

Resource Consent Guidelines for Constructing Culverted Stream Crossings in Small Rural Catchments

Proposed Wairau/Awatere Resource Management Plan

1. Resource consent is required to construct or install a structure in any waterway over 3 meters in width.
2. For waterways less than 3 meters in width resource consent may be required. To assess if resource consent is required please contact Council. The requirement for resource consent is dependant on factors such as allowing fish passage and the impact of the culverts on the velocity of flow.
3. Building Consent will be required for the culvert if it is over 3 metres in height. Please note that building consent and resource consent are different processes. If you require a building consent you will need to complete a separate building consent application form.

(Please note that the Proposed Wairau/Awatere Resource Management Plan is not yet operational and is subject to amendment.)

Applying for Resource Consent for Culverted Stream Crossings

1. To apply for resource consent you will need to fill out an Application for Resource Consent form and provide an Assessment of Environmental Effect (AEE).
2. Attached is a form which is intended to help provide the information required for the AEE. The form is designed to provide the Marlborough District Council (MDC) with the required information, however, every consent is different and the Council Case Officer may request further information from you. If more information is requested the resource consent process will be delayed. To avoid delay, please take your time filling in the application, write clearly and provide as much detail as possible.

Guidelines for the Installation of New Culverts

1. Culvert slope should conform with the natural streambed slope.
2. Culvert alignment should conform with the natural stream channel.
3. The pipe should be installed 20% below the normal streambed to allow for fish passage.
4. The head walls and culvert surround should consist of rock or other suitable material.
5. The head wall should not be more than 450mm above the culvert head to mitigate culvert impeding flood flows.
6. A secondary overland flood channel must be provided to mitigate culvert impeding flood flows.

Guideline Criteria

The attached form is designed as a guideline only for culvert planning. These guidelines are not suitable when the following situations apply:

- Overtopping of the culvert could cause flooding to nearby houses or buildings.
- The crossing point is within 100 metres of another structure such as houses, roads, culverts, bridges or neighbouring properties.
- High debris loads are likely, e.g., significant gravel bedload, flood debris such as trees or logs.
- Locations where the embankment above the culvert is greater than 1.5 m above the soffit and/or overtopping could cause embankment failure with significant consequences.
- Steep hill catchments or catchments larger than 500ha.
- Any other exceptional situation that may result in injury to persons or property or have an adverse effect on the environment.

Information Guidelines to Accompany Resource Consent Applications

Please read the following questions carefully and provide detailed answers.

1. Site Details

a) What is the name of the waterway?

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b) What is the nature of the bed? (Silt/sand/gravel)

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c) Please attach three labelled photographs one of the proposed site, one looking upstream and one looking downstream of the crossing site.

2. Catchment Area

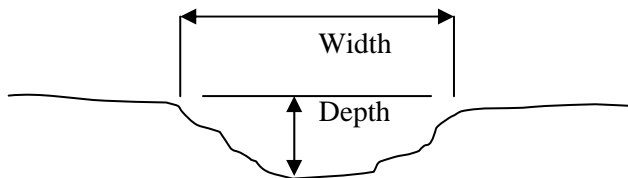
a) Provide a copy of a topographical map showing the location of the stream crossing and the catchment area of the waterway. If you cannot provide a topographical map of the area please contact Marlborough District Council (MDC).

b) From the topographical map calculate in hectares the land area of the catchment. Calculate the catchment area by identifying the catchment area on the map and using the map scale.

Catchment Size = Hectares (Note: 2.4 acres = 1 hectare)

If you are uncertain how to do this please contact Council

3. Dimensions of the channel at the proposed crossing site



Channel Width = Metre(s)

Channel Depth = Metre(s)

4. Are there any houses, roads, culverts, bridges or neighbouring properties within 100 metres of the proposed crossing? (Include all relevant structures in proximity to the proposed crossing site).

If yes, please provide details of the structure(s). For example include the dimensions of any culverts or bridges within 100 metres proximity.

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5. Culvert Size Guidelines

Size of Culvert Pipe(s)

- a) Based on the catchment size in Question 2 select a culvert size from the table below. Note: these parameters will not suit all catchments and are intended as a starting point only.

Catchment Size	Pipe Diameter Required
<20ha	0.9m
<50ha	1.2m
<100ha	1.5m
<150ha	1.8m
<200ha	2m
<300 ha	2 x 1.8m
<400	2 x 2m
<500	2 x 2.1m

Selected culvert size =

Number of culvert(s) Required =

These guidelines are based on the use of concrete culverts, if you are using culverts made of other materials please advise below.

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You need to consider crossing location. This may be determined by track locations but there may be more suitable alternative crossing points. Ideally a crossing point should be at the narrowest point of the stream with flat approaches on either side.

6. Assessment of actual or potential effects on the environment

Adverse environmental affects to be considered:

For assistance when answering the following questions refer to “Guidelines for the Installation of New Culverts” on the front page of this sheet.

- a) Physical Affects – Flood Flows

The proposed culvert could potentially inhibit flood flows, how could this be avoided, remedied or mitigated?

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- b) Affects of the Ecosystem – Fish Passage

The proposed culvert could potentially inhibit fish passage, how could this be avoided, remedied or mitigated?

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c) Effluent Entering the Waterway in Heavy Rain

How could effluent entering the waterway in heavy rain be avoided, remedied or mitigated?

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d) Are there any other potential negative affects on the environment that you can see? If so how can these affects be avoided, remedied or mitigated?

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e) The bed of the stream will be disturbed by the construction of the proposed culvert. How long will the bed disturbances last?

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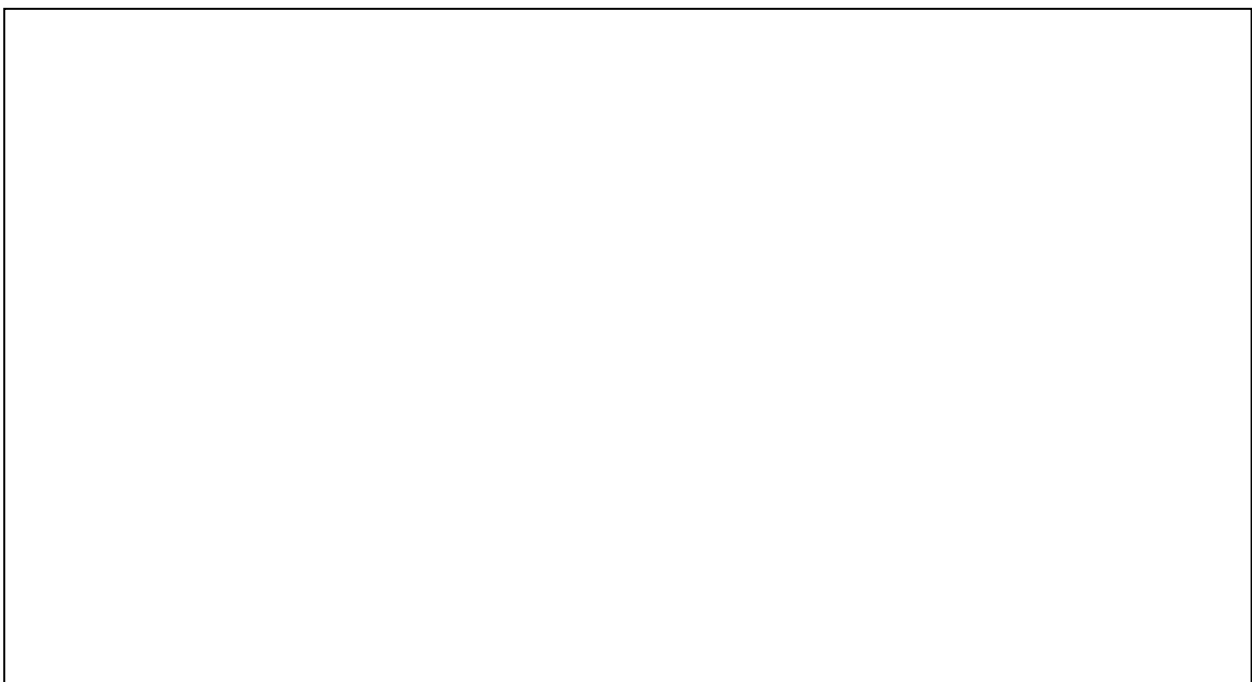
Positive Environmental Affects

What are the positive environmental affects? (For example the positive affects on water quality and aquatic life)

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7. Cross Section

Please provide a detailed site plan of the culvert in cross section. Including all relevant stream crossing dimensions showing the culvert set down 150mm into stream bed (see attached example).



8. Site Plan

Please provide a detailed site plan, in birds eye view, showing the stream crossing, the water body that it crosses, floodwater course. Include all relevant stream crossing dimensions (see attached example).

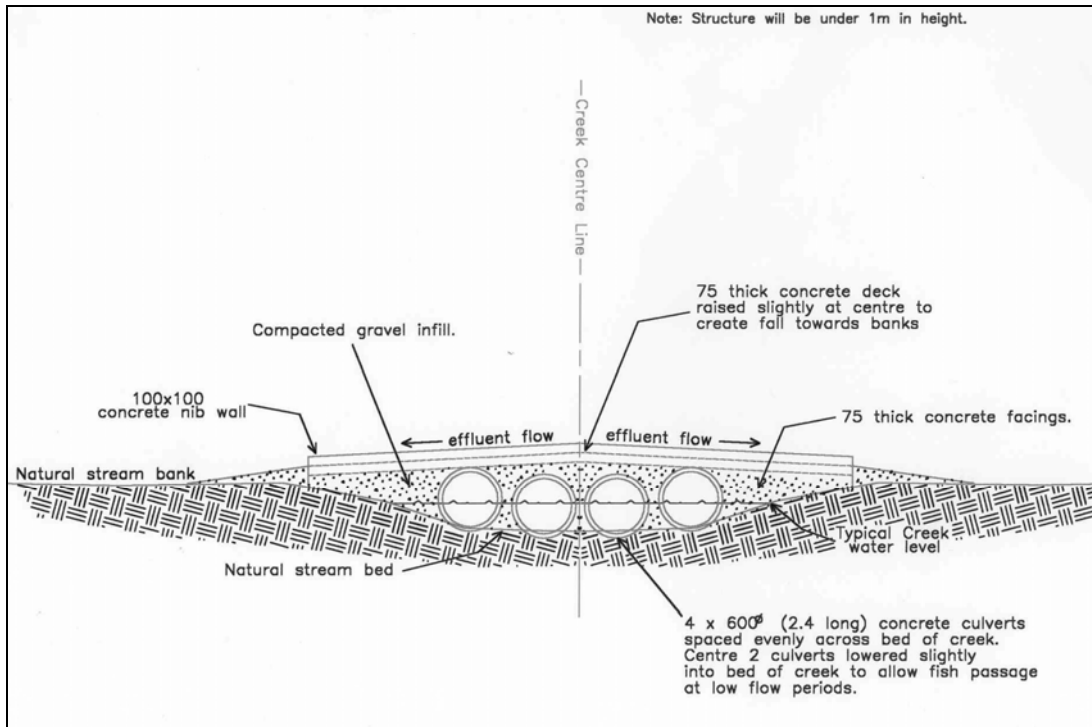


Checklist

Before submitting your application ensure you have attached the following information:

- Completed “Application for Resource Consent” form
- Completed “Information to Accompany Resource Consent Applications” form
- Three labelled photographs, one of the crossing site, one looking upstream and one looking downstream of the crossing site
- A copy of a topographical map showing the catchment area and the proposed culvert site
- Building consent application lodged to MDC, if required

Cross Section Example



Site Plan Example

