural values identified in Schedule 1A-1D of the RPW. As particular spiritual and cultural beliefs and values will be affected by the proposal it is appropriate for the Applicant to consult with mana whenua.

The nature of the proposed activity means that the effects on the values of Lake Hāwea are considered to be minor. Lake Hāwea is known to have many Nohoaka Sites (lakeshores used to facilitate the gathering of natural resources in a modern context). The values and importance to iwi in the Lake Hāwea catchment area could be affected as a result of this proposal as the Silver Burn is a tributary of Lake Hāwea.

The proposed take from the Silver Burn uses existing infrastructure. The proposed take water will be used locally, the water will only be transported a short distance from the Silver Burn before it is returned. The proposed take will not adversely impact native flora and fauna, including kōaro or kōaro habitat (as discussed in Section 5.8) are anticipated. Based on, no correspondence with Aukaha effects on cultural values cannot be determined at this stage.

Overall, effects on Kai Tahu values are assessed to be minor.

5.14 Effects of Weir Failure and on Land and Property

Given its small scale, the weir is damming a very small volume of extra water. Accordingly, the weir does not have a Potential Impact Classification rating (PIC). This is because PIC are designed to assess a hypothetical failure break or uncontrolled release of the contents stored within a dam, or in this case, a weir. The result of a failure or uncontrolled release of contents stored within this weir will be negligible that they do not fit in the PIC scale. Because of this, it is thought that any failure of the weir would not result in a flow which was more than the flow carrying capacity of the Silver Burn . Therefore, the effects of weir failure are assessed to be less than minor.

5.15 Alternative Water Sources

The RPW promotes the management of water in a way that enables continued access to suitable water, ensuring communities can provide for their social, cultural and economic wellbeing, now and for the future. It achieves this by requiring consideration of whether the applied for source of water is the nearest practicable given the proposed location of use including whether the take and use of the water is an efficient use of the water resource, whether there is another practically available and accessible water source, and the wider benefits (economic, social, environmental and cultural) of taking from the water source applied for compared to taking water from other sources (Policy 6.4.0C).

The applicant has invested a significant amount of money into the existing scheme. The applicant has estimated that approximately \$55,000 has been invested in past years. There are also ongoing maintenance costs associated with this scheme. The hydroelectric generation scheme ensures that all activities on Dingleburn Station including basic daily needs such as heating, cooling and communication are able to operate. In turn this enables Dingleburn Station to operate as a functioning and sustainable business.

5.16 Water Take and Use Management

Water allocation committees are a useful tool in managing water abstractions during water short periods, particularly for over-allocated rivers. Water allocation committees are appointed subcommittees of Council, typically made up of local representatives of water permit holders within a catchment. The instructions of a water allocation committee must be adhered to as if they were made by Council. In addition to prolonging flows above the minimum flow when water is scarce, water allocation committees are also considered to:

- help raise awareness of minimum flow issues within the river;
- promote efficiency of water use;
- allow the minimum flow dependent water abstraction system to become self-policing;
- unite water users within the catchment; and
- share the available water resource fairly amongst consented water users.

Water Management Groups are voluntary. They provide flexibility for two or more consent holders to cooperate in exercising their consents, but without the added formality associated with a water allocation committee. If a water management group is developed, the applicant should give consideration to joining, as they are a useful means of managing takes in a catchment to ensure the minimum flow is not reached.

6. Notification Status and Written Approvals

6.1 Section 95A Public Notification

Step 1: Is public notification mandatory as per questions (a) – (c) below?

- (a) Has the applicant requested that the application be publicly notified? **No**
- (b) Is public notification required by Section 95C? **No**
*Has further information been requested and not provided within the deadline set by Council? **No***
*Has the applicant refused to provide further information? **No***
*Has the Council notified the applicant that it wants to commission a report but the applicant does not respond before the deadline to Council's request? **No***
*Has the applicant refused to agree to the Council commissioning a report? **No***
- (c) Has the application been made jointly with an application to exchange recreation reserve land under section 15AA of the Reserves Act 1977? **No**

Step 2: Is public notification precluded as per questions (a) – (b) below?

- (a) Is public notification precluded by a rule in the plan or a NES? **No**
- (b) Is the application for one or more of the following activities but no other activities **No**
- (i) A controlled activity? **No**
 - (ii) A restricted discretionary, or discretionary activity, but only if the activity is a

- subdivision of land or a residential activity **No**
- (iia) A restricted discretionary, discretionary or non-complying activity but only if the activity is a boundary activity **No**
- (iii) A prescribed activity(see section 360G(1)(a)(i) **No**

Notification is not precluded in terms of section 95A(5).

Step 3: Does the application meet either of the criteria in (a) or (b) below?

- (a) Is the application for a resource consent for one or more activities, and any of those activities is subject to a rule or national environmental standard that requires public notification? **No**
- (b) Will the activity have or be likely to have adverse effects on the environment that are more than minor in accordance with Section 95D? E.g. do effects potentially affect properties beyond the application site and adjacent sites and a finite group of potentially affected parties cannot be identified. **No**

The adverse environmental effects on the environment from the proposal are discussed in Section 5 of this report. Based on this review, I consider that there will be less than minor adverse effects on the environment (discounting the site and adjacent sites).

Step 4: Do special circumstances exist in relation to the application that warrant the application being publicly notified? No

6.2 Section 95B Limited Notification

Step 1

Section 95B(2) Are there any affected groups or persons identified under Section 95B(2)?

- (a) Protected customary rights groups? **No**
- (b) Customary marine title groups? **No**

Section 95B(3)(a) Is the proposed activity on or adjacent to, or may it affect, land that is the subject of a statutory acknowledgement made in accordance with an Act specified in Schedule 11? **No**

The proposed activity does not involve or impact land that is subject to a statutory acknowledgement.

Section 95B(3)(b) Is a person to whom a statutory acknowledgement is made an affected person under Section 95E? **No**

Step 2

Is Limited Notification precluded under Section 95B(6)?

- (a) Is the application for a resource consent for one or more activities, and each activity is subject to a rule or national environmental standard that preclude limited notification? **No**
- (b)
- (i) Is the proposal a Controlled Activity that requires consent under the District Plan (other than a subdivision of land)? **No**
- (ii) Is it a prescribed activity under Section 360G(1)(a)(ii)? **No**

Notification is not precluded in terms of section 95B(5-6).

Step 3

Having regard to Section 95E of the Resource Management Act, identify persons who would be adversely affected by the proposed activity by effects that are minor or more than minor, but not less than minor and give reasons why affected parties were identified.

The following party have been identified to be affected parties due to effects on them that are minor or more than minor for the reasons stated below:

Affected Party	How they are affected	Why effect is minor or more than minor
Aukaha on behalf of Mana Whenua	Lake Hāwea contains spiritual and cultural beliefs, values and uses associated with significance to Kai Tahu.	The proposed activity may impact on cultural values of the watercourse. Therefore, Aukaha are considered an affected party.

The following parties were not considered to be affected parties to the application as effects on them will be less than minor or they are not considered to be affected parties:

Party	Why the party is not considered to be affected
Department of Conservation (DoC)	The effect of the proposed activities on indigenous fish will be less than minor, subject to compliance with the recommended conditions. It is not anticipated that the activity will reduce native fish passage upstream. The effects on the values of the Silver Burn and effects on natural character are anticipated to be less than minor. Adverse effects on indigenous aquatic values are considered to be less than minor. Effects on DoC will be less than minor.
Otago Fish and Game Council	The effect of the proposed activities on sports fish will be less than minor, subject to compliance with the recommended conditions. It is not anticipated that the activity will reduce upstream sports fish passage or recreational fishing access. Effects on Fish and Game will be less than minor.
Water users	It is not anticipated that the activity will have adverse effects on any other water users as the water is taken and returned upstream of any other takes. The effect of the proposed activities on downstream water users will be less than minor, due to the activities being existing, and not being allocative. Effects on other water users will be less than minor.
Forest and Bird	The Dingle Lagoon is a Regionally Significant Wetlands located within the property, however it

	will not be adversely affected by the activities. Effects on Forest and Bird will be less than minor.
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Have all persons identified as affected under Step 3 provided their written approvals? No the applicant has not obtained the written approval of Aukaha, and has requested the application be limited notified.

Step 4 Further notification in special circumstances

Do special circumstances exist in relation to the application that warrant notification of the application to any other persons not already determined to be eligible for limited notification under this section (excluding persons assessed under Section 95E as not being affected persons)? **No**

If Notification or limited notification is required then has the applicant paid the additional notification fee? Not applicable

7. NOTIFICATION RECOMMENDATION:

In accordance with the notification steps set out above, it is recommended that the application proceed on a limited-notified basis.



Mat Bell
Team Leader Consents
9 August 2024

DECISION ON NOTIFICATION

Sections 95A to 95G of the Resource Management Act 1991

Date: 9 August 2024

Application No: RM23.680

Subject: *Decision on notification of resource consent application under delegated authority*

Decision under Delegated Authority

The Otago Regional Council decides that this resource consent application is to be processed on a **limited notified** basis in accordance with sections 95A to 95G of the Resource Management Act 1991.

The above decision adopts the recommendations and reasons outlined in the Notification Recommendation Report above in relation to this application. I have considered the information provided, reasons and recommendations in the above report. I agree with those reasons and adopt them.

This decision is made under delegated authority by:



Peter Christophers
Acting Team Leader Consents Coastal