

APPLICATION FOR RESOURCE CONSENT

FORM B: GROUND WATER TAKE AND USE



NOTES

Resource use activities must meet all the conditions of any relevant Permitted Activity Rules in the Waikato Regional Plan or a resource consent from the Waikato Regional Council is required. This form will help you apply for a resource consent.

- You must fully complete this activity form and supply all the required information. Provide as much detail as you can where the questions are relevant to your activity. We request that, where possible, you provide electronic copies of any supporting information (for example, on CD). Doing so may reduce administrative costs charged to you.
- You must also supply completed Forms A and C.
- **You must pay the required initial deposit when you submit this consent application.**
- Failure to provide the required information and payment will delay the processing of your application. If you do not provide adequate information then we will not be able to process your application, and will return it to you. If you do not pay the required fees, we may stop processing your application until payment is received.

FOR OFFICE USE ONLY

File:

Client ID:

Project:

**If you need any further help,
please phone our Resource Use**

LOCATION

1. Is the water geothermally heated?

☐ Yes

☐ No

2. If known, please supply relevant map coordinates of activity or activities (preferably as New Zealand Transverse Mercator 2000 (NZTM2000 references). These locations must also be clearly identified on the location map you have supplied with Form A

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INTENDED USE OF WATER

3. Intended use of water activity

Will your use of water breach any of Waikato Regional Council's water management class standards? (Refer Section 3.2.4 of the Waikato Regional Plan, at the end of this form)	☐ Yes	☐ No
Will your use of water cause or contribute toward flooding on neighbouring properties?	☐ Yes	☐ No
Will your use of water result in any erosion that will not be quickly remedied?	☐ Yes	☐ No

4. For crop and pasture irrigation activities

Is the activity within the Waikato River catchment area from the Lake Taupō control gates to the Karāpiro Dam?	☐ Yes	☐ No
Is the activity within the catchment areas of Lakes Taharoa, Maratoto, Serpentine (North, South and East), Rotomanuka or Mangahia? if yes, please specify which	☐ Yes	☐ No
Will water be applied in a way or at a rate that may cause the water holding capacity of the soil within the plant root to be exceeded?	☐ Yes	☐ No
Will the rate of irrigation exceed the infiltration rate of soil or cause runoff or ponding of irrigated water?	☐ Yes	☐ No
Is your activity carried out without a Nutrient Management Plan to plan your water irrigation? (As per Table 3.10 of the Waikato Regional Plan – refer Appendix 1 at the end of this form).	☐ Yes	☐ No
Will irrigation result in any direct application of contaminants to any water body?	☐ Yes	☐ No
Will the irrigation result in any discharges to air beyond the boundaries of your property?	☐ Yes	☐ No
Will the irrigation result in any contamination of land?	☐ Yes	☐ No

Note that any activity related **discharges** of water, liquid or solid waste may also require separate resource consents. Please refer to Section 3.5 of the Waikato Regional Plan and/or contact us if this is the case to confirm your consent requirements.

NATURE OF THE PROPOSAL

5. Describe in detail the purpose for which the water is to be taken and used.

6. Tick the relevant activity descriptions below.

a) Primary purpose (please tick only one primary purpose).

- | | |
|---|---|
| ☐ Agriculture | ☐ Aquaculture |
| ☐ Domestic and municipal supply | ☐ Ecological |
| ☐ Flood control | ☐ Horticulture/market gardening |
| ☐ Industry (construction/roading) | ☐ Industry (electricity generation) |
| ☐ Industry (food processing) | ☐ Industry (quarry/mining) |
| ☐ Industry (timber/paper) | ☐ Industry (other please state) |
| ☐ Recreation | ☐ Rehabilitation |
| ☐ Saline water | |
| ☐ Other (please state): | |

b) For your identified primary purpose, please provide further details about the use by selecting from the options below.

Where more than one option is required, please order them based on the volume of water required, using 'A,B,C...', where 'A' is given to the highest volume.

- | | |
|---|---|
| ☐ Construction | ☐ Cooling |
| ☐ Dewatering/water level control | ☐ Drilling and testing (geothermal) |
| ☐ Drilling and testing (non-geothermal) | ☐ Dust suppression |
| ☐ Equine | ☐ Factory/industry processing |
| ☐ Firefighting | ☐ Fish pass |
| ☐ Flood control | ☐ Frost protection |
| ☐ Heating (geothermal) | ☐ Investigations/research |
| ☐ Irrigation | ☐ Pit/lake filling |
| ☐ Pools/bathing (geothermal) | ☐ Pools/bathing (non-geothermal) |
| ☐ Power generation – geothermal | ☐ Power generation – hydro |
| ☐ Power generation – thermal | ☐ Shed wash |
| ☐ Stock water | ☐ Transporting/loading slurry |
| ☐ Washing (non-shed wash) | ☐ Water – bottled |
| ☐ Water supply – hotel/motel/camping ground | ☐ Water supply – domestic, rural or urban |
| ☐ Water supply – emergency/backup | ☐ Water supply – industry |
| ☐ Other (please state): | |

WATER USE EFFICIENCY CHECKLIST

- 7. Have you clearly established the need for, and efficient use of, water through a Water Management Plan in accordance with the relevant Waikato Regional Council guideline document? If yes, please include the water management plan with this application.**

Municipal and domestic water supply water-efficiency checklist.

☐ Yes

☐ No

Agriculture and horticulture water-efficiency checklist.

☐ Yes

☐ No

Industry water-efficiency checklist.

☐ Yes

☐ No

Note: these checklists are available from the Waikato Regional Council's website or offices.

WATER TAKE ACTIVITY

- 8. If water is to be taken and used for domestic, community, rural or municipal drinking water supply purposes:**

how many properties will the water take supply? (please provide a scaled map that will show the extent of the water scheme)

for existing drinking water supplies – will there be an increase in the nature or rate and volume of the take, or associated activities, from that previously authorised?

☐ Yes

☐ No

if yes, please provide details

- 9. What is the maximum volume of water to be taken**

(1 cubic metre (m³) = 1000 litres, 1 gallon = 4.54 litres).

		TAKE RATE/VOLUME
instantaneous rate of take	litres/second	
each day	m ³ /day	
each week (where applicable)	m ³ /week	
each month (where applicable)	m ³ /month	
each season (where applicable)	m ³ /season	
total annual volume	m ³ /year	

Provide the information and calculations you used to decide on the rate and volumes of water that you require (for example, MAF advice, irrigation consultant, previous water requirements)? Include details on how the net take has been calculated

10. The number of hours you intend to take water per day

	hours
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Are there regular times when this occurs?

☐ Yes

☐ No

If yes, please provide details:

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11. Are there any particular seasonal requirements that may alter your water take requirements?

☐ Yes

☐ No

If yes, please provide details:

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12. Are there likely to be any changes to your water take requirements in the future?

☐ Yes

☐ No

If yes, please provide details:

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13. Pump details

Is the pump:

☐ existing

☐ yet to be installed

If existing:

pump type and model	
pump capacity	litres per second/gallons per hour

14. Bore hole/well details

Is the bore hole/well:

☐ existing

☐ yet to be installed

If existing, does the bore/well have a current resource consent?

☐ Yes

☐ No

Has a pump test ever been taken on the bore?

☐ Yes

☐ No

If yes, tick appropriate option:

☐ Waikato Regional Council already has a record of the pump test results on file

☐ the results of the test are enclosed with this application

☐ the bore driller/contractor has the results of the test (give name and address of driller)

☐ the test results are no longer available because

15. Water meter details

Is a water meter installed on the pump?

☐ Yes

☐ No

If no, when do you intend on having a water meter fitted?

If yes:

is it tamper-proof?	☐ Yes	☐ No
does it have a pulse output?	☐ Yes	☐ No
does it have a minimum accuracy of +/- 5 per cent under field conditions?	☐ Yes	☐ No
is there an 'as built' plan of the installed water meter?(include a copy with this application)	☐ Yes	☐ No
have daily records been kept from the water meter?	☐ Yes	☐ No
does the Waikato Regional Council currently have all records to date? (if no, include all meter records with your application)	☐ Yes	☐ No
Installation date:		
Date of last calibration (provide a calibration certificate with your application):		

Calibration done by:

Company name:		
Contact person:		
Postal address:		
Daytime phone number(s):		
Current meter reading:	gallons/litres/cubic metres	on:

Note: If there is not already an existing meter, any consent granted for this activity will require a water meter to be correctly installed prior to any water being taken

LAND MANAGEMENT PRACTICES

The Waikato Regional Council will use the following information to determine the effects of irrigation and nutrients leaching on ground water and soil quality.

16. What is the average number of milking cows per hectare of irrigated land:

17. Other stock grazing irrigated land (specify stock type, and number per hectare):

18. How long after having been grazed will these areas be irrigated?

 days

19. How much nitrogen fertiliser do you apply per year?

 kg/ha

20. When do you intend applying nitrogen fertiliser?

 month/year

21. How long after fertiliser is applied will the area be irrigated?

 days

22. In addition to the water take information provided please also advise:

type of plant crop	
method of irrigation (for example, sprinkler, trickle, travelling irrigator)	
maximum area to be irrigated on a daily basis	ha
total area to be irrigated	ha
months you expect to irrigate (for example, December – March)	
intended irrigation regime (for example, 3 ha per day, with 5 day return period)	
dominant soil type to be irrigated (for example, Te Kowhai silt loam, Te Rapa silty peat, Hamilton clay loam)	

ASSESSMENT OF EFFECTS ON THE ENVIRONMENT

Fully complete this section. The Resource Management Act 1991 requires any application to provide information on the actual and potential effects of your proposed activity on the surrounding environment and other people. You must also show how you intend to avoid, remedy and lessen these effects.

GROUND WATER TAKE ACTIVITY

23. Are there any other bores/wells within a 1 km radius of your bore?

☐ Yes

☐ No

If yes, provide details of the number, location, use (such as domestic/stock water supply, irrigation or unused) and owners of the bores.

Owner's name	Location (e.g. distance from your bore)	Use

24. Describe the possible effect of your proposed ground water take activity on the availability of ground water in the aquifer and to neighbouring bore owners.

25. Describe the possible effect of your proposed ground water take activity on surface water flows, including the base flows of streams, springs and the water levels of wetlands, lakes and cave systems.

26. Give details of any surface water bodies (for example, lakes, streams, springs, drains) within the general locality of your proposed ground water take activity. These must also be identified on the location plan.

27. Do any stock enter or drink from these surface water bodies?

☐ Yes ☐ No

If yes, provide details

28. Describe the extent to which the water body is fenced on your property from stock.

29. Are these surface water bodies part of any enhancement or conservation initiative (such as a local stream care group consisting of local volunteers, or a larger organisation initiative such as Waikato Regional Council's Clean Streams project)

☐ Yes ☐ No

If yes, provide details

30. For crop or pasture irrigation activities, how close to any water body do you intend irrigating

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WATER MANAGEMENT CLASS

- 31. Describe the actual and potential effects that your proposed activities will have on any nearby surface water bodies, as relating to the purpose of the relevant Water Management Class in the Waikato Regional Plan (appendix 2 at the end of this form). You should consider the potential loss of the contaminant assimilation capacity of the water body, and/or the effects of any diffuse or point source discharges to land or water.**

- 32. Comment on the potential for any other adverse effects associated with your proposed activities (for example, saltwater intrusion to the aquifer, loss of recharge to other aquifers, aquifer compaction or ground surface subsidence).**

MATTERS OF SIGNIFICANCE TO IWĪ

33. Are your proposed activities likely to affect:

a) relationship of tangata whenua and their culture and traditions with the local watercourses and land

☐ Yes

☐ No

if yes, provide details

b) any waahi tapu or other taonga of importance to tangata whenua

☐ Yes

☐ No

if yes, provide details

c) the ability of tangata whenua to exercise their kaitiaki role in respect of waahi tapu or other taonga affected by your proposed activities

☐ Yes

☐ No

if yes, provide details

ALTERNATIVE OPTIONS

34. Provide details of the alternative options you have considered in addition to the taking and using of water already described. Alternative options may include water harvesting and the storage of water for future use, reusing water, adopting industry best practice measures, upgrading to more water efficient equipment/infrastructure.

35. Is it possible to apply these alternative options in part or in combination with your proposed activities to reduce your water requirements?

☐ Yes

☐ No

If yes, provide details

36. What alternative options are you willing to consider should your activities result in either of the following situations:

a) your proposed ground water take assessed in combination with all other currently authorised takes exceeds the sustainable yield of the aquifer:

b) your proposed use is likely to adversely effect the environment (such as other land uses, neighbours or water quality):

MONITORING AND MITIGATION

Fully complete this section. The Resource Management Act 1991 requires any application to provide information on how your proposed activity will be monitored and what you will do to avoid, remedy and mitigate (minimise, offset or compensate for) the effects of your activity.

37. Does your bore hole/well have access for water level monitoring?

☐ Yes

☐ No

38. Is it possible for you to increase the length of time over which water is taken (that is, pump at a lower rate)?

☐ Yes

☐ No

If yes, provide details

39. Is it possible for you to alternate your period of pumping with neighbouring users?

☐ Yes

☐ No

If yes, provide details (note: you will need to consult with your neighbours and get their approval for this).

40. Do you have any storage facility (such as ponds or tanks) so that water can be taken at a low rate and then pumped at a higher rate to the areas required? Or alternatively, do you have any storage facility so that water can be taken and stored in winter months when flows are higher?

☐ Yes

☐ No

If yes, provide details

41. Describe any other water conservation and minimisation measures that could be taken during water shortage conditions

42. What improvements in your water take and/or use infrastructure do you intend to adopt during the term of your consent(s) if it is granted?

43. Describe how you will avoid, remedy or mitigate the effects of your activities on any aquatic life, food sources, wetlands and/or areas of cultural, aesthetic or scientific value

44. Provide copies of any additional information you may have about the effects of your activity on the receiving environment, such as photographs, monitoring data or recent compliance reports. If possible, we would prefer this information to be submitted in an electronic format, such as CD.

Unless the Waikato Regional Council has indicated otherwise, you should identify and consult with any parties that may be potentially affected by or interested in your water take activity.

- This generally involves at least your neighbouring bore users (within a 1 km radius from your abstraction point.)
- It may also include local district councils, iwi and interest groups such as local recreational and care groups.
- If you are in doubt about who you should be talking to, then call the Waikato Regional Council's staff.

Make sure you provide everyone with sufficient information so that they can fully understand what it is you want to do and how they may be affected by it. This could include a copy of this application form once it is completed and/or any plans or maps. Make sure you make yourself available to explain the application, answer any questions and discuss options for resolving any concerns.

45. Identify the parties that may be affected by or interested in your activity and consent application

Party details/relationship <i>(such as neighbour, local iwi, interest group)</i>		
Contact person		
Postal address		
Phone number/s	Home:	Business:
	Mobile:	

Party details/relationship <i>(such as neighbour, local iwi, interest group)</i>		
Contact person		
Postal address		
Phone number/s	Home:	Business:
	Mobile:	

Party details/relationship <i>(such as neighbour, local iwi, interest group)</i>		
Contact person		
Postal address		
Phone number/s	Home:	Business:
	Mobile:	

Other affected or interested parties

46. Provide details of your consultation

Provide details about the consultation you have undertaken, or explain why consultation was not considered necessary. If possible you should provide written comment or approval from those you have identified. A consultation form is provided at the end of this form that will help you with this. Photocopy off a separate form for each party identified. Otherwise, make sure you let us know:

- who you consulted with
- how we can contact these people
- their relationship to you (for example, neighbour, local iwi, interest group)
- any concerns they may have about your activity, and how you intend to avoid or mitigate (lessen) these effects.

FINAL CHECKLIST

47. Have you? (please tick)

- ☐ Filled in all parts of this form (Form B) that are relevant to your activity, provided all the information required, and completed and attached any other related activity forms.
- ☐ Completed and attached Forms A and C.
- ☐ Applied for any district council consents that are also required for your proposal.
- ☐ Consulted with all interested and affected parties, and included their comments and/or written approval (if possible).
- ☐ Included or paid the required deposit fee for this application.

APPENDIX 1 - NUTRIENT MANAGEMENT PLAN REQUIREMENTS (TABLE 3-10 OF THE WAIKATO REGIONAL PLAN)

Type of land use	Nutrient management plan requirements
All land uses applying more than 60kg N/ha/yr	A nutrient management plan must be prepared that, as a minimum records the following information for at least nitrogen (N) and phosphate (P) (in units of kg of N and P per hectare per year): • inputs from fertiliser • inputs from other sources such as manures, green crops and soil mineralisation • outputs in product • results of soil testing for levels of available N and P • documentation of consideration given to climatic and soil conditions for the life of the crop to account for the effects of rainfall and irrigation on the potential for N and P leaching through the soil in to ground and surface water • practices that will be implemented to reduce nutrient and sediment losses from the property and to avoid, remedy or mitigate adverse effects on the environment.
Pastoral	The nutrient management plan specified above must be developed based on the outputs of either Overseer (Agresearch) or any other nutrient management planning tool that meets the criteria set out below.
Commercial vegetable/fruit production, arable/mixed cropping and livestock or other land use not otherwise in this table	From 1 January 2011, the nutrient management plan specified above must be developed based on the outputs of any nutrient management planning tool that meets the criteria set out below.

Nutrient Management Planning tools other than Overseer and SPASMO must:

- be a Crown Research Institute, university or industry developed model that has successfully completed commercial trials commensurate with climatic, terrain and soil conditions expected to be encountered in the Waikato region
- be able to predict annual, seasonal or crop nutrient losses at either a paddock or total crop area scale with a margin of error no more than 30 per cent
- have been calibrated against current versions of either Overseer or SPASMO, or versions that are no more than 3 years old, and any departures from those models when using identical data sets documented and explained
- have product maintenance and support currently available as of the date of use or guaranteed for a period of one year.

APPENDIX 2 - WATER MANAGEMENT CLASS PURPOSES (SECTION 3.2.4 OF THE WAIKATO REGIONAL PLAN)

Suspended Solids Standards

- The activity must not increase the concentration of suspended solids in the receiving water by more than 10 per cent.
- The suspended solids concentration of the discharge shall not exceed 100 grams per cubic metre; or
- The activity or discharge shall not result in any of the following receiving water standards being breached:
 - Indigenous Fisheries and Fish Habitat Class waters – 80 grams per cubic metre suspended solids concentration.
 - Significant Trout Fisheries and Trout Habitat Class waters – 25 grams per cubic metre suspended solids concentration.
 - Contact Recreation Class waters – black disc horizontal visibility greater than 1.6 metres.

Surface Water Class Standards

- There must be no significant adverse effects on existing aquatic ecosystems as a result of:
 - changes in dissolved oxygen
 - changes in flow regimes due to instream structures
 - changes in pH
 - increases in deposition of bed sediments
 - increases in undesirable biological growths
 - discharge of a contaminant.

- As a result of added heat, the water temperature shall not be changed by more than three degrees Celsius.
- All water intake structures shall be screened with a mesh aperture size not exceeding three millimetres in diameter at locations less than 100 metres above mean sea level, or five millimetres in diameter at locations greater than 100 metres above mean sea level.
- The maximum intake velocity for any water intake structures shall not exceed 0.3 metres per second.
- Any discharge into, or utilisation of, the water resource shall not cause a conspicuous change in visual colour or clarity.
- The water shall not be tainted or contaminated so as to make it unpalatable or unsuitable for consumption by humans after treatment (equivalent to coagulation, filtration and disinfection).
- The water shall not be tainted or contaminated so as to make it unsuitable for irrigation.

Natural State Water Class Standards

Water quality and flow regimes of Natural State Waters shall not be altered in any way that may compromise their aquatic riparian habitat value for indigenous species.

Contact Recreation Water Class Standards

- The black disk horizontal visibility of the waters shall be greater than 1.6 metres.
- The median concentration of E. coli of at least seven samples taken throughout the bathing season (1 December to 1 March) in dry weather conditions shall not exceed 126 E. coli per 100 millilitres. Sampling is to be undertaken between 9am and 6pm, at a depth of 300 millimetres. Single-sample maximum shall not exceed 235 E. coli per 100 millilitres.
- The waters shall not be rendered unsuitable for contact recreation activities by the presence of contaminants.
- Bacterial and/or fungal slime growth shall not be visible to the naked eye as plumose growths or mats.
- The seasonal maximum cover of stream or river beds by periphyton as filamentous growths or mats (> 3 millimetres thick) shall not exceed 40 percent and the biomass on the bed shall not exceed 100 milligrams chlorophyll a per square metre over a representative reach.

Significant Indigenous Fisheries and Fish Habitat Standards

- All water intake structures shall be screened with a mesh aperture size not exceeding 1.5 millimetres in diameter at locations less than 100 metres above mean sea level, or three millimetres in diameter at locations greater than 100 metres above mean sea level.
- The maximum intake velocity for any water intake structures shall not exceed 0.3 metres per second.
- No structure or activity that will prevent the natural passage of fish or has the potential to do so, shall be constructed or undertaken unless provision is made for the maintenance of fish passage both upstream and downstream.
- Where water is to be taken or diverted from or into any water, sufficient flow and/or water depth shall be maintained to allow for the unimpeded passage of fish at all times and for the maintenance of fish habitat and spawning.
- As a result of added heat, the temperature of the water shall not be changed by more than 3 degrees Celsius.
- The temperature of the water shall not be caused to exceed 25 degrees Celsius as a result of added heat and shall not adversely affect the passage or spawning of fish.
- Ammoniacal-nitrogen shall not exceed 0.88 grams of nitrogen per cubic metre.

Significant Trout Fisheries and Trout Habitat Standards

- All water intake structures shall be screened with a mesh aperture size not exceeding three millimetres in diameter.
- The maximum intake velocity for any water intake structures shall not exceed 0.3 metres per second.
- As a result of added heat, the temperature of the water shall not be changed by more than 3 degrees Celsius, and shall not exceed 20 degrees Celsius at any time. Where spawning occurs the temperature shall not be caused to exceed 12 degrees Celsius between May and September.
- Where water is to be taken or diverted from or into any water body, sufficient flow and/or water depth shall be maintained to allow for the unimpeded passage of fish at all times and for the maintenance of fish habitat and spawning.
- The discharge shall not cause dissolved oxygen to fall below 80 percent of saturation concentration. If the concentration of dissolved oxygen in the receiving environment is below 80 per cent saturation concentration, any discharge into the water shall not lower it further.
- Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.
- Ammoniacal-nitrogen shall not exceed 0.88 grams of nitrogen per cubic metre.
- No structure or activity that will prevent the natural passage of fish or has the potential to do so, shall be constructed or undertaken unless provision is made for the maintenance of fish passage both upstream and downstream.

CONSULTATION FORM

PHOTOCOPY THIS FORM FOR EACH PERSON OR GROUP TO BE CONSULTED

Applicant	
Description of proposal	

Person/group consulted in regard to this proposal

Name of contact person	
Name of group	
Postal address	
Street address	
Email address	
Contact number/s	phone:

Consulted party's views on the proposal (to be completed by person/group consulted)

If you would like the Waikato Regional Council to know your views on the applicant's proposal, and/or if you consider you may be adversely affected, please indicate your views below (attach additional pages if necessary). Consider the following: How do you consider you will be affected? How would you like the applicant's proposal to be modified to take account of your views? What other comments do you have on the proposal that you would like the Waikato Regional Council to consider in making a decision on these resource consent applications?

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Applicant's response to views of consulted parties (to be completed by applicant)

Please indicate how your proposal can be modified to take account of the views of the party you have consulted with (or why the proposal may not be able to be modified to take account of those views).

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Consulted party's response to the proposal (to be completed by person/group consulted) *Please tick one only*

- ☐ I/We give my/our approval for the proposal ☐ I/We do not give my/our approval for the proposal
- ☐ I/We are not affected by this proposal

Signed _____ **Date** _____