

BEFORE THE CANTERBURY REGIONAL COUNCIL

IN THE MATTER OF

The Resource Management Act 1991

AND

IN THE MATTER OF

applications by **Irishman Creek Station Limited** filed under **CRC084263** and **CRC011846** to divert, use and discharge water for hydro-electric power generation at Irishman Creek Station, State Highway 8, Lake Tekapo.

**REPORT AND DECISION OF HEARING COMMISSIONERS PAUL ROGERS,
MICHAEL BOWDEN, DR JAMES COOKE AND EDWARD ELLISON
PART B – SITE SPECIFIC DECISION**

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1 INTRODUCTION

- 1.1 This is a decision on applications by **Irishman Creek Station Limited** (the applicant). It is one of many decisions we have made on 104 applications by various applicants for water permits and associated consents in the Upper Waitaki Catchment.
- 1.2 The decision should be read in combination with our Part A decision, which sets out our findings and approach to various catchment wide issues that are common to multiple applications. References to our Part A decision are made throughout this decision as appropriate.

2 THE PROPOSAL

- 2.1 The applicant proposes to continue an existing activity of diverting, using and discharging water for micro hydro-electricity generation at Irishman Creek Station
- 2.2 Electricity generation on Irishman Creek Station began in 1925 by the owner at that time. The power house and its associated waterways are now a registered Historic Site, protected under the Mackenzie District Plan.
- 2.3 The activity and the plant itself has important historical significance, having been designed, built and installed by Bill Hamilton in 1925 enabling him to power his workshop which led him to becoming one of New Zealand's foremost and famous engineers. The power house, workshop and associated water works are a registered Historic Site.
- 2.4 When the micro-hydroelectricity generation was first set up, water was initially diverted from Irishman Creek into a water race and settling pond, from which there was an overflow back into a small watercourse. The balance was then transported via a further water race and pond, used to generate electricity, and then discharged into the same watercourse. This then rejoined the original Irishman Creek bed, approximately 1.5 km downstream.
- 2.5 In the 1960s the Tekapo Hydro Canal was constructed, which involved building a culvert under the canal for the Irishman Creek. The creek was diverted to join the combined waters from the settling pond and generator, and ducted under the canal. The original creek bed is no longer discernible.
- 2.6 The powerhouse currently generates up to 20 kilowatts of electricity utilizing the original turbine and governor designed in 1925. The governor design regulates the amount of water through the turbine to meet the necessary load. Thus in summer when the requirement for water is low and the water supply may diminish, less water passes through the turbine.
- 2.7 The applicant is seeking consent to continue the diversion water from Irishman Creek at or about map reference NZMS 260 138: 971-793 at a maximum of 500 litres per second. This water will only be used for hydro-electricity generation. No minimum flow is proposed by the applicant.
- 2.8 The water that has been diverted and used for hydro-electricity generation will then be discharged back in to Irishman Creek at or about map reference NZMS 260 138: 974-782. The rate of discharge will not exceed 500 litres per second and the discharge will not cause erosion to the bed or banks of Irishman Creek.
- 2.9 The location of the diversion and discharge is shown in Figure 1 below. This figure also identifies the location of the proposed diversion for irrigation and associated irrigation area (CRC011845), which we discuss in a separate decision.

The applications

- 2.10 There are two separate applications for the proposed activity:
- (a) CRC084263 – an application is for a water permit to divert take and use surface water pursuant to section 14 of the RMA ("the water permit");
 - (b) CRC011846 – an application for a discharge permit for the discharge of water pursuant to sections 15 of the RMA ("the discharge permit").

- 2.11 Both applications were lodged with the Canterbury Regional Council (the Council) on 19 March 2001. The applications were publicly notified and there were a number of submissions that are referred to later in this decision.

Modifications after notification

- 2.12 The water permit application was originally lodged as CRC011845 in March 2001, which included the take and use of water for irrigation. In 2008, this application was separated into two consents, CRC011845 dealing with the use of water for irrigation, and CRC084263 dealing with the use of water for electricity generation. We consider CRC011845 in a separate decision.

Related consents and applications

- 2.13 These applications are for replacement of existing consents. Consents WTK690931A & B were held by the applicant to divert and take up to 14,000 cubic metres of water per week and 82,800 cubic metres per month at a rate of 230 litres per second for both border-dyke irrigation of 48 hectares and power generation purposes. These consents expired on 1 October 2001. These applications before us were lodged six months prior to the expiry of the above consents and the applicant is currently operating under section 124 RMA.
- 2.14 We note the applicant has not lodged any application under section 13 of the RMA to undertake works in the bed and banks of Irishman Creek as no changes are proposed to the existing intake.

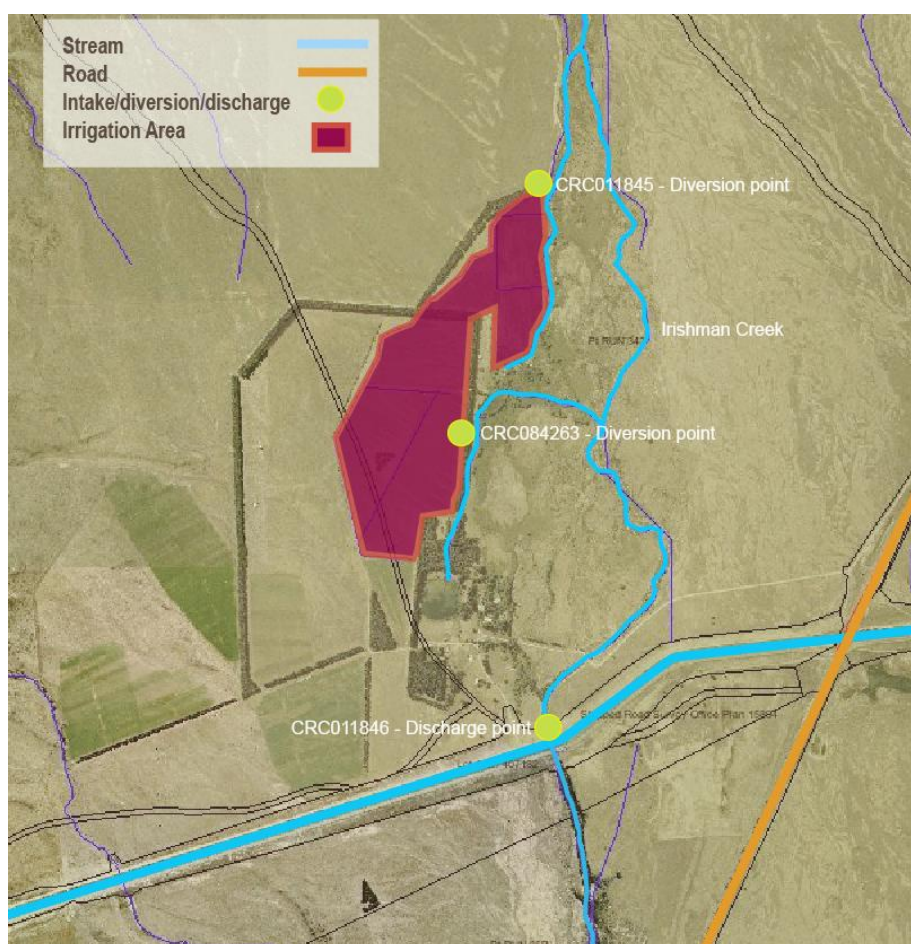


Figure 1: Indicative location plan

3 DESCRIPTION OF THE ENVIRONMENT

- 3.1 Irishman Creek Station lies 14 km south west of lake Tekapo at 2,300 feet in the Mackenzie Basin. The climate is characterised by hot, dry summers and cold dry winters. Rain occurs mainly in spring and autumn, nominally 600 mm per annual but with significant variations.
- 3.2 Irishman Creek is spring-fed, with flows augmented by melting snow and runoff during heavy rain. The maximum flow has been estimated at 85 cumecs (1 in 50 year flood) with the culvert

having this as its maximum capacity. Below this level the river runs in flood channels down to about 1500 litres per second. At normal flows, the creek is 15 metres wide with varying depth from 5 centimetres to 1 metre.

- 3.3 The bed is gravel and quite porous, resulting in considerable losses into the underlying water table. Approximately 5 kilometres downstream of the Tekapo canal (SH8), the creek disappears below ground, preventing the passage of migrating fish and any further use.
- 3.4 There are no migratory fish, and due to the shallowness of the lower creek, the number of resident fish (predominantly trout, but also some small native fish) is low. The river bed attracts river birds, especially ducks and cormorants.
- 3.5 Further description of the environment is provided in our Part A decision and our summary of the evidence received from the applicants and submitters below.
- 3.6 We detailed our site visits in Part A and we do not repeat this information here. Although we did not carry out a site visit on the ground we did investigate the site from the air.

4 PLANNING INSTRUMENTS

- 4.1 As discussed in our Part A decision, there is a wide range of planning instruments that are relevant under the RMA. This includes national and regional policy documents, along with regional and district plans. The key planning instruments relevant to these applications are the Waitaki Catchment Water Allocation Plan (WCWARP) and the Canterbury Natural Resources Regional Plan (NRRP).
- 4.2 The provisions of these planning instruments critically inform our overall assessment of the applications under s104(1)(b) of the RMA, as discussed in Section 14 of this decision. In addition, the rules within the relevant planning instruments determine the status of the activity, as set out below.

Status of the activity

- 4.3 In our Part A decision we provide a detailed discussion of our approach to determining the status of activities. We now apply that approach to the current application.

Water Permit CRC084263

- 4.4 As mentioned above, prior to 2008, this application had consent number CRC011845. This application is listed in Schedule 2 of the Resource Management (Waitaki Catchment) Amendment Act 2004. Section 88A therefore does not apply and the relevant plan for this activity is the operative WCWARP.
- 4.5 The following rules from the WCWARP are applicable to this application:
 - (a) Rule 2, clause (1) - The applicant has not proposed any minimum flow for Irishman Creek. This fails to comply with the minimum flow requirements in Table 3, row (iv).
 - (b) Rule 2, clause (3) - The total rate of diversion of 500 litres per second is exempt from the allocation limits set for Irishman Creek as the water is used for micro hydro-electricity generation and is returned to the same water body in the same condition and quality and within the vicinity of the diversion (approximately 1.5 km downstream). The activity therefore complies with this rule.
 - (c) Rule 16 - Classifying rule – non-complying activity
- 4.6 Based on the above, the diversion and use of water as proposed by the applicant is a **non-complying activity** under Rule 16 of the WCWARP. If a minimum flow was imposed that was consistent with Rule 2, Table 3, the status of the activity would change to **discretionary** under Rule 15.
- 4.7 For reasons that will become clearer subsequently, we have determined that a minimum flow should not be imposed and have assessed this activity as **non-complying** activity under Rule 16.

Discharge Permit CRC011846

- 4.8 This application is listed in Schedule 2 of the Resource Management (Waitaki Catchment) Amendment Act 2004. Section 88A of the RMA therefore does not apply and the relevant plan for determining the status of this activity is the operative NRRP.
- 4.9 The relevant provisions of the NRRP are as follows:
- (a) Rule WQL1 – permits the discharge of water into a river, subject to compliance with a range of conditions
 - (b) Rule WQL48 – provides for the status of a discharge to water where it fails to comply with any of the conditions in WQL1. Will be classified as either a discretionary or non-complying activity, depending on whether it complies with the listed conditions.
- 4.10 The discharge is unlikely to meet conditions 1 and 3 of Rule WQL1; therefore the activity is classified under Rule WQL48. The activity is likely to comply with the conditions of that rule; therefore, the discharge is classified as a **discretionary** activity.

Overall status of the proposal

- 4.11 Given the close relationship between the two activities and the potential overlap in effects, we have assessed the overall status of this proposal as **non-complying**.

5 NOTIFICATION AND SUBMISSIONS

- 5.1 The water permit was originally notified as CRC011845, which included the take and use of water for irrigation. This application underwent two separate public notifications. The first was 6 December 2003 as part of the MfE call-in of all Waitaki consents. The applications were notified again on 4 August 2007.
- 5.2 In the 2007 notification, 20 submissions in total were received on CRC084263, including 3 in support, 12 in opposition; and 2 neither in support nor opposition. A total of 17 submissions were received on CRC011846 with 3 in support, 12 in opposition, and 2 neither in support nor opposition.
- 5.3 Table 1 below is based on the relevant s42A reports and summarises those submissions that directly referenced the application. In addition to those listed, there were other submitters that presented evidence at the hearing that was relevant to this application. The relevant evidence from submitters is discussed in more detail later in this decision. Please note that all submissions hold equal importance, even if not specifically listed below.

Table 1. Summary of submissions on application CRC011846 and CRC084263

Submitter	Reasons	Position
Canterbury Aoraki Conservation Board	Consent duration, runoff control in terms of water quality, potential effects on instream ecosystems, natural character of water bodies, and landscape.	Oppose
Fish & Game NZ	Important fish spawning tributary and abstraction may be inefficient	Oppose
Meridian Energy Ltd	Concerned about water quality, metering and reasonable use	Oppose
B Hutton	Need to protect smaller streams from irrigation extraction, should be from canals and larger water bodies	Support
Mackenzie Branch – Federated Farmers	Water is important for economic sustainability and farm viability/productivity	Support
Mackenzie District Council	Water for irrigation is vital to South Canterbury	Support

	community's growth and development. The Government's intention in late 1960's to provide water for irrigation and hydro-electricity should be honoured. Resource productivity gains from irrigation. No realistic alternative if do not get water granted.	
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- 5.4 Overall, the key effects of concern to the submitters include effects on ecosystems, water quality, allocations, minimum flows, natural character and landscape, and cultural values.

6 THE SECTION 42A REPORTS

- 6.1 A section 42A report on the application and submissions was prepared by the Council's Consent Investigating Officer, Ms Claire Penman.
- 6.2 The primary report was supported by a number of specialist s42A reports prepared by Messrs Heller, Hanson, Glasson, McNae and Stewart, and Drs Clothier, Schallenberg, Meredith and Freeman. The key issues addressed by these reports were cumulative water quality effects, landscape effects, and environmental flow and level regimes.
- 6.3 All reports were pre-circulated in advance of the hearing. We have read and considered the content of the reports and refer to them as relevant throughout this decision.
- 6.4 For both applications (CRC084263 & CRC011846), Ms Penman was satisfied that there were no outstanding adverse effects of the proposed activity that had not been addressed through appropriate mitigation measures. When considering the matters outlined in section 104(1) of the RMA, she was satisfied that the actual and potential effects of the proposed activity were acceptable and the applications could be granted subject to recommended conditions.
- 6.5 We note however that this recommendation was made on the basis that a minimum flow of 350L/s at State Highway 8 was proposed. The applicant subsequently clarified that this was not the case. Although a minimum flow was proposed for the applicant's irrigation application (CRC011845), no minimum flow was proposed for the hydro-electric generation. Ms Penman commented on this issue in her addendum report, as referred to later in this decision.
- 6.6 Ms Penman also recommended that the take of water be metered and a suitable fish screen be imposed. These are both issues that were subsequently disputed by the applicant, as we discussed below.

7 THE APPLICANT'S CASE

- 7.1 Legal counsel for the applicant, Mr Ewan Chapman, presented opening submissions and called one witness, Mr Justin Wills, owner of Irishman Creek Station.

Opening submissions

- 7.2 The applicant is part of the Upper Waitaki Applicant Group (UWAG), as described in our Part A decision. Mr Ewan Chapman presented comprehensive opening legal submissions on behalf of all UWAG applicants. He said that there may be matters of a specific legal nature relating to certain applications and those issues will be raised when the specifics of the applications were discussed in closing.
- 7.3 Mr Chapman's submissions focussed on issues relating to applications to take and use water for irrigation. He made no specific comments in relation to the applications that are the subject of this decision.

Application Evidence

- 7.4 Mr Justin Wills the owner of Irishman Creek Station said that he wished to continue micro hydro electricity generation with water from Irishman Creek. The activity and the plant itself had important historical significance, having been designed, built and installed by Bill Hamilton in 1925 enabling him to power his workshop which led him to becoming one of New Zealand's foremost and famous engineers. The power house, workshop and associated water works are a registered Historic Site.

- 7.5 The design incorporates a Francis turbine which is capable of efficient production of power up to 20 Kw. The governor regulates the water volume to meet the load required. Thus water used is at its minimum during the summer months. The water requirement thus varies from a maximum of 500 L/s to less than 250 L/s.
- 7.6 In relation to the proposal for a fish screen, Mr Wills told us that a suitable screen was already in place to prevent the digestion of fish and debris into the penstock and turbine. However the associated waterways are permanent and open to the creek and have provided a habitat for wildfowl and fish since construction in 1925.
- 7.7 Mr Wills was also opposed to a minimum flow regime and considered that a minimum flow was unnecessary for a non-consumptive use. He considered that the requirement to cease generation at times of flow Creek flow would be unduly restrictive because the use of the water for this purpose does not reduce the flow downstream of the power canal. He also referred us to Rule 2(3) of the WCWARP which he considered provided an exemption for allocation limits and minimum flows for hydro schemes.
- 7.8 Finally, Mr Wills commented on the proposed metering of the take, which he also considered to be unnecessary. He noted that the governor system that is in place is incapable of using more than 500 L/s and that metering the take would therefore serve no purpose.
- 7.9 In October 2009, Mr Wills provided a supplementary statement of evidence where he made further comment on the conditions of consent recommended by Ms Penman in her s42A report. He reiterated his view that conditions relating to fish screen, minimum flows and metering of the take were unnecessary. For similar reasons, he also considered that metering of the discharge did not provide any mitigation and should be not be required. He also suggested that the review condition be modified to remove reference to cumulative effects, which he considered to be irrelevant given the absence of any other consented abstractions from Irishman Creek.

8 SUBMITTERS

- 8.1 Set out below is the summary of the issues raised by submitters who appeared before us. We emphasise that we have read and considered all submissions made, both in support and in opposition to the application, as well as reviewing and carefully considering evidence advanced before us.

Fish and Game

- 8.2 Mr Mark Webb, of Fish and Game, provided an outlined of the fish and game values of Irishman Creek. He noted that the creek supports self sustaining populations of brown and rainbow trout that are independent of Mary Burn and Tekapo River populations. He told us that trout fishing is sustained around the gorge in the upper reaches of Irishman Creek, but noted that angler use of Irishman Creek is not large.
- 8.3 In respect of issues with this proposal, Mr Webb noted that the hydroelectric take of 500 L/s occurs about 3 km upstream from the flow monitoring site and water is returned about 1.5 km upstream from the flow monitoring site. On this basis there exists a river reach of about 1.5 km that is affected by the hydro diversion.
- 8.4 Mr Webb said that it would appear that the return of the hydro diversion could maintain the minimum flow at the monitoring site while potentially dewatering a 1.5 km reach between the intake and discharge. To maintain fish habitat and connectivity between the diversion and discharge, he recommended that a minimum flow condition with monitoring should apply immediately downstream from the intake. The minimum flow should be equivalent to the 5-year 7-day minimum flow.
- 8.5 In addition to the above, Mr Webb believed the spread and growth of invasive alder trees (*Alnus sp.*) in the lower Mary Burn and Tekapo River over the last 10 years may have its origin in mature alders on Irishman Creek. He said that this species limits angler access and if left uncontrolled they will choke the banks and create problems for passage of flood waters. He therefore recommended that the applicant implement an alder removal programme, with Fish and Game assistance, as mitigation for adverse effects of the takes on trout habitat.

9 UPDATES TO THE SECTION 42A REPORT

- 9.1 Ms Penman produced an addendum report that provided an update on matters were identified by Ms Penman during the hearing or changes proposed by the applicant. It also responded to the concerns raised by Mr Wills in his evidence.
- 9.2 Ms Penman referred to Mr Wills comments about the existing fish screen on the penstock and turbine and his contention that one is not necessary on the race as it provides good aquatic habitat. Ms Penman was satisfied that this was appropriate on the basis that the race has been operating successfully since 1925 and the creek was not a significant habitat for native fish. However, she recommended that a report be prepared which certified that the current fish screen would be effective at preventing fish from entering the penstock and turbine in accordance with the NIWA Guidelines and that there was a suitable bypass in place for fish to avoid the intake. Should this not be the case then she recommended a fish screen should be included at the head of the diversion race, constructed in accordance with the NIWA Guidelines.
- 9.3 Ms Penman did not agree with Mr Wills' suggestion that there should be no minimum flow requirement. She agreed that the diversion, take and use of water for micro hydro-electricity generation was exempt from the allocation limits under Rule 2(3), but did not consider that it should be exempt from the minimum flow requirements. Therefore, she recommended the proposed minimum flow should be retained, along with the requirement for a flow recording device.
- 9.4 Ms Penman did not agree with the applicant's suggestion that the water metering requirement be waived as the governor system was incapable of using more than 500 L/s. Ms Penman considered that a flow measuring device should be maintained to ensure no more than 500 L/s was diverted out of Irishman Creek.
- 9.5 Finally, in response to Mr Wills' suggested change to the review condition to be consistent with the discharge permit, Ms Penman recommended that the condition she recommended in the s42A report be retained. She did however agree with his suggestion to delete condition 4 for the discharge on the basis that it was non necessary to meter the rate of discharge.
- 9.6 Ms Penman also considered Mr Webb's comments in relation to the need for a downstream minimum flow. She noted that the system had been operating with no minimum flow since the 1920s and as all flows go underground downstream of the intake, there were very few, if any, migratory fish present in the vicinity of the diversion. Ms Penman considered that the environment would have adapted to the current system. In addition, the power system was predominantly operated in winter months when flows in the creek will be well above the minimum flow. Therefore, she considered that the effects of this system will be acceptable with only a minimum flow at SH8 and not immediately downstream of the diversion as proposed by Mr Webb.

10 APPLICANT'S RIGHT OF REPLY

- 10.1 In his right of reply, Mr Wills reiterated the concerns he had expressed in his earlier evidence and responded to the recommendations of Mr Penman in her addendum report. His concerns related to three key matters; fish screens, minimum flows, and metering.

Fish Screen

- 10.2 Mr Wills did not support Ms Penman's recommendation that a report be prepared to certify the existing fish screen is effective. He noted that fish do not actively seek to swim down penstocks towards fast spinning turbines and as the velocity of water at the fish screen is low, fish can easily swim away from in. In his own experience over the last 21 years, he told us that no fish had ever entered the turbine.
- 10.3 In relation to the suggestion of installing a fish screen at the head of the diversion race, he considered that this would damage the established ecosystem given that fish have had unimpeded passage up and down the system for the last 85 years. For the above reasons, he considered that fish screening conditions were unnecessary.

Minimum flows

- 10.4 Mr Wills was concerned about the section 42A officer's recommendation that a minimum flow be imposed on the activity. He considered that he requirement to cease generation at times of low

Creek flow would be unduly restrictive because the use of water for this purpose does not reduce the flow downstream of the power canal.

- 10.5 He then went on to say that if that condition were to be applied it would render their micro hydro power generation system unviable, as it would require them to shut it down during periods of low flow and would have the following effects:
- (a) Loss of electricity supply to the homestead, workshop and cook-shop.
 - (b) Loss of domestic water supply to all the buildings, including five dwellings.
 - (c) The draining of the lower dam and its water race provides a habitat for aquatic fauna, fish, and bird life. The environment would be destroyed if it was drained. The clay sealing of the system would also be damaged.
 - (d) The de-watering of the penstock and turbine having been immersed in water since 1925 would very quickly be destroyed by the introduction of air.
- 10.6 He therefore requested that the condition regarding a minimum flow be omitted, even if it results in the consent becoming non-complying, on the grounds that this activity meets both the policies and objectives of the Plan in encouraging micro hydro power generation and its effects are less than minor.
- 10.7 In seeking the omission of this condition Mr Wills further added:
- (a) The use of the water is non-consumptive. It will have no influence on the minimum flow at the SH8 gauging point.
 - (b) It is a renewal of an activity that has been continuous since 1925.
 - (c) It satisfies the Section 7 criteria for efficient use of resources.
 - (d) Thanks to the governor system the amount of water used varies in relation to the power output, i.e. the load. Thus in summer, when the power required is low, the use of water is correspondingly low.
 - (e) It provides a substantial energy contribution to sustainable development at Irishman Creek, thanks to the very substantial investment in the related infrastructure.
 - (f) It has important historic and pioneering significance. The micro power station and its associated works are the focus of the many visitors to the Station.
- 10.8 In relation to the potential for the river to run dry between the diversion and discharge points, Mr Wills told us that the system has been operating since the 1920's with no minimum flow and that the environment has adapted to this system. He also stressed that a residual flow has always continued between these points even in the driest periods despite diversion for power use.
- 10.9 For all of the above reasons, he considered that no minimum flow should be imposed.

Metering

- 10.10 In relation to metering of the diversion, Mr Wills reiterated his earlier evidence that the system is incapable of handling more than 500 L/sec, and this is only approached in winter when power demand is at its maximum and the Creek is well above the minimum flow. In summer water use is significantly less. Mr Wills therefore considered that the metering system to ensure that he remained within 500 L/s was unnecessary.

11 STATUTORY CONTEXT

- 11.1 The relevant statutory context for a **discretionary** activity is set out in detail in our Part A decision. In accordance with those requirements, we have structured this evaluation section of our report as follows:
- (a) Evaluation of effects

- (b) Evaluation of relevant planning instruments
- (c) Evaluation of other relevant s104 matters
- (d) Section 104D jurisdictional hurdles
- (e) Part 2 RMA
- (f) Overall evaluation

12 EVALUATION OF EFFECTS

12.1 Drawing on our review of the application documents, the submissions, the Officers' Reports, the evidence presented at the hearing, we have concluded that the effects we should have regard to are:

- (a) Effects of diversion;
- (b) Effects of discharge; and
- (c) Positive effects.

Effects of diversion

12.2 The potential effects of the take relate to the flow and ecosystems within Irishman Creek. There were three key issues under this heading, being;

- (a) Whether a minimum flow should be imposed;
- (b) Whether a fish screen is required; and
- (c) Whether the take should be metered.

12.3 All of these measures were recommended by the reporting officer Ms Penman to ensure that the flows in Irishman Creek were maintained and instream ecosystems protected. In contrast, they were opposed by the applicant as being unnecessary and impractical. We consider each of these issues below.

Minimum flow

12.4 As a non-consumptive use, the activity will have no impact on the flows of Irishman Creek above the diversion and below the discharge. However the 1.5 km stretch of the creek between the two points is a potential area of concern as water will be removed from this stretch to drive the hydro scheme.

12.5 We have given careful consideration as to whether a minimum flow is required to protect this stretch of Irishman Creek. We note Mr Webb's concerns that there is the potential for this stretch of the river to be dewatered and that Ms Penman also recommended a minimum flow be imposed. However on balance we prefer the evidence of Mr Wills that a minimum flow is not necessary in the circumstances.

12.6 We accept that this activity has been occurring for over 85 years and that the effects of the activity are therefore well established in the environment. In particular, we accept that the ecosystems in Irishman Creek will have adapted to the system and received no evidence to the contrary. We also had no reason to doubt Mr Will's evidence that to the best of his knowledge, the stretch of the stream between the diversion and discharge has never run dry, even when water is being taken for hydro generation and at the driest time of the year.

12.7 Furthermore, we accept that very real consequences for the applicant if the system was required to be shut down for any length of time, including the loss of electricity and domestic water supply, potential damage to the penstock and turbine, and damage to the existing ecosystem in the race. We do not consider there are sufficient benefits to justify these costs and have therefore decided that no minimum flow should be imposed on the consent.

Fish Screen

- 12.8 In relation to the need for a fish screen, we note that a fish screen already exists on the penstock and turbine. Mr Wills in his evidence therefore considered that a fish screen condition was unnecessary. However we note that in the final condition set provided, a fish screening condition was proposed by the applicant recognising that there is an existing screen in place. Alternative wording was suggested by Ms Penman and agreed to by the applicant, subject to a modification to allow the consent holder time to have a screen designed, installed and commissioned.
- 12.9 We consider that this condition is an appropriate mitigation measure to ensure that fish are not caught in the turbine. Although Mr Will's evidence was that no fish had been caught in his 21 years experience, this condition will ensure that this protection continues into the future and occurs in accordance with best practice guidelines. We note that the condition we have imposed is somewhat different from the standard condition we have used for irrigation activities, but consider this is reasonable in the circumstances given the nature of the activity.
- 12.10 As proposed by the applicant, this screen should be located at the pipe intake within the storage pond rather than at the head of the diversion. We consider that there is no need to screen the entire canal as it has been open to the creek for a considerable period of time and to now require that this be screened would potentially adversely affect the established ecosystems in the canal.

Metering

- 12.11 The final issue under this heading is whether it is necessary to meter the amount of water being diverted from Irishman Creek. Mr Wills' response was that this was unnecessary as the governor system was incapable of using more than 500L/s and was therefore self limiting. In her addendum report, Ms Penman said she did not agree with this but provided no reason to support her view.
- 12.12 In the absence of any evidence to the contrary, we accept Ms Wills contention that the system cannot handle a flow of more than 500L/s. For this reason we cannot see any purpose that would be served by requiring the diversion (or the discharge) to be metered. We are also mindful of the point mentioned earlier that this activity has been occurring for over 85 years with no metering of the take and no evident adverse effects.

Effects of discharge

- 12.13 In relation to the discharge, the discharge has been occurring for a number of years without complaint from any users of the catchment. We agree with the applicant that quality of water and subsequently the level of contaminants would be unchanged from the water that was diverted. We concur that effects on water quality from the discharge are likely to be minor.
- 12.14 Given that the effects on water quality are considered to be minor and the discharge occurs on the applicant's property, we are satisfied that effects of the discharge on downstream users and amenity values would be minor.
- 12.15 On inspection of the photographs Ms Penman could not observe any erosion of the bed or banks and she thought the waterway appeared to have capacity for the discharge that is occurring. Given that the rate of diversion is equivalent to that discharged, and the well-established nature of the activity, we consider that with the recommended conditions, the effects of the discharge of flood-carrying capacity and erosion would be minor.
- 12.16 Proposed condition (4) for the discharge has been deleted as Mr Wills does not consider it necessary to meter the rate of discharge and we agree. The generator's use of water is governed by the electricity demand and we know that it cannot exceed the authorised maximum rate of discharge.

Positive effects

- 12.17 We accept that the existing hydro scheme provides tangible benefits for the applicant in providing electricity and domestic water supply to the buildings on the Station.
- 12.18 In addition, it has a historical value to the wider community because of its connection with Mr William Hamilton. Mr Willis told us that it was the well known inventor, Mr William Hamilton, who designed and constructed the hydro works where are here dealing with. Mr William Hamilton

“invented” the Hamilton Jet boat. We also note that within the Mackenzie District Plan the works are provided with heritage protection status.

13 EVALUATION OF RELEVANT PLANNING INSTRUMENTS

- 13.1 Under s 104(1)(b) of the Act, we are required to have regard to the relevant provisions of a range of different planning instruments. Our Part A decision provides a broad assessment of those planning instruments and sets out the approach we have applied to identification and consideration of the relevant provisions. The following part of our decision should be read in combination with that Part A discussion.
- 13.2 In relation to the current applications, we consider that the most relevant and helpful provisions are found in the regional plans, including in particular the WCWARP and the NRRP. The following sections of this decision provide our evaluation of the key objectives and policies from these planning instruments.

WCWARP

- 13.3 The planning officer in her report discussed all relevant objectives and policies relating to CRC084263 (the water permit). Her overall conclusions were that granting consent on the conditions here proposed would be consistent with the objectives and policies of the WCWARP. However this conclusion was reached on the basis that a minimum flow was imposed on the diversion and the take was metered.
- 13.4 Policies 3 and 4 of the WCWARP refer to the setting of environmental flow and level regimes to achieve the objectives of the WCWARP. This is reflected in the rules of the NRRP which specifies minimum flows and levels for water bodies, including Irishman Creek. In addition, Policy 21 requires that takes and diversions of water be metered.
- 13.5 For the reasons discussed above, we have determined that it is unnecessary to impose a minimum flow or to meter the take. We accept that this is somewhat inconsistent with these provision, but consider that it is justified in the circumstances given the nature of the proposal (which is quite different from the irrigation proposals we have considered) and the absence of adverse effects on the environment.

NRRP

- 13.6 In relation to the discharge application (CRC011846), the key provisions of relevance can be found in the water quality chapter of the NRRP (Chapter 4). This includes Objective WQL1.1, along with Policy WQL1 which relates specifically to point source discharges that may enter surface water. Given our conclusion on the effects of the discharge on water quality, we are satisfied that the proposed activity is consistent with these provisions.

14 SECTION 104D JURISDICTIONAL HURDLES

- 14.1 Based our evaluation under section 104, we now move to consider whether either of the jurisdictional hurdles under section 104D of the RMA can be met.
- 14.2 The first threshold test is whether the adverse effects would be minor. For the reasons outlined above, we are satisfied that the adverse effects of the proposal will be minor and the first jurisdictional hurdle has been met.
- 14.3 The second test is whether the activity would be contrary to the objectives and policies of the plan, in this case the WCWARP. As discussed above, the proposal is not entirely consistent with the WCWARP given the absence of a minimum flow condition or metering of the take. However, given that the proposal has satisfied the first threshold test, we have the discretion whether or not to grant consent.
- 14.4 We now move to consider relevant Part 2 matters, following which we complete our overall evaluation as to whether consent should be granted.

15 EVALAUTION OF OTHER RELEVANT S104 MATTERS

- 15.1 Under s104(1)(c) RMA, we are required to have regard to any other matter that we consider to be relevant and reasonably necessary to determine the application.

- 15.2 Section 104(2)(a) RMA provides that when considering an application affected by s124 RMA, the consent authority must have regard to the value of the investment of the existing consent holder. The existing infrastructure clearly is of value to the existing consent holder and would be expensive, we would think, to replace or replicate. We have taken that investment into account in our considerations.

16 PART 2 RMA

- 16.1 Section 104(1) states that the matters which we have discussed above are subject to Part 2, which covers section 5 through section 8 inclusive. These sections are set out in full in our Part A decision and are discussed below in the context of the current applications.

Section 6 – Matters of National Importance

- 16.2 Section 6 identifies matters of national importance that we must “recognise and provide for” when making our decision, including preserving the natural character of lakes and rivers (s6(a)), and the relationship of Māori with the environment (s6(e)), and the protection of historic heritage from inappropriate use and development (s6(f)). Our comment on the provisions relevant to this activity are as follows:

- (a) The activity has been occurring for many years and the effects of the diversion, use and discharge of water are consistent with this provision.
- (e) The activity and the mitigation proposed will ensure that the effects will be minor and remain consistent with s6(e) requirements.
- (f) The continuation of the activities will recognise and provide for a unique part of New Zealand history that the micro hydro electric system represents on Irishman Creek, and pose no threat to this aspect of 6(f).

- 16.3 For the above reasons, we consider that granting consent to the proposal will recognise and provide for sections 6(a), 6(e) and 6(f), as we are required to do under the RMA.

Section 7 – Other Matters

- 16.4 Section 7 lists other matters that we shall “have particular regard to”. We make the following findings in relation to each of those matters as they are relevant to the application:
- (a) Kaitiakitanga has been observed to the extent that the applicant has been a contributor to the MWRL engagement with Ngāi Tahu, that sought to identify and respond to the particular values and potential impacts of concern to Ngāi Tahu with the irrigation proposals in the Basin. We note that Ngāi Tahu modified their initial opposition to small scale, replacement and low impact activities. In our view the proposal will have minor effects and is not inconsistent with 7(a).
 - (b) Relates to the efficient use of water and there is no evidence that this operation is not an efficient use of water.
 - (f) Refers to the maintenance and enhancement of the quality of the environment. The applicant has proposed mitigation measures to ensure that this objective is achieved, particularly with regards to instream habitat.

- 16.5 Having particular regard to the above matters in the context of section 7, we conclude that the grant of consent can be supported.

Section 8 – Treaty of Waitangi

- 16.6 Given our finding that the general effects of the activity will be minor, we are also of the view that the activity is not inconsistent with the principles of the Treaty of Waitangi.

Section 5 – Purpose of the RMA

- 16.7 Turning now to the overall purpose of the RMA, that is, “to promote the sustainable management of natural and physical resources”.

- 16.8 The proposal will allow small scale micro hydro-electricity development to occur, which will assist in providing for the economic and social well-being of the community. The applicant has proposed measures to “safeguard the life-supporting capacity of water” and “avoid, remedy or mitigate” the potential impacts on ecosystems as required in Section 5(2)(c), and confirmed that the proposed activity is consistent with the objectives of Section 5(2)(a), which aims to provide for the needs of future generations.

17 OVERALL EVALUATION

- 17.1 Under s104B RMA, we have a discretion as to whether or not to grant consent. This requires an overall judgment to achieve the purpose of the Act and is arrived at by:
- (a) Taking into account all the relevant matters identified under s104 RMA;
 - (b) Avoiding consideration of any irrelevant matters;
 - (c) Giving different weight to the matters identified under s104 RMA — depending on our opinion as to how they are affected by the application of s 5(2)(a), (b), and (c) and ss 6-8 RMA— to the particular facts of the case; and then in light of the above; and
 - (d) Allowing for comparison of conflicting considerations, the scale or degree of conflict, and their relative significance or proportion in the final outcome.
- 17.2 Effectively, we are re-consenting a previously consented activity. The effects of that activity have already been considered when the original grant of consent was granted. Thus, our focus has to be on whether or not anything has changed in terms of the planning instruments since the date of the first grant, which, if so, now requires a differing approach or consideration. We also need to consider the effects of the activity on the environment in the future.
- 17.3 This is a replacement consent for which there are no allocation concerns. The activity and the plant itself have important historical significance, having been designed, built and installed by Bill Hamilton in 1925 enabling him to power his workshop which led him to becoming one of New Zealand’s foremost and famous engineers.. In addition, the plant has economic value to the station through the electricity it provides.
- 17.4 For the reasons already advanced, we think that there is no environmental benefit to be gained by requiring minimum flows and metering conditions on this consent, particularly in light of the potential adverse consequences if the diversion was required to cease. Overall we consider that the proposal is for a largely beneficial and longstanding activity with no significant adverse effects on the environment.
- 17.5 Having reviewed the application documents, all the submissions, taking into account the evidence to the hearing and taking into account all relevant provisions of the RMA and other relevant statutory instruments we have concluded that the outcome which best achieves the purpose of the Act is to **grant** consent, subject to conditions.

18 DECISION

- 18.1 Pursuant to the powers delegated to us by the Canterbury Regional Council; and
- 18.2 For all of the above reasons and pursuant to sections 104 and 104B of the Resource Management Act 1991, we **GRANT** applications CRC084263 and CRC011846 by Irishman Creek Station Limited for the following activities:

CRC084263-To divert and use water from Irishman Creek at a maximum rate of 500 litres per second for hydro-electric power generation at or about map reference NZMS 260 I38:971-793 being Irishman Creek Station, State Highway 8, Lake Tekapo.

CRC011846 - To discharge water at a rate not exceeding 500 litres per second into Irishman Creek from the diversion and use of the water for hydro-electric power generation at or about map reference NZMS 260 I38:974-782 being Irishman Creek Station, State Highway 8, Lake Tekapo.

- 18.3 Pursuant to section 108 RMA, the grant of consent is subject to the conditions specified at **Appendices A and B** respectively, which conditions form part of this decision and consent

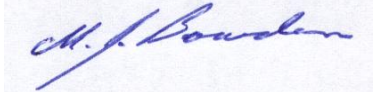
18.4 The duration of both consents shall be for 35 years from the commencement of the consents.

DECISION DATED AT CHRISTCHURCH THIS 23RD DAY OF MARCH 2012

Signed by:

Paul Rogers 

Dr James Cooke 

Michael Bowden 

Edward Ellison 

Divert and Use for Hydro-electricity

Diversion of water

1. Water shall only be diverted from Irishmans Creek, at or about map reference NZMS 260 I39:971-793 at a rate not exceeding 500 litres per second, with a volume not exceeding 43,200 cubic metres per day

Use of water

2. Water shall only be used for micro hydro-electricity generation at the location shown on attached **Plan CRC084263/CRC084263**, which forms part of this consent.

Fish Screen

3. A fish exclusion device shall be installed, operated and maintained on the pipe intake within the storage pond to ensure that fish are prevented from passing into the intake.
4. The fish exclusion device shall be positioned to avoid entrapment of fish and to minimise the risk of fish being damaged by contact with the fish screening device.
5. The fish exclusion device shall be designed or supplied by a person with experience in freshwater ecology and fish screening techniques, who shall ensure that the performance criteria specified in these conditions are achieved and that the device is designed in accordance with best practice, as outlined in the document Fish Screening: Good Practice Guidelines for Canterbury, NIWA Client Report 2007-92, October 2007.
6. Prior to the installation of the fish screen, a report containing final design plans that demonstrate that the fish screen will meet the performance criteria specified in these conditions, and an operation and maintenance plan for the fish screen, shall be provided to Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager.
7. Within 6 months of the first exercising of this permit, a certificate shall be provided to Canterbury Regional Council, by a person with experience in freshwater ecology and fish screening techniques, to certify that the design plans and operation and maintenance plan for the fish screen will meet performance criteria as outlined in these conditions and that the fish screen has been installed in accordance with the detail provided to Canterbury Regional Council in accordance with Condition 6.
8. The fish screen shall be maintained in good working order. Records shall be kept of all inspections and maintenance, and those records shall be provided to Environment Canterbury upon request.

Review of conditions

9. The Canterbury Regional Council may, once per year, on any of the last five working days of March or July serve notice of its intention to review the conditions of this resource consent for the purposes of dealing with any adverse effect on the environment which may arise from the exercise of the resource consent and which it is appropriate to deal with at a later stage.

Lapse

10. The lapsing date for the purposes of section 125 of the Resource Management Act shall be five years from the commencement of this consent.

Discharge of water to Irishman Creek

Discharge of water

1. Water shall only be discharged to Irishman Creek at or about map reference NZMS 260: 139:974-782 as shown on **Plan CRC084263/CRC084263** which is part of this consent. Water shall be discharged at a rate not exceeding 500 litres per second.
2. Water shall only be from micro hydro-electricity generation and not contain any contaminants.
3. At the point of discharge:
 - (a) All practicable measures shall be undertaken to avoid erosion of the bed or banks of Irishman Creek occurring as a result of the discharge.
 - (b) In the event of any erosion occurring to the bed or banks of Irishman Creek as a result of the discharge, the consent holder shall be responsible for rectifying the situation as soon as practicable.
4. The discharge, after reasonable mixing, shall not cause a change in the colour or a reduction of the clarity of the receiving water body.

Review of conditions

5. The Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, shall be informed immediately on first exercise of this consent by the consent holder.
6. The Canterbury Regional Council may, once per year, on any of the last 5 working days of May or November serve notice of its intention to review the conditions of this resource consent for the purposes of dealing with any adverse effect on the environment which may arise from the exercise of the resource consent and which it is appropriate to deal with at a later stage.

Lapse

7. The lapsing date for the purposes of section 125 of the Resource Management Act shall be five years from the commencement of this consent.

