

Part B

Assessment of Environmental Effects –

Take or Use Surface Water (From a River, Stream, Lake, Spring or Dam)



Caring for Northland and its Environment

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This application is made under Section 88/Section 127 of the Resource Management Act 1991

To: The Secretary
Northland Regional Council
Private Bag 9021
Whangarei 0120

PART B – ASSESSMENT OF ENVIRONMENTAL EFFECTS

Your application must include an Assessment of Effects on the Environment. This form and the associated Information Requirement Booklet will help you prepare it.

An assessment of effects is required so that you and others can understand what happens to the environment when you take water from a water body (eg. river, stream, spring or lake). This will help you to propose ways to minimise those effects to the Regional Council's satisfaction.

The degree of detail required is in proportion to the scale of the environmental effects of your proposal. If the size of your proposed activity or the scale of its potential effects is significant, a report by a professional advisor in support of your application may be required.

Please note that the word "environment" includes the surrounding coastal water, adjoining land, any surrounding resource users, and local iwi.

It is advised that you make an appointment with an appropriate Council Officer to discuss your application prior to lodging it. This will help you supply all the required information at the onset and ensure the efficient processing of your application.

A. Describe the Proposed Activity

A.1 What is the name of the water body(s) from which you propose to take water? _____

A.2 What quantity of water do you propose to take? _____ m³ per day

A.3 How have you calculated the amount of water that you need? *(attach a separate sheet if required and see special note in the information requirements booklet relating to large irrigation takes in excess of 500 cubic metres per day)*

A.4 How many hours per day is water to be taken? _____ (typical) _____ (max)

A.5 Is the water to be taken using a pump or via gravity feed? Pump Gravity

A.6 What is the pump type and model? _____

A.7 At what rate is water to be taken? _____ litres per second

A.8 Will a water meter be fitted to measure the amount of water taken? Yes No

A.9 Will a screen be fitted on the intake? Yes No

A.10 If there is already a screen on the intake, what are the dimensions of the screen, including the hole/slot size? *(a drawing showing the shape and measurements of the screen may be useful, this may be attached to the application)*

Screen length: _____ mm Screen diameter: _____ mm

Hole/slot size: _____ mm Density of holes/slots: _____ number/cm²

A.11 Which months do you expect to take water? *(tick appropriate boxes)*

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Usually												
Sometimes												

A.12 During what part of the day will you typically be taking water?

During the daytime During the night

24 hours "On demand"

A.13 What will the water be used for? (tick appropriate box and answer those questions)

Pasture Irrigation

How many hectares of pasture will be irrigated? _____ ha
 What type of irrigation system will be used? (ie. spray, trickle etc) _____
 How many hectares will be irrigated on any one day of the irrigation rotation? _____ ha
 How many days between irrigating the same block of land? _____ days
 Is there a fenced and/or planted riparian strip adjacent to watercourses in areas being irrigated?
 Yes (width of riparian strip _____ m) No

Horticultural Irrigation

What is the total area to be irrigated? _____ ha
 If glass/plastic houses used, how many square metres? _____ m²
 What types of crop will be irrigated?
 Avocados _____ ha
 Citrus _____ ha
 Kiwifruit _____ ha
 Pip fruit _____ ha
 Stone fruit _____ ha
 Market garden _____ ha
 Flowers _____ ha
 Nursery _____ ha
 Other (specify): _____ ha
 What type of irrigation system will be used?
 Trickle
 Sprinkler
 Other (specify): _____

Industrial Use

What type of industry/process will be using the water? _____

Private Water Supply

What type of institution uses the water?
 Households: number of houses supplied _____
 Campground: maximum number of visitors _____
 School: number of students and staff _____
 Other (specify): _____

Public Water Supply

What population is served by the supply? _____

Stock

What type and how much stock will be supplied with water?
 Dairy cows _____
 Beef cattle _____
 Sheep _____
 Other (specify): _____

B. Water Resource Details

NOTE: You must attach a map that shows the following:

- The location of the water body
- The location of the proposed take point(s)
- The legal property boundaries in the vicinity of the take point and the names of the owners and/or occupiers
- The location of any other water takes within 500 metres of your proposed take
- The location of other streams, rivers and/or springs in the area
- If the water body is a river or stream, you should indicate the direction of flow

B.1 What type of water body will water be taken from? *(tick appropriate box for either river or stream, spring, natural lake or manmade reservoir and answer those questions)*

River or Stream

What is the average channel width? _____ metres
 What is the average depth of water? _____ metres
 What is the estimated average water flow velocity? _____ metres per second
 How would you describe the bed of the river or stream? *(tick more than one if appropriate)*

- Gravel and boulders
- Muddy
- Sandy
- Hard rock

What is the design minimum flow (DMF) at the point of taking?
(see attached "information requirements" leaflet) _____ litres per second

Are you proposing to reduce the water downstream of your point of taking to less than the DMF?

- Yes
- No

How was the DMF calculated or obtained? *(attach a separate sheet if required)*

Spring

What is the estimated minimum flow rate from the spring? _____ litres per second
 How was the minimum flow rate estimated?

- Volumetric measurement (eg. using a bucket)
- Flow measured accurately (eg. gauged)
- Visual estimate

Describe how the water from the spring will be collected and conveyed to the use site:

Natural Lake

What is the size of the lake? _____ hectares
 How deep is the lake? _____ metres

Does the lake have a natural outlet (*ie. does water flow from the lake*)? Yes No

What is the main source of water that fills the lake? (*tick as many boxes as appropriate*)

- Direct rainfall
- Runoff from surrounding land
- Streams
- Springs

Man-made Reservoir behind a Dam or Weir

What is the volume of the reservoir behind the dam? _____ cubic metres

What is the design minimum flow (DMF) of the dammed stream?
 (*see attached "Information Requirements" leaflet*) _____ litres per second

How was the DMF calculated or obtained? (*attach a separate sheet if required*)

How does water flow downstream from the dam?

- Through a pipe located through the dam
- Over the dam via a spillway
- Over the weir structure
- Other (*specify*): _____

Does the dam/weir structure have a resource consent? Yes No

Does the dam/weir structure require a resource consent? Yes No

Is there a fish pass over the dam/weir structure? Yes No

B.2 General Questions

What is the land use in the vicinity of the take point? (*tick more than one box if appropriate*)

- Agriculture
- Horticulture
 - Exotic forestry
 - Native forest/bush
 - Residential/industrial (urban)
 - Other (*specify*): _____

C. Assessment of Effects on the Environment

An assessment of effects should be proportional to the scale and significance of the proposed activity. Where your proposed take could have an adverse effect on the environment, for example if the take could reduce the flow of the stream or river to less than the Design Minimum Flow (DMF), you must supply a detailed environmental assessment.

C.1 Affected Parties

Will the taking of water have an effect on the water available to any nearby property?

No, why not? _____

Yes, who? _____

C.2 Effect of the Proposed Take on the Surface Water Resource

Are there any of the following in the vicinity of the proposed take point?

	Present	
	Yes	No
Obvious signs or known aquatic biota (eg. eels, other fish, insects, aquatic plants)	<input type="checkbox"/>	<input type="checkbox"/>
Areas where food is gathered (eg. watercress, eels, wildfowl)	<input type="checkbox"/>	<input type="checkbox"/>
Natural wetlands	<input type="checkbox"/>	<input type="checkbox"/>
Waste discharges (eg. dairy sheds, industrial, treatment plants)	<input type="checkbox"/>	<input type="checkbox"/>
Recreational activities (eg. swimming, fishing, canoeing)	<input type="checkbox"/>	<input type="checkbox"/>
Areas of special aesthetic value (eg. waterfalls)	<input type="checkbox"/>	<input type="checkbox"/>
Areas of significance to iwi	<input type="checkbox"/>	<input type="checkbox"/>

If you have answered **Yes** to any of the above, describe what effect your taking may have and the steps you propose to take to minimise (ie. mitigate) these effects *(attach a separate sheet if necessary)*:

Will your proposed take affect the average flow or depth of water? Yes No

If No, why? _____

C.3 Alternative Sources of Water

Have you considered the option of using any alternative sources of water?

Yes *(specify)*: _____

No

Explain why you have decided to take from the proposed water resource rather than any of the alternatives *(if any)*:

C.4 Efficient Use of the Water Resource

What measures are you proposing to minimise wastage of water? *(tick as many boxes as are considered appropriate)*

Irrigating at night to minimise water loss through evaporation

Measuring soil moisture levels and using these to manage irrigation needs

Undertaking regular leak detection inspections and tests

Using dripper irrigation

Other *(specify)*: _____

C.5 Positive Effects

What positive effects will the proposed take have? _____

C.6 Monitoring

What, if any, monitoring do you propose to carry out to measure any effects on the environment?

C.7 Consultation

Have you consulted with any of the following potentially affected parties:

	Yes	No
Neighbours	<input type="checkbox"/>	<input type="checkbox"/>
Other downstream water users	<input type="checkbox"/>	<input type="checkbox"/>
Department of Conservation	<input type="checkbox"/>	<input type="checkbox"/>
Fish & Game Council	<input type="checkbox"/>	<input type="checkbox"/>
Local iwi (<i>specify</i>): _____	<input type="checkbox"/>	<input type="checkbox"/>
Other (<i>specify</i>): _____	<input type="checkbox"/>	<input type="checkbox"/>

Please ensure that all of the relevant questions on this form have been answered fully.

If you have any queries relating to information requirements or wish to meet with a Council Consents Officer, please contact the Northland Regional Council.

Northland Regional Council Offices:

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