

10A Schedule for Culvert Works in or on the Bed or Bank of a Watercourse



This form is to be used for applications to use, erect, place, extend, alter or replace a culvert in or on the beds or banks of lakes or rivers, which are unable to meet Permitted Activity Rules 13.2.1.7, 13.3.1.2 or 13.5.1.3 of the Regional Plan Water

(For Office Use Only)

Consent No.: _____

Job No: _____

PLEASE READ THIS PAGE BEFORE COMPLETING THE APPLICATION FORM

In order for any consent application to be processed efficiently in the minimum time and at minimum cost, it is critical that as much relevant information as possible is included with the application.

Form 1 and Schedule 10A, when properly completed, may provide an adequate "Assessment of Effects on the Environment" (AEE) where the adverse effects of culvert works are not significant. Guidance to answering the questions appear at the end of this schedule. Details of information required in an AEE are included in the Fourth Schedule of the Resource Management Act 1991 appended to Form 1: Resource Consent Application. However this can only be determined on application. If for any reason the scale of the culvert works or scale of its potential effects is significant, a report by a professional advisor in support of your application may be required.

If all the necessary information is not supplied with the application then the Otago Regional Council may return your application, request further information or decline your application. This will lead to delays in the processing of your application and may increase processing costs.

If the effects of the proposed culvert works are considered minor and written approvals are gained from all parties that may be adversely affected by the disturbance, then your application will proceed under non-notified consent provisions. If you are unable to supply the necessary written approvals from the affected parties, or if the effects of the culvert works are more than minor, then Council must limited notify or fully notify the application. Such applications take longer to be processed than non-notified applications and may incur additional processing costs. Details of consultation required are presented in this document.

Which of the following activities are you seeking to undertake

- Erect or place a new culvert
- Extend an existing culvert
- Alter an existing culvert
- Replace an existing culvert

Part A - Location of Proposed/Existing Culvert

A.1 What is the name of the water body(s) in which you propose to erect / place / extend / alter / replace / reconstruct the culvert?

(If the water body is unnamed then please note this and give the name of the water body to which it flows in to)

A.2 Describe the property on which the proposed/existing culvert is located

(if the proposed/existing culvert is located on Crown Riverbed, please note on (d) below)

(a) Full name(s) of owner(s) _____

(b) Address/Location _____

(c) Legal Description(s) *(as shown on Certificate of Title)*

Lot _____ DP _____ Sec _____

Survey District (SD) _____

Other (specify) _____

Council will obtain a Certificate of Title to confirm details, if necessary.

(d) Is the proposed/existing culvert located on Crown Riverbed: Yes No

If Yes, give the legal description of the property adjacent to the proposed/existing culvert

A.3 Map reference of the proposed/existing culvert in NZTM 2000 (New Zealand Transverse Mercator):

NZTM 2000: E _____ N _____

A.4 Please include a plan showing the location of the proposed/existing culvert

A.5 Include with this application form *labelled colour photographs* (6" x 4" minimum size) of the site in its present form which include:

- Any existing structures at the site.
- The view of the waterway downstream of the site.
- The view of the waterway upstream of the site.
- A cross section at the site
- Cross sections 50 metres upstream and downstream of the site

A.6 Please describe the current nature of the waterway at the proposed site for the works:

- Width of watercourse: _____
- Approximate maximum depth of water: _____
- Bed material (*e.g., rocky, sandy, silty*): _____
- Flows (estimates of minimum and maximum): _____
- Water colour/clarity: _____
- Bank material (*weathered rock, clay*): _____
- Vegetation: _____
- Erosion: _____
- Fish and invertebrate life: _____
- Catchment characteristics (*for example, steep, forested catchment, easy pastoral catchment*)

A.7 Does the site of the proposed/existing culvert (including the area 100 m upstream and downstream) have any of the following values?

- | | | | |
|--|------------------------------|-----------------------------|----------------------------------|
| (a) Obvious signs or known aquatic biota? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown |
| (b) Areas where food is gathered from the water body? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown |
| (c) Natural Wetlands? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown |
| (d) Waste discharges (e.g., dairy sheds, industrial, sewage)? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown |
| (e) Recreational activities (e.g., swimming, fishing, canoeing)? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown |
| (f) Areas of special aesthetic value (e.g. waterfalls)? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unknown |

(g) Areas or aspects of significance to Iwi?

Yes No Unknown

(h) Other water takes?

Yes No Unknown

If you have answered "yes" to any of the above, please describe below:

A.8 What is the catchment area upstream of the proposed location for the works, if known?
(If unknown please ensure that the location of the works is marked clearly on an enclosed plan or map)

_____ hectares / acres / square kilometres (please circle the units you use)

Part B – Design of the Proposed/Existing Culvert

B.1 Please describe the **purpose** of the culvert or other works:

B.2 What is the proposed/existing culvert made of? _____

B.3 What is the length of the proposed/existing culvert? _____

For existing culverts, what is the length of the culvert after alteration or extension? _____

B.4 What is the proposed fill material to be used over the culvert?

B.5 At what gradient will the culvert be laid in the stream bed? _____

(If at same gradient as existing stream bed then please state this.)

B.6 If a secondary flow path is included in the design then please describe:

B.7 Please fill in the dimensions shown on the cross-sectional diagram in the list below.
(If the culvert design is different from that shown below please include a diagram showing all dimensions.)

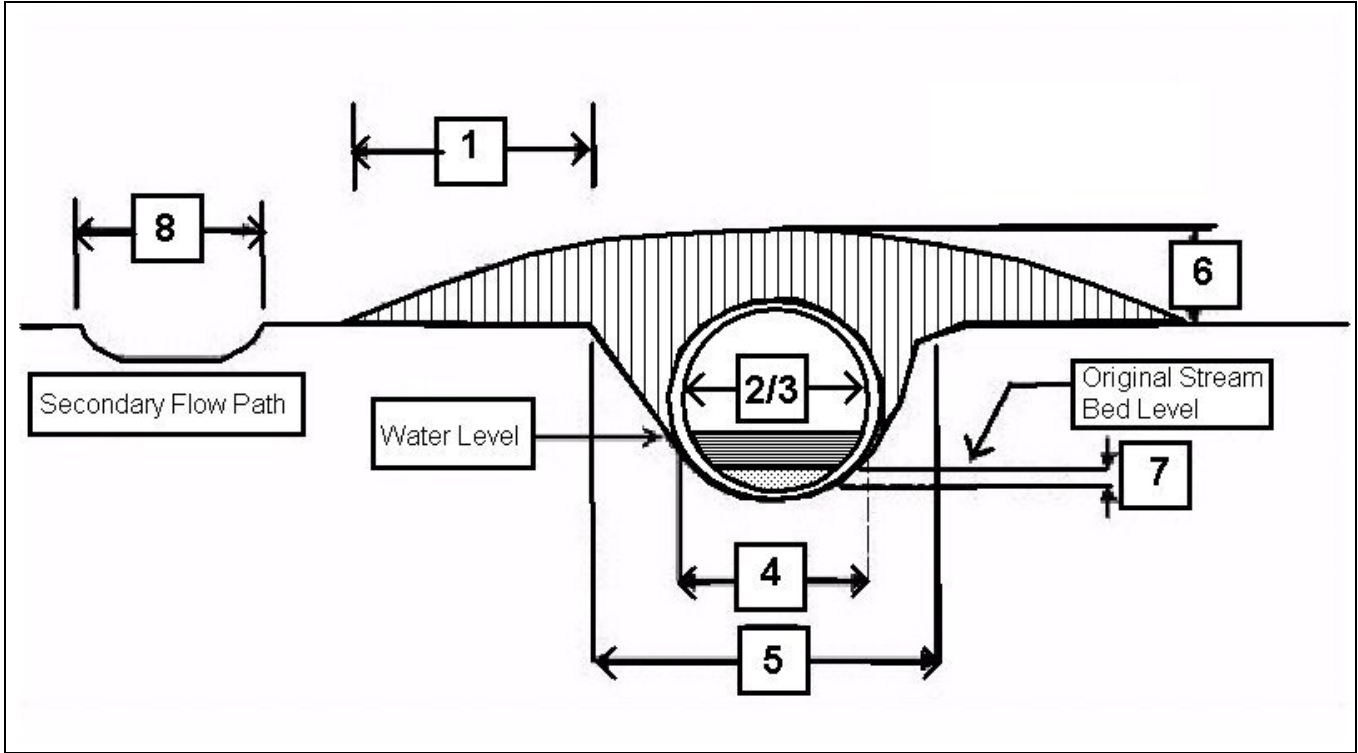
Of New/Altered Culvert (as
it is proposed to be installed,
or if existing, as it is
proposed to be altered to)

Of Existing Culvert (that is
proposed to be altered)

- | | | |
|--|---------|---------|
| 1. Length of culvert approach: | _____ m | _____ m |
| 2. Diameter of culvert (if circular): | _____ m | _____ m |
| 3. If box culvert: | | |
| width: | _____ m | _____ m |
| height: | _____ m | _____ m |
| 4. Bed width of original stream channel: | _____ m | _____ m |
| 5. Top width of original stream channel: | _____ m | _____ m |
| 6. Depth of fill over culvert: | _____ m | _____ m |

7. Depth of culvert base below original stream _____ m _____ m
 stream
 bed level:

8. Secondary flow path dimensions:
 width: _____ m _____ m
 depth: _____ m _____ m



B.8 If there are engineering plans of the proposed culvert please enclose a copy with the application. Please include your own diagram on a separate page, if this will assist in describing the proposal, and attach it to this application form.

B.9 Please provide hydrological and hydraulic design details and calculations
(Use a separate sheet if necessary)

Part C – Works Associated with the Proposed/Existing Culvert

C.1 Please describe how the culvert will be placed in the bed of the watercourse, or otherwise extended or altered, including:
 (a) Machinery to be used: _____

(b) Where the machinery will be operated from: _____

(c) The extent of any bed disturbance that will occur: _____

(d) The duration of the proposed works (e.g. 12 hours, 5 days): _____

(e) The timing of the proposed works (e.g. 8 am – 5 pm Mon-Fri, Dec-Jan): _____

(f) Will the works be undertaken in flowing water, or will the water be diverted in any way to provide a dry working area: _____

(g) Other: _____

C.2 Please comment on the extent of bank disturbance required to undertake the works, including road/track construction

C.3 Please describe the extent of vegetation removal from the banks of the watercourse to be undertaken in relation to this proposal:

C.4 Have any alternatives been considered when planning the proposal?

Yes (Please explain why the proposed site was chosen)

No (Please state why no alternatives have been considered)

C.5 What term of consent is sought to undertake these works? _____

Part D - Types of Resource Consent Sought

D.1 Which aspect of permitted activity Rules 13.2.1.7 or 13.3.1.2 of the Regional Plan: Water does the erection, placement, extension, alteration, replacement or reconstruction of the culvert not comply with?

upstream catchment exceeds 50 hectares

- placement will cause flooding or erosion
- site will not be left tidy upon completion
- culvert will not be replaced or reconstructed in same location as original
- scale, nature or function of culvert will change
- will comply with permitted activity rule
- not applicable (*specify why*): _____

D.2 Which aspect of permitted activity Rule 13.5.1.1 of the Regional Plan: Water does the disturbance of the bed of the watercourse associated with the erection, placement, extension, alteration, replacement or reconstruction of the culvert, not comply with?

- bed disturbance wider than general area of culvert
- will cause flooding or erosion
- time to undertake the work will exceed 10 hours
- sediment discharge associated with bed disturbance will result in a conspicuous change in colour or water clarity 250 m downstream
- a lawful water take will be adversely affected
- site will not be left tidy upon completion
- will comply with permitted activity rule
- not applicable (*specify why*): _____

D.3 Will there be any discharge of sediment or cement or any other contaminant to water, as a result of the culvert works?

- Yes
- No (*specify why*) _____

D.4 Will water be diverted as a result of the culvert works?

- Yes
- No

D.5 If you answered yes to question D.4, does the diversion comply with permitted activity Rules 12.3.2.1 or 12.3.2.3 of the Regional Plan: Water?

- Yes
- No (*specify why*)
 - the course of water will not remain within the bed of the watercourse
 - the course of water will not be returned to its normal course
 - the diversion will occur for more than one month
 - a lawful water take will be adversely affected

- a wetland identified in Schedule 9 or above 800 m will be affected
- the diversion will cause erosion, land instability, sedimentation or property damage

Part E - Assessment of Environmental Effects of Culvert Works and Mitigation Measures

Culvert works have the potential to affect a number of matters listed below. Some typical solutions to avoid, remedy or mitigate these adverse effects have been provided below. If you intend on using these typical solutions, check the box provided. If the typical solutions are not relevant to your application, please state this. If you are proposing an alternative solution, please provide detail (and on a separate sheet if required). **Note that all actual and potential adverse effects must be addressed.**

E.1 Water Quality

Yes No Not Applicable

- Fuel storage tanks and machinery working and stored in the construction area shall be maintained at all times to prevent leakage of oil and other contaminants into water, and no refuelling of machinery shall occur within the watercourse.
- All machinery shall be water-blasted prior to being brought on site, to reduce the potential for pest species being introduced to water.
- At no time during the proposed works shall machinery be washed within the bed of the watercourse.
- All reasonable steps shall be taken to minimise the release of sediment to water by undertaking the following methods (*please list*):
 - sediment traps
 - undertaking work when flows are low / watercourse is dry
 - diverting water from the working area
- Other (*please specify*) _____

Yes No Not Applicable

- Where wet cement may be used in the waterway:
 - Avoid flowing water coming into contact with the concrete until the concrete is firmly set.
 - Use boxing or other similar devices to contain wet cement during construction.
 - Ensure that the handling of cement is undertaken in a manner that does not result in spillage into any watercourse.
 - No equipment used in the pouring of concrete shall be washed out on site.

If you have answered "NO" to any of the measures above, you MUST explain why:

E.2 Bed/Habitat Disturbance

Yes No Not Applicable

- Works shall be undertaken when flows in the watercourse are low.
- Works shall not be undertaken between certain months avoid disturbing spawning habitat (please specify months: _____)
- Fish passage will be provided for.
- Bed disturbance will be limited only to the extent necessary to carry out the works.
- Machinery used to undertake the works shall not be operated from the wet bed.

If you have answered "NO" to any of the measures above, you MUST explain why:

E.3 Erosion

Yes No Not Applicable

- Damage to riparian vegetation shall be minimised when undertaking culvert works.
- Any damage to the stream banks, including riparian vegetation, as a result of culvert works will be reinstated within one month.
- Where permanent diversions of water are undertaken:
 - All reasonable measures will be undertaken to promote bank stability of any new channel as rapidly as possible.
 - There shall be no reduction in the surface flow of the watercourse as a result of the diversion

If you have answered "NO" to any of the measures above, you MUST explain why:

E.4 Other Water Users

Yes No Not Applicable

- Lawful water takes downstream of the proposed culvert will be adversely affected
- Recreational users of the watercourse will be affected by the proposed culvert

If lawful water takers or recreational users will be affected, please provide measures to avoid, remedy or mitigate adverse effects on them:

E.5 Other Waterway Values

Yes No Not Applicable

- Amenity and natural character of the watercourse will not be significantly affected by the proposed culvert
- The site shall be tidied upon completion of works.
- Public Access to the watercourse will not be impeded by the proposed culvert
- Hours of work shall be between 7.00 am to 7.00 pm, Monday to Friday, and shall not be undertaken on Public Holidays. If hours of work to differ from that given, please state here: _____
- If koiwi tangata (human skeletal remains), Maori artefact material, or archaeological material that predates 1900 is found, work will stop until an inspection by the appropriate authorities can be made

If you have answered "NO" to any of the measures above, you MUST explain why:

Yes No Not Applicable

- Heritage values will be affected by the proposed culvert
- Cultural values will be affected by the proposed culvert

If heritage or cultural values will be affected, please provide measures to avoid, remedy or mitigate adverse effects on them:

E.6 Other

Are there any other effects of the proposed culvert works that could adversely impact on water quality, not identified above? Please list and discuss any proposed measures to avoid, remedy or mitigate those effects:

Part F - Consultation

F.1 - Please comment on any consultation undertaken with those persons/parties who may be interested in, or potentially affected by your proposal. (e.g., other water users, neighbours, The Department of Conservation, The Otago Fish and Game Council, Aukaha, Te Ao Marama (for activities located south of the Clutha River/Mata-Au)).

F.2 - Please attach any written approvals obtained using Council's standard Form 1 - Resource Consent Application.

Part G - Is Your Application Complete?

In order to provide a complete application have you remembered to:

- (a) Fully complete this schedule and Form 1 (*Resource Consent Application*)
- (b) Include a location / site plan?
- (c) Include labelled colour photographs
- (d) Include any technical plans or drawings of the culvert
- (e) Attach any appropriate additional information?

Notes to Provide Guidance on Completing Schedule 10A

Part A: Location of the Proposed Culvert

Question A.1

If you are unsure of the name of the water body, please contact an Otago Regional Council staff member who will be able to assist you. In many instances tributaries to larger water bodies do not have official (or legally recognised) names. If this is the case describe the water body as “an unnamed tributary of”. If the water body has an unofficial local name you could continue to write “... locally known as.....” . You can determine if a name is legally recognised by seeing if it is written on published topographic maps, or if any road bridges crossing it state the name of the water body (i.e. Transit or Automobile Association signs).

Question A.2

Please provide the name and address of the owner of the land where the culvert is to be installed, or if owned by the Crown (i.e. Crown riverbed), the land adjacent to it.

Question A.3

NZTM maps are generally available from Public Libraries or may be purchased from Government Book Shops or you may use a GPS to determine the location of your activity.

Question A.4

A plan the location of your proposed culvert should be provided so Otago Regional Council can clearly identify where you propose to install your culvert.

Question A.5

Colour photographs will assist Otago Regional Council Engineers to make an assessment of your application.

Question A.6 and A7

Record your observations of the site.

Question A.8

The catchment area upstream of the proposed culvert is important to determine if the culvert is appropriately designed to pass expected flood flows.

Part B: Design of the Proposed Culvert

Question B.1

Please state why you are proposing to install a culvert - what it will be used for, by whom, how often, and any other relevant details.

Question B.2, B.3, B4

What material is the culvert constructed from (e.g. concrete, steel)? What will the total culvert length be? What type of fill material will be placed over top of the culvert? Describe each of these components as accurately as possible.

Questions B5, B6, B7 and B9

Please respond to the questions as accurately as possible.

Question B9

What flows has the culvert been designed to pass? How were these calculated?

Part C: Works Associated with the Proposed Culvert

Questions C1, C2 and C3

How do you propose to undertake work to install the culvert? Please describe to each question as accurately as possible.

Question C4

What alternative options were considered? E.g. a bridge or ford? Or any alternatives to completing the works?

Question C5

What term of consent will allow you to undertake the works? If works will only take 2 weeks to complete, there may be unforeseen delays with contractors or weather conditions, therefore a 4 month term of consent may be sought to ensure enough time to fully complete the works.

Part D: Types of Resource Consent Sought

Questions D1 to D5

Two consents may typically be needed to install a culvert – a land use consent to erect a structure and disturb the bed, and a discharge permit to discharge contaminants (sediments or concrete) to water. However, if works instream are minimal, a discharge permit may not be required. Sometimes a consent to divert water may be needed. By answering questions D1 through to D5 Otago Regional Council staff can determine what consents are needed for you.

Part E: Assessment of Environmental Effects

Questions E1 to E5

Culvert works typically has a limited range of adverse environmental effects, and a typical set of measures to ensure those effects are avoided, remedied or mitigated. These have been provided as tick boxes to check if you intend to undertake these measures. However, if you do not intend to undertake these measures, you must state why (they may not be relevant to your application, or you may be undertaking work in an atypical manner and proposing an alternative method to avoid, remedy or mitigate those effects). In addition, if you can think of any other effects of culvert works you should list them in the space provided, and methods to avoid, remedy or mitigate them.

Part F: Consultation

Questions F1 and F2

Council can advise you of those parties considered to be potentially adversely affected by your proposed activity and can also instruct you regarding Iwi consultation. In some instances it may be appropriate for you to submit your application and let Council determine who they think may be adversely affected by your proposal – particularly as the rule in the Regional Plan: Water for culvert works is a restricted discretionary activity, and that written approval from affected parties may not be required. However, bed disturbance is a full discretionary activity, and written approvals from affected parties are still required (if any are identified).

Because Council charges time on an hourly basis, you may choose to consult these parties and seek their written approval to your application yourself, or you may choose for Council to pursue this for you. However, if an application is submitted without written approvals of potentially affected parties, the application goes “on hold” until these written approvals have been received.

Part G: Is Your Application Complete?

A complete application will assist Otago Regional Council in efficiently processing your application. If information is missing or inadequate your application may be returned to you or declined. Applications that are incomplete or do not provide sufficient information will be delayed and will cost more.

**If you have any queries relating to information requirements,
please contact the Otago Regional Council Offices:**

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