

8 Information Requirements

Table of Contents

8.1	Assessment Criteria and Information Requirements	8-3
8.1.1	General Information Requirements for all Applications	8-3
8.1.2	Water and Geothermal	8-4
8.1.3	Rivers and Lake Beds	8-8
8.1.4	Land and Soil	8-11
8.1.5	Air	8-15
8.1.6	Geothermal	8-17
8.1.7	Further Information	8-19

8.1 Assessment Criteria and Information Requirements

When applying for a resource consent, adequate information must be provided by the applicant so that informed resource management decisions can be made. Waikato Regional Council recognises that the type and detail of information required depends on the scale, location and anticipated effects of the proposed activity. **It is therefore suggested that applicants discuss with Waikato Regional Council staff, the scope and detail of information required, and where and how it should be obtained, prior to making an application.**

8.1.1 General Information Requirements for all Applications

Any application for a resource consent **must**, as a minimum, include the following:

- a) Name of the applicant and the name of the owner or occupier (if different from the applicant).
- b) The address of the applicant and owner or occupier.
- c) A description of the activity for which consent is sought, and its location.
- d) An assessment of any actual or potential effects (including cumulative effects), on the environment, and the way in which adverse effects may be mitigated (see Fourth Schedule of the RMA for matters which should be included).
- e) A statement specifying all other resource consents that the applicant may require from any consent authority in respect of the activity to which the application relates, and whether or not the applicant has applied for such consents.
- f) Where it is likely that any activity will result in any significant adverse effect on the environment, a description of any possible alternative locations or methods for undertaking the activity.
- g) A record of any consultation¹ undertaken by the applicant and the level of any consultation undertaken with tangata whenua.
- h) the way in which any adverse effects will be avoided, remedied or mitigated.
- i) An indication of any actual or potential effects on neighbouring land owners, tangata whenua who are Kaitiaki, or special interest groups that are potentially adversely affected by the activity and an accurate representation of the views of those parties.

In addition, the following sections provide **guidance** as to the types of information that will be required relating to specific types of consent applications. It is recommended that resource users contact Waikato Regional Council before lodging the resource consent application, to ensure that all matters of relevance are covered in the application. When read in conjunction with the relevant policies, the following sections provide an indication of the key decision-making criteria that Waikato Regional Council will have regard to in determining consent applications.

¹ It is important that you talk with everyone who is interested in, or is likely to be affected by your proposed activity. The parties you consult with should be provided with all the relevant information on your proposal. Your consultation should begin well in advance of your application. Obtaining written approval from affected parties may mean that your application will not need to be publicly notified. Identify clearly with whom you have consulted, their views and any ways in which your proposal has been modified to take account of those views.

8.1.2 Water and Geothermal

8.1.2.1 Water Takes

- a) The location(s) of the take.
- b) The purpose for which water is to be taken including the proposed crop/pasture type, reflecting rotational crop requirements.
- c) Define the maximum volume of water to be taken as a minimum per day and per year.
- d) The rate at which water is to be taken.
- e) The source of water.
- f) Any associated discharges used to offset the cumulative allocation effects of the taking of water.
- g) Identification of alternative water sources including, groundwater, water harvesting and water reuse and provide an assessment of how these may minimise adverse effects, including those on existing and foreseeable future users.
- h) Intake screening.
- i) The identity and location of other neighbouring abstractors.
- j) What effects this activity will have on the environment.
- k) The proposed method of recording water use and reporting to Waikato Regional Council.
- l) In the case of an application for the replacement of an existing resource consent:
 - a demonstrated continued need for the volume and rate of water applied for based on water use records, recognising seasonal and crop rotational factors,
 - any enforcement action taken by Council, and
 - use of best industry practice.
- m) In the case of an application for domestic or municipal supply a water management plan prepared as detailed in method 8.1.2.2 shall be provided with all resource consent applications made in accordance with 3.3.3 Policy 9 and Rules 3.3.4.18, 3.3.4.21, 3.3.4.23, 3.3.4.24 and 3.3.4.26.
- n) Details, including distribution extent, of any other properties to which water is to be supplied from this take.
- o) In the case of an application for domestic or municipal supply details shall be provided of any existing or proposed riparian fencing and planting necessary to mitigate adverse effects of the take on the water body. Details on proposed riparian fencing and planting shall be provided in the form of a Riparian Vegetation Management Plan having regard to Standard 3.3.4.28

8.1.2.2 Water Management Plans

The Water Management Plan shall establish a long term strategy for the water requirements of domestic or municipal suppliers and their communities. It shall demonstrate that the volume of water required, including any increase over that previously authorised, has been justified and that the water take will be used efficiently and effectively. To this end the water management plan shall, to an extent which is appropriate for the scale of the activity, provide the following information:

1. A description of the water supply system including system operation, distribution extent, levels of service, water use measurement, maintenance and asset management procedures.
2. A comprehensive assessment of existing demand and future demand for water with regard to an assessment of reasonable population growth within the planning horizon to meet the following:
 - a) reasonable domestic needs;

- b) public health needs in accordance with requirements under any Act of Parliament or regulation;
 - c) reasonable community needs (e.g. for public amenities);
 - d) reasonable commercial, rural supply and industrial needs;
 - e) an assessment as to how each of the assessments required by clauses a) to d) above is predicted to vary over time;
 - f) a justification for each of the assessments required by clauses a) to e) above including reference to any relevant planning instruments promulgated under the Resource Management Act 1991 that provide for future growth or relevant documents promulgated under the Local Government Act 2002 such as Long Term Plans, growth strategies or spatial plans.
3. Any existing or proposed water pricing procedures and any linkages with wastewater pricing or management.
 4. How water reticulation networks are planned and managed to minimise their water losses as far as practicable.
 5. A description of patterns of water use practices and/or behaviour in all sectors of use (and distribution) with the objective of maximising water use efficiency and reducing water use, as far as practicable.
 6. Water saving targets for the full range of demand conditions including demand saving targets for council owned facilities, domestic demand targets and demand saving targets for commercial and industrial customers.
 7. Key performance indicators for each of the water saving targets.
 8. Any external auditing and benchmarking procedures that have been adopted.
 9. A drought management plan that includes:
 - a) steps to be taken to reduce consumption during water shortage conditions, including those uses that will be restricted at the same time as priority SW-B users (in accordance with Policy 18 and Standard 3.3.4.27) and steps to be taken to implement those restrictions.
 - b) Targets for the water savings expected to be achieved via the restriction of activities identified in a) above, which shall align as closely as possible to the restrictions for SW-B users provided for in Standard 3.3.4.27.
 - c) public and commercial user education programmes.
 - d) steps taken to reduce consumption when demand is approaching the maximum take volume specified under the relevant resource consent.
 - e) Enforcement procedures
 10. Actions, performance measures and a timeline for implementing actions. The actions and performance measures identified will depend on the circumstances of each applicant.
 11. Any consultation undertaken with key stakeholders and outcomes of such consultation.
 12. Details of an appropriate water conservation and demand management plan review process.
 13. Identification of any anticipated increases in water demand over the term of the consent and ability to stage water take volumes to more closely reflect demand requirements over time.
 14. Ability to reduce the amount of water used by existing industrial and agricultural users, as a result of improvements in the efficiency of the use of water, in order to meet any increase in water demand over the term of the consent.

15. Identification of any single industrial, commercial or agricultural use of water that uses more than 15 cubic metres of water per day (not being water used for human drinking purposes or human sanitation purposes).
16. Identification of future domestic or municipal supply take needs over and above authorised domestic or municipal supply takes required to meet growth and development that is provided for in planning instruments promulgated under the Resource Management Act 1991 or relevant documents promulgated under the Local Government Act 2002, such as Long Term Plans, growth strategies or spatial plans (or similar).

The projected future needs shall be identified in terms of:

- a) Location of take; and
- b) Volume of take (including any seasonal variations); and
- c) The date at which the water is likely to be required.

8.1.2.3 Transfer of Surface and Groundwater Permits

- a) Full names and addresses of transferor and transferee.
- b) If the whole permit is not being transferred, the portion of the water permit being transferred.
- c) Proposed daily and seasonal (cubic metres per day) and rate (litres per second) of take at new site.
- d) Permit number.
- e) Location of new take site (show on map or give NZMS 260 map reference).
- f) Proposed date/s of transfer.
- g) Description of purpose for which water is to be used.
- h) Whether the transfer is permanent or temporary and, if temporary, the date on which the transfer ceases.

8.1.2.4 Water Use - Crop and Pasture Irrigation

- a) The location and area of the activity.
- b) The proposed crop/pasture type(s), reflecting rotational crop requirements.
- c) The proposed daily and seasonal (cubic metres per day) to be used.
- d) The rate (litres per second) at which water is to be used.
- e) The method of application of water.
- f) Any associated resource consents or resource consent applications to take water.
- g) Seasonal and monthly irrigation water balances.
- h) The identity and location of other neighbouring water users.
- i) What effects this activity will have on the environment.

8.1.2.5 Discharges

- a) Purpose for which the consent is sought.
- b) Maximum volume of the discharge.
- c) The rate at which waste is to be discharged.
- d) What treatment the waste will receive prior to discharge.
- e) How the volume discharged will be minimised.
- f) How the contaminant loading of the discharge will be minimised.
- g) What happens to any sludge or solid waste that may be generated.
- h) The characteristics of the waste to be discharged.
- i) What effect the discharge will have on the receiving environment, including the effect on the purpose of water management classes in Section 3.2.3 of the Plan.
- j) The site location and point of discharge.

- k) The extent to which the discharge will comply with Policy 1 in Chapter 6.1 of this Plan, with regard to objectionable odour and particulate matter effects.
- l) What or whether alternative methods of discharge and treatment have been considered.

8.1.2.6 Damming of Water

- a) Purpose for which water is to be dammed.
- b) Full description of existing works, or works to be constructed, and the location of the works.
- c) Whether a qualified and experience consultant is to be involved in the design and or construction of the proposed works.
- d) Expected date of completion of any works to be constructed.
- e) Source of water.
- f) Description of the topography, soil type and vegetation, including vegetation that could be directly or indirectly affected by a change in water levels.
- g) Sketch plan or design of dam.
- h) What other options have been considered.
- i) What effects this activity will have on the environment.

8.1.2.7 Diverting of Water

- a) Purpose for which water is to be diverted.
- b) Full description of existing works, or works to be constructed and location of those works.
- c) Whether a qualified or experienced consultant is to be involved in the design and/or construction of the proposed works.
- d) Expected date of completion of any works to be constructed.
- e) The source of water.
- f) Description of the topography, soil type and vegetation, including vegetation that could be directly or indirectly affected by a change in water levels.
- g) Details of the diversion.
- h) What other options have been considered.
- i) What effects this activity will have on the environment.

8.1.2.8 Creation of New Drains and Deepening of Drain Invert Levels and Drainage of Wetlands

- a) Description and location of the property on which works are to be undertaken.
- b) Name and location of the wetland that will be affected by the drainage works.
- c) Expected date and completion of the works.
- d) Proximity of the proposed activity to a wetland identified in Section 3.7.7.
- e) The size, including width and depth, of the proposed drain.
- f) The location of current drains, their depth and width and direction of flow of water.
- g) An assessment of the adverse effects of the proposed activity on the wetland, including:
 - i) the extent to which the activity will adversely affect the natural character of the wetland,
 - ii) the extent to which the activity will alter water levels in the wetland,
 - iii) the extent to which the activity affects tangata whenua values of the wetland,
 - iv) the extent to which the activity will affect the natural values of the wetland, including scientific, educational, recreational and aesthetic values.
- h) Description of the topography, soil type, and vegetation.

8.1.2.9 Drilling

- a) Name of drilling contractor.
- b) Site and location of bore.
- c) Site plan indicating property boundaries.
- d) Details of the proposed works including:
 - i) bore hole diameter (millimetres)
 - ii) bore casing diameter (millimetres)
 - iii) bore depth (metres)
 - iv) casing depth (metres)
 - v) casing materials
 - vi) screen materials
 - vii) aquifer* (if known).
- e) Proposed well yield.
- f) Purpose of bore.

8.1.3 Rivers and Lake Beds

8.1.3.1 The Use, Erection, Placement, Extension, Alteration or Reconstruction of a Structure In, On, Under or Over the Bed of a River or Lake

- a) A description and plan of the structures' dimensions, including an assessment of any percentage change in the size of the structure.
- b) The expected construction period.
- c) A description of the proposed method of construction including:
 - i) the material to be used to erect or place, or extend, alter or reconstruct the structure,
 - ii) the equipment to be used,
 - iii) a construction plan.
- d) Description of the site, nature of the river or lake bed and banks, and vegetation.
- e) An assessment of the environment effects of the activity including:
 - i) the potential effects on bed and bank stability,
 - ii) the extent to which the activity will adversely affect areas of significant indigenous vegetation and significant habitats of indigenous fauna²,
 - iii) the extent to which the activity will adversely affect the natural character of the water body,
 - iv) the extent to which the activity will affect neighbouring or downstream properties,
 - v) the extent to which the activity will affect any other lawfully established structure,
 - vi) the extent to which the activity affects tangata whenua values,
 - vii) the effects on the uses and values of the water body.
- f) Evidence that the owner of the river or lake bed has authorised the structure to be built.
- g) The extent to which the activity will affect navigation safety.
- h) All mooring applications must include the following information:
 - i) Contact details of applicant,
 - ii) General location of the mooring (i.e. name of the bay in a lake),
 - iii) GPS location of mooring,
 - iv) Draft, beam and length of vessel,
 - v) Type of vessel (launch/yacht etc),
 - vi) Written comment from harbourmaster (if applicable) on the navigation safety implications of the mooring,
 - vii) Alternative locations considered,
 - viii) An assessment of any actual or potential effects that the activity may have on the environment,

² Refer to Appendix 3 of the RPS.

- ix) Consultation with potentially affected local iwi, owners of legal mooring structures within 75 metres and landowners.

8.1.3.2 Maintaining Access for Maintenance of Artificial Watercourses and Water Bodies in Waikato Regional Council River Control and Drainage Areas

- a) A description of the structure or fence to be built, or the types of trees or shrubs to be planted.
- b) The proximity to an artificial watercourse or water body.
- c) The extent to which the activity will affect any flood or erosion control structures.
- d) The extent to which the activity may restrict access to the water body and flood control scheme assets.
- e) The potential effects on bed and bank stability and water quality.

8.1.3.3 The Demolition or Removal of a Structure

- a) A description of the structure to be removed, including a description of its former purpose and use.
- b) A description of any amenity or historic value attached to the structure to be removed.
- c) An assessment of the environment effects of the removal of the structure, including:
 - i) the potential effects on bed and bank stability,
 - ii) the extent to which the activity will adversely affect areas of significant indigenous vegetation and significant habitats of indigenous fauna³,
 - iii) the extent to which the activity will adversely affect the natural character of the water body,
 - iv) the extent to which the activity will affect neighbouring or downstream properties,
 - v) the extent to which the activity will affect any lawfully established structure,
 - vi) the extent to which the activity will affect tangata whenua values,
 - vii) the effects on the uses and values of the water body,
 - viii) the beneficial effects of removing the structure.
- d) An assessment of the effect of the activity on any natural hazard, and the extent to which it is likely to exacerbate a natural hazard.
- e) Evidence that the existing authorised owner of the structure, if known, has given their approval for that demolition and removal.
- f) A description of the extent to which all or part of the structure is to be demolished or removed.
- g) A description of the methods to be used to remove the structure, the anticipated disturbance of the bed and bank resulting from the removal and the methods to be used to rehabilitate the site.

8.1.3.4 The Disturbance of a River Bed, including that for Maintenance of Structures and Flood/Drainage Control Schemes and Sand and Gravel Extraction

- a) A description of the nature, scale, and frequency of the proposed bed disturbance.
- b) Description of the proposed method, including the equipment to be used.
- c) An assessment of the environmental effects of the activity, including:
 - i) the potential effects on bed and bank stability,
 - ii) the extent to which the activity will adversely affect areas of significant indigenous vegetation and significant habitats of indigenous fauna⁴,
 - iii) the extent to which the activity will adversely affect the natural character of the water body,
 - iv) the extent to which the activity will affect neighbouring or downstream properties,

³ Refer to Appendix 3 of the RPS.

⁴ Refer to Appendix 3 of the RPS.

- v) the extent to which the activity will affect any lawfully established structure
 - vi) the extent to which the activity will affect tangata whenua values,
 - vii) the effects on the uses and values of the water body.
- d) An assessment of the activity on any natural hazard, and the extent to which it is likely to create or exacerbate a natural hazard.
 - e) In the case of the extraction of bed material:
 - i) an assessment of the volume of material proposed to be removed, in terms of total annual volume and daily amounts,
 - ii) a description of the period over which the removal will occur and frequency of removal in any 12 month period,
 - iii) a description of the methods to be used to remove the material,
 - iv) an assessment of alternative sources of material that have been considered, and why the extraction is required in the location chosen.
 - f) In the case of reclamation or deposition of a substance onto or into the bed of a lake or river, a description of the composition of the material to be deposited.

8.1.3.5 The Introduction and Planting of Plants

- a) Identification of the plant(s) proposed to be introduced and the methods to be used to introduce the plants.
- b) The purpose for introducing the plants.
- c) A description of whether the plant(s) are already in the area of the proposed introduction.
- d) An assessment of the environment effects of the activity including:
 - i) the potential effects on bed and bank stability,
 - ii) the extent to which the activity will adversely affect areas of significant indigenous vegetation and significant habitats of indigenous fauna⁵,
 - iii) the extent to which the activity will adversely affect the natural character of the water body,
 - iv) the extent to which the activity will affect neighbouring or downstream properties,
 - v) the extent to which the activity will affect any lawfully established structure ,
 - vi) the extent to which the activity will affect tangata whenua values,
 - vii) the effects on the uses and values of the water body.
- e) An assessment of the effect on any natural hazard, and the extent to which it is likely to create or exacerbate a natural hazard.

8.1.3.6 The Clearance of Vegetation from the Bed of a Lake or River

- a) The method of clearance.
- b) The frequency and timing of the proposed activity.
- c) The location and extent of the activity.
- d) An assessment of the environment effects of the activity including:
 - i) the potential effects on bed and bank stability,
 - ii) the extent to which the activity will adversely affect areas of significant indigenous vegetation and significant habitats of indigenous fauna⁶,
 - iii) the extent to which the activity will adversely affect the natural character of the water body,
 - iv) the extent to which the activity will affect neighbouring or downstream properties,
 - v) the extent to which the activity will affect any lawfully established structure,
 - vi) the extent to which the activity will affect tangata whenua values,
 - vii) the effects on the uses and values of the water body.

⁵ Refer to Appendix 3 of the RPS.

⁶ Refer to Appendix 3 of the RPS.

8.1.3.7 Livestock on the Bed and Banks of Rivers and Lakes

- a) The location and extent of the proposed activity.
- b) The frequency and timing of the activity.
- c) An assessment of the environmental effects of the activity including:
 - i) the potential effects on bed and bank stability,
 - ii) the extent to which the activity will adversely affect areas of significant indigenous vegetation and significant habitats of indigenous fauna⁷,
 - iii) the extent to which the activity will adversely affect the natural character of the water body,
 - iv) the extent to which the activity will affect neighbouring or downstream properties,
 - v) the extent to which the activity will affect any lawfully established structure,
 - vi) the extent to which the activity will affect tangata whenua values,
 - vii) the effects on the uses and values of the water body.
- d) A description of the type and numbers of livestock that will be entering or crossing the river or lake bed.
- e) A description of the morphology of the river or lake bed.

8.1.4 Land and Soil

8.1.4.1 Soil Disturbance, Roding and Tracking, Vegetation Clearance and Riparian Vegetation Clearance

- a) Volume, area, length and batter height of the proposed activity.
- b) The proposed start and completion times of the activity.
- c) Description of the topography, soil type and vegetation.
- d) What effects the activity will have on the environment including:
 - i) the potential effects on soil erosion, slope stability, adjacent water bodies and water quality,
 - ii) the extent to which the activity will adversely affect areas of significant indigenous vegetation and significant habitats of indigenous fauna⁸,
 - iii) the extent to which the activity will affect sites of significance to tangata whenua as Kaitiaki,
 - iv) the extent to which the activity will affect neighbouring properties,
 - v) the extent to which the activity will affect any lawfully established structure,
 - vi) the effects on the uses and values of adjacent water bodies,
 - vii) the effects on uses and values of adjacent water bodies as identified in the Regional Coastal Plan.
- e) The design and construction methods to be used.
- f) The method of vegetation clearance to be used.
- g) Methods to control water and sediment run-off from the site.

8.1.4.2 Soil Disturbance/Vegetation Clearance in Karst Landscapes

In addition to the information requirements for soil disturbance, roding and tracking, vegetation clearance and riparian vegetation set out in Section 8.1.4.1, the following information should be supplied with consent application to undertake soil disturbance or vegetation clearance in karst landscapes:

- a) Information on the significance, location and length of the cave system being affected by the activity. Where the cave is nationally or regionally significant, this should include a survey that identifies entrances, stream resurgences and sinks.
- b) An assessment of the state of the cave's ecosystem and the likely long- and short-term effects of the activity on those ecosystems.

⁷ Refer to Appendix 3 of the RPS.

⁸ Refer to Appendix 3 of the RPS.

- c) Measures to be taken to avoid, remedy, or mitigate the effects of the activity on the cave's flow regimes, climate (especially humidity and temperature) and ecosystems.
- d) Measures to avoid, remedy, or mitigate any adverse effects on downstream caves or landowners affected by the activity.
- e) Measures to avoid, remedy or mitigate any adverse effects on the relationship tangata whenua as Kaitiaki have with karst landscapes.

8.1.4.3 Cleanfill, Landfill Overburden and Sediment/Vegetation Disposal Sites

- a) Volume, area, length and batter height of the proposed activity.
- b) The proposed start and completion times of the activity.
- c) Description of the topography, soil type and vegetation.
- d) What effects the activity will have on the environment including:
 - i) the potential effects on soil erosion, slope stability (including the potential to exacerbate pre-existing deep seated land instability), adjacent water bodies and water quality,
 - ii) the extent to which the activity will adversely affect areas of significant indigenous vegetation and significant habitats of indigenous fauna⁹,
 - iii) the extent to which the activity will affect sites of significance to tangata whenua as Kaitiaki,
 - iv) the extent to which the activity will affect neighbouring properties,
 - v) the extent to which the activity will affect any lawfully established structure.
 - vi) the extent to which the activity will affect any cave system, wetland or geothermal feature,
 - vii) the extent to which the discharge will comply with the requirements of Policy 1 in Chapter 6.1 of this Plan with regard to objectionable effects from particulate matter,
 - viii) the effects on the uses and values of adjacent water bodies,
 - ix) the effects on uses and values of adjacent water bodies as identified in the Regional Coastal Plan.
- e) The design and construction methods to be used.
- f) Methods to control water and sediment run-off from the site.
- g) The characteristics and sources of the material to be received at the site, and the measures to ensure that the material meets the definition of cleanfill or overburden in this Plan.
- h) An assessment of the acid drainage potential of the material.
- i) Methods to control airborne particulate matter.
- j) Any measure necessary to rehabilitate the land following the completion of activity.

8.1.4.4 Farm Dumps and Offal Holes

- a) The intended size of the facility.
- b) The proposed start and completion times of the activity.
- c) Description of the topography of the site.
- d) The location of the site relative to neighbouring properties, water bodies, cave entrances, wetlands and geothermal features.
- e) The characteristics, composition, source and volume of substances being discharged or likely to be discharged in the future, and any likely by-products occurring from the degradation of these substances.
- f) The characteristics of the receiving environment, including the current and likely future uses of that environment.
- g) The mitigation measures, safeguards and contingency plans to be undertaken to prevent or reduce the actual and potential adverse environment effects of the operation.

⁹ Refer to Appendix 3 of the RPS.

- h) Provisions for the handling of any noxious or hazardous wastes, and the acceptance criteria and degree of pre-treatment that will be required prior to disposal of any such wastes at the site.
- i) The effect of the activity on any cultural heritage site or area, including sites of significance to tangata whenua as Kaitiaki.
- j) The effect of the activity on areas of significant indigenous vegetation, significant habitats of indigenous fauna¹⁰ and significant natural features such as cave and karst systems.
- k) The extent to which the discharge will comply with the effects listed in Policy 1 in Chapter 6.1 of this Plan, with regard to objectionable odour.

8.1.4.5 New and Currently Operating Landfills

- a) A description of the site, intended size of the facility, and the intended opening and closure dates of the facility.
- b) A Landfill Development and Management Plan detailing, among other items, the:
 - i) basis of the landfill management strategy,
 - ii) terms of site operation,
 - iii) design details,
 - iv) development works,
 - v) plan for operating the landfill (including factors such as stormwater management, landfill gas management and leachate management),
 - vi) provisions to be made for monitoring and record keeping,
 - vii) quality assurance and control measures.
- c) An Aftercare and Monitoring Plan for the site detailing items such as the:
 - i) basis for the Aftercare and Monitoring Strategy (including methods to be employed to manage the effects of stormwater management, leachate management, revegetation, landfill gas management and other discharges to air),
 - ii) design concepts,
 - iii) restoration works,
 - iv) landfill site aftercare,
 - v) monitoring and record keeping,
 - vi) quality assurance and control measures.
- d) The location of the site relative to any water body, high risk erosion area, cave or cave entrance, significant geothermal feature, and any areas prone to natural hazard events such as land instability, earthquakes or floods.
- e) The extent to which the activity will affect areas of significant indigenous vegetation, significant habitats of indigenous fauna¹¹ and significant natural features such as cave and karst systems.
- f) Waste acceptance criteria and provisions for the handling of any noxious or hazardous wastes including an indication of the degree of pre-treatment that will be required prior to disposal of any such wastes at the site.
- g) The extent to which the landfill will affect the uses and values of any nearby surface water body as identified in the Water Management Class Maps of this Plan.
- h) The extent to which the discharge will comply with Policy 1 in Chapter 6.1 with regard to objectionable odour and particulate matter effects.
- i) The presence, in any discharge to air, of any hazardous air contaminants as listed in Chapter 6.7 of this Plan.
- j) The extent to which any discharge to air creates actual or potential effects on the global atmosphere (within the scope of government policy).
- k) The characteristics, compositions and volume of substances being discharged or likely to be discharged in the future, and any likely by-products occurring from the degradation of these substances.

¹⁰ Refer to Appendix 3 of the RPS.

¹¹ Refer to Appendix 3 of the RPS.

- l) The characteristics of the receiving environment, including the current and likely future uses of that environment.
- m) The mitigation measures, safeguards and contingency plans to be undertaken to prevent or reduce the actual and potential adverse environmental effects of the operation, including the degree of containment to be provided.
- n) The extent to which the activity will affect archaeological sites, waahi tapu or other sites of significance to tangata whenua as Kaitiaki.

8.1.4.6 Closed Landfills

- a) A description of any actual or potential adverse effects on land, water and air arising from any discharges emanating from the site.
- b) The action that is to be taken to avoid, remedy or mitigate any adverse effects of these discharges.
- c) An assessment of the extent to which the discharges can comply with the water classification for affected water bodies as identified in the Water Management Class Maps of this Plan.
- d) The extent to which any discharge to air will comply with Policy 1 in Chapter 6.1, with regard to objectionable effects from odour and particulate matter effects.
- e) The presence, in any discharge to air, of any hazardous air contaminants as listed in Chapter 6.7.
- f) The extent to which any discharge to air creates actual or potential effects on the global atmosphere (within the scope of government policy).
- g) An Aftercare and Monitoring Plan for the site, details items such as:
 - i) basis for the Aftercare and Monitoring Strategy (including methods to be employed to manage the effects of stormwater management, leachate management, revegetation, landfill gas management and other discharges to air),
 - ii) design plan for any works to be undertaken,
 - iii) restoration works,
 - iv) landfill site aftercare,
 - v) monitoring and record keeping,
 - vi) quality assurance and control measures.
- h) The location of the site relative to any water body, high risk erosion area, cave or cave entrance, significant geothermal feature, and any areas prone to natural hazard events such as deep seated land instability, earthquakes or floods.
- i) The effect of the activity on areas of significant indigenous vegetation, significant habitats of indigenous fauna¹² and significant natural features such as cave and karst systems.
- j) The composition and quantity of waste disposed of at the site and the length of time since the site closed.

8.1.4.7 Composting Operations

- a) The location and size of the site.
- b) A description of the site including proximity of neighbours and prevailing wind directions.
- c) Measures to be used to control and monitor the level of hazardous substances and other contaminants in the compost.
- d) The location of the site relative to any water body, high risk erosion area, wetland, cave or cave entrance or significant geothermal feature, and any areas prone to natural hazard events such as deep seated land instability, earthquakes or floods.
- e) The extent to which the discharge will affect the uses and values of any nearby surface water body as identified in the Water Management Class Maps.
- f) The extent to which the discharge will comply with Policy 1 in Chapter 6.1, with regard to objectionable odour and particulate matter effects.
- g) The extent to which the activity will impact upon neighbouring properties.

¹² Refer to Appendix 3 of the RPS.

- h) The effect of the activity on areas of significant indigenous vegetation, significant habitats of indigenous fauna¹³ and significant natural features such as cave and karst systems.
- i) Any measures necessary to rehabilitate the land following the completion of the activity.
- j) Any contingency measures in place to address a failure to sell composted product.
- k) Measures to be adopted to manage stormwater and leachate.
- l) The methods to be used to manufacture the compost.

8.1.4.8 Dust Suppressants

- a) The nature, concentration and characteristics of the contaminant and any impurities within the substance, and the extent to which they may cause chronic or acute human health effects or effects such as objectionable odour, or adverse effects on flora, fauna and ecosystems.
- b) The extent to which the discharge may contaminate soils, and measures for monitoring and responding to changes in these levels.
- c) The extent to which the discharge will affect the uses and values of any surface water body as identified in the Water Management Class Maps.
- d) The method of application (including the loading rate, viscosity, site specific characteristics and time of application).
- e) The proximity of occupied dwelling houses, public land, sealed roads and other land uses that are sensitive to the effects of the compound being used.
- f) The methods to be used to prevent discharges to water.
- g) Availability and suitability of alternative dust suppression products.

8.1.5 Air

8.1.5.1 Chapter 6.1 – Discretionary and Non Complying Activity Rules

- a) The extent to which the Regional Ambient Air Quality Guidelines are complied with.
- b) The extent to which the discharge will have an adverse effect on ambient air quality.
- c) The extent to which the discharge will have an actual or potential adverse effect on the existing air quality characteristics of an area.
- d) The extent to which the discharge will have an adverse effect on human health and the health of flora and fauna.
- e) The extent to which the discharge will have an adverse effect on amenity values, including any objectionable effects as a result of an odour or particulate discharge (refer also to Guidelines for Assessment in Chapter 6.4).
- f) The extent to which the frequency, intensity, duration, offensiveness and location of the discharge causes adverse effects.
- g) The extent to which the discharge will be reduced at source.
- h) The nature of the discharge and the extent to which it is hazardous (refer Hazardous Air Contaminants List in Chapter 6.7).
- i) The existing air discharge sources in the area (point and non-point).
- j) The influence of meteorology and topography on the discharge.
- k) The extent to which the method of discharge is the most efficient and effective means of carrying out an activity.
- l) The extent to which any alternative location or method(s) of discharging any contaminant, such as into a different medium, was considered.
- m) Whether the option minimises any adverse effects on the environment.
- n) The extent to which tangata whenua as Kaitiaki concerns have been recognised and provided for.

¹³ Refer to Appendix 3 of the RPS.

- o) The extent to which the activity will have the potential to affect significant heritage sites¹⁴ or areas of historic and cultural significance.
- p) The extent to which the discharge creates actual or potential effects on other receiving environments (i.e. land or water).
- q) The extent of any consultation undertaken (as per the reporting requirements in Schedule Four of the RMA).
- r) The extent to which the discharge creates actual or potential effects on the global atmosphere (within the scope of central government policy).
- s) The extent to which to which the discharge creates cumulative effect which may arise over time or in combination with other effects.
- t) Any effects of low probability but high potential impact.
- u) Whether management plans and contingency plans have been provided.
- v) The risk of abnormal emissions and the level of control employed.
- w) The extent to which relevant codes of practice or other guidelines are adhered to.
- x) The extent to which the discharge may affect aircraft safety.
- y) Any other relevant matters.

8.1.5.2 Chapter 6.2 – Discretionary Activity Rule – Discharge of Agrichemicals to Air

- a) The proximity of occupied dwelling houses, public land and other areas where people reside or congregate, in relation to the proposed activity.
- b) The sensitivity of neighbouring land uses and features.
- c) The effect of prevailing weather conditions, including wind speed and direction.
- d) The extent to which the agrichemical causes, or is linked to, chronic or acute human health effects, odour, annoyance, and adverse effects on amenity values.
- e) The extent to which the agrichemical causes adverse effects on non-target flora, fauna and ecosystems (particularly water).
- f) The type of agrichemical and carrying agent to be discharged.
- g) The proposed method of application, including the type of spray equipment to be used, the spray volume and droplet size, the direction of the spraying and the height of release above the ground.
- h) The nature of any training undertaken by the operator in respect of the use of agrichemicals.
- i) The extent to which the applicator can avoid spray drift.
- j) Records to be kept and notification of potentially affected parties to be undertaken.

8.1.5.3 Further Information – Modelling From Consent Applicants

Chapter 6.4 of the Plan gives an indication of when modeling is likely to be required for investigating objectionable effects as a result of odour and particulate mater. Modelling may also be necessary for investigating other contaminants and their effects. Applicants should consult Waikato Regional Council in the early stages of preparing a consent application to determine whether dispersion modelling is required for the assessment.

The applicant should model contaminant levels that result in predicted ground level concentrations that are likely to be of an order of magnitude that would be of concern. Waikato Regional Council considers that the use of dispersion modelling is particularly relevant for evaluating various upgrade scenarios, such as investigating the effects as a result of installing air pollution control equipment. Applicants should model the expected normal emissions as well as the likely worst case emissions. If the worst case assessment is well within accepted criteria then there should be no need for any further assessment.

¹⁴ Refer to Appendix 4 of the RPS

In general, the information provided with an air dispersion model should include discussion on the use of the dispersion models together with the use of terrain information and meteorological data. The information presented will need to include summaries of all input data and assumptions used in the model, the justification for the choice of model and the modes in which it is run, a discussion of uncertainties and model output tables. The modelling then needs to be interpreted with reference to relevant ambient guidelines and other criteria.

Waikato Regional Council requires the following specific information to be submitted with a modelling assessment:

- a) A discussion of the model and the justification for the use of the particular model.
- b) How particular model settings were used and other model assumptions were made.
- c) The influence of terrain and other local effects such as sea breezes.
- d) A description of the contaminants in the discharge.
- e) The source emission data used in the model and other model input data such as stack and building dimensions.
- f) A description of the meteorological data used.
- g) Tables and graphical presentations of the predicted maximum ground level concentrations for each contaminant at regular and appropriate intervals from the discharge points.
- h) Model output tables.
- i) A comparison of the predicted maximum ground level concentrations with the appropriate guideline or other criteria.
- j) Model interpretation including a discussion and conclusions on the likely effects on the environment taking into account background levels of contaminants and other sources in the vicinity as appropriate and a discussion on model uncertainties.

8.1.6 Geothermal

These requirements are intended to apply to development of deep geothermal reservoirs and should be read in conjunction with the general requirements set out in Section 8.1.2.

8.1.6.1 Development of Deep Geothermal Reservoirs – Rules 7.6.1.4, 7.6.1.5, 7.6.1.6, 7.6.1.7, 7.6.1.8, 7.6.2.3 and 7.6.2.4 of this Plan.

- a) Project description noting:
 - i) process intended
 - ii) reservoir management strategy
 - iii) production wells
 - iv) reinjection wells
 - v) well drilling
 - vi) well testing
 - vii) separation plant
 - viii) steamfield and other pipe work
 - ix) safety values
 - x) steam vents
 - xi) steamfield roading
 - xii) any steam turbine generating units and other buildings
 - xiii) cooling towers
 - xiv) drilling water and domestic water provisions
 - xv) wash down water and facilities
 - xvi) sewage disposal

- xvii) any hazardous substances used in the well drilling or routine operations of the plant
 - xviii) contingency planning in the event of emergencies.
- b) Management of stormwater.
 - c) Site access and traffic.
 - d) Construction related activities including:
 - i) earthworks
 - ii) construction facilities
 - iii) noise
 - iv) commissioning
 - v) work programme.
 - e) Description of the environment, including:
 - i) extent of the resource
 - ii) surface features
 - iii) natural heat output
 - iv) geology
 - v) hydrology
 - vi) chemistry
 - vii) ecology
 - viii) reservoir information
 - ix) ambient air quality
 - x) ambient noise
 - xi) cultural history and historical use
 - xii) social/economic environment
 - xiii) land use.
 - f) Description of all activities and emissions requiring consent.
 - g) Effects and mitigation:
 - i) Alternatives considered:
 - location
 - cooling
 - gas and fluid disposal
 - plant
 - water supply.
 - ii) Actual and potential effects on:
 - geothermal resources
 - subsurface effects
 - surface thermal activity
 - ground water
 - surface waters
 - subsidence
 - seismicity
 - ecology
 - air quality
 - noise
 - hazardous substances
 - drilling testing of bores
 - construction
 - tangata whenua
 - other uses users of resources.
 - h) Management and monitoring:
 - i) Management plan
 - ii) Monitoring proposals:
 - well drilling and testing
 - ongoing operations

- iii) Proposed contingency plans in the event of effects exceeding acceptable thresholds
 - iv) Reporting proposals.
- i) Results of consultation:
 - i) Identification of affected and interested parties
 - ii) Identification of parties consulted
 - iii) Results of consultation with affected tangata whenua
 - iv) Results of consultation with other parties

8.1.7 Further Information

Further information may be required from the applicant in accordance with section s92 of the RMA, where Waikato Regional Council consider it necessary to better understand the nature of an activity, the effect it may have on the environment, or the ways in which adverse effects may be mitigated. Waikato Regional Council may also commission a report on any matters raised in relation to the application.

The following are circumstances in which powers under s92 of the RMA may be used:

- a) The standard application forms have not been properly completed.
- b) The application does not adequately describe the nature or location of the proposal.
- c) The application does not adequately explain any technology, facilities or processes involved, where an understanding of those aspects is considered important in understanding the likely effects of the proposal.
- d) The application does not specify, or inaccurately specifies, other consents that may be needed to undertake the activity.
- e) In the case of any controlled activity, when the application and any accompanying information is not sufficient for the Waikato Regional Council to be able to assess the matters in respect of which it has reserved control.
- f) In the case of any discretionary or non-complying activity, the application provides insufficient information:
 - i) to enable the actual or potential adverse effects of the activity to be identified
 - ii) to explain the ways in which any adverse effects are to be mitigated
 - iii) to identify other parties who may be affected
 - iv) to identify other parties who have been consulted
 - v) to understand the views of those consulted including the views of affected tangata whenua where the application has, or may have, a significant adverse effect on natural and/or physical resources.
- g) There is uncertainty regarding the need for, or purpose of, the consent.
- h) For activities that are likely to result in significant adverse effects on the environment, and there are reasonable grounds to suggest that alternative locations or methods of undertaking the activity may be both feasible and would have less adverse effects on the environment than the proposed option.
- i) A report is required to be commissioned to fully assess the effects of the activity or to audit any information provided by the applicant.