

# RESOURCE CONSENT CERTIFICATE

**Resource Consent:** AUTH130361.01.01

**File Number:** 61 52 95A

***Pursuant to the Resource Management Act 1991, the Waikato Regional Council  
hereby grants consent to:***

New Zealand Transport Agency (Regional Office)  
PO Box 973  
Waikato Mail Centre  
Hamilton 3240

*(hereinafter referred to as the Consent Holder)*

**Consent Type:** Land use

**Consent Subtype:** Land disturbance

**Activity authorised:** Undertake earthworks including: soil disturbance, roading, tracking, and vegetation clearance both within and outside of high risk erosion areas; cleanfill and overburden disposal; and, any associated discharges of contaminants to water or air in association with the Hamilton Section of the Waikato Expressway.

**Location:** Waikato Expressway: Hamilton Section

**Map Reference:** NZMS 260 S14:169:747

**Consent duration:** 35 years

**Lapsing:** This consent shall lapse ten years from the date of commencement

**Subject to the conditions overleaf:**

## ***CONDITIONS***

1. The consent holder shall ensure that the works and activities authorised by this resource consent are carried out in accordance with the conditions as set out in Schedule One.
2. In accordance with section 125 RMA, this consent shall lapse ten (10) years after the date on which it was granted unless it has been given effect to before the end of that period.

In terms of s116 of the Resource Management Act 1991, this consent commences on 25 July 2014.

## Advice notes

1. Where a resource consent has been issued in relation to any type of construction (e.g. dam, bridge, jetty) this consent does not constitute authority to build and it may be necessary to apply for a Building Consent from the relevant territorial authority.
2. This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
3. This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA).
4. The consent holder may apply to change the conditions of the resource consent under s.127 RMA.
5. The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
6. Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
7. If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.

## SCHEDULE 1 – TO BE ATTACHED TO ALL CONSENTS

1. Except as modified by the conditions below and subject to final detailed design, the activities authorised by this consent shall be undertaken in general accordance with the information provided by the applicant in the Resource Consent Applications, and supporting documents being:
  - (a) Waikato Expressway Hamilton Section Resource Consent Applications (updated in response to a request for further information pursuant to s.92 RMA 1991), November 2013 (WRC document no. 2897434)
  - (b) Information provided in response to a request for further information under section 92(1) (dated 12 November 2013) (WRC document no. 2897607)
  - (c) Waikato Expressway Hamilton Section Specialist Reports – Volume 2A, (updated in response to a request for further information pursuant to s.92 RMA 1991), November 2013 (WRC document no. 2897434)
  - (d) Waikato Expressway Hamilton Section Specialist Reports – Volume 2B, (updated in response to a request for further information pursuant to s.92 RMA 1991), November 2013 (WRC document no. 2897434)
  - (e) Document titled “*Best Practice Guidelines – Vegetation Management and Instream Works*”, Technical Report No 2007/41; and, subsequent updates approved by the Resource Use Group of the Waikato Regional Council
  - (f) Plan sets:
    - (i) Scheme Plans:

2/4/99/4204 Plan and Longitudinal Section, Sheets 6-13 and 15-20 (refer Appendix A to the Resource Consent Application (updated in response to a request for further information pursuant to s.92 RMA 1991)), November 2013.

2/4/99/4204 Plan and Longitudinal Section, Sheet 14, Revision 2

2/4/99/4204 Plan and Longitudinal Section, Sheet 21, Revision 2 (Alteration Z)

2/4/99/4204 Plan and Longitudinal Section, Sheet 22, Revision 2 (Alteration Z)

2/4/99/4204 Plan and Longitudinal Section, Sheet 23, Revision 3 (Alteration Z)

2/4/99/4204 Plan and Longitudinal Section, Sheet 38 (Revision 4).
    - (ii) Drainage Plans:

2/4/99/4204 Drainage Plan and Longitudinal Section, Sheets 75-95 (refer Appendix 1, Hamilton Section Assessment of Effects on Water (Appendix I, Volume 2B)).
    - (iii) Erosion and Sediment Control Plans:

2/4/99/4204 Erosion and Sediment Control, Sheets 99-115 (refer Appendix 7, Hamilton Section Assessment of Effects on Water (Appendix I, Volume 2B)).

2/4/99/4204 Erosion and Sediment Control, Sheets 116, Revision 1.

2. The consent holder shall be responsible for all contracted operations related to the exercise of this resource consent, and shall ensure contractors are made aware of the conditions of this resource consent relevant to their work area and ensure compliance with those conditions.
3. A copy of this resource consent shall be kept onsite at all times that physical works authorised by this consent are being undertaken, and shall be produced without unreasonable delay upon request from a servant or agent of the Waikato Regional Council.
4. All activities authorised by this consent shall be undertaken by appropriately qualified and experienced persons.

### **Construction Management Plan**

5. Prior to the commencement of construction (excluding site investigations and enabling works), the consent holder must prepare a Construction Management Plan (CMP). The purpose of the CMP is to set out practices and procedures to be undertaken during construction and commissioning activities in order to:
  - a) ensure compliance with the conditions of these consents;
  - b) minimise earthworks effects associated with construction activities;
  - c) minimise, as far as practicable, the potential for sediment runoff from the site and potential discharges to land, water and air from all earthwork activities; and
  - d) minimise hazardous substance spillages as a result of exercising this consent.
6. 'Enabling Works' for the purpose of condition 5 includes the following and similar activities: demolition and removal of buildings and structures, fencing, tree felling and removal (outside of the gully systems and except as required by condition 48 f) i. in relation to long-tailed bats), relocation of underground and overhead services (excluding transmission lines), and the establishment of site entrances.
7. The CMP shall include but not be limited to the following:
  - a) The proposed start date of the works authorised by this resource consent;
  - b) A schedule of construction activities – including sequencing;
  - c) The commencement date and expected duration of the major cut and fill operations;
  - d) The location of the major cut and fill operations;
  - e) The location of topsoil and fill stockpiles;
  - f) Proposed detailed construction methodologies for the following aspects of the project:
    - i. Staging of earthworks;
    - ii. Fill extraction and placement;
    - iii. Cutting operations;
    - iv. Dewatering of slopes cut below the groundwater level (including conveyance and treatment of flows);
    - v. Culvert construction;
    - vi. Temporary bridge construction (including access track and hardstanding work platforms);
    - vii. Bridge construction (including slope stabilisation, drilling and piling);
    - viii. Construction activities in flood prone areas including dams and stream diversions in the Mangaonua Stream and Mangaone/Mangaharakeke Stream gullies;

- g) Proposed erosion and sediment control methodologies and practices - including rehabilitation measures as required to give effect to conditions 13-39; effect to condition 40;
  - h) Proposed contaminated land management and mitigation measures as required to give
  - i) Proposed hazardous substances management and mitigation measures – including spill prevention and response measures as required to give effect to conditions 41 and 42;
  - j) Proposed dust management and mitigation measures as required to give effect to conditions 43 to 47;
  - k) Proposed measures and methodologies to address ecological issues (refer condition 48);
  - l) Proposed measures and methodologies to address archaeological matters in accordance with conditions 58 to 61;
  - m) Proposed methods and measures to ensure that construction works do not adversely affect electrical infrastructure as required to give effect to conditions 62 to 65; and
  - n) Proposed measures for minimising odour nuisance from construction vehicle exhaust gases.
8. At least 40 working days prior to undertaking construction works associated with this Project, the consent holder shall submit the CMP to the Waikato Regional Council for approval - acting in a technical certification capacity - that the CMP satisfies the requirements of condition 5. Any changes proposed to the CMP shall be confirmed in writing by the consent holder and certified in writing by the Waikato Regional Council, prior to the implementation of any changes proposed.
9. The consent holder shall undertake all activities authorised by this consent in accordance with the certified CMP and any certified changes.

**Advice Note:**

*The designations for the Hamilton Section of the Waikato Expressway also include conditions that require the preparation and implementation of a CMP. It is considered appropriate that one CMP be prepared by the Consent Holder/Requiring Authority which meets the conditions of this resource consent and the conditions of the designation.*

10. The consent holder shall appoint a representative(s) prior to the exercise of this resource consent who shall be the Waikato Regional Council's principal contact person(s) in regard to matters relating to this resource consent. The consent holder shall inform the Waikato Regional Council of the representative's name and how they can be contacted, prior to this resource consent being exercised. Should that person(s) change during the term of this resource consent, the consent holder shall immediately inform the Waikato Regional Council and shall also give written notice to the Waikato Regional Council of the new representatives name and how they can be contacted.
11. Prior to exercising this consent the consent holder shall establish a sediment control team which is to be managed by an appropriately qualified person experienced in erosion and sediment control and associated environmental issues. The sediment control team shall consist of personnel who have clearly defined roles and responsibilities to monitor compliance with the consent conditions and will be available to meet with the Waikato Regional Council monitoring personnel on a weekly basis, or as otherwise agreed in writing, to review erosion and sediment control issues. The person managing the sediment control team shall:
- a) Be experienced in erosion and sediment control implementation and monitoring;
  - b) Be recognised by his/her peers as having a high level of knowledge and skill as appropriate for the role;

- c) Have completed recognised training in erosion and sediment control; and
  - d) Be approved in writing by the Waikato Regional Council.
12. The consent holder shall arrange and conduct a pre-construction site meeting and invite, with a minimum of 10 working days notice, the Waikato Regional Council, the site representative(s) nominated under conditions 10 and 11, the contractor, and any other party representing the consent holder prior to any work authorised by this consent commencing on site.

**Advice Note:**

*In the case that any of the invited parties, other than the site representative, does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.*

**Erosion and Sediment Control**

13. The erosion and sediment control measures to be included in the CMP shall as a minimum be based upon and incorporate all the relevant principles and practices for the activity authorised by this consent and contained within the Waikato Regional Council document titled “*Erosion and Sediment Control – Guidelines for Soil Disturbing Activities*” (Technical Report No. 2009/02 – dated January 2009), and shall include, but not be limited to, the following;
- a) Details of all principles, procedures and practices that will be implemented to undertake erosion and sediment control to minimise the potential for sediment discharge from the site, including flocculation if required;
  - b) The design criteria and dimensions of all key erosion and sediment control structures;
  - c) A site plan of a suitable scale to identify;
    - i. The locations of waterways;
    - ii. The locations of permanent stream diversions in the Manganua and Mangaharakeke/Mangaone gullies;
    - iii. The extent of soil disturbance and vegetation removal;
    - iv. Any “no go” and/or buffer areas to be maintained undisturbed adjacent to watercourses;
    - v. Areas of cut and fill;
    - vi. Locations of topsoil stockpiles;
    - vii. All key erosion and sediment control structures;
    - viii. The boundaries and area of catchments contributing to all stormwater impoundment structures;
    - ix. The locations of all specific points of discharge to the environment;
    - x. The location and details of stream stabilisation works in areas of damming, diversion or clearing; and
    - xi. Any other relevant site information
  - d) Construction timetable for the erosion and sediment control works and the bulk earthworks proposed;
  - e) Timetable and nature of progressive site rehabilitation and re-vegetation proposed;
  - f) Maintenance, monitoring and reporting procedures;
  - g) Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or the failure of any key erosion and sediment control structures;

- h) Procedures and timing for review and/or amendment to the erosion and sediment control measures listed in the CMP; and
  - i) Identification and contact details of personnel responsible for the operation and maintenance of all key erosion and sediment control structures.
14. The works authorised by this consent shall be undertaken in such a manner so as to avoid causing any new or exacerbating any existing flooding effects on adjacent land.
15. All disturbed or cut vegetation, soil or debris shall be deposited or placed in a position where it will not enter any water body or cause diversion, damming or erosion of any waterway.
16. The consent holder shall ensure that, as far as practicable, all clean water run-off from stabilised surfaces including catchment areas above the site shall be diverted away from the exposed areas via a stabilised system to prevent erosion. The consent holder shall also ensure the outfall(s) of these systems are protected against erosion.
17. The consent holder shall ensure that all erosion and sediment control structures are inspected on a weekly basis and within 24 hours of each rainstorm event that is likely to impair the function or performance of the controls. A record shall be maintained of the date and time of inspections undertaken, any maintenance requirements identified, and of maintenance undertaken to all erosion and sediment control structures. Records associated with the maintenance of all erosion and sediment control structures shall be made available to the Waikato Regional Council at all reasonable times.
18. The consent holder shall, prior to bulk earthworks commencing in an area, submit to the Waikato Regional Council "As Built Certification Statements" signed by an appropriately qualified and experienced professional certifying that erosion and sediment control structures have been constructed in accordance with the certified CMP. Certified controls shall include clean water diversion channels/bunds, sediment retention ponds and decanting earth bunds. The As Built Certification Statements shall be supplied to the Waikato Regional Council within 5 working days of the completion of the construction of those controls. Information contained in the certification statement shall include at least the following:
- a) confirmation of contributing catchment areas;
  - b) the location, capacity and design of each structure;
  - c) position of inlets and outlets;
  - d) stability of structures;
  - e) measures to control erosion; and
  - f) any other relevant matter.

**Advice Note:**

*An example template and the information required for the As Built Certification Statement can be found on the Waikato Regional Council website [www.waikatoregion.govt.nz/earthworks](http://www.waikatoregion.govt.nz/earthworks).*

**Construction Stormwater Discharges**

19. The consent holder shall ensure that all sediment-laden run-off from the site is treated by sediment retention structures. These structures are to be fully operational before bulk earthworks commence and shall be maintained to perform, as a minimum, at 80% of their operational capacity.
20. During the construction period, discharges from the work site shall not cause a conspicuous change in water colour or clarity in any flowing water body, after reasonable mixing and at a point 50 metres downstream of any point of discharge to the water body.

## Flocculation

21. Flocculation bench testing shall be undertaken prior to bulk earthworks commencing to determine if flocculation will provide a benefit (i.e. improvement) to the quality of sediment retention pond discharges. Where testing shows flocculation will benefit the quality of sediment retention pond discharges, the consent holder shall include flocculation treatment in all sediment retention ponds for the purpose of reducing sediment discharges from the site, unless the Waikato Regional Council approves otherwise in writing.
22. Unless the Waikato Regional Council approves otherwise in writing, the consent holder shall take samples of the discharges from all sediment retention ponds on the site a minimum of once per month and after all rainfall events greater than 20 millimetres in the preceding 24 hours, excepting times when there are no discharges. The consent holder shall take the samples within four hours of becoming aware of a rainfall event greater than 20 millimetres in the preceding 24 hours.

### **Advice Note:**

*The purpose of this condition is to provide an opportunity for pond discharge sampling to be required if either flocculants are being used; due to potential overdosing pH/Al issues, or where the discharge from a pond is not acceptable and actions are required (potentially including the use of flocculants) to resolve that situation.*

23. Any sampling required by this resource consent, the frequency of sampling, analyses and reporting may be altered or reduced with the written approval of the Waikato Regional Council.
24. If required, prior to the commissioning of any flocculation treatment system, the consent holder shall provide the Waikato Regional Council with a draft Flocculation Management Plan (FMP). The FMP shall be submitted to the Waikato Regional Council for approval – acting in a technical certification capacity - prior to bulk earthworks commencing. The FMP shall include as a minimum:
  - a) An analysis identifying which ponds require flocculation, this analysis taking into account;
    - i. The soil's reactivity to flocculants based on soil tests;
    - ii. The size of the contributing catchment that the pond is treating;
    - iii. The likely duration of the ponds use;
  - b) Specific design details of the flocculation system;
  - c) Monitoring (including pH and any other testing procedures), maintenance (including post-storm) and including a record system;
  - d) Details of optimum dosage (including assumptions);
  - e) Results of any initial flocculation trial;
  - f) A spill contingency plan; as set out within the requirements of condition 41;
  - g) Contact details of the person responsible for the operation and maintenance of the flocculation treatment system and the organisational structure to which this person shall report.
25. Any changes proposed to the FMP shall be confirmed in writing by the consent holder and approved in writing by the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.
26. Unless site specific analysis provides evidence to the contrary, as detailed in the FMP, the consent holder shall ensure that:
  - a) The soluble aluminium concentration of any sediment retention pond discharge shall not exceed 0.2 grams per cubic metre; and
  - b) The pH of any sediment retention pond discharge shall not be less than 5.5 or greater than 8.5 pH units.

27. Within one working day of taking any samples required, the consent holder shall have those samples analysed for suspended solids and turbidity and, if flocculants are being used to treat any sediment retention pond, pH, and soluble aluminium. The results of the analysis shall be forwarded to the Waikato Regional Council within 7 days of the consent holder receiving results of the analysis.
28. The consent holder shall undertake all activities authorised by this consent in accordance with the certified FMP and any certified changes.

### **Machinery**

29. The consent holder shall ensure that all machinery used in the exercising of this consent is cleaned prior to being transported to/from the site to ensure that all seed and/or plant matter has been removed and documented in accordance with the document titled 'KEEP IT CLEAN - Machinery hygiene guidelines and logbook to prevent the spread of pests and weeds (June 2013)-<http://www.waikatoregion.govt.nz/Documents/Keepitclean.pdf>)

### **Stability**

30. The consent holder shall ensure that cut slopes and fill sites are individually and appropriately assessed for stability during and following individual cutting and filling operations by a suitably qualified person, and to ensure that appropriate drainage is installed at each site.

### **Winter Works**

31. The consent holder shall ensure that the site is appropriately stabilised by 30 April of each year unless otherwise approved in writing by the Waikato Regional Council. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural and including, pavement, metalling, hydro-seeding, re-vegetation and mulching) that will minimise erosion of exposed soil to the greatest extent practical.
32. Earthworks shall not be conducted during the period 1 May to 30 September inclusive during any year that this consent is current, apart from necessary maintenance works, unless approved in writing by the Waikato Regional Council.
33. Requests to undertake earthworks during the period 1 May to 30 September inclusive, for any year that this consent is current, shall be submitted in writing to the Waikato Regional Council by 1 April and shall be in the form of amendments to the certified CMP in accordance with condition 8 of this consent.

#### **Advice Note:**

*In considering a request for the continuation of winter earthworks, the Waikato Regional Council will consider a number of factors; including:*

- *The nature of the site and the winter soil disturbance works proposed;*
- *The quality of the existing/proposed erosion and sediment controls;*
- *The compliance history of the site/operator;*
- *Seasonal/local soil and weather conditions;*
- *Sensitivity of the receiving environment; and*
- *Any other relevant factor.*

### **Site Restoration and Removal of Controls**

34. The removal of any erosion and sediment control measure from any area where soil has been disturbed as a result of the exercise of this consent shall only occur after consultation with, and written approval has been obtained from, the Waikato Regional Council - acting in a technical certification capacity. In this respect, the Waikato Regional Council will need to be satisfied as to:

- a) The quality of the soil stabilisation and/or covering vegetation;
  - b) The quality of the water discharged from the rehabilitated land; and
  - c) The quality of the receiving water.
35. The consent holder shall ensure those areas of the site where earthworks have been completed are stabilised against erosion as soon as practically possible and within a period not exceeding 14 calendar days after completion of any works authorised by this consent. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural) that will minimise sediment runoff and erosion to the satisfaction of the Waikato Regional Council - acting in a technical certification capacity.
36. Re-vegetation and/or stabilisation of all disturbed areas is to be completed in accordance with the measures detailed in the document titled "*Erosion and Sediment Control – Guidelines for Soil Disturbing Activities*" (Technical Report No. 2009/02 – dated January 2009) and the approved CMP.
37. The consent holder shall undertake maintenance at those areas of the site where earthworks have been completed as necessary until vegetation is established.

### Cleanfill/Overburden

38. All material deposited during the exercising of this resource consent shall meet the definition of cleanfill contained in the glossary of terms in the Waikato Regional Plan and comply with the Acceptance Criteria specified in Tables 1, 2 and 3 below:

**Table 1: Acceptance Criteria for Heavy Metals**

Parameter	Concentration (mg/kg)
As	20
Cd	1
Cr	56
Cu	120
Hg	1
Ni	33
Pb	78
Zn	175

**Table 2: Acceptance Criteria for Volatile Organic Compounds (VOCs)**

VOCs	Concentration (mg/kg)
Benzene	1.1
Toluene	68
Ethylbenzene	53
Xylenes	48

**Table 3: Acceptance Criteria for Semi-Volatile Organic Compounds (SVOCs)**

SVOCs	Concentration (mg/kg)
Naphthalene	7.2
Acenaphthylene	50
Acenaphthene	90
Fluorene	80
Hexachlorobenzene	0.02
Phenanthrene	90
Anthracene	800
Fluoranthene	320
Pyrene	160
Benzo[a]pyrene	0.2
Gamma BHC (Lindane)	0.02
Heptachlor	0.02
Aldrin	0.02
Dieldrin	0.02
Sum of DDT, DDD and DDE	0.5
Sum of PAHs	80

39. If required by the Waikato Regional Council in writing, the consent holder shall undertake soil testing to define the concentrations of contaminants in the cleanfill and overburden imported to the site and as a consequence may be required to remove material from the site to an authorised landfill.

### **Contaminated Land**

40. The consent holder shall ensure that any discharge from the remediation of contaminated land complies with the following:
- a) Any discharge to air arising from the activity shall comply with the conditions and standards and terms in Section 6.1.8 of the Waikato Regional Plan 2012;
  - b) No contaminants from the remediation of the contaminated land shall be discharged into water or onto land unless discharged to a landfill authorised in Section 5.2.7 of the Waikato Regional Plan 2012;
  - c) The Waikato Regional Council shall be provided with the following reports prepared in compliance with Contaminated Land Management Guideline No.1: Reporting on Contaminated Sites in New Zealand (Ministry for the Environment, Wellington, NZ, updated October 2003) prior to commencement of land remediation:
    - i. detailed site investigation report; and
    - ii. site remedial action plan;
  - d) After remediation is completed, copies of the following reports prepared in compliance with Contaminated Land Management Guideline No.1: Reporting on Contaminated Sites in New Zealand (Ministry for the Environment, Wellington, NZ, updated October 2003) must be provided to the Waikato Regional Council:
    - i. site validation report;
    - ii. ongoing monitoring and management plan;
  - e) Any updates of these reports shall be provided to the Waikato Regional Council if a change in investigation, remediation and monitoring strategy occurs

### **Hazardous Substances, Contaminated Sites and Spill Response**

41. With respect to hazardous substances and contaminated sites, the CMP shall include, but not be limited to, the following matters:
- i. a list of the hazardous materials and their quantities kept on site and their storage details;
  - ii. the prevention measures that will be undertaken on site in order to avoid a spill of hazardous materials;
  - iii. the equipment available to contain and/or remove spills of hazardous materials;
  - iv. specific procedures and measures that will be undertaken when machinery is operating within close proximity to water bodies that are designed to minimise the risk of any spillages or significant leakages of hazardous materials entering the waterbody;
  - v. specific procedures and measures that will be undertaken if unrecorded contaminated sites are uncovered during the course of works;
  - vi. the training staff will receive in the use of hazardous materials spill prevention, containment and clean up measures and associated equipment;
  - vii. how the disposal of any contaminated materials arising from spills, leakages or unrecorded contaminated sites of hazardous materials will be undertaken;

- viii. the procedures involved in reporting of any such incidents to the Waikato Regional Council; and,
- ix. review procedures.

42. The Consent Holder shall notify the Waikato Regional Council as soon as is practicable, and as a minimum requirement within 12 hours, of the consent holder becoming aware of a discovery or spill of hazardous materials, fuel, oil, hydraulic fluid or other similar contaminants. The consent holder shall, within 7 days of the incident occurring, provide a written report to the Waikato Regional Council, identifying the possible causes, steps undertaken to remedy the effects of the incident and any additional measures that will be undertaken to avoid future spills.

## **Dust**

43. With respect to dust management, the CMP shall include, but not be limited to, the following matters:

- a) Measures to be employed on site to minimise dust emissions to air. Any monitoring shall be on the basis of real time and measurements shall be in the form of Total Suspended Particulate Matter (TSP). The results from the monitoring should be assessed against an effect level of  $80 \mu\text{g}/\text{m}^3$ , as a 24-hour average;
- b) Identification of roles and positions of responsibility;
- c) A list and map of all potentially sensitive locations along the alignment;
- d) Reporting procedures;
- e) Plan review procedures;
- f) Complaint receipt and response procedures; and
- g) Identification of any locations within the project area where water storage for dust suppression will be provided.

44. The CMP shall include monitoring of TSP at 223 Osborne Road and 265 Osborne Road.

45. The consent holder shall record the following in a daily log:

- a) Any dust control equipment malfunctions and remedial actions taken;
- b) Any visible emission of dust and the source;
- c) Wind speed and direction;
- d) The frequency of water cart use and the volume of water applied;
- e) The volume of water used for dust suppression other than water cart usage; and
- f) The date and signature of the person entering the information.

46. There shall be no discharge of airborne particulate matter that causes an adverse effect beyond the boundary of the site.

47. Should airborne particulate matter resulting from the exercise of this consent generate a complaint, the consent holder shall provide a written report to the Waikato Regional Council within five (5) working days of the complaint being made known to the consent holder. The report shall specify:

- (a) the cause or likely cause of the event and any factors that influenced its severity;
- (b) the nature and timing of any measures implemented by the consent holder to avoid, remedy or mitigate any adverse effects; and
- (c) the steps to be taken in future to prevent recurrence of similar events.

**Advice Note:**

Chapter 6.4 of the Waikato Regional Plan 2012 provides guidance on the assessment of the effect of odour and dust emissions.

**Ecological Management and Restoration Plan**

48. The consent holder shall develop an Ecological Management and Restoration Plan (EMRP). This EMRP shall be prepared by an appropriately qualified and experienced ecologist/s and the Plan's purpose shall be to avoid, remedy, or mitigate adverse ecological effects associated with the Project on terrestrial, wetland and perennial stream habitats and nationally "Threatened" or "At Risk" species associated with these habitat types, including long-tailed bats, Black Mudfish, other indigenous fish, other indigenous lizards, Little Shag and any rare or uncommon plants. The EMRP shall be submitted to the Waikato Regional Council for approval in a technical certification capacity that it addresses condition 48 (a) to (g), at least 40 working days prior to the commencement of works. Any subsequent changes proposed to the EMRP shall be confirmed in writing by the consent holder and certified in writing by the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed. The EMRP shall include, but not be limited to, the following matters:
- a) Measures to be undertaken by the consent holder to minimise potential adverse effects on the stand of kahikatea trees in the Mangaonua gully including: measures to identify and minimise the trees that are to be removed; measures to protect the trees that are to remain, including delineation and protection of root zones, avoidance of fill placement in root zones, avoidance of foot traffic and machinery use in root zones, avoidance of bark and branch damage; and, monitoring of the kahikatea for a minimum of three years following completion of the bridge construction works in the gully to determine whether the works have adversely affected their health, and if so, the remedial measures to be adopted.
  - b) The consent holder shall use an appropriately qualified and experienced ecologist(s) to design, implement and undertake a pre-construction survey and salvage programme targeting "Threatened" and "At Risk" birds and lizards, and "Threatened", "At Risk" or locally uncommon plants, which may be found within the locality, as residents or seasonally in the case of fauna. "Threatened" and "At Risk" species are listed in the Department of Conservation New Zealand Threat Classification System (Townsend *et al.* 2008<sup>1</sup>, Robertson *et al.* 2012<sup>2</sup>, & Hitchmough *et al.* 2010<sup>3</sup>, de Lange *et al.* 2013<sup>4</sup>) and any subsequent published updates. At least 40 working days prior to the commencement of works, the consent holder shall provide to Waikato Regional Council a report detailing the results of the pre-construction survey(s). This report is to include but not be limited to:
    - i. The habitat requirements of the species identified in clause b) above likely to be found within the locality;
    - ii. The location and relative abundance of the species identified in clause b) above found during the survey;
    - iii. Methods to avoid, remedy or mitigate adverse effects on any species identified in clause b) above and their habitats; and
    - iv. Timing for any further surveys and translocation options (if required).
  - c) Details of restoration and habitat enhancement measures that will aim to achieve no net loss of terrestrial, wetland and stream biodiversity values or natural habitat along the Expressway route (including all perennial waterways and wetlands, seepage zones and

<sup>1</sup> Townsend A.J.; de Lange P.J.; Duffy C.A.J.; Miskelly C.M.; Molloy J.; Norton D.A. 2008: *New Zealand Threat Classification System Manual*. Department of Conservation, Wellington, New Zealand.

<sup>2</sup> Robertson H.A., Dowding J.E., Elliot G.P., Hitchmough R.A., Miskelly C.M., O'Donnell C.F.J., Powlesland R.G., Sagar P.M., Scofield R.P., and Taylor G.A. 2012: Conservation status of New Zealand Birds 2012. *New Zealand Threat Classification Series* 4. Department of Conservation, Wellington. 22pp..

<sup>3</sup> Hitchmough R.A., Hoare J.M., Jamieson H., Newman D., Anderson P.J., Lettink M., and Whitaker A.H. 2010: *Conservation Status of New Zealand Reptiles, 2009*, New Zealand Journal of Zoology, 37: 3, 203-224.

<sup>4</sup> de Lange P.J., Rolfe J.R., Champion P.D., Courtney S.P., Heenan P.B., Barkla J.W., Cameron E.K., Norton D.A., and Hitchmough R.A. 2013: Conservation status of New Zealand vascular plants, 2012. New Zealand threat classification series. Department of Conservation, Wellington.

gully seeps), as a result of the Expressway construction, including impacts on in-stream habitat resulting from bridge, culvert and road construction. This is to include procedures to ensure that the gully wetlands lost during construction of the Mangaonua and Mangaone bridges are replaced by wetland habitat of an equivalent or greater area. These details shall be provided in implementation plans and shall include, but may not be limited, to the following:

- i. A minimum of 10.2 ha of ecological restoration within or contiguous with the Mangaonua and Mangaone gullies, including provisions to match restored vegetation communities to the landforms and substrate conditions at the sites following completion of construction.
- ii. For the gully floors and gully sides, in the Mangaonua and Mangaone gullies, completion of construction works including the restoration of natural landforms and substrate hydrology to all areas not permanently occupied by the constructed footprint of the Expressway.
- iii. For both the Mangaonua and Mangaone gullies a strong focus on the restoration of gully swamp forest, with a major kahikatea component, with a minimum of 4 ha to be established on the gully slopes and gully floors, in total (noting that this is part of the overall minimum of 10.2 ha to be restored). Subject to compliance with condition 15, logs from the mature kahikatea that are lost due to the project construction activities shall be placed in areas that will be subject to gully swamp forest restoration to further enhance the biodiversity of those area(s).
- iv. Plantings contiguous with and, as much as it is practicable to do so, designed to buffer the margins of the stand of mature kahikatea trees immediately adjacent to the Expressway.
- v. Wetland or seepage restoration to be undertaken in the Mangaonua and Mangaone gullies, with the areas to be restored to be specified in the ERMP. The balance of indigenous planting shall comprise mixtures of indigenous species ecologically appropriate for the landforms and habitats to be restored.
- vi. Details of the restoration and habitat enhancement measures involving indigenous revegetation to be provided in implementation plans, and where relevant, shall generally align with Wall, K and B.D. Clarkson 2006: Gully restoration guide: a guide to assist in the ecological restoration of Hamilton's gully system. Third Revised Edition. Hamilton City Council (or an updated version) and include, but may not be limited to, the following:
  - A) Design details for the stormwater treatment wetlands located adjacent to the Mangaone and Mangaonua gullies to provide indigenous wetland and terrestrial plantings, accepting that the plantings are not to conflict with the primary function of the wetlands as stormwater treatment systems. Plantings undertaken within these specific stormwater treatment systems are to be linked to and integrated with gully restoration plantings and other restoration works.
  - B) The use of eco-sourced indigenous plant species, to be matched to the habitats and site conditions where planting is to be undertaken;
  - C) The nature of any restorative planting to be undertaken, including details of timing, species, source of planting material, extent, percentage of cover provided by canopy, and location;
  - D) The use of kahikatea in plantings, in suitable sites, noting that kahikatea takes many years to provide canopy cover in revegetation plantings, and other

species will need to be planted with the kahikatea to provide additional canopy cover and closure;

- E) Monitoring and maintenance programmes for all indigenous planting until 90% indigenous canopy cover is achieved on the north facing gully slopes on pumice soils, and 90% indigenous canopy cover on the gully floor and gully terraces, except where mature exotic trees are retained for bat habitat roosting;
- F) The nature of any weed and/or pest control considered appropriate (timing, extent and location);
- G) The nature and extent of stock-proof fencing that is to be established along the margins of restoration areas;
- vii. Design and construction of wetlands to provide habitat suitable for mudfish where wetlands discharge into the Mangaonua or Mangaone/Mangaharakeke Stream gullies in the event that mudfish are discovered during construction and impacted by the works, accepting that design for the benefit of mudfish must not conflict with the primary function of the wetlands as stormwater treatment devices;
- viii. Procedures for capture and relocation of Black Mudfish;
- ix. Procedures for capture and relocation of fish associated with temporary and permanent stream diversions.

**Advice Note:**

*In relation to condition 48(c)(i), the 10.2ha of restoration area has been determined through consultation with TWWG and through the ecological assessment.*

*The restoration area provides for both ecological mitigation and for offsetting cultural effects.*

*A further 1.3ha of land may be added to the total restoration area, but this is subject to private landowner agreement and is therefore not included in the total area referenced in the condition.*

- d) Protocols and detailed methods for addressing responses to discoveries of indigenous fish and indigenous lizards during construction. These provisions shall include, as a minimum, procedures to be followed upon discovery of fish or lizards in situations where they will be destroyed if construction work continues at the site where a discovery is made, including techniques to be used to capture/contain fish and lizards and their relocation to a site(s) containing suitable habitat not to be affected by construction works.
- e) Procedures for implementing, monitoring and review of the EMRP.
- f) The consent holder shall engage an appropriately qualified and experienced bat ecologist to develop a Bat Management Plan. This plan shall address mitigation to be undertaken within, and near, the road footprint to avoid, remedy or mitigate any adverse effects from the construction and operation of the road on long-tailed bats and include, but may not be limited to, the following:
  - i. Details of measures to avoid, minimise and monitor roost removal and habitat loss (including specific minimum standards developed by an appropriately qualified and experienced bat ecologist for roost tree identification and monitoring of roost trees before their removal, recognising the limitations for determining roost tree occupancy in some situations), as well as habitat replacement and enhancement;

- ii. Details of the provision of alternative roosting sites (including where possible advanced planting of indigenous or exotic trees for roost habitat) and artificial bat roosts, that are considered suitable for that purpose by an appropriately qualified and experienced bat ecologist, installed at least six months prior to the removal of trees where bat roosts are likely to occur along the alignment;
- iii. Details of measures to minimise habitat fragmentation and other barriers to bat movement. Possible mitigation methods include the creation of bat crossing points such as “hop-overs” for bats to be formed with planting and/or earthworks, installation of bridge/tunnels/culverts, reducing the effect of road lighting by creating ‘dark zones’ at key bat habitats, aligning street lights in particular ways or the installation of baffles on lighting columns to reduce the ‘spill’ of light away from the road, accepting that lighting design for the benefit of bat movement must not conflict with the primary function of lighting for safety reasons along the Expressway;
- iv. Details of measures to reduce mortality of bats from potential collisions with vehicles as bats travel along flyways that cross the Expressway. Possible mitigation methods could include the creation of “hop-overs” for bats, as outlined above, and the use of downward-oriented street lights to discourage bats from flying low across the road, the establishment of buffer zones along the Expressway route during and after construction (e.g. hedgerows) to encourage bat avoidance of the road and maintaining important bat flyway navigational references, if deemed appropriate by an appropriately qualified and experienced bat ecologist;
- v. Details of measures to minimise disturbance from construction activities within the vicinity of any active roosts that are discovered, or already known, until such roosts are confirmed to be vacant of bats, as determined by an appropriately qualified and experienced bat ecologist using current best practice;
- vi. Details of a monitoring programme to identify and assess changes in bat activity and behavioural patterns that may occur as a result of construction and operation of the Hamilton Section of the Waikato Expressway at all locations where bats are detected during comprehensive pre-construction baseline distribution surveys required by condition 48(f)(vii). The monitoring programme should be sufficiently robust to inform the mitigation design and subsequent assessment of the effectiveness of mitigation.
- vii. Pre-construction baseline distribution surveys shall include surveys using appropriate techniques to assess bat distribution and behaviour within areas of potential bat habitat along the entire Hamilton Section of the Waikato Expressway alignment. A minimum of two surveys shall be undertaken during the months of November to April inclusive for a minimum of two monitoring seasons, immediately prior to construction commencing. Monitoring for the surveys should take place on nights when the temperature remains above ten degrees for the first two hours after sunset and little precipitation occurs. Temperature and precipitation must be recorded.
- viii. The consent holder shall engage an appropriately qualified and experienced bat ecologist(s) to assess and report on the effectiveness of measures to avoid, remedy and mitigate effects on the bats resulting from the establishment of the Hamilton Section of the Waikato Expressway. Such monitoring shall occur annually during the months of November to April inclusive, as a minimum, and the monitoring data shall initially be assessed and reported on annually for the first five years from the commencement of works authorised by this resource consent, and thereafter at five- yearly intervals for a period of 15 years from the commencement of works authorised by this consent. Where measures are found to be ineffective, the ecologist(s) shall make recommendations for additional measures to avoid, remedy and mitigate effects resulting from the establishment of the Hamilton Section of the Waikato

Expressway. Reports shall be provided to Waikato Regional Council and the Department of Conservation within two months of the completion of each assessment, and the matters contained within these reports shall be considered in accordance with the procedures for review of the EMRP required by condition 48e).

- ix. The consent holder shall implement the recommendations made by the ecologist referred to in condition 48(f)(viii) which are specified in the EMRP following review in accordance with condition 48(e) where it is practicable to do so.
- g) Measures proposed to minimise potential adverse effects on the Little Shag colony located on the Mangaonua Stream, and monitoring of nesting activity for a minimum of three years following completion of works to determine whether the works have adversely affected nesting activity. The purpose of this condition is to provide information on the effects of road construction on the colony of nesting birds, and inform future assessments of effects for other projects.

**Advice Note:**

*The requirements of condition 48 are in addition to any obligations of the consent holder in respect of absolutely protected wildlife under the Wildlife Act 1953.*

- 49. The consent holder shall provide a draft of the EMRP, or any proposed changes to the EMRP to the Department of Conservation for comment at least 20 working days prior to it being submitted to the Waikato Regional Council for certification. The consent holder shall consider for incorporation into the final version of the EMRP, or any final version of proposed changes to the EMRP any comments/suggested amendments provided by the Department of Conservation. If those comments/amendments are not incorporated into the final EMRP or final version of the proposed changes, the consent holder shall forward copies of the comments/amendments to Waikato Regional Council. The Waikato Regional Council may consider any comments or suggested amendments from the Department of Conservation and may require the consent holder to further amend the EMRP, or any proposed changes to it, before certifying the EMRP, or proposed changes.
- 50. The consent holder shall undertake all activities authorised by this consent in accordance with the approved EMRP.

The consent holder shall ensure that a copy of the certified EMRP, including any certified amendments, is kept onsite and this copy is updated within 5 working days of any amendments being certified.

**Advice Note:**

*The consent holder has undertaken to work with the Waikato Regional Council and the Department of Conservation to develop a Memorandum of Understanding addressing the establishment and implementation of a South Hamilton Bat Population Enhancement Plan. The purpose of this Plan is to promote the conservation of the local long-tailed bat population.*

## Gully Restoration

51. Prior to the commencement of construction, and following consultation with the Tangata Whenua Working Group (TWWG), the consent holder shall engage an appropriately qualified ecologist(s) to prepare a Gully Restoration Strategy (GRS). The purpose of the GRS is to develop and implement a Plan for restoration works in the Mangaonua and Mangaharakeke/Mangaone gullies. The GRS will cover the Mangaonua and Mangaharakeke/Mangaone Gullies, from the point where the Expressway crosses through to the confluence with the Waikato River, and shall include but not be limited to:
- a) The identification of key restoration areas/zones and the restoration objectives for each of these areas, including identification of plant species that would be appropriate;
  - b) High level suggestions on how to go about undertaking restoration;
  - c) Identification of potential funding sources; and d) Identification of likely costs.

**Advice Note:**

*The GRS is a desktop exercise, and does not involve any physical restoration of the gully systems.*

52. Once completed, the GRS shall be provided to the TWWG.
53. The consent holder shall prepare a Gully Restoration Implementation Plan (GRIP), identifying restoration works to be undertaken within the areas identified in Appendix 4 of Appendix 7 of the Water AEE (Appendix I, Volume 2B of the application as lodged, November 2013). The GRIP shall be consistent with the GRS, and EMRP, and be prepared in general accordance with the Gully Restoration Guide (Wall and Clarkson, 2006). The GRIP shall include, but not be limited to:
- a) A detailed restoration methodology consistent with the requirements of the EMRP, and timeline (including how it will fit with the wider construction methodology stated in the CMP certified under condition 8);
  - b) The identification of plant species to be used including:
    - a. plants for cultural practices such as Rongoa Maori;
    - b. locally sourced plant species; and
    - c. plants that will support and enhance the habitat of indigenous fauna including bats;
  - c) Identification of habitats to be restored (such as habitats for bats) – consistent with the EMRP; and
  - d) Demonstration that the restoration works to be undertaken are consistent with any restoration objectives identified in the GRS required by condition 51.
54. At least 40 working days prior to undertaking construction works associated with this Project, the consent holder shall submit the GRIP to the Waikato Regional Council for approval in a technical certification capacity that the GRIP satisfies the requirements of condition 53. Any changes proposed to the GRIP shall be confirmed in writing by the consent holder and certified in writing by the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.
55. The consent holder shall undertake all activities authorised by this consent in accordance with the certified GRIP and any certified changes.
56. The consent holder shall ensure that a copy of the certified GRIP, including any certified amendments, is kept on-site and this copy is updated within 5 working days of any amendments being certified.

## Complaints

57. If any complaints are received by the consent holder regarding the activities authorised by this consent, the consent holder shall notify the Waikato Regional Council of those complaints as soon as practicable and no later than one working day. When/if complaints are received, the consent holder shall record the following details in a Complaints Log:
- (a) Time and type of complaint, including details of the incident, e.g. duration, any effects noted;
  - (b) Name, address and contact phone number of the complainant provided);
  - (c) Location from which the complaint arose;
  - (d) The weather conditions and wind direction at the time of any dust complaint;
  - (e) The likely cause of the complaint;
  - (f) The response made by the consent holder including any corrective action undertaken by the consent holder in response to the complaint; and
  - (g) Future actions proposed as a result of the complaint.

The register shall be available to the Waikato Regional Council at all reasonable times. Complaints received by the consent holder that may indicate non-compliance with the conditions of this resource consent shall be forwarded to the Waikato Regional Council in writing within 24 hours of the complaint being received.

## Archaeology

58. Prior to the commencement of construction the consent holder shall provide the Waikato Regional Council with evidence that Archaeological Authorities under the Heritage New Zealand Pouhere Taonga Act 2014 have been obtained from Heritage New Zealand as appropriate, to modify, damage or destroy any of the known archaeological sites likely to be affected during the construction works. Alternatively, the consent holder shall provide evidence that Archaeological Authorities are not necessary. As a minimum when assessing whether Authorities are required, consideration should be given to:
- (i) The unrecorded ditch and bank in the vicinity of Cherry Lane
  - (ii) Those parts of Cambridge Road where pre-1900 fabric may exist
  - (iii) Whether archaeological monitoring is necessary in the vicinity of the recorded site S14/252
59. No later than 20 working days prior to the commencement of any earthworks or construction activities (excluding enabling works as defined in condition 6), the consent holder shall submit an Archaeological Site Management Plan (ASMP) prepared by a suitably qualified archaeologist, to the Waikato Regional Council for certification. The ASMP shall be prepared following consultation with the Hamilton Section TWWG and Heritage New Zealand. The purpose of the ASMP is to describe the measures that will be taken to avoid or mitigate effects on archaeological sites within the designation. As a minimum, the ASMP shall include the following:
- (a) Measures that will be taken to protect archaeological sites from damage during construction (unless an authority has been obtained from Heritage New Zealand to destroy, damage or modify the site);
  - (b) Details of any archaeological investigations or monitoring required by any authority to destroy, damage or modify archaeological sites, or evidence required under condition 58;

- (c) An Accidental Discovery Protocol (noting that where any part of the site is operating under an Authority from Heritage New Zealand, the ADP protocols contained within that Authority shall take precedence) so that in the event that any archaeological sites, remains, artefacts, taonga (Maori artefacts) or koiwi are unearthed, dislodged, uncovered or otherwise found or discovered during the earthworks ("Discovery"), the consent holder shall:
    - (i) Advise tangata whenua, the project archaeologist, and the Waikato Regional Council as appropriate, within one day of the Discovery;
    - (ii) Cease works in any part of the project site affected by the Discovery;
    - (iii) Contact the NZ Police, Coroner and Heritage New Zealand as appropriate;
    - (iv) Undertake specific preservation measures to address any Discovery that includes water-logged or wet archaeological materials.
    - (v) Works shall not recommence in the parts of the project site affected by the Discovery until all necessary statutory authorisations or consents have been obtained; and
    - (vi) Address any other relevant matters in accordance with NZ Transport Agency's Minimum Standard Z/22 – Accidental Discovery Procedures.
  - (d) The roles and responsibilities associated with managing the archaeological aspects of the Project;
  - (e) Provision for training contractors in the archaeological requirements of the Project;
  - (f) Provision for any revisions required to the ASMP during the course of the Project. Any required revisions to the ASMP (excluding revisions relating to matters covered by condition 59(b)) shall not be implemented by the consent holder until approved in writing by the Waikato Regional Council. The Waikato Regional Council shall respond to the request for a revision to the ASMP within 10 working days or another time period agreed between all parties;
  - (g) Reporting requirements.
60. Twenty (20) working days prior to the consent holder providing the ASMP or any revisions in accordance with condition 59(f) to Waikato Regional Council, a draft version of the plan shall be provided to the TWWG established pursuant to condition 66 and to Heritage New Zealand for their review. The consent holder shall consider any feedback provided and will provide a written response within the finalised ASMP detailing:
- (a) Whether any feedback has been provided by the TWWG and the Heritage New Zealand;
  - (b) Where feedback has been provided, how it has been incorporated into the ASMP; and
  - (c) Where feedback has been provided but not been incorporated into the ASMP, the reasons why not.

61. The consent holder shall implement the certified ASMP in giving effect to this Project.

### **Transmission Lines**

62. With respect to electrical infrastructure, the consent holder (following consultation with Transpower New Zealand Ltd) shall prepare and include in the CMP, the following:
- a) Methods and measures:

- i. To ensure that the existing high voltage infrastructure can be accessed for maintenance at all reasonable times, or emergency works at all times, during construction activities;
    - ii. To appropriately manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to the overhead transmission lines;
    - iii. To ensure that no activity is undertaken during construction that would result in ground vibrations and/or ground instability likely to cause material damage to the transmission lines, including support structures; and
    - iv. To ensure that changes to the drainage patterns and runoff characteristics do not result in adverse effects from stormwater on the foundations for any high voltage transmission line support structure.
  - b) Sufficient detail to confirm that all works will comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001).
63. All activities undertaken on the site, including the construction of new buildings/structures, earthworks (filling and excavations) and/or the operation of mobile plant must comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001).
64. The consent holder shall ensure that access to high voltage transmission lines for maintenance work (at all reasonable times) and for emergency works (at all times) is not adversely affected by the activities authorised by the consents.
65. The consent holder shall ensure that all trees and vegetation planted comply with the Electricity (Hazards from Trees) Regulations 2003.

### **Tangata Whenua**

66. (a) Not less than 6 months prior to the commencement of construction, the consent holder shall invite mandated representatives of Ngaati Hauaa, Ngaati Koroki Kahukura, Ngaati Mahanga, Ngaati Wairere and Waikato Tainui to participate in a Tangata Whenua Working Group (TWWG), the purpose of which is to facilitate consultation between the consent holder and tangata whenua in respect of the activities authorised by these consents.
- (b) Provided that the invitation to participate in the TWWG has been accepted and the group has been established, then following consultation with the TWWG, the consent holder shall prepare a Waikato-Tainui Mitigation Plan (WTMP). The purpose of the WTMP is to specify and record a range of reasonable and tangible initiatives to address the matters included in the Position Statement (Appendix C of the consent application) and dated November 2013 that relate to the activities authorised by this consent.
- (c) No less than 30 working days prior to the consent holder providing the WTMP to Waikato Regional Council, the consent holder shall provide a draft version of the WTMP to the TWWG for their review. The consent holder will consider any feedback provided and will provide a written response within the finalised WTMP detailing:
- i. Whether any feedback has been provided by the TWWG; and

- ii. Where feedback has been provided, how it has been incorporated into the WTMP; and
  - iii. Where feedback has been provided but not been incorporated into the WTMP, the reasons why not.
- (d) Prior to construction commencing, the consent holder shall submit a copy of the WTMP to the Waikato Regional Council for its information.
- (e) The consent holder shall implement the WTMP as part of the construction of the Expressway.

**Advice Note:**

*Waikato Tainui and the NZTA have already established a high level contract enabling a partnership to be established for the Hamilton Section of the Waikato Expressway. Through that process, an appointee from Waikato Tainui established responsibility for determining who the project team should engage with and how that should occur. As a result, a Hamilton Section specific Tangata Whenua Working Group (TWWG) was established in late 2011. The TWWG comprises members from Ngaati Hauaa, Ngaati Koroki Kahukura, Ngaati Mahanga, Ngaati Wairere and Waikato Tainui. It is anticipated that this existing group could fulfil the role specified in these conditions*

**Review**

67. The Waikato Regional Council may during the June to July (inclusive) period in 2015 and in the same period every year thereafter serve notice on the consent holder under section 128 (1) of the Resource Management Act 1991, of its intention to review the conditions of this resource consent for the following purposes:
- (a) to review the effectiveness of the conditions of this resource consent in avoiding or mitigating any adverse effects on the environment and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions; or
  - (b) if necessary and appropriate, to require the holder of this resource consent to adopt the best practicable option to avoid, remedy or mitigate adverse effects on the environment; or
  - (c) to review the adequacy of and the necessity for monitoring undertaken by the consent holder.

**Advice Note:**

Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.

**Administration**

68. The consent holder shall pay to the Waikato Regional Council any administrative charge fixed in accordance with section 36 of the Resource Management Act 1991, or any charge prescribed in accordance with regulations made under section 360 of the Resource Management Act 1991.

# RESOURCE CONSENT CERTIFICATE

**Resource Consent:** AUTH130382.01.01

**File Number:** 61 60 19A

*Pursuant to the Resource Management Act 1991, the Waikato Regional Council hereby grants consent to:*

Waikato District Council  
Private Bag 544  
Ngaruawahia 3742

*(hereinafter referred to as the Consent Holder)*

**Consent Type:** Land use

**Consent Subtype:** Land - other

**Activity authorised:** Earthworks in a high risk erosion area

**Location:** Birchwood Lane, Tamahere

**Map Reference:** NZTM 1805918.1 E 5811950.0 N

**Consent duration:** 35 years

**Lapsing:** This consent shall lapse ten years from the date of commencement

**Subject to the conditions overleaf:**

## CONDITIONS

1. The consent holder shall ensure that the works and activities authorised by this resource consent are carried out in accordance with the conditions as set out in Schedule One.

**Advice Note: Regarding Waikato Regional Council Certification:** Several conditions require certification by the Waikato Regional Council. That certification (or withholding of certification) shall be based on the Waikato Regional Council's assessment of whether the matters being considered satisfy the relevant condition.

*In terms of s116 of the Resource Management Act 1991, this consent commences on 21 August 2014.*

### Advice notes

1. This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
2. This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA).
3. The consent holder may apply to change the conditions of the resource consent under s.127 RMA.
4. The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
5. Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
6. If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.

# RESOURCE CONSENT CERTIFICATE

**Resource Consent:** AUTH130382.02.01

**File Number:** 61 60 19A

*Pursuant to the Resource Management Act 1991, the Waikato Regional Council hereby grants consent to:*

Waikato District Council  
Private Bag 544  
Ngaruawahia 3742

*(hereinafter referred to as the Consent Holder)*

**Consent Type:** Land use

**Consent Subtype:** Bed - structure

**Activity authorised:** To install culverts in an unnamed tributary of the Mangaone Stream with an upstream catchment area of approximately 300ha.

**Location:** Birchwood Lane, Tamahere

**Map Reference:** NZTM 1805918.1 E 5811950.0 N

**Consent duration:** 35 years

**Lapsing:** This consent shall lapse ten years from the date of commencement

**Subject to the conditions overleaf:**

## CONDITIONS

1. The consent holder shall ensure that the works and activities authorised by this resource consent are carried out in accordance with the conditions as set out in Schedule One.

**Advice Note: Regarding Waikato Regional Council Certification:** Several conditions require certification by the Waikato Regional Council. That certification (or withholding of certification) shall be based on the Waikato Regional Council's assessment of whether the matters being considered satisfy the relevant condition.

*In terms of s116 of the Resource Management Act 1991, this consent commences on 21 August 2014.*

## Advice notes

1. Where a resource consent has been issued in relation to any type of construction (e.g. dam, bridge, jetty) this consent does not constitute authority to build and it may be necessary to apply for a Building Consent from the relevant territorial authority.
2. This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
3. This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA).
4. The consent holder may apply to change the conditions of the resource consent under s.127 RMA.
5. The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
6. Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
7. If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.

# RESOURCE CONSENT CERTIFICATE

**Resource Consent:** AUTH130382.03.01

**File Number:** 61 60 19A

*Pursuant to the Resource Management Act 1991, the Waikato Regional Council hereby grants consent to:*

Waikato District Council  
Private Bag 544  
Ngaruawahia 3742

*(hereinafter referred to as the Consent Holder)*

**Consent Type:** Water permit

**Consent Subtype:** Dam

**Activity authorised:** To temporarily dam and divert stream channels associated with construction activities.

**Location:** Birchwood Lane, Tamahere

**Map Reference:** NZTM 1805918.1 E 5811950.0 N

**Consent duration:** 35 years

**Lapsing:** This consent shall lapse ten years from the date of commencement

**Subject to the conditions overleaf:**

## CONDITIONS

1. The consent holder shall ensure that the works and activities authorised by this resource consent are carried out in accordance with the conditions as set out in Schedule One.

**Advice Note: Regarding Waikato Regional Council Certification:** Several conditions require certification by the Waikato Regional Council. That certification (or withholding of certification) shall be based on the Waikato Regional Council's assessment of whether the matters being considered satisfy the relevant condition.

*In terms of s116 of the Resource Management Act 1991, this consent commences on 21 August 2014.*

## Advice notes

1. Where a resource consent has been issued in relation to any type of construction (e.g. dam, bridge, jetty) this consent does not constitute authority to build and it may be necessary to apply for a Building Consent from the relevant territorial authority.
2. This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
3. This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA).
4. The consent holder may apply to change the conditions of the resource consent under s.127 RMA.
5. The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
6. Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
7. If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.

## **SCHEDULE 1**

1. Except as modified by the conditions below and subject to final detailed design, the activities authorised by this consent shall be undertaken in general accordance with the information provided by the applicant in the Resource Consent Applications, and supporting documents being:
  - a) Resource Consent Application to undertake earthworks, construct temporary and permanent culverts and divert streams in association with construction of the Tamahere East/West Link Road, October 2013 (WRC document no. 2857948);
  - b) Information provided in the report from Kessels & Associates Ltd dated 11 November 2013 (WRC document no. 3089370) in response to a report commissioned under s92(2) (WRC document no. 2869272);
  - c) Information provided in the report from Kessels & Associates Ltd dated 3 April 2014 (WRC document no. 3089367) provided in response to the s92(1) request dated 14 November 2013 (2899752).
2. The consent holder shall be responsible for all contracted operations related to the exercise of this resource consent, and shall ensure contractors are made aware of the conditions of this resource consent relevant to their work area and ensure compliance with those conditions.
3. A copy of this resource consent shall be kept onsite at all times that physical works authorised by this consent are being undertaken, and shall be produced without unreasonable delay upon request from a servant or agent of the Waikato Regional Council.
4. All activities authorised by this consent shall be undertaken by appropriately qualified and experienced persons.

### **Construction Management Plan**

5. Prior to the commencement of construction (excluding site investigations), the consent holder must prepare a Construction Management Plan (CMP). The purpose of the CMP is to set out practices and procedures to be undertaken during construction and commissioning activities in order to:
  - a) ensure compliance with the conditions of these consents;
  - b) minimise earthworks effects associated with construction activities
  - c) minimise, as far as practicable, the potential for sediment runoff from the site and potential discharges to land, water and air from all earthwork activities; and
  - d) minimise hazardous substance spillages as a result of exercising this consent.
6. The CMP shall include but not be limited to the following:
  - a) The proposed start date of the works authorised by this resource consent;
  - b) A schedule of construction activities – including sequencing;
  - c) The commencement date and expected duration of the major cut and fill operations;
  - d) The location of the major cut and fill operations;
  - e) The location of topsoil and fill stockpiles;
  - f) Proposed detailed construction methodologies for the following aspects of the project:
    - i. Staging of earthworks;
    - ii. Fill extraction and placement;
    - iii. Cutting operations;
    - iv. Culvert construction;
    - v. Access track construction (including hardstanding work platforms);

- g) Proposed erosion and sediment control methodologies and practices - including rehabilitation measures as required to give effect to conditions 12-29;
  - h) Proposed hazardous substances management and mitigation measures – including spill prevention and response measures as required to give effect to conditions 36 and 37;
  - i) Proposed dust management and mitigation measures as required to give effect to conditions 38 to 41;
  - j) Proposed measures and methodologies to address ecological issues, condition 42;
  - k) Proposed measures and methodologies to address archaeological matters in accordance with conditions 44 to 48;
7. The consent holder shall submit the CMP to satisfy the requirements of condition 5 to the Waikato Regional Council for approval - acting in a technical certification capacity:
- a) at least 40 days prior to undertaking works associated with the construction of Stage 1 of the Project (being the works located between Chainage 400m and Birchwood Lane), the consent holder shall submit the information required by conditions 6g) and 6 i); and,
  - b) at least 40 days prior to undertaking works associated with construction of Stages 2 and 3 of the Project (being the works located between Chainage 0m - 400m), the consent holder shall submit the information required by condition 6.

Any changes proposed to the CMP shall be confirmed in writing by the consent holder and certified in writing by the Waikato Regional Council, prior to the implementation of any changes proposed.

**Advice Note:**

*The intention of condition 7a) is to allow the works associated with Stage 1 to proceed without the requirement for development/approval of a full CMP with the information requirements of the CMP limited to management of potential dust effects along with the erosion and sediment plan requirements.*

8. The consent holder shall undertake all activities authorised by this consent in accordance with the certified CMP and any certified changes.
9. The consent holder shall appoint a representative(s) prior to the exercise of this resource consent who shall be the Waikato Regional Council's principal contact person(s) in regard to matters relating to this resource consent. The consent holder shall inform the Waikato Regional Council of the representative's name and how they can be contacted, prior to this resource consent being exercised. Should that person(s) change during the term of this resource consent, the consent holder shall immediately inform the Waikato Regional Council and shall also give written notice to the Waikato Regional Council of the new representatives name and how they can be contacted.
10. Prior to exercising this consent the consent holder shall establish a sediment control team which is to be managed by an appropriately qualified person experienced in erosion and sediment control and associated environmental issues. The sediment control team shall consist of personnel who have clearly defined roles and responsibilities to monitor compliance with the consent conditions and will be available to meet with the Waikato Regional Council monitoring personnel on a weekly basis, or as otherwise agreed in writing, to review erosion and sediment control issues. The person managing the sediment control team shall:
- a) Be experienced in erosion and sediment control implementation and monitoring;
  - b) Be recognised by his/her peers as having a high level of knowledge and skill as appropriate for the role;
  - c) Have completed recognised training in erosion and sediment control; and
  - d) Be approved in writing by the Waikato Regional Council.

11. The consent holder shall arrange and conduct a pre-construction site meeting and invite, with a minimum of 10 working days notice, the Waikato Regional Council, the site representative(s) nominated under conditions 9 and 10, the contractor, and any other party representing the consent holder prior to any work authorised by this consent commencing on site.

**Advice Note:**

*In the case that any of the invited parties, other than the site representative, does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.*

**Erosion and Sediment Control**

12. The erosion and sediment control measures to be included in the CMP shall as a minimum be based upon and incorporate all the relevant principles and practices for the activity authorised by this consent and contained within the Waikato Regional Council document titled “*Erosion and Sediment Control – Guidelines for Soil Disturbing Activities*” (Technical Report No. 2009/02 – dated January 2009), and shall include, but not be limited to, the following;
- a) Details of all principles, procedures and practices that will be implemented to undertake erosion and sediment control to minimise the potential for sediment discharge from the site, including flocculation if required;
  - b) The design criteria and dimensions of all key erosion and sediment control structures;
  - c) A site plan of a suitable scale to identify;
    - i. The locations of waterways;
    - ii. The extent of soil disturbance and vegetation removal;
    - iii. Any “no go” and/or buffer areas to be maintained undisturbed adjacent to watercourses;
    - iv. Areas of cut and fill;
    - v. Locations of topsoil stockpiles;
    - vi. All key erosion and sediment control structures;
    - vii. The boundaries and area of catchments contributing to all stormwater impoundment structures;
    - viii. The locations of all specific points of discharge to the environment;
    - ix. The location and details of stream stabilisation works in areas of damming, diversion or clearing; and
    - x. Any other relevant site information.
  - d) Construction timetable for the erosion and sediment control works and the bulk earthworks proposed;
  - e) Timetable and nature of progressive site rehabilitation and re-vegetation proposed;
  - f) Maintenance, monitoring and reporting procedures;
  - g) Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or the failure of any key erosion and sediment control structures;
  - h) Procedures and timing for review and/or amendment to the erosion and sediment control measures listed in the CMP; and
  - i) Identification and contact details of personnel responsible for the operation and maintenance of all key erosion and sediment control structures.
13. The works authorised by this consent shall be undertaken in such a manner so as to avoid causing any new or exacerbating any existing flooding effects on adjacent land.
14. All disturbed or cut vegetation, soil or debris shall be deposited or placed in a position where it will not enter any water body or cause diversion, damming or erosion of any waterway.

15. The consent holder shall ensure that, as far as practicable, all clean water run-off from stabilised surfaces including catchment areas above the site shall be diverted away from the exposed areas via a stabilised system to prevent erosion. The consent holder shall also ensure the outfall(s) of these systems are protected against erosion.
16. The consent holder shall ensure that all erosion and sediment control structures are inspected on a weekly basis and within 24 hours of each rainstorm event that is likely to impair the function or performance of the controls. A record shall be maintained of the date and time of inspections undertaken, any maintenance requirements identified, and of maintenance undertaken to all erosion and sediment control structures. Records associated with the maintenance of all erosion and sediment control structures shall be made available to the Waikato Regional Council at all reasonable times.

### **Construction Stormwater Discharges**

17. The consent holder shall ensure that all sediment-laden run-off from the site is treated by sediment retention structures. These structures are to be fully operational before bulk earthworks commence and shall be maintained to perform, as a minimum, at 80% of their operational capacity.
18. During the construction period, discharges from the work site shall not cause a conspicuous change in water colour or clarity in any flowing water body, after reasonable mixing and at a point 50 metres downstream of any point of discharge to the water body.

### **Machinery**

19. The consent holder shall ensure that all machinery used in the exercising of this consent is cleaned prior to being transported to/from the site to ensure that all seed and/or plant matter has been removed and documented in accordance with the document titled 'KEEP IT CLEAN - Machinery hygiene guidelines and logbook to prevent the spread of pests and weeds, June 2013 (<http://www.waikatoregion.govt.nz/Documents/Keepitclean.pdf>).

### **Stability**

20. The consent holder shall ensure that cut slopes and fill sites are individually and appropriately assessed for stability during and following individual cutting and filling operations by a suitably qualified person, and to ensure that appropriate drainage is installed at each site.

### **Winter Works**

21. The consent holder shall ensure that the site is appropriately stabilised by 30 April of each year unless otherwise approved in writing by the Waikato Regional Council. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural and including, pavement, metalling, hydro-seeding, re-vegetation and mulching) that will minimise erosion of exposed soil to the greatest extent practical.
22. Earthworks shall not be conducted during the period 1 May to 30 September inclusive during any year that this consent is current, apart from necessary maintenance works, unless approved in writing by the Waikato Regional Council.

23. Requests to undertake earthworks during the period 1 May to 30 September inclusive, for any year that this consent is current, shall be submitted in writing to the Waikato Regional Council by 1 April and shall be in the form of amendments to the certified CMP in accordance with condition 7 of this consent.

**Advice Note:**

*In considering a request for the continuation of winter earthworks, the Waikato Regional Council will consider a number of factors; including:*

- *The nature of the site and the winter soil disturbance works proposed;*
- *The quality of the existing/proposed erosion and sediment controls;*
- *The compliance history of the site/operator;*
- *Seasonal/local soil and weather conditions;*
- *Sensitivity of the receiving environment; and*
- *Any other relevant factor.*

**Site Restoration and Removal of Controls**

24. The removal of any erosion and sediment control measure from any area where soil has been disturbed as a result of the exercise of this consent shall only occur after consultation with, and written approval has been obtained from, the Waikato Regional Council - acting in a technical certification capacity. In this respect, the Waikato Regional Council will need to be satisfied as to:
- a) The quality of the soil stabilisation and/or covering vegetation;
  - b) The quality of the water discharged from the rehabilitated land; and
  - c) The quality of the receiving water.
25. The consent holder shall ensure those areas of the site where earthworks have been completed are stabilised against erosion as soon as practically possible and within a period not exceeding 14 calendar days after completion of any works authorised by this consent. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural) that will minimise sediment runoff and erosion to the satisfaction of the Waikato Regional Council - acting in a technical certification capacity.
26. Re-vegetation and/or stabilisation of all disturbed areas is to be completed in accordance with the measures detailed in the document titled "*Erosion and Sediment Control – Guidelines for Soil Disturbing Activities*" (Technical Report No. 2009/02 – dated January 2009) and the approved CMP.
27. The consent holder shall undertake maintenance at those areas of the site where earthworks have been completed as necessary until vegetation is established.

**Cleanfill/Overburden**

28. All material deposited during the exercising of this resource consent shall meet the definition of cleanfill contained in the glossary of terms in the Waikato Regional Plan and comply with the Acceptance Criteria specified in Tables 1, 2 and 3 below:

**Table 1: Acceptance Criteria for Heavy Metals**

Parameter	Concentration (mg/kg)
As	20
Cd	1
Cr	56
Cu	120
Hg	1
Ni	33
Pb	78
Zn	175

**Table 2: Acceptance Criteria for Volatile Organic Compounds (VOCs)**

VOCs	Concentration (mg/kg)
Benzene	1.1
Toluene	68
Ethylbenzene	53
Xylenes	48

**Table 3: Acceptance Criteria for Semi-Volatile Organic Compounds (SVOCs)**

SVOCs	Concentration (mg/kg)
Naphthalene	7.2
Acenaphthylene	50
Acenaphthene	90
Fluorene	80
Hexachlorobenzene	0.02
Phenanthrene	90
Anthracene	800
Fluoranthene	320
Pyrene	160
Benzo[a]pyrene	0.2
Gamma BHC (Lindane)	0.02
Heptachlor	0.02
Aldrin	0.02
Dieldrin	0.02
Sum of DDT, DDD and DDE	0.5
Sum of PAHs	80

29. If required by the Waikato Regional Council in writing, the consent holder shall undertake soil testing to define the concentrations of contaminants in the cleanfill and overburden imported to the site and as a consequence may be required to remove material from the site to an authorised landfill.

### **Culverts**

30. The consent holder shall be responsible for the design, structural integrity and maintenance of the culverts and for any erosion control works that become necessary to preserve the integrity and stability of the waterway channel and/or to control erosion.

31. The consent holder shall consult with and submit final detailed engineered culvert designs and construction methodologies for the culverts for certification by the Waikato Regional Council - acting in a technical certification capacity, at least 40 working days prior to any works authorised by this consent commencing and the consent holder shall undertake all activities authorised by this consent in accordance with the certified culvert designs and construction methodologies.
32. The culvert structures authorised by this consent shall be designed, constructed and maintained in such a manner so as to avoid causing any new or exacerbating any existing flooding effects on adjacent and upstream land.
33. The permanent 75m long arch culvert shall include a meandering stream channel within the culvert to create habitat variability and rock layout within the channel shall be submitted to the Waikato Regional Council for approval.
34. All pipe culverts shall be countersunk a minimum of 250 mm below natural river bed level to provide for fish passage.
35. Rip-rap erosion protection shall be provided at the outlets to all culverts.

### **Hazardous Substances and Spill Response**

36. With respect to hazardous substances and contaminated sites, the CMP shall include, but not be limited to, the following matters:
  - a) a list of the hazardous materials and their quantities kept on site and their storage details;
  - b) the prevention measures that will be undertaken on site in order to avoid a spill of hazardous materials;
  - c) the equipment available to contain and/or remove spills of hazardous materials;
  - d) specific procedures and measures that will be undertaken when machinery is operating within close proximity to water bodies that are designed to minimise the risk of any spillages or significant leakages of hazardous materials entering the waterbody;
  - e) the training staff will receive in the use of hazardous materials spill prevention, containment and clean up measures and associated equipment;
  - f) how the disposal of any contaminated materials arising from spills or leakages of hazardous materials will be undertaken;
  - g) the procedures involved in reporting of any such incidents to the Waikato Regional Council; and,
  - h) review procedures.
37. The Consent Holder shall notify the Waikato Regional Council as soon as is practicable, and as a minimum requirement within 12 hours, of the consent holder becoming aware of a discovery or spill of hazardous materials, fuel, oil, hydraulic fluid or other similar contaminants. The consent holder shall, within 7 days of the incident occurring, provide a written report to the Waikato Regional Council, identifying the possible causes, steps undertaken to remedy the effects of the incident and any additional measures that will be undertaken to avoid future spills.

## Dust

38. With respect to dust management, the CMP shall include, but not be limited to, the following matters:
- a) Measures to be employed on site to minimise dust emissions to air. Any monitoring shall be on the basis of real time and measurements shall be in the form of Total Suspended Particulate Matter (TSP). The results from the monitoring should be assessed against an effect level of  $80 \mu\text{g}/\text{m}^3$ , as a 24-hour average;
  - b) Identification of roles and positions of responsibility;
  - c) Reporting procedures;
  - d) Plan review procedures;
  - e) Complaint receipt and response procedures.
39. The consent holder shall record the following in a daily log:
- a) Any dust control equipment malfunctions and remedial actions taken;
  - b) Any visible emission of dust and the source;
  - c) Wind speed and direction;
  - d) The frequency of water cart use and the volume of water applied;
  - e) The volume of water used for dust suppression other than water cart usage; and
  - f) The date and signature of the person entering the information.
40. There shall be no discharge of airborne particulate matter that causes an adverse effect beyond the boundary of the site.
41. Should airborne particulate matter resulting from the exercise of this consent generate a complaint, the consent holder shall provide a written report to the Waikato Regional Council within five (5) working days of the complaint being made known to the consent holder. The report shall specify:
- a) The cause or likely cause of the event and any factors that influenced its severity;
  - b) The nature and timing of any measures implemented by the consent holder to avoid, remedy or mitigate any adverse effects; and
  - c) The steps to be taken in future to prevent recurrence of similar events.

### **Advice Note:**

*Chapter 6.4 of the Waikato Regional Plan 2012 provides guidance on the assessment of the effect of odour and dust emissions.*

## Ecological Management and Restoration Plan

42. The consent holder shall develop an Ecological Management and Restoration Plan (EMRP). This EMRP shall be prepared by an appropriately qualified and experienced ecologist/s. The EMRP's purpose shall be to avoid, remedy, or mitigate adverse ecological effects associated with the construction and operation of the Tamahere East-West link road on terrestrial, wetland and perennial stream habitats and nationally "Threatened" or "At Risk" species associated with these habitat types, including long-tailed bats, Black Mudfish, other indigenous fish and indigenous lizards. The EMRP shall be submitted to the Waikato Regional Council for approval in a technical certification capacity that it addresses condition 42 (a) to (h), at least 40 working days prior to the commencement of works – exclusive of the Stage 1 works located between Chainage 400m and Birchwood Lane. Any subsequent changes proposed to the EMRP shall be confirmed in writing by the consent holder and certified in writing by the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed. The EMRP shall include, but not be limited to, the following matters:

- a) Details of restoration and habitat enhancement measures that will aim to achieve no net loss of terrestrial, wetland and stream biodiversity values or natural habitat (including all perennial waterways and wetlands), as a result of the construction and operation of the Tamahere East/West Link Road, including impacts on in-stream habitat resulting from culvert and road construction. This is to include procedures to ensure that the gully wetlands lost during construction of the link road are replaced by wetland habitat of an equivalent or greater area. These details shall be provided in implementation plans and shall include, but may not be limited, to the following:
- i. Ecological restoration of 1.33 ha of wetland;
  - ii. Ecological restoration of 1.27 of gully slopes;
  - iii. Ecological restoration of the road batter slopes totalling 7,785 m<sup>2</sup>, with tall, fast-growing trees planted alongside the road;
  - iv. Ecological restoration of riparian margins of the entire length of any diverted streams;
  - v. Details of the restoration and habitat enhancement measures involving indigenous re-vegetation to be provided in implementation plans, and where relevant, shall generally align with Wall, K and B.D. Clarkson 2006: Gully restoration guide: a guide to assist in the ecological restoration of Hamilton's gully system. Third Revised Edition. Hamilton City Council (or an updated version) and include, but may not be limited to, the following:
    - A. The use of eco-sourced indigenous plant species, to be matched to the habitats and site conditions where planting is to be undertaken;
    - B. The nature of any restorative planting to be undertaken, including details of timing, species, source of planting material, extent, percentage of cover provided by canopy, and location;
    - C. The use of kahikatea in plantings, in suitable sites, noting that kahikatea takes many years to provide canopy cover in re-vegetation plantings, and other species will need to be planted with the kahikatea to provide additional canopy cover and closure;
    - D. Monitoring and maintenance programmes for all indigenous planting until 90% indigenous canopy cover is achieved on the north facing slopes on pumice soils, and 90% indigenous canopy cover on the gully floor and gully terraces, except where mature exotic trees are retained for bat habitat roosting;
    - E. The nature of any weed and/or pest control considered appropriate (timing, extent and location);
    - F. The nature and extent of stock-proof fencing that is to be established along the margins of restoration areas.
- b) A finalised Fish Recovery Protocol shall be developed in accordance with Draft Fish Recovery Protocol included as Attachment A to these conditions. The finalised Fish Recovery Protocol shall include details of the actions that will be taken during culvert installation and earthworks to minimise the direct loss of native freshwater fish.
- c) A lizard management protocol shall be prepared following consultation with the Department of Conservation. The purpose of the protocol shall be to minimize injury or mortality of indigenous lizards present within the construction footprint of the gully through salvage and relocation efforts by qualified and experienced ecologist(s).
- d) Procedures for implementing, monitoring and review of the EMRP.
- e) The consent holder shall engage an appropriately qualified and experienced bat ecologist to develop a Bat Management Plan. This plan shall address mitigation to be undertaken within, and near, the road footprint to avoid, remedy or mitigate any adverse effects from the construction and operation of the road on long-tailed bats and include, but may not be limited to, the following:

- i. Details of measures to avoid, minimise and monitor roost removal and habitat loss (including specific minimum standards developed by an appropriately qualified and experienced bat ecologist for roost tree identification and monitoring of roost trees before their removal, recognising the limitations for determining roost tree occupancy in some situations), as well as habitat replacement and enhancement;
- ii. Details of the provision of alternative roosting sites (including where possible advanced planting of indigenous or exotic trees for roost habitat) and artificial bat roosts, that are considered suitable for that purpose by an appropriately qualified and experienced bat ecologist, installed at least six months prior to the removal of trees where bat roosts are likely to occur along the alignment;
- iii. Details of measures to minimise habitat fragmentation and other barriers to bat movement. Possible mitigation methods include the creation of bat crossing points such as “hop-overs” for bats to be formed with planting and/or earthworks, aligning street lights in particular ways or the installation of baffles on lighting columns to reduce the ‘spill’ of light away from the road, accepting that lighting design for the benefit of bat movement must not conflict with the primary function of lighting for safety reasons along the Link Road;
- iv. Details of measures to reduce mortality of bats from potential collisions with vehicles as bats travel along flyways that cross the Link Road. Possible mitigation methods could include the creation of “hop-overs” for bats, as outlined above, and the use of downward-oriented street lights to discourage bats from flying low across the road, the establishment of buffer zones during and after construction of the Link Road (e.g. hedgerows) to encourage bat avoidance of the road and maintaining important bat flyway navigational references, if deemed appropriate by an appropriately qualified and experienced bat ecologist;
- v. Details of measures to minimise disturbance from construction activities within the vicinity of any active roosts that are discovered, or already known, until such roosts are confirmed to be vacant of bats, as determined by an appropriately qualified and experienced bat ecologist using current best practice;
- vi. Details of a monitoring programme to identify and assess changes in relative levels of bat activity that may occur as a result of construction and operation of the Link Road at all locations where bats are detected during comprehensive pre-construction baseline distribution surveys required by Section 42 e) vii). The monitoring programme should be sufficiently robust to inform the mitigation design and subsequent assessment of the effectiveness of mitigation;
- vii. Pre-construction distribution surveys shall use appropriate techniques to determine baseline levels of bat activity, and to allow accurate assessment of any future changes in relative levels of bat activity along the Link Road alignment. A minimum of two surveys shall be undertaken during the months of November to April inclusive for a minimum of two monitoring seasons, immediately prior to construction commencing. Monitoring shall also be conducted during construction, twice per year during the months of November to April inclusive. Surveys should take place on nights when the temperature remains above ten degrees for the first two hours after sunset and little precipitation occurs. Temperature and precipitation must be recorded.
- viii. The consent holder shall engage an appropriately qualified and experienced bat ecologist(s) to assess and report on the effectiveness of measures to avoid, remedy and mitigate effects on the bats resulting from the establishment of the Link Road. Such monitoring shall occur annually during the months of November to April inclusive, as a minimum, and the monitoring data shall initially be assessed and reported on annually for the first five years from the commencement of works authorised by this resource consent, and thereafter at five- yearly intervals for a period of 15 years from the completion of works authorised by this consent. Where measures are found to be ineffective, the ecologist(s) shall make recommendations for additional measures to avoid, remedy and mitigate effects resulting from the establishment of the Link Road. Reports

shall be provided to Waikato Regional Council and the Department of Conservation within two months of the completion of each assessment, and the matters contained within these reports shall be considered in accordance with the procedures for review of the EMRP required by condition 42 d).

- ix. The consent holder shall implement the recommendations made by the ecologist referred to in condition 42 e) viii) which are specified in the EMRP following review in accordance with condition 42 d) where it is practicable to do so.
- f) The consent holder shall provide a draft of the EMRP, or any proposed changes to the EMRP, to the Department of Conservation for comment at least 20 working days prior to it being submitted to the Waikato Regional Council for certification. The consent holder shall consider for incorporation into the final version of the EMRP, or any final version of proposed changes to the EMRP any comments/suggested amendments provided by the Department of Conservation. If those comments/amendments are not incorporated into the final EMRP or final version of the proposed changes, the consent holder shall forward copies of the comments/amendments to Waikato Regional Council. The Waikato Regional Council may consider any comments or suggested amendments from the Department of Conservation and may require the consent holder to further amend the EMRP, or any proposed changes to it, before certifying the EMRP, or proposed changes.
- g) The consent holder shall undertake all activities authorised by this consent in accordance with the approved EMRP.
- h) The consent holder shall ensure that a copy of the certified EMRP, including any certified amendments, is kept onsite and this copy is updated within 5 working days of any amendments being certified.

## **Complaints**

43. If any complaints are received by the consent holder regarding the activities authorised by this consent, the consent holder shall notify the Waikato Regional Council of those complaints as soon as practicable and no later than one working day. When/if complaints are received, the consent holder shall record the following details in a Complaints Log:

- a) Time and type of complaint, including details of the incident, e.g. duration, any effects noted;
- b) Name, address and contact phone number of the complainant (if provided);
- c) Location from which the complaint arose;
- d) The weather conditions and wind direction at the time of any dust complaint;
- e) The likely cause of the complaint;
- f) The response made by the consent holder including any corrective action undertaken by the consent holder in response to the complaint; and
- g) Future actions proposed as a result of the complaint.

The register shall be available to the Waikato Regional Council at all reasonable times. Complaints received by the consent holder that may indicate non-compliance with the conditions of this resource consent shall be forwarded to the Waikato Regional Council in writing within 24 hours of the complaint being received.

## Archaeology

44. Prior to the commencement of construction the consent holder shall provide the Waikato Regional Council with evidence that Archaeological Authorities under the Heritage New Zealand Pouhere Taonga Act 2014 have been obtained from Heritage New Zealand as appropriate, to modify, damage or destroy any of the known archaeological sites likely to be affected during the construction works. Alternatively, the consent holder shall provide evidence that Archaeological Authorities are not necessary.
45. No later than 4 weeks prior to the commencement of any earthworks or construction activities, the consent holder shall submit an Archaeological Site Management Plan (ASMP) prepared by a suitably qualified archaeologist, to the Waikato Regional Council for certification. The ASMP shall be prepared following consultation with the Hamilton Section TWWG and Heritage New Zealand. The purpose of the ASMP is to describe the measures that will be taken to avoid or mitigate effects on archaeological sites within the designation. As a minimum, the ASMP shall include the following:
- a) Measures that will be taken to protect archaeological sites from damage during construction (unless an authority has been obtained from Heritage New Zealand to destroy, damage or modify the site);
  - b) Details of any archaeological investigations or monitoring required by any authority to destroy, damage or modify archaeological sites, or evidence required under condition 44;
  - c) An Accidental Discovery Protocol (noting that where any part of the site is operating under an Authority from Heritage New Zealand, the ADP protocols contained within that Authority shall take precedence) so that in the event that any archaeological sites, remains, artefacts, taonga (Maori artefacts) or koiwi are unearthed, dislodged, uncovered or otherwise found or discovered during the earthworks ("Discovery"), the consent holder shall:
    - i. Advise tangata whenua, the project archaeologist, and the Waikato Regional Council as appropriate, within one day of the Discovery;
    - ii. Cease works in any part of the project site affected by the Discovery;
    - iii. Contact the NZ Police, Coroner and Heritage New Zealand as appropriate;
    - iv. Not recommence in the parts of the project site affected by the Discovery until all necessary statutory authorisations or consents have been obtained; and
    - v. Address any other relevant matters in accordance with NZ Transport Agency's Minimum Standard Z/22 – Accidental Discovery Procedures.
  - d) The roles and responsibilities associated with managing the archaeological aspects of the Project;
  - e) Provision for training contractors in the archaeological requirements of the Project;
  - f) Reporting requirements.
46. Any required revisions to the ASMP shall not be implemented by the consent holder until approved in writing by the Waikato Regional Council. The Waikato Regional Council shall respond to the request for a revision to the ASMP within 2 weeks or another time period agreed between all parties.
47. Twenty (20) working days prior to the consent holder providing the ASMP or any revisions in accordance with condition 46 to Waikato Regional Council, a draft version of the plan shall be provided to the TWWG established pursuant to condition 49 and to Heritage New Zealand for their review. The consent holder shall consider any feedback provided and will provide a written response within the finalised ASMP detailing:
- a) Whether any feedback has been provided by the TWWG and the Heritage New Zealand;
  - b) Where feedback has been provided, how it has been incorporated into the ASMP; and
  - c) Where feedback has been provided but not been incorporated into the ASMP, the reasons why not.

48. The consent holder shall implement the certified ASMP in giving effect to this Project.

### **Tangata Whenua**

49. a) Not less than 6 months prior to the commencement of construction, the consent holder shall invite mandated representatives of Ngaati Hauaa, Ngaati Koroki Kahukura, Ngaati Mahanga, Ngaati Wairere and Waikato Tainui to participate in a Tangata Whenua Working Group (TWWG), the purpose of which is to facilitate consultation between the consent holder and tangata whenua in respect of the activities authorised by these consents.
- b) Provided that the invitation to participate in the TWWG has been accepted and the group has been established, then following consultation with the TWWG, the consent holder shall prepare a Waikato-Tainui Mitigation Plan (WTMP). The purpose of the WTMP is to specify and record a range of reasonable and tangible initiatives to address the matters included in the Position Statement (Appendix C of Volume 1 of the Waikato Expressway Hamilton Section consent application dated November 2013; WRC document number 2897434) that relate to the activities authorised by this consent.
- c) No less than 30 working days prior to the consent holder providing the WTMP to Waikato Regional Council, the consent holder shall provide a draft version of the WTMP to the TWWG for their review. The consent holder will consider any feedback provided and will provide a written response within the finalised WTMP detailing:
- i. Whether any feedback has been provided by the TWWG; and
  - ii. Where feedback has been provided, how it has been incorporated into the WTMP; and
  - iii. Where feedback has been provided but not been incorporated into the WTMP, the reasons why not.
- d) Prior to construction commencing, the consent holder shall submit a copy of the WTMP to the Waikato Regional Council for its information.
- e) The consent holder shall implement the WTMP as part of the construction of the Tamahere East-West Link Road.

#### **Advice Note:**

*Waikato Tainui and the NZTA have already established a high level contract enabling a partnership to be established for the Hamilton Section of the Waikato Expressway. Through that process, an appointee from Waikato Tainui established responsibility for determining who the project team should engage with and how that should occur. As a result, a Hamilton Section specific Tangata Whenua Working Group (TWWG) was established in late 2011. The TWWG comprises members from Ngaati Hauaa, Ngaati Koroki Kahukura, Ngaati Mahanga, Ngaati Wairere and Waikato Tainui. It is anticipated that this existing group could fulfil the role specified in these conditions.*

### **Review**

50. The Waikato Regional Council may during the June to July (inclusive) period in 2015 and in the same period every year thereafter serve notice on the consent holder under section 128 (1) of the Resource Management Act 1991, of its intention to review the conditions of this resource consent for the following purposes:

- a) to review the effectiveness of the conditions of this resource consent in avoiding or mitigating any adverse effects on the environment and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions; or
- b) if necessary and appropriate, to require the holder of this resource consent to adopt the best practicable option to avoid, remedy or mitigate adverse effects on the environment; or
- c) to review the adequacy of and the necessity for monitoring undertaken by the consent holder.

***Advice Note:***

*Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.*

**Administration**

51. The consent holder shall pay to the Waikato Regional Council any administrative charge fixed in accordance with section 36 of the Resource Management Act 1991, or any charge prescribed in accordance with regulations made under section 360 of the Resource Management Act 1991.

## **Attachment A**

### **(Draft) Fish Recovery Protocols**

#### **Gully Infilling and Culvert Installation Procedures**

Construction of the road embankments will involve infilling of wetland habitat.

The arch culvert will be constructed off-line in the gully floor area, with the arch being supported by lineal concrete footings along either edge. A new section of stream channel will be formed within the natural ground materials through the centre of the culvert with a profile to match existing upstream/downstream sections. This will involve diverting the stream for 1-2 weeks during culvert construction. Upon completion of the new culvert structure and stabilisation of the channel, the stream flows will be diverted into the new alignment through the arch culvert. Culvert construction, installation and maintenance will be undertaken in accordance with the requirement of the Freshwater Fisheries Regulations 1983.

#### **Fish Recovery Procedures**

It is recognised that there will always be some level of mortality and injury as a result of the earthworks in the beds of streams. The objective of the fish recovery procedures that are described below is to take all practical steps to minimise the direct loss of native freshwater fish as a consequence of gully infilling and culvert installation.

All fish captured or recovered through the following procedures will be transferred immediately upstream of the works site.

#### ***Recovery Protocols- Culvert Installation***

Fish recovery protocols will need to be put in place to move any fish out of the stream that will be diverted and backfilled. The total length of the affected stream is approximately 75 m. The recommended fish recovery method will include the following stages:

1. Netting and trapping. At this point both ends of the original channel will have been physically blocked. Once this has been done baited nets and traps will be set to determine the fish species present and their relative abundances. Nets and traps will be set overnight because all of the native fish species being targeted are nocturnal. Gee minnow traps will be set at a density of 1 per 5 m of stream and fyke nets will be set at a density of 1 per 20 m of stream if the channel is deep enough.
  - a) If no native fish species are recorded then no fish recovery is required and the stream can be diverted and filled in.
  - b) If only shortfin eels are present then fish recovery will be necessary starting at Step 2
  - c) If any 'At Risk – Declining' species are identified then further netting and trapping will be carried out until catch rates fall below 0.25 fish per trap/net or after a minimum of four nights of trapping prior to culvert installation work starting. Any additional trapping will be very ineffectual and it would be more efficient to move on to the next stage.
2. A seine net will be run from one end of the stream to the other to collect the remaining fish in the stream. If large numbers of fish are collected in the first run then a second run will be carried out. Seine netting of the stream will not be feasible if there is a lot of loose unconsolidated material in the bottom of the stream or if there are a lot of obstructions (e.g. tree roots). If the water table is sufficiently low enough then the stream will be dewatered using pumps to increase the efficiency of seine netting.

3. A pump will be used to dewater the stream channel. The pump intake will be screened with a maximum mesh size of 3 mm and have intake velocities of less than 0.3 m/sec.
4. Earthworks in the stream will commence. Spoil from the digging will be placed on the bank and any fish caught in the spoil will be collected and transferred upstream as the digging is being carried out.
5. Where the stream channel or wetland is to be filled in, this should be done systematically starting at one end and moving to the other. If seine netting cannot be carried out then hand nets will be used to recover fish in the last sections of stream and wetland.

#### ***Recovery Protocols- Wetland Drainage and Gully Infilling***

1. Fish recovery protocols will also be needed for infilling of wetland habitats. These habitats should be checked for fish prior to any significant earthworks to remove vegetation. The recommended fish recovery method will include the following stages:
2. Netting and trapping. Baited nets and traps will be set to determine the fish species present and their relative abundances. Nets and traps will be set overnight because all of the native fish species being targeted are nocturnal. If no native fish species are recorded then no fish recovery is required and the wetland can be filled in. If only shortfin eels are present then fish recovery will be necessary starting at Step 2. If any 'At Risk – Declining' species are identified then further netting and trapping will be carried out until catch rates fall below 0.25 fish per trap/net or after a minimum of four nights of trapping prior to culvert installation work starting. Any additional trapping will be very ineffectual and it would be more efficient to move on to the next stage.
3. A pump will be used to dewater the wetland. The pump intake will be screened with a maximum mesh size of 3 mm and have intake velocities of less than 0.3 m/sec.
4. Where earthworks are to take place within the wetland, spoil from the digging will be placed on the bank and any fish caught in the spoil will be collected and transferred upstream as the digging is being carried out.
5. Where the wetland is to be filled in, this should be done systematically starting at one end and moving to the other. It is unlikely that seine netting will be possible in this environment so hand nets will be used to recover fish in the last sections of wetland.

# RESOURCE CONSENT CERTIFICATE

**Resource Consent:** AUTH133855.01.02

**File Number:** 61 52 95A

*Pursuant to the Resource Management Act 1991, the Regional Council hereby grants consent to:*

New Zealand Transport Agency  
PO Box 973  
Waikato Mail Centre  
Hamilton 3240

(hereinafter referred to as the Consent Holder)

**Consent Type:** Land use

**Consent Subtype:** Land - disturbance

**Activity authorised:** Earthworks associated with construction of the Ruakura Interchange connecting roads

**Location:** Ruakura Road : Hamilton

**Map reference:** NZTM 1805225 E 5816056 N

**Consent duration:** This consent will commence on the date of decision notification and expire on 25 July 2049.

**Subject to the conditions overleaf:**

## **CONDITIONS**

1. The consent holder shall ensure that the works and activities authorised by this resource consent are carried out in accordance with the conditions as set out in Schedule One.
2. In accordance with section 125 RMA, this consent shall lapse ten (10) years after the date on which it was granted unless it has been given effect to before the end of that period.

In terms of s116 of the Resource Management Act 1991, this consent commences on 15 January 2015.

## Advice notes

1. Where a resource consent has been issued in relation to any type of construction (e.g. dam, bridge, jetty) this consent does not constitute authority to build and it may be necessary to apply for a Building Consent from the relevant territorial authority.
2. This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
3. This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA).
4. The consent holder may apply to change the conditions of the resource consent under s.127 RMA.
5. The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
6. Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
7. If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.

## SCHEDULE 1 – TO BE ATTACHED TO ALL CONSENTS

1. Except as modified by the conditions below and subject to final detailed design, the activities authorised by this consent shall be undertaken in general accordance with the information provided by the applicant in the Resource Consent Applications, and supporting documents being:
  - (a) Waikato Expressway Hamilton Section Resource Consent Applications (updated in response to a request for further information pursuant to s.92 RMA 1991), November 2013 (WRC document no. 2897434); Waikato Expressway Hamilton Section Resource Consent Applications - Ruakura Interchange Connecting Roads (WRC document no. 3163156) updated by amendments (WRC document no. 3168975); Waikato Expressway Hamilton Section – Section 127 Consent Application, July 2015 (WRC document no. 3453990) and further information provided pursuant to s.92 RMA 1991 (WRC document nos. 3473983, 3502439, 3511340 and 3564356);
  - (b) Information provided in response to a request for further information under section 92(1) (dated 12 November 2013) (WRC document no. 2897607); information provided in response to a request for further information under section 92(1) (dated 29 October 2014) (WRC document no. 3202470);
  - (c) Waikato Expressway Hamilton Section Specialist Reports – Volume 2A, (updated in response to a request for further information pursuant to s.92 RMA 1991), November 2013 (WRC document no. 2897434)
  - (d) Waikato Expressway Hamilton Section Specialist Reports – Volume 2B, (updated in response to a request for further information pursuant to s.92 RMA 1991), November 2013 (WRC document no. 2897434)
  - (e) Document titled “*Best Practice Guidelines – Vegetation Management and Instream Works*”, Technical Report No 2007/41; and, subsequent updates approved by the Resource Use Group of the Waikato Regional Council
  - (f) Plan sets:
    - (i) Scheme Plans:

2/4/99/4204 Plan and Longitudinal Section, Sheets 6-13 and 15-20 (refer Appendix A to the Resource Consent Application (updated in response to a request for further information pursuant to s.92 RMA 1991)), November 2013.

2/4/99/4204 Plan and Longitudinal Section, Sheet 14, Revision 2

2/4/99/4204 Plan and Longitudinal Section, Sheet 21, Revision 2 (Alteration Z)

2/4/99/4204 Plan and Longitudinal Section, Sheet 22, Revision 2 (Alteration Z)

2/4/99/4204 Plan and Longitudinal Section, Sheet 23, Revision 3 (Alteration Z)

2/4/99/4204 Plan and Longitudinal Section, Sheet 38 (Revision 4).

2/93/22/5204 Intersection Layout Plan, Ruakura Road/Lisette Road Intersection Upgrade, Sheet 1, Revision 0.
    - (ii) Drainage Plans:

2/4/99/4204 Drainage Plan and Longitudinal Section, Sheets 75-95 (refer Appendix 1, Hamilton Section Assessment of Effects on Water (Appendix I, Volume 2B)).

2-31695.00 SH26/Ruakura Road Intersection Roundabout Design – Drainage Layout, Sheet C802, Revision 2; provided by Opus in response to WRC's s92 request dated 10 September 2015 (WRC document no. 3564346)

2/4/99/4204 Drainage Plan Ruakura General Layout, Sheet 23 of 23, Revision 4; provided by Opus in response to WRC's s92 request dated 10 September 2015 (WRC document no. 3564346)

(iii) Erosion and Sediment Control Plans:

2/4/99/4204 Erosion and Sediment Control, Sheets 99-115 (refer Appendix 7, Hamilton Section Assessment of Effects on Water (Appendix I, Volume 2B)).

2/4/99/4204 Erosion and Sediment Control, Sheets 116, Revision 1.

2. The consent holder shall be responsible for all contracted operations related to the exercise of this resource consent, and shall ensure contractors are made aware of the conditions of this resource consent relevant to their work area and ensure compliance with those conditions.
3. A copy of this resource consent shall be kept onsite at all times that physical works authorised by this consent are being undertaken, and shall be produced without unreasonable delay upon request from a servant or agent of the Waikato Regional Council.
4. All activities authorised by this consent shall be undertaken by appropriately qualified and experienced persons.

#### **Construction Management Plan**

5. Prior to the commencement of construction (excluding site investigations and enabling works), the consent holder must prepare a Construction Management Plan (CMP). The purpose of the CMP is to set out practices and procedures to be undertaken during construction and commissioning activities in order to:
  - a) ensure compliance with the conditions of these consents;
  - b) minimise earthworks effects associated with construction activities;
  - c) minimise, as far as practicable, the potential for sediment runoff from the site and potential discharges to land, water and air from all earthwork activities; and
  - d) minimise hazardous substance spillages as a result of exercising this consent.
6. 'Enabling Works' for the purpose of condition 5 includes the following and similar activities: demolition and removal of buildings and structures, fencing, tree felling and removal (outside of the gully systems and except as required by condition 48 f) i. in relation to long-tailed bats), relocation of underground and overhead services (excluding transmission lines), and the establishment of site entrances.
7. The CMP shall include but not be limited to the following:
  - a) The proposed start date of the works authorised by this resource consent;
  - b) A schedule of construction activities – including sequencing;
  - c) The commencement date and expected duration of the major cut and fill operations;
  - d) The location of the major cut and fill operations;
  - e) The location of topsoil and fill stockpiles;

- f) Proposed detailed construction methodologies for the following aspects of the project:
    - i. Staging of earthworks;
    - ii. Fill extraction and placement;
    - iii. Cutting operations;
    - iv. Dewatering of slopes cut below the groundwater level (including conveyance and treatment of flows);
    - v. Culvert construction;
    - vi. Temporary bridge construction (including access track and hardstanding work platforms);
    - vii. Bridge construction (including slope stabilisation, drilling and piling);
    - viii. Construction activities in flood prone areas including dams and stream diversions in the Mangaonua Stream and Mangaone/Mangaharakeke Stream gullies;
  - g) Proposed erosion and sediment control methodologies and practices - including rehabilitation measures as required to give effect to conditions 13-39; effect to condition 40;
  - h) Proposed contaminated land management and mitigation measures as required to give
  - i) Proposed hazardous substances management and mitigation measures – including spill prevention and response measures as required to give effect to conditions 41 and 42;
  - j) Proposed dust management and mitigation measures as required to give effect to conditions 43 to 47;
  - k) Proposed measures and methodologies to address ecological issues (refer condition 48);
  - l) Proposed measures and methodologies to address archaeological matters in accordance with conditions 58 to 61;
  - m) Proposed methods and measures to ensure that construction works do not adversely affect electrical infrastructure as required to give effect to conditions 62 to 65; and
  - n) Proposed measures for minimising odour nuisance from construction vehicle exhaust gases.
8. At least 40 working days prior to undertaking construction works associated with this Project, the consent holder shall submit the CMP to the Waikato Regional Council for approval - acting in a technical certification capacity - that the CMP satisfies the requirements of condition 5. Any changes proposed to the CMP shall be confirmed in writing by the consent holder and certified in writing by the Waikato Regional Council, prior to the implementation of any changes proposed.
9. The consent holder shall undertake all activities authorised by this consent in accordance with the certified CMP and any certified changes.

**Advice Note:**

*The designations for the Hamilton Section of the Waikato Expressway also include conditions that require the preparation and implementation of a CMP. It is considered appropriate that one CMP be prepared by the Consent Holder/Requiring Authority which meets the conditions of this resource consent and the conditions of the designation.*

10. The consent holder shall appoint a representative(s) prior to the exercise of this resource consent who shall be the Waikato Regional Council's principal contact person(s) in regard to matters relating to this resource consent. The consent holder shall inform the Waikato Regional Council of the representative's name and how they can be contacted, prior to this resource consent being exercised. Should that person(s) change during the term of this resource consent, the consent holder shall immediately inform the Waikato Regional Council and shall also give written notice to the Waikato Regional Council of the new representatives name and how they can be contacted.
11. Prior to exercising this consent the consent holder shall establish a sediment control team which is to be managed by an appropriately qualified person experienced in erosion and sediment control and associated environmental issues. The sediment control team shall consist of personnel who have clearly defined roles and responsibilities to monitor compliance with the consent conditions and will be available to meet with the Waikato Regional Council monitoring personnel on a weekly basis, or as otherwise agreed in writing, to review erosion and sediment control issues. The person managing the sediment control team shall:
  - a) Be experienced in erosion and sediment control implementation and monitoring;
  - b) Be recognised by his/her peers as having a high level of knowledge and skill as appropriate for the role;
  - c) Have completed recognised training in erosion and sediment control; and
  - d) Be approved in writing by the Waikato Regional Council.
12. The consent holder shall arrange and conduct a pre-construction site meeting and invite, with a minimum of 10 working days notice, the Waikato Regional Council, the site representative(s) nominated under conditions 10 and 11, the contractor, and any other party representing the consent holder prior to any work authorised by this consent commencing on site.

**Advice Note:**

*In the case that any of the invited parties, other than the site representative, does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.*

**Erosion and Sediment Control**

13. The erosion and sediment control measures to be included in the CMP shall as a minimum be based upon and incorporate all the relevant principles and practices for the activity authorised by this consent and contained within the Waikato Regional Council document titled "*Erosion and Sediment Control – Guidelines for Soil Disturbing Activities*" (Technical Report No. 2009/02 – dated January 2009), and shall include, but not be limited to, the following;
  - a) Details of all principles, procedures and practices that will be implemented to undertake erosion and sediment control to minimise the potential for sediment discharge from the site, including flocculation if required;
  - b) The design criteria and dimensions of all key erosion and sediment control structures;
  - c) A site plan of a suitable scale to identify;
    - i. The locations of waterways;
    - ii. The locations of permanent stream diversions in the Mangaonua and Mangaharakeke/Mangaone gullies;

- iii. The extent of soil disturbance and vegetation removal;
  - iv. Any “no go” and/or buffer areas to be maintained undisturbed adjacent to watercourses;
  - v. Areas of cut and fill;
  - vi. Locations of topsoil stockpiles;
  - vii. All key erosion and sediment control structures;
  - viii. The boundaries and area of catchments contributing to all stormwater impoundment structures;
  - ix. The locations of all specific points of discharge to the environment;
  - x. The location and details of stream stabilisation works in areas of damming, diversion or clearing; and
  - xi. Any other relevant site information
- d) Construction timetable for the erosion and sediment control works and the bulk earthworks proposed;
  - e) Timetable and nature of progressive site rehabilitation and re-vegetation proposed;
  - f) Maintenance, monitoring and reporting procedures;
  - g) Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or the failure of any key erosion and sediment control structures;
  - h) Procedures and timing for review and/or amendment to the erosion and sediment control measures listed in the CMP; and
  - i) Identification and contact details of personnel responsible for the operation and maintenance of all key erosion and sediment control structures.
14. The works authorised by this consent shall be undertaken in such a manner so as to avoid causing any new or exacerbating any existing flooding effects on adjacent land.
15. All disturbed or cut vegetation, soil or debris shall be deposited or placed in a position where it will not enter any water body or cause diversion, damming or erosion of any waterway.
16. The consent holder shall ensure that, as far as practicable, all clean water run-off from stabilised surfaces including catchment areas above the site shall be diverted away from the exposed areas via a stabilised system to prevent erosion. The consent holder shall also ensure the outfall(s) of these systems are protected against erosion.
17. The consent holder shall ensure that all erosion and sediment control structures are inspected on a weekly basis and within 24 hours of each rainstorm event that is likely to impair the function or performance of the controls. A record shall be maintained of the date and time of inspections undertaken, any maintenance requirements identified, and of maintenance undertaken to all erosion and sediment control structures. Records associated with the maintenance of all erosion and sediment control structures shall be made available to the Waikato Regional Council at all reasonable times.

18. The consent holder shall, prior to bulk earthworks commencing in an area, submit to the Waikato Regional Council "As Built Certification Statements" signed by an appropriately qualified and experienced professional certifying that erosion and sediment control structures have been constructed in accordance with the certified CMP. Certified controls shall include clean water diversion channels/bunds, sediment retention ponds and decanting earth bunds. The As Built Certification Statements shall be supplied to the Waikato Regional Council within 5 working days of the completion of the construction of those controls. Information contained in the certification statement shall include at least the following:
- a) confirmation of contributing catchment areas;
  - b) the location, capacity and design of each structure;
  - c) position of inlets and outlets;
  - d) stability of structures;
  - e) measures to control erosion; and
  - f) any other relevant matter.

**Advice Note:**

*An example template and the information required for the As Built Certification Statement can be found on the Waikato Regional Council website [www.waikatoregion.govt.nz/earthworks](http://www.waikatoregion.govt.nz/earthworks).*

**Construction Stormwater Discharges**

19. The consent holder shall ensure that all sediment-laden run-off from the site is treated by sediment retention structures. These structures are to be fully operational before bulk earthworks commence and shall be maintained to perform, as a minimum, at 80% of their operational capacity.
20. During the construction period, discharges from the work site shall not cause a conspicuous change in water colour or clarity in any flowing water body, after reasonable mixing and at a point 50 metres downstream of any point of discharge to the water body.

**Flocculation**

21. Flocculation bench testing shall be undertaken prior to bulk earthworks commencing to determine if flocculation will provide a benefit (i.e. improvement) to the quality of sediment retention pond discharges. Where testing shows flocculation will benefit the quality of sediment retention pond discharges, the consent holder shall include flocculation treatment in all sediment retention ponds for the purpose of reducing sediment discharges from the site, unless the Waikato Regional Council approves otherwise in writing.
22. Unless the Waikato Regional Council approves otherwise in writing, the consent holder shall take samples of the discharges from all sediment retention ponds on the site a minimum of once per month and after all rainfall events greater than 20 millimetres in the preceding 24 hours, excepting times when there are no discharges. The consent holder shall take the samples within four hours of becoming aware of a rainfall event greater than 20 millimetres in the preceding 24 hours.

**Advice Note:**

*The purpose of this condition is to provide an opportunity for pond discharge sampling to be required if either flocculants are being used; due to potential overdosing pH/Al issues, or where the discharge from a pond is not acceptable and actions are required (potentially including the use of flocculants) to resolve that situation.*

23. Any sampling required by this resource consent, the frequency of sampling, analyses and reporting may be altered or reduced with the written approval of the Waikato Regional Council.

24. If required, prior to the commissioning of any flocculation treatment system, the consent holder shall provide the Waikato Regional Council with a draft Flocculation Management Plan (FMP). The FMP shall be submitted to the Waikato Regional Council for approval – acting in a technical certification capacity - prior to bulk earthworks commencing. The FMP shall include as a minimum:
- a) An analysis identifying which ponds require flocculation, this analysis taking into account;
    - i. The soil's reactivity to flocculants based on soil tests;
    - ii. The size of the contributing catchment that the pond is treating;
    - iii. The likely duration of the ponds use;
  - b) Specific design details of the flocculation system;
  - c) Monitoring (including pH and any other testing procedures), maintenance (including post-storm) and including a record system;
  - d) Details of optimum dosage (including assumptions);
  - e) Results of any initial flocculation trial;
  - f) A spill contingency plan; as set out within the requirements of condition 41;
  - g) Contact details of the person responsible for the operation and maintenance of the flocculation treatment system and the organisational structure to which this person shall report.
25. Any changes proposed to the FMP shall be confirmed in writing by the consent holder and approved in writing by the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.
26. Unless site specific analysis provides evidence to the contrary, as detailed in the FMP, the consent holder shall ensure that:
- a) The soluble aluminium concentration of any sediment retention pond discharge shall not exceed 0.2 grams per cubic metre; and
  - b) The pH of any sediment retention pond discharge shall not be less than 5.5 or greater than 8.5 pH units.
27. Within one working day of taking any samples required, the consent holder shall have those samples analysed for suspended solids and turbidity and, if flocculants are being used to treat any sediment retention pond, pH, and soluble aluminium. The results of the analysis shall be forwarded to the Waikato Regional Council within 7 days of the consent holder receiving results of the analysis.
28. The consent holder shall undertake all activities authorised by this consent in accordance with the certified FMP and any certified changes.

### **Machinery**

29. The consent holder shall ensure that all machinery used in the exercising of this consent is cleaned prior to being transported to/from the site to ensure that all seed and/or plant matter has been removed and documented in accordance with the document titled 'KEEP IT CLEAN - Machinery hygiene guidelines and logbook to prevent the spread of pests and weeds (June 2013)-<http://www.waikatoregion.govt.nz/Documents/Keepitclean.pdf>)

## Stability

30. The consent holder shall ensure that cut slopes and fill sites are individually and appropriately assessed for stability during and following individual cutting and filling operations by a suitably qualified person, and to ensure that appropriate drainage is installed at each site.

## Winter Works

31. The consent holder shall ensure that the site is appropriately stabilised by 30 April of each year unless otherwise approved in writing by the Waikato Regional Council. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural and including, pavement, metalling, hydro-seeding, re-vegetation and mulching) that will minimise erosion of exposed soil to the greatest extent practical.
32. Earthworks shall not be conducted during the period 1 May to 30 September inclusive during any year that this consent is current, apart from necessary maintenance works, unless approved in writing by the Waikato Regional Council.
33. Requests to undertake earthworks during the period 1 May to 30 September inclusive, for any year that this consent is current, shall be submitted in writing to the Waikato Regional Council by 1 April and shall be in the form of amendments to the certified CMP in accordance with condition 8 of this consent.

### **Advice Note:**

*In considering a request for the continuation of winter earthworks, the Waikato Regional Council will consider a number of factors; including:*

- *The nature of the site and the winter soil disturbance works proposed;*
- *The quality of the existing/proposed erosion and sediment controls;*
- *The compliance history of the site/operator;*
- *Seasonal/local soil and weather conditions;*
- *Sensitivity of the receiving environment; and*
- *Any other relevant factor.*

## Site Restoration and Removal of Controls

34. The removal of any erosion and sediment control measure from any area where soil has been disturbed as a result of the exercise of this consent shall only occur after consultation with, and written approval has been obtained from, the Waikato Regional Council - acting in a technical certification capacity. In this respect, the Waikato Regional Council will need to be satisfied as to:
- a) The quality of the soil stabilisation and/or covering vegetation;
  - b) The quality of the water discharged from the rehabilitated land; and
  - c) The quality of the receiving water.
35. The consent holder shall ensure those areas of the site where earthworks have been completed are stabilised against erosion as soon as practically possible and within a period not exceeding 14 calendar days after completion of any works authorised by this consent. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural) that will minimise sediment runoff and erosion to the satisfaction of the Waikato Regional Council - acting in a technical certification capacity.
36. Re-vegetation and/or stabilisation of all disturbed areas is to be completed in accordance with the measures detailed in the document titled "*Erosion and Sediment Control – Guidelines for Soil Disturbing Activities*" (Technical Report No. 2009/02 – dated January 2009) and the approved CMP.

37. The consent holder shall undertake maintenance at those areas of the site where earthworks have been completed as necessary until vegetation is established.

### **Cleanfill/Overburden**

38. All material deposited during the exercising of this resource consent shall meet the definition of cleanfill contained in the glossary of terms in the Waikato Regional Plan and comply with the Acceptance Criteria specified in Tables 1, 2 and 3 below:

**Table 1: Acceptance Criteria for Heavy Metals**

<b>Parameter</b>	<b>Concentration (mg/kg)</b>
As	20
Cd	1
Cr	56
Cu	120
Hg	1
Ni	33
Pb	78
Zn	175

**Table 2: Acceptance Criteria for Volatile Organic Compounds (VOCs)**

<b>VOCs</b>	<b>Concentration (mg/kg)</b>
Benzene	1.1
Toluene	68
Ethylbenzene	53
Xylenes	48

**Table 3: Acceptance Criteria for Semi-Volatile Organic Compounds (SVOCs)**

<b>SVOCs</b>	<b>Concentration (mg/kg)</b>
Naphthalene	7.2
Acenaphthylene	50
Acenaphthene	90
Fluorene	80
Hexachlorobenzene	0.02
Phenanthrene	90
Anthracene	800
Fluoranthene	320
Pyrene	160
Benzo[a]pyrene	0.2
Gamma BHC (Lindane)	0.02
Heptachlor	0.02
Aldrin	0.02
Dieldrin	0.02
Sum of DDT, DDD and DDE	0.5
Sum of PAHs	80

39. If required by the Waikato Regional Council in writing, the consent holder shall undertake soil testing to define the concentrations of contaminants in the cleanfill and overburden imported to the site and as a consequence may be required to remove material from the site to an authorised landfill.

### **Contaminated Land**

40. The consent holder shall ensure that any discharge from the remediation of contaminated land complies with the following:
- a) Any discharge to air arising from the activity shall comply with the conditions and standards and terms in Section 6.1.8 of the Waikato Regional Plan 2012;
  - b) No contaminants from the remediation of the contaminated land shall be discharged into water or onto land unless discharged to a landfill authorised in Section 5.2.7 of the Waikato Regional Plan 2012;
  - c) The Waikato Regional Council shall be provided with the following reports prepared in compliance with Contaminated Land Management Guideline No.1: Reporting on Contaminated Sites in New Zealand (Ministry for the Environment, Wellington, NZ, updated October 2003) prior to commencement of land remediation:
    - i. detailed site investigation report; and
    - ii. site remedial action plan;
  - d) After remediation is completed, copies of the following reports prepared in compliance with Contaminated Land Management Guideline No.1: Reporting on Contaminated Sites in New Zealand (Ministry for the Environment, Wellington, NZ, updated October 2003) must be provided to the Waikato Regional Council:
    - i. site validation report;
    - ii. ongoing monitoring and management plan;
  - e) Any updates of these reports shall be provided to the Waikato Regional Council if a change in investigation, remediation and monitoring strategy occurs

### **Hazardous Substances, Contaminated Sites and Spill Response**

41. With respect to hazardous substances and contaminated sites, the CMP shall include, but not be limited to, the following matters:
- i. a list of the hazardous materials and their quantities kept on site and their storage details
  - ii. the prevention measures that will be undertaken on site in order to avoid a spill of hazardous materials;
  - iii. the equipment available to contain and/or remove spills of hazardous materials;
  - iv. specific procedures and measures that will be undertaken when machinery is operating within close proximity to water bodies that are designed to minimise the risk of any spillages or significant leakages of hazardous materials entering the waterbody;
  - v. specific procedures and measures that will be undertaken if unrecorded contaminated sites are uncovered during the course of works;

- vi. the training staff will receive in the use of hazardous materials spill prevention, containment and clean up measures and associated equipment;
  - vii. how the disposal of any contaminated materials arising from spills, leakages or unrecorded contaminated sites of hazardous materials will be undertaken;
  - viii. the procedures involved in reporting of any such incidents to the Waikato Regional Council; and,
  - ix. review procedures.
42. The Consent Holder shall notify the Waikato Regional Council as soon as is practicable, and as a minimum requirement within 12 hours, of the consent holder becoming aware of a discovery or spill of hazardous materials, fuel, oil, hydraulic fluid or other similar contaminants. The consent holder shall, within 7 days of the incident occurring, provide a written report to the Waikato Regional Council, identifying the possible causes, steps undertaken to remedy the effects of the incident and any additional measures that will be undertaken to avoid future spills.

### **Dust**

43. With respect to dust management, the CMP shall include, but not be limited to, the following matters:
- a) Measures to be employed on site to minimise dust emissions to air. Any monitoring shall be on the basis of real time and measurements shall be in the form of Total Suspended Particulate Matter (TSP). The results from the monitoring should be assessed against an effect level of  $80 \mu\text{g}/\text{m}^3$ , as a 24-hour average;
  - b) Identification of roles and positions of responsibility;
  - c) A list and map of all potentially sensitive locations along the alignment;
  - d) Reporting procedures;
  - e) Plan review procedures;
  - f) Complaint receipt and response procedures; and
  - g) Identification of any locations within the project area where water storage for dust suppression will be provided.
44. The CMP shall include monitoring of TSP at 223 Osborne Road and 265 Osborne Road.
45. The consent holder shall record the following in a daily log:
- a) Any dust control equipment malfunctions and remedial actions taken;
  - b) Any visible emission of dust and the source;
  - c) Wind speed and direction;
  - d) The frequency of water cart use and the volume of water applied;
  - e) The volume of water used for dust suppression other than water cart usage; and
  - f) The date and signature of the person entering the information.

46. There shall be no discharge of airborne particulate matter that causes an adverse effect beyond the boundary of the site.
47. Should airborne particulate matter resulting from the exercise of this consent generate a complaint, the consent holder shall provide a written report to the Waikato Regional Council within five (5) working days of the complaint being made known to the consent holder. The report shall specify:
- (a) the cause or likely cause of the event and any factors that influenced its severity;
  - (b) the nature and timing of any measures implemented by the consent holder to avoid, remedy or mitigate any adverse effects; and
  - (c) the steps to be taken in future to prevent recurrence of similar events.

**Advice Note:**

*Chapter 6.4 of the Waikato Regional Plan 2012 provides guidance on the assessment of the effect of odour and dust emissions.*

**Ecological Management and Restoration Plan**

48. The consent holder shall develop an Ecological Management and Restoration Plan (EMRP). This EMRP shall be prepared by an appropriately qualified and experienced ecologist/s and the Plan's purpose shall be to avoid, remedy, or mitigate adverse ecological effects associated with the Project on terrestrial, wetland and perennial stream habitats and nationally "Threatened" or "At Risk" species associated with these habitat types, including long-tailed bats, Black Mudfish, other indigenous fish, other indigenous lizards, Little Shag and any rare or uncommon plants. The EMRP shall be submitted to the Waikato Regional Council for approval in a technical certification capacity that it addresses condition 48 (a) to (g), at least 40 working days prior to the commencement of works. Any subsequent changes proposed to the EMRP shall be confirmed in writing by the consent holder and certified in writing by the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed. The EMRP shall include, but not be limited to, the following matters:
- a) Measures to be undertaken by the consent holder to minimise potential adverse effects on the stand of kahikatea trees in the Mangaonua gully including: measures to identify and minimise the trees that are to be removed; measures to protect the trees that are to remain, including delineation and protection of root zones, avoidance of fill placement in root zones, avoidance of foot traffic and machinery use in root zones, avoidance of bark and branch damage; and, monitoring of the kahikatea for a minimum of three years following completion of the bridge construction works in the gully to determine whether the works have adversely affected their health, and if so, the remedial measures to be adopted.
  - b) The consent holder shall use an appropriately qualified and experienced ecologist(s) to design, implement and undertake a pre-construction survey and salvage programme targeting "Threatened" and "At Risk" birds and lizards, and "Threatened", "At Risk" or locally uncommon plants, which may be found within the locality, as residents or seasonally in the case of fauna. "Threatened" and "At Risk" species are listed in the Department of Conservation New Zealand Threat Classification System (Townsend *et al.* 2008<sup>1</sup>, Robertson *et al.* 2012<sup>2</sup>, & Hitchmough *et al.* 2010<sup>3</sup>, de Lange *et al.* 2013<sup>4</sup>) and any subsequent published updates. At least 40 working days prior to the commencement of works, the consent holder shall provide to Waikato Regional Council a report detailing the results of the pre-construction survey(s). This report is to include but not be limited to:
    - i. The habitat requirements of the species identified in clause b) above likely to be found within the locality;

- ii. The location and relative abundance of the species identified in clause b) above found during the survey;
  - iii. Methods to avoid, remedy or mitigate adverse effects on any species identified in clause b) above and their habitats; and
  - iv. Timing for any further surveys and translocation options (if required).
- c) Details of restoration and habitat enhancement measures that will aim to achieve no net loss of terrestrial, wetland and stream biodiversity values or natural habitat along the Expressway route (including all perennial waterways and wetlands, seepage zones and gully seeps), as a result of the Expressway construction, including impacts on in-stream habitat resulting from bridge, culvert and road construction. This is to include procedures to ensure that the gully wetlands lost during construction of the Mangaonua and Mangaone bridges are replaced by wetland habitat of an equivalent or greater area. These details shall be provided in implementation plans and shall include, but may not be limited, to the following:
- i. A minimum of 10.2 ha of ecological restoration within or contiguous with the Mangaonua and Mangaone gullies, including provisions to match restored vegetation communities to the landforms and substrate conditions at the sites following completion of construction.
  - ii. For the gully floors and gully sides, in the Mangaonua and Mangaone gullies, completion of construction works including the restoration of natural landforms and substrate hydrology to all areas not permanently occupied by the constructed footprint of the Expressway.
  - iii. For both the Mangaonua and Mangaone gullies a strong focus on the restoration of gully swamp forest, with a major kahikatea component, with a minimum of 4 ha to be established on the gully slopes and gully floors, in total (noting that this is part of the overall minimum of 10.2 ha to be restored). Subject to compliance with condition 15, logs from the mature kahikatea that are lost due to the project construction activities shall be placed in areas that will be subject to gully swamp forest restoration to further enhance the biodiversity of those area(s).
  - iv. For both the Mangaonua and Mangaone gullies a strong focus on the restoration of gully swamp forest, with a major kahikatea component, with a minimum of 4 ha to be established on the gully slopes and gully floors, in total (noting that this is part of the overall minimum of 10.2 ha to be restored). Subject to compliance with condition 15, logs from the mature kahikatea that are lost due to the project construction activities shall be placed in areas that will be subject to gully swamp forest restoration to further enhance the biodiversity of those area(s).
  - v. Wetland or seepage restoration to be undertaken in the Mangaonua and Mangaone gullies, with the areas to be restored to be specified in the ERMP. The balance of indigenous planting shall comprise mixtures of indigenous species ecologically appropriate for the landforms and habitats to be restored.

<sup>1</sup> Townsend A.J.; de Lange P.J.; Duffy C.A.J.; Miskelly C.M.; Molloy J.; Norton D.A. 2008: *New Zealand Threat Classification System Manual*. Department of Conservation, Wellington, New Zealand.

<sup>2</sup> Robertson H.A., Dowding J.E., Elliot G.P., Hitchmough R.A., Miskelly C.M., O'Donnell C.F.J., Powlesland R.G., Sagar P.M., Scofield R.P., and Taylor G.A. 2012: Conservation status of New Zealand Birds 2012. *New Zealand Threat Classification Series* 4. Department of Conservation, Wellington. 22pp..

<sup>3</sup> Hitchmough R.A., Hoare J.M., Jamieson H., Newman D., Anderson P.J., Lettink M., and Whitaker A.H. 2010: *Conservation Status of New Zealand Reptiles, 2009*, New Zealand Journal of Zoology, 37: 3, 203-224.

<sup>4</sup> de Lange P.J., Rolfe J.R., Champion P.D., Courtney S.P., Heenan P.B., Barkla J.W., Cameron E.K., Norton D.A., and Hitchmough R.A. 2013: Conservation status of New Zealand vascular plants, 2012. New Zealand threat classification series. Department of Conservation, Wellington.

- vi. Details of the restoration and habitat enhancement measures involving indigenous revegetation to be provided in implementation plans, and where relevant, shall generally align with Wall, K and B.D. Clarkson 2006: Gully restoration guide: a guide to assist in the ecological restoration of Hamilton's gully system. Third Revised Edition. Hamilton City Council (or an updated version) and include, but may not be limited to, the following:
  - A) Design details for the stormwater treatment wetlands located adjacent to the Mangaone and Mangaonua gullies to provide indigenous wetland and terrestrial plantings, accepting that the plantings are not to conflict with the primary function of the wetlands as stormwater treatment systems. Plantings undertaken within these specific stormwater treatment systems are to be linked to and integrated with gully restoration plantings and other restoration works.
  - B) The use of eco-sourced indigenous plant species, to be matched to the habitats and site conditions where planting is to be undertaken;
  - C) The nature of any restorative planting to be undertaken, including details of timing, species, source of planting material, extent, percentage of cover provided by canopy, and location;
  - D) The use of kahikatea in plantings, in suitable sites, noting that kahikatea takes many years to provide canopy cover in re-vegetation plantings, and other species will need to be planted with the kahikatea to provide additional canopy cover and closure;
  - E) Monitoring and maintenance programmes for all indigenous planting until 90% indigenous canopy cover is achieved on the north facing gully slopes on pumice soils, and 90% indigenous canopy cover on the gully floor and gully terraces, except where mature exotic trees are retained for bat habitat roosting;
  - F) The nature of any weed and/or pest control considered appropriate (timing, extent and location);
  - G) The nature and extent of stock-proof fencing that is to be established along the margins of restoration areas;
- vii. Design and construction of wetlands to provide habitat suitable for mudfish where wetlands discharge into the Mangaonua or Mangaone/Mangaharakeke Stream gullies in the event that mudfish are discovered during construction and impacted by the works, accepting that design for the benefit of mudfish must not conflict with the primary function of the wetlands as stormwater treatment devices;
- viii. Procedures for capture and relocation of Black Mudfish;
- ix. Procedures for capture and relocation of fish associated with temporary and permanent stream diversions.

**Advice Note:**

*In relation to condition 48(c)(i), the 10.2ha of restoration area has been determined through consultation with TWWG and through the ecological assessment.*

*The restoration area provides for both ecological mitigation and for offsetting cultural effects.*

*A further 1.3ha of land may be added to the total restoration area, but this is subject to private landowner agreement and is therefore not included in the total area referenced in the condition.*

- x. The EMRP shall include a Mudfish Management Plan (MMP). The objective of the MMP shall be to ensure that any resident black mudfish are removed from the impacted area of the Ruakura Drain and to retain and enhance habitat suitable for black mudfish. In this respect the MMP shall include, but may not be limited to, the following:
  - A) Methods for capture and transfer of resident mudfish including the timing and duration of trapping /monitoring periods and identification of suitable habitat for release of captured mudfish;
  - B) Methods to ensure that mudfish do not re-enter the construction zone over the duration of construction activities;
  - C) Details of the ecological enhancement planting which will occur over a length of 300m of the Ruakura Drain between 352 Ruakura Road and 410 Ruakura Road. The planting will be up to a width of 2m on both sides of the drain, allowing for the constraints imposed by drainage and road reserve management activities. A minimum of 0.5m of planting on the road side of the drain, and 1m on the farm side of the drain is required;
  - D) Details of the management regime for the drain where the mitigation is taking place (in consultation with Waikato District Council as the Road Controlling Authority) which will provide for the long-term management of the black mudfish population;
  - E) Details of the internal habitat and riparian buffer planting including details of measures to be implemented, including fencing specifications, planting suites, eco-sourcing of indigenous plants, timing of works, monitoring for the presence of black mudfish, and all other relevant matters;
  - F) Details of how planted areas will be maintained for a period of five years following the initial planting.

**Advice Note:**

*The consent holder and the Waikato District Council shall enter into a Memorandum of Understanding in relation to the long term management of the Ruakura Road drain between 352 Ruakura Road and 410 Ruakura Road. The Memorandum shall set out measures to ensure that the MMP is successfully implemented and the enhancements maintained and retained in this location.*

- d) Protocols and detailed methods for addressing responses to discoveries of indigenous fish and indigenous lizards during construction. These provisions shall include, as a minimum, procedures to be followed upon discovery of fish or lizards in situations where they will be destroyed if construction work continues at the site where a

discovery is made, including techniques to be used to capture/contain fish and lizards and their relocation to a site(s) containing suitable habitat not to be affected by construction works.

- e) Procedures for implementing, monitoring and review of the EMRP.
- f) The consent holder shall engage an appropriately qualified and experienced bat ecologist to develop a Bat Management Plan. This plan shall address mitigation to be undertaken within, and near, the road footprint to avoid, remedy or mitigate any adverse effects from the construction and operation of the road on long-tailed bats and include, but may not be limited to, the following:
  - i. Details of measures to avoid, minimise and monitor roost removal and habitat loss (including specific minimum standards developed by an appropriately qualified and experienced bat ecologist for roost tree identification and monitoring of roost trees before their removal, recognising the limitations for determining roost tree occupancy in some situations), as well as habitat replacement and enhancement;
  - ii. Details of the provision of alternative roosting sites (including where possible advanced planting of indigenous or exotic trees for roost habitat) and artificial bat roosts, that are considered suitable for that purpose by an appropriately qualified and experienced bat ecologist, installed at least six months prior to the removal of trees where bat roosts are likely to occur along the alignment;
  - iii. Details of measures to minimise habitat fragmentation and other barriers to bat movement. Possible mitigation methods include the creation of bat crossing points such as “hop-overs” for bats to be formed with planting and/or earthworks, installation of bridge/tunnels/culverts, reducing the effect of road lighting by creating ‘dark zones’ at key bat habitats, aligning street lights in particular ways or the installation of baffles on lighting columns to reduce the ‘spill’ of light away from the road, accepting that lighting design for the benefit of bat movement must not conflict with the primary function of lighting for safety reasons along the Expressway;
  - iv. Details of measures to reduce mortality of bats from potential collisions with vehicles as bats travel along flyways that cross the Expressway. Possible mitigation methods could include the creation of “hop-overs” for bats, as outlined above, and the use of downward-oriented street lights to discourage bats from flying low across the road, the establishment of buffer zones along the Expressway route during and after construction (e.g. hedgerows) to encourage bat avoidance of the road and maintaining important bat flyway navigational references, if deemed appropriate by an appropriately qualified and experienced bat ecologist;
  - v. Details of measures to minimise disturbance from construction activities within the vicinity of any active roosts that are discovered, or already known, until such roosts are confirmed to be vacant of bats, as determined by an appropriately qualified and experienced bat ecologist using current best practice;
  - vi. Details of a monitoring programme to identify and assess changes in bat activity and behavioural patterns that may occur as a result of construction and operation of the Hamilton Section of the Waikato Expressway at all locations where bats are detected during comprehensive pre-construction baseline distribution surveys required by condition 48(f)(vii). The monitoring programme should be sufficiently robust to inform the mitigation design and subsequent assessment of the effectiveness of mitigation.

- vii. Pre-construction baseline distribution surveys shall include surveys using appropriate techniques to assess bat distribution and behaviour within areas of potential bat habitat along the entire Hamilton Section of the Waikato Expressway alignment. A minimum of two surveys shall be undertaken during the months of November to April inclusive for a minimum of two monitoring seasons, immediately prior to construction commencing. Monitoring for the surveys should take place on nights when the temperature remains above ten degrees for the first two hours after sunset and little precipitation occurs. Temperature and precipitation must be recorded.
- viii. The consent holder shall engage an appropriately qualified and experienced bat ecologist(s) to assess and report on the effectiveness of measures to avoid, remedy and mitigate effects on the bats resulting from the establishment of the Hamilton Section of the Waikato Expressway. Such monitoring shall occur annually during the months of November to April inclusive, as a minimum, and the monitoring data shall initially be assessed and reported on annually for the first five years from the commencement of works authorised by this resource consent, and thereafter at five- yearly intervals for a period of 15 years from the commencement of works authorised by this consent. Where measures are found to be ineffective, the ecologist(s) shall make recommendations for additional measures to avoid, remedy and mitigate effects resulting from the establishment of the Hamilton Section of the Waikato Expressway. Reports shall be provided to Waikato Regional Council and the Department of Conservation within two months of the completion of each assessment, and the matters contained within these reports shall be considered in accordance with the procedures for review of the EMRP required by condition 48e).
- ix. The consent holder shall implement the recommendations made by the ecologist referred to in condition 48(f)(viii) which are specified in the EMRP following review in accordance with condition 48(e) where it is practicable to do so.
- g) Measures proposed to minimise potential adverse effects on the Little Shag colony located on the Mangaonua Stream, and monitoring of nesting activity for a minimum of three years following completion of works to determine whether the works have adversely affected nesting activity. The purpose of this condition is to provide information on the effects of road construction on the colony of nesting birds, and inform future assessments of effects for other projects.

**Advice Note:**

*The requirements of condition 48 are in addition to any obligations of the consent holder in respect of absolutely protected wildlife under the Wildlife Act 1953.*

- 49. The consent holder shall provide a draft of the EMRP, or any proposed changes to the EMRP to the Department of Conservation for comment at least 20 working days prior to it being submitted to the Waikato Regional Council for certification. The consent holder shall consider for incorporation into the final version of the EMRP, or any final version of proposed changes to the EMRP any comments/suggested amendments provided by the Department of Conservation. If those comments/amendments are not incorporated into the final EMRP or final version of the proposed changes, the consent holder shall forward copies of the comments/amendments to Waikato Regional Council. The Waikato Regional Council may consider any comments or suggested amendments from the Department of Conservation and may require the consent holder to further amend the EMRP, or any proposed changes to it, before certifying the EMRP, or proposed changes.

50. The consent holder shall undertake all activities authorised by this consent in accordance with the approved EMRP.

The consent holder shall ensure that a copy of the certified EMRP, including any certified amendments, is kept onsite and this copy is updated within 5 working days of any amendments being certified.

**Advice Note:**

*The consent holder has undertaken to work with the Waikato Regional Council and the Department of Conservation to develop a Memorandum of Understanding addressing the establishment and implementation of a South Hamilton Bat Population Enhancement Plan. The purpose of this Plan is to promote the conservation of the local long-tailed bat population.*

### **Gully Restoration**

- 51 Prior to the commencement of construction, and following consultation with the Tangata Whenua Working Group (TWWG), the consent holder shall engage an appropriately qualified ecologist(s) to prepare a Gully Restoration Strategy (GRS). The purpose of the GRS is to develop and implement a Plan for restoration works in the Mangaonua and Mangaharakeke/Mangaone gullies. The GRS will cover the Mangaonua and Mangaharakeke/Mangaone Gullies, from the point where the Expressway crosses through to the confluence with the Waikato River, and shall include but not be limited to:

- a) The identification of key restoration areas/zones and the restoration objectives for each of these areas, including identification of plant species that would be appropriate;
- b) High level suggestions on how to go about undertaking restoration;
- c) Identification of potential funding sources; and
- d) Identification of likely costs.

**Advice Note:**

*The GRS is a desktop exercise, and does not involve any physical restoration of the gully systems.*

52. Once completed, the GRS shall be provided to the TWWG.

53. The consent holder shall prepare a Gully Restoration Implementation Plan (GRIP), identifying restoration works to be undertaken within the areas identified in Appendix 4 of Appendix 7 of the Water AEE (Appendix I, Volume 2B of the application as lodged, November 2013). The GRIP shall be consistent with the GRS, and EMRP, and be prepared in general accordance with the Gully Restoration Guide (Wall and Clarkson, 2006). The GRIP shall include, but not be limited to:

- a) A detailed restoration methodology consistent with the requirements of the EMRP, and timeline (including how it will fit with the wider construction methodology stated in the CMP certified under condition 8);
- b) The identification of plant species to be used including:
  - a. plants for cultural practices such as Rongoa Maori;

- b. locally sourced plant species; and
  - c. plants that will support and enhance the habitat of indigenous fauna including bats;
- c) Identification of habitats to be restored (such as habitats for bats) – consistent with the ERMP; and
  - d) Demonstration that the restoration works to be undertaken are consistent with any restoration objectives identified in the GRS required by condition 51.
54. At least 40 working days prior to undertaking construction works associated with this Project, the consent holder shall submit the GRIP to the Waikato Regional Council for approval in a technical certification capacity that the GRIP satisfies the requirements of condition 53. Any changes proposed to the GRIP shall be confirmed in writing by the consent holder and certified in writing by the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.
55. The consent holder shall undertake all activities authorised by this consent in accordance with the certified GRIP and any certified changes.
56. The consent holder shall ensure that a copy of the certified GRIP, including any certified amendments, is kept on-site and this copy is updated within 5 working days of any amendments being certified.

## **Complaints**

57. If any complaints are received by the consent holder regarding the activities authorised by this consent, the consent holder shall notify the Waikato Regional Council of those complaints as soon as practicable and no later than one working day. When/if complaints are received, the consent holder shall record the following details in a Complaints Log:
- (a) Time and type of complaint, including details of the incident, e.g. duration, any effects noted;
  - (b) Name, address and contact phone number of the complainant provided;
  - (c) Location from which the complaint arose;
  - (d) The weather conditions and wind direction at the time of any dust complaint;
  - (e) The likely cause of the complaint;
  - (f) The response made by the consent holder including any corrective action undertaken by the consent holder in response to the complaint; and
  - (g) Future actions proposed as a result of the complaint.

The register shall be available to the Waikato Regional Council at all reasonable times. Complaints received by the consent holder that may indicate non-compliance with the conditions of this resource consent shall be forwarded to the Waikato Regional Council in writing within 24 hours of the complaint being received.

## Archaeology

58. Prior to the commencement of construction the consent holder shall provide the Waikato Regional Council with evidence that Archaeological Authorities under the Heritage New Zealand Pouhere Taonga Act 2014 have been obtained from Heritage New Zealand as appropriate, to modify, damage or destroy any of the known archaeological sites likely to be affected during the construction works. Alternatively, the consent holder shall provide evidence that Archaeological Authorities are not necessary. As a minimum when assessing whether Authorities are required, consideration should be given to:
- (i) The unrecorded ditch and bank in the vicinity of Cherry Lane
  - (ii) Those parts of Cambridge Road where pre-1900 fabric may exist
  - (iii) Whether archaeological monitoring is necessary in the vicinity of the recorded site S14/252
59. No later than 20 working days prior to the commencement of any earthworks or construction activities (excluding enabling works as defined in condition 6), the consent holder shall submit an Archaeological Site Management Plan (ASMP) prepared by a suitably qualified archaeologist, to the Waikato Regional Council for certification. The ASMP shall be prepared following consultation with the Hamilton Section TWWG and Heritage New Zealand. The purpose of the ASMP is to describe the measures that will be taken to avoid or mitigate effects on archaeological sites within the designation. As a minimum, the ASMP shall include the following:
- (a) Measures that will be taken to protect archaeological sites from damage during construction (unless an authority has been obtained from Heritage New Zealand to destroy, damage or modify the site);
  - (b) Details of any archaeological investigations or monitoring required by any authority to destroy, damage or modify archaeological sites, or evidence required under condition 58;
  - (c) An Accidental Discovery Protocol (noting that where any part of the site is operating under an Authority from Heritage New Zealand, the ADP protocols contained within that Authority shall take precedence) so that in the event that any archaeological sites, remains, artefacts, taonga (Maori artefacts) or koiwi are unearthed, dislodged, uncovered or otherwise found or discovered during the earthworks ("Discovery"), the consent holder shall:
    - (i) Advise tangata whenua, the project archaeologist, and the Waikato Regional Council as appropriate, within one day of the Discovery;
    - (ii) Cease works in any part of the project site affected by the Discovery;
    - (iii) Contact the NZ Police, Coroner and Heritage New Zealand as appropriate;
    - (iv) Undertake specific preservation measures to address any Discovery that includes water-logged or wet archaeological materials.
    - (v) Works shall not recommence in the parts of the project site affected by the Discovery until all necessary statutory authorisations or consents have been obtained; and

- (vi) Address any other relevant matters in accordance with NZ Transport Agency's Minimum Standard Z/22 – Accidental Discovery Procedures.
  - (d) The roles and responsibilities associated with managing the archaeological aspects of the Project;
  - (e) Provision for training contractors in the archaeological requirements of the Project;
  - (f) Provision for any revisions required to the ASMP during the course of the Project. Any required revisions to the ASMP (excluding revisions relating to matters covered by condition 59(b)) shall not be implemented by the consent holder until approved in writing by the Waikato Regional Council. The Waikato Regional Council shall respond to the request for a revision to the ASMP within 10 working days or another time period agreed between all parties;
  - (g) Reporting requirements.
60. Twenty (20) working days prior to the consent holder providing the ASMP or any revisions in accordance with condition 59(f) to Waikato Regional Council, a draft version of the plan shall be provided to the TWWG established pursuant to condition 66 and to Heritage New Zealand for their review. The consent holder shall consider any feedback provided and will provide a written response within the finalised ASMP detailing:
- (a) Whether any feedback has been provided by the TWWG and the Heritage New Zealand;
  - (b) Where feedback has been provided, how it has been incorporated into the ASMP; and
  - (c) Where feedback has been provided but not been incorporated into the ASMP, the reasons why not.
61. The consent holder shall implement the certified ASMP in giving effect to this Project.

### **Transmission Lines**

62. With respect to electrical infrastructure, the consent holder (following consultation with Transpower New Zealand Ltd) shall prepare and include in the CMP, the following:
- a) Methods and measures:
    - i. To ensure that the existing high voltage infrastructure can be accessed for maintenance at all reasonable times, or emergency works at all times, during construction activities;
    - ii. To appropriately manage the effects of dust and any other material potentially resulting from construction activities and able to cause material damage, beyond normal wear and tear, to the overhead transmission lines;

- iii. To ensure that no activity is undertaken during construction that would result in ground vibrations and/or ground instability likely to cause material damage to the transmission lines, including support structures; and
    - iv. To ensure that changes to the drainage patterns and runoff characteristics do not result in adverse effects from stormwater on the foundations for any high voltage transmission line support structure.
  - b) Sufficient detail to confirm that all works will comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001).
63. All activities undertaken on the site, including the construction of new buildings/structures, earthworks (filling and excavations) and/or the operation of mobile plant must comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001).
64. The consent holder shall ensure that access to high voltage transmission lines for maintenance work (at all reasonable times) and for emergency works (at all times) is not adversely affected by the activities authorised by the consents.
65. The consent holder shall ensure that all trees and vegetation planted comply with the Electricity (Hazards from Trees) Regulations 2003.

### **Tangata Whenua**

66. (a) Not less than 6 months prior to the commencement of construction, the consent holder shall invite mandated representatives of Ngaati Hauaa, Ngaati Koroki Kahukura, Ngaati Mahanga, Ngaati Wairere and Waikato Tainui to participate in a Tangata Whenua Working Group (TWWG), the purpose of which is to facilitate consultation between the consent holder and tangata whenua in respect of the activities authorised by these consents.
- (b) Provided that the invitation to participate in the TWWG has been accepted and the group has been established, then following consultation with the TWWG, the consent holder shall prepare a Waikato-Tainui Mitigation Plan (WTMP). The purpose of the WTMP is to specify and record a range of reasonable and tangible initiatives to address the matters included in the Position Statement (Appendix C of the consent application) and dated November 2013 that relate to the activities authorised by this consent.
- (c) No less than 30 working days prior to the consent holder providing the WTMP to Waikato Regional Council, the consent holder shall provide a draft version of the WTMP to the TWWG for their review. The consent holder will consider any feedback provided and will provide a written response within the finalised WTMP detailing:
- i. Whether any feedback has been provided by the TWWG; and
  - ii. Where feedback has been provided, how it has been incorporated into the WTMP; and
  - iii. Where feedback has been provided but not been incorporated into the WTMP, the reasons why not.

(d) Prior to construction commencing, the consent holder shall submit a copy of the WTMP to the Waikato Regional Council for its information.

(e) The consent holder shall implement the WTMP as part of the construction of the Expressway.

**Advice Note:**

*Waikato Tainui and the NZTA have already established a high level contract enabling a partnership to be established for the Hamilton Section of the Waikato Expressway. Through that process, an appointee from Waikato Tainui established responsibility for determining who the project team should engage with and how that should occur. As a result, a Hamilton Section specific Tangata Whenua Working Group (TWWG) was established in late 2011. The TWWG comprises members from Ngaati Hauaa, Ngaati Koroki Kahukura, Ngaati Mahanga, Ngaati Wairere and Waikato Tainui. It is anticipated that this existing group could fulfil the role specified in these conditions*

**Review**

67. The Waikato Regional Council may during the June to July (inclusive) period in 2015 and in the same period every year thereafter serve notice on the consent holder under section 128 (1) of the Resource Management Act 1991, of its intention to review the conditions of this resource consent for the following purposes:

- (a) to review the effectiveness of the conditions of this resource consent in avoiding or mitigating any adverse effects on the environment and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions; or
- (b) if necessary and appropriate, to require the holder of this resource consent to adopt the best practicable option to avoid, remedy or mitigate adverse effects on the environment; or
- (c) to review the adequacy of and the necessity for monitoring undertaken by the consent holder.

**Advice Note:**

Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act 1991.

**Administration**

68. The consent holder shall pay to the Waikato Regional Council any administrative charge fixed in accordance with section 36 of the Resource Management Act 1991, or any charge prescribed in accordance with regulations made under section 360 of the Resource Management Act 1991.

## **Waikato District Council Decision**

Having had regard to the provisions of the Resource Management Act 1991 (RMA) and in particular Part II and Part VIII thereof; and

Having considered the effects on the environment of allowing the Requirements; and

Having had particular regard to the provisions of all the relevant planning instruments, alternative sites or methods, whether the designations are reasonably necessary, and any other matters reasonably necessary in order to make a recommendation on the Requirements; and

Having considered the submission and evidence of the WDC as Requiring Authority, the submissions and the evidence tendered in relation to the Requirement, and the report provided under section RMA s42A; and

Acting under delegations from the Waikato District Council to hear and make a decision in respect of the WDC requirement; and

For the reasons set out in the Hearing Report contained in Volume 1 which is the basis for, and forms part of this decision; and

Making a broad overall judgement; and

Pursuant to Sections 168A, and 171 of the Resource Management Act, 1991,

**The Waikato District Council confirms the designation for the Tamahere East-West Link Road to be included in the Waikato District Plan subject to the conditions which follow:**

**DATED** this 30<sup>th</sup> day of June, 2014



.....  
**C. D. Arcus**  
**Joint Hearings Commissioner**  
**Chairman**

**DESIGNATION: TAMAHERE EAST WEST LINK ROAD**

**(Waikato District Council)**

**The Hearings Commissioners confirm the designation for the Tamahere East-West Link Road to be included in the Waikato District Plan as follows:**

**DESIGNATION PURPOSE**

Road

**DESCRIPTION OF WORKS:**

- A. The designation applies to the area of land comprised of Lot 3 DP 405191 (418091), Lot 3 DPS 16075 (SA54D/5), Part Lot 2 DPS 75496 (SA57C/491), Lot 4 DP 343339 (177772), Part Lot 12 DPS 15157 (SA46A/75) and Lot 1 DP 405191 (418019) as illustrated on the following plan:
  - a) Tamahere East-West Link NOR, Revised Alignment Option 1, Drawing Number: 134100/15/P/011, Revision B dated 2011.
- B. The terms and conditions described herein apply to the designation for: The construction, operation and maintenance of a local road, including all ancillary structures, works and activities in relation to the Tamahere East-West Link Road.

**LAPSE:**

- C. In accordance with Section 184(1)(c) of the Resource Management Act 1991, the period during which the designation shall not lapse, unless given effect to, shall be ten (10) years commencing from the date the designation is included in the Waikato District Plan.

**CONDITIONS:**

**1.0 General**

- 1.1 The works to give effect to the designation for the Tamahere East-West Link Road shall be undertaken in general accordance with the plans and information submitted in support of the Notice of Requirement, including the following document and plans of the proposed works, and subject to any amendments required by the conditions that follow:
  - a) Report titled "Tamahere East-West Tamahere East-West Link Road - Notice of Requirement for a New Designation, Waikato District Council", dated September 2013;
  - b) Tamahere East-West Link NOR, Option 1 Revised Alignment, Drawing Number 134100/15/P/006, Revision C, dated 2011
  - c) Tamahere East-West Link NOR, Land Requirement Option 1, Drawing Number 134100/15/P/011, Revision B, dated 2011;

- d) Tamahere East-West Link NOR, Typical Cross Sections Option 1, Drawing Number 134100/15/P/021, Revision A, dated 2011;

- 1.2 The Waikato District Council Monitoring Department shall be notified in writing two weeks prior to commencement of activities associated with this designation.

## **2.0 Network Upgrades**

- 2.1 Prior to the opening of the designated Tamahere East-West Link Road to vehicle traffic, the Requiring Authority shall design and construct an intersection with Birchwood Lane and the Tamahere East-West Link Road that:

- i. Complies with MOTSAM (NZ Transport Agency Manual of Traffic Signs and Markings) guidelines;
- ii. Encourages reduced speeds;
- iii. Provides adequate space to safely accommodate pedestrians and cyclists on the shared use pedestrian/cycle paths;
- iv. Provides a safe environment for on-road cyclists; and
- v. Can safely accommodate the expected traffic volumes and pedestrian and cyclist activity

- 2.2 Prior to the designated Tamahere East-West Link Road being open to vehicle traffic connecting to the Hamilton Southern Interchange Birchwood Lane shall be completed to its intersection with Devine Road and be available for vehicular traffic. It shall be designed to the Tamahere Country Living Zone Collector Road standard, with appropriate facilities for pedestrians and cyclists.

- 2.3 Between six months and twelve months after the opening of the designated Tamahere East- West Link Road to vehicle traffic between Birchwood Lane and the Hamilton Section Interchange of the Waikato Expressway the Requiring Authority shall review the intersection at Newell Road / Birchwood Lane, to ensure that it safely accommodates any resultant changes to traffic volumes and pedestrian and cyclist activity. If it is identified through monitoring that the intersection is operating at a level of service below the level of service it operated at prior to the opening of the Tamahere East West Link Road, the Requiring Authority shall undertake measures to avoid, remedy or mitigate any adverse effects. Such measures may include changing the intersection to a roundabout.

- 2.4 Prior to the Tamahere East-West Link Road being open to vehicle traffic connecting to the Hamilton Southern Interchange, the designated link road between Devine Road and State Highway 21 shall be constructed and open to traffic.

## **3.0 Construction**

- 3.1 No later than one month prior to the commencement of any earthworks or construction activity within the designation boundaries (excluding site investigations), the Requiring Authority shall submit a Construction Management Plan (CMP) to the Waikato District Council General Manager Regulatory (acting in a Certification capacity only) for review and approval. The objective of the CMP shall be to avoid, remedy or mitigate, as far as practicable, the effects of construction of the Tamahere East West Link Road

on surrounding landowners and surrounding infrastructure (including roads). The CMP shall include, but not necessarily be limited to:

- a) A construction methodology, sequencing and programming of works. The construction, sequencing and programming of works will be developed in a manner that minimises the construction period and disruption;
- b) Sediment and erosion control measures;
- c) Measures to be adopted to ensure that dust and debris are contained within the designation boundaries. A proactive approach to dust management shall be adopted to ensure that any adverse effects on external properties are avoided to the greatest extent possible. Methods of dust management will include (but not be limited to):
  - i. Staging of earthworks activities as much as possible and progressive stabilisation of completed surfaces to ensure that exposed areas at any one time are minimised;
  - ii. Managing the route and speed of vehicles traversing the site taking into account potential dust mobilisation and effects;
  - iii. Monitoring and maintenance of potential nuisance dust effects;
  - iv. Implementation of appropriate control measures to suppress dust generation effects to within the works zone should dry/windy conditions be encountered.
  - v. Measures and procedures to be adopted to mitigate any dust nuisance on external properties where dust nuisance occurs.
  - vi. Traffic management and monitoring arrangements.
- d) Access arrangements. The CMP shall include details of how disruption to the use of private property will be mitigated through:
  - i. Ensuring pedestrian and cycle access to private property is retained at all times; and
  - ii. Providing vehicle access to private property as practicably possible at all times, except for temporary closures of no greater than 24 hours and where landowners and occupiers have been communicated and consulted with in reasonable advance of the closure;
  - iii. Where an affected party unexpectedly finds their vehicle blocked in or out of their property as a result of a temporary closure, the Requiring Authority shall (within reasonable limits) offer alternative transport or parking arrangements as relevant.
- e) Details of the road routes which are to be used by construction related vehicles, particularly trucks to transport construction related materials, equipment, spoil; including how the use of these routes by these vehicles will be managed to mitigate congestion, and to the greatest extent possible, avoid adverse effects on surrounding properties and infrastructure (including roads).

- (i) Estimates of earthworks volumes;
- (ii) Indicative timeframes for construction, including details of staging of construction of the road (if applicable);
- (iii) The proposed earthworks methodology;
- (iv) Material sources, use/disposal and treatment;
- (v) Details of methods to ensure the prevention and mitigation of adverse effects associated with the storage, use, disposal, or transportation of hazardous substances; and
- (vi) Contact details of a senior manager associated with site construction works, for complaints and issues related to any construction on a 24 hours seven days a week basis. Their details to be advised to all residents within 200m of the designated corridor.
- (vii) Details of methods and measures to be adopted to ensure that wherever possible works shall be minimised in the gully system of the Mangaone Stream.
- (viii) Details of methods and measures to be adopted to minimise the adverse effects of any works undertaken in the gully system of the Mangaone Stream.
- (ix) Details of construction noise and vibration via a Construction Noise and Vibration Management Plan as outlined in Conditions 4.1 to 4.6.

3.2 The Tamahere East-West Link shall be constructed with an asphaltic concrete (AC)/dense graded asphalt surface (DGA) road surface from at least:

- (i) station 220 on the Link Road to Birchwood Lane;
- (ii) 100 metres west and 125 metres east of the intersection of the Link and Birchwood Lane.

The acoustic performance of this pavement (as a minimum) shall be maintained by the Requiring Authority.

#### **4.0 Construction Noise and Vibration**

- 4.1 Prior to the commencement of any earthworks or construction activity within the designation boundaries (excluding site investigations), the Requiring Authority shall submit a Construction Noise and Vibration Management Plan (CNVMP) to the Waikato District Council to be certified by the Council's Chief Executive Officer or nominee as addressing condition 4.2 to 4.4. The CNVMP is to be included with the CMP, in accordance with condition 3.1 h.
- 4.2 The CNVMP shall be prepared in accordance with the State Highway Construction and Maintenance Noise and Vibration Guide (NZTA, 2013) and shall include the procedures, methods and measures for the control of noise associated with all relevant Project construction works, which shall be formulated to comply with the limits of the following Table A. Should a circumstance occur whereby compliance proves impracticable the Requiring Authority shall refer not only to condition 4.4 but also 4.5 and 4.6. Sound levels

shall be measured and assessed in accordance with the provisions of NZS 6803: 1999 Acoustics - Construction noise.

**Table A – Construction Noise Criteria**

Time Period	Weekdays (dBA)		Saturdays (dBA)		Sundays and public holidays (dBA)	
	L <sub>eq</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>max</sub>
0630-0730	55	75	45	75	45	75
0730-1800	70	85	70	85	55	85
1800-2000	65	80	45	75	45	75
2000-0630	45	75	45	75	45	75

- 4.3 The CNVMP shall include specific details relating to methods for the control of vibration associated with all relevant Project construction works, which shall be formulated to comply with the Category A criteria in the Table B below and, whenever this is not practicable, to not exceed the Category B criteria. The criteria are to be applied to either predicted ground vibrations, or measured in accordance with ISO 4866, 2010 and AS 2187-2:2006.

**Table B – Construction Vibration Criteria**

Receiver	Details	Category A	Category B	Location
Occupied dwellings	Monday to Friday 6.30 am to 8.00 pm	1.0 mm/s ppv	5.0 mm/s ppv	Inside the building
	All hours Sunday and Monday to Saturday 8.00 pm to 6.30 am	0.3 mm/s ppv	1.0 mm/s ppv	
Other occupied buildings	All hours to Monday Sunday	2.0 mm/s ppv	10.0 mm/s ppv	
All buildings	Transient vibration	5.0 mm/s ppv	BS 5228.2 Table B2 values	Building foundation
	Continuous vibration		50% of BS 5228.2 Table B2 values	
Underground services	Transient vibration	20.0 mm/s ppv	30.0 mm/s ppv	On pipework
	Continuous vibration	10.0 mm/s ppv	15.0 mm/s ppv	

- 4.4 The CNVMP shall, as a minimum, address the following aspects with regard to managing the adverse effects of construction noise and vibration:

- (i) Noise and/or vibration sources including machinery, equipment and construction techniques to be used and their scheduled durations and hours of operation including times and days when work causing construction noise and/or vibration would occur;
- (ii) The construction noise and vibration criteria for the project;

- (iii) Identification of affected houses and other sensitive locations where noise and/or vibration criteria may apply;
  - (iv) Predicted noise levels set out as minimum compliance distances for key activities and items of plant and identification of any dwellings or other sensitive locations where works will be required within those minimum compliance distances.
  - (v) Mitigation options, including alternative strategies where full compliance with the noise criteria tabulated in Table A and the vibration criteria tabulated in Table B cannot practicably be achieved;
  - (vi) Methods and frequency for monitoring and reporting on construction noise and vibration;
  - (vii) Contact numbers for key construction staff, staff responsible for noise and/or vibration assessment and council officers; and
  - (viii) Procedures for maintaining contact with stakeholders, notifying of proposed construction activities and handling complaints about construction noise and/or vibration.
- 4.5 Where a CNVMP predicts that levels from a particular activity will or will likely exceed the limits set out in condition 4.2 and/or 4.3, or where measurements show that compliance is not being achieved, the Requiring Authority shall prepare and submit for the approval of Council's Chief Executive Officer or nominee, an Activity Specific Construction Noise Vibration Management Plan (ASCNVMP) unless the Council dismisses this requirement because the extent or duration by which the limits are exceeded is minor. The ASCNVMP(s) shall be submitted to the Council for certification at least 7 working days prior to the proposed works commencing. Works subject to the ASCNVMP(s) shall not commence until approval is received from the Council.
- 4.6 In addition to the requirements of condition 4.4, an ASCNVMP(s) must;
- (a) Describe the activity (including duration), plant and machinery that is expected not to comply with the noise and/or vibration limits in conditions 4.2 and 4.3;
  - (b) Provide predicted levels for all receivers where the levels will not be compliant with the limits in conditions 4.2 and 4.3;
  - (c) Describe the mitigation measures proposed to reduce the noise and/or vibration levels as far as practicable, including any options that have been discounted due to cost or any other reason; and
  - (d) Describe alternative mitigation of the impacts that is acceptable to affected parties (e.g. temporary accommodation during the specific activity).

## **5.0 Stormwater**

- 5.1 The stormwater network for the Tamahere East-West Link Road shall be designed and constructed in accordance with the standards and specifications set out in the Hamilton City Council Development Manual.

## **6.0 Landscaping**

- 6.1 No later than one month prior to the commencement of any earthworks or construction activity within the designation boundaries (excluding site investigations), the Requiring Authority shall submit a Landscape Management Plan prepared by a suitably qualified specialist, to the Waikato District Council General Manager Regulatory for review and approval.

The Plan shall be in general accordance with the Mitigation Plans (Plans L1, L2, L3, L4, L5 & P1) prepared by Mansergh Graham Landscape Architects and shall include as a minimum:

- (a) Plans showing the location of planting and bunds proposed for the purposes of visual mitigation;
- (b) Mitigation Planting within Part Lot 3 DPS 16075 in CT SA 45D/5 in accordance with MGLA Plan P1(R2);
- (c) The establishment of a hedgerow planting along the western length of the Tamahere East-West Link Road between Birchwood lane and the proposed retaining wall on Part Lot 3 DPS 16075;
- (d) Planting of all fill batters within the gully with native species;
- (e) A schedule of the species to be planted including botanical name, average plant height at time of planting and at maturity and planting density;
- (f) A planting specification including planting and mulching techniques;
- (g) Details of the timeframes for implementation of planting and landscaping works in relation to construction works;
- (h) Planting maintenance requirements over a two year period following planting; and
- (i) Integration of matters likely to affect bats (i.e. a, d & e above) with the relevant requirements of the Long-Tailed Bat Management and Monitoring Plan.

## **7.0 Ecology**

- 7.1 The Requiring Authority shall submit an Ecological Management and Restoration Plan (EMRP) prior to the exercise of this consent. The EMP shall be approved in writing by the Waikato District Council acting in a technical certification capacity prior to any works commencing and the Requiring Authority shall undertake all activities authorised by this designation in accordance with the approved EMP.

### **Advice Notes:**

1. *For the avoidance of doubt, this EMRP should be aligned with and be developed, as required for the particular circumstance of this designation, in concert with the EMRP as required by regional resource consents associated with the Hamilton Section Expressway alterations.*
2. *Should comparable EMRP conditions be set by the Waikato Regional Council on the resource consents required for this designation then, subject to the written concurrence of Waikato District Council, those latter conditions may*

*be deemed to satisfy and replace all or part of conditions 7.1 – 7.5 of this designation, which shall lapse accordingly.*

- 7.2 The EMP shall be prepared by an appropriately experienced and qualified person(s).
- 7.3 The purpose of the EMP is to provide a management framework to ensure that any adverse ecological effects associated with either the construction or the operation of the Tamahere East- West Link Road are avoided, remedied or mitigated to the greatest extent practicable.
- 7.4 The EMRP shall include, but is not necessarily limited to, the following:
- a) Detail of mitigation measures to be undertaken (in relation to the protection of indigenous flora and fauna including fish, wetland, and gully habitats) developed to ensure the avoidance, mitigation and remediation of adverse effects to existing ecosystems to the greatest extent practicable.
  - b) Detail of measures to restore stream, wetland, and gully habitats and areas affected by road construction and road operation in accordance with the report by Kessels Ecology dated September 2013 and attached as Appendix 9 to the Assessment of Environmental Effects 2013, being not less than:
    - i. Ecological restoration of 1.33 ha of wetland;
    - ii. Ecological restoration of 1.27 of gully slopes;
    - iii. Ecological restoration of the road batter slopes totalling 7,785 m<sup>2</sup>, with tall, fast-growing trees planted alongside the road (see (c)); and
    - iv. Ecological restoration of riparian margins of the entire length of any diverted streams.
  - c) Detailed plans of mitigation planting to be undertaken on the roadside embankments. The purpose of the mitigation planting is to:
    - i) Mitigate the loss of gully slope habitat as a result of road construction by;
      - i. Protecting biodiversity values associated with the gully area;
      - ii. Establishing vegetation suited to providing long term erosion and slope stability; and
      - iii. Mitigating the barrier effect of the road on bat movement.
  - d) Details of vegetation removal including but not limited to:
    - i. The timing of any vegetation removal; and
    - ii. Proposed disposal methods.
  - e) Detailed design and details of installation methods for the arch culvert in the main gully including rock design within the archway.
  - f) A finalised Fish Recovery Protocol developed in accordance with Draft Fish Recovery Protocol included as Attachment A to these conditions. The finalised Fish Recovery Protocol shall include details of the actions that will be taken during culvert installation and earthworks to minimise the direct loss of native freshwater fish.
  - g) A maintenance programme detailing how all the rehabilitated areas will be maintained. Details will include (but not be limited to):

- iii. Proposed fencing;
  - iv. Areas and methods of weed and pest control; and
  - v. Areas and methods of planting protection and replacement to ensure the revegetation and mitigation works are successful.
- h) Sediment and stormwater management plans.
- i) A Long-Tailed Bat Management and Monitoring Plan (LTBMMP) which shall be prepared by an appropriately qualified and experienced bat ecologist following consultation with the Department of Conservation. The purpose of the LTBMMP shall be to minimize impacts on bats and their habitat during construction and operation of the Tamahere East West Link Road using best practice techniques and mitigate and compensate for the direct loss of foraging, roosting and flyway habitat using best practice techniques. The LTBMMP shall include but not necessarily be limited to the following:
- i. Details of how the bats will be protected from light generated by road construction and operation.
  - ii. Details of the proposed methods of installation of metal bands around the trunks of potential roost trees maintained within the restoration area, including but not limited to the three kahikatea trees next to the embankment;
  - iii. Details of measures to reduce the barrier effect of the road embankment and reduce mortality from bats colliding with cars as they cross the embankment. Possible mitigation methods are creating "hop overs" for bats with planting and, or earthworks; and using downward pointing street lights to discourage bats from flying low across the road.

**Advice Note:** "Hop-overs" are landscape elements installed at sites where bat flyways cross roads. They are designed to encourage bats to continue to use flyways while simultaneously forcing the bats to fly high enough above the road to avoid mortality from collision with vehicles. Hop-overs can take a variety of forms including road cuttings, earthwork ramps on each side of the road to form false cuttings or continuous high tree canopies extending out from each side of the road.

- iv. Details of the proposed methods for developing, testing the effectiveness of and deploying artificial roost houses to replace potential roost trees that will be felled;
- v. Details of proposed on-going monitoring of bat activity within the gully to assess and quantify any negative or positive effects of the road and the gully restoration project.
- vi. Adaptive monitoring and evaluation approaches shall be integrated into the Long-tailed Bat Management and Monitoring Plan to ensure regular feedback and allow management to adapt to changing conditions found during monitoring.

**Advice note:**

*The Requiring Authority has undertaken to work with the Waikato Regional Council and the Department of Conservation to develop a Memorandum of Understanding addressing the establishment and implementation of a South Hamilton Bat Population Enhancement Plan.*

*The purpose of this Plan is to promote the conservation of the local long-tailed bat population.*

- j) A finalised pre-tree felling protocol shall be prepared following consultation with the Department of Conservation. The purpose of the finalised pre-tree felling protocol shall be to avoid the injury or mortality of roosting long-tailed bats. A draft set of pre-tree felling protocols is included as Attachment B to these conditions. These protocols shall be adopted unless new best-practice protocols are developed and approved by Waikato District Council.
  - k) A lizard management protocol shall be prepared following consultation with the Department of Conservation. The purpose of the protocol shall be to minimize injury or mortality of indigenous lizards present within the construction footprint of the gully through salvage and relocation efforts by qualified and experienced ecologist(s).
  - l) Timeframes for implementation, review and reporting requirements and the nature of proposed review and reporting requirements.
  - m) Identification of appropriate methodologies and monitoring procedures to ensure all mitigation measures undertaken are effective.
  - n) Details of consultation undertaken with the Department of Conservation regarding the development of the EMRP. The Requiring Authority shall seek written feedback from DoC regarding a draft EMRP and details of this consultation shall be included within the final EMRP to be provided to Waikato District Council. Details of consultation to be included in the EMRP include (but is not limited to):
    - i. How feedback from DoC has been incorporated into the EMRP; and
    - ii. Where feedback has not been incorporated into the EMRP, the reasons why not.
- 7.5 Any changes proposed to the EMRP must be confirmed in writing by the Requiring Authority and approved in writing by the Waikato District Council.

**Advice Note:**

*The requirements of condition 7 are in addition to any obligations of the Requiring Authority in respect of absolutely protecting wildlife under the Wildlife Act 1953.*

**8.0 Discovery of Archaeological or Culturally Significant Finds**

- 8.1 The Requiring Authority shall give at least 4 weeks written notice of the date that the construction contractor intends to commence earthworks or construction activity, to:
- a) the Project archaeologist to establish with the contractor a working relationship that will comply with good practice during the earthworks stage of the construction; and
  - b) the TWWG to enable them:

- (i) to clarify the procedures that will be observed;
- (ii) to provide the names of their representatives who are to be contacted for cultural advice and guidance in the event of a discovery of any buried archaeological deposits found during the project;
- (iii) to undertake any appropriate cultural ceremonies on the site; and
- (iv) to arrange for the inspection (should they so desire) of the earthworks.

8.2 Prior to the commencement of construction the Requiring Authority shall provide the Waikato District Council Chief Executive or nominee with evidence that Archaeological Authorities under the Heritage New Zealand Pouhere Taonga Act 2014 have been obtained from Heritage New Zealand as appropriate, to modify, damage or destroy any of the known archaeological sites likely to be affected during the construction works.

Alternatively, the Requiring Authority shall provide evidence that Archaeological Authorities are not necessary.

8.3 No later than 4 weeks prior to the commencement of any earthworks or construction activities (excluding enabling works), the Requiring Authority shall submit an Archaeological Site Management Plan (ASMP) prepared by a suitably qualified archaeologist, to the Waikato District Council Chief Executive or nominee for certification. The ASMP shall be prepared in consultation with the TWWG and with Heritage New Zealand. The purpose of the ASMP is to describe the measures that will be taken to avoid or mitigate adverse effects on archaeological sites within the designation. As a minimum, the ASMP shall include the following:

- a) Measures that will be taken to protect archaeological sites from damage during construction;
- b) Measures to physically protect the known extent of pa site S14/56 from the effects of construction of the road including a fence located at or north of the mark as shown on Figure 2 in the W Gumbley Ltd report entitled "Tamahere East-West Link Road Project: Assessment of Archaeological values" dated September 2013.
- c) Measures to set out the long term care for that part of pa site S14/56 that is located on public land including the physical preservation of the pa site, the potential for interpretive measures and an appropriate vegetation strategy.
- d) Details of any archaeological investigations or monitoring required by any authority to destroy, damage or modify archaeological site or evidence required under condition 8.2.
- e) An Accidental Discovery Protocol (noting that in the event of any conflicting provisions where any part of the site is operating under an Authority from Heritage New Zealand, the ADP protocols contained within that Authority shall take precedence) so that in the event that any archaeological sites, remains, artefacts, taonga (Maori artefacts) or koiwi are unearthed, dislodged, uncovered or otherwise found or discovered during the earthworks ("Discovery"), the Requiring Authority shall:
  - (i) Advise tangata whenua, the project archaeologist, and the Waikato District Council as appropriate, within one day of the Discovery;
  - (ii) Cease works in any part of the project site affected by the Discovery;
  - (iii) Contact the NZ Police, Coroner and Heritage New Zealand as appropriate;

- (iv) Not recommence works in the parts of the project site affected by the Discovery until all necessary statutory authorisations or consents have been obtained; and
    - (v) Address any other relevant matters in accordance with NZ Transport Agency's Minimum Standard Z/22 – Accidental Discovery Procedures.
  - f) Roles and responsibilities associated with managing the archaeological aspects of the project.
  - g) Provision for training contractors in the archaeological requirements of the project.
  - h) Reporting requirements.
- 8.4 Any required revisions to the ASMP shall not be implemented by the Requiring Authority until approved in writing by the Waikato District Council Chief Executive or nominee. The Waikato District Council shall respond to the request for a revision to the ASMP within 2 weeks or another time period agreed between all parties.
- 8.5 Twenty (20) working days prior to the Requiring Authority providing the ASMP to Waikato District Council in accordance with this condition, or any revisions in accordance with condition 8.4, a draft version of the plan shall be provided to the Hamilton Section TWWG and to Heritage New Zealand for their review. The Requiring Authority will consider any feedback provided and will provide a written response within the finalised ASMP detailing:
- a) Whether any feedback has been provided by Heritage New Zealand and the TWWG; and
  - b) Where feedback has been provided, how it has been incorporated into the management plan; and
  - c) Where feedback has been provided but not been incorporated into the management plan, the reasons why not.
- 8.6 The Requiring Authority shall implement the certified ASMP in giving effect to this Project.
- 8.7 The Requiring Authority shall:
- a) Not less than 6 months following the inclusion of this designation in the District Plan and prior to the commencement of construction, invite mandated representatives of Ngaati Hauaa, Ngaati Koroki Kahukura, Ngaati Mahanga, Ngaati Wairere and Waikato Tainui to participate in a Tangata Whenua Working Group (TWWG), the purpose of which is to facilitate consultation between the Requiring Authority and tangata whenua in respect of the activities authorised by this designation.
  - b) Provided that the invitation to participate in the TWWG has been accepted and the group has been established, then following consultation with the TWWG, the Requiring Authority shall prepare a Waikato-Tainui Mitigation Plan (WTMP). The purpose of the WTMP is to specify and record a range of reasonable and tangible initiatives to address the matters included in the Position Statement (Appendix C of the NoR application) and dated November 2013 that relate to the activities authorised by this consent.
  - c) No less than 30 working days prior to the Requiring Authority providing the WTMP to Waikato District Council, the Requiring Authority shall

provide a draft version of the WTMP to the TWWG for their review. The Requiring Authority will consider any feedback provided and will provide a written response within the finalised WTMP detailing:

- i. Whether any feedback has been provided by the TWWG; and
  - ii. Where feedback has been provided, how it has been incorporated into the WTMP; and
  - iii. Where feedback has been provided but not been incorporated into the WTMP, the reasons why not.
- d) Prior to construction commencing, the Requiring Authority shall submit a copy of the WTMP to the Waikato District Council for its information.
- e) The Requiring Authority shall implement the WTMP as part of the construction of the Tamahere East West Link Road.

**Advice Note:**

*1: Waikato Tainui and the NZTA have already established a high level contract enabling a partnership to be established for the Hamilton Section of the Waikato Expressway. Through that process, an appointee from Waikato Tainui established responsibility for determining who the project team should engage with and how that should occur. As a result, a Hamilton Section specific Tangata Whenua Working Group (TWWG) was established in late 2011. The TWWG comprises members from Ngaati Hauaa, Ngaati Koroki Kahukura, Ngaati Mahanga, Ngaati Wairere and Waikato Tainui. It is anticipated that this existing group could fulfil the role specified in these conditions.*

*2: This proposal will affect recorded archaeological site(s). Work affecting archaeological sites is subject to a consenting process under the Heritage New Zealand Pouhere Taonga Act 2014. An authority (consent) from Heritage New Zealand (formerly the NZ Historic Places Trust) must be obtained for the work prior to commencement. It is an offence to modify, damage or destroy a site for any purpose without an authority. The Heritage New Zealand Pouhere Taonga Act 2014 contains penalties for unauthorised site damage. The applicant is advised to contact Heritage New Zealand for further information.*

## **9.0 Designation Boundaries**

- 9.1 As soon as reasonably practicable and no later than the point at which the entire Tamahere East-West Road Link becomes operational, the Requiring Authority shall:
- a) Review the area and volume of land designated for the Tamahere East-West Road Link;
  - b) Identify any areas of designated land that are no longer necessary for the on-going operation and maintenance of the Tamahere East-West Road Link or for on-going mitigation measures; and
  - c) Give notice in accordance with Section 182 of the RMA for the removal of those parts of the designation identified in (b) above.

## **Attachment A**

### **(Draft) Fish Recovery Protocols**

#### **Gully Infilling and Culvert Installation Procedures**

Construction of the road embankments will involve infilling of wetland habitat.

The arch culvert will be constructed off-line in the gully floor area, with the arch being supported by lineal concrete footings along either edge. A new section of stream channel will be formed within the natural ground materials through the centre of the culvert with a profile to match existing upstream/downstream sections. This will involve diverting the stream for 1-2 weeks during culvert construction. Upon completion of the new culvert structure and stabilisation of the channel, the stream flows will be diverted into the new alignment through the arch culvert. Culvert construction, installation and maintenance will be undertaken in accordance with the requirement of the Freshwater Fisheries Regulations 1983.

#### **Fish Recovery Procedures**

It is recognised that there will always be some level of mortality and injury as a result of the earthworks in the beds of streams. The objective of the fish recovery procedures that are described below is to take all practical steps to minimise the direct loss of native freshwater fish as a consequence of gully infilling and culvert installation.

All fish captured or recovered through the following procedures will be transferred immediately upstream of the works site.

#### ***Recovery Protocols- Culvert Installation***

Fish recovery protocols will need to be put in place to move any fish out of the stream that will be diverted and backfilled. The total length of the affected stream is approximately 75 m. The recommended fish recovery method will include the following stages:

- 1) Netting and trapping. At this point both ends of the original channel will have been physically blocked. Once this has been done baited nets and traps will be set to determine the fish species present and their relative abundances. Nets and traps will be set overnight because all of the native fish species being targeted are nocturnal. Gee minnow traps will be set at a density of 1 per 5 m of stream and fyke nets will be set at a density of 1 per 20 m of stream if the channel is deep enough.
  - a) If no native fish species are recorded then no fish recovery is required and the stream can be diverted and filled in.
  - b) If only shortfin eels are present then fish recovery will be necessary starting at Step 2
  - c) If any 'At Risk – Declining' species are identified then further netting and trapping will be carried out until catch rates fall below 0.25 fish per trap/net or after a minimum of four nights of trapping prior to culvert installation work starting. Any additional trapping will be very ineffectual and it would be more efficient to move on to the next stage.

- 2) A seine net will be run from one end of the stream to the other to collect the remaining fish in the stream. If large numbers of fish are collected in the first run then a second run will be carried out. Seine netting of the stream will not be feasible if there is a lot of loose unconsolidated material in the bottom of the stream or if there are a lot of obstructions (e.g. tree roots). If the water table is sufficiently low enough then the stream will be dewatered using pumps to increase the efficiency of seine netting.
- 3) A pump will be used to dewater the stream channel. The pump intake will be screened with a maximum mesh size of 3 mm and have intake velocities of less than 0.3 m/sec.
- 4) Earthworks in the stream will commence. Spoil from the digging will be placed on the bank and any fish caught in the spoil will be collected and transferred upstream as the digging is being carried out.
- 5) Where the stream channel or wetland is to be filled in, this should be done systematically starting at one end and moving to the other. If seine netting cannot be carried out then hand nets will be used to recover fish in the last sections of stream and wetland.

#### ***Recovery Protocols- Wetland Drainage and Gully Infilling***

- 1) Fish recovery protocols will also be needed for infilling of wetland habitats. These habitats should be checked for fish prior to any significant earthworks to remove vegetation. The recommended fish recovery method will include the following stages:
- 2) Netting and trapping. Baited nets and traps will be set to determine the fish species present and their relative abundances. Nets and traps will be set overnight because all of the native fish species being targeted are nocturnal. If no native fish species are recorded then no fish recovery is required and the wetland can be filled in. If only shortfin eels are present then fish recovery will be necessary starting at Step 2. If any 'At Risk – Declining' species are identified then further netting and trapping will be carried out until catch rates fall below 0.25 fish per trap/net or after a minimum of four nights of trapping prior to culvert installation work starting. Any additional trapping will be very ineffectual and it would be more efficient to move on to the next stage.
- 3) A pump will be used to dewater the wetland. The pump intake will be screened with a maximum mesh size of 3 mm and have intake velocities of less than 0.3 m/sec.
- 4) Where earthworks are to take place within the wetland, spoil from the digging will be placed on the bank and any fish caught in the spoil will be collected and transferred upstream as the digging is being carried out.
- 5) Where the wetland is to be filled in, this should be done systematically starting at one end and moving to the other. It is unlikely that seine netting will be possible in this environment so hand nets will be used to recover fish in the last sections of wetland.

## **Attachment B**

### **(Draft) Pre-tree felling Protocol**

The following protocols are recommended for removal of any potential bat roost trees, i.e. native or exotic trees measuring greater than 15 cm DBH (diameter at breast height) at the Tamahere East-West Link gully crossing site.

NB: for the purposes of the following protocols Dusk and Dawn are defined as starting and ending 0.5 hr either side of official dusk and dawn times.

The protocols for tree removal are as follows:

#### ***Protocol A: Quality Assurance & Communication Procedures***

- 1) All surveys and pre-felling checks (see Protocols B and C for details) shall be undertaken by a qualified and approved ecologist. The applicant will nominate a suitable qualified bat ecologist(s) to be endorsed by WRC and WDC prior to deployment of automated bat monitors (ABMs) and analysis of data.
- 2) All ABM data from each pre-felling survey shall be reviewed the morning following the end of the survey (winter or summer). All data must be reviewed by noon that day to give the tree fellers sufficient time to fell trees prior to dusk if no bats are recorded.
- 3) Once the results of visual surveys and ABM data have been reviewed by the approved ecologist the following communication procedures shall be implemented:
  - a) If no bats are sighted or detected, the ecologist shall call the tree felling supervisor within 1 hr of reviewing the data to give permission for the affected tree(s) to be felled. In addition, an email report shall be sent to the site manager and a representative of the Department of Conservation detailing the results of the survey.
  - b) If bats are sighted or detected the ecologist shall call the tree felling supervisor within 1 hr of reviewing the data and instruct that the affected tree(s) cannot be felled until the ecologist confirms otherwise. In addition, within 2 hrs of reviewing the data, an email shall be sent to the site manager, the nominated bat expert and a representative of the Department of Conservation detailing the results of the survey and outlining the measures for on-going visual surveys as detailed in Protocols B and C below. The nominated bat expert will review the data and, if necessary, provide additional recommendations to the ecologist to ensure the safety of the bats is paramount.
  - c) A record of any trees containing bat roosts shall be kept detailing the size, location and type of tree.

#### ***Protocol B: Winter (1<sup>st</sup> May – 30<sup>th</sup> September)***

Trees shall not be removed from 1<sup>st</sup> May – 30<sup>th</sup> September when bats are hibernating or torpid.

**Protocol C: Summer (1st October – 30th April)**

- 4) All potential roost trees to be removed under this protocol must be clearly marked by a suitably qualified ecologist and distinguished from trees to be retained.
- 5) All potential roost trees to be removed under this protocol must be clearly marked by an approved ecologist and distinguished from trees to be retained. Each tree or group of trees to be removed must be monitored overnight (from one hour before official dusk until one hour after official dawn), for a minimum of three nights via an ABM (or multiple ABMs as required). The number and positioning of ABMs used must provide sufficient coverage to be able to determine if bat roosts are present in one or more of the trees. During the survey the temperature at dusk and for 2 hours after dusk must remain above 10°C with little precipitation (the amount of precipitation that is acceptable is at the discretion of the approved ecologist). Monitoring during full moon should be avoided.
- 6) If no bat activity is recorded, or the level and activity patterns do not indicate roosting, according to the interpretation of the approved ecologist, the tree may be removed – removal must occur the same day the survey ends. The approved ecologist(s) or their (suitably qualified) nominated representative must be onsite for the duration of all tree-felling operations to advise staff should bats be detected (leaving trees or injured) and to inspect each felled tree for signs of bat roosts.
- 7) If bat activity is recorded and indicates roosting in the trees to be felled, based on the interpretation of the approved ecologist(s), each tree must be climbed and visually inspected by an arborist. The arborist will photograph/video any potential evidence of bats (staining, cavities, guano), which will be reviewed by the approved ecologist(s) prior to felling.
- 8) The arborist will also check for signs of bats using a bat detector (to detect social and echolocation calls from roosting bats, under supervision of the approved ecologist(s)). Care must be taken while climbing trees to avoid disturbing, removing or destroying tree features with bat potential such as large sections of loose bark.
- 9) If no sign of bats is evident, the tree can be felled - removal must occur on the same day as the visual inspection. The approved ecologist(s) or their (suitably qualified) nominated representative must be onsite for the duration of all tree-felling operations to advise staff should bats be detected (leaving trees or injured) and to inspect each felled tree for signs of bat roosts.
- 10) If bats are seen leaving or entering the tree, or are found to be living in the tree after visual inspection, then it should not be removed until further monitoring confirms that the bats have abandoned the roost. Trees should be marked and site staff briefed immediately to indicate a roost is present in the tree.
- 11) If a roost is found to be occupied for a period greater than 7 days, the Waikato District Council and approved ecologists shall consult with the Department of Conservation, who will re-assess and consider alternative methods to progress tree felling based on the type of roost identified.

**Protocol D: Dead or Injured Bats**

- 1) The Department of Conservation (DOC) has requested that the following procedures are implemented in the event of finding dead or injured bats:

- a) Injured bats should be immediately taken to a vet for assessment. The Hamilton Zoo should be the initial contact organisation for this.

Hamilton Zoo  
Brymer Road  
Hamilton  
07 838 6720

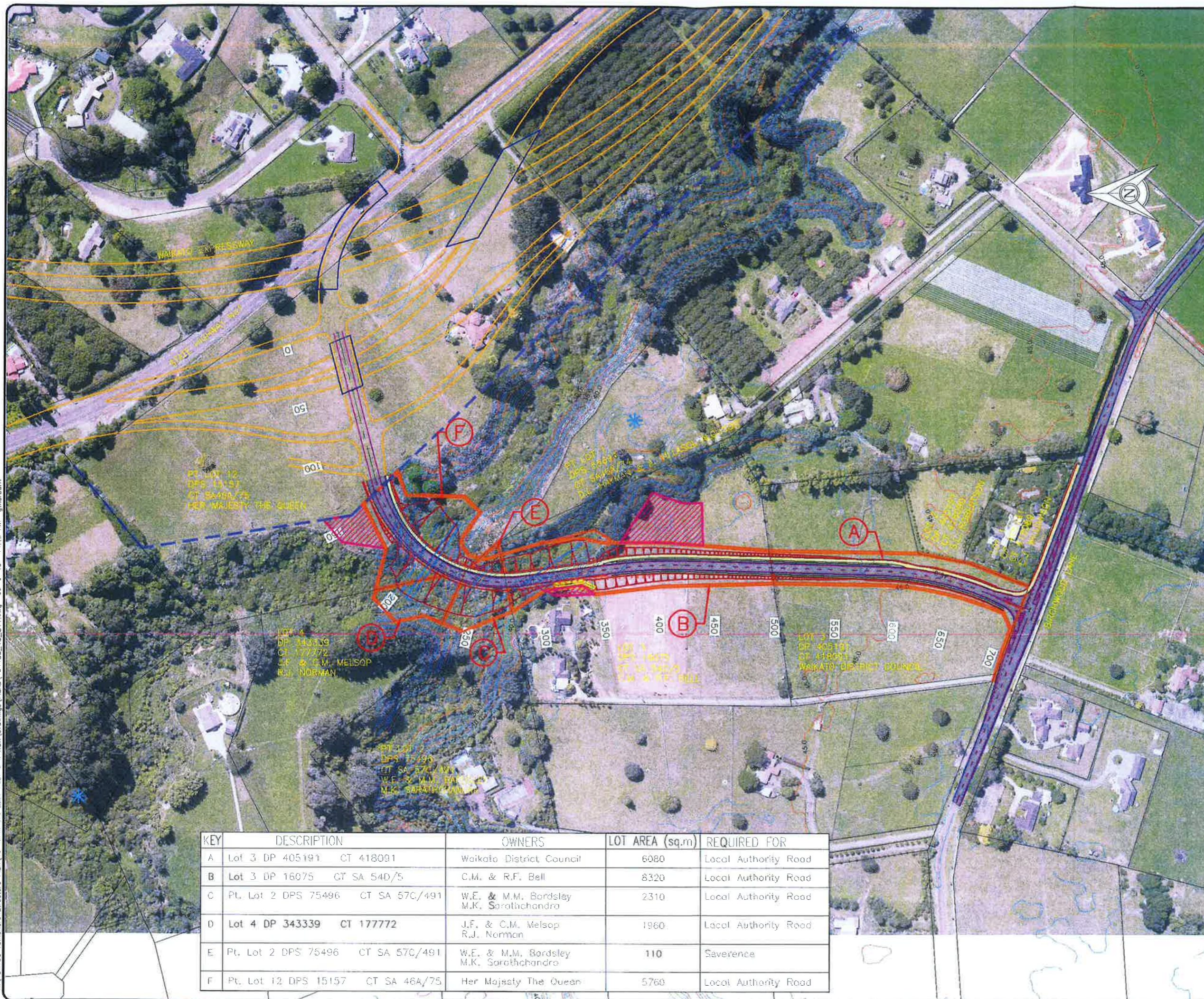
- b) The Department (Waikato Area Office (WAO) or DOC hotline if after hours) should be contacted no longer than 2 hours after an injured or dead bat is found.

Waikato Area Office - 07 858 1000

After Hours - 0800 DOCHOTline (0800 362 468)

- c) Any bat which is found dead or euthanized will be returned to the WAO.
- d) Any bats found during felling (dead, injured or otherwise) will be inspected by the bat ecologist should handling and short-term retention is required. The bat ecologist shall determine on site if the bat is able to be released immediately or the most appropriate method for the safe dispersal of the animal. DOC shall be notified immediately of each such event.
- e) DOC advice should be sought with regards to the rehabilitation requirements of any injured bats (for example legislative requirements will need to be considered).
- f) Any rehabilitated bat should be released in the same general location in which it was found, after works at any release site which may adversely impact on that bat's survival have been completed.
- g) All necessary approvals required under the Wildlife Act 1953 shall be obtained and complied with.

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KEY	DESCRIPTION	OWNERS	LOT AREA (sq.m)	REQUIRED FOR
A	Lot 3 DP 405191 CT 418091	Waikato District Council	6080	Local Authority Road
B	Lot 3 DP 16075 CT SA 54D/5	C.M. & R.F. Bell	8320	Local Authority Road
C	Pt. Lot 2 DPS 75496 CT SA 57C/491	W.E. & M.M. Bardsley M.K. Sarathchandra	2310	Local Authority Road
D	Lot 4 DP 343339 CT 177772	J.F. & C.M. Melsop R.J. Norman	1960	Local Authority Road
E	Pt. Lot 2 DPS 75496 CT SA 57C/491	W.E. & M.M. Bardsley M.K. Sarathchandra	110	Saverence
F	Pt. Lot 12 DPS 15157 CT SA 46A/75	Her Majesty The Queen	5760	Local Authority Road

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KEY

LAND REQUIRED FOR EAST-WEST LINK  
WAIKATO EXPRESSWAY DESIGNATION

DESIGN	05.12	ALIGNED/REVISED	GT	CD	56
DRAWN	11.20	REVAL/REUSE	GT	CD	
NO	DATE	ISSUE/REVISION	DETAIL	BY	CHK/APP

design - checked GT  
drawn GT approved  
drawing status: PRELIMINARY

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client **Waikato**  
DISTRICT COUNCIL

project **TAMAHERE EAST-WEST LINK  
NOR**

drawing title  
**LAND REQUIREMENT  
OPTION 1**

scale  
A1 = 1:3000

date  
10.11.2011

File: 134100\_15\_P011.dwg

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drawing number  
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