



4.1.2 CONSENTS: WATER

Resource consent applications – general requirements

To complete an application for a consent to take water for irrigation, you will need to provide the following general information. This information is common to all consent authorities. Please note that each consent authority also has its own additional requirements, which are summarised on specific sheets following. *Be aware that requirements may have changed since the printing of these sheets.*

Applicant and site details

- Contact details
 - name/company name
 - postal and street address
 - telephone number and email address (if applicable)
 - contact person
 - contact details of the site owner and occupier/lessee (if different from the applicant)
 - consultant details (if applicable).
- Application details
 - application/consent type
 - description of the proposed activity
 - other consents required or applied for (eg from local authorities).
- Location of proposed activity
 - street address and locality
 - nearest settlement and town to the proposed activity
 - legal description (a copy of the Certificate of Title, rates demand, or subdivision scheme plan is usually required)
 - map reference of take point
 - the district or city council within which the site is located
- Location sketch/plan
 - property boundary
 - location of proposed activity and take point
 - location of neighbouring properties (including property boundaries and significant features such as buildings)
 - roads and road names
 - water bodies (rivers, streams, wetlands, lakes, coastlines etc)
 - other significant landmarks
 - scale and north arrow.
- Any further information that may be useful to the authority for processing and assessing the consent application.

- Specific information required by district or regional plans and regulations.

For groundwater takes

- Location and depth of all bores and neighbouring bores.
- Depth to static groundwater level, and date of measurement.
- Bore details
 - bore consent or permit number (if one exists)
 - bore log
 - drilled depth
 - casing depth
 - bore diameter
 - date drilled
 - casing materials
 - depth(s) to top and bottom of screen(s)
 - yield and drawdown data where available.

For surface water takes

- name of the watercourse or surface water body from which you will take water

Details of the irrigation activity

- general description of the activity to which the application relates.
- water use (irrigation, frost protection etc).
- irrigation method (eg spray, border strip, drip etc).
- maximum rates of water take (provide calculations showing how this was derived)
 - litres/second
 - hours/day
 - days/week
 - weeks/month
 - months/year.
- Maximum daily quantity applied for, in cubic metres.

- Type and total area of each crop and/or pasture to be irrigated.
- Total area of land to be irrigated (shown on location sketch/plan).

Assessment of environmental effects

Taking water from a groundwater or surface water body may have significant effects on the source. To complete the consent application form, you will need to provide an assessment of environmental effects, in accordance with the Fourth Schedule of the Resource Management Act. This must cover the following topics, each of which is further discussed below:

- alternative sources of water
- effects (actual and potential) on the environment
- effects (actual and potential) on other users of the water source you propose to use
- mitigation of potential adverse effects on the source and other water users
- consultation with potentially affected parties
- monitoring.

Alternative sources

- Are there alternative water sources available? If so, you must explain why these were not chosen.

Effects on the environment

- Comment on any possible environmental effects (both actual and potential effects) that may occur and information you consider may assist the council in dealing with your assessment. This can include the beneficial effects of irrigation. "Environment" is defined broadly by the RMA and includes social and economic factors.

Effects on other users

- Comment on any effects on other users (both actual and potential effects) that may occur and information you consider may assist the council in dealing with your assessment.
- Will the taking of water have an adverse effect on water availability to neighbouring property owners? If yes, quantify your answer.
- Are there any other takes in the area? If yes, list persons and mark locations on location sketch/plan.

For groundwater takes

- Include an assessment of the effects of the proposed pumping on neighbouring bores or wells.

Mitigation

- If it is possible that your water take will have adverse effects, describe the steps you propose to avoid, remedy, or mitigate these effects.

Consultation

- Consultation with affected neighbours and interest groups will always be required as part of any consent application. List the names, addresses and contact details of persons or groups consulted. The people to consult should include, but may not be limited to:
 - immediate neighbours using the same water resource
 - Tangata Whenua (contacted through the local Maori representative group (Runanga))
 - any other water users or interest groups that may be affected by the proposed activity
 - Fish and Game New Zealand
 - Department of Conservation.
- State the relationship of the person or group to the applicant (eg neighbour).
- Describe how they may be affected by your proposal and any concerns they have raised.
- Discuss how the proposal has been modified to avoid or mitigate possible effects on the person or group and how their concerns have been addressed.
- Provide copies of all correspondence between yourself and interested or affected parties.
- If the affected parties are willing, obtain their written approvals (unconditional) for your proposal.

Monitoring

- Monitoring requirements vary between regions. See specific information sheets.
- Monitoring the abstraction is generally required, by recording date, time, flow and volume of abstractions (time intervals and measurement accuracy are often specified).
- You may be required to report all monitoring to the authority at specified time intervals.

Standard consent conditions

Following is a summary of consent conditions that a council will probably impose. Please note that consent conditions are imposed on a case by case basis.

- A consent commencement and expiry date will be specified.
- The consent will describe a specific location approved for the consented abstraction. It may specify minimum distances from other take points, discharge points, surface water bodies etc.

- A limit will be placed on the maximum rate of abstraction (eg l/s, m³/day, return period, or m³/year).
- Payment of consent fees (including administration and monitoring charges) is required.
- The authority will include a condition allowing them to review the conditions of the consent for the purposes of:
 - reviewing the effectiveness of the conditions in avoiding or mitigating any adverse effects
 - reviewing the adequacy of and the necessity for monitoring
 - complying with the requirements of a regional plan.

For groundwater takes

- The well head will need to be designed and constructed to conform to specific standards.
- A copy of the driller's log will probably need to be supplied to the authority.

For surface water takes

- The intake structure will need to be designed, constructed and maintained to conform to specific standards.
- Fish screens to a specified design will need to be installed and maintained.
- The water take is likely to be subject to minimum river or stream flows, below which water cannot be taken.

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To complete an application for a consent from the Northland Regional Council to take water for irrigation, you will need to provide the following specific information in addition to the general requirements.

At the time of writing, new consent application information requirements were being drafted. Both existing and draft information requirements are summarised below.

Existing Information Requirements

Applicant and site details

- Location of proposed activity:
 - Plan/aerial photo showing activity points and property and names of neighbours.
- Reclamation and esplanade reserve information.

Details of the irrigation activity

- Plan of structures.

Assessment of environmental effects

- As per general requirements.

Standard consent conditions

- As per general requirements.

Draft Information Requirements for Groundwater Takes

To complete an application for a consent from the Northland Regional Council to take groundwater for irrigation, you may be required to provide the following specific information in addition to the general requirements (currently in draft format).

Applicant and site details

- Location sketch/plan:
 - location of neighbouring bores, springs and surface water (including coastal water) within 500 m of the take point
 - location of any existing water takes and indigenous wetlands that may be affected
 - location and description of any land based effluent disposal system.
- Copy of bore log showing:
 - total depth
 - casing depth
 - screen depth
 - recommended pumping rate
 - standing water level
 - pumping water level.

Details of the irrigation activity

- Maximum and average quantities of water to be taken (l/d, m³/d).
- Proposed method of taking.
- Capacity of pumps.

Details of reticulation system.

- Method of water application and use.
- Measures proposed to be implemented to reduce inefficient water usage.
- Provision of any accepted industry standard or guideline justifying the quantity of water applied for (eg irrigation use for crop per hectare).
- If take is >500 m³/d for irrigation, provide a balance sheet estimating average daily water needs for each month over the period of irrigation, and estimates of peak requirements. Take into account rain, soil types, PET, and soil moisture deficits and how these change over the irrigation season.

Assessment of environmental effects

Effects on the environment

- Assessment of effects of the proposed take on the natural character of the environment, including:
 - ecological
 - amenity
 - cultural
 - recreational values of the water body.
- Assessment of effect on indigenous wetlands, with description of proposed measures to avoid, remedy, or mitigate effects.

Effects on other users

- Assessment of effects of pumping the proposed volume on:
 - the groundwater resource (including the sustainability of the resource)
 - any adjacent groundwater bores
 - any surface or coastal water resources

- pump test(s) required if take is large or there are other groundwater bores located nearby.

Consultation

- Report outlining consultation undertaken, information supplied, views expressed, and your response to these views. Consultation should be undertaken with adjoining occupiers within:
 - 100 m if take is <5 m³/d
 - 200 m if take is 5-35 m³/d
 - 400 m if take is 35-100 m³/d
 - 500 m if take is >100 m³/d.

Monitoring

- A groundwater monitoring programme is required if the proposed take is either:
 - a large volume (>100 m³/d); or
 - located in an area where there are many other users of groundwater; or
 - groundwater bore is to be drilled into a sensitive aquifer.

Standard consent conditions

- as per general requirements.

Draft Information Requirements for Surface Water Takes

To complete an application for a consent from the Northland Regional Council to take surface water for irrigation, you may be required to provide the following specific information in addition to the general requirements (currently in draft format).

Applicant and site details

- A detailed plan showing:
 - the location and flow direction of the river
 - the proposed point of taking
 - the legal boundaries of the property
 - the location of any existing downstream water takes and indigenous wetlands that may be affected by the proposed take.

Details of the irrigation activity

- The capacity of any pumps proposed to be used (ie the maximum rate of taking, in l/s or g/h).
- Details on the reticulation system (water supply pipes).
- A description of the typical cross-sectional profile of the stream, or representative sections.
- An estimate of the average depth in fast flowing stretches of the river and a description of the method used to estimate the average depth.
- The maximum and average quantities of water to be taken (preferably in m³/d or l/d).

- The proposed methods of taking.
- Method of water application and use.
- Any measures proposed to be implemented to reduce inefficient water usage.
- Details of the screening device on the water intake, including:
 - dimensions of the screen
 - size and dimensions of slots
 - the estimated velocity across the screen.
- Provision of any accepted industry standard or guideline justifying the quantity of water applied for (eg irrigation use for crop per hectare).
- If take is >500 m³/d for irrigation, provide a balance sheet estimating average daily water needs for each month over the period of irrigation, and estimates of peak requirements. Take into account rain, soil types, PET, and soil moisture deficits and how these change over the irrigation season.
- The length of the river that is required to be assessed by the applicant will be that part of the river likely to be affected by the proposed take. This will usually be to that point downstream beyond which inflow from runoff or tributaries equals or exceeds the volume of water sought by the applicant.
- A description of the scale, timing and method of any regular in-stream or bank management works above or below the proposed take.

Assessment of environmental effects

Alternatives

- A description of any alternatives to direct river abstraction that have been considered, particularly over dry periods, including the possible use of groundwater and storage dams, and the reasons for selecting the proposed sources.

Effects on the environment

- Assessment of effects of the proposed take on the natural character of the environment, including:
 - ecological
 - amenity
 - cultural
 - recreational values of the water body.
- Assessment of effect on indigenous wetlands, with description of proposed measures to avoid, remedy, or mitigate effects.
- An assessment of the typical grain size that makes up the bed of the river and a description of the method used to calculate this figure.

- An assessment of the effects of abstraction on the design minimum flow (DMF) at the point of the take and a description of the method used to calculate the DMF.
- In the event that the proposed abstraction reduces the minimum flow of the river to less than the DMF, the following information should also be supplied:
 - the effect of the proposed take on the water level (depth) downstream and the distance at which this effect, under the worst case condition, could be regarded as being negligible. Worst case conditions will occur when the maximum rate of taking water coincides with low flows in the river or stream (usually during the summer months).
 - the effects (if any) on water velocity and the quality of the water downstream of the proposed take.
- The distance from the take point to downstream waterfalls or other obstacles, and a description of the features of the obstacles, including a statement as to the abstraction's probable effect on the diversity and abundance of aquatic life upstream of the obstacle.
- If applicable, the potential for saltwater to extend further upstream as a result of the abstraction.
- A description of the aquatic plants present at and downstream of the take point and an indication as to their general abundance, particularly during low flow periods.
- The provision of data that models or predicts the effect of flow on oxygenation, based on in situ dissolved oxygen concentration measurements.
- A description of any rare or threatened aquatic fauna or flora and an assessment of their flow related habitat requirements. This information may be obtained from the Department of Conservation.

Mitigation

- A description of the means by which any effects on the natural character of the environment and any ecological, amenity, cultural and recreational values will be avoided, remedied or mitigated.
- A description of the scale, timing and method of any regular in-stream or bank management works above or below the proposed take.
- An assessment of different measures proposed to mitigate potential flow related effects. Such measures might include the planting and/or fencing of riparian strips, tertiary treatment, or land application of effluent.

Consultation

- A report outlining the consultation undertaken, information supplied, views expressed, and your response to those views. Consultation should be undertaken with the following:
 - the local iwi (names of local iwi and hapu groups can be obtained through the Northland Regional Council)
 - Department of Conservation
 - landowners and occupiers adjoining the site of the proposed activity
 - any downstream users of the water who may be affected by the proposal.

Monitoring

- A monitoring programme may be required to be submitted with the application if the proposed take is either:
 - a large volume relative to the flows in the river; or
 - located in an area where there are a large number of abstractions from the water resource; or
 - from a flow sensitive river; or
 - has the potential to reduce the flow of the river to less than the design minimum flow.

Standard consent conditions

- As per general requirements.

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Auckland Regional Council

To complete an application for a consent from the Auckland Regional Council to take water for irrigation, you will need to provide the following specific information in addition to the general requirements.

Applicant and site details

- Location plan (maximum size A3).
- Nature of tenure.
- District plan zone.
- Water source (particularly if not on property).
- Bore details:
 - Static water level (depth and date recorded)
 - Depth of pump
 - Available drawdown
 - Bore yield (m³/h)
 - Aquifer test results.
- Information about bore head installation:
 - Is there a concrete pad in place around the bore head?
 - Does the top of the casing rise at least 0.3 m above ground level?
 - Is there access for water level monitoring (eg plugged hole in the top of the casing)?
 - Is there access for taking water samples (eg a tap close to the bore head)?

Details of the irrigation activity

- Purpose for taking water:
 - state stock type if grazing.
- Is the area to be irrigated existing, partly developed or proposed?
- Maximum period of irrigation:
 - hours per day
 - length of irrigation season.
- Months of the year irrigation may occur.
- Maximum rate that system can deliver (m³/h).
- Type of industry/population/stock numbers.
- Pump type and model.
- Maximum pumping capacity.
- Total annual quantity of water to be pumped.

Assessment of environmental effects

Effects on the environment

- Have you or a consultant prepared an estimate of groundwater availability in the area? The Auckland Regional Council has some strategies for water allocation. You should check to see if a strategy exists for the subject land. If one does not exist, you will need to make an independent estimate of effects.

For groundwater takes

- Effects on water quality:
 - Has a water quality analysis been undertaken on groundwater from your bore or from any nearby bores? If yes, attach results.
 - Are there any waste disposal areas or septic tanks within 150 m? If yes, provide details such as the nature of the effluent, method of disposal, quantity disposed of.
 - Is your take point in close proximity to the coastline? If yes, indicate location and distance on site plan.
 - Do you anticipate your activity will affect the quality of the groundwater resource (eg saltwater intrusion, contamination from septic tanks)? If yes, describe how.
- Effects on land and buildings:
 - Is your proposed take in close proximity to any reclaimed land, unstable ground, or other land subject to settlement or movement? If yes, do you anticipate that your activity may result in effects on land or buildings (eg settlement of ground surface, building foundations)? If yes, describe.

For surface water takes

- Effects on the stream channel:
 - Provide a description of the water course downstream of the take site during typical low flow period December to April.
 - Provide a description of the bed of the stream.

- Provide details on vegetation bordering or overhanging the stream (a photo may be useful).
- Will the intake structure cause erosion of the stream bank?
- Effects on water quality:
 - Has a water quality analysis been undertaken on the stream? If yes, attach results.
 - Provide a description of the extent to which the stream is fenced from stock on your property and neighbouring properties.
 - Do your stock or your neighbour's stock enter or drink from the stream?
 - Provide details of any structures that may affect fish passage.
 - Describe significant features near the take point (eg biota, food gathering areas, wetlands, waste discharges, recreational activities, areas of aesthetic value, significance to iwi).

Effects on other users

- Indicate whether there are any bores, springs or streams on each of the neighbouring properties and whether water is taken from these sources (including permit numbers, if known).
- Indicate distances between each water source and your bore, well or sump.
- Describe the purposes for which water is taken from these other sources.
- Do you anticipate your proposal affecting any of these water sources or users? If yes, describe how.

Mitigation

- Are there alternative, more water efficient methods of undertaking your activity? If yes, explain why you decided not to use them.
- Are there any water conservation or leak detection programmes practised? If yes, provide details.

For surface water takes

- If the stream is not fenced off from stock and has no riparian vegetation overhanging the stream, can this be implemented? If so, describe.

Monitoring

- Has a water flow meter been fitted? If yes, provide the flow meter reading.

For surface water takes

- What, if any, monitoring do you propose to carry out to ensure that your take does not have any adverse effects?

Standard consent conditions

- Water usage and water level monitoring records forwarded to the Auckland Regional Council, including a full annual report.
- Limits to weekly and/or annual abstraction rates.
- Limits imposed by trigger levels (water or chemical) and subsequent emergency response programmes.

For groundwater takes

- Measuring equipment may be required.
- Measure and record water levels in the bores at specified intervals.
- Sample and test water for groundwater chemistry characteristics at specified intervals or times of the year.

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Environment Waikato

To complete an application for a consent from Environment Waikato to take water for irrigation, you will need to provide the following specific information in addition to the general requirements.

Applicant and site details

- Contact details.
- Best contact time.
- Newspapers received by local community (in case of notification).
- Name of Environment Waikato staff member, if you have already dealt with someone regarding the proposal.
- Location plan. Include:
 - access roads, farm tracks, existing/proposed works, buildings
 - historic or waahi tapu sites, key landmarks
 - geothermal features
 - relevant photos.

Details of the irrigation activity

- Is the water source geothermal?
- Pump details:
 - existing or proposed
 - type and model
 - capacity.
- Provide details on irrigation:
 - description of regime (e.g. return period)
 - estimate of maximum days of irrigation required per season
 - maximum volume of water to be taken per day and per year
 - information you have used to decide on the volume of water that you require – provide calculations.
 - dominant soil type to be irrigated.

For groundwater takes

- Has a pump test been undertaken? Provide results, or state where the results are held.

For surface water takes

- Details of intake structure:
 - drawing
 - dimensions
 - stream shape

- location of pump
- position of intake pipe
- location of storage facility
- location of any other structures in the stream.
- is your intake screened? If so, what size?
- where do you intend to take water from? A stream? A dam? If yes, include construction details.

Assessment of environmental effects

Effects on the environment

- Describe your land management practices:
 - average number of milking cows per hectare of irrigated land
 - other stock grazing irrigated land (type and number/ hectare)
 - how long after grazing will these areas be irrigated (days)?
 - how much nitrogen fertiliser do you apply per year (kg/year)?
 - when do you intend applying nitrogen fertiliser (months)?
 - how long after fertiliser is applied will the area be irrigated (days)?

For surface water takes

- Estimate the proportion of the flow you intend to take at low flow times. How was this estimate obtained?
- Describe the bed and banks of the stream.
- Do stock enter or drink from the stream?
- Describe the extent to which the stream you wish to take water from is fenced from stock (on your property).
- Give details (type and extent) of any vegetation bordering the stream.
- Give details of any other streams, springs or drains on your property, including details of fencing and stream bank vegetation (identify on location map).
- How close to watercourses do you intend to irrigate?