|  |  |
| --- | --- |
| **Part B**  **Assessment of**  **Environmental Effects –**  **Take or Use Groundwater** | M:\Community Relations\All Staff - Communication resources\NRC logos for general use\NRC logo (full colour).png  Whangārei Office Phone: 09 470 1200  Fax: 09 470 1202  Kaitāia Office Phone: 09 408 6600  Waipapa Office Phone: 09 470 1200  Ōpua Office Phone: 09 402 7516  Dargaville Office Phone: 09 439 3300  Free Phone 0800 002 004  Email mailroom@nrc.govt.nz  Website www.nrc.govt.nz |
| **This application is made under Section 88/Section 127 of the Resource Management Act 1991** | To: Consents Department  Northland Regional Council  Private Bag 9021  Whangārei Mail Centre  Whangārei 0148 |

|  |
| --- |
| PART B – ASSESSMENT OF ENVIRONMENTAL EFFECTS |
| Your application must include an Assessment of Effects on the Environment. This form is a guide to 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 (e.g. river, stream, lake and groundwater resource). This will help you to propose ways to minimise those effects to the 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. | Description of the Proposed Activity |

|  |
| --- |
| **A.1 Do you propose to:**  take water from an existing bore?  Yes  No  take water from a new bore?  Yes  No  **If you propose to drill a new bore, please contact the council. You may need to apply for a Resource Consent to drill the bore (Make, Alter or Install a Bore).** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **A.2 Details of the bore(s) from which taking is proposed.** | | | | | | |
|  | **Northland Regional Council Bore**  **Number (if known)** | **Depth (m)** | **Diameter**  **(mm)** | **Depth to Top of Screen**  **(m)** | **Depth at which Submersible or Surface Pump is Mounted** |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
| **A.3 What quantity of water do you propose to take?** |  | m³ per day |
|  |  | m³ per year |

|  |  |
| --- | --- |
| **A.4 How have you calculated the amount of water that you propose to take?** *(attach separate sheet if required)* | |
|  |  |

|  |  |
| --- | --- |
| **A.5 Provide information to justify the quantity of water applied for** *(see attached “Information Requirements” booklet)* | |
|  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **A.6** **How many hours per day is water to be taken?** |  | (typical) |  | (max) |

|  |  |
| --- | --- |
| **A.7 What is the pump type and model?** |  |

|  |  |  |
| --- | --- | --- |
| **A.8 At what rate is water to be taken?** |  | litres per second |

|  |
| --- |
| **A.9 Is there a water meter fitted to measure the amount of water taken?**  Yes  No |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.10 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.11** **During what part of the day will you typically be taking water?**  During the daytime  During the night  24 hours  “On demand” |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.12 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? *(i.e. 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 |
|  | | | | | | | |  |  |
| **Horticultural Irrigation** | | | | | | | | | |
| What is the total area to be irrigated? | | | | | | | |  | ha |
| If glass/plastic houses are 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. | Site Details |

|  |
| --- |
| **B.1** You **must** attach a map that shows the following:  the location of the proposed take bore  the legal boundaries of the property  the location of any springs, wetlands and surface water resources (including coastal water) within 500 metres of the groundwater, and the separation distances from the take bore  the location of any existing bores within 500 metres of your take  the location of any other water takes within 500 metres of your take  the location and description of any land based effluent disposal system within 50 metres *(e.g. septic tank disposal fields)* |

|  |  |
| --- | --- |
| **B.2 What is the predominant geology from which the groundwater is to be taken?**  *(i.e. sand, gravel, greywacke, volcanic)* | |
|  |  |

|  |  |
| --- | --- |
| **B.3 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 take could have an adverse effect on the environment, a detailed environmental assessment is required. This may require a pump test and analysis of results to be completed, and a water balance estimation for the groundwater system.

|  |  |
| --- | --- |
| C.1 Effect on the Groundwater Resource  **What effect will your take, along with other takes, have on the groundwater levels in the area?** | |
|  |  |
| If there is a potential effect on long-term water levels, or there is insufficient information to be certain that effects will be minor, please suggest ways to reduce this effect *(mitigation measures).* | |
|  |  |

|  |  |
| --- | --- |
| **C.2 Contamination of Groundwater**  The council has evidence of saltwater being drawn into groundwater aquifers in parts of the region. If your bore is close to the coast, you should check whether there is likely to be any connection between your bore and the sea. Also, the proposed take may draw water from contaminated sites or layers of poor water quality.  **Is the pumping of the bore likely to cause contamination of the groundwater resource?**  No, why not? | |
|  |  |
| Yes, how will this effect be mitigated?  *(e.g. you could reduce your pump rate or cease pumping below specified groundwater levels)* | |
|  |  |

|  |  |
| --- | --- |
| **C.3 Effects on Nearby Waterways**  Please ensure that all waterways including springs within 500 metres are indicated on the location map. Please measure the distance between your bore and any waterways accurately and show the distances on the map.  **Will pumping from your bore/well reduce the flow in nearby waterways?**  *(e.g. springs, streams, lakes and rivers)*  No, why not? | |
|  |  |
| Yes, how will this effect be mitigated?  *(e.g. you could reduce your pump rate or cease pumping below specified groundwater levels)* | |
|  |  |

|  |  |  |
| --- | --- | --- |
| **C.4 Affected Parties**  **Will the taking of water have an effect on the water available to any nearby property?**  No, why not? | | |
|  | |  |
| Yes, who? | | |
|  | |  |
| Please ensure all bores within 500 metres are indicated on the location map. Please measure the distance between your bore and any nearby bores accurately and show the distances on the map.  If written approvals are obtained from all parties that may be affected by the water take and the effects of your proposed water take are minor, then the council is likely to process your application without public notification.  If written approval cannot be obtained, please suggest ways to reduce the effect on neighbouring bores *(mitigation measures)*. | | |
|  |  | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **C.5 Consultation**  Written approvals regarding your proposal are normally required from the adjoining land owners/occupiers and neighbouring water users.  Please see attached information requirement booklet for details of who needs to be consulted.  Any letters of concern/support or comment from persons consulted should be attached to this application form.  The council can supply you with written approval forms to aid you with the consultation. | | | | |
|  | Have you consulted with any of the following potentially affected parties: | |  |  | |
|  |  | | **Yes** | **No** | |
|  | Neighbours | |  |  | |
|  | Other nearby water users | |  |  | |
|  | Department of Conservation | |  |  | |
|  | Local iwi *(specify)*: |  |  |  | |
|  | Other *(specify)*: |  |  |  | |

|  |  |
| --- | --- |
| **C.6 Other Adverse Effects**  **Will your take have any other adverse effects on the environment? For example will the noise of pumping disturb neighbours? Will water be able to pass from one aquifer to another? Could your pumping cause aquifer subsidence?**  No, why not? | |
|  |  |
| Yes, how will these effects be mitigated? | |
|  |  |

|  |  |
| --- | --- |
| **C.7 Positive Effects**  **What positive effects will the proposed take have?** | |
|  |  |

|  |  |
| --- | --- |
| **C.8 Efficient Use**  **What measures are you proposing to minimise the wastage of water?**  *(tick as many as are considered appropriate)*  Irrigating at night to minimise loss by evaporation  Measuring soil moisture levels and using these as a trigger for irrigation  Undertaking regular leak detection inspections and tests  Using dripper irrigation | |
| Other *(specify)*: |  |

|  |  |  |
| --- | --- | --- |
| **C.9 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 use the water resource applied for in this application rather than any of the alternatives: | | |
|  |  | |

|  |  |
| --- | --- |
| **C.10 Monitoring**  **What, if any, monitoring do you propose to carry out to ensure that your take does not have any adverse effect on the environment?** | |
|  |  |

***Please ensure all 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: | | | | |
| Whangārei Office | Dargaville Office | Kaitāia Office | Waipapa Office | Ōpua Office |
| 36 Water Street  Whangārei 0110  Phone: 09 470 1200  or 0800 002 004  Fax: 09 470 1202  mailroom@nrc.govt.nz  www.nrc.govt.nz | 42 Hokianga Road  Dargaville 0310  Phone: 09 439 3300 | 192 Commerce Street  Kaitāia 0410  Phone: 09 408 6600 | Shop 9  12 Klinac Lane  Waipapa 0295  Phone: 09 470 1200  or 0800 002 004  Fax: 09 470 1202 | Unit 10  Industrial Marine Park  Ōpua 0200  Phone: 09 402 7516 |