

9 July 2018



Simons Pass Station Limited
Pukaki Flats Farming Limited
Partnership

Customer Services
P. 03 353 9007 or 0800 324 636

200 Tuam Street

PO Box 345
Christchurch 8140

E. ecinfo@ecan.govt.nz

www.ecan.govt.nz

Dear [redacted]

Potentially Affected Parties

Response required by: Monday 30th July 2018

Record Number: CRC186087 & Simons Hill Station Limited
Applicant Name: Simons Pass Station Limited
Activity Description: to change conditions to CRC176720 - to divert, take and use surface water; and
to change conditions to CRC176714 - to divert, take and use surface water

As you are aware, we have been processing your consent application. After reviewing your application, as discussed, we have identified the following potentially affected parties:

- Te Runaka O Arowhenua
- Te Runaka O Waihao
- Department of Conservation

In addition, I note there is a consent held by Classic Properties (CRC070406) to take and use water at this location. Can you please confirm this party is on a separate intake, or that their consent is not otherwise impacted by this proposal.

There are a number of options available to you which are detailed below, however it is important that you have completed one of these options by **Monday 30th July 2018**.

Your options

You must choose one of the following options:

- (a) Provide the written approval of the above listed parties.

In many cases, it may take some time to liaise with the potentially affected party. Section 88E of the RMA excludes the following time from our processing timeframes:

- i. the time period taken to obtain written approvals, or

- ii. if they are not obtained, until you inform us you are no longer seeking approvals
- (b) Request the application be limited notified to the above listed parties.

Limited notification gives the potentially affected parties an opportunity to submit their comments on your application. If submissions are lodged, it is likely your application would be heard through a consent hearing process. Please note there are costs associated with notifying your consent application. We recommend contacting the consent planner to discuss this option prior to requesting notification.
- (c) Provide sufficient information to demonstrate the above parties are not adversely affected by the proposal.

If you would like more detail as to how my conclusion was reached, please do not hesitate in contacting me so we can discuss this. You may consider there is extra information you could provide to show these parties are not potentially adversely affected.

Please contact _____ by **Monday 30th July 2018** to inform us which option you will be taking and if you have any questions. _____ can be contacted via email at _____

Yours sincerely



Zella Smith
Principal Consents Planner

cc:



3 July 2018

Environment Canterbury
P O Box 345
CHRISTCHURCH 8140

Attn: Zella Smith

Resource Consent CRC186087 & CRC186085 – Simons Pass Station Ltd & Simons Hill Station Ltd

Proposal

Te Rūnanga o Waihao understands that Simons Pass Station & Simons Hill Station are applying for:

- Variation to consent conditions for the removal of fish screen – Tekapo Canal (as specified in the application provided)

Situation

Aukaha writes this report on behalf of Te Rūnanga o Waihao, one of the kaitiaki Rūnanga whose takiwa includes the site the application relates to.

Decision

Rūnanga representatives have been informed of the proposal outlined in the application received 25 June 2018. Please be advised that Te Rūnanga o Waihao **oppose** the application proceeding by non-notified resource consent procedure.

This reply is specific to the above proposal. Any changes to the application will require further consultation.

Nahaku noa
Na

General Manager

cc Te Rūnanga o Waihao

G:\Aukaha\1. RMA\3. Resource Consents\1. Consents and Submissions\Waihao Consents\2018\Reply Letters\20180703 - 50350-Tekapo Canal-ECAN\Simons Pass Station\remove fish screen.docx

Aukaha
Level 1, 258 Stuart Street, P O Box 446, Dunedin 9054, New Zealand

info@aukaha.co.nz www.aukaha.co.nz

Anna Paris

From:
Sent: Tuesday, 3 July 2018 4:19 PM
To: Zella Smith
Subject: Aukaha letter-Simons Pass&Simons Hills
Attachments: 20180703 - 50350-Tekapo Canal-ECAN(Simons Pass Station)remove fish screen.docx

Kia ora Zella
Trust all is well with you ☺

See attached Aukaha reply letter on behalf of Te Rūnanga o Waihao.

Thanks.

Kā mihi

Consents Officer

Kia pai tō rā
(have a good day)

Telephone:
Mobile: '
Email:
Website: www.aukaha.co.nz



Anna Paris

From:
Sent: Wednesday, 11 July 2018 8:58 AM
To:
Cc: Zella Smith
Subject: CRC186085 & CRC186087 Affected parties letter
Attachments: CRC186087 CRC186085 Affected Parties Letter FINAL.pdf

Good Morning Nadine

Please find attached the affected parties letter for CRC186085 & CRC186087 Simons Hill Station and Simons Pass Station.

Feel free to contact myself or Zella to discuss if you have any questions.

Regards

Anna Paris

From: Zella Smith
Sent: Wednesday, 4 July 2018 1:54 PM
To:
Cc:
Subject: CRC186085 & CRC186087 Simons Pass/Hill Fish screening
Attachments: RE: Aukaha letter-Simons Pass&Simons Hills; RE: CRC186085 and CRC186087 Simons Hill & Pass; RE: Simons Pass/Hill Fish screen; RE: Follow up re Simons Hill/Pass fish screen proposal; Aukaha letter-Simons Pass&Simons Hills

Good afternoon,

I have received comment from Te Runaka O Arowhenua & Te Runaka O Waihao (via their consultants). Please note the Waihao comments were based on the original proposal to remove screening altogether; I had sent them the revised proposal however will follow up, unless you choose to do so.

In addition I have received comment from DoC, and follow up comment from Adrian. While I note Adrian's position on trout and salmon, I do not consider that central to this process.

Their comments are attached.

Taking on board these comments, I currently consider DoC and iwi affected parties to the proposal in relation to s95A of the RMA. I will prepare an official letter in relation to this setting out your options.

Thank you.

Anna Paris

From: Zella Smith
Sent: Friday, 22 June 2018 9:43 AM
To:
Subject: CRC186085 and CRC186087 Simons Hill & Pass
Attachments: Attachment to Applications for Change of Fish Screen Conditions.pdf; Ryder_Simons intake_21Mar18.pdf

Hi,

suggested I send this through to you.

I have previously contacted DoC over this, but it would be great to get a response within the next week, at least to give an indication of your likely position.

In short, Simons Hill and Simons Pass Station have applied to remove the requirements for fish screening from their Tekapo Stilling basin consents (as per the attached).

Could you please let me know what the Department's position on this is likely to be?

Thank you.

Anna Paris

From: Zella Smith
Sent: Friday, 22 June 2018 9:50 AM
To:
Subject: CRC186085 and CRC186087 Simons Hill/Pass
Attachments: Ryder_Simons intake_21Mar18.pdf; Attachment to Applications for Change of Fish Screen Conditions.pdf

Hi

As previously discussed, attached is a consent application from Simons Hill and Simons Pass to remove the fish screen conditions from their Tekapo Stilling Basin intake.

It would be great to get a steer from you in the next week or so as the position Te Runanga are likely to take in regard to this proposal.

Could you please let me know what your position on this is likely to be?

I will log the job properly through the system too.

Thank you.

Anna Paris

From: Zella Smith
Sent: Wednesday, 27 June 2018 3:28 PM
To: Georgina Patrick
Subject: FW: Follow up re Simons Hill/Pass fish screen proposal (50350)

Me again!

Could you please file this. Also, could you please the map thing – Rachel should be able to help.

From:
Sent: Wednesday, 27 June 2018 2:38 p.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>
Subject: RE: Follow up re Simons Hill/Pass fish screen proposal (50350)

Kia ora

Thanks Zella for the further info😊

Trust all is well with you for a Wednesday😊

Hey, just wondering if you can confirm/clarify that I have this proposal correct?

- Applicant has granted water consents that include condition for a fish screen to be installed at the intake location.
 - F&G and applicant have come to a side agreement – to remove the fish screen at the intake location but have them at another location – is this correct?
 - Will have a 50mm mesh at the canal intakes, then fish screen as per consent condition at the pumphouse where water leaves the holding pond
 - Monitoring will be undertaken of how many fish get through.
-
- Are you able to provide a map showing the original location for the fish screens and the proposed locations on one map?
 - Is the holding pond where the recreational fishing is done?

Thanks for your help.

Noho mahana mai
(keep warm)

Kā mihi

Consents Officer

Kia pai tō rā
(have a good day)

Telephone:
Mobile:
Email:



Level 1, 258 Stuart Street, P O Box 446, Dunedin 9054



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From: Zella Smith [<mailto:Zella.Smith@ecan.govt.nz>]
Sent: Wednesday, 27 June 2018 12:17 p.m.
To: .
Cc: Georgina Patrick
Subject: FW: Follow up re Simons Hill/Pass fish screen proposal

Hi All,

Simons Hill/Pass have proposed some amendments to their original request to remove the fish screening conditions completely.

Adrian, are you able to have a look at this proposal and comment on the likely effect on native fish?

Everybody else – FYI as you work through your position on this proposal. I look forward to hearing from you.

From: .
Sent: Wednesday, 27 June 2018 11:30 a.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>;
Cc: .
Subject: RE: Follow up re Simons Hill/Pass fish screen proposal

Hello Zella

I have attached for your information the material . has prepared in relation to fish screening. I note that the design details of the fish screen proposed were also included in paragraph B of the side agreement between Fish and Game and PIC (which was attached to the application for the fish screen variation) and also in paragraphs 4 and 5 of the Background section of Greg Ryder's report. I have attached both of those documents to this email for your information, along with two other design drawings provided by

Thanks

Barrister
Assistant to
Canterbury Chambers
Level 1, 148 Victoria Street, Christchurch 8013 | PO Box 9344, Christchurch 8149 | DDI:

From: Zella Smith [<mailto:Zella.Smith@ecan.govt.nz>]
Sent: Friday, June 22, 2018 10:14 AM
To: [\[redacted\]](#)
Cc: [\[redacted\]](#)
Subject: Follow up re Simons Hill/Pass fish screen proposal

Good morning

As discussed at the meeting, below is my understanding of your proposal in relation to fish screening. Can you please confirm this is correct?

You propose a 50mm mesh at the canal intakes, located halfway down the canal wall.

You propose screening in accordance with the current conditions at the pumphouse, where water leaves the holding pool (on the opposite side of the road to the canal).

In addition, you propose monitoring in the holding pool, to quantify how many, if any, fish get through the mesh in the canal, with the understanding you will upgrade the canal intakes should it prove ineffective.

Upon confirmation, I will send this on to our water quality scientist, Adrian Meredith, for further comment as to the impact of fisheries.

I will also update DoC and Runanga with the amendment.

Thank you.

Zella Smith
Principal Consents Planner
Environment Canterbury

03 687 7864
027 706 4302
Zella.Smith@ecan.govt.nz

PO Box 345, Christchurch 8140
Customer Services: 0800 000 000
24 Hours: 0800 000 000

Facilitating sustainable development in the Canterbury region

Anna Paris

From: Zella Smith
Sent: Wednesday, 27 June 2018 12:11 PM
To:
Subject: FW: Follow up re Simons Hill/Pass fish screen proposal
Attachments: Fish & Game Side Agreement.pdf; Ryder_Simons intake_21Mar18.pdf; Diag 1 and 2.pdf; Canal Intake GA Overview.pdf; 891 D 18-06-22 Fish Exclusion.docx

Hi there – can you please pop these in records manager?

I will forward to some people and cc you in – if you could save their responses into rm and summarise anything they say for me, that would be great.

From: I
Sent: Wednesday, 27 June 2018 11:30 a.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>;
Cc:
Subject: RE: Follow up re Simons Hill/Pass fish screen proposal

Hello Zella

I have attached for your information the material has prepared in relation to fish screening. I note that the design details of the fish screen proposed were also included in paragraph B of the side agreement between Fish and Game and PIC (which was attached to the application for the fish screen variation) and also in paragraphs 4 and 5 of the Background section of Greg Ryder's report. I have attached both of those documents to this email for your information, along with two other design drawings provided by

Thanks

Barrister
Assistant to
Canterbury Chambers
Level 1, 148 Victoria Street, Christchurch 8013 | PO Box 9344, Christchurch 8149

From: Zella Smith [<mailto:Zella.Smith@ecan.govt.nz>]
Sent: Friday, June 22, 2018 10:14 AM
To:
Cc:
Subject: Follow up re Simons Hill/Pass fish screen proposal

Good morning

As discussed at the meeting, below is my understanding of your proposal in relation to fish screening. Can you please confirm this is correct?

You propose a 50mm mesh at the canal intakes, located halfway down the canal wall.

You propose screening in accordance with the current conditions at the pumphouse, where water leaves the holding pool (on the opposite side of the road to the canal).

In addition, you propose monitoring in the holding pool, to quantify how many, if any, fish get through the mesh in the canal, with the understanding you will upgrade the canal intakes should it prove ineffective.

Upon confirmation, I will send this on to our water quality scientist, Adrian Meredith, for further comment as to the impact of fisheries.

I will also update DoC and Runanga with the amendment.

Thank you.

Zella Smith
Principal Consents Planner
Environment Canterbury

03 687 7864
027 706 4302
Zella.Smith@ecan.govt.nz



PO Box 345, Christchurch
Customer Services: 0800 000 000
24 Hours: 0800 000 000



Facilitating sustainable development in the Canterbury region

e

Anna Paris

From: Zella Smith
Sent: Thursday, 28 June 2018 3:17 PM
To: Georgina Patrick
Subject: FW: Follow up re Simons Hill/Pass fish screen proposal

Follow Up Flag: Follow up
Flag Status: Flagged

For filing and thinking about ☺

From: Adrian Meredith
Sent: Thursday, 28 June 2018 2:17 p.m.
To: Zella Smith
Subject: RE: Follow up re Simons Hill/Pass fish screen proposal
Thanks Zella.

As advised previously, this proposal concerns me as it somewhat sets a precedent for “not screening intakes” and thereafter “mitigating” the subsequent fish losses that result from the infrastructure “fish trap”.

Furthermore there are other potential “options” such as the operational screens also being orientated as fish screens with a diversion back to Lake Pukaki. I don’t see such consideration of other options, and we are only looking at a single option/proposal.

The issues I address are:

1. The importance of the “other” fish communities in the Tekapo canal.
2. What are significant [fish] losses.
3. Screening requirements
4. Pressure change effects
5. Fish trap monitoring
6. Disposal of fish lost on the Hydrolox screens
 1. In answer to you broader questions, the Tekapo canal (as with the Ohau and Pukaki Canals) has in recent years become an increasingly productive riverine environment with dense macrophyte beds and biological growths. This is alluded to in the Ryder Ltd report in describing the fish community of the canal in association with these features.. As such the diversity, abundance and productivity of the aquatic and fish fauna are now the highest they have ever been and are now providing self-supporting fish populations breeding in the canals. They are now more than just “put and take” salmon fishery environments associated with the cage salmon farms. I would therefore contend that the canals, now more-so than ever before, provide a tangible biodiversity resource with intrinsic values for both indigenous fauna and sports fish. Furthermore, recently with pressure from both Meridian and Genesis, the associated salmon farms have applied for and obtained consent to be able to shift all salmon farms into the Ohau C tailrace (the head of Lake Benmore). This initiative was driven by the effects of the increasing productivity of the canals (and particularly macrophyte growths). A consideration is therefore that there is no surety that cage salmon farming may always persist in the canals. This may influence subsequent mitigation considerations and the absence of fish screening. I raise all this because it is a context that lends greater value and weight to the “other” fish species and communities in the canal (that are not being mitigated or compensated) if the salmon resource is subsequently removed. It also does not acknowledge the possibility of reintroduction of other fish species lost as a result of the hydro-electric development network. And here I particularly refer to mahinga kai species such as Tuna (eels), that already have been “trapped and transferred” above the lower dams, and there is no reason they might not be liberated into the Tekapo catchment in the future (already being present as a relict population). So, I consider these other current and possible future fish species assemblages/communities and their value to be an important consideration rather than viewing them as a secondary or minor consideration and “monitoring to see if losses are significant” (and the context of what “significant” means).
 2. One response is monitoring to see if losses of these other fishes are significant. The current rationale and philosophy of the 2007 NIWA Fish screening guidelines and the ECan plan (LWRP) Schedule 2., is for good

practice fish screening to achieve approximately 100% fish exclusion, by adopting a range of design criteria, agreed by a collaborative approach as necessary to largely “exclude all fish”. This “mitigation” proposal runs counter to that “good practice” philosophy by attempting to acknowledge that a degree of [other fish species] fish loss is acceptable (i.e. not significant). Accepting this philosophy is a slippery slope from the current plan policy and objective position, and takes us back to a value proposition of “acceptable or insignificant fish losses”. Again this challenge can be somewhat precedent setting in that it validates that proposition. For this reason, alone I would suggest that it is unacceptable to be allowing for a routine loss of other native, forage, and other sports fish species, through an unscreened mitigation proposition. The report from Ryder and Associates clearly phrases the arguments in terms of “significance” or “acceptability” of losses and monitoring of that, without acknowledging the disparity from the current regional statutory approach.

3. I see two screening issues with the current proposal (should it be deemed acceptable). Firstly, the 50mm trash bar screening of the intake pipes is justified in terms of existing screening at the Tekapo B penstocks. These are a historical design component that was not (to my knowledge) argued from a basis of fish exclusion. My understanding from elsewhere that “good practice” at new hydro-electric developments is in the domain of 20-25mm bar gaps. These then do exclude downstream migrating or dispersing adult megafauna [fish] and so would protect the residual longfin eels and adult salmonids. For consistency for the future, we should be considering “effects based” decisions on such hydro-electric [like] diversions (20-25mm bars) rather than just repeating historical practices. The other screening issue, is that I cannot see a mesh/bar size criteria stated within the AWMA Hydrolox operational screens proposed. At the very least these should be excluding fish on a par with the NIWA good practice guidelines/Schedule 2 mesh sizes, so as to be an effective fish trap that could be monitored?
4. An issue with a structure such as this where fish are passed through a piped system with a significant vertical drop down to the screening facility, is baro-pressure damage or losses. That is fish utilise air-filled swim bladders and other structures that are very prone to internal body damage if they are exposed to abrupt water pressure changes such as through large siphons, pumps, or turbulence. This has been documented widely in international literature, particularly in Australia and USA. The Ryder Associates report mentioned this in terms of passage through the Tekapo B penstock and turbine structure, but not through the proposed siphons. Overall, I would suggest that conservatively we might consider that by not screening the siphons, many fish may be damaged by passage through the siphons by baro-pressure changes alone.
5. The proposal is to regularly monitor the numbers of fish accumulating in the operational screening structure to determine whether losses are “significant”. A significant problem with this approach, and with the very coarse trash screens, is that such situations encourage large predatory fish (eels, trout, salmon), and predatory piscivorous birds (shags etc.), to take up residence in or on the structure and consume the other fish species that may become concentrated within the screen structure. This is the experience at many such structures and installations such that fish surveys are a gross under-estimate of the fish diverted into the structure. This is also a significant consideration in many such fish screening proposals and why “sweep velocities” and “effective bypass’s” are necessary to avoid this “predation dilemma”. Therefore, I consider this “significance monitoring” proposal to be naïve or poorly thought out if it does not account for such potential predation effects.
6. Implicit in this proposal is that fish entrained from the Tekapo Canal will either concentrate in the screening structure, and/or be captured by the screening mechanism and end up in the trash materials. These constitute a “harvesting of fish” and subsequent disposal. Are such steps legally accounted for (capture, and disposal of “controlled” fish species (salmon and trout))?

Overall, I think this proposal raises a number of issues that need to be considered further, as to the acceptability of this “unscreened and mitigated” proposed consent condition change. I am fearful that for a proposal on this scale (3.5 cumecs of take) that it may be construed as a precedent and valid alternative approaches such as this for large abstractions more widely. For this reason I think the full extent of all issues/effects need to be carefully considered. Frequently we see “two phase” screening in irrigation schemes (Fish screening then operational debris screening) and often combining these phases into one integrated screening activity can generate benefits to all outcomes. I still see no reason why these “operational” (Hydrolox) screens cannot be operated as both Fish screens and operational screens and a bypass (pipeline) back to Lake Pukaki be incorporated into this.

From: Zella Smith

Sent: Wednesday, 27 June 2018 12:17 PM

To: ,

Cc: Georgina Patrick <Georgina.Patrick@ecan.govt.nz>

Subject: FW: Follow up re Simons Hill/Pass fish screen proposal

Hi All,

Simons Hill/Pass have proposed some amendments to their original request to remove the fish screening conditions completely.

Adrian, are you able to have a look at this proposal and comment on the likely effect on native fish?

Everybody else – FYI as you work through your position on this proposal. I look forward to hearing from you.

From:

Sent: Wednesday, 27 June 2018 11:30 a.m.

To: Zella Smith <Zella.Smith@ecan.govt.nz>:

Cc:

Subject: RE: Follow up re Simons Hill/Pass fish screen proposal

Hello Zella

I have attached for your information the material Murray has prepared in relation to fish screening. I note that the design details of the fish screen proposed were also included in paragraph B of the side agreement between Fish and Game and PIC (which was attached to the application for the fish screen variation) and also in paragraphs 4 and 5 of the Background section of Greg Ryder's report. I have attached both of those documents to this email for your information, along with two other design drawings provided by Murray.

Thanks

Barrister

Assistant to

Canterbury Chambers

Level 1, 148 Victoria Street, Christchurch 8013 | PO Box 9344, Christchurch 8149 | DDI: 03 341 6967

From: Zella Smith [<mailto:Zella.Smith@ecan.govt.nz>]

Sent: Friday, June 22, 2018 10:14 AM

To:

Cc:

Subject: Follow up re Simons Hill/Pass fish screen proposal

Good morning

As discussed at the meeting, below is my understanding of your proposal in relation to fish screening. Can you please confirm this is correct?

You propose a 50mm mesh at the canal intakes, located halfway down the canal wall.

You propose screening in accordance with the current conditions at the pumphouse, where water leaves the holding pool (on the opposite side of the road to the canal).

In addition, you propose monitoring in the holding pool, to quantify how many, if any, fish get through the mesh in the canal, with the understanding you will upgrade the canal intakes should it prove ineffective.

Upon confirmation, I will send this on to our water quality scientist, Adrian Meredith, for further comment as to the impact of fisheries.

I will also update DoC and Runanga with the amendment.

Thank you.

Zella Smith

Principal Consents Planner

Environment Canterbury

[03 687 7864](tel:036877864)

[027 706 4302](tel:0277064302)

Zella.Smith@ecan.govt.nz



PO Box 345, Christch
Customer Services: 080
24 Hours: 080

Anna Paris

From: Zella Smith
Sent: Tuesday, 3 July 2018 4:27 PM
To:
Subject: RE: Aukaha letter-Simons Pass&Simons Hills

Thanks much appreciated.

Just to confirm, this is based on the proposal to remove fish screening all together, not the amended proposal to have a mesh at the canal itself, and screening at the pumps?

From:
Sent: Tuesday, 3 July 2018 4:19 p.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>
Subject: Aukaha letter-Simons Pass&Simons Hills

Kia ora Zella
Trust all is well with you 😊

See attached Aukaha reply letter on behalf of Te Rūnanga o Waihao.

Thanks.

Kā mihi

Consents Officer

Kia pai tō rā
(have a good day)

Telephone:
Mobile:
Email:
Website: www.aukaha.co.nz



Level 1, 258 Stuart Street, P O Box 446, Dunedin 9054

Anna Paris

From: Zella Smith
Sent: Tuesday, 3 July 2018 3:51 PM
To:
Subject: RE: CRC186085 and CRC186087 Simons Hill & Pass

Thank you!

Re: the intake proposal – yes, we consider a bypass would be best.

Are you both comfortable that I pass on that DoC have some concerns with the proposal and I suggest the applicant communicates with you directly?

From:
Sent: Tuesday, 3 July 2018 3:41 p.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>;
Subject: RE: CRC186085 and CRC186087 Simons Hill & Pass

Hi Zella

RE Freshwater Fisheries Regulation approvals. As I understand this intake structure has been in place for quite some time and the Freshwater Fisheries Regulations only apply to “new’ diversion structures so I assume this does not apply (for an overview of the regulations see (Appendix A <https://www.niwa.co.nz/freshwater-and-estuaries/research-projects/new-zealand-fish-passage-guidelines>))

RE intake proposal – this sounds way better, and I very much support their being a intake screen in line with Schedule 2 where at all possible. A 50 mm mesh I presume is replacing the 50mm bars that I understand are there now. This will be an improvement but will not ensure native fish are not entrained like koaro. But it sounds like screens will be in place off the canals so that sounds good but does create a bit of trap for the fish that get entrained no matter what as they can not go anywhere from there as assume there is no bypass in this situation. Where at all possible it would be best to have a intake design that meets Schedule 2 at the original point of take from the lake I assume (but as the report identified there are fish within the canals).

Cheers

From: Zella Smith <Zella.Smith@ecan.govt.nz>
Sent: Tuesday, 3 July 2018 2:14 p.m.
To:
Cc: .
Subject: RE: CRC186085 and CRC186087 Simons Hill & Pass

Thanks guys!

Just to clarify, the current conditions require screening at the point of take (ie in the canal), in line with the NIWA best practice guidelines.

What they initially proposed was to remove that requirement all together.

Not they are proposing a 50mm mesh in the canal (in line with what the power scheme has), and screening in line with the guidelines in a pit off the canals, with some effectiveness monitoring.

Does that change your perspective?

Also, do you know if there are implications of this approach under the Freshwater Fisheries Act?

From:

Sent: Tuesday, 3 July 2018 1:46 p.m.

To: Zella Smith <Zella.Smith@ecan.govt.nz>

Cc:

Subject: FW: CRC186085 and CRC186087 Simons Hill & Pass

Hi Zella,

This is the response from _____ when I asked her so as you can see, both of us do not have strong feelings given that the canal is not a natural waterway. Therefore I guess you can say that we are happy for the screens to be removed

Cheers,

From:

Sent: Monday, 25 June 2018 2:24 p.m.

To:

Cc:

Subject: RE: CRC186085 and CRC186087 Simons Hill & Pass

Hey

Had a quick skim of this.

We have to be really careful with agreeing to removal of screens as ECAN are currently undertaking a review of several water intake consents and marking them as non-complying as they are not meeting the schedule 2 requirements that are deemed best practice, and DOC is a key representative on the technical fish screening working party that is supporting and promoting better water intake management (I am the DOC rep on this group and its just starting up again at moment, they are wanting this time to promote national guidance is produced as a national standard).

Where possible we want the fish to remain in the natural waterways, so maybe with these fish being found in the Tekapo canal the screens from where this water comes from is not effective at preventing entrainment also.

In this specific situation they are proposing to remove the screen (50mm bars)? (this is the screen?). This would not prevent any native fish at present being entrained– so really this is suggesting no change in conditions for native fish?) from the pukaki intake that comes off the tekapo canal intake. So neither of these are natural environments. It is also likely the adult eels that have been observed in the canals are eels that have been transferred there as they can't really migrate naturally upstream. It is likely some bullies and koaro have been entrained and will continue to be, no matter if 50 mm bars remain or are taken out.

If native fish are entrained into the pukaki canal, is there any risk that they will get into any natural non-migratory galaxiid key locations (I assume not as we don't want to be encouraging fish into areas that may pose a risk to some of our most threatened fish sites) – assume what ever gets entrained will just remain in the canal itself?

It states the approach velocity is about 0.36 which some native fish would be able to swim against but some wouldn't. If they can ensure they provided a good sweep velocity this might be the best outcome for trying to prevent entrainment of native fish (but as I say above they are already entrained into Tekapo canal anyway so not in a natural environment).

Sorry not familiar with the set up so let me know if I have got this right. Happy to discuss further when you get back to the office.

From: Dean Nelson

Sent: Friday, 22 June 2018 11:05 a.m.

To: Sjaan Bowie <sjaanbowie@doc.govt.nz>

Cc: Ursula Paul <upaul@doc.govt.nz>; Sally Jones <sajones@doc.govt.nz>

Subject: FW: CRC186085 and CRC186087 Simons Hill & Pass

I don't have too many issues with this given the native FW fish values in the canal are reasonably limited. What are your thoughts? Maybe some other form of mitigation seeing that F&G are getting some – a contribution towards fish protection elsewhere?

Cheers,

From: .

Sent: Friday, 22 June 2018 10:54 a.m.

To: .

Subject: FW: CRC186085 and CRC186087 Simons Hill & Pass

Hi

Please advise on the appropriate response to Zella.

Cheers

Operations Manager, Twizel District
Department of Conservation—*Te Papa Atawhai*
DD:

From: Zella Smith <Zella.Smith@ecan.govt.nz>

Sent: Friday, 22 June 2018 9:43 a.m.

To: .

Subject: CRC186085 and CRC186087 Simons Hill & Pass

Hi

As suggested I send this through to you.

I have previously contacted DoC over this, but it would be great to get a response within the next week, at least to give an indication of your likely position.

In short, Simons Hill and Simons Pass Station have applied to remove the requirements for fish screening from their Tekapo Stilling basin consents (as per the attached).

Could you please let me know what the Department's position on this is likely to be?

Thank you.

Zella Smith
Principal Consents Planner
Environment Canterbury

03 687 7864
027 706 4302
Zella.Smith@ecan.govt.nz



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Anna Paris

From: Anna Paris
Sent: Tuesday, 3 July 2018 3:41 PM
To: Zella Smith;
Subject: RE: CRC186085 and CRC186087 Simons Hill & Pass

Hi Zella

RE Freshwater Fisheries Regulation approvals. As I understand this intake structure has been in place for quite some time and the Freshwater Fisheries Regulations only apply to "new" diversion structures so I assume this does not apply (for an overview of the regulations see (Appendix A <https://www.niwa.co.nz/freshwater-and-estuaries/research-projects/new-zealand-fish-passage-guidelines>))

RE intake proposal – this sounds way better, and I very much support their being a intake screen in line with Schedule 2 where at all possible. A 50 mm mesh I presume is replacing the 50mm bars that I understand are there now. This will be an improvement but will not ensure native fish are not entrained like koaro. But it sounds like screens will be in place off the canals so that sounds good but does create a bit of trap for the fish that get entrained no matter what as they can not go anywhere from there as assume there is no bypass in this situation. Where at all possible it would be best to have a intake design that meets Schedule 2 at the original point of take from the lake I assume (but as the report identified there are fish within the canals).

Cheers

From: Zella Smith <Zella.Smith@ecan.govt.nz>
Sent: Tuesday, 3 July 2018 2:14 p.m.
To: Anna Paris
Cc: Anna Paris
Subject: RE: CRC186085 and CRC186087 Simons Hill & Pass

Thanks guys!

Just to clarify, the current conditions require screening at the point of take (ie in the canal), in line with the NIWA best practice guidelines.

What they initially proposed was to remove that requirement all together.

Not they are proposing a 50mm mesh in the canal (in line with what the power scheme has), and screening in line with the guidelines in a pit off the canals, with some effectiveness monitoring.

Does that change your perspective?

Also, do you know if there are implications of this approach under the Freshwater Fisheries Act?

From: Anna Paris
Sent: Tuesday, 3 July 2018 1:46 p.m.
To: Anna Paris
Cc: Anna Paris
Subject: FW: CRC186085 and CRC186087 Simons Hill & Pass

Hi Zella,

This is the response from _____ when I asked her so as you can see, both of us do not have strong feelings given that the canal is not a natural waterway. Therefore I guess you can say that we are happy for the screens to be removed

Cheers,

From:

Sent: Monday, 25 June 2018 2:24 p.m.

To:

Cc: ..

Subject: RE: CRC186085 and CRC186087 Simons Hill & Pass

Hey

Had a quick skim of this.

We have to be really careful with agreeing to removal of screens as ECAN are currently undertaking a review of several water intake consents and marking them as non-complying as they are not meeting the schedule 2 requirements that are deemed best practice, and DOC is a key representative on the technical fish screening working party that is supporting and promoting better water intake management (I am the DOC rep on this group and its just starting up again at moment, they are wanting this time to promote national guidance is produced as a national standard).

Where possible we want the fish to remain in the natural waterways, so maybe with these fish being found in the Tekapo canal the screens from where this water comes from is not effective at preventing entrainment also.

In this specific situation they are proposing to remove the screen (50mm bars)? (this is the screen?). This would not prevent any native fish at present being entrained– so really this is suggesting no change in conditions for native fish?) from the pukaki intake that comes off the tekapo canal intake. So neither of these are natural environments. It is also likely the adult eels that have been observed in the canals are eels that have been transferred there as they can't really migrate naturally upstream. It is likely some bullies and koaro have been entrained and will continue to be, no matter if 50 mm bars remain or are taken out.

If native fish are entrained into the pukaki canal, is there any risk that they will get into any natural non-migratory galaxiid key locations (I assume not as we don't want to be encouraging fish into areas that may pose a risk to some of our most threatened fish sites) – assume what ever gets entrained will just remain in the canal itself?

It states the approach velocity is about 0.36 which some native fish would be able to swim against but some wouldn't. If they can ensure they provided a good sweep velocity this might be the best outcome for trying to prevent entrainment of native fish (but as I say above they are already entrained into Tekapo canal anyway so not in a natural environment).

Sorry not familiar with the set up so let me know if I have got this right. Happy to discuss further when you get back to the office.

From:

Sent: Friday, 22 June 2018 11:05 a.m.

To:

Cc: ..

Subject: FW: CRC186085 and CRC186087 Simons Hill & Pass

Hi

I don't have too many issues with this given the native FW fish values in the canal are reasonably limited. What are your thoughts? Maybe some other form of mitigation seeing that F&G are getting some – a contribution towards fish protection elsewhere?

Cheers,

From:

Sent: Friday, 22 June 2018 10:54 a.m.

To:

Subject: FW: CRC186085 and CRC186087 Simons Hill & Pass

Hi ,

Please advise on the appropriate response to Zella.

Cheers

Operations Manager, Twizel District

Department of Conservation—*Te Papa Atawhai*

From: Zella Smith <Zella.Smith@ecan.govt.nz>

Sent: Friday, 22 June 2018 9:43 a.m.

To:

Subject: CRC186085 and CRC186087 Simons Hill & Pass

Hi ,

suggested I send this through to you.

I have previously contacted DoC over this, but it would be great to get a response within the next week, at least to give an indication of your likely position.

In short, Simons Hill and Simons Pass Station have applied to remove the requirements for fish screening from their Tekapo Stilling basin consents (as per the attached).

Could you please let me know what the Department's position on this is likely to be?

Thank you.

Zella Smith

Principal Consents Planner
Environment Canterbury

03 687 7864

027 706 4302

Zella.Smith@ecan.govt.nz



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Customer Services: 08

24 Hours: 08



Anna Paris

From: Zella Smith
Sent: Friday, 22 June 2018 9:52 AM
To:
Subject: RE: CRC186085 and CRC186087 Simons Hill/Pass

Thank you!

From: ,
Sent: Friday, 22 June 2018 9:51 a.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>
Subject: RE: CRC186085 and CRC186087 Simons Hill/Pass

Yes of course – there's a meeting next Wednesday, so ill make sure its on the agenda then at the latest.

Ka mihi

Environmental Planner
Aoraki Environmental Consultancy Limited
Mobile:

From: Zella Smith <Zella.Smith@ecan.govt.nz>
Sent: Friday, 22 June 2018 9:50 AM
To: ,
Subject: CRC186085 and CRC186087 Simons Hill/Pass

Hi

As previously discussed, attached is a consent application from Simons Hill and Simons Pass to remove the fish screen conditions from their Tekapo Stilling Basin intake.

It would be great to get a steer from you in the next week or so as the position Te Runanga are likely to take in regard to this proposal.

Could you please let me know what your position on this is likely to be?

I will log the job properly through the system too.

Thank you.

Zella Smith
Principal Consents Planner
Environment Canterbury

03 687 7864
027 706 4302
Zella.Smith@ecan.govt.nz



PO Box 345, Christchurch
Customer Services: 0800 000 000

Anna Paris

From: Zella Smith
Sent: Monday, 25 June 2018 1:48 PM
To:
Cc:
Subject: RE: CRC186085&087 - Simons Pass Station Ltd
Attachments: Attachment to Applications for Change of Fish Screen Conditions.pdf; Ryder_Simons intake_21Mar18.pdf; C17C 103849-3 CRC176714, CRC082304 Application Change Simons Hill Station State Highway 8 Lake Pukaki.pdf

Hi

A lovely weekend 😊 – hope you did too. It's cool here but the sun is shining, thank goodness. I don't mind the cold so much when there's blue sky!

Attached the documents – there really isn't much.

A bit of history – they applied for this change at the same time as a couple of other changes in relation to boundary adjustments (part of Simons Hill was sold to Simons Pass) and some changes to dates, in June 2017. Neither of those activities would affect anyone other than the applicant so we didn't follow up with interested parties. Those changes have been granted.

However it was clear the proposal to remove the fish screening requirements had much greater implications, so eventually we advised them to process with that proposed change separately. Hence the new consent numbers and the job being logged.

I look forward to hearing from you!

From:
Sent: Monday, 25 June 2018 1:10 p.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>
Subject: CRC186085&087 - Simons Pass Station Ltd

Kia ora Zella
Trust you had a good weekend and your Monday is going well 😊
Got the heater at my feet today, it's really cold – how about Timaru?

Hey, was wondering about the consent for Simons Pass Station – could you forward a full copy of the application – Te Rūnanga o Waihao would like to reply on it.

Noho mahana mai
(keep warm)

Thanks 😊

Kā mihi

Consents Officer

Kia pai tō rā

(have a good day)

Telephone:

Mobile:

Email:

Website: www.aukaha.co.nz



Level 1, 258 Stuart Street, P O Box 446, Dunedin 9054



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Anna Paris

From: Adrian Meredith
Sent: Wednesday, 18 April 2018 5:55 PM
To:
Cc: Zella Smith
Subject: RE: Emailing - Ryder_Simons intake_21Mar18.pdf

I am pleased my understanding of the setting is not too far out.

The crux of this is sticking to the intent of fish screening requirements (particularly LWRP Schedule 2).

The situation as I understand it is basically as Adrian indicates in below. However Lake Pukaki is approximately 2 km away and a fish bypass of that length would not be practical.

In the scheme of things a fish bypass of 2 km length is not a long distance compared to say the conveyance of 3.5 cumecs of water under pressure to the applicants property. Some bypass pathways from braided river takes can be up to that length back to an active braid. As Genesis is utilising a considerable height difference to generate electricity through the penstocks/turbines, I would envisage a 2Km fishpass could reasonably have much of it as a steep pipeline to Lake Pukaki once fish were "on the way" and couldn't return back to the holding pond.

In my view it needs to be born in mind that we are only taking about a maximum of 4% of the total flow in the canal. Most abstractions are only a small percentage of the flow of a river, but must still be screened. I don't think there is a valid argument on a de minimus % of the flow being abstracted.

Currently 100% of the flow in the canal goes down the down the penstocks at the head of the stilling pond and into the Tekapo B power station turbines. The penstocks have the same size screens as is proposed for the Pukaki Irrigation intake. I am not sure whether the velocities are comparable however in terms of the size of the screens at least, the amendment will therefore result in no change to the current situation.

Sorry, but yes it will. Fish abstracted to an irrigation scheme are "lost to the environment", whereas those through the Tekapo B power station continue through to Lake Pukaki (moving from one water body to another). One is an abstraction and the other is a diversion.

Having said that Pukaki Irrigation is looking for a practical solution. Given that the problem is getting any fish making their way into the holding pond back to the canal my suggestion is that Pukaki Irrigation carry out a salvage operation in the pond – say 3 times during the irrigation season. Records of fish salvaged would be kept and a review conducted after say 2 years with a view to implementing improvements to the system to better protect native fish if that is deemed to be necessary. Is that a potential way forward?

I do have problems with this approach, as it is operating the holding pond as a "fish trap" and then clearing the trap ~3 times per irrigation season. The holding pond will not be appropriate "habitat" for fish, and so they will become stressed, starve, be predated upon, or repeatedly be exposed to the operational screens and so potentially be killed one of several ways. This is counter to the objectives and requirements of fish screening requirements, of avoiding loss of fish, and/or loss of fish from waterbodies.

I was offering advice on screening and a bypass from the holding pond as a practical alternative, but our preference (and the fish screening Good Practice Guidelines) is always to screen at the point of abstraction. If fish are diverted to a subsequent screening point the guidelines are very clear the seven criteria require them to be returned to the river (or waterbody) promptly and effectively.

Adrian.

From:
Sent: Tuesday, 17 April 2018 11:04 AM
To: Adrian Meredith <Adrian.Meredith@ecan.govt.nz>; Marie Dysart <Marie.Dysart@ecan.govt.nz>

Cc: Zella Smith <Zella.Smith@ecan.govt.nz>

Subject: RE: Emailing - Ryder_Simons intake_21Mar18.pdf

Good morning all,

Thanks for these comments.

The situation as I understand it is basically as Adrian indicates in below. However Lake Pukaki is approximately 2 km away and a fish bypass of that length would not be practical.

In my view it needs to be born in mind that we are only taking about a maximum of 4% of the total flow in the canal. Currently 100% of the flow in the canal goes down the down the penstocks at the head of the stilling pond and into the Tekapo B power station turbines. The penstocks have the same size screens as is proposed for the Pukaki Irrigation intake. I am not sure whether the velocities are comparable however in terms of the size of the screens at least, the amendment will therefore result in no change to the current situation.

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Kind regards,

Barrister

Canterbury Chambers | Level 1, 148 Victoria Street, Christchurch

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From: Adrian Meredith <Adrian.Meredith@ecan.govt.nz>

Sent: Monday, April 16, 2018 6:06 PM

To: Marie Dysart <Marie.Dysart@ecan.govt.nz>

Cc: Zella Smith <Zella.Smith@ecan.govt.nz>

Subject: RE: Emailing - Ryder_Simons intake_21Mar18.pdf

I have been responding to a request from Zella, so have not familiarised myself with the detail of the existing consents/proposal.

From memory I understood the take was from the Tekapo canal close to the headpond near the Tekapo B penstocks. I also understood from previous steps that the original take from the canal was to a pond below the level of the canal, and then operationally screened into the Pukaki Downs piped irrigation system. As such, I was assuming that there was no [gravity fed] opportunity for the water at the operational screens to get back to the canal. Therefore while fish screening at the canal take is preferable (such that fish remain in the canal), I was alternatively suggesting that if the “operational screens” were re-engineered as the only “fish screens” then the only option was for the bypass from those screens to then pass down a new channel to Lake Pukaki. Not ideal, but fish abstracted at that point were just as likely to be abstracted by Tekapo B power station and discharged to Lake

Pukaki anyway. Fish abstracted and passing to Lake Pukaki in this manner would not be being subject to as much baro-trauma (pressure stresses) as they would if passing through the Genesis turbines!

If my assumptions above are not correct then this may need to be re-thought, but I was offering it as a pragmatic option for consideration?

Adrian.

From: Marie Dysart

Sent: Monday, 16 April 2018 5:02 PM

To: Adrian Meredith <Adrian.Meredith@ecan.govt.nz>

Cc: Zella Smith <Zella.Smith@ecan.govt.nz>

Subject: FW: Emailing - Ryder_Simons intake_21Mar18.pdf

Adrian,

Can confirm for that you are referring to the canal and not Lake Pukaki? See below.

Thanks

Regards

Marie

From:

Sent: Monday, 16 April 2018 4:58 p.m.

To: Marie Dysart <Marie.Dysart@ecan.govt.nz>

Cc: Zella Smith <Zella.Smith@ecan.govt.nz>

Subject: RE: Emailing - Ryder_Simons intake_21Mar18.pdf

Thanks Marie, that is helpful.

I take it Adrian is taking about a bypass back to the canal and not "Lake Pukaki" ... see this passage;

"All that would be required would be that the operational screening would need to be engineered to comply with fish screening requirements (the seven criteria). The biggest addition to that would be orientation of the screens and provision of a bypass flow to **Lake Pukaki** to carry diverted/abstracted fish to that water body."

I will take instructions if you could please clarify that point.

Kind regards,

Barrister

Canterbury Chambers | Level 1, 148 Victoria Street, Christchurch | PO Box 9344

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From: Marie Dysart <Marie.Dysart@ecan.govt.nz>
Sent: Monday, April 16, 2018 4:46 PM
To: '
Cc: Zella Smith <Zella.Smith@ecan.govt.nz>
Subject: FW: Emailing - Ryder_Simons intake_21Mar18.pdf

Hello

Below are some further comments from Adrian that have been sent to Zella.

Regards

Marie

From: Adrian Meredith
Sent: Wednesday, 11 April 2018 1:23 p.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>
Subject: RE: Emailing - Ryder_Simons intake_21Mar18.pdf

Pukaki Downs/Simmons Hill – Fish screening Advice Part 3.

Zella, modern irrigation takes now have to be operationally screened to achieve water cleanliness suitable for providing high pressure water to centre pivot irrigators. Therefore, while Pukaki Downs are requesting change of conditions to avoid a requirement for fish screening from the canal, they will still be operationally operating fine mesh screening below the canal for irrigation supply. (Note the RDRML Valetta operational screens are 1.8mm mesh while proposed RDR canal fish screening will be 2mm slot or 3mm mesh). This “operational” screening will therefore generally be of finer mesh size than required for fish screening, so could be engineered to achieve both purposes. All that would be required would be that the operational screening would need to be engineered to comply with fish screening requirements (the seven criteria). The biggest addition to that would be orientation of the screens and provision of a bypass flow to Lake Pukaki to carry diverted/abstracted fish to that water body.

Consideration of combining “fish screening” with “operational screening” is probably the biggest “lost opportunity” to date in the Canterbury irrigation industry, and the two discrete screening systems (effectively “in series”) are now obvious in most of our major irrigation schemes (CPW, BCI, RDRML, AICL etc.) if you know to look for them. Many schemes now use many ANDAR travelling screens with 2mm mesh at the exit from irrigation canals into piped offtakes. ANDAR screens are also often called “Didymo screens” for their cleaning activities to cope with large amounts of Didymo algae material (a recent common problem in the Tekapo canal). The orientation of the Pukaki Downs scheme system is a very obvious one where the two screening systems could effectively be combined such that they would still be providing “fish screening”. The original proposed Pukaki Downs intake pipes from Tekapo Canal could then be considered analogous to a conventional off-river intake from the canal to the fish screening intake facility (the operational screens).

I consider this to be a valid option to comply with Canterbury regional fish screening requirements.

Cheers, Adrian.

Anna Paris

From: Zella Smith
Sent: Wednesday, 27 June 2018 4:49 PM
To:
Cc:
Subject: RE: Follow up re Simons Hill/Pass fish screen proposal (50350)

Hi

I'm going well, thank you, hope the day is treating you well!

Your bullet points reflect my understanding.

Georgina (cc'd in) will get back to you with a map.

In regard to the recreational fishing, the stilling basin up to the salmon farm, and just above the salmon farm, are key spots for recreational fishing. The holding pond is part of the Simons Pass/Hill infrastructure and (I assume) will not be accessible.

From: <mailto:Tania@ktkoltd.co.nz>
Sent: Wednesday, 27 June 2018 2:38 p.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>
Subject: RE: Follow up re Simons Hill/Pass fish screen proposal (50350)

Kia ora

Thanks Zella for the further info😊

Trust all is well with you for a Wednesday😊

Hey, just wondering if you can confirm/clarify that I have this proposal correct?

- Applicant has granted water consents that include condition for a fish screen to be installed at the intake location.
 - F&G and applicant have come to a side agreement – to remove the fish screen at the intake location but have them at another location – is this correct?
 - Will have a 50mm mesh at the canal intakes, then fish screen as per consent condition at the pumphouse where water leaves the holding pond
 - Monitoring will be undertaken of how many fish get through.
-
- Are you able to provide a map showing the original location for the fish screens and the proposed locations on one map?
 - Is the holding pond where the recreational fishing is done?

Thanks for your help.

Noho mahana mai
(keep warm)

Kā mihi

Consents Officer

Kia pai tō rā
(have a good day)

Telephone:

Mobile

Email: .

Website: www.aukaha.co.nz



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From: Zella Smith [<mailto:Zella.Smith@ecan.govt.nz>]
Sent: Wednesday, 27 June 2018 12:17 p.m.
To:
Cc: Georgina Patrick
Subject: FW: Follow up re Simons Hill/Pass fish screen proposal

Hi All,

Simons Hill/Pass have proposed some amendments to their original request to remove the fish screening conditions completely.

Adrian, are you able to have a look at this proposal and comment on the likely effect on native fish?

Everybody else – FYI as you work through your position on this proposal. I look forward to hearing from you.

From:
Sent: Wednesday, 27 June 2018 11:30 a.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>;
Cc:
Subject: RE: Follow up re Simons Hill/Pass fish screen proposal



Hello Zella

I have attached for your information the material Murray has prepared in relation to fish screening. I note that the design details of the fish screen proposed were also included in paragraph B of the side agreement between Fish and Game and PIC (which was attached to the application for the fish screen variation) and also in paragraphs 4 and 5 of the Background section of Greg Ryder's report. I have attached both of those documents to this email for your information, along with two other design drawings provided by Murray.

Thanks
Nadine

Barrister

Canterbury Chambers
Level 1, 148 Victoria Street, Christchurch 8013 |

From: Zella Smith [<mailto:Zella.Smith@ecan.govt.nz>]
Sent: Friday, June 22, 2018 10:14 AM
To: 
Cc: 
Subject: Follow up re Simons Hill/Pass fish screen proposal

Good morning

As discussed at the meeting, below is my understanding of your proposal in relation to fish screening. Can you please confirm this is correct?

You propose a 50mm mesh at the canal intakes, located halfway down the canal wall.

You propose screening in accordance with the current conditions at the pumphouse, where water leaves the holding pool (on the opposite side of the road to the canal).

In addition, you propose monitoring in the holding pool, to quantify how many, if any, fish get through the mesh in the canal, with the understanding you will upgrade the canal intakes should it prove ineffective.

Upon confirmation, I will send this on to our water quality scientist, Adrian Meredith, for further comment as to the impact of fisheries.

I will also update DoC and Runanga with the amendment.

Thank you.

Zella Smith
Principal Consents Planner
Environment Canterbury



Anna Paris

From: Zella Smith
Sent: Wednesday, 27 June 2018 12:22 PM
To:
Cc: Georgina Patrick
Subject: RE: Follow up re Simons Hill/Pass fish screen proposal

Thank you

I have sent this on to Adrian Meredith (our water quality scientist), representatives from Arowhenua and Waihao rūnanga (who have expressed an interest in the applications) and DoC.

From:
Sent: Wednesday, 27 June 2018 11:30 a.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>; mgv@jacksonv.co.nz
Cc:
Subject: RE: Follow up re Simons Hill/Pass fish screen proposal

Hello Zella

I have attached for your information the material Murray has prepared in relation to fish screening. I note that the design details of the fish screen proposed were also included in paragraph B of the side agreement between Fish and Game and PIC (which was attached to the application for the fish screen variation) and also in paragraphs 4 and 5 of the Background section of Greg Ryder's report. I have attached both of those documents to this email for your information, along with two other design drawings provided by Murray.

Thanks

--
Barrister

Canterbury Chambers
Level 1, 148 Victoria Street, Christchurch 8013

Please note my work hours are Mondays and Wednesdays 9am – 3.30pm and Thursdays 9.00am – 5.00pm.

From: Zella Smith [<mailto:Zella.Smith@ecan.govt.nz>]
Sent: Friday, June 22, 2018 10:14 AM
To: _____
Cc: _____
Subject: Follow up re Simons Hill/Pass fish screen proposal

Good morning :

As discussed at the meeting, below is my understanding of your proposal in relation to fish screening. Can you please confirm this is correct?

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Thank you.

Zella Smith
Principal Consents Planner
Environment Canterbury

03 687 7864
027 706 4302
Zella.Smith@ecan.govt.nz



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From: Adrian Meredith
Sent: Thursday, 28 June 2018 2:17 PM
To: Zella Smith
Subject: RE: Follow up re Simons Hill/Pass fish screen proposal

Thanks Zella.

As advised previously, this proposal concerns me as it somewhat sets a precedent for “not screening intakes” and thereafter “mitigating” the subsequent fish losses that result from the infrastructure “fish trap”. Furthermore there are other potential “options” such as the operational screens also being orientated as fish screens with a diversion back to Lake Pukaki. I don’t see such consideration of other options, and we are only looking at a single option/proposal.

The issues I address are:

1. The importance of the “other” fish communities in the Tekapo canal.
 2. What are significant [fish] losses.
 3. Screening requirements
 4. Pressure change effects
 5. Fish trap monitoring
 6. Disposal of fish lost on the Hydrolox screens
-
1. In answer to you broader questions, the Tekapo canal (as with the Ohau and Pukaki Canals) has in recent years become an increasingly productive riverine environment with dense macrophyte beds and biological growths. This is alluded to in the Ryder Ltd report in describing the fish community of the canal in association with these features.. As such the diversity, abundance and productivity of the aquatic and fish fauna are now the highest they have ever been and are now providing self-supporting fish populations breeding in the canals. They are now more than just “put and take” salmon fishery environments associated with the cage salmon farms. I would therefore contend that the canals, now more-so than ever before, provide a tangible biodiversity resource with intrinsic values for both indigenous fauna and sports fish. Furthermore, recently with pressure from both Meridian and Genesis, the associated salmon farms have applied for and obtained consent to be able to shift all salmon farms into the Ohau C tailrace (the head of Lake Benmore). This initiative was driven by the effects of the increasing productivity of the canals (and particularly macrophyte growths). A consideration is therefore that there is no surety that cage salmon farming may always persist in the canals. This may influence subsequent mitigation considerations and the absence of fish screening. I raise all this because it is a context that lends greater value and weight to the “other” fish species and communities in the canal (that are not being mitigated or compensated) if the salmon resource is subsequently removed. It also does not acknowledge the possibility of reintroduction of other fish species lost as a result of the hydro-electric development network. And here I particularly refer to mahinga kai species such as Tuna (eels), that already have been “trapped and transferred” above the lower dams, and there is no reason they might not be liberated into the Tekapo catchment in the future (already being present as a relict population). So, I consider these other current and possible future fish species assemblages/communities and their value to be an important consideration rather than viewing them as a secondary or minor consideration and “monitoring to see if losses are significant” (and the context of what “significant” means).
 2. One response is monitoring to see if losses of these other fishes are significant. The current rationale and philosophy of the 2007 NIWA Fish screening guidelines and the ECan plan (LWRP) Schedule 2., is for good practice fish screening to achieve approximately 100% fish exclusion, by adopting a range of design criteria, agreed by a collaborative approach as necessary to largely “exclude all fish”. This “mitigation” proposal runs counter to that “good practice” philosophy by attempting to acknowledge that a degree of [other fish species] fish loss is acceptable (i.e. not significant). Accepting this philosophy is a slippery slope from the current plan policy and objective position, and takes us back to a value proposition of “acceptable or

insignificant fish losses". Again this challenge can be somewhat precedent setting in that it validates that proposition. For this reason, alone I would suggest that it is unacceptable to be allowing for a routine loss of other native, forage, and other sports fish species, through an unscreened mitigation proposition. The report from Ryder and Associates clearly phrases the arguments in terms of "significance" or "acceptability" of losses and monitoring of that, without acknowledging the disparity from the current regional statutory approach.

3. I see two screening issues with the current proposal (should it be deemed acceptable). Firstly, the 50mm trash bar screening of the intake pipes is justified in terms of existing screening at the Tekapo B penstocks. These are a historical design component that was not (to my knowledge) argued from a basis of fish exclusion. My understanding from elsewhere that "good practice" at new hydro-electric developments is in the domain of 20-25mm bar gaps. These then do exclude downstream migrating or dispersing adult megafauna [fish] and so would protect the residual longfin eels and adult salmonids. For consistency for the future, we should be considering "effects based" decisions on such hydro-electric [like] diversions (20-25mm bars) rather than just repeating historical practices. The other screening issue, is that I cannot see a mesh/bar size criteria stated within the AWMA Hydrolox operational screens proposed. At the very least these should be excluding fish on a par with the NIWA good practice guidelines/Schedule 2 mesh sizes, so as to be an effective fish trap that could be monitored?
4. An issue with a structure such as this where fish are passed through a piped system with a significant vertical drop down to the screening facility, is baro-pressure damage or losses. That is fish utilise air-filled swim bladders and other structures that are very prone to internal body damage if they are exposed to abrupt water pressure changes such as through large siphons, pumps, or turbulence. This has been documented widely in international literature, particularly in Australia and USA. The Ryder Associates report mentioned this in terms of passage through the Tekapo B penstock and turbine structure, but not through the proposed siphons. Overall, I would suggest that conservatively we might consider that by not screening the siphons, many fish may be damaged by passage through the siphons by baro-pressure changes alone.
5. The proposal is to regularly monitor the numbers of fish accumulating in the operational screening structure to determine whether losses are "significant". A significant problem with this approach, and with the very coarse trash screens, is that such situations encourage large predatory fish (eels, trout, salmon), and predatory piscivorous birds (shags etc.), to take up residence in or on the structure and consume the other fish species that may become concentrated within the screen structure. This is the experience at many such structures and installations such that fish surveys are a gross under-estimate of the fish diverted into the structure. This is also a significant consideration in many such fish screening proposals and why "sweep velocities" and "effective bypass's" are necessary to avoid this "predation dilemma". Therefore, I consider this "significance monitoring" proposal to be naïve or poorly thought out if it does not account for such potential predation effects.
6. Implicit in this proposal is that fish entrained from the Tekapo Canal will either concentrate in the screening structure, and/or be captured by the screening mechanism and end up in the trash materials. These constitute a "harvesting of fish" and subsequent disposal. Are such steps legally accounted for (capture, and disposal of "controlled" fish species (salmon and trout))?

Overall, I think this proposal raises a number of issues that need to be considered further, as to the acceptability of this "unscreened and mitigated" proposed consent condition change. I am fearful that for a proposal on this scale (3.5 cumecs of take) that it may be construed as a precedent and valid alternative approaches such as this for large abstractions more widely. For this reason I think the full extent of all issues/effects need to be carefully considered. Frequently we see "two phase" screening in irrigation schemes (Fish screening then operational debris screening) and often combining these phases into one integrated screening activity can generate benefits to all outcomes. I still see no reason why these "operational" (Hydrolox) screens cannot be operated as both Fish screens and operational screens and a bypass (pipeline) back to Lake Pukaki be incorporated into this.

From: Zella Smith
Sent: Wednesday, 27 June 2018 12:17 PM
To:

Cc: Georgina Patrick <Georgina.Patrick@ecan.govt.nz>
Subject: FW: Follow up re Simons Hill/Pass fish screen proposal

Hi All,

Simons Hill/Pass have proposed some amendments to their original request to remove the fish screening conditions completely.

Adrian, are you able to have a look at this proposal and comment on the likely effect on native fish?

Everybody else – FYI as you work through your position on this proposal. I look forward to hearing from you.

From:
Sent: Wednesday, 27 June 2018 11:30 a.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>
Cc:
Subject: RE: Follow up re Simons Hill/Pass fish screen proposal

Hello Zella

I have attached for your information the material Murray has prepared in relation to fish screening. I note that the design details of the fish screen proposed were also included in paragraph B of the side agreement between Fish and Game and PIC (which was attached to the application for the fish screen variation) and also in paragraphs 4 and 5 of the Background section of Greg Ryder's report. I have attached both of those documents to this email for your information, along with two other design drawings provided by Murray.

Thanks

Barrister

Canterbury Chambers
Level 1, 148 Victoria Street, Christchurch 8013 |

Please note my work hours are Mondays and Wednesdays 9am – 3.30pm and Thursdays 9.00am – 5.00pm.

From: Zella Smith [<mailto:Zella.Smith@ecan.govt.nz>]
Sent: Friday, June 22, 2018 10:14 AM
To:
Cc:
Subject: Follow up re Simons Hill/Pass fish screen proposal

Good morning

As discussed at the meeting, below is my understanding of your proposal in relation to fish screening. Can you please confirm this is correct?

You propose a 50mm mesh at the canal intakes, located halfway down the canal wall.

You propose screening in accordance with the current conditions at the pumphouse, where water leaves the holding pool (on the opposite side of the road to the canal).

In addition, you propose monitoring in the holding pool, to quantify how many, if any, fish get through the mesh in the canal, with the understanding you will upgrade the canal intakes should it prove ineffective.

Upon confirmation, I will send this on to our water quality scientist, Adrian Meredith, for further comment as to the impact of fisheries.

I will also update DoC and Runanga with the amendment.

Thank you.

Zella Smith
Principal Consents Planner
Environment Canterbury

03 687 7864
027 706 4302
Zella.Smith@ecan.govt.nz



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Facilitating sustainable development in the Canterbury region

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Anna Paris

From: Zella Smith
Sent: Monday, 18 June 2018 9:42 AM
To: South Canterbury Consents Planning Team
Cc:
Subject: RE: new consent numbers?
Attachments: Attachment to Applications for Change of Fish Screen Conditions.pdf; Ryder_Simons intake_21Mar18.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi there – yes please, one CRC to change conditions to CRC176714 and another to change conditions to CRC175720

Lodgement Date- 15 June 2018
No additional deposit required

Paperwork attached.

Thanks heaps!

From:
Sent: Tuesday, 12 June 2018 8:01 a.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>
Cc: Erin Baylis <Erin.Baylis@ecan.govt.nz>
Subject: RE: new consent numbers?

Hi Zella,
We can set up the new CRC's now if you like. Are you wanting one CRC to change conditions to CRC176714 and another to change conditions to CRC175720? We would need to know :
Lodgement date
Any deposit required

Cheers

From: Zella Smith
Sent: Monday, 11 June 2018 11:52 AM
To: South Canterbury Consents Planning Team <SouthCanterburyConsents.PlanningTeam@ecan.govt.nz>
Cc: Erin Baylis <Erin.Baylis@ecan.govt.nz>
Subject: new consent numbers?

Hi guys

CRC176714 and CRC176720 are in process.

The applicant has asked that we proceed with the simple part of the applications (ie the boundary adjustments), and create two new consent numbers for the fish screen removal.

What's the best way to do this – do I wait until the ones I have are granted and then ask you to set up numbers etc so they are changes of conditions to existing consents? And what will I need to send you?

Anna Paris

From:
Sent: Friday, 13 July 2018 3:04 PM
To: Zella Smith
Subject: RE: Simons Hill/Pass fish screens CRC186085 & CRC186087

Kia ora

Thanks Zella 😊

Noho mahana mai
(keep warm)

Kia pai tō mutunga wiki
(have a good weekend)

Kā mihi

Consents Officer

Kia pai tō rā
(have a good day)

Telephone.

Mobile.

Email:

Website: www.aukaha.co.nz



From: Zella Smith [mailto:Zella.Smith@ecan.govt.nz]
Sent: Friday, 13 July 2018 2:16 p.m.
To:
Cc: Georgina Patrick
Subject: Simons Hill/Pass fish screens CRC186085 & CRC186087

Good afternoon!

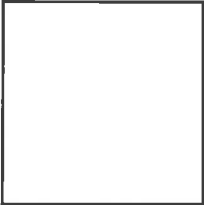
Following on from the feedback you provided on the Simons Hill/Pass proposal to amend their fish screening, we sent them the attached affected parties information.

They are currently considering their options.

They may contact you directly – it's up to them.

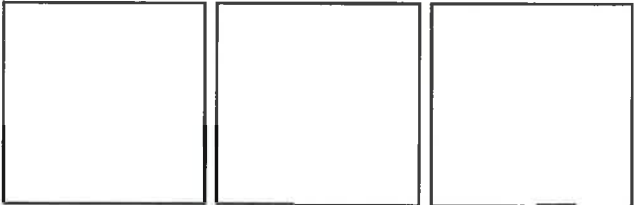
Thank you for your input!

Zella Smith
Principal Consents Planner
Environment Canterbury



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+64277064302
Zella.Smith@ecan.govt.nz

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From: Zella Smith
Sent: Thursday, 28 June 2018 4:27 PM
To:
Subject: RE: Simons Pass/Hill Fish screen

Thank you.

From:
Sent: Thursday, 28 June 2018 9:35 a.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>
Subject: RE: Simons Pass/Hill Fish screen

Kia ora –

Yes, I referred to the Ryder memo of 21 March and the designs supplied.

Hope that helps.

Environmental Planner
Aoraki Environmental Consultancy Limited
Mobile: 027 448 9292

From: Zella Smith <Zella.Smith@ecan.govt.nz>
Sent: Wednesday, 27 June 2018 4:56 PM
To:
Subject: RE: Simons Pass/Hill Fish screen

Thank you.

Is that based on the additional information I sent around – if not, do you know if that would make a difference?

From: ^
Sent: Wednesday, 27 June 2018 3:46 p.m.
To: Zella Smith <Zella.Smith@ecan.govt.nz>
Subject: Simons Pass/Hill Fish screen

Kia ora Zella

Having reviewed the information, we strongly oppose this application and consider the adverse effects to be more than minor. There is particular concern about the effect on native fish, which are a taonga.

Please keep in contact with us as the process continues.

Kā mihi

Environmental Planner

Anna Paris

From: Zella Smith
Sent: Friday, 13 July 2018 2:16 PM
To:
Cc: Georgina Patrick
Subject: Simons Hill/Pass fish screens CRC186085 & CRC186087
Attachments: CRC186087 CRC186085 Affected Parties Letter FINAL.pdf

Good afternoon!

Following on from the feedback you provided on the Simons Hill/Pass proposal to amend their fish screening, we sent them the attached affected parties information.

They are currently considering their options.

They may contact you directly – it's up to them.

Thank you for your input!