

19 The Crescent, PO Box 1262,
Invercargill 9840, NEW ZEALAND
Telephone: 03 218 2546
Facsimile: 03 214 4285
Email: admin@bonischenvironmental.co.nz
Web: www.bonischenvironmental.co.nz



26 June 2018



The Consents Manager
Environment Southland
Private Bag 90116
Invercargill 9840

Dear Sir,

***Wilson Contracting Limited on behalf of Southland District Council
Amendment to Land Use Consent AUTH-20171214-01***

Please find attached to this letter an application by Wilson Contracting on behalf of Southland District Council, for an amendment to condition 4(e) of Land Use Consent AUTH-20171214-01, relating to the depth that the culvert is to be placed in the bed of the stream, specific to the culvert located on the Waianiwa – Oporo Road.

It has recently come to the consent holder's attention that the culvert was actually installed 240mm higher than the pre-existing bed level, rather than actually at the pre-existing bed level as was stated in the previous amendment. Another amendment is now being sought to allow the culvert to remain at this level as installed.

The application is still made on the basis that fish passage will be maintained, despite the elevated level of the culvert inlet. It is clear that the water level is substantially above the culvert inlet and flow velocities are low at normal to low conditions. Further explanation on the reasons for this occurring are set out in the assessment of environmental effects that is appended.

Yours faithfully,

Bridgett Aitken
Planner, Bonisch Environmental

Enabling sustainable use of natural resources

Assessment of Environmental Effects

Wilson Contracting Limited on behalf of Southland District Council Amendment to Land Use Consent AUTH-20171214-01

1. Introduction

The Southland District Council currently hold a land use consent (AUTH-20171214-01) for the installation of 5 box culverts at numerous locations around Southland. Wilson Contracting on behalf of Southland District Council would like to apply for an amendment to condition 4(e) relating to the depth that the culvert is to be placed in the bed of the stream, specific to the culvert located on the Waianiwa – Oporo Road.

Previously, the applicant advised that invert of the culvert is at about the pre-existing bed level that existed before the culvert was installed, and subsequently, an amendment was applied for to amend the consent to specify that a minimum depth of water, i.e. 200mm, to be maintained through the culvert to allow for fish passage. The amendment subsequently granted allowed the culvert to be installed at the pre-existing bed level.

More recently, when the works were to be signed off by engineers working on behalf of the Southland District Council, it was discovered that the culvert was actually installed 240mm higher than the bed level. Another amendment is now being sought to allow the culvert to remain at this level because the physical situation is unchanged from when the first amendment was granted and there is sufficient water depth in the culvert to provide for fish passage.

Land Use Consent AUTH-20171214-01 authorises the installation of culverts at five sites around Southland. The site that is specific to this application is located on the Waianiwa – Oporo Road. The waterway has been identified as Hubbers Tributary in the Oreti River Catchment.

A location plan is included in Appendix 1.

An amendment is considered to be appropriate because there is no change to the nature and scale of the activity, nor does it introduce a new activity that should be dealt with in a new application. The proposed change is technical in nature and will not change the potential adverse effects associated with the activity. Condition 4(e) is applied to ensure that there is a stable bed and fish passage is enabled. Under the proposed amendment, this objective will still be achieved.

The works have already been completed so this a retrospective application.

The applicant has contacted affected parties to this activity and is currently seeking their approval for this application.

2. Description of amendment sought

During the installation of the culvert, there was an error with some level measurements and the culvert was not placed the required 300mm below the bed of the stream. An amendment to the consent was undertaken to ensure that there is enough flow throughout the culvert structure to maintain fish passage.

However, as stated above, it has recently come to light that the culvert has not been installed at the natural bed level as initially stated and that it has been installed at 240mm above the natural bed level.

The purpose of this application is to therefore further amend condition 4(e) relating to depth the culvert is to be placed in the bed of the stream. This current application is seeking that condition 4(e) specify that the consent allow the culvert located on the Waianiwa – Oporo Road, be installed 240mm above bed level. Fish passage will be maintained as outlined in the previous amendment application. No further instream works are required.

A long section of the stream bed and water level that has been provided by Wilson Contractors (appended) shows that the bed level where the culvert is located is higher than the bed level located immediately upstream and downstream of the culvert location. The reasons why the water depth at this site is still sufficient despite the high culvert are set out below

The watercourse, it is a small tributary of the Oreti River, flowing into it on the right bank approximately 700m above State Highway 99. The catchment area above the bridge is approximately 17 km². The majority of the catchment is in the Central Plains groundwater zone that is drained by numerous streams flowing out of that area, of which Hubbers Tributary is one. The watercourse is mainly sustained by groundwater flow but will also respond to rainfall events. There is no information to suggest the stream is ephemeral but during dry periods, flows will be very small.

When the site was visited on 26 April 2018, there had been no rain for at least 24 hours but regular rainfall for the weeks prior. There was no sign that a fresh had been down the stream but, based

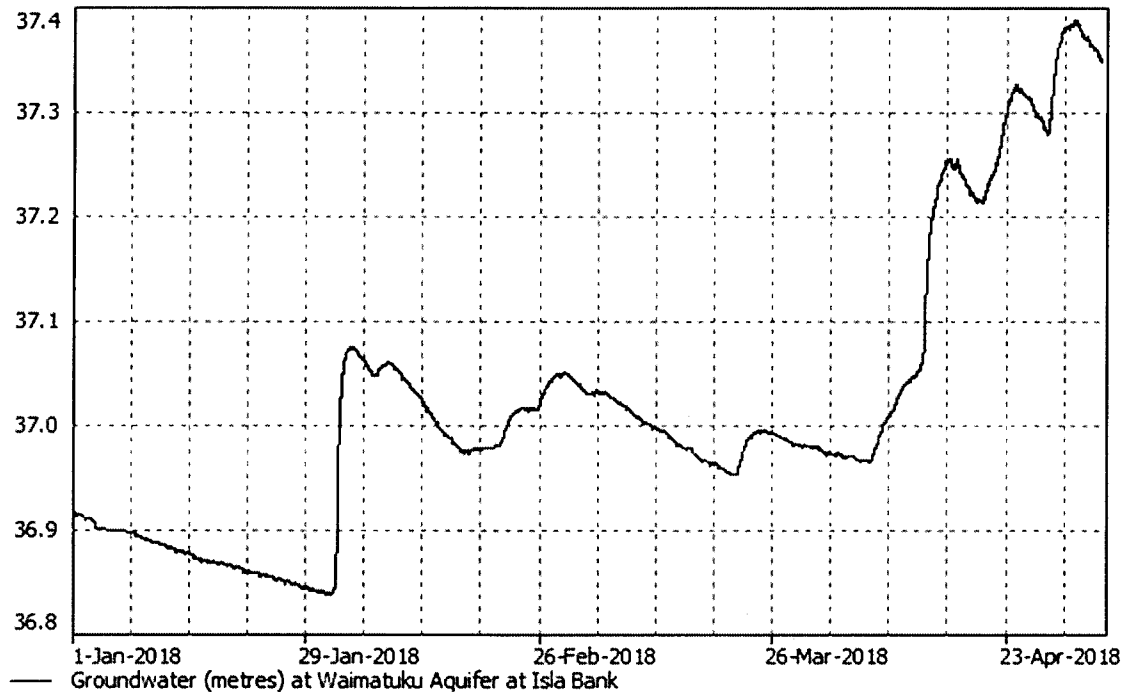


Figure 1 – Groundwater levels in Waimatuku Aquifer.

on groundwater level data in the adjacent Waimatuku catchment, groundwater levels would have been high (see Figure 1 above). This site is in the Waimatuku groundwater zone but it provides reasonably representative information.

The depth of water measured in the culvert at the time of the visit was 770 mm. The depth had been observed lower after the installation completed in mid-March 2018, estimated to be about 300 mm.

2.1 Stream water level

The culvert as installed is approximately 240 mm above the original stream bed level, not at bed level as previously advised. However, it is clear that the water level through that part of the stream has sufficient depth through the culvert to provide for fish passage. The only way that this depth can be maintained is by water being held up further downstream, to the extent that the backwater effect extends up to and beyond the culvert site.

There are four circumstances that could cause the water level in the stream to be held at a high level, any or all of which may be having an effect at this site. The first is that at some point downstream, the bed level rises, which means the water level has to rise to flow over the high point. Slope changes in the stream bed are likely to be small and extend over

some distance, effectively creating a type of broad weir. This situation would create a backwater effect that would cause the water levels to be higher for some distance upstream, depending on the extent of the rise in the stream bed.

This situation could occur naturally, but it could also be a man-made phenomenon. The stream has been mechanically cleaned from time to time, as evidenced by the spoil heaps along the stream bank. Historically, this type of stream maintenance is known to have caused deepening of stream beds, sometimes inadvertently, sometimes deliberately to ensure that tile drainage has sufficient outfall. If the deepening only occurred in part of the stream and not all of the way downstream, this phenomenon is a likely outcome.

Deepening of the stream bed gives rise to the second circumstance that could impact on water depth in the stream, namely, lowering the stream bed below the natural groundwater level. As noted, this stream drains water from the Central Plains Groundwater zone, so lowering the bed below groundwater level will impact on water level in the stream. The extent of that impact will depend on the permeability between the stream bed and the adjoining aquifer.

The third circumstance that could cause water levels to be maintained at a higher level is where the stream joins with another watercourse where the water level is higher, which would also cause a back water effect to extend upstream. There is a small tributary that joins the stream approximately 420 m downstream of the culvert and the next confluence of any significance is where the stream joins the Oreti River, 3.2 km downstream. The former is believed to be too small have any significant backwater effect and is more likely to have water at a similar level to the subject stream. The latter is too far downstream to have a significant back water effect at the culvert site.

The fourth circumstance when water levels may increase is where the flow is slowed by resistance in the stream, typically due to macrophyte growth. The impact of macrophytes will vary seasonally and from stream maintenance activity. Macrophytes can deepen the flow while water is flowing but when flow decreases, the water levels will drop, i.e. macrophyte growth is not impermeable and will not dam water when flow decreases or stops altogether. This stream is not known to be ephemeral but it does have substantial macrophyte growth, particularly in the warmer months.

The most likely to reason why the water level in the culvert is still sufficient to maintain fish passage, despite the invert being above the pre-existing stream bed level, is a change in the bed slope combined with deepening of the bed below the water table adjacent to the stream. Macrophyte growth will, at times, have an impact but the significance of that impact will vary during the year. A backwater effect due to a stream convergence does not appear to be likely on this watercourse.

One of the effects of increased water level in the stream from any of these circumstances is reduced flow velocity, which is quite apparent at the site when it was visited in April 2018. It is clear also that the water depth through the culvert is sufficient for fish passage so some physical phenomena is causing that flow depth. This situation will not change without some significant work on the watercourse, which is unlikely if it is providing sufficient drainage for adjoining landowners. Also, any physical work to deepen the stream bed, or to otherwise alter it, would require a new consent.

This type of situation in watercourses that have been significantly modified is reasonably common. This stream has been straightened when the land was developed and such work is well known to cause channel slope issues. Because water depth through the culvert is maintained, regardless of the actual reason, it is therefore considered that in this case, the overall effect on fish passage through the culvert as installed in no more than minor.

3. Assessment of Environmental Effects

The only effect that needs to be addressed for this amendment is fish passage in the watercourse. Other matters associated with the culvert installation were addressed in the original application.

Many fish species need to move between the sea and rivers to complete their lifecycles. Any barriers to migration can prevent fish from reaching these critical habitats required for breeding purposes, which in turn can have an impact on fish populations. Migration can also occur upstream and downstream between different habitats within freshwater.

Some fish are more affected by migration barriers than others because they have different abilities. For example, inanga are weak swimmers and cannot climb, whereas koaro whitebait and baby eels can climb wetted surfaces very effectively. The initial consent application states that the fish spawning habitat at this location appears to be low quality and dominated by soft sediments.

The initial application identified that the installation of culverts has the potential to create barriers to fish passage once operational. To reduce potential barriers, it was determined that a single cell box culvert was significantly less likely to create a barrier to fish passage than a round culvert, which can increase flow velocities, create erosion downstream, and become perched above the stream bed level. Also it was indicated that the culvert also must be large enough to not restrict flows and the culvert invert is installed well below (300mm or more) bed level.

While the culvert is large enough not to restrict flows, the crux of the issue is the installation was not at the specified 300mm below bed level to provide for fish passage.

The recently released fish passage guidelines¹ recommends that the minimum water depth in the culvert at the low fish passage design flow be 150 mm for native fish passage. After assessing the flow at the site, the proposed 200mm depth to be maintained through the culvert at all times is above the minimum standard.

As noted above, the stream is fed by groundwater from the Central Plains groundwater management zone, Lowland aquifer type. The flow on the day the site was visited would be reasonably typical but higher than summer low flows when groundwater levels would be lower. However, the nature of the site is such that there would be a reasonable depth of water in the culvert at all times. The water level needs to drop 570 mm for the proposed 200 mm depth to be reached. Without actual stage height data recorded over a reasonably representative period of time, it cannot be stated with absolute certainty that the 200 mm depth limit would be maintained at all times.

The proposed water level measurement of 200mm to be maintained through the culvert structure at all times, is very similar to the measurement that would be obtained by installing the culvert below bed level. The intent of the best practice guidelines for culvert installation is to try and have a continuous stream bed through it and maintain the stream flow parameters (flow depth and velocity). Gravel would normally accumulate in the culvert after installation meaning the invert depth of 300 mm would be reduced, the amount depending on the particular stream.

It is acknowledged that this culvert installation does not meet all of the requirements of best practice but it is submitted that it will not impede fish passage. The risk of the water level in the culvert dropping below 200 mm is very low, and if it did it would be for a short period of time when flows in all streams are very low and fish passage is constrained naturally.

Overall the effect of the proposed amendment is considered to be no more than minor. As the culvert is in a small, ungauged stream, actual data is not available. The risk of the depth of flow being less than 200 mm is low but more importantly, the likely impact relative to the conditions that will be occurring in all watercourses at such times would also be no more than minor due to the low frequency of such events and short duration.

4. Alternative Options

An alternative option to the amendment would be to remove the current culvert and reinstall at the required 300mm below bed level as specified in condition 4 (e) of the consent.

The replacement of the culvert would require the stream to be diverted again, the existing culvert to be removed, the bed excavated and prepared for replacement of the culvert, and the installation of a new culvert (the one in place now cannot be re-used once removed due to being

¹ New Zealand Fish Passage Guidelines – For structures up to 4 metres – jointly prepared by NIWA, Department of Conservation and the NZ Fish Passage Advisory group – April 2018

pre-stressed concrete). This option would be a considerable cost to the applicant and would also cause disruption to the roading network in this area as well as effects on water quality by undertaking more instream works. Given the assessed level of effects, removal of the culvert is not considered to be necessary.

5. Objectives and Policies

For the purposes of this application, the requirements of the Resource Management Act 1991 (the Act) are not re-stated, nor any analysis provided of the Regional Policy Statement (RPS). The provisions of the Regional Policy Statement are dealt with in more detail in the Regional Water Plan (RWP), and the Proposed Southland Water and Land Plan (PSWLP), of which neither can be inconsistent with the higher-level documents.

The Iwi environmental management plan, Te Tangi a Tauira, is acknowledged, as is the relationship that Iwi has with water. A full analysis of the document is not provided for this application as this proposed activity will not impact significantly on Iwi values and is consistent with current practices in the wider area.

The full analysis of the objectives and policies associated with culvert installation were addressed in the original application. The analysis that follows only addresses those that are relevant to this application.

Regional Water Plan (RWP):

The most relevant objectives, policies and rules of the RWP are as follows:

Objective 10 – Habitats and ecosystems

To maintain or enhance the diversity and integrity of aquatic and riverine habitats and ecosystems.

Policy 32 – Manage structures and bed disturbance activities in the beds of rivers (including streams and modified watercourses) and lakes

Manage structures and bed disturbance activities in the beds of rivers and lakes, to avoid, remedy or mitigate adverse effects on:

- (a) water quality and quantity;
- (b) habitats, ecosystems and fish passage where this is normally expected to occur;
- (c) indigenous biological diversity;
- (d) historic heritage, and the spiritual and cultural values and beliefs of the tangata whenua;

- (e) public access (except in circumstances where public health and safety are at risk) and amenity values;
- (f) natural character and outstanding natural features;
- (g) river morphology and dynamics, including erosion and sedimentation;
- (h) flood risk;
- (i) infrastructural assets;
- (j) navigational safety.

Policy 36 - Promote good environmental practice

Use non-regulatory methods to promote good environmental practice in relation to structures and bed disturbance activities.

Policy 39 – Promote best management practice

Use non-regulatory methods to promote best management practice in relation to retaining or enhancing the natural values of wetlands.

Rule 28 - Culverts

- a) The placement, erection or reconstruction and any associated bed disturbance of any culvert, including any associated inlet or outlet protection structure, or sediment trap less than 2.5 square metres surface area, in, on, under or over the bed of any river, modified watercourse, stream or lake is a permitted activity provided the following conditions are met:
 - i. the culvert is less than or equal to 1200 mm in diameter;
 - ii. the culvert is a single structure (i.e. it is not placed in combination with other culverts across the width of the river);
 - iii. the culvert shall be positioned so that its alignment is the same as the river;
 - iv. the culvert shall be designed to pass flood flows (either through, around or over the culvert) and shall not increase the risk of flooding to neighbouring properties;
 - v. the invert (or bottom) of the culvert shall be installed to a depth of either 300 mm below the natural bed level, or one third of the diameter of the culvert, whichever is the lesser;
 - vi. the culvert shall be purpose built for the passage of water (i.e. it shall not be a drum, container or other item not designed as a culvert);
 - vii. the standard conditions in Rule 48(a) and (b).

- b) The placement, erection or reconstruction and any associated bed disturbance of any culvert, including any associated inlet or outlet protection structure, or sediment trap less than 2.5 square metres surface area, in, on, under or over the bed of any river, modified watercourse, stream or lake that cannot meet the above conditions is a controlled activity.

The Council will exercise control over the following matters:

- i. the design of the culvert;
 - ii. any effects on flood risk, river morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitat (including fish passage), the spiritual and cultural values and beliefs of the tangata whenua, and historic heritage;
 - iii. any standard conditions in Rule 48(a) and (b) that cannot be met.
- c) The use of any culvert including any associated inlet or outlet protection structure or sediment traps less than 2 square metres, and its associated bed disturbance in, on or over the bed of any river, modified watercourse, stream or lake is a permitted activity provided the following conditions are met:
- i. the structure was lawfully established (either before or after this plan came into force).
 - ii. use of the structure shall not cause a hazard to navigation.
 - iii. the structure shall not be used to store hazardous substances.
 - iv. the standard conditions in Rule 48 (b) and (c).
 - v. fish passage shall not be impeded as a result of the activity.

Rule 48 - Standard conditions

Where expressly provided for in the permitted activity rules, for activities that occur in, on under or over the bed of any river, lake, modified watercourse or stream in sections 2.2.3 (Structures in river and lake beds) and 2.2.4 (Bed disturbance activities in river and lake beds) and Rule 20, the following standard conditions shall apply.

Where expressly provided for in the restricted discretionary activity rules in sections 2.2.3 (Structures in river and lake beds) and 2.2.4 (Bed disturbance activities in river and lake beds), Council shall consider standard conditions within Rule 48 that cannot be met.

- (a) Standard conditions for placement, erection, reconstruction, maintenance, alteration, extension, demolition and removal of structures and bed disturbance activities:
 - (i) fish passage shall not be impeded as a result of the activity;
 - (ii) there shall be no bed disturbance of the roosting and nesting areas of the black fronted tern, black billed gull, and banded and black fronted dotterel;

- (iii) any activity in the water shall be kept to a minimum to avoid, as much as practicable, discoloration to the river or lake. Where any sediment release occurs, it will be only temporary;
- (iv) any bed disturbance shall be kept to the minimum necessary to undertake the activity, and the site shall be reinstated, as near as practicable, to its original condition on completion of the activity (with the exception of re-vegetation);
- (v) no fuel storage or machinery refuelling shall occur on any area of the bed;
- (vi) no contaminants, other than sediment released from the bed, shall be discharged to water during the activity unless allowed by a relevant permitted activity rule or resource consent;
- (vii) there are no recorded historic heritage sites, at the site of the activity;
- (viii) before any equipment, machinery, or operating plant is moved to a new activity site it shall be effectively cleaned to prevent the spread of “pests” or “unwanted organisms” as defined by the Biosecurity Act 1993;
- (ix) all equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity shall be removed from the site on completion of the activity;
- (x) the activity shall not result in significant adverse effects on aquatic ecosystems;
- (xi) between the beginning of November and the end of May, there shall be no disturbance of the tidal river habitat up to the spring tide level.

Discussion

The proposed amendment is consistent with Policy 32 as it still provides for fish passage, but not entirely consistent with Policies 36 and 39. For the most part, the culvert is in accordance with best management practice but not installing the invert lower is the exception. However, notwithstanding that oversight, the intent of that requirement can be met because the depth of water in the culvert is sufficient to maintain fish passage.

Overall, the amendment is not considered to be inconsistent with or contrary to the Regional Water Plan.

Southland Water and Land Plan

The policies of the SWLP that are relevant to this application are:

Objective 1 Land and water and associated ecosystems are sustainably managed as integrated natural resources, recognising the connectivity between surface water and groundwater, and between freshwater, land and the coast

Objective 4 Tangata whenua values and interests are identified and reflected in the management of freshwater and associated ecosystems.

Objective 14 The range and diversity of indigenous ecosystem types and habitats within rivers, estuaries, wetlands and lakes, including their margins, and their life-supporting capacity are maintained or enhanced

Policy 28 – Structures and bed disturbance activities of rivers (including modified watercourses) and lakes Manage structures, bed disturbance activities and associated discharges in the beds and margins of lakes, rivers and modified watercourses, to avoid, remedy or mitigate adverse effects on:

1. water quality and quantity;
2. habitats, ecosystems and fish passage;
3. indigenous biological diversity;
4. the spiritual and cultural values and beliefs of the tangata whenua;
5. mātaihai and taiāpure;
6. public access (except in circumstances where public health and safety are at risk) and amenity values;
7. natural character values and outstanding natural features;
8. river morphology and dynamics, including erosion and sedimentation;
9. flood risk;
10. infrastructural assets;
11. navigational safety; and
12. landscape values.

Rule 55A – General conditions for activities in river and lake beds

- (a) Fish passage is not impeded as a result of the activity; and
- (b) There is no disturbance of roosting and nesting areas of the black fronted tern, black billed gull, banded dotterel or black fronted dotterel; and
- (c) Any activity in the water is kept to a minimum to avoid, as much as possible, discoloration of the water in the water bodies listed in the chapeau¹² of the rule, including from any temporary sediment release; and
- (d) Any bed disturbance is kept to the minimum necessary to undertake the activity and the bed is returned as near as practicable to its original channel shape, area, depth, and gradient on completion of the activity (with the exception of revegetation); and
- (e) No fuel storage or machinery refuelling occurs on any area of the bed; and
- (f) No contaminants, other than sediment released from the bed, are discharged to water as a result of use of the structure unless allowed by a relevant permitted activity rule in this Plan or a resource consent; and

- (g) Before any equipment, machinery, or operating plant is moved to a new activity site it is effectively cleaned to prevent the spread of “pests” or “unwanted organisms” as defined by the Biosecurity Act 1993; and
- (h) All equipment, machinery, operating plant and debris associated with the structure or bed disturbance activity is removed from the site on completion of the activity; and
- (i) The structure or bed disturbance activity does not cause significant erosion of, or deposition on, the surrounding bed or banks; and
- (j) Any build-up of debris against the structure which may adversely affect flood risk, drainage capacity or bed or bank stability is removed as soon as practicable; and
- (k) The structure is maintained in a state of good repair; and
- (l) From the beginning of November until the end of May, there is no disturbance of whitebait spawning habitat.

Rule 59 – Culverts

- (a) The placement, erection or reconstruction of any culvert including any associated inlet or outlet protection structure in, on, under or over the bed of a river, modified watercourse or wetland (excluding natural wetlands), and any associated bed disturbance and discharge resulting from carrying out the activity, is a permitted activity provided the following conditions are met:
 - (ia) the general conditions set out in Rule 55A; and
 - (i) the maximum diameter of any single culvert is 1,200 millimetres; and
 - (iii) any culvert is positioned so that its alignment is the same as the river; and
 - (iv) any culvert is designed to pass flood flows (either through, around or over the culvert) and does not increase the risk of flooding to neighbouring properties; and
 - (v) the invert (or bottom) of any culvert is installed to a depth of either 300 millimetres below the natural bed level or one-third of the diameter of the culvert, whichever is the lesser; and
 - (vi) any culvert is purpose built for the passage of water (i.e. not a drum, container or other item not designed as a culvert); and
 - (viii) fill over any culvert is not be greater than 4 metres (the vertical distance measured from the crest of the fill to the natural bed at the downstream invert of the structure); and
 - (ix) any structure is not within any mātaimai, nohoanga, or taiāpure.

Note: In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre-1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Pouhere Taonga Act 2014. The responsibilities regarding archaeological sites are set out in Appendix S.

- (b) The placement, erection or reconstruction of any culvert including any associated inlet or outlet protection structure in, on, under or over the bed of a river, modified watercourse or wetland, and any associated bed disturbance and discharge resulting from carrying out

the activity, that does not meet one or more of the conditions of Rule 59(a) is a controlled activity.

The Southland Regional Council will exercise control over the following matters:

1. the design and location of the culvert;
 2. any effects on flood risk, river morphology and dynamics (including erosion and deposition), aquatic and riverine ecosystems and habitat (including fish passage), taonga species, the spiritual and cultural values and beliefs of the tangata whenua, landscape, natural character and amenity values, navigational safety and public access.
 3. any conditions in Rule 59(a) that cannot be met.
- (c) The use, repair and maintenance of any culvert including any associated inlet or outlet protection structure in, on, under or over the bed of a lake, river, modified watercourse or wetland is a permitted activity provided the following conditions are met:
- (ai) general conditions (f), (i), (j) and (k) set out in Rule 55A.
- (d) The use, repair and maintenance of any culvert including any associated inlet or outlet protection structure in, on, under or over the bed of a lake, river, modified watercourse or wetland that does not meet one or more of the conditions of Rule 59(c) is a discretionary activity.

Discussion

The situation with the PSWLP is similar to the Regional Water Plan and the same comments apply.

Policy 28 outlines that structures and bed disturbance activities need to avoid, remedy and mitigate effects on a number of aspects which includes habitats, ecosystems and fish passage. The main area of concern around the activity on fish passage, however as discussed in the assessment of effects above, fish passage will be maintained so therefore the activity is consistent with policy 28 and the conditions outlined in rules 55A and 59 of the Southland Water and Land Plan.

The amendment is therefore not considered to be inconsistent with or contrary to the PSWLP.

6. Consultation

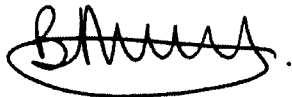
Wilson Contractors are currently consulting with Fish & Game NZ, and the Department of Conservation. The latter two provided written approvals to the original application and recent amendment. No written approvals to this amendment application have been sought in advance of the application being prepared

7. Conclusion

It is concluded that this application to amend condition 4 (e) of land use consent AUTH-20171214-01, is not contrary to or inconsistent with the relevant planning documents, and effect of the amendment will have adverse effects that are no more than minor. Allowing the activity ensures that fish passage is maintained through the culvert structure while avoiding any significant impacts on the aquatic ecosystems found within this waterway by replacing the culvert.

It is therefore submitted that the application can be processed without notification, with written approvals.

Yours faithfully,



Bridgett Aitken
Planner, Bonisch Environmental

Appendix 1

Location Plan



bonisch
environmental

Location of Culvert – Waianiwa Oporo Road - 288769E, 4869415N



Appendix 2

Site Photographs – Taken during site visit 26 April 2018















Appendix 3

Application Form

Application for Resource Consent (PART A)



**environment
SOUTHLAND**
REGIONAL COUNCIL
Te Taiāo Tonga

This application is made under Section 88 of the Resource Management Act 1991

The purpose of this Part A form and the relevant Part B form(s) is to provide applications with guidance on information that is required under the Resource Management Act 1991. Please note that these forms are to act as a guide only, and Environment Southland reserves the right to request additional information.

To: Environment Southland
Private Bag 90116
Invercargill 9840

Full name, address and contact details of applicant *(in whose name consent is to be issued)*

Name: Wilson Contractors Ltd - C/- Andrew Sinclair

Address: 22 Onslow Street, Invercargill 9812

Email: Sinclair@wilsoncontractors.co.nz

Phone: 03 216 8460 027 292 9141 Fax: _____
Preferred Additional

Consultant contact details *(if different from above)*

Contact name/agent: Bonisch Environmental - C/- Bridgett Aitken

Address: PO Box 1262 Invercargill 9840

Email: bridgett@bonisch.nz

Phone: 03 218 2546 _____ Fax: _____
Preferred Additional

Please tick the box for the consent(s) you are applying for and complete the relevant Part B form(s) where available:

<i>Land Use</i>	<i>Discharge</i>	<i>Coastal</i>
<input type="checkbox"/> Bore/well	<input type="checkbox"/> To air	<input type="checkbox"/> Whitebait stand
<input type="checkbox"/> New or expanded dairy farming	<input type="checkbox"/> To water	<input type="checkbox"/> Structures/occupation of space
<input type="checkbox"/> Effluent storage	<input type="checkbox"/> To land	<input type="checkbox"/> Removal of natural materials
<input type="checkbox"/> Cultivation	<i>Water</i>	<input type="checkbox"/> Disturb foreshore/seabed
<input type="checkbox"/> Tree planting	<input type="checkbox"/> Take and use surface water	<input type="checkbox"/> Discharge/deposit substances
<input type="checkbox"/> Gravel extraction	<input type="checkbox"/> Take and use groundwater	<input type="checkbox"/> Commercial surface water activity
<input type="checkbox"/> Hill country burning	<input type="checkbox"/> Dam water	<input type="checkbox"/> Reclaim/drain foreshore/seabed
<input checked="" type="checkbox"/> Riverbed activity (incl. streams/creeks and stopbanks)	<input type="checkbox"/> Divert water	<input type="checkbox"/> Marine farming
<input type="checkbox"/> Bridges and culverts		<input type="checkbox"/> Other coastal activities

1 Are there any **current** or **expired** consents relating to this proposal?

Yes No

If yes, please provide consent number(s) and description:

Land Use Consent AUTH- 20171214-01

2 Are any other consents required from Environment Southland or **other authorities**?

Yes No

If yes, please state the relevant authority and the type of consent(s) required:

3 For what **purpose** is this consent(s) required: (e.g. discharge of effluent, gravel extraction etc.)

To amend conditions 4 (e) of land use consent AUTH 201171214-01

4 **Location** of proposed activity

Address: Waianiwa Oporo Road

Legal Description: _____

Map Reference (NZTM 2000): 288769 E 4869415 N

5 The name and address of the **owner /occupier**: (if other than the applicant)

Name: _____ Phone: _____

Address: _____

6 Please attach a map or a coloured aerial photograph, showing at a minimum, the location of the proposed activities.

7 Assessment of effects on the environment (AEE)

Please complete the applicable Part B form(s) for the proposed activities. For those activities where no Part B form is available, please attach a written statement that assesses the effects that your activities may have on the environment. An assessment of effects **must** include the following information:

- (a) *If it likely that the activity will result in any significant adverse effect on the environment, a description of any possible alternative locations or methods for undertaking the activity:*
- (b) *An assessment of the actual or potential effect on the environment of the activity:*
- (c) *If the activity includes the use of hazardous substances and installations, an assessment of any risks to the environment that are likely to arise from such use:*
- (d) *If the activity includes the discharge of any contaminant, a description of—*
 - (i) *the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and*
 - (ii) *any possible alternative methods of discharge, including discharge into any other receiving environment:*
- (e) *A description of the mitigation measures (safeguards and contingency plans where relevant) to be undertaken to help or prevent or reduce the actual or potential effect:*
- (f) *Identification of the persons affected by the activity, any consultation undertaken, and any response to the views of any persons consulted:*
- (g) *If the scale and significance of the activity's effects are such that monitoring is required, a description of how and by whom the effects will be monitored if the activity is approved:*
- (h) *If the activity will, or is likely to, have adverse effects that are more than minor on the exercise of a protected customary right, a description of possible alternative locations or methods for the exercise of the activity (unless written approval for the activity is given by the protected customary rights group).*

You should also include:

- (a) *An assessment of the activity against any relevant provisions of any relevant objectives, policies, or rules:*
- (b) *Any information specified to be included in the application in accordance with the relevant regional plan:*
- (c) *For an application to replace an existing consent, an assessment of the value of the investment of the existing consent holder:*

An assessment of effects **must** address the following matters:

- (a) *any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects:*
- (b) *any physical effect on the locality, including any landscape and visual effects:*
- (c) *any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity:*
- (d) *any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations:*
- (e) *any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants:*
- (f) *any risk to the neighbourhood, the wider community, or the environment through natural hazards or the use of hazardous substances or hazardous installations.*

8 Affected Parties

Please attach written approval from parties who may be affected by your activity. *Written Approval of an Affected Party* forms are available on the Environment Southland website. During the processing of your application, Council may determine that additional approvals are required.

Checklist: Have you included the following?

- Payment of the required deposit (*see attached fee schedule*)
- Written approval from all potentially affected parties (*forms available from the Environment Southland website*)
- Site plan/location map/sketch of the proposed activity
- A copy of the Certificate of Incorporation (*where applicant is a company*)
- Part B form(s) specific to your activity and/or a separate assessment of environmental effects (AEE)

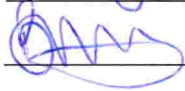
Notes:

- (a) *If your application does not contain the necessary information and the appropriate fee, Environment Southland must return the application.*
- (b) *Council cannot accept electronic lodgement of applications at this time.*

Signature of applicant

I hereby certify that to the best of my knowledge and belief, the information given in this application is true and correct.

I undertake to pay all actual and reasonable application processing costs incurred by Environment Southland.

Name (block capitals) Bridgett Aitken
Signed  Date 26/6/18

(Signature of applicant or person authorised to sign on behalf of applicant)

Fee Schedule

The Council's user charges are fixed under Section 36 of the Resource Management Act 1991. Refunds may be given, or additional fees are charged, where appropriate.

Deposits	
Bores and wells Whitebait stands Transfer of a consent from one person to another Administrative variation	\$100
Certificate of Compliance	\$500
Transfer an activity from one site to another Any other change/variation to an existing consent	\$1,350
All other non-notified applications	\$1,350
Concurrent non-notified consent applications	\$150
Applications that require notification or limited notification	\$2,000

Note: The fees shown in Table 1 are deposits to be paid at the time of application. Due to the complexity of these activities, this deposit will not usually cover the full cost of processing the application. Further costs may be incurred relating to staff time, disbursements, legal charges, consultation fees, and hearing commissioner fees.

Concurrent – means for additional permits in respect of the same site, activity, applicant, time of application, and closely related effect as the first application.

Environment Southland accepts payment in the forms of cash, Eftpos, cheque, or electronic transfer. All electronic transfers must include the applicant's name and "consent application" as a reference. Please make electronic payments to: Environment Southland, 01-0961-0018998-00.

User Charges: Please note that additional annual Users Charges will apply to all consents. These are payable in advance on the first day of July each year. Schedules 3 and 4 of the Environment Southland User Charges and Fees document outline the fees associated with Annual Administration Charges and Annual Consent Monitoring and Inspection Charges. Schedule 6 Annual Research and Monitoring Charges apply only to surface and groundwater takes and comprise the following:

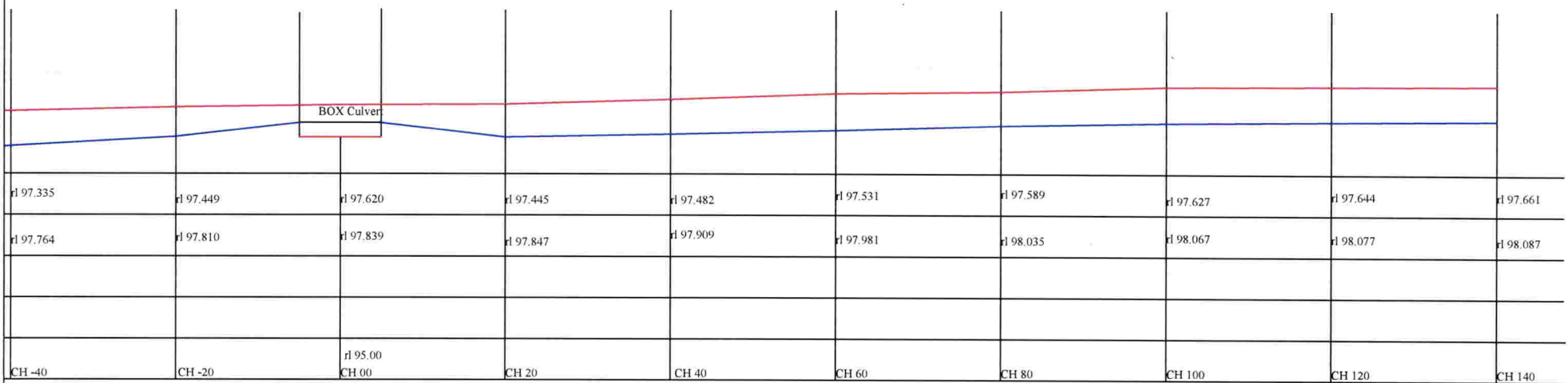
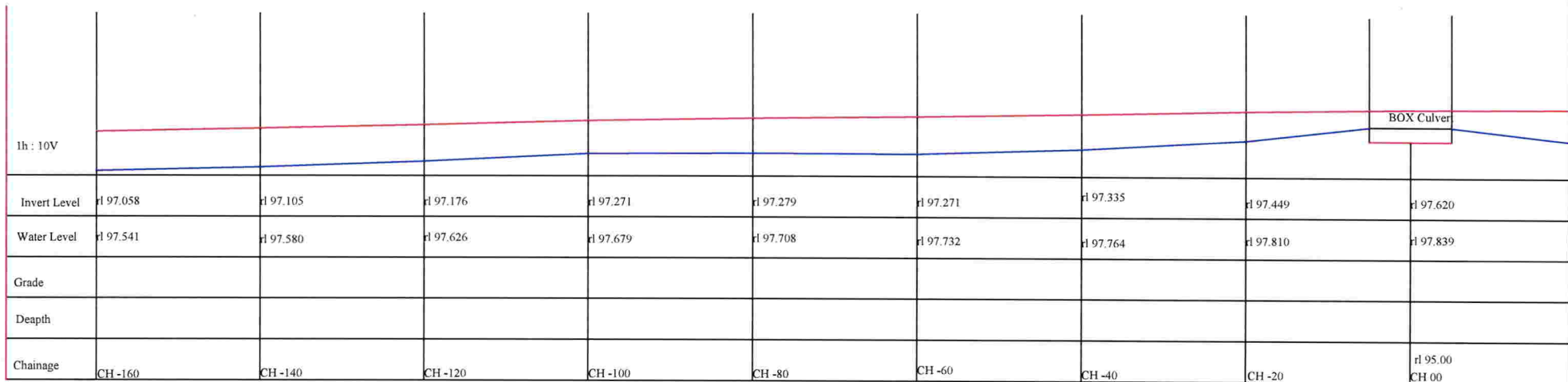
- **Surface water takes:** A charge of \$1.72 per year per cubic metre authorised as a maximum daily take. Minimum of \$138, maximum of \$6,895, per consent.
- **Groundwater takes:** A charge of \$0.81 per year per cubic metre authorised as a maximum daily take. Minimum of \$162, maximum of \$1,620, per consent

Municipal and stock water charges are reduced by 50%.

Environment Southland's User Charges and Fees document is available at: www.es.govt.nz/resource-consent/fees

Appendix 4

Stream Section



Wilson CONTRACTORS
 Earthmoving • Infrastructure • Roading

This drawing, the designs, and the information, contained within it are, and always will remain, the property of Wilson Contractors Ltd. Any unauthorised use or reproduction in part or in full, is forbidden.

Waiāniwā Box Culvert Long Section

March 2016

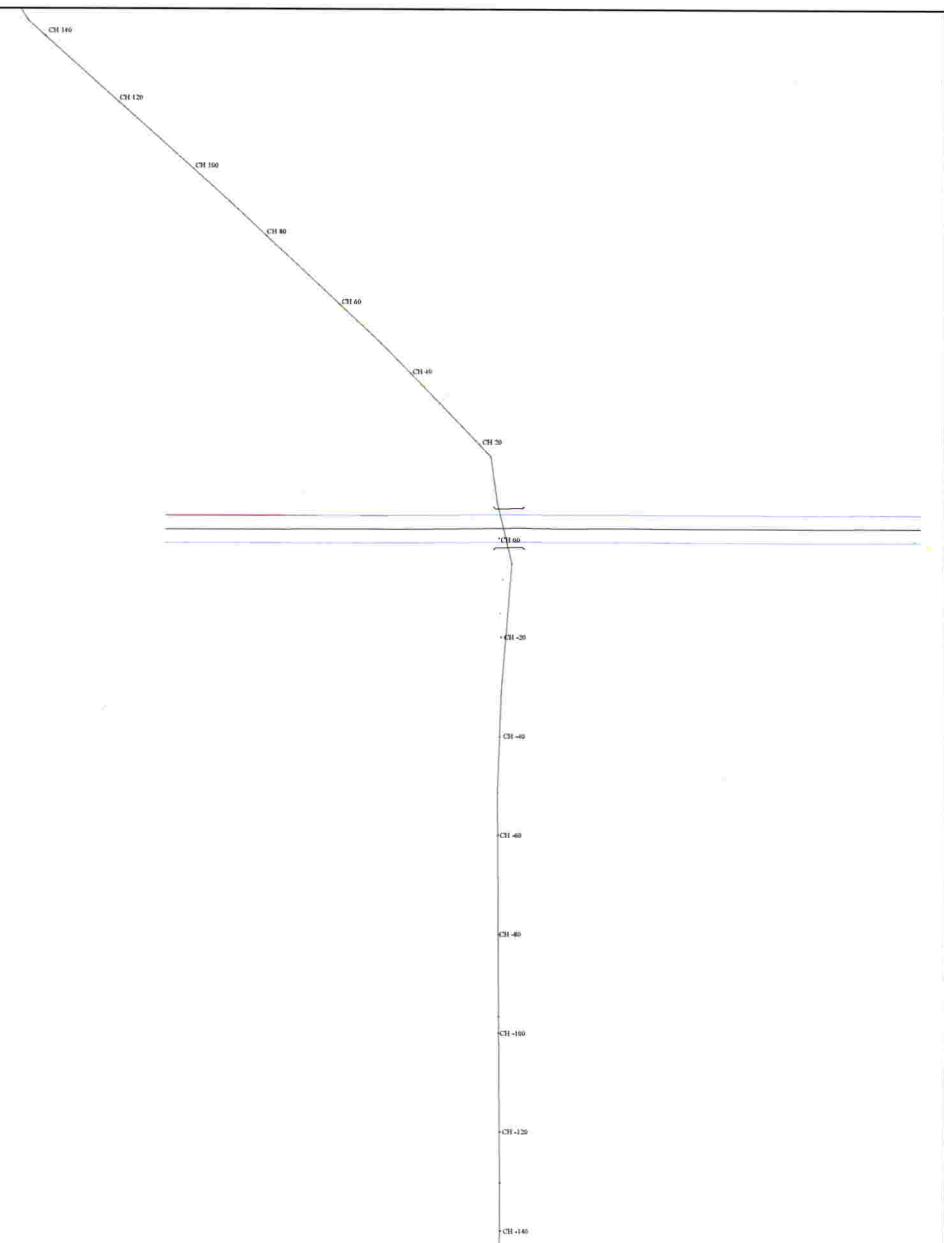
Scale 1V:10H

Date: 23/03/18

Drawing By: Josh C

Sheet No. 1 of 2

Chainage	Invert RL	Water Level	Depth	Grade
CH -1420	94.497			0.20%
CH -200	96.964	97.464	0.5	0.23%
CH -180	97.011	97.502	0.491	0.24%
CH -160	97.058	97.541	0.483	0.23%
CH -140	97.105	97.58	0.475	0.35%
CH -120	97.176	97.626	0.45	0.47%
CH -100	97.271	97.679	0.408	0.04%
CH -80	97.279	97.708	0.429	-0.04%
CH -60	97.271	97.732	0.461	0.32%
CH -40	97.335	97.764	0.429	0.57%
CH -20	97.449	97.81	0.361	-0.01%
CH 0	97.447	97.839	0.392	-0.01% Box Culvert
CH 20	97.445	97.847	0.402	0.19%
CH 40	97.482	97.909	0.427	0.25%
CH 60	97.531	97.981	0.45	0.29%
CH 80	97.589	98.035	0.446	0.19%
CH 100	97.627	98.067	0.44	0.09%
CH 120	97.644	98.077	0.433	0.08%
CH 140	97.661	98.087	0.426	-0.48%
CH 160	97.565	98.075	0.51	0.40%
CH 180	97.645	98.088	0.443	0.26%
CH 200	97.698			0.20%
CH 2720	102.7			



Appendix 5

Land Use Consent



bonisch
environmental

Land Use Consent

Pursuant to Section 104B of the Resource Management Act 1991, a resource consent is hereby granted by the Southland Regional Council to **Southland District Council** of **P O Box 903** from **13 July 2017**

Please read this Consent carefully, and ensure that any staff or contractors carrying out activities under this Consent on your behalf are aware of all the conditions of the Consent.

Details of Consent

Purpose for which permit is granted:	To disturb the bed of, and place a structure on, the bed of a watercourse for the purpose of installing concrete box culverts at 5 locations across Southland, as specified in Appendix 1 to this consent.	
Location	- site locality - map reference - catchment - waterway	Specified in Appendix 1 to this consent. Specified in Appendix 1 to this consent. Specified in Appendix 1 to this consent. Specified in Appendix 1 to this consent.
Legal description of land at the site:	Specified in Appendix 1 to this consent.	
Expiry date:	13 July 2019	
History of changes and transfers:	<ul style="list-style-type: none">• Conditions varied on 11 June 2018	

Schedule of Conditions

1. This consent authorises the placement of five concrete box culverts in the bed of five watercourses across Southland, as specified in Appendix 1 to this consent, and as described in:
 - a. The application for resource consent dated 19 April 2017;
 - b. Further application for resource consent dated 31 May 2017;
 - c. Further information dated 31 May 2017 and 6 June 2017;
 - d. Application for consent variation dated 9 May 2018; and

- e. Further information dated 7 June 2018.
2. The Dipton Flat Road and Wairata Road culverts must include an excess spillway or overland flow path that is capable of accommodating 50 year return period floods.
 3. Exercise of this permit must occur in conjunction with Water Permit AUTH-20171214-02, and installation of culverts may only commence once flow in the streams identified in Appendix 1 is diverted in accordance with that resource consent.
 4. The Consent Holder shall ensure that:
 - (a) contaminants, other than sediment, but including cement and oil are prevented from entering the waterway during the construction works;
 - (b) all reasonable steps shall be taken to minimise the release of sediment to water;
 - (c) the structure and approaches are constructed so that run-off from the structure is discharged to land rather than directly to the stream/river;
 - (d) fish passage is not impeded as a result of the construction works;
 - (e) the invert of the structure is installed 300 millimetres or one third of the culvert diameter, whichever is lesser, below the natural bed level of the stream/river, except for the culvert on Waianiwa-Oporo Road where the invert of the culvert shall be at natural bed level;
 - (f) all construction equipment, machinery, plant, and debris are removed from the site on completion of the works;
 - (g) silt disturbance and instream works are kept to a minimum;
 - (h) no washing or refuelling of equipment occurs in the stream/river; and
 - (i) any stream banks disturbed or eroded during the construction works are to be restored and resown upon completion of the works.
 5. The Consent Holder shall ensure that the structure has been designed and installed so that once completed, the works authorised by this consent do not cause any flooding, erosion, scouring, land instability or property damage.
 6. In the event of any contamination of the watercourse the Consent Holder shall remove the contaminants immediately from the site and notify, without undue delay, the Consent Authority.
 7. The Consent Holder shall notify the Consent Authority in writing (escompliance@es.govt.nz) on commencement and upon completion of the works.
 8. There shall be no disturbance of the roosting and nesting areas of the black fronted tern, black billed gull, and banded and black fronted dotterel, or the feeding areas of the banded and black fronted dotterel, as a result of the exercise of this consent.
 9. The Consent Holder shall take all reasonable precautions to minimise the spread of pest plants and aquatic weeds. In particular, the Consent Holder shall:
 - (a) remove any vegetation caught on the machinery;
 - (b) where necessary, clear vegetation from the site;
 - (c) avoid working in areas where aquatic weeds such as *Lagarosiphon major* are known to be present (for information, contact Environment Southland); and
 - (d) to avoid the spread of the *Didymosphenia geminata* or any other pest plant, do not use machinery in the berm or bed of the river that has been used in any area where the pest plant(s) are known to be present in the previous 20 working days, unless it has been thoroughly cleansed.
 10. In the event of a discovery, or suspected discovery, of a site of cultural importance (Waahi Taonga/Tapu) during the construction, the Consent Holder shall immediately cease operations in

that location and inform the local iwi authority (Te Ao Marama Inc, phone 03 931 1242). Operations may recommence at a time as agreed upon in writing with the Consent Authority. The discovery of Koiwi (human skeletal remains) or Taonga or artefact material (e.g. pounamu/greenstone) would indicate a site of cultural importance. Appendix A to this consent outlines the process that is to be followed in the event of such a discovery.

Reissued 11 June 2018 following variation to conditions 1, 4 and 5.
for the **Southland Regional Council**



Joanna Gilroy
Team Leader Consents

Notes

1. The Consent Holder shall pay an annual administration and monitoring charge to the Consent Authority, collected in accordance with Section 36 of the Resource Management Act, 1991. This charge may include the costs of inspecting the site upon completion of the works (or otherwise as set by the Consent Authority's Annual Plan).
2. Avoid spreading Didymo – Environment Southland strongly recommends that the Consent Holder, and any person or contractor engaged by the Consent Holder to carry out the works authorised by this consent, use the “check, clean, dry” management approach as set out in the Biosecurity Management Guidelines (available at www.biosecurity.govt.nz or from Environment Southland) when entering and leaving the river environs.

Appendix 1: Schedule describing culverts authorised under this consent					
Site Locality	Dipton Flat Road Bridge	Halcrow Road Bridge	Valley Road Bridge	Waianiwa-Oporo Road Bridge	Wairata Road Bridge
Map Reference (NZTM 2000)	1234595E 4902863N	1263867E 4861333N	1234970E 4867047N	1234750E 4862140N	1286943E 4841857N
Catchment	Dipton Stream	Waihopai River	Oreti River	Oreti River	Waimahaka Stream
Waterway	Unnamed tributary to Dipton Stream	Waihopai River main stem	Unnamed tributary to Oreti River	Hubbers Tributary	Waimahaka Stream
Legal Description	Lot 1 DP 6266	Lot 2 DP 464685	Part Section 26 Block XIII New River HUN	Lot 1 DP 10730	Section 20 Block III Toetoes SD
Culvert size (m; W × H × L)	4.5 × 2 × 9	4 × 2.5 × 4.5	4.5 × 2 × 4.5	5 × 2.5 × 9	5 × 2.5 × 4.5