

**WHAKATANE DISTRICT COUNCIL**

Resource Consent for Land Use

File numbers LL-2012-8085-00

Consent Holder: **Bay of Plenty Regional Council (Natural Hazards Group)**

Resource consents are granted:

- a. Under section 9(3)(a) of the Act and Rules 4.1.2.1 and 4.1.2.2 of the Operative Whakatāne District Plan, being a restricted discretionary activity for Earthworks to remove approximately 5,000 cubic metres of soil within the Coastal Protection Zone at CS-3;
- b. Under section 9(3)(a) of the Act and Rules 4.1.2.1 and 4.1.2.2 of the Operative Whakatāne District Plan, being a restricted discretionary activity for Earthworks within the Coastal Protection Zone near the confluence of the Kopeopeo and Orini Canals;
- c. Under section 9(3)(a) of the Act and Rule 4.6.1(27) of the Operative Whakatāne District Plan, being a discretionary activity to establish and operate three solid waste management and disposal sites;
- d. Under section 9(1)(a) of the Act and Regulation 10 of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011, being a restricted discretionary activity, to disturb soil in the bed of the Kopeopeo Canal (a piece of land), for a 5.1 kilometres (km) length between the SH30 intersection with Kope Drain Road, and the confluence of the Kopeopeo and Orini Canals.
- e. Under section 9(1)(a) of the Act and Regulation 11 of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011, activity being a discretionary, to disturb soil in CS-3.

Subject to the following conditions:

**1. General**

- 1.1 That the proposed activity shall be carried out in general accordance with:
  - a. The report prepared by Harrison Grierson entitled '*Kopeopeo Canal Remediation Project – Application to Change Resource Consent Conditions*' Document Number R002v1-133312-07-s127-tpf dated April 2016 and all appendices ("the variation application");
  - b. The further information letter (section 92 response) entitled '*Kopeopeo Canal Remediation Project – Application to Vary the Conditions of Resource Consents RC67173 and LL-2102-8085*' prepared by Harrison Grierson dated 28 June 2016 and all appendices;
  - c. The Site Plan entitled '*Kopeopeo Canal Area to be Remediated and Containment Sites*' prepared by Bay of Plenty Regional Council referenced as Gis-487835 and dated 14 April 2016 (stamped RC 67173/1A).

except where modified by any other condition of this consent.

## 2. Location

- 2.1 The activities authorised under this consent are located as shown on the plans referenced as LL-2012-8085-00/1A and are described as follows:
- a. Land within and adjacent to the Kopeopeo Canal extending for a length of approximately 5.1 kilometres ('km') between State Highway 30 (at the intersection of Kope Drain Road) and the confluence of the Kopeopeo and Orini Canals (in the vicinity of Keepa Road), Whakatane;
  - b. 1 Kope Drain Road, Whakatane, legally described as Section 1 Survey Office Plan 487058 CFR 707829 (Containment Site 1 ('CS-1'));
  - c. 49A Keepa Road, Whakatane, legally described as Allot 28B 9B 2B Rangitaiki Parish (Containment Site 2 ('CS-2'));
  - d. 44 Keepa Road, Whakatane, legally described as Allot 216 Rangitaiki Parish (Containment Site 3 ('CS-3')).
- 2.2 For the purposes of the conditions of this consent 'the site' shall be the project site as defined on the plan entitled "*Kopeopeo Canal Area to be Remediated and Containment Sites*" prepared by Bay of Plenty Regional Council referenced as Gis-487835 and dated 14 April 2016 (referenced LL-2012-8085-00/1A and attached to this consent).

## 3. Plans to be Provided

- 3.1 No less than 10 working days prior to the commencement of works authorised under this consent associated with the construction of each containment site, the Consent Holder shall submit to the Chief Executives of the Bay of Plenty Regional Council ('the Regional Council' or 'BoPRC') and Whakatane District Council (WDC) the final plans and design details for that containment site. The plans shall:
- a. be in general accordance with the plans entitled '*Kopeopeo Canal Containment Site 1B (New CS-1) – Conceptual Design – GIS-482146\_4 Sheet 1 of 1*', '*Kopeopeo Canal Containment Site 2 - Site Plan – GSP-515342\_2 Sheet 1 of 1*', and '*Kopeopeo Canal Containment Site 3 - Site Plan – GSP-515342\_3 Sheet 1 of 1*';
  - b. include details of the sizes and specifications of the sump(s), pipeline(s) and discharge pipe(s) to demonstrate that this equipment will accommodate the volume of sediment and water being transported to, stored at, and discharged from the containment sites;
  - c. be prepared by, or under the supervision of a Chartered Professional Engineer, with a minimum of 5 years relevant experience.
- 3.2 The design details for the containment cells required by condition 3.1 shall include a geotechnical engineering design report prepared in accordance with the recommendations of the memorandum by Ice Geo and Civil dated 14 December 2015 and titled '*Kopeopeo Canal Remediation: Containment Sites – Geotechnical Considerations*'. This report shall include static and seismic analyses to assess containment site stability and design requirements in accordance with Importance Level 2 structures under NZS1170.0:2002 and account for liquefaction and lateral spread effects. The report shall demonstrate how the containment site design has achieved these requirements, specifically in relation to:

- a. The strength of the HDPE liner and its ability to meet the design requirements;
  - b. Allowance for differential settlement of the containment sites and the potential effect on drainage of the containment cells;
  - c. Protection of the integrity of the Whakatane River stopbank adjoining Containment Site 3.
- 3.3 No less than 10 working days prior to the commencement of works authorised under this consent associated with increasing the height of the stopbank at CS-3, the Consent Holder shall submit to the Chief Executives of the BoPRC and WDC the final plans and design details for the changes to the stopbank. The plans shall show an increase in the height of the stopbank between the Kope-Orini flood pump and the northern end of CS-3 to a height approximately 200mm higher than the stopbank immediately to the north and south of the site. The plans shall be prepared by, or under the supervision of a Chartered Professional Engineer, with a minimum of 5 years relevant experience.
- 3.4 No less than 10 working days prior to the commencement of works authorised under this consent associated with the construction of the control structures-within the Kopeopeo Canal at each end of the project site area, the Consent Holder shall submit to the Chief Executives of the BoPRC and WDC the final plans and design details for the control structures. The plans and design details shall:-
- a. Provide evidence to demonstrate that the control structures are able to effectively prevent the distribution of contaminated sediment outside the remediation zone. The information provided to satisfy this requirement shall take account of all relevant design considerations, including but not limited to:
    - (i) Canal depth;
    - (ii) Canal flow velocities;
    - (iii) Sediment characteristics (size and type); and
    - (iv) Geotechnical conditions.
  - b. If relevant, provide evidence to demonstrate that the design has accounted for potential piping under or around the control structure and for potential scour effects in the event the structure is overtopped.
  - c. If the control structures comprise silt curtains or similar types of structures, the consent holder shall develop design parameters to ensure the effective operation of the structures to prevent the distribution of contaminated sediment beyond the remediation zone. A monitoring plan shall be provided as part of these design details and shall specify the operational limits of the structures, the location and frequency of monitoring, trigger levels and response actions in the event these operational limits and or trigger levels are exceeded.
  - d. Be prepared by, or under the supervision of, a Chartered Professional Engineer, with a minimum of 5 years relevant experience.
- 3.5 No less than 10 working days prior to the commencement of works authorised under this consent within the remediation zone of the Kopeopeo Canal the Consent Holder shall submit to the Chief Executives of the BoPRC and WDC a final Environmental Monitoring and Validation Plan in general accordance with:

- a. the following sections of the *'Kopeopeo Canal Remediation - Proposed Environmental Monitoring and Validation Plan'* Draft B dated 18 October 2013 prepared by SKM:
  - Section 3 – Bank Stability
  - Section 8 – Air Quality
  - Section 9 – Soil
  - Section 11 – Bioremediation Methodology
  - Section 12 – Validation
  - Appendix D – Soil Sampling Protocols
  - Appendix E – Spill Response Plan
  - Appendix F – Example Odour Diary
  - Appendix G – Example Sediment Monitoring Task Sheet
- b. the Revised Groundwater Monitoring Programme and Sampling and Analysis Plan included as Appendix A and Appendix B to the report prepared by Jacobs titled *'Kopeopeo Canal Remediation – Revised Groundwater Assessment'* dated 19 January 2016.

but amended to reflect any changes required by the conditions of this consent and the revised project method detailed in the variation application.

- 3.6 No less than 10 working days prior to the commencement of dredging activities authorised under this consent the Consent Holder shall submit to the Chief Executives of the BoPRC and WDC a Dredging Management Plan. The purpose of this document is to demonstrate how the consent holder will manage dredging activities to avoid, remedy or mitigate environmental effects and achieve compliance with the conditions of this consent. The plan shall include all dredging activities and transport of sediment from the dredging plant to the containment sites. The Dredging Management Plan shall include, but not be limited to:
- a. A detailed description of the methodology for dredging, transportation and containment of sediment extracted from the canal, including:
    - The layout and design of the containment sites;
    - plant mobilisation and dredging preparation requirements;
    - construction details for the control structures, their locations and operation including the ability to enable floodwaters to flow over or through the structures;
    - dredging and sediment transfer methods and equipment;
    - the process and methods used to treat the dredging slurry/water at the containment sites;
    - containment site design and layout; and
    - discharge water quality controls.
  - b. Technical information describing the characteristics of the sediment within the remediation zone of the canal used as the basis for the development of the dredging methodology.
  - c. A description of the mitigation and monitoring measures to be employed during the works to ensure compliance with the conditions of this consent, including:
    - the management of debris recovered from the canal;
    - measures to control the effects of dredging activities on water quality in the canal;
    - pest control;
    - the protection of infrastructure assets;
    - the refuelling of vehicles and machinery;

- flood management;
- sediment transfer control measures;
- water quality monitoring within the Kopeopeo Canal;
- the control and monitoring of filtrate and stormwater discharged from the containment sites;
- cultural monitoring;
- spill control measures and contingencies (fuel and sediment); and
- canal validation and auditing.

3.7 The plans referred to in conditions 3.1 to 3.6, and any subsequent versions or updates, shall be submitted to the Chief Executives of the Regional Council and WDC for confirmation that the plan(s) are in accordance with the conditions of this consent. Works shall not commence until the plans have been confirmed in accordance with this condition and variations to the plans shall not be implemented until they have been confirmed in accordance with this condition.

#### **4. On-going Maintenance**

- 4.1 The Consent Holder shall ensure that all structures and works authorised under this consent are maintained in a structurally sound condition at all times.
- 4.2 Despite Condition 4.1 the Consent Holder shall undertake any maintenance work on the structures and works authorised under this consent, as soon as reasonably practicable, if directed by the Chief Executive of the Whakatāne District Council or delegate.

#### **5. Noise**

- 5.1 Construction work shall be carried out in general accordance with the recommendations set out in the report prepared by Design Acoustics titled "*Proposed Kopeopeo Canal Remediation – Construction Noise from Revised Remediation Method*" and dated 21 January 2016.
- 5.2 Noise associated with construction activity shall comply with the limits recommended in, and shall be measured in accordance with, *NZS6803:1999 Acoustic – Construction Noise*.
- 5.3 Prior to the commencement of construction activities on the sites, a Construction Noise Management Plan shall be submitted to the Whakatane District Council. The Construction Noise Management Plan shall be in accordance with the recommendations set out in the acoustic assessment prepared by Design Acoustics dated 21 January 2016 and entitled '*Proposed Kopeopeo Canal Remediation – Construction Noise from Revised Remediation Method*' and shall:
- a. outline the range of activities, equipment, their potential noise levels and any noise mitigation measures that will be implemented to ensure compliance with the noise limits set out in NZS 6803:1999 Acoustics – Construction Noise;
  - b. identify the locations where dredging can be undertaken outside of the hours of operation stated in condition 23.1 and specify the machinery to be used and the associated noise emissions to demonstrate compliance with the noise limits specified in the New Zealand Construction Standard NZS6803:1999;

- c. requirements for monitoring noise emissions; and
- d. procedures for registering and responding to any complaints regarding noise;

Separate Construction Noise Management Plans may be prepared and submitted for (i) the construction of the containment sites and (ii) the extraction of sediment from the canal and deposition at the containment sites.

## 6. Traffic

- 6.1 A revised Traffic Management Plan (TMP) and Corridor Access Request (CAR) (if use of the State Highway is required) shall be submitted to the Whakatane District Council, and the New Zealand Transport Agency (NZTA) for approval as the Road Controlling Authorities (RCA). The Traffic Management Plan shall be in accordance with the '*Traffic Management Plan*' dated 15 March 2013 (Final version) prepared by SKM, but amended to reflect any changes required by the conditions of this consent, the revised project methodology set out in the variation application, the recommendations of the Jacobs Traffic Impact Assessment dated 30 March 2016 and any requirements of the road controlling authorities. No works shall commence on site until such approval is granted. The Consent Holder may submit separate Traffic Management Plans for the containment site construction and dredging stages of the project.
- 6.2 Use of Kope Drain Road is subject to the following conditions;
  - a. Kope Drain Road shall be maintained in a safe trafficable condition for normal vehicular traffic for the duration of the works, including during the period of road closure.
  - b. No dust arising from the works shall be permitted to cause a nuisance to nearby properties.
- 6.3 The proposed works cross Paroa Road, and the following conditions shall apply;
  - a. Traffic flows on Paroa Road shall not be restricted by the proposed works, and site traffic crossing the road shall give way to traffic on Paroa Road.
  - b. Paroa Road at the crossing point shall be maintained in a safe trafficable condition for normal vehicular traffic, including being free of dust or other deleterious material, for the duration of the works.
- 6.4 The proposed works along the Shaw Road section shall be subject to the following conditions;
  - a. Shaw Road services a number of dwellings and properties and therefore shall remain open to the public for the duration of the works. The TMP shall detail how this is to be managed.
  - b. Shaw Road shall be maintained in a safe trafficable condition for normal vehicular traffic, including being free of dust or other deleterious material, for the duration of the works.
- 6.5 The following conditions apply to works utilising Kope Canal Road, which is located between Shaw Road and Keepa Road.
  - a. The consent holder shall ensure that vehicle access is maintained to the wastewater treatment ponds by Whakatane District Council staff or contractors at any given time for maintenance purposes.

## **7. Site Access & Traffic Management**

- 7.1 Prior to commencing the works authorised under this consent, the Consent Holder shall identify and mark the position of all utilities in close proximity to the works being undertaken so that they are easily identifiable to site workers.
- 7.2 Prior to work commencing at each Containment Site, the Consent Holder shall establish the relevant temporary vehicle access and traffic management measures described in the Traffic Management Plan referred to in condition 6.1 of this consent.
- 7.3 All vehicle access and traffic management measures shall be undertaken in accordance with the Traffic Management Plan referred to in condition 6.1 of this consent to the satisfaction of the Chief Executive of the WDC and the road controlling authorities.

## **8. Containment Sites**

- 8.1 The Containment Cells shall be designed and constructed in accordance with the plans referred to in condition 3.1 of this consent.
- 8.2 The final design of CS-1 shall incorporate a bund and cut off drain around the perimeter of the site and non-return floodgate structures in the locations identified on the plan referenced LL-2012-8085-00/2A, to direct all surface runoff around Containment Site 1 towards Kopeopeo Canal. The design details for the bund and cut off drain shall be provided as part of the requirements of condition 3.1.

## **9. Protection of Infrastructure**

- 9.1 Prior to the commencement of works within the Kopeopeo Canal, the Consent Holder shall undertake a pre-condition survey documenting all infrastructure (including roads, bridges, and the transmission or distribution network of water, telecommunications, gas and electricity) which has the potential to be affected by activities authorised under this consent in accordance with the methods set out in the Dredging Management Plan referred to in condition 3.6 of this consent.
- 9.2 Prior to commencing the works authorised under this consent, the Consent Holder shall identify and mark the position of all utilities in close proximity to the works being undertaken so that they are easily identifiable to site workers.
- 9.3 The Consent Holder shall prepare an Asset Management Plan for the infrastructure identified by the pre-condition survey required under condition 9.1. The Asset Management Plan shall:
  - a. Set out any measures required to protect the infrastructure from damage as a result of works associated with the exercise of this consent;
  - b. Include triggers for the purposes of requiring remedial action for the purposes of condition 9.5 of this consent;
  - c. Be peer reviewed and certified by an independent and appropriately qualified person to confirm that the triggers for remedial action are valid and robust. The appointed peer reviewer shall be selected in agreement with the Chief Executives of the Regional Council and WDC or their delegates;

- d. Be submitted, along with the peer reviewer's certificate, to the Chief Executives of the Regional Council and WDC or their delegates no less than 5 working days prior to works commencing within the Kopeopeo Canal.
- 9.4 During the dredging works, the Consent Holder shall monitor the banks of the Kopeopeo Canal for signs of instability and/or deformation in accordance with the methods set out in Dredging Management Plan referred to in condition 3.6 of this consent and the pre-condition survey and trigger levels in the Asset Management Plan referred to in condition 9.3 of this consent.
- 9.5 If, the monitoring undertaken in accordance with condition 9.4 shows that any of the trigger levels referred to in the Asset Management Plan have been exceeded and/or that the activities authorised under this consent are resulting in slumping and/or erosion of the canal banks, the Consent Holder shall undertake strengthening, stabilising, or remedial methods as soon as practicable to the satisfaction of the Chief Executives of the Regional Council and WDC or their delegates.

## **10. Excavation of Sediment – Removal Methodology**

- 10.1 The extraction of sediment from the Kopeopeo Canal shall be undertaken in general accordance with the methods in the variation application and the Dredging Management Plan referred to in conditions 1.1 and 3.6 of this consent.

## **11. Containment Sites – Sediment Disposal**

- 11.1 The sediment extracted from the Kopeopeo Canal shall be transported and deposited at the containment sites in general accordance with the variation application and the Dredging Management Plan required by conditions 1.1 and 3.6.

## **12. Containment sites- Bioremediation and Monitoring**

- 12.1 Sediment deposited in the containment sites shall be bioremediated in general accordance with the Bioremediation Methodology contained within the report entitled '*Te Ohu Mo Papatuanuku Phase 2: The Bioremediation of Contaminated Sediment Dredged from the Kopeopeo Canal*' prepared by Dr Christopher Anderson and Dr Joanne Kelly, dated 8 October 2012 and the memorandum entitled '*Bioremediation Response to Section 92*' by Dr. Christopher Anderson and Dr. Joanne Kelly (undated).
- 12.2 Following the completion of the works, including closure and stabilising of the containment sites, monitoring shall be undertaken at the containment sites in accordance with the parameters, methods, and frequencies detailed in the Environmental Monitoring and Validation Plan referred to in condition 3.5 of this consent.
- 12.3 All monitoring activities carried out in accordance with condition 12.2 shall be undertaken in a manner that minimises the extent of soil disturbance. Any disturbance of the soil surface of the containment cells shall be reinstated at the completion of each sampling event.
- 12.4 The Consent Holder shall prepare, and submit to the Chief Executives of the Regional Council and WDC, a programme for the regular inspection of the containment sites to ensure that all sediments are contained and prevented from being released from the cells. The programme shall identify timing and frequency for regular inspections and inspections after rainfall events exceeding a 5 year ARI and earthquakes exceeding the following:

MAGNITUDE	DISTANCE FROM EPICENTRE (Kilometres)
4.0	5
5.0	10
6.0	60
6.5	75
7.0	110
7.5	170

- 12.5 If any inspection reveals that sediment has or is being released or leaked from the containment cells, it shall be reported to the Chief Executives of the Regional Council and WDC immediately and the sediment shall be removed and the affected area validated to confirm that any contaminated sediment has been removed to the satisfaction of the Chief Executive of the Regional Council or delegate.
- 12.6 The consent holder shall provide a report to the Chief Executives of the Regional Council and WDC or their delegates on the first anniversary of the consent and annually thereafter. This report shall include a summary of the sampling results from monitoring undertaken in accordance with condition 12.2 of this consent.

**13. Containment Site Management**

- 13.1 A containment cell shall be deemed as having reached the remediation target when the 95% Upper Confidence Limit ('UCL') for dioxin concentration is determined to be at or below 40 pg I-TEQ-g using the validation methodology set out in the Environmental Monitoring and Validation Plan referred to in condition 3.5 of this consent. If the remediation target has been achieved, the Consent Holder shall advise the Chief Executives of the Regional Council and WDC in writing that the remediation target has been met and provide a Site Validation Report for the containment cell within 30 days of receipt of monitoring results.
- 13.2 Within 90 days of monitoring results confirming that the remediation target of 40 pg I-TEQ/g has been achieved at any one of the containment sites, the Consent Holder shall submit to the Chief Executives of the Regional Council and WDC a management plan, prepared by an appropriately qualified expert, for the site(s) detailing how the site(s) should be managed and stating what uses are suitable for the site in the future. For the avoidance of doubt, a management plan is required for each of the containment sites.
- 13.3 The Management Plans shall be peer reviewed and certified by an independent and appropriately qualified expert to confirm that the details contained within the management plan are valid and robust. The appointed peer reviewer shall be selected in agreement with the Chief Executives of the Regional Council and WDC or delegates. A copy of the Management Plan and peer reviewer's certificate shall be provided to the Chief Executives of the Regional Council and WDC within 30 working days of the Management Plans being certified.

**14. Validation Sampling – Kopeopeo Canal**

- 14.1 Immediately upon the completion of the extraction of sediments from the remediation zone within the Kopeopeo Canal, sampling shall be undertaken to confirm that the remediation target for the canal has been achieved. The sampling shall be undertaken in accordance with the parameters and methods detailed in the Environmental Monitoring and Validation Plan referred to in condition 3.5 of this consent.

- 14.2 The analysis of 1 in 20 sediment samples taken in accordance with condition 14.1 shall be split and analysed at two different laboratories for the purposes of quality assurance.
- 14.3 The Consent Holder shall provide a report to the Chief Executives of the Regional Council and WDC within 30 days of the sampling referred to in condition 14.1 of this consent, which shall provide details on the results of the sampling undertaken, and a description of the extraction and deposition of sediment carried out.
- 14.4 The remediation zone within the Kopeopeo Canal shall be deemed as being remediated when the 95% Upper Confidence Limit ('UCL') for dioxin concentration is determined to be at or below 60 pg I-TEQ-g using the validation methodology set out in the Environmental Monitoring and Validation Plan required by condition 3.5 of this consent.
- 14.5 The control structures shall remain in the Kopeopeo Canal until the Consent Holder provides documentation to the Chief Executive of the BoPRC demonstrating that the remediation target has been achieved within the remediation zone of the canal.
- 14.6 The Consent Holder shall monitor eels annually for 5 years following the completion of works within the Kopeopeo Canal in accordance with conditions 14.7 and 14.8 of this consent.
- 14.7 The eel sampling required by condition 14.6 shall be undertaken in accordance with the methods set out in the Environmental Monitoring and Validation Plan referred to in condition 3.5 of this consent and the methods in section 2.2 of the report entitled '*Investigation of Organic Contamination in the Kopeopeo Canal*' prepared by Mr Stephen Park referenced as Environment Bay of Plenty Environmental Publication 2005/23 and dated November 2005 (the latter shall prevail if there is any inconsistency).
- 14.8 Eel sampling shall be undertaken at the locations identified in the Environmental Monitoring and Validation Plan except that Location 1 shall be relocated so as to be undertaken a further 1.0km upstream in the Orini Canal than that shown on Figure 12.4 of the '*Kopeopeo Canal Remediation - Proposed Environmental Monitoring and Validation Plan*' (Draft B dated 18 October 2013) prepared by SKM.
- 14.9 Within 60 days of annual sampling, the Consent Holder shall provide a report to the Chief Executives of the Regional Council and WDC and the Medical Officer of Health with the results of the eel sampling.
- 14.10 The Consent Holder shall confirm the volumes of sediment removed from the canal by preparing and submitting to the Chief Executives of the Regional Council and WDC within 6 months of completing works within the Kopeopeo Canal, cross-section drawings based on surveys undertaken prior to and following the excavation of sediments.

## **15. Communication – Community Liaison Group**

- 15.1 Prior to commencing activities authorised by this consent the Consent Holder shall facilitate the establishment of a Community Liaison Group for the purpose of:
  - a. Providing information and facilitating discussion and free flow of information between the Consent Holder and the community on:
    - i. the remediation process and the activities authorised by this consent;
    - ii. results and details of sampling and monitoring undertaken;
    - iii. any accidental spills, discharges, or other unforeseen events associated with implementing the project;

- iv. remedial actions taken to rectify any accidental spills, discharges, or other unforeseen events; and
  - v. the project generally and the timing and duration of activities.
- b. Providing a forum for the community to provide feedback to the Consent Holder on the implementation of the project.

15.2 The Consent Holder shall invite the following groups and organisations to have at least 1 representative on the Community Liaison Group referred to in condition 15.1 of this consent:

- a. Members of the general community (e.g. residents, business owners and operators);
- b. The Department of Conservation;
- c. Toi te Ora Public Health;
- d. Sawmill Workers Against Poison;
- e. Whakatane District Council;
- f. Whakatane Harbour Care Group;
- g. Fish and Game;
- h. The New Zealand Transport Authority;
- i. Te Kura o Te Paroa School;
- j. Te Runanga o Ngati Awa;
- k. Ministry for the Environment; and
- l. Whakatane Waimana Rivers Scheme Liaison Group;
- m. Opposing submitters to the resource consent application;
- n. The independent Monitor required by Bay of Plenty Regional Council Consent 67173.

15.3 Prior to the commencement of activities authorised under this consent, the Consent Holder shall prepare a Communications Plan in consultation with the Community Liaison Group to enable the general public and stakeholders to be kept informed of the works and remediation processes being undertaken as part of the Kopeopeo Remediation Project. As a minimum, the Communications Plan shall:

- a. Identify the method and frequency of communication, taking into account different phases of the project (such as the works phase, bioremediation at containment sites, and monitoring and reporting phases);
- b. Identify an agreed method(s) for providing information, such as a website or other form of communication;
- c. Identify the nature of information to be made available, including progress updates on the project, monitoring results, summaries of reports and complaints received with respect to the project;

- d. Identify the procedures for providing feedback to the Consent Holder on the implementation of the project; and
- e. Reflect the purpose of the Community Liaison Group as identified in condition 15.1 of this consent.

15.4 The Communications Plan shall be submitted to the Chief Executives of the Regional Council and WDC prior to the commencement of activities authorised under this consent and implemented to the satisfaction of the Chief Executive of the Regional Council and WDC or delegates.

## **16. Complaints Register**

16.1 The Consent Holder shall establish and maintain a complaints register to record complaints received and actions taken to investigate and, (if justified) address the subject of the complaint. Details of the complaints logged shall include:

- a. The date, time, location, origin and nature of the complaint;
- b. The name, phone number and address of the complainant, unless the complainant elects not to supply these details;
- c. Information on weather conditions and activities taking place at the site at the time of the complaint if relevant to the nature of the complaint;
- d. Actions taken to investigate the cause of the complaint and any remedial actions undertaken;
- e. Information provided to the complainant regarding the investigation and actions undertaken to remedy the complaint.

16.2 Details of any complaint shall be provided to the Chief Executives of the Bay of Plenty Regional Council and WDC or delegates within 5 working days of the receipt of the complaint.

## **17. Cleaning of Machinery, Structures and Debris**

17.1 All machinery and structures (including dredging machinery, control structures, and debris recovered from the canal) shall be cleaned and/or contained prior to removal from the canal and transportation off site so as to not result in the discharge, spill or transport of sediment excavated from the canal beyond the project site area.

17.2 All cleaning of machinery and structures shall occur in a manner that ensures all canal sediment and sediment contaminated water is collected and discharged back into the canal. This may be achieved by:

- a. Undertaking all cleaning within the canal
- b. Undertaking all cleaning on a liner located at the containment sites, which collects and discharges treated water and sediment back into the canal
- c. Other measures that ensure sediment is not discharged onto the canal banks or outside the containment sites.

The discharge from all cleaning activities shall be to the remediation zone confined by control structures.

## **18. Spill Prevention & Response**

- 18.1 The Consent Holder shall take all necessary steps to avoid spilling sediment extracted from the Kopeopeo Canal.
- 18.2 The Consent Holder shall ensure that the canal bed within the remediation zone is maintained in a sufficiently wet state to prevent dust from being generated.
- 18.3 The Consent Holder shall undertake inspections of the site area, including at the entry and exit points of the containment sites and pipelines transferring sediment from the containment sites to the canal to identify if any spills have occurred. Inspections shall be undertaken at least twice per day from the commencement of geotube filling until such the transfer of sediment is complete at each containment site and the pipelines have been removed.
- 18.4 Any accidental spill of sediment extracted from the Kopeopeo Canal shall be remedied immediately by removing the sediment and depositing it within the remediation zone section of the canal, within the geotubes at the containment sites, or by transporting it to a landfill licenced to accept the material. Validation sampling shall be carried out in accordance with the procedures set out in Appendix E of the Environmental Monitoring and Validation Plan referred to in condition 3.5 of this consent.
- 18.5 Any accidental spill of sediment greater than 5m<sup>2</sup> in surface area shall be cleaned and validated in accordance with the procedures out in the Dredging Management Plan referred to in condition 3.6 of this consent.

## **19. Hazardous Substances**

- 19.1 Any spill of hazardous substances shall be remedied in accordance with the procedures set out in the Dredging Management Plan referred to in condition 3.6 of this consent.

## **20. Signage**

- 20.1 Signage shall be erected and maintained at the containment sites and other prominent locations in proximity to the works area for the duration of the works carried out in accordance with this consent. Signage shall include information on the remediation project, any necessary health warnings and shall clearly display, as a minimum, the following information:
- a. The Consent Holder;
  - b. A 24 hour contact telephone number for the Consent Holder or appointed agent;  
and
  - c. A clear explanation that the contact telephone number is for the purpose of receiving complaints and information from the public about dust nuisance, odour, sediment spills or any other problem resulting from the exercise of this consent.

## **21. Archaeological Sites**

- 21.1 In the event of any archaeological site or koiwi being uncovered during the exercise of this consent, activities in the vicinity of the discovery shall cease. The Consent Holder shall contact the Bay of Plenty Regional Council and WDC then consult with Te Runanga o Ngati Awa or its authorised successor, and the New Zealand Historic Places Trust. The Consent Holder shall not recommence works in the area of the discovery until the relevant Historic Places Trust approvals or other approvals to damage, destroy or modify such sites have been obtained, where necessary.
- 21.2 Subject to condition 21.1 of this consent, the Consent Holder shall implement the '*Ngati Awa protocol for dealing with Koiwi or Taonga unearthed during the Kopeopeo Canal Remediation Project*' (referenced LL-2012-8085-00/4) in the event of any archaeological site or koiwi being uncovered during the exercise of this consent.

## **22. Cultural Monitor**

- 22.1 No less than 20 working days prior to the commencement of works authorised under this consent, the Consent Holder shall invite (in writing) Te Runanga o Ngati Awa appoint a cultural monitor to:
- a. Observe activities associated with the excavation and earthworks activities authorised by this consent in order to implement the '*Ngati Awa protocol for dealing with Koiwi or Taonga unearthed during the Kopeopeo Canal Remediation Project*' (referenced LL-2012-8085-00/4) in the event koiwi or taonga is unearthed; and
  - b. Provide advice to contractors and staff on cultural matters associated with the works associated with the Kopeopeo Canal Remediation Project.
- 22.2 The Consent Holder shall provide full copies of this resource consent and the Health and Safety Plan (attached as Appendix C to the '*Kopeopeo Canal Dioxin Contaminated Sediment Remedial Action Plan*' Issue 9 dated 18 October 2013 prepared by SKM, or any subsequent version developed by the consent holder) with its invitation to Te Runanga o Ngati Awa in accordance with condition 22.1 of this consent.

## **23. Hours of Work**

- 23.1 Except as provided for below, all activities authorised under this consent shall be undertaken within the following hours:

Monday to Saturday 7.30am to 6.00pm; and  
Sunday and Public Holidays – No works

The following activities may be undertaken outside of these hours of work:

- a. activities associated with the pumping of water into the remediation zone of the Kopeopeo Canal; or
- b. any mitigation measures necessary to manage dust, odour, sediment spills, flood events, or any other effects associated with the exercise of this consent; or
- c. dredging activities within the Kopeopeo Canal where the dredging operation is located no closer than 150m from the nearest residential dwelling and the activity complies with NZS 6803:1999 Acoustics – Construction Noise.

## **24. Access for Monitoring**

24.1 The Consent Holder shall allow access by authorised officers of the Regional Council and WDC (or delegated persons) to the remediation zone of the Kopeopeo Canal and to each of the Containment Sites for purposes of monitoring the compliance with the conditions of this consent, to the satisfaction of the Chief Executive of the Bay of Plenty Regional Council and WDC or delegates.

## **25. Dust Management**

25.1 The Consent Holder shall ensure that sediment is kept wet from the time it is excavated from the Kopeopeo Canal until the time it is deposited in the containment cells and the cells have been covered and stabilised.

25.2 The Consent Holder shall adopt a proactive strategy for dust control, specifically by complying with the principles of dust management as set out in the Bay of Plenty Regional Council Guideline No. 2010/01 - *“Erosion and Sediment Control Guidelines for Land Disturbing Activities”* or its successor, so as to prevent a dust nuisance from occurring beyond the site boundaries.

25.3 The Consent Holder shall ensure that an adequate supply of water for dust control (sufficient to apply a minimum of 10 mm/day to all exposed areas of the site), and an effective means for applying that quantity of water, is available on site at all times during construction and until such time as the Containment Sites are fully stabilised.

25.4 The Consent Holder shall ensure that, at all times, the soil moisture level of exposed areas is sufficient, under prevailing wind conditions, to prevent dust being generated beyond the boundary of the containment sites and or transportation routes by normal earthmoving operations.

25.5 The Consent Holder shall ensure that, outside of normal working hours, staff are available on-call to undertake dust suppression measures.

25.6 If, during preparatory works associated with construction of the containment sites, wind conditions render dust control impracticable, the Consent Holder shall ensure that any machinery generating airborne dust ceases to operate until such time as effective dust control can be re-established.

25.7 Despite conditions 25.2 to 25.6 of this consent, the Consent Holder shall undertake additional or alternative dust control measures to the satisfaction of the Chief Executive of the Whakatane District Council or delegate, as directed.

## **26. Dust Monitoring**

26.1 For the duration of the earthworks required to construct the containment sites the Consent Holder shall:

- a. Carry out continuous visual monitoring for dust while works are being carried out; and
- b. Monitor particulate concentrations using optical light scattering instrumentation with one monitoring instrument located at the containment site where works are taking place and one monitoring instrument located downwind of the predominant wind direction at the canal where excavation works are being undertaken;

in accordance with the methods set out in the Environmental Monitoring and Validation Plan referred to in condition 3.5 of this consent.

## **27. Remedial Action for Dust Emissions at the Containment Sites**

27.1 In the event that:

- a. Dust emissions result in a visible plume at or beyond the boundary of the site; or
- b. Any measurement of particulate matter exceeds 70 micrograms/m<sup>3</sup> as a one-hour average,

the Consent Holder shall investigate the source of the dust, review dust management practices and implement additional measures as necessary to avoid dust travelling beyond the boundaries of the site as soon as practicable.

27.2 In the event that visible dust is reported and verified travelling at or beyond the boundary of the site, for more than 4 hours in a 24-hour period, all works shall cease and the Consent Holder shall advise (in writing) the Chief Executives of the Regional Council and WDC of the incident. Works may only re-commence when the effects of dust travelling beyond the site boundary have been remedied to the satisfaction of the Chief Executives of the Regional Council and WDC or delegates.

27.3 Dust monitoring data shall be provided to the Chief Executives of the Bay of Plenty Regional Council and WDC or delegates on two-weekly basis, or as otherwise requested, and shall include a record of particulate matter measurements recorded, identify any instances that dust has been recorded beyond the boundary of the site, and the actions taken to avoid and/or minimise dust generation.

## **28. Odour Management & Monitoring**

28.1 The Consent Holder shall monitor, and keep a diary of odour generated as a consequence of the activities authorised under this consent in accordance with the methods set out in the Environmental Monitoring and Validation Plan referred to in condition 3.5 of this consent.

28.2 The Consent Holder shall ensure that sufficient lime is available to be added to sediment at the containment sites so as to mitigate adverse odour effects.

28.3 In the event that objectionable or offensive odour is reported and verified beyond the boundary of the site, the Consent Holder shall investigate the source of the odour, review odour management practices and implement additional odour control measures as necessary to the satisfaction of the Chief Executives of the Regional Council and WDC or delegates.

28.4 If objectionable or offensive odour occurs beyond the boundary of the site for more than 2 days, the Consent Holder shall terminate the operations causing the odour and notify (in writing) the Chief Executives of the Regional Council and WDC. Works may only proceed if the Chief Executives of the Regional Council and WDC or delegates have confirmed that they are satisfied with the mitigation measures to be implemented.

## **29. Saltmarsh**

29.1 The artificial modification of water levels within the remediation zone in the canal shall not result in water levels within the saltmarsh exceeding a maximum elevation of 0.2m RL (Moturiki

Datum). This excludes changes in water levels resulting from natural events such as tides, storm surges or flood events.

- 29.2 On completion of works within the Kopeopeo Canal east of Keepa Road any control devices installed in the canal to enable the excavation of sediment shall be removed to enable the natural tidal flows to be restored to the saltmarsh area as soon as practicable.
- 29.3 Prior to the commencement of works within the saltmarsh area, an appropriately qualified and experienced terrestrial ecologist shall establish a series of photopoints within the saltmarsh to provide a representative record of the saltmarsh vegetation extent.
- 29.4 Remeasurement of the photopoints shall be undertaken on completion of works within the Kopeopeo Canal east of Keepa Road. Further monitoring of the affected saltmarsh area and adjacent habitats shall be undertaken six-monthly for the first two years following completion of the works, to assess whether natural re-establishment of saltmarsh is occurring.
- 29.5 If the monitoring undertaken in accordance with conditions 29.3 and 29.4 above determines that saltmarsh vegetation has not self-regenerated in two calendar years following the completion of works within the Canal, the Consent Holder shall re-vegetate the affected area using locally-sourced indigenous saltmarsh species;
- 29.6 If revegetation is required, the further photopoint monitoring required by 29.4 shall be extended for a further three calendar years from the implementation of the planting. This further monitoring shall be undertaken six monthly.
- 29.7 A report shall be provided to the Chief Executive of the BoPRC or delegate within six years of completing works within the Canal verifying that the saltmarsh has been rehabilitated to at least a similar quality and extent as that recorded in the pre-condition survey and in accordance with this condition. This report is to be prepared by a suitably qualified and experienced ecologist.

### **30. General Monitoring & Reporting**

- 30.1 All reporting shall be undertaken in accordance with '*Contaminated Land Management Guidelines No.1 – Reporting on Contaminated Sites in New Zealand*' Ministry for the Environment, April 2001, Revised 2011, or its successor.
- 30.2 All soil and sediment sampling shall be carried out in accordance with '*Contaminated Land Management Guidelines No.5 – Site Investigation and Analysis of Soils*' Ministry for the Environment, February 2004, Revised 2011, or its successor, including the use of split samples to be analysed by a secondary laboratory at a rate of 1 in 20 samples.
- 30.3 The Consent Holder shall keep project and monitoring records for the duration of this consent and shall forward a copy of the records required by the conditions of this consent to the Chief Executives of Regional Council and WDC or delegates within 48 hours of a request.
- 30.4 From the commencement of works authorised by this consent and until such time that the containment sites have been completed and stabilised, the Consent Holder shall provide a monthly report (in writing) to the Chief Executives of Regional Council and WDC or delegates, the Community Liaison Group, Te Runanga o Ngati Awa, and the Medical Officer of Health. The report shall contain details regarding:
  - a. project progress, including notification of the completion of specific components of the project;

- b. any issues (including complaints, incidents, or spills) that have been identified and how these are to be resolved;
  - c. notice of any trigger level transgressions and/or breach of conditions of this consent;
  - d. any opportunities that have been identified and changes to methods and / or procedures;
  - e. The results of monitoring required by other conditions of this consent, unless provided under specific reporting requirements of that condition.
- 30.5 Within 60 working days of the completion of the extraction of sediment from the canal, the Consent Holder shall submit a final Validation Report confirming that the remediation target has been met within the Kopeopeo Canal (i.e. a dioxin concentration no greater than 60 pg I-TEQ-g). The Validation Report shall be prepared in accordance with the MfE Contaminated Land Management Guidelines No. 1: Reporting on Contaminated sites in New Zealand 2011 guideline referred to in condition 30.1 of this consent.
- 30.6 The Consent Holder shall provide written advice to the Chief Executives of the Regional Council and WDC, the Community Liaison Group, Te Runanga o Ngati Awa, and the Medical Officer of Health within 10 working days of any of the following incidents:
- a. A groundwater quality sampling result with a dioxin concentration exceeding 30pg I-TEQ/L;
  - b. Air quality sampling results with a dioxin concentration exceeding 0.03pg I-TEQ/M<sup>3</sup>;
  - c. Dust monitoring using optical light scattering instrumentation with results exceeding 70 micrograms/m<sup>3</sup>;
  - d. Any increase in dioxin concentrations in water outside of the remediation zone of the Kopeopeo Canal exceeding the established background range.
  - e. Any occurrence of reported and verified dust travelling beyond the boundaries of the site;
  - f. Any occurrence of reported and verified objectionable or offensive odours beyond the boundaries of the site;
  - g. Any spill of sediment extracted from the Kopeopeo Canal outside of the Kopeopeo Canal, the pipelines or equipment transferring the sediment from the canal to the containment sites, or Containment Sites themselves.

### **31. Review of Consent Conditions**

- 31.1 The Whakatāne District Council may, within six (6) months and twelve (12) months following the grant of this consent, and annually thereafter, serve notice on the Consent Holder under Section 128(1)(a)(ii) or (iii) of the Resource Management Act 1991 of its intention to review the conditions of this resource consent. The purpose of such a review is to assess the need for additional monitoring and/ or adjust trigger levels and/or management responses in order to avoid remedy or mitigate adverse effects on the environment. The need for, and scope of any review under this condition shall be informed by the reporting undertaken in accordance with the conditions of this consent.
- 31.2 The Whakatāne District Council may, within one month of receipt of results from compliance monitoring, or where complaints have been received and validated by the Chief Executive of the Whakatāne District Council or delegate, serve notice on the Consent Holder under Section

128(1)(a)(i) and/or (iii) of the Resource Management Act 1991 of its intention to review the conditions of this consent. The purpose of such a review would be to ensure that management practices are appropriate to avoid any adverse effects on the environment.

**Advice Notes:**

1. *The Consent Holder's attention is drawn to the conditions of the Bay of Plenty Regional Council Consent 67173.*
2. *All works within the State Highway will require the prior approval of the New Zealand Transport Agency pursuant to Section 51 of the Government Roading Powers Act. Construction details of the proposed works will need to be submitted to your contractor as part of this approval. Please contact the NZTA network consultant to discuss such approval. The NZTA consultant is Opus International Consultants, PO Box 800, Whakatane phone 07 308 0139. All works on the State Highway shall be completed to the satisfaction of the Regional Manager, New Zealand Transport Agency.*
3. *An application may be made to the RCA to close Kope Drain Road, for the duration of the works on this section, in accordance with Schedule 10 of the Local Government Act 1974 (temporary prohibition of traffic on roads).*
4. *It is advised that the final location of Containment Site 1 (referred to as CS-1) is different to that proposed in the original application. Consent is not granted for the deposition and remediation of contaminated sediments in the previous location for CS-1 as documented in the Assessment of Environmental Effects entitled 'Kopeopeo Canal – Removal, Remediation and Disposal of Canal Sediments – Bay of Plenty Regional Council - District and Regional Resource Consent Application and Assessment of Environmental Effects' Issue 7 dated 18 October 2013.*