Reporting Officer’s Recommended Draft Resource Consent Conditions

With the Applicant’s proposed changes tracked in red

The following activities are authorised by these consents:

a) Under section 9(2) of the Resource Management Act 1991 and Rule 1C of the Bay of Plenty Regional Water and Land Plan as a Discretionary Activity – for land disturbing activities (including earthworks within the bed of a river or stream, earthworks within the Riparian Management Zone of a river or stream and earthworks within the Coastal Margin setbacks);

b) Under section 9(2) of the Resource Management Act 1991 and Rule 2C of the Bay of Plenty Regional Water and Land Plan as a Discretionary Activity – for land disturbing activities by way of vegetation clearance (including vegetation clearance within the Riparian Management Zone of a river or stream during earthworks activities);

c) Under sections 15(1)(a) and 15(1)(b) of the Resource Management Act 1991 and Rule 37 of the Bay of Plenty Regional Water and Land Plan as a Discretionary Activity – for the temporary discharge of (sediment) contaminated water to water and to land (in circumstances where contaminants may enter water) during construction activities;

d) Under sections 14(2), 14(3), 15(1)(a) and 15(1)(b) of the Resource Management Act 1991 and Rule 43 of the Bay of Plenty Regional Water and Land Plan as a Discretionary Activity – for the temporary take of water during construction activities;

e) Under sections 14(2) and 14(3) of the Resource Management Act 1991 and Rule 48 of the Bay of Plenty Regional Water and Land Plan as a Discretionary Activity – for the permanent diversion of water from the Kaituna River into Ongatū / Maketū Estuary and to the Lower Kaituna Wildlife Management Reserve;

f) Under sections 13(1) and 13(2) of the Resource Management Act 1991 and Rule 71 of the Bay of Plenty Regional Water and Land Plan as a Discretionary Activity – for the placement of structures on, and the disturbance of, the bed of the Kaituna;

g) Under section 9(2) of the Resource Management Act 1991 and Rule 85 of the Bay of Plenty Regional Water and Land Plan as a Discretionary Activity – for the modification of the Ongatū / Maketū Estuary and Lower Kaituna Wildlife Management Reserve Wetlands through permanent changes in water flow and temporary discharges of sediment during construction activities;

h) Under sections 15(2) and 15(2A) of the Resource Management Act 1991 and Rule 19(z) of the Bay of Plenty Regional Water Air Plan as a Discretionary Activity – for the temporary discharge of dust during construction activities;

i) Under section 12(3) of the Resource Management Act 1991 and Rule 9.2.4(b) of the Bay of Plenty Regional Coastal Environment Plan as a Discretionary Activity – to temporarily discharge sediment contaminated water into the Coastal Marine Area during construction activities and to permanently discharge contaminated coastal water from the Kaituna River into the Ongatū / Maketū Estuary;

j) Under section 12(3) of the Resource Management Act 1991 and Rule 10.2.4(d) of the Bay of Plenty Regional Coastal Environment Plan as a Discretionary Activity –
to temporarily take coastal water from within the Ongatoro/Maketū Estuary at a rate greater than 15 cubic metres per day during construction activities;

k) Under section 12(3) of the Resource Management Act 1991 and Rule 10.2.4(e) of the Bay of Plenty Regional Coastal Environment Plan as a Discretionary Activity – to temporarily dam coastal water during construction activities;

l) Under sections 12(3) and 14(3) of the Resource Management Act 1991 and Rule 10.2.4(f) of the Bay of Plenty Regional Coastal Environment Plan as a Discretionary Activity – to divert coastal water from the Kaituna River into the Ongatoro/Maketū Estuary;

m) Under section 12(3) of the Resource Management Act 1991 and Rule 10.2.4(g) of the Bay of Plenty Regional Coastal Environment Plan as a Discretionary Activity – to temporarily divert coastal water during construction activities;

n) Under sections 12(1) and 12(3) of the Resource Management Act 1991 and Rule 12.2.4(a) of the Bay of Plenty Regional Coastal Environment Plan as a Discretionary Activity – for the occupation of the Coastal Marine Area;

o) Under sections 12(1) and 12(3) of the Resource Management Act 1991 and Rule 13.2.4(h) of the Bay of Plenty Regional Coastal Environment Plan as a Discretionary Activity – for structures within the Coastal Management Zone;

p) Under sections 12(1) and 12(3) of the Resource Management Act 1991 and Rule 14.2.4(b) of the Bay of Plenty Regional Coastal Environment Plan as a Discretionary Activity - for the disturbance of, removal of material from, and the deposition of material on, the foreshore and seabed;

q) Under sections 12(1) and 12(3) of the Resource Management Act 1991 and Rule 14.2.4(e) of the Bay of Plenty Regional Coastal Environment Plan as a Discretionary Activity – for construction activities associated with a Discretionary Activity;

r) Under sections 12(1) and 12(3) of the Resource Management Act 1991 and Rule 14.2.4(j) of the Bay of Plenty Regional Coastal Environment Plan as a Discretionary Activity – for the removal, damage, modification and destruction of indigenous vegetation in the foreshore and seabed; and

s) Under sections 12(1) and 12(3) of the Resource Management Act 1991 and Rule 15.2.4(b) of the Bay of Plenty Regional Coastal Environment Plan as a Discretionary Activity – for a reclamation within the Coastal Management Zone.

subject to the following conditions:

1. **Purpose**

1.1 To authorise and set conditions for:

(a) The construction of a new channel from the Kaituna River to Fords Cut and the widening of Ford’s Cut including associated erosion protection works;

(b) The diversion of water from the Kaituna River into the Ongatoro/Maketū Estuary;

(c) The reclamation of land to create a salinity block;
(d) The installation and operation of an additional culvert to the Lower Kaituna Wildlife Management Reserve;

(e) The diversion of water from the Kaituna River into the Lower Kaituna Wildlife Management Reserve;

(f) The provision of public and commercial boat and parking facilities adjoining and within the Coastal Marine Area;

(g) Works associated with the creation of wetlands and estuary enhancement;

(h) The temporary discharge of contaminants and taking, damming and diverting water, associated with construction activities.

2. **Location**

The activity site is the lower reaches of the Kaituna River and surrounds, the Ongatoro/Maketu Estuary, Papahikahawai Island and Maketu Spit and adjacent land, as generally shown on BOPRC Plan Numbers RC67958/1 and RC67958/10.

3. **Map References**

<table>
<thead>
<tr>
<th>Name of Area</th>
<th>Approximate NZTM map reference (midpoint)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fords Cut</td>
<td>1,901,072 E 5,815,885 N</td>
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<tr>
<td>Salinity block</td>
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<tr>
<td>Boat ramp</td>
<td>1,900,691 5,815,801</td>
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<tr>
<td>Causeways – mid point</td>
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</tr>
<tr>
<td>Lower Kaituna Wildlife Management Reserve</td>
<td>1,897,485 5,816,541</td>
</tr>
</tbody>
</table>

4. **Legal description**

The legal descriptions of the proposed activity site are:

- Stopped Road SO 55944
  - Pts Sec 5 SO 55943 & SO 55944 Soil Cons and River Control
  - Pt Sec 5 Blk V Te Tumu SD, Sec 1 SO 55944
- Tumu Kaituna 11A1 Block
  - Pt Sec 6 Blk VI Te Tumu DC (SO 46938)
  - Pt Sec 1 Blk VI Te Tumu SD (SO 38964)
  - Lot 2 DPS 12129, Lot 3 DPS 12129 and Pt Sec 1 Blk VI Te Tumu SD
  - Lot 1 DPS 12129
  - Pt Sec 2 Blk VI Te Tumu SD (SO 46938)
  - Papahikahawai No 2 Block
  - Sec 7 Blk VI Te Tumu SD (SO 46938)
  - Section 10 SO 52144
River Bed
Legal Road
Coastal marine area

5. Plans

The works shall be undertaken in accordance with the following Construction Plans prepared by Opus International Consultants Limited and WaterLine Engineering Consultants Limited and referenced as Drawing Number 2/1542/115/6235:

- "Proposed Construction Works", referenced as Sheet Number 2, Revision 3 and dated 3 December 2014 [BOPRC Plan Number RC67958/1];
- "Proposed Ford Road Re-Aligment Plan and Longsection", referenced as Sheet Number 3, Revision 3 and dated 3 December 2014 [BOPRC Plan Number RC67958/2];
- "Proposed Ford Road Re-Aligment Plan – Cross Sections – Sheet 2 of 4", referenced as Sheet Number 8, Revision 2 and dated 3 December 2014 [BOPRC Plan Number RC67958/3];
- "Proposed Ford Road Re-Aligment Plan – Cross Sections – Sheet 3 of 4", referenced as Sheet Number 9, Revision 2 and dated 3 December 2014 [BOPRC Plan Number RC67958/4];
- "Proposed Culvert Installations – Plan and Longsection and Typical Section", referenced as Sheet Number 14, Revision 2 and dated 3 December 2014 [BOPRC Plan Number RC67958/5];
- "Fords Loop Channel – Plan and Section A-A", referenced as Sheet Number 15, Revision 3 and dated 3 December 2014 [BOPRC Plan Number RC67958/6];
- "Proposed Channel and Existing Ford’s Cut Channel Remedial Works – Plan and Sections", referenced as Sheet Number 16, Revision 3 and dated 3 December 2014 [BOPRC Plan Number RC67958/7];
- "Proposed Channel and Existing Ford’s Cut - Cross Sections – Sheet 1 of 2", referenced as Sheet Number 17, Revision 1 and dated 27 June 2014 [BOPRC Plan Number RC67958/8];
- "Proposed Channel and Existing Ford’s Cut - Cross Sections – Sheet 2 of 2", referenced as Sheet Number 18, Revision 1 and dated 27 June 2014 [BOPRC Plan Number RC67958/9];
- "Land Use Plan", referenced as Sheet Number 19, Revision 2 and dated 3 December 2014 [BOPRC Plan Number RC67958/10]; and
- "Papahikahawai Island Remediation Plan", referenced as Sheet Number 20, Revision 2 and dated 27 June 2014 [BOPRC Plan Number RC67958/11].

6. Definitions

The following terms within these conditions shall have the following definitions:

"District Council" means the Western Bay District Council's Chief Executive Officer or their nominee.

"Commissioning" unless otherwise clearly identified through the resource consent condition wording, means that the culverts are deemed to be fully commissioned at Stage 2, being when all culverts and their gates are fully operational without any
short-term controls on flow rates.

"Consent Holder" means the Bay of Plenty Regional Council’s Environmental Delivery Group or their nominee.

"Regional Council" means the Bay of Plenty Regional Council’s Chief Executive Officer or their nominee.

"Project" means the Kaituna River Re-Diversion and Ongatoro/Maketu Estuary Enhancement Project and associated activities.

"Works" means the construction works required to give effect to the Project.

7. **Notification and pre-construction meeting**

7.1 The Regional Council shall be notified in writing of the intention to commence construction works at least two months prior to the start of any construction activities on site.

7.2 Prior to commencement of works the Consent Holder or their agent shall arrange and conduct a pre-construction site meeting between itself, the Regional Council, and the primary contractor. At a minimum, the following shall be covered at the meeting:

(a) Scheduling and staging of the works;
(b) Responsibilities of all relevant parties;
(c) Contact details for all relevant parties;
(d) Expectations regarding communication between all relevant parties;
(e) Procedures for implementing any amendments to the management plans submitted;
(f) Site inspection;
(g) Confirmation that all relevant parties have copies of this resource consent conditions document and its attachments, as well as the Construction Environmental Management Plan; and
(h) All associated erosion and sediment control plans and methodology.

7.3 A meeting shall also be held prior to commencement of works with the directly affected landowners and iwi representatives to discuss:

(a) Scheduling and staging of the works;
(b) Contact details for all parties;
(c) Cultural monitoring of construction activities; and
(d) Expectations regarding communication between all parties.

7.4 All operational personnel involved with the construction of the Project works shall be made aware of, and have access to, all resource consent documents, conditions and schedules applicable to the construction of the Project.
7.5 The Regional Council shall be notified in writing of the intention to commission the culverts, in accordance with the Commissioning Plan required under condition 19 of this resource consent, at least 5 working days prior.

7.6 The Consent Holder shall keep minutes of the meetings required by conditions 7.2 and 7.3 of this resource consent. The minutes shall record:

(a) The names of those who attended the meeting;

(b) Main topics of discussion; and

(c) Any agreed outcomes (including an agreed Cultural Monitoring Protocol).

The Consent Holder shall forward copies of these minutes to the Regional Council prior to the commencement of construction works authorised by this resource consent.

8. **Accidental Discovery**

8.1 A Cultural Monitor shall be employed by the Consent Holder to monitor, as necessary, and report any discoveries during earthworks. The role and presence of the Cultural Monitor shall be in accordance with an agreed Cultural Monitoring Protocol following the meeting required by condition 7.3 of this resource consent.

8.2 Prior to construction commencing the Consent Holder shall provide training to those working on the Project on the accidental discovery protocols.

8.3 In the event of any archaeological site or material being uncovered or reasonably suspected to have been uncovered during the exercise of this resource consent, activities in the vicinity of the discovery shall cease and the Consent Holder shall notify the Regional Council as soon as possible.

8.4 If any koiwi (human remains) are uncovered, or reasonably suspected to have been uncovered during the exercise of this resource consent, the Consent Holder or their representative shall:

(a) Notify Heritage New Zealand’s Pouhere Taonga Regional Archaeologist, the New Zealand Police and the Regional Council; and

(b) Undertake no further work until actions have been agreed by all parties listed in condition 8.4(a) and confirmation has been provided in writing from the Regional Council that works may re-commence.

8.5 In the event of an accidental discovery, the Consent Holder shall notify Te Rūnanga o Ngati Whakaue ki Maketu, Tapuika Iwi Authority, Te Maru o Ngati Rangiwhewehi, Waitaha Raupatu Trust, Ngāti Pikiao, Ngāti Tūnohopū and Ngati Makino Heritage Trust, and shall ensure, as far as practicable, that procedures are undertaken in accordance with:

(a) The Ngati Rangiwhewehi koiwi and accidental discovery protocol;

(b) The Waitaha Raupatu Trust, Ngati Makino Heritage Trust, Komiti o Ngati Pikiao (Ki Maketu), Ngati Tūnohopū Accidental Discovery Protocols; and

(c) The Te Taonga Tuturu Act - immediate notification of Tapuika representatives in the event that a site or objects of significance are discovered during works.

*Note: This condition is in addition to any agreements that are in place between the Consent Holder and Tangata Whenua or Heritage New Zealand Pouhere Taonga.*
9. **Complaints**

9.1 The Consent Holder shall, upon receipt of any complaint in relation to construction, promptly:

   (a) investigate the complaint,

   (b) where appropriate remedy or mitigate the cause of the complaint; and

   (c) inform the Regional Council as soon as practicable, but no later than 48 hours of receiving the complaint, of the details of the complaint and the action taken.

9.2 The Consent Holder shall keep and maintain a complaints register for all aspects of operations in relation to construction activities the works. The complaints register shall include:

   (a) the date, time and type of complaint,

   (b) the cause of the complaint, and

   (c) the action taken by the Consent Holder in response to the complaint and steps to prevent a reoccurrence.

9.3 The complaints register shall be made available to the Regional Council at all times on request.

10. **Hazardous Substances and Spill Contingency**

10.1 As part of construction activities there shall be no storage of fuel or lubricants, refuelling, maintenance or lubrication of vehicles or machinery within 20 metres of the Kaituna River, Ford's Cut, Ongatoro/Maketu Estuary, open excavations, exposed groundwater or any other waterway.

10.2 During construction the Consent Holder shall maintain on site at all times, measures to prevent spills of hazardous substances entering land or water. These measures shall include but not be limited to:

   (a) The equipment, systems and procedures to be used to minimise the risk of spills or leaks of hazardous substances;

   (b) The spill management and containment equipment to be maintained at all times on site, and its location;

   (c) Procedures for containing, managing, cleaning and disposing of any spill or leak, or contaminated material to be removed from the site as a result of a spill or leak;

   (d) Procedures to notify and report to the Consent Holder and the Bay of Plenty Regional Council within 24 hours of a spill or leak occurring, including a maintained schedule of emergency contact names and numbers;

   (e) An inspection schedule for all storage containers, refuelling areas, machinery and plant; and

   (f) Procedures to be followed to identify causes of spills or leaks.

10.3 In the event of a spill of hazardous substances on the site, the Consent Holder shall record and provide to the Regional Council within 24 hours of the spill:

   (a) The date, time and volume of the spill;
10.4 Prior to any plant or machinery entering or working within 20 metres of any water body, the Consent Holder or their representative shall:
(a) Inspect the machinery or plant for any residual hazardous substances or leaks; and
(b) Clean and/or repair machinery or plant as necessary to prevent hazardous substance contamination of waterways.

11. **Construction Environmental Management Plan**

11.1 At least 20 working days prior to site establishment works commencing, the Consent Holder shall submit to the Regional Council, for certification, a Construction Environmental Management Plan ("CEMP"), including its sub-sets, outlining the construction activities and all practices and procedures to be adopted in the construction of the Project. Regional Council’s certification shall be limited to that the CEMP:
(a) Complies with conditions 11.4, 11.5, 13.2, 13.3, 14.3 and 14.4 of this resource consent;
(b) Adopts the best practicable option(s); and
(c) Contains provisions that are enforceable.

11.2 The CEMP shall be verified by independent appropriately experienced and qualified practitioners and confirm that:
(a) the CEMP adopts the mitigation measures identified in the application documentation and / or otherwise required under the conditions of the consent; and
(b) the implementation of the CEMP will appropriately mitigate the anticipated adverse effects of the public works.

11.3 Works shall not commence until the CEMP described in condition 11.2 has been acknowledged in writing by the Regional Council. *If written acknowledgement is not provided within 10 working days of the consent holder sending the certification, the verification shall be deemed to be confirmed.*

11.4 The objectives of the CEMP shall be:
(a) To ensure that construction activities achieve compliance with the applicable resource consent conditions;
(b) To minimise the environmental nuisance effects of *construction activities—the works*;
(c) To ensure that disturbance is limited to that necessary to undertake the *construction works*;
(d) To minimise the release of sediment during disturbance to the bed of any waterway;

(e) To limit the disturbance of the beds and margins of the coastal marine area and waterways to the extent necessary to undertake construction of the works, and to avoid or mitigate adverse effects on the quality and passage of coastal and surface water and aquatic habitat;

(f) To ensure that disturbance does not cause flooding or erosion; and

(g) To minimise, as far as practicable, the disturbance of existing wetland areas and avian habitat within the Project site.

11.5 The CEMP will address, as a minimum, the following aspects of the works:

(a) Construction sequencing in general accordance with Table 3: Construction Sequence on pages 30 and 31 of the application document prepared by Opus International Consultants Limited entitled ‘Kaituna River Re-diversion and Ongatoro/Maketu Estuary Enhancement Project – Notice of Requirements and Resource Consent Application (Boating Facilities)’ and dated December 2014, as follows:

(b) Site establishment;

(c) Construction of inlet structure;

(d) Construction of new stop bank along southern side of proposed re-diversion channel;

(e) Removal of existing stop bank;

(f) Construction of new re-diversion channel;

(g) Construction of new moorings (including the temporary mooring for the barge operator);

(h) Construction of the ‘salinity block’;

(i) Improvements to Ford’s Cut and Ford’s Loop;

(j) Removal of stop banks and causeways within the estuary and construct bridge between Papakihahawai Island and Maketu Spit;

(k) Construction of new culvert to Lower Kaituna Wildlife Management Reserve;

(l) Open re-diversion channel inlet; and

(m) Wetland creation.

(n) Timing of construction works including construction of the diversion channel inlet construction outside of whitebait fishing season (15th of August to the 30th November (inclusive));

(o) Working hours;

(p) Restrictions on public access;

(q) Means of limiting the physical extent of disturbance of flora and fauna (with particular focus on avian ecological issues) within the wetland located north of the proposed diversion channel; and

(r) For Coastguard Maketu and R.D. & S.F. Waterhouse Partnership, and the Commercial Barge Operator commercial mooring users holders within Ford’s Loop, means of providing access to their existing moorings prior to the
construction of the ‘salinity block’ and the same level of ongoing access to the sea via Te [Tumu].

(s) For the Commercial barge operator temporary mooring facilities north of the salinity block from commencement of construction of the ‘salinity block’ until the diversion channel outlet is opened.

(t) Timing of the closure of Ford Rd for the installation of the new culverts outside of the period 20th December and 7th February.

11.6 The following supplementary management plans shall form subsets of the verified CEMP, and must be submitted to Regional Council for certification concurrently with the CEMP:

(a) Erosion, Sediment & Dust Control Plan; and
(b) Construction Flood Management Plan.

11.7 In the event of any conflict between resource consent conditions and CEMP practices and procedures, the resource consent conditions shall be complied with.

11.8 Subject to compliance with condition 11.9 of this resource consent, the CEMP may be amended at any time.

11.9 Any amendments made to the certified CEMP shall be certified, verified and operationalised in the manner required by conditions 11.1, 11.2 and 11.3 of this resource consent.

12. Compliance with CEMP

12.1 The Consent Holder shall implement and comply with the CEMP and the Supplementary Management Plans set out in conditions 11, 13 and 14.

Note: The CEMP prepared in relation to Regional Council resource consents will be the same CEMP as that prepared in relation to the designation submitted to Western Bay of Plenty District Council, but will include different supplementary plans specific to the Regional Council resource consents.

13. Erosion, Sediment and Dust Control Plan and Management

13.1 As a sub-set and part of the CEMP required by condition 11 of this resource consent, the Consent Holder shall also provide an Earthworks, Sediment and Dust Control Plan (‘ESDCP’).

13.2 The objectives of the ESDCP shall be:

(a) To ensure construction activities achieve compliance with the conditions of consent for these activities;
(b) To ensure that the effects of erosion and sedimentation on water quality are minimised; and
(c) To ensure construction activities are carried out in a manner that is consistent with Bay of Plenty Regional Council’s Guideline No. 2010/01 - “Erosion and Sediment Control for Land Disturbing Activities”.

Comment [SB8]: Amended to make it clear who the parties are and that it is existing levels of access

Comment [SB9]: Moved from condition 34

Comment [SB10]: As recommended by Steve Everitt
The ESDCP shall be prepared in general accordance with Bay of Plenty Regional Council Guideline No. 2010/01 - “Erosion and Sediment Control for Land Disturbing Activities” and shall clearly define the sediment, erosion and dust control measures to be implemented for each stage of the works authorised by this resource consent. The Plan shall include, but not be limited to:

(a) A locality map detailing as a minimum the location of roads, property boundaries, surface waterways and crossings, the direction of stormwater flows, and the erosion, sediment and dust control devices;

(b) A site description, including land type, climate, topography, vegetation soils, and water bodies;

(c) A detailed programme of works identifying:
   (i) Each stage of construction;
   (ii) Overall construction sequencing incorporating the sequencing sediment discharge mitigations described within the WaterLine Report entitled ‘Kaituna River Re-Diversion and Ongatoro/Maketu Estuary Enhancement Project – Construction Description and Drawings’ and dated 13 June 2014,
   (iii) An estimate of the maximum area of bare ground (cumulative total) exposed at each stage of construction;
   (iv) An estimate of the total length of exposed roads, trenches and tracks; and
   (v) The volume of earthworks proposed.

(d) Detailed drawings and specifications of all designated erosion and sediment control measures selected from the Erosion and Sediment Control Guidelines, including contingency measures, on-site catchment boundaries, measures to be taken at the temporary construction management areas and off-site sources of runoff with supporting calculations, including all key design parameters. The measures may consist of but not be limited to the following:
   (i) clean water diversion channels;
   (ii) decanting earth bunds or sediment ponds;
   (iii) on-site silt trapping devices, such as hay bales, silt fences, filter cloth barriers and rock filters;
   (iv) soakage pits, infiltration basins and / or swales; and
   (v) design information as is necessary to demonstrate that run-on water is controlled, “clean” and “dirty” water is separated where possible, land surface is protected from erosion, and sediment is managed.

(e) A description of the mitigation and rehabilitation measures proposed;

(f) A programme for managing exposed areas including progressive stabilisation and minimising exposed areas by:
   (i) Ensuring that any earthworks and/or vegetation clearance should where practicable, be limited to the footprint of the works;
   (ii) Staging of the construction; and
(iii) Providing best practice measures, vegetative or structural, to protect exposed soil from erosion;

(g) Measures to ensure that the tracking of mud or earth onto the existing road network is reduced to the practicable minimum;

(h) A schedule outlining the frequency and methods of inspection, monitoring and maintenance of all erosion, sediment control and dust control measures as may be necessary to achieve compliance with the conditions of the consents;

(i) Details of any proposed monitoring to demonstrate the effectiveness of the proposed measures; and

(j) Include emergency procedures that set out measures that will be implemented if there is a significant sediment discharge to surface water.

13.4 Land disturbing activities authorised by this resource consent shall not commence within any stage until the sediment and erosion control devices have been inspected by the Regional Council.

13.5 The Consent Holder shall carry out inspections, at a minimum frequency of weekly, of all working areas of the site in order to ensure they are well maintained and that erosion and sediment control devices remain effective.

13.6 Accumulated sediment shall be removed from the sediment retention devices before sediment levels reach 25 per cent of that device’s volume.

13.7 Visual inspection shall be undertaken on a daily basis during the construction phase when earthworks are being undertaken at the inlet of the proposed channel (when works are being undertaken in this area), the estuary end of Ford’s Cut, and Papahikahawai Creek to assess whether there is any visible plume as a result of the work.

13.8 The Consent Holder shall maintain the sediment and erosion control devices in place until the work area is stabilised to the satisfaction of the Chief Executive of the Bay of Plenty Regional Council or delegate and shall undertake any remedial works as directed to achieve compliance with these conditions.

14. Construction Flood Management Plan

14.1 As a sub-set and part of the CEMP required by condition 11 of this resource consent, the Consent Holder shall also provide a Construction Flood Management Plan (‘CFMP’).

14.2 The CFMP shall be developed in consultation with the Bay of Plenty Regional Council Rivers and Drainage Manager and the Utilities Manager of the Western Bay of Plenty District Council.

14.3 The objectives of the CFMP shall be to:

(a) Minimise or Avoid and if not practicable minimise, any increase in flood risk arising as a consequence of undertaking the works;

(b) Ensure that the Contractor takes into account and manages the potential for increased flood risk when planning and executing the works; and

(c) Ensure that, in the event of a flood occurring at a construction site, processes and procedures are in place to manage the effects of such an event.
14.4 The CFMP shall, as a minimum, address the following matters:

(a) Provision of a 24 hour emergency contact person who is able to respond to a flood warning and implement emergency control measures;

(b) An outline of the probability of various flood levels;

(c) Construction methodology and sequencing for the installation of the Fords Cut culverts, the diversion channel, widening and deepening of Fords Cut and construction of the new stopbank;

(d) Provision to restrict the length of stopbank being worked on and the number of work fronts affecting stopbanks to the minimum practicable;

(e) Provision of full flood protection in association with the construction of the diversion channel and relocation of the Titchmarsh stopbank; and

(f) Existing flood management procedures for the Kaituna Catchment Control Scheme as included in the Regional Council’s Flood Warning Manual.

14.5 Flood protection systems must be fully reinstated for weekends and public holidays unless alternative interim measures, as approved by the Bay of Plenty Regional Council Rivers and Drainage Manager, are implemented. Within five working days of this approval, the Consent Holder shall provide a copy of this approval in writing to the Regional Council.

14.6 The Consent Holder shall maintain a stockpile of material and sufficient plant on site to be able to undertake immediate reinstatement of stopbank works in the event of a flood warning.

14.7 Along the alignment of the proposed diversion channel full flood protection shall be maintained by the existing stopbank except for when the tie-ins are made at each end. The period under which the tie-ins shall be agreed with the Bay of Plenty Regional Council Natural Hazards Group prior to the works being undertaken. Within five working days of agreement being reached, the Consent Holder shall provide a copy of this agreement in writing to the Regional Council.

15. Network Utilities

15.1 At least 20 working days prior to the Consent Holder granting site possession to the contractor and site establishment works commencing, the Consent Holder shall submit to the Regional Council a Network Utility Management Plan (NUMP) prepared jointly by the Consent Holder, or its agents, and Powerco.

15.2 The NUMP submitted in accordance with condition 15.1 shall record if there is agreement between the parties and, if not, where and why there is disagreement and the steps taken in an attempt to resolve that disagreement. Matters of disagreement shall be resolved through independent verification by a suitably qualified and experienced practitioner at the Consent Holder’s expense.

15.3 All construction activities of the Project are to be undertaken in accordance with the NUMP.

15.4 The purpose of the NUMP shall be to ensure that the enabling works, design and construction of the project adequately take account of, and include measures to address the safety, integrity, protection or, where necessary, relocation of existing electricity network utilities.
15.5 The NUMP shall include but need not be limited to methods and measures to:

(a) Identify protocols for liaising with Powerco and for overseeing and approving works that impact on services.

(b) Accurately identify and verify the location of existing electricity network utilities,

(c) Identify appropriate measures for working near services or the appropriate standards if they have to be relocated.

(d) Identify timing and sequencing of work associated with relocation and / or protection of electricity utility services.

(e) Ensure that existing, relocated and/or replacement electricity network utility infrastructure can be accessed for maintenance at all reasonable times, or emergency works at all times during construction activities.

(f) 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 overhead electricity lines.

(g) 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 overhead electricity lines, including support structures.

(h) To ensure the continued operation and supply of electricity infrastructure services, which may include, but not be limited to, any relocated or replacement electricity lines and cables being made operational prior to the termination of existing lines and cables.

(i) Confirm that the works will comply with the minimum separation distances set out in the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001).

16. **Design**

16.1 The Consent Holder shall use natural rock and soil material, where practicable.

16.2 All fill material shall be placed and compacted so as to minimise any erosion and/or instability.

16.3 The top level of the diversion control structure shall have a minimum height of RL 2.20 metres (Moturiki Datum).

16.4 The culverts on the inlet structure shall be designed and constructed to allow practical and reliable reduction of flows from the re-diversion channel to the Ongatoro/Maketu Estuary.

16.5 All structures, devices, channels and erosion protection works shall be designed and constructed to an engineering standard that is suitable for their intended purpose and functions. Compliance with this condition shall be verified in writing by an independent appropriately qualified and experienced practitioner(s) prior to Stage 1 commissioning of the culverts.
17. **On-going Maintenance**

17.1 The Consent Holder shall ensure that all structures and works authorised under this consent are maintained in a structurally sound condition at all times to the satisfaction of the Regional Council.

17.2 Any scour or erosion of the Coastal Marine Area at the entrance or exit points of the culverts shall be effectively stabilised to the satisfaction of the Regional Council.

17.3 The Consent Holder shall undertake any maintenance work on the structures and works authorised under this resource consent, as soon as reasonably practicable, if directed by, and to the satisfaction of, the Regional Council.

18. **Private Water Supply**

18.1 Prior to the construction of the diversion channel, the Consent Holder shall relocate or replace the private stockwater main (including connections) that conveys water from the Kaituna River to Sec 5 Blk V Te Tumu SD, Kaituna Pastoral Farms Ltd as shown on BOPRC Plan Number RC67958/1.

18.2 No less than 10 working days prior to carrying out the works required by condition 18.1 of this resource consent, the Consent Holder shall advise the landowner of Sec 5 Blk V Te Tumu SD of the date these proposed works are to occur and the period of time that water supply will be affected.

18.3 Prior to diverting water into the new diversion channel, the Consent Holder shall install a salinity monitoring device on the stock drinking water and irrigation water intakes that shuts off the existing water intake when the salinity makes the water unsuitable for use as stock drinking water on Sec 5 Blk V Te Tumu SD, Kaituna Pastoral Farms Ltd. The Consent Holder shall also provide a 30,000 litre tank for stock drinking water for the landowners installation for storage of water.

19. **Commissioning Plan**

19.1 The commissioning of the culverts providing water from the Kaituna River via the diversion channel into Fords Cut shall be staged as follows:

(a) Stage 1: Increase the re-diverted flow from 150,000 m³ to ~400,000 m³ per mean tidal cycle; and then

(b) Stage 2: After a period of one year of Stage 1, subject to monitoring and necessary adjustments and/or works, increase the re-diverted flow to ~600,000 m³ per mean tidal cycle.

19.2 The Consent Holder shall submit to the Regional Council a detailed commissioning plan at least 15 working days prior to commencing commissioning of Stage 1 of the diversion culverts for their approval. The Commissioning Plan shall be verified by an independent appropriately experienced and qualified practitioner.

19.3 The objective of the Commissioning Plan is to manage the operation of the culverts during Stage 1 such that:

(a) There is no increase in flood risk or erosion attributable to the Project; and

(b) Adverse effects on water quality arising from the discharge are minimised.

19.4 The Plan shall address, as a minimum:

(a) Progressive opening of the culverts;
(b) Procedures for the management of a flood event should it occur during Stage 1;
(c) Water levels, erosion and ecological monitoring in accordance with the
monitoring conditions; and
(d) Discharge quality.

19.5 Following Stage 1 but prior to Stage 2 commissioning of the culverts, the Consent
Holder shall provide a report to the Regional Council that has been verified by an
independent appropriately experienced and qualified practitioner. This report shall,
as a minimum:
(a) Provide a copy of the monitoring results obtained for Stage 1;
(b) Provide an analysis and interpretation of monitoring results obtained for Stage 1;
(c) Identify and prescribe the proposed measures and responses to issues identified
following an analysis of monitoring results for Stage 1; and
(d) Identify the means of measuring the effectiveness of proposed measures and
responses under 19.5(b,c).

19.6 The Consent Holder shall not commence Stage 2 commissioning of the culverts until
such time as it has been demonstrated to the satisfaction of the Regional Council that
issues identified within the report required by condition 19.5 of this resource consent
have been effectively addressed.

19.7 The culverts shall be commissioned in accordance with the Commissioning Plan.

Note: The culverts are deemed to be fully commissioned at Stage 2, being when all
culverts and their gates are fully operational without any short-term controls. This will
be clearly stated in the Commissioning Plan.

The Operations and Maintenance Manual (referred to in condition 23 below) will
address the operation of the culverts once fully commissioned.

20. Lower Kaituna Wildlife Management Reserve

20.1 During the detailed design of the additional culvert at Lower Kaituna Wildlife
Management Reserve, in order to maintain flows into the wetland, the Consent Holder
shall determine the relationship between water levels in the Kaituna Wetland, water
levels in the Kaituna River and flows into the wetland.

20.2 In consultation with the Department of Conservation and Fish and Game, the Consent
Holder shall submit a final plan for the additional culvert to the Lower Kaituna Wildlife
Management Reserve for the certification of the Regional Council. This plan and
certification shall include:
(a) The final location of the culvert, which is to be somewhere between Intakes 1 and
2 as shown on the 'Location Plan' provided with the Applicant’s S92 Request on
the 1st of September 2014 by way of a letter prepared by Opus entitled 'Resource
Consent Application 67958 – Kaituna River Re-Diversion and Ongateau/Maketu
Estuary Enhancement- Response to Further Information Request';
(b) The diameter of the culvert, which is to be no less than 0.9 metres;
(c) The provision of measures to allow fish passage;
(d) Erosion and scour protection at the inlet and outflow points;

(e) Maximum earthworks volume of no greater than 5,000 cubic metres; and

(f) Confirmation from an appropriately qualified and experienced practitioner(s) that the culvert and associated structures have been designed to an engineering standard that is suitable for their intended purposes and functions.

20.3 The Consent Holder shall install the Lower Kaituna Wildlife Management Reserve culvert prior to commencing Stage 1 of the culvert commissioning.

20.4 The operation of the diversion control structure shall not alter the water levels at the Lower Kaituna Wildlife Management Reserve unless it can be demonstrated to the satisfaction of the Regional Council by way of a report prepared by an appropriately qualified and experienced practitioner(s) that lower or higher levels provide ecological benefit to the Lower Kaituna Wildlife Management Reserve.

21. Drainage – Kaituna Catchment Control Scheme

21.1 Prior to the Stage 1 commissioning of the culverts, the Consent Holder shall consult with the Manager of the Kaituna Catchment Control Scheme (‘the Scheme’) or their appointee to:

(a) Determine the extent of any adverse pastoral effects attributable to the re-diversion in relation to the operation of the Scheme’s drainage network as a consequence of increasing water levels in the Maketu Estuary;

(b) Determine, by agreement, the amount of compensation to be paid by the Consent Holder to the Manager of the Scheme to mitigate the adverse effects of the re-diversion in relation to the operation of the Scheme’s drainage network; and

(c) The timing and frequency of providing the compensation.

21.2 The Consent Holder shall provide a report to the Regional Council providing details of the agreed extent of any adverse pastoral effects attributable to the re-diversion and the agreed amount of compensation to mitigate these effects, or if these matters have not been able to be agreed, details of the areas of agreement and disagreement.

21.3 In the event that the Consent Holder and the Manager of the Kaituna Catchment Control Scheme are unable to agree on the extent of any adverse pastoral effects caused to the Scheme’s drainage network from the re-diversion and / or the amount of compensation to be paid in mitigation of those effects and / or the timing and frequency of payment of compensation, those matters shall be determined by a Panel of two suitably qualified independent experts appointed by the Regional Council at the Consent Holder’s expense.

21.4 If shown to be necessary by the drainage investigation, compensation will be provided by the Consent Holder in an agreed manner, to be used for one or more of the following (which are not exclusive): The amount of any compensation to be paid to the Scheme shall be:

(a) To provide compensation for the increased running costs at the Ford Road and Maketu (Singletons) pump stations as a result of the re-diversion;

(b) As a contribution to the planned upgrade of the pump station and culverts draining into the Kaituna River from the Ford Road drain;

Comment [SB16]: Discussions with F&G resulted in the Applicant agreeing that this be removed from the condition

Comment [SB17]: Ensures consistency with condition 21.2, 21.3

Comment [SB18]: In line with comments from Steve Everitt
(e) As a contribution to the design and construction of additional culverts draining into the Maketu Estuary from between Fords Road Cut and Maketu (Singletons) pump station; down to and including Singleton Gravity Drains (the Waitipuia Stream) and Maketu (Singletons) pump station.

(d) In the event a Panel is required to determine the amount of compensation, for any other initiatives the Panel recommends be implemented.

21.5 The decision of the Panel prescribed within condition 21.3 of this resource consent shall be final.

21.6 The culverts shall not be commissioned until the amount of compensation payable has been determined in accordance with this condition.

21.7 The Consent Holder shall pay the compensation as determined by either condition 21.1 or 21.3 of this resource consent.

22. Drainage – Dean Pump Station

22.1 Prior to the Stage 1 commissioning of the culverts, the Consent Holder shall consult with the owner of number 196 Kaituna Road, Maketu (legally described as Sec 2 SO 12541) or their appointee to:

(a) Determine the extent of any adverse effects attributable to the re-diversion in relation to the operation of their privately owned and operated pump station as a consequence of increasing water levels in the Maketu Estuary; and

(b) Determine, by agreement, the amount of compensation to be paid by the Consent Holder to the landowner to mitigate the adverse effects (if any) of the re-diversion in relation to the operation of the land serviced by the privately owned pump station.

22.2 The Consent Holder shall provide a report to the Regional Council providing details of the agreed extent of any adverse pastoral effects attributable to the re-diversion and the agreed amount of compensation to mitigate these effects, or if these matters have not been able to be agreed, details of the areas of agreement and disagreement.

22.3 In the event that the Consent Holder and the landowner of number 196 Kaituna Road, Maketu (legally described as Sec 2 SO 12541) are unable to agree on the extent of any adverse effects caused by the re-diversion and / or the amount of compensation to be paid in mitigation of those effects, those matters shall be determined by a Panel of two suitably qualified independent experts appointed by the Regional Council at the Consent Holder’s expense.

22.4 The amount of any compensation to be paid to the landowner of number 196 Kaituna Road, Maketu (legally described as Sec 2 SO 12541) shall be to provide compensation (if any) for the additional running costs of the Dean pump station as a result of the re-diversion.

22.5 The decision of the Panel prescribed within condition 22.3 of this resource consent shall be final.

22.6 The culverts shall not be commissioned until the amount of compensation payable has been determined in accordance with this condition.
22.7 The Consent Holder shall pay the compensation as determined by either condition 22.1 or 22.3 of this Resource Consent on an annual basis no later than the 31st of March.

Note: It is acknowledged that improvements to the Kaituna Catchment Control Scheme as a result of the works under Condition 21 of this resource consent may mitigate the Project’s effects on the need for this privately-owned pump station to operate longer during flood events and that compensation may not be required if this can be demonstrated through condition 22.1 or 22.3.


23.1 An Operations and Maintenance Manual (‘OMM’) shall be provided to the Regional Council for certification at least one month prior to Stage 1 commissioning of the diversion culverts. Regional Council’s certification shall be limited to that the OMM:

(a) Complies with conditions 23.4 and 23.5 of this resource consent;

(b) Adopts the best practicable option(s); and

(c) Contains provisions that are enforceable.

23.2 The OMM shall be prepared, in consultation with the Bay of Plenty Regional Council Rivers and Drainage Manager and Western Bay of Plenty District Council, by a suitably qualified and experienced practitioner and shall detail how the effects of the flow regime and diversion are to be minimised and managed.

23.3 The OMM shall be verified by appropriately experienced and qualified practitioners, confirming that the OMM:

(a) Meets the OMMs objectives;

(b) Complies with resource consent conditions; and

(c) The implementation of the OMM will appropriately manage the ongoing operation of the Project.

23.4 The objectives of the OMM shall be:

(a) To ensure that procedures are in place to:
   (i) Operate the diversion to maximise ecological outcomes; and
   (ii) Manage the flow regime and discharges such that adverse effects attributable to the Project are minimised.

(b) To specify how erosion control works will be maintained.

(c) To specify how the culverts are to be controlled to ensure the Project does not increase the flood risk levels at in Maketu Township above those that existed prior to the Project (that is, overtopping of Maketu Road).

23.5 The OMM shall, as a minimum, describe the following matters:

(a) Describe the Project assets;

(b) Describe how provision is made to ensure that the passage of fish through the diversion structure is unimpeded at all times that the gates are open;

Comment [SB19]: Does not need to be an annual payment, would be paid in one lump sum as per the approach in Condition 21.4(a)

Comment [SB20]: Amended as clearer way to describe the existing flood risk
(c) **Describe** the flow regime operating rules for the diversion including identification of the triggers and responses to manage flood events in accordance with the conditions of this consent, including but not limited to:

(i) Installation of a telemetered water level recording device in the Ongatoro/Maketu Estuary near the Maketu Township;

(ii) Continued operation and monitoring of existing water level devices in the Kaituna River at Te Matai and the Ford Road Pump Station;

(iii) Monitoring of sea level;

(iv) A sea level prediction model that predicts sea level in the locality;

(v) A flood forecasting model that predicts flows in the Kaituna River and water levels at Ford Road and within the Ongatoro/Maketu Estuary; and

(vi) Design and installation of devices on the new culverts that allow for practical and reliable reduction of water flow into the Ongatoro/Maketu Estuary via the diversion structure.

(d) Roles and responsibilities;

(e) The operating regime to maximise ecological outcomes;

(f) Operational procedures for the culvert gates;

(g) Procedures for the maintenance and removal of debris at the culverts;

(h) Procedures for inspecting and maintaining erosion protection works;

(i) Emergency management procedures; and

(j) A process for investigating complaints.

23.6 The Consent Holder shall implement and comply with the OMM.

23.7 A copy of the OMM shall be provided to the Regional Council Rivers and Drainage Manager so the culvert operational procedures can be included in the Council’s Flood Warning Manual.

23.8 Subject to compliance with condition 23.9 of this resource consent, the OMM may be amended at any time.

23.9 A copy of the amended Plan shall be provided to the Regional Council for their certification accompanied by verification from appropriately experienced and qualified practitioner(s) that the amended OMM meets the conditions of this resource consent (including the objectives under condition 23.4). Regional Council’s certification shall be limited to that the amended OMM:

(a) Complies with conditions 23.4 and 23.5 of this resource consent;

(b) Adopts the best practicable option(s); and

(c) Contains provisions that are enforceable.

23.10 During river flood events that coincide with high sea levels, the culverts shall be operated in a manner that does not increase the existing flood risk levels at in Maketu.
23.11 The Consent Holder shall meet with the Utilities Manager of Western Bay of Plenty District Council at least once per year to review the operation of the OMM in relation to flood management within Maketu Township.

23.12 The Consent Holder shall keep minutes of the meeting required by condition 23.3 of this resource consent. The minutes shall record:
(a) The names of those who attended the meeting;
(b) Main topics of discussion; and
(c) Any agreed outcomes.

The Consent Holder shall forward a copy of these minutes to the Regional Council within 20 working days of the meeting being held.

24. Wetland Restoration Plan, Establishment and Maintenance

24.1 Prior to the commencement of planting, a Wetland Restoration Plan, for the proposed 19 hectares wetland north for Ford’s Cut shall be prepared and submitted to the Regional Council for certification at least two months prior to the first planting season. Regional Council’s certification shall be limited to that the Wetland Plan:
(a) Complies with conditions 24.2 and 24.4 of this resource consent;
(b) Adopts the best practicable option(s); and
(c) Contains provisions that are enforceable.

24.2 The Wetland Restoration Plan shall be verified by appropriately experienced and qualified practitioners, confirming that the Wetland Restoration Plan:
(a) Meets the Wetland Restoration Plan objective(s); and
(b) Complies with the resource consent conditions.

24.3 The objective of the Wetland Restoration Plan is to achieve establish as much a wetland as practicable with an aim of no less than 19 20 hectares or more where physical and environmental conditions allow of a sustainable cover of indigenous plants to be established that is representative in terms of species composition of wetland habitat found historically in the area, that is as close to the original natural species diversity, taking into consideration the substantial and irreversible human-induced changes that have occurred to the landscape surrounding the Ongatoro/Maketu Estuary.

24.4 The Wetland Restoration Plan shall provide details of how the above objective is to be achieved, including:
(a) A map showing the locations of the proposed work;
(b) Identification of the personnel or organisations that are to carry out the work;
(c) The timescale of activities;
(d) Initial monitoring of site growing conditions (especially soil salinity, soil saturation, tidal induced sediment erosion and deposition) after re-diversion;
(e) Creation of a planting zone plan based on site growing conditions and species tolerances;

(f) A programme for trial planting of plant species especially in areas where growing conditions are likely to be challenging (for example, areas exposed to open tidal water and those with higher salinity);

(g) Details of mass planting once species can be matched to site conditions with high confidence of success;

(h) Restoration planting plan produced that details the planting zones, species mixes, plant grades, site preparation and post-planting maintenance requirements;

(i) Identification of opportunities for Tangata Whenua and the community to be involved in planning and implementation of wetland restoration planting;

(j) Monitoring plan to objectively measure plant and species performance;

(k) Weed and pest control for each area; and

(l) Any ongoing requirements to ensure the objective of the Wetland Plan is achieved.

24.5 The Consent Holder shall undertake all wetland works and weed and pest control in accordance with the Wetland Restoration Plan.

24.6 Subject to compliance with condition 24.7 of this resource consent, the Wetland Restoration Plan may be amended at any time.

24.7 A copy of the amended Plan shall be provided to the Regional Council for their certification accompanied by verification from appropriately experienced and qualified practitioner(s) that the amended Wetland Restoration Plan meets the conditions of this resource consent (including the objective under condition 24.3). Regional Council’s certification shall be limited to that the amended Wetland Plan:

(a) Complies with conditions 24.2 and 24.4 of this resource consent;

(b) Adopts the best practicable option(s); and

(c) Contains provisions that are enforceable.

25. Environmental Monitoring Programme

25.1 Prior to the commencement of works authorised by this resource consent, the Consent Holder shall prepare an Environmental Monitoring Programme that details the monitoring required under Conditions 27 through 32 (inclusive).

25.2 The Programme shall be prepared and verified by appropriately experienced and qualified practitioners, and:

(a) Confirm that monitoring is will be carried out by suitably experienced and qualified specialists.

(b) Be designed and carried out using scientifically accepted methods which shall aim to obtain results with a high level of confidence.

(c) Be designed so as to be capable of testing and verifying the performance measures listed in these resource consent conditions.
(d) Be consistent with all conditions of this resource consent and the Consent Holder shall undertake all sampling, monitoring and reporting in accordance with the Programme.

(e) Include a description of the method(s) and frequency to be used for monitoring, including that undertaken for internal/management purposes.

(f) Include a map and, if appropriate, photos of all sampling sites.

(g) Specify the name of any laboratory and method of analysis of all samples collected.

(h) Detail the operation and maintenance of any automatic sampling or monitoring equipment.

(i) Identify opportunities for tangata whenua and the community to be involved in developing education or research projects associated with the Project, particularly around incorporating elements of Mataauranga Maori, and in wetland restoration and ecological monitoring.

26. Reporting

26.1 The Consent Holder shall, annually from the commencement of this resource consent and, by the 1st of August each year, provide to the Regional Council a written monitoring report that:

(a) Covers the previous 12 month period ending on the 31st of May;

(b) Provides a copy of the results of all monitoring for:

   (i) The certified Wetland Restoration Plan;

   (ii) Water Levels and Flows;

   (iii) Erosion;

   (iv) Water Quality and Shellfish;

   (v) Ecology (flora);

   (vi) Ecology (fauna); and

   (vii) Sediment.

(c) Provides an analysis and interpretation of those results prescribed by condition 26.1(b) of this resource consent;

(d) Identify and prescribe the proposed measures and responses to issues identified following an analysis of monitoring results; and

(e) Identify the means of measuring the effectiveness of proposed measures and responses under 26.1(d) including any necessary amendments to the Environmental Monitoring Programme.

26.2 The monitoring parameters, site locations and frequency of sampling outlined in the Environmental Monitoring Programme and any other alterations may be reviewed as part of each monitoring report.
26.3 As part of its annual report required under Condition 26.1 of this resource consent, the Consent Holder may apply to the Regional Council for approval to reduce the frequency of the monitoring and/or the number of sampling sites (reduced sampling programme).

26.4 A request under condition 26.3 of this resource consent may only be made on the basis that monitoring results are not demonstrating any significant adverse effects and there is no longer considered to be a need to monitor as a result.

26.5 A request under condition 26.3 of this resource consent shall be verified by an appropriately experienced and qualified practitioner(s) and form part of an amended Environmental Monitoring Plan to be submitted to the Regional Council for approval and shall provide for the following amendments:

(a) Details regarding the frequency of monitoring;

(b) A description of the number and location of sampling sites where monitoring is to occur;

(c) Provision for monitoring to be increased again if results of monitoring demonstrate a reversal of the trend or otherwise unexpected monitoring results; and

(d) Ceasing or reintroducing the monitoring requirements for a particular parameter/contaminant.

26.6 The Consent Holder shall not apply to the Regional Council for approval to cease monitoring unless it has first undertaken a reduced sampling programme in accordance with Condition 26.3 above, to the satisfaction of the Regional Council.

26.7 Such a request shall form part of an amended Environmental Monitoring Plan under condition 26.3 and is to be submitted to the Regional Council for approval and which shall provide for the resumption of monitoring if so directed in writing by the Regional Council.

27. **Water levels and flows**

27.1 No less than 10 working days prior to the Stage 1 commissioning of any of the culverts, the Consent Holder shall commence permanent water level monitoring at the following sites:

(a) Kaituna River at Te Matai (map reference U14: 064 734);

(b) Kaituna River in the vicinity of the Ford Road pump station (map reference 1,900,715 E, 5,815,802 N NZTM);

(c) Ongatoro/Maketu Estuary at Maketu township;

(d) Fords Cut downstream of the diversion culverts. The monitoring device shall be suitable to be used for making operational decisions about the volume of water to be released into Ford’s Cut; and

(e) Sea level data obtained from the NIWA gauge at Tauranga (Moturiki) as long as the site is maintained by NIWA.

27.2 Where monitoring stations do not currently exist at the sites specified in condition 27.1 of this resource consent or where existing sites cease to operate, the Consent Holder shall establish a new site to ensure compliance with the water level monitoring requirements of this resource consent **with the exception of condition 27.1(e)**.
27.3 Data from the sites specified in condition 27.1 of this resource consent shall be used to manage the flow regime through the culverts in accordance with the OMM for the Project.

27.4 Within 12 months of Stage 2 commissioning, the water level and sea level data collected under Condition 27.1 of this resource consent shall be assessed to validate the assessment of effects by comparing the model predictions with actual changes, both before and after the Project under a range of flow conditions. If the actual reduction in average low flow ebb tide volume is greater than 20 per cent for equivalent low flow conditions the Consent Holder shall within 20 working days alter the Project settings in order to stay below that figure.

27.5 In addition to the water level monitoring required by condition 27.1 of this resource consent, for a minimum of two years following installation of the additional culvert for the Lower Kaituna Wildlife Management Reserve under condition 20, the Consent Holder shall undertake water level monitoring within 10 metres of the intake for this culvert via a new telemetered site.

27.6 Analysis of the data obtained by water level monitoring under conditions 27.1 and 27.5 shall be repeated analysed to demonstrate that the flow rates to the Lower Kaituna Wildlife Management Reserve are as predicted.

Note: Results of the analysis carried out under condition 27.6 needs to be assessed for compliance with condition 20.4 and where a non-compliance is identified, the additional culvert will need to be altered as necessary.

28. Erosion and Bed Level Monitoring

28.1 Prior to the commencement of works authorised under this resource consent, the Consent Holder shall establish permanent markers in order to undertake transect monitoring in the vicinity of Papahikahawai Island to monitor for any erosion as a result of the diversion as follows:

(a) The transects shall be located at four sites to the west and south of the island with each transect extending from the seaward face or toe of the existing sand bund to at least 50 metres offshore to pick up changes in near shore depths over time. The transects shall also go from RL 2.0 metres Moturiki Datum to Mean High Water Springs.

(b) The transects shall be undertaken using Real Time Kinematic Global Positioning System.

(c) Transects shall be measured as follows:

(i) Annually from the commencement of construction until Stage 1 commissioning of the culverts; and then

(ii) twice a year for three years following commissioning and thereafter the frequency shall be assessed as part of the reporting requirements of Condition 26.3.

28.2 The Consent Holder shall undertake a Real Time Kinematic Global Positioning System survey of Maketu Spit shoreline from the top of the existing erosion scarp out to the edge of the main channel RL 2.0 metres Moturiki Datum to Mean High Water Springs over the area identified in Plan X.
28.3 The first survey under condition 28.2 of this resource consent shall be undertaken at least one month prior to commissioning and thereafter annually for a period of five years. After five years of annual surveys the frequency of the survey shall be assessed as part of the reporting requirements of Condition 26.3. The purpose of the survey is to monitor for any aggravation of erosion as a result of the diversion.

28.4 The Consent Holder shall undertake surveys at Maketu Township and Beach Road to monitor for any erosion or aggradation as a result of the diversion as follows:

(a) A shoreline survey using Real Time Kinematic Global Positioning System in the area shown on Plan X along the dune toe or seaward edge of the vegetation;

(b) A minimum of six cross sections in total with two along Beach Road and four distributed around Maketu township from Park Road foreshore to the marae. Each cross section shall extend to no less than 50 metres offshore;

(c) Bed and channel depths within the boat ramp access channel from adjacent the Maketu Boat Ramp to 100 metres seaward; and

(d) The survey and transects shall be measured at least one month prior to commissioning and thereafter annually for five years. After five years of annual surveys the frequency of the survey shall be assessed as part of the reporting requirements of Condition 26.3.

28.5 The Consent Holder shall undertake a Real Time Kinematic Global Positioning System survey from the diversion channel intake to Y along both banks of the Lower Kaituna River every five years from Commissioning.

Advice Note: The purpose of the survey required by condition 28.5 is to provide information to the adjacent landowner and identify if there are adverse erosion effects attributable to the Project. Any erosion identified does not automatically mean non-compliance with this condition recognising that there has been a history of some erosion prior to the exercise of this resource consent.

The Consent Holder shall analyse historic photography to assess time-averaged rates of erosion prior to the project in the following locations:

- Along the estuarine margin of Papahikahawai Island
- **Along the landward margin of the spit in the area shown in Plan X (see Condition 28.2)**

The purpose of this work is to ascertain the time-averaged rate of erosion (and where relevant, the scale of episodic erosion events) prior to the re-diversion to use as a basis for comparison with post-diversion monitoring.

28.6 The Consent Holder shall analyse aerial photographs to identify any erosion as a result of the Project. The aerial photos used shall be those collected by Bay of Plenty Regional Council as part of their aerial photography programme, for the area that covers Maketu Spit, Ongatoro/Maketū Estuary and the lower Kaituna River. For the purpose of clarity the Consent Holder is not required to undertake specific aerial photography in order to comply with this condition.

29. **Water Quality and Shellfish**

29.1 The Consent Holder shall use data loggers to measure dissolved oxygen, temperature and salinity in the Ongatoro/Maketū Estuary. Monitoring shall occur during the periods January to March (inclusive) and June to August (inclusive) with measurements made at intervals of 10 minutes (or less) for a period of at least 14 days.

29.2 The monitoring required by condition 29.1 shall occur at the following two locations shown in Figure 4.1, page 51 of Hamill (2014) "Kaituna River Re-diversion Project: Ongatoro/Maketū Estuary condition and potential ecological effects" attached to the application material:
(a) Mid-estuary; and
(b) Papahikahawai Lagoon 2.

29.3 The monitoring required by condition 29.1 shall be carried out as follows:
(a) Once prior to Stage 1 commissioning of the culverts;
(b) Once following Stage 1 but prior to Stage 2 commissioning of the culverts;
(c) Once within two years of Stage 2 commissioning of the culverts; and
(d) Once within five years of commissioning.

29.4 From Stage 1 commissioning, the Consent Holder shall undertake water quality monitoring three times every year during the period December to March (inclusive) at high tide and low tide. Samples shall be collected from Ford’s Cut, the mid estuary and at Maketu boat ramp and analysed for:
(a) Total nitrogen;
(b) Nitrate-nitrite nitrogen;
(c) Total ammoniacal nitrogen;
(d) Total Phosphorus;
(e) Dissolved Reactive Phosphorus;
(f) Salinity;
(g) Faecal coliform bacteria; and
(h) Enterococci bacteria

29.5 On the same day that water samples required by condition 29.4 are collected, From Stage 1 commissioning, the Consent Holder shall undertake shellfish flesh and water quality samples three times every year during the period December to March (inclusive) at low tide. Five shellfish samples shall be taken at three sites in the lower to mid- Ongatoro/Maketū Estuary comprising a minimum of:
(a) Two pipi; and
(b) Two cockle samples.

At the sites where shellfish flesh are collected water samples shall also be collected at that site and tested for Faecal coliform bacteria; and Enterococci bacteria.

29.6 The shellfish samples required by condition 29.5 shall be tested for faecal coliform bacteria concentrations.

29.7 Annually, from Stage 1 commissioning for a period of five years, the Consent Holder shall undertake a pipi survey in the lower estuary for the period December to March (inclusive) comprising a minimum of eight replicate cores along a transect parallel to the channel. All shellfish in the cores shall be identified and counted in 5.0 millimetre size classes.

29.8 Annually, from Stage 1 commissioning for a period of five years, the Consent Holder shall sample shellfish at three sites in the mid estuary during the period December to March (inclusive) comprising a 10 metre radius of the site location. All shellfish in the cores shall be identified and counted in 5.0 millimetre size classes.

At the location of each macrofauna replicate, measurements shall also be taken of the following variables using methods consistent with those used for Condition 32.3: algal cover and type, percent cover mud/silt, depth mud/silt and anoxic depth.

30. Ecology (fauna)

30.1 The Consent Holder shall undertake broad scale mapping of algae distribution and species in the estuary annually from Stage 1 commissioning for a period of five years. Reporting shall generally be in the form of Figure 2.1, page 6 of Hamill (2014) “Kaituna River Re-diversion Project: Ongatoro/Maketū Estuary condition and potential ecological effects” of the application material.

30.2 The Consent Holder shall undertake a survey of benthic macrofauna at the eight sites identified on Plan X and one site in Papahikahawai Island lagoon and one at the end of Papahikahawai Creek as follows:
(a) Infauna shall be sampled using eight replicate sediment cores randomly collected within a 10 metre radius of the site location and macrofauna identified;
(b) Epifuana shall be surveyed using eight randomly placed 0.25 m$^2$ quadrats; and
(c) The survey shall be undertaken once within two years of Stage 2 commissioning and then again at five years from Stage 2 commissioning.
At the location of each macrofauna replicate, measurements shall also be taken of the following variables using methods consistent with those used for Condition 32.3: algal cover and type, percent cover mud/silt, depth mud/silt and anoxic depth.

31. Ecology (flora)

31.1 The Consent Holder shall undertake vegetation transect monitoring to determine the effects of the diversion on terrestrial and wetland vegetation as follows:

<table>
<thead>
<tr>
<th>Location</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transects 1-8</td>
<td>As shown on Plan X with Transect 7 being extended to the waters edge of the new diversion channel</td>
</tr>
<tr>
<td>Transect 9</td>
<td>1 new transect to be established on land in the general location shown in Plan X</td>
</tr>
<tr>
<td>Transect 10 and 11</td>
<td>1 north-south and 1 east-west transect to be established on the land north of Fords Cut using paired plot methodology</td>
</tr>
</tbody>
</table>

31.2 Transects should be measured using the methodology from section 3.1.5.1, on pages 18 to 20, of MacGibbon (2014) ‘Kaituna River Re-diversion Project: Ongatoro/Maketū Estuary Enhancement Project – Terrestrial, Avian and Wetland Ecology’ provided as part of the application material in the locations shown on the plan below.
31.3 In the event that access to Transects 6 and 8 cannot be gained from the landowner, there is no requirement to monitor. The Consent Holder shall notify the Regional Council in writing within 10 working days of access being denied identifying the attempts made to gain access.

31.4 The salt marsh remnants and the small Sacocornia patch in Papahikahawai Creek shall be monitored using photopoint monitoring. Surveys shall be carried out annually from Stage 1 commissioning for a period of five years.

31.5 The vegetation composition and spatial extent along the true left bank of the re-diversion channel shall be surveyed prior to river re-diversion and monitored monthly for a period of two years following commissioning.

32. Sediment and Algae

32.1 The Consent Holder shall undertake a survey of sediment and algae in the estuary. The survey shall involve visual assessment and core sampling of sediment and algae cover as follows:

(a) Along a minimum of three transects in the upper estuary;

(b) Along a minimum of three transects in the mid-estuary, (including one at the downstream end of Papahikahawai Creek); and

(c) Along a minimum of one transect in the lower estuary.

32.2 The sediment survey shall be undertaken:

(a) Once prior to the Stage 1 commissioning of the culverts;

(b) Once within one year of the Stage 1 commissioning of the culverts;

(c) Once within two years of the Stage 2 commissioning of the culverts; and

(d) Once within five years of the Stage 2 commissioning of the culverts.

Comment [SB32]: In line with comments from Keith Hamill
32.3 Variables assessed during the sediment survey shall include:
   (a) Algae cover and type;
   (b) Per cent cover of mud/silt;
   (c) Depth of mud/silt; and
   (d) Anoxic depth (that is, depth of RPD (redox potential discontinuity)).

32.4 Sediment sampling shall be integrated with macrofauna sampling required under condition 29.8 of this resource consent.

33. Community Relationships

33.1 No less than 20 working days prior to the Consent Holder granting site possession to the Contractor, the Consent Holder shall facilitate and resource a public information session for the purposes of discussing the scheduling and staging for works and expectations regarding communication between the Consent Holder and the community.

33.2 In addition to the community in general, the Consent Holder shall, as a minimum, directly invite the following parties to the public information session required by condition 33.1 of this resource consent:
   (a) Department of Conservation;
   (b) Fish & Game;
   (c) Tangata Whenua;
   (d) The Manager of the Kaituna Catchment Control Scheme;
   (e) Coastguard Maketu;
   (f) Maketu Ongatoro Wetland Society Incorporated;
   (g) Maketu Community Board;
   (h) Te Maru o Kaituna; and
   (i) R.D. & S.F. Waterhouse Partnership.

33.3 Following the public information session required by condition 33.1 but prior to the commencement of the works authorised by this resource consent, the Consent Holder shall prepare a Community Relationship Plan.

33.4 The objective of the Plan is to enable Tangata Whenua, the general public and stakeholders to be kept informed of the works and restoration initiatives being undertaken and to facilitate the free flow of information between the Consent Holder and these parties.

33.5 As a minimum, the Community Relationship Plan shall:
   (a) Identify the frequency of communication, taking into account different phases of the Project (such as the works phase, wetland works, and monitoring and reporting phases); and
(b) As a minimum, make provision for Public Information Sessions as follows:

(i) Once every three months during the construction phase;

(ii) Once per year for the first five years following Stage 1 commissioning of the culverts; and then

(iii) Once every two years for the duration of the consent.

(c) Identify an agreed method(s) for providing information, such as a website or other form of communication;

(d) 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; and

(e) Identifying the procedures for providing feedback to the Consent Holder on the implementation of the project.

33.6 The Consent Holder shall directly invite, in writing, those parties prescribed in condition 33.2 to the ongoing Public Information Sessions required by condition 33.5 of this resource consent.

33.7 The Consent Holder shall keep minutes of the Public Information Sessions required by condition 33.5 of this resource consent. The minutes shall record:

(a) The names of those who attended the meeting;

(b) Main topics of discussion; and

(c) Any agreed outcomes.

The Consent Holder shall forward a copy of these minutes to the Regional Council within 20 working days of the meeting being held.

33.8 The Consent Holder shall resource and implement the Community Relationship Plan to the satisfaction of the Regional Council.

34. Plans for Certification – Moorings

34.1 Prior to the commencement of the works authorised by this resource consent, the Consent Holder shall submit a final plan for the proposed moorings and associated facilities for the certification of the Regional Council. This plan shall include:

(a) Details of the final location; of the proposed moorings north of the ‘salinity block’ in general accordance with BOPRC Plan Number RC67958/6;

(b) The final orientation and design of the proposed mooring facilities, provided that no more than one;

The provision of two permanent mooring is provided for Coastguard Maketu and one for the R.D. & S.F. Waterhouse Partnership each comprising:

(i) A minimum length of 12.0 metres and a maximum length of 15.0 metres;

(ii) A maximum width of 3.0 metres; and

(iii) Jetties, if required, with a maximum lengths of 10.0 metres and maximum widths of 3.0 metres.\[<sup>5</sup>\]
The provision of a temporary mooring for the use of the commercial barge operator;

And associated

(iiv) Timber pole breakwater; and

(iiv) Car parking and security lighting and fencing as required.

34.2 Unless otherwise agreed with Coastguard Maketu and R.D. & S.F. Waterhouse Partnership, the Consent Holder shall provide construct the moorings and associated facilities in accordance with the certified plan under condition 34.1 of this resource consent prior to the commencement of construction of the ‘salinity block’ shown on BOPRC Plan Number RC67958/6.

35. Plans for Certification – Boat Ramp

35.1 Prior to the commencement of the works authorised by this resource consent, the Consent Holder shall submit a final plan for the proposed public boat ramp and associated facilities for the certification of the Regional Council. This plan shall include:

(a) The final location of the proposed boat ramp in general accordance with BOPRC Plan Number RC67958/2;

(b) The final orientation, design and materials of the proposed boat ramp, log deflectors and jetty;

(c) The provision of a public boat ramp comprising a maximum length of 28 metres in length (13 metres exposed at high tide) by nine metres in width;

(d) The provision of a timber jetty or floating pontoon comprising a maximum length of 16 metres by 1.3 metres in width; and

(e) The provision of a timber ramp to access the jetty or pontoon comprising a maximum length of 6.0 metres by 1.3 metres on width.

35.2 The Consent Holder shall construct the public boat ramp and associated facilities in accordance with the certified plan under condition 35.1 of this resource consent.

36. Papahikahawai and Maketu Spit Bridge

36.1 Prior to the commencement of the construction of the foot/light allterrain vehicle bridge linking Papahikahawai Island to the Maketu Spit, the Consent Holder shall submit to the Regional Council a final plan that has been verified by suitably qualified and experienced engineering and landscape architecture practitioners that:

(a) The bridge has been designed to an acceptable engineering standard in terms of its intended use and location within the coastal environment; and

(b) The bridge has been designed (including materials) that are appropriate in the landscape context and will not compromise the existing landscape values of the subject locality.

36.2 The bridge shall be located in general accordance with BOPRC Plan Number RC67958/11.
36.3 The bridge shall be constructed in accordance with the verified plan under condition 36.1 of this resource consent.

37. Review

37.1 The Regional Council may, on the five last working days of September and/or March, serve notice of its intention to review the conditions of this resource consent under section 128 of the Resource Management Act 1991 for the purpose of:

(a) Dealing with any adverse effect on the environment which may arise from the exercise of the resource consent and which it is appropriate to deal with at a later stage; or

(b) Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or

(c) Requiring the Consent Holder to carry out monitoring in addition to or instead of that required by the resource consent.

(d) Addressing any issues identified in the annual reports submitted under condition 26 of this resource consent.

38. Term of Consent

38.1 With the exception of the ‘Salinity Block’ and associated wetland area identified on BOPRC Plan Numbers RC67958/1 and RC67958/6, the term of the consent is 35 years.

38.2 The reclamation for the ‘Salinity Block’ and associated wetland area identified on BOPRC Plan Numbers RC67958/1 and RC67958/6 shall have an unlimited consent term in accordance with section 123(a) of the Resource Management Act 1991.

39. Resource Management Act Charges

39.1 The Consent Holder shall pay the Bay of Plenty Regional Council such administrative charges as are fixed from time to time by the Regional Council in accordance with section 36 of the RMA.

Advice notes

The Consent Holder will be seeking an archaeological authority under the Heritage New Zealand Pouhere Taonga Act 2014, prior to the commencement of construction. The authority may include requirements for detailed investigations and monitoring effects and are also likely to require the preparation of a Heritage Management Plan (or an Archaeological Management Plan).