

Conditions for water permit CRC084263 – Irishman Creek Station Limited					
Status of Consent: renewal Catchment: Irishman/Haldon A 35 year duration is sought					
No.	Cond. Code	CRC Proposed	UWAG Proposed	Comments	ECAN comments – Claire Penman
Divert					
1	WP01	<i>Name of waterbody:</i> Irishman Creek <i>Map reference:</i> NZMS 260 I39:971-793 <i>Instantaneous rate:</i> 500 litres per second <i>Volume:</i> 43,200 cubic metres per day	Water shall only be diverted and taken from Irishman Creek at or about map reference NZMS 260: I39:971-793 at a maximum rate of 500 litres per second and a volume not exceeding 43,200 cubic metres per day.	Standard condition to allow the diversion of water for micro hydro-electricity generation.	Agree
Use					
2	WP04	<i>Activity:</i> Micro hydro-electricity generation Plan no: "CRC011845" (Attachment 1)	Water shall be used only for Micro hydro-electricity generation on the area of land shown on attached Plan "CRC084263"	Agreed.	Wording should be amended slightly by deleting the words "on the area of land" and changing it to " <u>at the location</u> ".
Mitigation					
3	WP07	<i>Name of waterbody:</i> Irishman Creek <i>Map reference:</i> NZMS 260 I39:978-766 <i>Minimum flow:</i> 350 litres per second <i>Flow graph:</i> See Report 2A		Delete. The activity is a non-consumptive use of water and has no material impact on the minimum flow of Irishman Creek at SH8 Bridge. See submissions and right of reply presented to the commissioners by Justin Wills	Still consider min flow is required in accordance with Table 3 of the Waitaki Plan. Micro-hydro only exempt from allocation limits. Refer paragraph 234 of addendum s42A report of Claire Penman. <i>Applicant further comment</i> Disagree with Claire on this one. The purpose of minimum flow restrictions is to ensure the flow at the specified minimum flow monitoring site does not reduce below the specified value. As this abstraction is non-consumptive and the water is discharged back to the Creek well upstream of the minimum flow site it does not impact on the minimum flow therefore it is not required.
4	WP09	(a) Water shall only be taken when a fish screen with a maximum mesh width and height size of 3 millimetres or slot width and height of 2 millimetres is operated and maintained across the intake to ensure that fish and fish fry are prevented from passing through the intake screen.	(a) Water shall only be taken while the existing fish screen is operated and maintained across the intake to ensure that fish and fish fry are prevented from passing through the intake screen. (b) The fish screen shall be positioned to ensure that there is unimpeded fish passage to and from the waterway and to	Amend the wording to reflect the fact that there is an existing screen sited at the pipe intake within the storage pond. As there is adequate storage within the pond there is no need for a fish bypass or sweep	Recommend alternative wording to reflect that this is an existing intake as per below: (a) A fish exclusion device shall be installed, operated and maintained on the intake to ensure that fish are prevented from passing into the intake. (b) The fish exclusion device shall be positioned to avoid the entrapment of fish at the point of abstraction, and to minimise the risk of fish being damaged by contact with the fish screening device. (c) 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

	<p>(b) The fish screen shall be positioned to ensure that there is unimpeded fish passage to and from the waterway and to avoid the entrapment of fish at the point of abstraction, and to minimise the risk of fish being damaged by contact with the screen face.</p> <p>(c) The fish screen shall be designed and installed to ensure that:</p> <p>(i) the majority of the screen surface is oriented parallel to the direction of water flow.</p> <p>(ii) where practicable, the screen is positioned in the water column a minimum of 300 millimetres above the bed of the waterway and a minimum of one screen radius from the surface of the water.</p> <p>(iii) the approach velocity perpendicular to the face of the screen shall not exceed 0.06 metres per second if no self-cleaning mechanism exists, or 0.12 metres per second if a self-cleaning mechanism is operational.</p> <p>(iv) the sweep velocity parallel to the face of the screen shall exceed the design approach velocity.</p> <p>(d) The fish screen shall be designed or supplied by a suitably qualified person who shall ensure that the design criteria specified in condition (WP09)(a)(c)(iv) of this consent is achieved. Prior to the installation of the fish screen, a report containing final design plans and illustrating how the fish screen will meet the required design criteria, and an operation and maintenance plan for the fish screen shall be provided to Environment Canterbury, Attention: RMA Compliance and Enforcement Manager.</p> <p>(e) A certificate shall be provided to Environment Canterbury by the designer or supplier of the fish screen to certify that the fish screen has been installed in accordance with the details provided to Environment Canterbury in accordance with condition (WP09)(a)</p>	<p>avoid the entrapment of fish at the point of abstraction, and to minimise the risk of fish being damaged by contact with the screen face.</p> <p>(c) The fish screen shall ensure that:</p> <p>(i) the majority of the screen surface is oriented parallel to the direction of water flow.</p> <p>(ii) where practicable, the screen is positioned in the water column a minimum of 300 millimetres above the bed of the waterway and a minimum of one screen radius from the surface of the water.</p> <p>(iii) the approach velocity perpendicular to the face of the screen shall not exceed 0.06 metres per second if no self-cleaning mechanism exists, or 0.12 metres per second if a self-cleaning mechanism is operational.</p> <p>(iv) the sweep velocity parallel to the face of the screen shall exceed the design approach velocity.</p> <p>(d) A report containing final design plans and illustrating how the fish screen will meet the required design criteria, and an operation and maintenance plan for the fish screen shall be provided to Environment Canterbury, Attention: RMA Compliance and Enforcement Manager.</p> <p>(e) A certificate shall be provided to Environment Canterbury by the designer or supplier of the fish screen to certify that the fish screen has been installed in accordance with the details provided to Environment Canterbury in accordance with condition (WP09)(a) of this consent.</p> <p>(f) 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.</p>	<p>velocity.</p> <p>See submissions and right of reply presented to the commissioners by Justin Wills, and comments made by Claire Penman, paragraph 233 of her addendum S42A report</p>	<p>criteria specified in clauses (a) and (b) of this condition 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 2007-092, October 2007.</p> <p>(d) 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 clauses (a) and (b) of this condition, and an operation and maintenance plan for the fish screen, shall be provided to Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager.</p> <p>(e) Before the taking of any water in terms 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 this condition, and that the fish screen has been installed in accordance with the details provided to Canterbury Regional Council in accordance with clause (d) of this condition.</p> <p>(f) 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 Canterbury Regional Council upon request.</p> <p><i>Applicant further comment</i></p> <p><i>Claire notes that the above wording reflects that this is an existing intake. Part (e) of the condition needs to be amended to allow time for the consent holder to have a screen designed, installed and commissioned, therefore replace (e) above with the following</i></p> <p>(e) 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 this condition, and that the fish screen has been installed in accordance with the details provided to Canterbury Regional Council in accordance with clause (d) of this condition.</p>
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		of this consent. (f) 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.			
5		The consent holder shall ensure water races used to convey water diverted in terms of this permit are well maintained to minimise losses.		Agreed	Agree
Measuring & Metering					
6	ME03	<p>(a) The consent holder shall before first exercise of this consent install a water meter measuring device in a location that will enable the determination of the continuous rate of flow and volume of water being taken to within an accuracy of 10 percent.</p> <p>(b) The measuring device shall, as far as is practicable, be installed at a site likely to retain a stable relationship between flow and water level. The measuring device shall be installed in accordance with the manufacturer's instructions.</p> <p>(c) install a tamper-proof electronic recording device such as a data logger(s) that shall time stamp a pulse from the flow meter at least once every 15 minutes, and have the capacity to hold at least one season's data of water taken as specified in clauses (d)(i) and (d)(ii), and which is telemetered, as specified in clause (d)(iii).</p> <p>(d) The recording device(s) shall:</p> <p>(i) be set to wrap the data from the measuring device such that the oldest data will be automatically overwritten by the newest data (i.e. cyclic recording); and</p> <p>(ii) store the entire season's data in each 12 month period from 1 July to 30 June in the following year, which the consent holder shall then</p>		<p>Delete. The activity is a non-consumptive use of water and has no material impact on the minimum flow of Irishman Creek at SH8 Bridge.</p> <p>See submissions and right of reply presented to the commissioners by Justin Wills</p> <p>Still disagree with the need to monitor the rate of diversion. The diverted water passes into a pond which then discharges via the turbine. The only way that water can discharge from the pond is via the turbine. If the turbine cannot pass more than 500 l/s, then the rate of diversion cannot exceed that rate</p>	<p>Need to be able to measure rate at which water is diverted from Irishman Creek to ensure no more than 500l/s diverted. Refer paragraph 235 of the addendum s42A report of Claire Penman.</p> <p>Perhaps a modified version of this condition could be drafted whereby a staff gauge is used and recording of the level on that as no need for recording annual volume for this activity?</p>

		<p>download and store and provide to the Canterbury Regional Council in a format and standard specified in the Canterbury Regional Councils form for Water Metering Data Collection; and be readily accessible to be downloaded by the Canterbury Regional Council or by a person authorized by the Canterbury Regional Council: RMA Compliance and Enforcement Manager; and</p> <p>(iii) shall be connected to a telemetry system which collects and stores all of the data continuously with an independent network provider who will make that data available in a commonly used format at all times to the Canterbury Regional Council and the consent holder.</p> <p>(e) The measuring and recording devices described in clauses (a) shall be available for inspection at all times by the Canterbury Regional Council, including access to the data recorded in accordance with clause (b).</p> <p>(f) All data from the recording device described in clause (c), and the corresponding relationship between the water level and flow (b), shall be provided to the Canterbury Regional Council annually in the month of June, and shall be accessible and available for downloading at all times by the Canterbury Regional Council.</p>			
7	ME04	<p>Within one month of the installation of the measuring or recording device(s), specified in conditions <6> or any subsequent replacement measuring or recording device(s), or at any time when requested by the Canterbury Regional Council, the consent holder shall provide a certificate to the Canterbury Regional Council, attention: RMA Compliance and Enforcement Manager, signed by a suitably qualified person certifying, and demonstrating by means of a clear</p>		<p>Delete. The activity is a non-consumptive use of water and has no material impact on the minimum flow of Irishman Creek at SH8 Bridge.</p> <p>See submissions and right of reply presented to the commissioners by Justin Wills</p>	<p>See comment above – any staff gauge would need to calibrated and certified.</p> <p><i>Applicant further comment</i></p> <p><i>We continue to disagree on this point.</i></p>

		<p>diagram, that:</p> <p>(a) the measuring and recording device(s) is installed in accordance with the manufacturers specifications; and</p> <p>(b) data from the recording device(s) can be readily accessed and/or retrieved in accordance with clauses (b) and (c) of condition <6>.</p>			
8	ME05	<p>At five yearly intervals or at any time when requested by the Canterbury Regional Council, the consent holder shall provide a certificate to the Canterbury Regional Council, attention: RMA Compliance and Enforcement Manager, signed by a suitably qualified person certifying that:</p> <p>(a) the water meter(s) is measuring the rate of water taken as specified in condition <10> and</p> <p>(b) the tamper-proof electronic recording device is operating as specified in condition <10></p>		<p>Delete. The activity is a non-consumptive use of water and has no material impact on the minimum flow of Irishman Creek at SH8 Bridge.</p> <p>See submissions and right of reply presented to the commissioners by Justin Wills</p>	<p>See comment above.</p> <p><u>Applicant further comment</u></p> <p><i>We continue to disagree on this point.</i></p>
9	MEO6	<p>The taking of water in terms of this permit shall cease for a period of up to 48 hours on notice from the Canterbury Regional Council, to allow measurement of the flow in Irishman Creek.</p>		<p>Delete – not considered necessary given min flow site will be continually measured, and there are no downstream abstractions from Irishman Creek.</p>	<p>Agree not necessary as non-consumptive and min flow measuring site is downstream of discharge back into Irishman Creek.</p>
10	WP08	<p>The consent holder shall, prior to exercising this consent, install a water meter measuring device at map reference NZMS 260 139:978-766 in Irishman Creek that will enable the determination of the continuous rate of flow in the reach of the waterbody to within an accuracy of 10 percent.</p> <p>(a) The measuring device shall, as far as is practicable, be installed at a site likely to retain a stable relationship between flow and water level. The measuring device shall be installed in accordance with the manufacturer's instructions.</p> <p>(b) install a tamper-proof electronic recording device such as a data logger(s) that shall time stamp a pulse from the flow meter at least once every 15 minutes,</p>		<p>Delete – Not necessary for this consent because a recorder is required by conditions of the applicant's associated resource consent CRC011845</p> <p>We continue to disagree on this point.. This condition is not necessary because (as Claire states) it is required under the irrigation permit.</p>	<p>Still consider this necessary as min flow cut off required. Should be no problem with requirement on this consent as, as the applicant states, it is required under the irrigation permit as well.</p>

		<p>and have the capacity to hold at least one season's data of water taken as specified in clauses (d)(i) and (d)(ii), and which is telemetered, as specified in clause (d)(iii).</p> <p>(c) The recording device(s) shall:</p> <p>(i) be set to wrap the data from the measuring device such that the oldest data will be automatically overwritten by the newest data (i.e. cyclic recording); and</p> <p>(ii) store the entire season's data in each 12 month period from 1 July to 30 June in the following year, which the consent holder shall then download and store and provide to the Canterbury Regional Council in a format and standard specified in the Canterbury Regional Councils form for Water Metering Data Collection; and be readily accessible to be downloaded by the Canterbury Regional Council or by a person authorized by the Canterbury Regional Council: RMA Compliance and Enforcement Manager; and</p> <p>(iii) shall be connected to a telemetry system which collects and stores all of the data continuously with an independent network provider who will make that data available in a commonly used format at all times to the Canterbury Regional Council and the consent holder.</p> <p>(d) The measuring and recording devices described in clauses (a) and (c) shall be available for inspection at all times by the Canterbury Regional Council.</p> <p>(e) All data from the recording device described in clause (c), and the corresponding relationship between the water level and flow (b), shall be provided to the Canterbury Regional Council annually in the month of June, and shall be accessible and available for downloading at all times by the Canterbury Regional Council.</p>			
Administrative Conditions					

11	AD01	The Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager shall be informed immediately on first exercise of this consent by the consent holder.		Agreed, but considered to be unnecessary as this is a continuation of an existing activity.	Agree
12	AD02	The Canterbury Regional Council may, once per year, on any of the last 5 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, including (a) any cumulative adverse effect on a waterway arising from abstractions; and (b) amending the flow in Irishman Creek at which abstraction is required to be reduced or discontinued as set out in condition 7.	The Canterbury Regional Council may, once per year, on any of the last 5 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	Amend by deleting (a) and (b) from the condition. There are no other users on Irishman Creek therefore there will not be any cumulative effects. The activity should also be exempt the minimum flow (see previous comments).	Agree with amended condition.
13	AD04	The lapsing date for the purposes of section 125 shall be [between 5 years and 5 years three months, date set for each quarter].		Agreed	Agree