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DRAFT TRC REGIONAL RESOURCE CONSENT CONDITIONS – 28 September

Ref.	Resource Consent Condition		
General conditions applying to all consents			
General Conditions and Administration			
GEN.1	<p>(a) Except as modified by the conditions below, the Project shall be undertaken in general accordance with the information provided by the Consent Holder in the resource consent application dated December 2017, the Drawing Set provided at the Hearing, and the management plans dated [insert] 2018.</p> <p>(b) Where there is conflict between the documents listed in (a) above and these conditions, these conditions shall prevail. Where there is an inconsistency between the information and plans lodged with the resource consent application and information provided subsequently, the most recent plans and information shall prevail.</p>		
GEN.2	Pursuant to section 125(1) of the Act, the consents referenced [to insert – TRC reference numbers] shall lapse 10 years from the date of commencement of the consents in accordance with section 116 of the Act.		
GEN.3	Pursuant to section 123(c) of the Act, the consents referenced [to insert – TRC references] shall expire 35 years from the date of commencement in accordance with section 116 of the Act.		
GEN.4	In accordance with section 128 and section 129 of the Resource Management Act 1991, the Taranaki Regional Council may serve notice of its intention to review, amend, delete or add to the conditions of these resource consents by giving notice of review during the month of June annually, for the purpose of ensuring that the conditions are adequate to deal with any more than minor adverse effects on the environment arising from the exercise of this resource consent, which were either not foreseen at the time the resource consent applications were considered or which it was not appropriate to deal with at the time.		
Cultural protocols			
GEN.5	<p>At least three months prior to the Commencement of Construction, the Consent Holder shall invite mandated representatives of Ngāti Tama to participate in a Kaitiaki Forum Group (KFG).</p> <p>(a) The KFG shall comprise up to 3 members who have been determined by Te Runanga o Ngāti Tama (TRoNT). From time to time, as appropriate, TRoNT may change the KFG membership and may also invite other iwi, iwi representatives or other Ngāti Tama members to attend KFG meetings. TRoNT may appoint a chairperson to the KFG who would be responsible for confirming any advice from the KFG to the Consent Holder and who will oversee the implementation of KFG activities.</p> <p>(b) The purpose of the KFG is to facilitate engagement between the Consent Holder and Ngāti Tama to enable Ngāti Tama to provide kaitiaki inputs to the design and construction of the Project.</p>		

	<p>(c) The KFG will be invited to hold regular meetings (monthly) throughout the construction period. The KFG shall continue until six months after Completion of Construction.</p> <p>(d) The Consent Holder shall record the main points arising from each meeting of the KFG, and shall provide a copy of that record to the meeting invitees within a reasonable time following the meeting.</p> <p>The Consent Holder shall, on receipt of an itemised invoices, be responsible for paying all reasonable costs associated with the attendance at KFG meetings to provide the kaitiaki inputs described in Condition GEN.5 and Condition GEN.5(a).</p>		
GEN.5(a)	<p>The KFG shall be invited by the Consent Holder to participate in the following (amongst other things):</p> <p>(a) The development of the Project designs to incorporate cultural values into elements such as (but not limited to):</p> <p>(i) Cultural expression in artwork on road corridor features such as the tunnel, bridge and in landscape works and plantings.</p> <p>(ii) Water management principles.</p> <p>(iii) Biodiversity mitigation offset and compensation measures implemented as part of the ELMP required by Condition GEN.22.</p> <p>(iv) Signage of local features.</p> <p>(v) Naming of the new highway.</p> <p>(b) Review of the Accidental Discovery Protocol (as required by the NPDC Designation Condition 34) and any updates to this Protocol.</p> <p>(c) The development and implementation of agreed cultural protocols / tikanga appropriate to stages of the works or activities (for example: blessings, accidental discoveries, vegetation clearance, relocation of animals).</p> <p>(d) The development of cultural indicators covering matters such as (but not limited to) traditional association, mahinga kai and cultural stream health measures.</p> <p>(e) The development and implementation of a Cultural Monitoring Plan. The purpose of the Cultural Monitoring Plan is to set out the agreed cultural monitoring requirements and measures to be implemented during construction activities, to acknowledge the historic and living cultural values of the area to Ngāti Tama and to minimise potential adverse effects on these values. The Plan shall be prepared by a person endorsed by the KFG and the Consent Holder. Where the provisions of the Plan are not agreed by the Consent Holder reasons for the disagreement will be provided in writing to TRoNT and added to the agenda for the next KFG meeting.</p>		
	Community Liaison Person		
GEN.6	<p>(a) The Consent Holder shall appoint a Community Liaison Person for the duration of the construction phase of the Project to be the main and readily accessible point of contact for persons affected by Construction Works. If the liaison person will not be available for any reason. An alternative contact shall be provided, in the event</p>		<p>Changes made to align with the designation conditions.</p> <p>Clause (d) removed as this is now included in the CEMP</p>

	<p>the liaison person is unavailable, to ensure that a Project contact person is available by telephone 24 hours per day/seven days per week during the construction phase of the Project.</p> <p>(b) No less than one month prior to the commencement of Works, the Consent Holder shall advise all key project stakeholders listed in the CEMP of the liaison person's name and contact details.</p> <p>(c) The Consent Holder shall keep stakeholders and the wider public informed of the construction works, progress and timing and shall carry out communications in general accordance with the CEMP.</p>		
Complaints			
GEN.7	<p>(a) At all times during implementation of the consents, the Consent Holder shall maintain a register of any complaints received alleging adverse effects from, or related to, the exercise of the consents. The record shall include:</p> <ul style="list-style-type: none"> (i) the name and address (where this has been provided) of the complainant; (ii) identification of the nature of the complaint; (iii) location, date and time of the complaint and of the alleged event; (iv) weather conditions at the time of the complaint (as far as practicable), including wind direction and approximate wind speed if the complaint relates to air discharges; (v) the outcome of the Consent Holder's investigation into the complaint; (vi) measures taken to respond to the complaint; and (vii) any other activities in the area, unrelated to the Project, which may have contributed to the complaint (such as non-Project construction, fires, or unusually dusty conditions generally). <p>(b) The Consent Holder shall:</p> <ul style="list-style-type: none"> (i) acknowledge the complaint within 2 working days; (ii) promptly investigate, identify the level of urgency in respect of the complaint and communicate that to the complainant; and (iii) take reasonable steps to remedy or mitigate the matters giving rise to the complaint, if there are reasonable grounds for the complaint, within 10 working days of receiving the complaint or such sooner time as may be reasonably necessary in the circumstances. <p>(c) The Consent Holder shall also maintain a record of its responses and any remedial actions undertaken.</p> <p>(d) This record shall be maintained on site and shall be made available to the Chief Executive, TRC upon request. The Consent Holder shall provide the Chief Executive, TRC with a copy of the complaints register every month.</p>		

	<i>Advice Note: where for (b) and (c) there are a number of complaints relating to the same incident(s) the Consent Holder may bundle those complaints together and provide one response (to be provided to all complainants) in accordance with those conditions</i>		
	Incidents		
GEN.8	<p>The Consent Holder shall prepare procedures for incident management that outline how the Consent Holder will manage the incident and notify the Chief Executive, TRC of:</p> <ul style="list-style-type: none"> (a) discharges from non-stabilised areas that are not treated by erosion and sediment control measures as required by the Construction Water Management Plan; and / or (b) failure of any erosion and sediment control measures; and / or (c) discharge of a hazardous substances or any other contaminants, including cement, to a water body; and / or (d) failure of any temporary stream diversion; and / or (e) any other event that occurs in contradiction to a current management plan. <p>The procedures shall be incorporated into the Management Plans required under Condition GEN.9 and provided to the Chief Executive, TRC on request.</p>		To reflect change requested by updated TRC 42A report
	Management Plans – General		
GEN.9	<p>All Works shall be carried out in general accordance with Condition GEN.1 and the management plans authorised by these resource consent conditions and dated [insert] , which are the Construction Environmental Management Plan (CEMP) and the plans attached as appendices to the CEMP:</p> <ul style="list-style-type: none"> (a) Ecology and Landscape Management Plan (ELMP) (those parts described under regional consent conditions GEN.22 and GEN23); (b) Construction Dust Management Plan (CDMP); (c) Construction Water Management Plan (CWMP), including Specific Construction Water Management Plans (SCWMPs); (d) Control of a Spill Procedure; and (e) Incident Reporting and Investigation. <p><i>Advice note:</i></p> <p><i>In addition to the abovementioned plans, the CEMP also includes copies of the management plans and relevant documents required under the designation conditions but not for the resource consents, being: the entire Ecology and Landscape Management Plan, the Construction Noise Management Plan (CNMP), Construction Traffic Management Plan (CTMP), Accidental Discovery Protocol and the Landscape and Environmental Design Framework (LEDF); and the</i></p>		

	<p><i>Contaminated Land Management Plan (CLMP) required under the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations, 2011 (NES Soil).</i></p> <p><i>Requirements for these additional plans shall be determined in accordance with the relevant designation condition(s) and the NES Soil conditions in relation to the CLMP.</i></p>		
GEN.10	<p>The management plans:</p> <ul style="list-style-type: none"> (a) provide the overarching principles, methodologies and procedures for managing the effects of construction of the Project to achieve the environmental outcomes and performance standards required by these conditions; and (b) shall be maintained and implemented by the Consent Holder during Construction Works. 		
GEN.11	<p>No earthworks shall commence on site unless a Specific Construction Water Management Plan (SCWMP) is in place for that specific area of works and the SCWMP has been approved by the Chief Executive, TRC. A SCWMP can be based on a geographic area or based on a specific activity type.</p> <p><i>Advice Note: The geographic basis for a SCWMP may be based on a specific chainage location along the alignment. The activity basis for a SCWMP may be based on having a SCWMP for a particular activity, such as shoulder widening, anywhere along the alignment.</i></p>		
GEN.12	<ul style="list-style-type: none"> (a) With the exception of the three SCWMPs provided at the Hearing (being SCWMPs for: Fill Disposal Site 4; Construction Yard; Crossing at CH570) listed below, the Consent Holder shall provide all SCWMPs to the Chief Executive, TRC, for certification at least 10 working days before the commencement of Works to which the SCWMP will apply. (b) The Consent Holder shall consider any comments received from the Chief Executive, TRC when finalising the SCWMP. If the Consent Holder has not received comments from the Chief Executive, TRC within 10 working days of providing the SCWMP, the Consent Holder may finalise the SCWMP and implement it accordingly. 		
GEN.13	<ul style="list-style-type: none"> (a) The Consent Holder may make minor amendments to the management plans at any time. For the purpose of this condition, a 'minor amendment' is either a small change to the content of the Management Plan which has either no or a de minimis adverse environmental effect, or is a change which would result in an improved environmental outcome. Any changes to the management plans shall remain consistent with the objectives and performance standards of the final management plan. (b) The Consent Holder shall submit, in writing, the minor amendment to the Chief Executive, TRC at least 10 days before Works associated with the amendment are to be implemented. The Consent Holder shall maintain a record of all minor amendments. (c) If the Chief Executive, TRC considers that the amendment is a material amendment in accordance with Condition GEN.14, then it must notify the Consent Holder within 5 working days of receipt of the amendment and then consider the amendment in accordance with Condition GEN.14. If the Consent 		Changes made to reflect discussions with NPDC and TRC as outlined in Mr Roan's second supplementary statement of evidence

	Holder does not receive notice from TRC under Condition GEN.13(c) any Works associated with the minor amendment may proceed.		
GEN.14	<p>(a) The Consent Holder may make material amendments to the management plans at any time, subject to the certification of the Chief Executive, TRC. A material amendment is any amendment that is in general accordance with condition GEN.1 but is not a minor amendment in accordance with condition GEN.13.</p> <p>(b) Any material amendment to the management plans shall meet the objectives and performance requirements of the final management plan.</p> <p>(c) In the event of an amendment to a management plan under Condition GEN.14(a), the Consent Holder must submit, in writing, the amendment to the Chief Executive, TRC for certification 20 working days before the commencement of the relevant Works. Certification shall confirm that the amendment is in accordance with Condition GEN.1 and meets the objectives and performance requirements of the management plan.</p> <p>(d) The Chief Executive, TRC will carry out its best endeavors to consider the material amendment within 10 working days of receipt of the material amendment, noting that expert input may be required before Certification can be provided. If the Chief Executive, TRC is unable to consider the material amendment within 10 working days it shall notify the Consent Holder and advise a revised timeframe. Regardless, the Chief Executive, TRC will carry out its best endeavors to consider the material amendment within a total of 20 working days of receipt.</p> <p>(e) Provided that the Consent Holder has not been advised of a revised timeframe under Condition GEN.14(d) the Chief Executive, TRC shall, no later than 10 working days of receipt of the material amendment, confirm in writing to the Consent Holder that the material amendment is either certified or declined, or shall request that the Consent Holder incorporate changes suggested by the Chief Executive, TRC. If a revised timeframe has been advised, confirmation shall be made in accordance with that timeframe.</p> <p>(f) Should the Chief Executive, TRC decline to certify the material amendment or request the incorporation of changes to the material amendment the Consent Holder may then resubmit a revised material amendment to the management plan. The certification process for a revised material amendment shall follow the same process described above in Conditions GEN.14 (a) to (e).</p> <p>(g) The resolution process stipulated under Condition 17 shall be followed:</p> <p>(i) Where the Consent Holder and the Chief Executive, TRC are unable to agree on the finalisation of a material amendment to a management plan; or</p> <p>(ii) Where the Consent Holder considers that the Chief Executive, TRC has not acted in accordance with Condition GEN.14(d) to consider the material amendment within a reasonable timeframe.</p> <p>Works unaffected by the amendment may continue.</p>		Changes made to reflect discussions with NPDC and TRC as outlined in Mr Roan's second supplementary statement of evidence

GEN.15	This condition has been intentionally left blank		
GEN.16	All personnel involved with the construction of the Project shall be made aware of, and have access to, all conditions and management plans applicable to the construction of the Project, including any amendments to the management plans made under Conditions GEN.13 and GEN.14. Copies of these documents shall be kept on site at all times.		
GEN.17	<p>(a) In the event of any dispute, disagreement or inaction arising about the content of the management plans between the Chief Executive, TRC and the Consent Holder matters shall be referred in the first instance to the Chief Executive, TRC, and to the Consent Holder's Construction Manager (as described in the CEMP), to determine a process of resolution.</p> <p>(b) If a resolution cannot be agreed under (a) within 15 working days, the matter shall be referred within 10 working days to an independent appropriately qualified expert, acceptable to both parties ('expert'), setting out the details of the matter to be referred for determination and the reasons the parties do not agree.</p> <p>(c) The expert shall, as soon as possible, issue a decision on the matter.</p> <p>(d) The decision of the expert on the content of the management plan is binding and shall be implemented by the Consent Holder.</p>		<p>The Commissioner raised a question about the vires of the 'mediator' which will be addressed in legal submissions; term replaced with expert.</p> <p>Clause (e) is deleted, as is reference to 'or implementation', to ensure certainty that the Council's prosecution role is not compromised.</p>
GEN.18	<p>The Consent Holder shall undertake an annual review of all management plans. This review shall include, but not necessarily be limited to:</p> <p>(a) Reviewing compliance with the Project consent conditions, the CEMP and management plans.</p> <p>(b) Reviewing any significant changes to construction activities or methods and/or unanticipated adverse effects resulting from the Construction Works.</p> <p>(c) Any changes to roles and responsibilities within the Project team.</p> <p>(d) Reviewing the results of inspections, monitoring and reporting procedures associated with the management of adverse effects during construction.</p> <p>(e) Reviewing responses to any comments or recommendations from TRC regarding the CEMP and management plans.</p> <p>(f) Reviewing responses to any comments or recommendations from the KFG regarding the CWMP.</p> <p>(g) Reviewing any unresolved complaints and any response to complaints and remedial action taken to address the complaint.</p> <p>The outcome of this review shall be provided to the Chief Executive, TRC, and a copy shall be provided to the KFG and the Operations Manager of DOC New Plymouth District Office.</p>		

	<p>Where either the Consent Holder proposes, or the Chief Executive, TRC requests changes to management plans as a result of the Annual Review, any change to a management plan shall be subject to the provisions of Conditions GEN 13, 14 and 17. Where recommendations are not accepted by the Consent Holder reasons shall be provided.</p> <p>Annual review of the management plans shall cease following Completion of Construction Works.</p> <p><i>Advice note: comments or recommendations regarding the CEMP and management plans may also be received from NPDC under the designation conditions.</i></p>		
	Construction Environmental Management Plan		
GEN.19	The Consent Holder shall implement the a Construction Environmental Management Plan (CEMP) dated [insert], which provides the overarching framework to ensure that the Project remains within the limits and standards required by these conditions and that Works appropriately avoid, remedy, mitigate, offset or compensate for adverse effects on the environment. The CEMP shall remain in place until the Completion of Construction Works.		
GEN.20	<p>The CEMP includes details of:</p> <ul style="list-style-type: none"> (a) key staff responsibilities and contact details, including emergency contacts; (b) training requirements for employees, sub-contractors and visitors; (c) environmental incident and emergency management (including the procedures required under regional consent condition GEN.8); (d) communication and interface procedures; (e) environmental complaints management (required under condition GEN.7); (f) compliance monitoring; (g) environmental reporting; (h) corrective action; (i) environmental auditing; (j) construction lighting; (k) rehabilitation of construction yards; (l) the methods to engage with stakeholders, including: <ul style="list-style-type: none"> (i) how the community will be kept informed of progress with Works, including proposed hours of operation outside normal working hours and Project construction personnel contact details; (ii) how the Consent Holder will engage with the community in order to foster good relationships and to provide opportunities for learning about the Project; (iii) providing early information on key Project milestones; 		Clause (l)(vi) inserted to ensure DOC officers can gain reasonable access to the Project Area, and for consistency with designation conditions

	<ul style="list-style-type: none"> (iv) identifying stakeholders such as landowners, road users, local community, iwi, regulatory authorities, industry, network utility operators, road maintenance contractors, emergency services; (v) responding to queries and complaints (in accordance with condition GEN.6); (vi) subject to any necessary health and safety requirements identified by the Consent Holder, provision for DOC staff (or their nominees) to gain reasonable access to the site during the construction period; (m) CEMP review (in accordance with condition GEN.18); and (n) Construction methodologies and construction timeframes, including Staging. 		
GEN.21	The Consent Holder shall appoint a representative(s) who shall be the TRC's principal contact person(s) in regard to matters relating to the resource consents for the Project. The Consent Holder shall inform the Council of the representative's name and how they can be contacted, prior to the commencement of construction. Should that person(s) change during the construction of the Project, the Consent Holder shall immediately inform TRC and provide confirmation of the new representative's name and contact details.		
GEN.21A	Subject to any necessary health and safety requirements identified by the Consent Holder, the Chief Executive, TRC shall have access to all relevant parts of the Project Area at all reasonable times for the purpose of carrying out inspections, surveys, investigations, tests, measurements and/or to take samples.		Condition inserted to ensure TRC officers can gain reasonable access to the Project Area
	Ecology and Landscape Management Plan		
GEN.22	The Consent Holder shall implement the Ecology and Landscape Management Plan (ELMP) dated [insert], which identifies how the Project will avoid, remedy, mitigate, offset and compensate potential adverse effects on the ecological, landscape and biodiversity values of the land (including the beds of rivers, lakes and streams) within the Project Area and its surrounds, including on: <ul style="list-style-type: none"> (a) vegetation / habitat (including wetlands); (b) fish, kōura and kākahi; and (c) streams. 		
GEN.23	The matters addressed in the ELMP are set out in Schedule 1 to these Conditions. Only the matters addressed Sections 1 (Objectives and matters addressed in the ELMP), 2 (Landscape Management Plan) and 6 (Freshwater Management Plan) of Schedule 1 are relevant to these Resource Consents.		Condition updated, including to refer to the new Schedule 1 as discussed by Mr Roan in his second supplementary evidence
GEN.23A	<ul style="list-style-type: none"> (a) The Consent Holder shall provide a complete set of Ecological Constraints Maps covering the entire Project Area, as referred to in the ELMP. The Ecological Constraints Maps shall show the constraints identified in accordance with the ELMP. (b) The Ecological Constraints Maps shall be submitted to the Chief Executive, TRC for certification that they have been prepared in accordance with the ELMP. 		New condition as discussed by Mr Roan in his second supplementary evidence

	<p>(c) The Chief Executive, TRC will use best endeavours to consider and certify the Ecological Constraints Maps within 20 working days of receipt.</p> <p>(d) If the Chief Executive, TRC refuses to certify the Ecological Constraints Maps, or requests amendments, the Consent Holder may submit updated versions for Certification. In that cases, the Chief Executive, TRC will use best endeavours to consider and certify the updated versions within 10 working days of receipt.</p> <p>(e) The dispute resolution process stipulated under Condition GEN.17 shall be followed:</p> <p>(i) the Consent Holder and the Chief Executive, TRC are unable to agree on the finalisation of the Ecological Constraints Maps; or</p> <p>ii) Where the Consent Holder considers that the Chief Executive, TRC has not considered the Ecological Constraints Maps within a reasonable timeframe.</p> <p>(f) Once finalised in accordance with this condition, the Ecological Constraints Maps shall be inserted into Appendix A of the ELMP.</p> <p><i>Advice note: Establishment Works and Construction Works shall not commence shall not commence until the Ecological Constraints Maps have been certified by both NPDC and TRC and inserted into the ELMP</i></p>		
<p>GEN.24</p>	<p>The Consent Holder shall undertake ecological mitigation and biodiversity offset and compensation measures in accordance with the ELMP to achieve the following:</p> <p>(a) Vegetation:</p> <p>(i) The retention, where possible, of the vegetation with the highest ecological value within the Project area as identified in Figures 4.1 and 4.2 of the ELMP.</p> <p>(ii) Restoration planting as follows:</p> <p>(1) At least 6ha of kahikatea swamp forest.</p> <p>(2) At least 9ha of dryland planting using an appropriate mix of plant seedlings.</p> <p>(3) Planting of 200 seedlings of the same species for each significant tree that is felled.</p> <p><i>Advice note: significant trees are defined in the ELMP and shown on the Landscape Concept Plans in the LEDF</i></p> <p>(4) Following the completion of vegetation clearance, the Consent Holder shall measure the extent of vegetation clearance and shall reassess the extent of restoration planting required under Conditions GEN.24(a)(ii) (2) and (3), using the methodology set out in the ELMP. The Consent Holder shall prepare and provide a report to the Chief Executive, TRC confirming the restoration planting required. If additional restoration planting is required, the extent of the restoration planting area required shall be identified and the report provided to the Chief Executive, TRC for Certification that the calculation of the additional planting achieves the requirement of Conditions GEN.24(a)(ii) (2) and (3). If the</p>		

	<p>recalculation results in a lesser restoration planting area, the planting area required in Condition 24(a)(ii)(2) and (3) shall be provided.</p> <p><i>Advice Note: certification of the report shall be carried out in accordance with the certification process set out in Condition GEN.14.</i></p> <p>(5) The completion of all restoration planting within three planting seasons of the Completion of Construction Works, unless natural conditions during Construction Works result in poor seed production, or poor seed condition and adversely limits seedling propagation for indigenous plant species, in which case completion would be delayed to reflect the availability of suitable seedlings. The Consent Holder shall notify the Chief Executive, TRC when the restoration plantings have been completed.</p> <p>(6) Should there be a delay in the completion of restoration planting due to the availability of suitable seedlings as described in (5) above, the Consent Holder shall provide the Chief Executive, TRC with an amended timeframe, which shall not exceed three planting seasons, and shall complete the planting as soon as reasonably possible within the agreed timeframe, informing the Chief Executive, TRC when planting is complete.</p> <p>(7) For the restoration planting required under Condition GEN.24(a)(ii)(1) and (2), the plantings shall achieve 80% canopy cover 6 years following planting in the areas where trees and shrubs are planted. If 80% canopy cover is not achieved at 6 years following planting, any necessary replacement planting and planting maintenance shall continue beyond year 6 until 80% canopy cover is achieved.</p> <p>(8) For the restoration planting required under Condition GEN.24(a)(ii)(1) the planting shall achieve kahikatea forming 16% of the tree canopy at year 10. Additional kahikatea will be planted in the areas where the kahikatea contribution to the canopy is less than 16%. At year 35, kahikatea shall comprise 65% of the canopy in the kahikatea swamp forest planting required by this Condition.</p> <p>(9) For each significant tree felled, the restoration planting required under Condition GEN.24(a)(ii)(3) shall achieve 90% survival of the 200 planted trees at 6 years following planting. If 90% plant survival has not been achieved within 6 years following planting, any necessary replacement planting and planting maintenance shall continue beyond year 6 until 90% survival is achieved.</p> <p>(b) Fish, kōura and kākahi:</p> <p>(i) The recovery and relocation of fish, kōura and kākahi in the sections of waterways affected by instream works, prior to instream works occurring.</p> <p>(ii) The rescue and relocation of fish, kōura and kākahi from any spoil.</p>		
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	<p>(iii) The design and installation of permanent culverts that shall maintain fish passage in all affected waterways (with the exception that maintenance of fish passage is not required at culverts 2, 10 and 13). Culvert design shall be informed by the New Zealand Fish Passage Guidelines for Structures Up to 4 Metres (2018).</p> <p>(c) Streams</p> <p>(i) The design and construction of diverted streams shall be in accordance with the Stream Ecological Design Principles attached to the LEDF.</p> <p>(ii) The riparian planting and exclusion from livestock of at least 8.455km of existing stream. Riparian margins of an average of 10m each side of the stream will be created and planted.</p> <p>(iii) Following the completion of stream works, the Consent Holder shall measure the extent of stream works and shall reassess the extent of riparian planting required under Conditions GEN.24(c)(ii), using the methodology set out in the ELMP. The Consent Holder shall prepare and provide a report to the Chief Executive, TRC confirming the riparian planting required. If additional riparian planting is required the extent of the riparian planting required shall be identified and the report provided to the Chief Executive, TRC for certification that the calculation of the additional planting achieves the requirement of Condition GEN.24(c)(ii). If the recalculation results in a figure less than 8.455km of existing stream the Requiring Authority shall provide planting to achieve the requirement of Condition 24(c)(ii).</p> <p><i>Advice Note: certification of the report shall be carried out in accordance with the certification process set out in Condition GEN.14.</i></p>		
GEN.25	Monitoring of the ecological mitigation and biodiversity offset and compensation measures require in Conditions GEN.24(a) to (c) shall be undertaken by the Consent Holder in accordance with the details set out in Sections 2 (Landscape Management Plan) and 6 (Freshwater Management Plan) of Schedule 1.		
GEN.26	<p>(a) The Consent Holder shall prepare an annual monitoring report describing the findings of all monitoring undertaken in the previous 12 months pursuant to Condition GEN. 25. This report shall include an assessment of the effectiveness of the ELMP in achieving compliance with measures in Condition GEN.24, and if necessary, the actions to be undertaken to achieve compliance with Condition GEN.24, including identifying any necessary updates required to the ELMP. The Consent Holder shall provide a copy of the annual report to the KFG and DOC. The report shall be submitted to the Chief Executive, TRC.</p> <p>(b) Annual reporting under Condition GEN. 26(a) shall cease one year following Completion of Construction Works.</p>		Change to reflect discussions with TRC and amendments to the designation conditions

	General Monitoring		
GEN.27	On receipt of an itemised invoice the Consent Holder shall pay the Council's reasonable costs of any monitoring necessary to ensure compliance with the conditions specified.		
	Completion of Construction Works		
GEN.28	<p>(a) As soon as practicable following Completion of Construction Works, the Consent Holder shall notify the Chief Executive, TRC that Construction Works are complete. The notification shall include a list of the Construction Works completed, and be accompanied by maps to show the location of the completed works. This shall include the identification of:</p> <p>(i) areas of landscaping and reinstatement; and</p> <p>ii) all areas of restoration plantings required under Condition GEN. 24(a)(ii) and (c)(ii) and notice of whether the plantings have been completed.</p> <p>(b) If Completion of Construction Works is to occur more than six months following the operation of the new State highway commencing, the Consent Holder shall notify the Chief Executive, TRC of the expected date for Completion and Construction Works.</p> <p>(c) Upon receipt of the notice of under GEN.28(a) the Chief Executive, TRC shall confirm in writing to the Consent Holder that the requirements of this condition are met.</p>		Change to align with designation conditions
	<p>Consent for Discharge of Dust to Air (TRC s42A Report Ref Sec 16.10)</p> <ul style="list-style-type: none"> • 10656-1.0 - To discharge contaminants (dust) to air from earthworks associated with the establishment of the Mt Messenger Bypass 		
AIR.1	The Consent Holder shall implement the Construction Dust Management Plan (CDMP) dated [insert], which identifies and details methods to be used to manage, mitigate and monitor dust emissions during the Works. The CDMP shall remain in place until the Completion of Construction Works.		
AIR.2	<p>The CDMP includes, but need not be limited to:</p> <p>(a) identification of potential sources of dust taking into account construction activities and the construction programme;</p> <p>(b) identification of sensitive receptors likely to be adversely affected by emissions of dust;</p> <p>(c) methods for managing and mitigating adverse dust effects that may arise from construction activities, particularly in proximity to sensitive receptors. Where appropriate, these methods may include:</p> <p>(i) the use of water carts or sprinklers to apply water to areas generating dust;</p> <p>(ii) reducing vehicle speeds on unsealed surfaces; and</p> <p>(iii) the use of commercial dust suppressants;</p>		

	<p>(d) an outline of the methods for managing the effects of dust on the dwelling at 2397 Mokau Road; and</p> <p>(e) the methods of monitoring for potential dust generation, including assessment of weather conditions, soil conditions and visual dust assessments.</p>		
AIR.3	The exercise of this consent shall not cause any noxious, dangerous, offensive or objectionable dust beyond the site boundary.		
	<p>Discharge Stormwater and Sediment (TRC s42A Report Ref Sec 16.9)</p> <ul style="list-style-type: none"> • 10655-1.0 - To discharge stormwater and sediment onto and into land and into the Mangapepeke Stream and Mimi River and their tributaries from earthworks associated with the construction of the Mt Messenger Bypass 		
	Sediment and Stormwater General		
SED.1	This consent authorises the discharge of stormwater from land where earthworks is being undertaken for the purpose of constructing the Mt Messenger Bypass ('The Project').		
	Construction Water Management Plan		
SED.2	<p>The Consent Holder shall implement the Construction Water Management Plan (CWMP) dated [insert], which identifies how all Works shall be undertaken and addresses:</p> <p>(a) The procedures for determining staging and sequencing of earthworks.</p> <p>(b) Identification of a suite of appropriate structural and non-structural erosion and sediment control measures to be installed prior to and during all Works.</p> <p>(c) The design specifications for all erosion and sediment controls to be implemented.</p> <p>(d) A procedure to establish and define minor on the ground changes to erosion and sediment control, in accordance with the intent of the CWMP.</p> <p>(e) The procedures for decommissioning the erosion and sediment control measures.</p> <p>(f) Methods for amending and updating the CWMP as required.</p> <p>(g) Methods for revegetation and / or stabilisation.</p> <p>The CWMP shall remain in place until the Completion of Construction Works.</p> <p><i>Advice note: The CEMP provides additional management details on personnel, training, emergency response, complaints management, construction activities, reporting and review procedure</i></p>		Additional reference, reflecting CWMP content and new Condition SED 8A
SED.3	<p>The CWMP includes, but need not be limited to:</p> <p>(a) construction activities to be undertaken;</p> <p>(b) area and volume of the earthworks and / or streamworks proposed;</p>		

	<p>(c) location of the earthworks and / or streamworks with particular consideration of the downstream receiving environment;</p> <p>(d) methods for managing construction water effects;</p> <p>(i) duration of the earthworks and / or streamworks;</p> <p>(ii) time of the year that the streamworks are to be undertaken, and where applicable, the measures to be implemented to respond to any heightened risks at that time;</p> <p>(iii) stabilisation and timing to reduce the open area of high risk locations to assist with a reduction in sediment generation;</p> <p>(iv) framework for the chemical treatment (flocculation) of sediment retention ponds and decanting earth bunds receiving catchments larger than 500m²; and</p> <p>(e) construction water related monitoring programme in accordance with condition SED.11, including the procedures for adapting the controls to appropriately respond to the monitoring findings.</p>		
	Specific Construction Water Management Plans		
SED.4	<p>Specific Construction Water Management Plans (SCWMP) shall be prepared for all earthworks in accordance with the CWMP and shall otherwise be consistent with the CWMP</p> <p>The SCWMPs shall be provided to the Chief Executive, TRC for certification in accordance with Condition GEN.12.</p> <p><i>Advice Note: These SCWMPs will be developed within the context of the principles and practices of the CWMP and the Construction Water Assessment Report and will allow for innovation, flexibility and practicality of approach to effects of construction on water (including, erosion and sediment control). The SCWMPs will also enable ongoing adaption to changing conditions throughout the Project lifetime.</i></p>		
SED.4(A)	<p>For all earthworks to be carried out within the period from 1 May to 30 September inclusive, the relevant SCWMP shall include a specific risk assessment for the works, which shall address:</p> <p>(a) scope and nature of the proposed works and associated risk;</p> <p>(b) structural controls required to minimise risk;</p> <p>(c) non-structural controls required to minimise risk; and</p> <p>(d) maintenance considerations.</p> <p><i>Advice Note: The relevant SCWMP may be newly prepared or a revision to an existing SCWMP, and will be provided to the Chief Executive, TRC in accordance with Condition GEN.12</i></p>		

<p>SED.5</p>	<p>Where applicable to a site or activity, SCWMPs shall include, the:</p> <ul style="list-style-type: none"> (a) Details of all principles, procedures and practices that will be implemented to undertake erosion and sediment control to minimise the potential for sediment discharge from the site, including site plans showing the location of all devices; (b) The design criteria and dimensions of all key erosion and sediment control structures; (c) A summary of construction methodologies for the following aspects, where relevant to the given stage or activity covered by the SCWMP: <ul style="list-style-type: none"> (i) Staging of earthworks; (ii) Cut and fill operations; (iii) Disposal of surplus or unsuitable cut; and (iv) Dewatering. (d) A site plan/s of a suitable scale to identify: <ul style="list-style-type: none"> (i) The locations of waterways; (ii) The extent of soil disturbance and vegetation removal; (iii) Any “no go” and/or buffer areas to be maintained undisturbed adjacent to watercourses, including specific identification of sensitive ecological areas where threatened species and /or habitats are to be protected; (iv) Areas of cut and fill; (v) Locations of topsoil (and fill) stockpiles; (vi) All key erosion and sediment control structures; (vii) The boundaries and area of catchments contributing to all erosion and sediment control devices; (viii) The locations of all specific points of discharge to the environment; and (ix) Any other relevant site information. (e) Timing of erosion and sediment control works and the bulk earthworks proposed; (f) Timetable and nature of progressive site rehabilitation, stabilisation and re-vegetation proposed as relevant to the works; and (g) Details of the chemical treatment (flocculation) of sediment retention ponds and decanting earth bunds in accordance with condition SED.6. <p>Each stage or activity of earthworks shall be implemented in accordance with the corresponding certified SCWMP.</p>		
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<p>SED.6</p>	<p>In each SCWMP that specifies chemical treatment (flocculation) of sediment retention ponds and decanting earth bunds, the Consent Holder shall include:</p> <ul style="list-style-type: none"> (a) specific design details of the chemical treatment system; (b) monitoring maintenance (including post-storm) and contingency programme; (c) details of optimum dosage (including catchment specific soil analysis and assumptions, and consideration of any environmental effects); (d) where it is considered necessary, procedures for carrying out an initial treatment trial; and (e) details of the person or bodies that will hold responsibility for the maintenance of the chemical treatment system and the organisational structure which will support the system (which shall be described in the CEMP). 		
<p>Erosion and Sediment Control Device requirements</p>			
<p>SED.7</p>	<p>The Consent Holder shall design, construct and maintain all erosion and sediment control measures in general accordance with the Transport Agency's Erosion and Sediment Control Guidelines for State Highway Infrastructure – Construction Stormwater Management 2014, including:</p> <ul style="list-style-type: none"> a) Directing, including pumping, of all sediment laden runoff and groundwater during Construction Works shall be to Sediment Retention Ponds (SRPs), Decanting Earth Bunds (DEBs), or temporary sediment retention devices such as container impoundment systems. b) All DEBs and SRPs that serve a catchment area greater than 500 m² shall be treated using a liquid flocculant and a rainfall activated dosing system. Flocculation shall be undertaken and managed in accordance with the certified SCWMP. c) All SRPs and DEBs shall be fitted with floating decants that are designed to discharge at a rate of 3 litres per second per ha of contributing catchment. d) All SRPs shall contain measures to cease discharge (e.g. decant pulley systems) and a forebay with a minimum volume of 10% of the pond volume. e) All erosion and sediment control devices shall be located outside of the 20 year Annual Return Interval (ARI) flood level, unless no other viable location exists. In the event where it is not possible to locate a device outside the 20 year ARI, the SCWMP prepared for that area of work shall set out how flooding risks will be managed. f) All DEBs shall have a volume no less than 3 m³ for every 100 m² of contributing catchment, unless the physical characteristics of the location of the DEB constrain the sizing of the device. In the event that the characteristics of the location of the DEB constrain the sizing of the device the SCWMP prepared for that area of work shall set out the sizing of the DEB. 		<p>Changes to conditions following discussions with TRC and as detailed in Mr Roan's second supplementary evidence</p>

	<p>g) All SRPs shall have a volume no less than 3 m³ for every 100 m² of contributing catchment and shall contain decant pulley systems and a forebay with a minimum volume of 10% of the pond volume, unless the characteristics of the location of the SRP constrain the sizing of the device. In the event that the characteristics of the location of the SRP constrain the sizing of the device the SCWMP prepared for that area of work shall set out the sizing of the SRP.</p> <p>h) All dirty water diversion channels shall be constructed with sediment sumps with a minimum volume of 2m³ per sump. The details of the sediment sumps shall be set out in the SCWMP prepared for that area of work and shall be spaced at intervals generally no more than 50m.</p> <p><i>Advice note: Any modifications to the above shall be subject to certification in accordance with Condition GEN.12.</i></p>		
	Stabilisation		
SED.8	The Consent Holder shall stabilise areas of earthworks not actively worked for more than a 14 day period, as detailed in the CWMP, unless specified in a final SCWMP for that earthworks area.		
SED.8A	Re-vegetation and / or stabilisation of all disturbed areas is to be completed in general accordance with the measures set out in the 'Erosion and Sediment Control Guidelines for State Highway Infrastructure – Construction Stormwater Management', NZ Transport Agency 2014.		Changes to conditions following discussions with TRC and as detailed in Mr Roan's second supplementary evidence
	As built audit		
SED.9	<p>(a) An 'as-built' audit of the erosion and sediment devices shall be undertaken by an appropriately qualified and experienced erosion and sediment control practitioner. The audit shall be provided to the Chief Executive, TRC as confirmation that the erosion and sediment control measures for that location / activity to which the SCWMP applies have been constructed in accordance with the SCWMP.</p> <p>(b) Bulk earthworks within each location to which a SCWMP applies shall not commence until the 'as-built' audit confirming compliance with the SCWMP has been provided to the Chief Executive, TRC.</p>		
SED.10	<p>No erosion and sediment control measures shall be removed or decommissioned from the earthworks location to which those measures apply, before that location is stabilised, unless the Chief Executive, TRC has been informed not less than 2 working days prior to such removal and decommissioning, and it is in accordance with:</p> <p>(a) the CWMP;</p> <p>(b) a SCWMP; and / or</p> <p>(c) works approved by a suitably qualified and experienced erosion and sediment practitioner.</p>		
	Construction Water related Discharges Monitoring Programme		
SED.11	The Consent Holder shall undertake monitoring of construction water related discharges in accordance with the Construction Water Discharges Monitoring Programme (set out as an Appendix C to the CWMP). The Construction Water Discharges Monitoring Programme shall include:		Changes to conditions following discussions with TRC and as detailed in Mr Roan's second supplementary evidence

	<p>(a) Baseline monitoring – monitoring of at least 12 months of baseline water quality monitoring to be undertaken prior to the commencement of Works. This shall include at least 3 months of continuous turbidity monitoring at the locations described in (c) (i) below.</p> <p>(b) Monitoring undertaken during the construction period including both qualitative and quantitative monitoring. This monitoring shall include (i) to (iv) following rainfall trigger:</p> <ul style="list-style-type: none"> (i) Visual inspections of all receiving waterways, SRPs and DEB's; (ii) Manual inlet and outlet sampling from SRPs; (iii) Stream grab sampling at WQ1 to WQ5; and (iv) Sediment deposition sampling at Mimi wetland. <p>(c) Continuous monitoring – real-time continuous turbidity (NTU) monitoring shall be undertaken in both the Mimi River and the Mangapepeke Stream as follows:</p> <ul style="list-style-type: none"> (i) at a point downstream of the works following reasonable mixing (CM1 and CM2) to be confirmed with TRC; and (ii) at a point upstream of the works (EM4 and EM1). <p style="padding-left: 40px;">Data shall be made available to the Chief Executive, TRC on request.</p> <p>(d) If upstream monitoring in SED.11(c)(ii) above doesn't reflect the extent or stage of works, or is demonstrated to be unsuitable, the consent holder may seek written approval from the TRC to use an alternative upstream location, or to use baseline or control data as the comparison. Only once this approval has been obtained shall the monitoring programme be altered.</p> <p>(e) The establishment of a publicly accessible Project website on which monitoring data gathered under this Condition shall be reported with a comparison of upstream versus downstream data made available.</p> <p>All monitoring data gathered in accordance with Conditions (b) shall be reported on the Project website within one week of the results becoming available to the Consent Holder.</p> <p>All monitoring data gathered in accordance with Condition (c) shall be audited by the Consent Holder for its accuracy and shall be reported on the Project website on a weekly basis.</p> <p>(f) Establishing the monitoring response triggers and the associated actions which shall be undertaken in the event that triggers are exceeded. This shall include a process for establishing trigger level(s) and actions for continuous monitoring locations, and provision of a method to immediately alert the Consent Holder of an exceedance of a trigger at continuous monitoring locations and detail how this alert system will be effective 24 hours per day, 7 days per week. The trigger level(s) and actions for the continuous monitoring locations determined pursuant to this Condition shall include a trigger on downstream NTU against the upstream NTU data for the sites in each of the Mangapepeke and Mimi Catchments, a</p>		
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	<p>process to verify exceedances as real. This shall be submitted to the Chief Executive, TRC for certification in accordance with Condition GEN.14.</p> <p>(g) Any exceedance on the continuous downstream NTU Trigger levels shall be reported to the Chief Executive within two hours of the exceedance. The consent holder shall verify the exceedance, and notify the Chief Executive, TRC of the result of that verification exercise, within 24 hours of the exceedance. Any other exceedance of a trigger level shall be reported to the Chief Executive, TRC within two working days, including reporting on the actions undertaken.</p> <p><i>Advice note: the condition provides for the possibility that NTU Trigger level exceedances may not be 'real'. The condition provides for immediate reporting of the NTU trigger exceedance, and for the consent holder to then verify and confirm whether the exceedance is 'real', or caused by non-Project related issues, such as equipment issues.</i></p> <p>(h) Details on chemical treatment monitoring requirements;</p> <p>(i) Procedures for responds to the spillage or accidental discharge of sediment or contaminants to an aquatic environment; and</p> <p>(j) Reporting requirements.</p>		
	<p>Surface Water Take Consents (TRC s42A Report Sec Ref 16.1)</p> <ul style="list-style-type: none"> • 10601-1.0 - To take water from the Mimi River for dust suppression and other construction activities associated with the construction of the Mt Messenger Bypass. • 10602-1.0 - To take water from the Mangapepeke Stream for dust suppression and other construction activities associated with the construction of the Mt Messenger Bypass 		
	Mimi River		
SWT.1	The Consent Holder shall ensure that the maximum volume of water abstracted from the Mimi River does not exceed 150 cubic metres per day at a rate of less than 5L/s.		
	Mangapepeke Stream		
SWT.2	The Consent Holder shall ensure that the maximum volume of water abstracted from the Mangapepeke Stream does not exceed 300 cubic metres per day at a rate of less than 5L/s.		
	Intake Structure		
SWT.3	<p>The Consent Holder shall:</p> <p>(a) install, operate and maintain water intake structures, screens and any associated equipment to minimise the catching or capture of fish; and</p>		

	<p>(b) ensure that the intake structure, screen and associated equipment does not exceed:</p> <p>(i) maximum water velocity into the entry point of the intake structure of 0.12 metres per second; and</p> <p>(ii) intake screen mesh spacing's in any one dimension of 3 millimetres.</p>		
	<p>Groundwater Take Consents (TRC s42A Sec Ref 16.2)</p> <ul style="list-style-type: none"> • 10603-1.0 - To take groundwater encountered during tunnel activities and ongoing operation of the tunnel associated with the Mt Messenger Bypass route; and • 10604-1.0 - To take groundwater encountered during cut excavations associated with the Mt Messenger Bypass route 		
GWT.1	The only water taken shall be groundwater encountered at cut faces and in the tunnel, as necessary for construction and operation of the Project.		
	<p>Damming Consents (TRC s42A Sec Ref 16.3)</p> <ul style="list-style-type: none"> • 10659-1.0 - To dam water in the Mimi River with a weir. • 10660-1.0 - To dam water in the Mangapepeke Stream with a weir. 		
DAM.1	<p>The weirs shall be located at or about the following locations:</p> <p>(a) Mimi River, at location near to the Project's southern tie-in point to SH3.</p> <p>(b) Mangapepeke Stream, at location near to the Project's northern tie-in point to SH3.</p>		
DAM.2	The height of the weir shall not exceed 1 metre above the existing bed.		
DAM.3	The Consent Holder shall notify the Chief Executive, TRC, in writing at least 5 working days prior to commencing construction of the weir. Notification shall include the consent number and a brief description of the activity consented and be emailed to work.notification@trc.govt.nz. Final location co-ordinates shall be provided to the TRC at this time.		
DAM.4	Installation and removal of the weirs shall be undertaken in accordance with the relevant SCWMP.		
DAM.5	The weir shall be temporary and shall be removed when no longer required, and no later than 6 months after the Completion of Construction Works.		
DAM.6	Upon removal of the weir, the Consent Holder shall remove all introduced material from the bed of the stream, and reinstate the bed, as far as practicable, to its original condition.		

	<p>Stream Diversions (TRC s42A Sec Ref 16.4)</p> <ul style="list-style-type: none"> • 10606-1.0 - To realign (#2) approximately 90m of an unnamed tributary of the Mangapepeke Stream through a newly constructed channel, including associated streambed disturbance and reclamation. • 10607-1.0 - To realign (#3) approximately 900m of an unnamed tributary of the Mangapepeke Stream through a newly constructed channel, including associated streambed disturbance and reclamation. • 10608-1.0 - To realign (#4) approximately 200m of an unnamed tributary of the Mangapepeke Stream through a newly constructed channel, including associated streambed disturbance and reclamation. • 10609-1.0 - To realign (#5) approximately 220m of the Mangapepeke Stream through a newly constructed channel, including associated streambed disturbance and reclamation generally. • 10610-1.0 - To realign (#6) approximately 100m of the Mangapepeke Stream through a newly constructed channel, including associated streambed disturbance and reclamation. • 10611-1.0 - To realign (#7) approximately 350m of the Mangapepeke Stream through a newly constructed channel, including associated streambed disturbance and reclamation. • 10612-1.0 - To realign (#8) approximately 300m of an unnamed tributary of the Mimi River through a newly constructed channel, including associated streambed disturbance and reclamation. • 10613-1.0 - To realign (#9) approximately 230m of an unnamed tributary of the Mimi River through a newly constructed channel, including associated streambed disturbance and reclamation. • 10614-1.0 - To realign (#10) approximately 75m of an unnamed tributary of the Mimi River through a newly constructed channel, including associated streambed disturbance and reclamation. 		
<p>DIV.1</p>	<p>The permanent diversion of the full stream flow through a reconstructed channel, and reclamation of stream bed shall be generally in accordance with Condition GEN.1.</p>		
<p>DIV. 2</p>	<p>The diversions shall be designed and constructed to replicate the flow capacity and aquatic habitat values of the upstream and downstream channel sections, in accordance with the provisions set out in the LEDF.</p>		
<p>DIV.3</p>	<p>The diversions shall provide for fish passage, in accordance with the provisions set out in the ELMP.</p>		
<p>DIV.4</p>	<p>The Consent Holder shall recover and relocate fish from the stream prior to the diversion occurring, and relocate any fish uncovered or stranded during the works in accordance with the Fish Recovery and Rescue Protocols in the ELMP.</p>		
<p>DIV.5</p>	<p>The Consent Holder shall provide final design plans, location details and calculations for each diversion of permanently flowing watercourses to the Chief Executive, TRC, at least 20 working days prior to any works related to that diversion authorised by this consent commencing. The purpose of this condition is to demonstrate compliance with the conditions of this consent:</p>		

<p>DIV.6</p>	<p>The Consent Holder shall undertake works in general accordance with the CWMP and relevant SCWMP(s) to minimise sedimentation and increased turbidity of the stream during the construction, implementation and maintenance of the works. The CWMP and SCWMP(s) address how:</p> <ul style="list-style-type: none"> (a) All works shall be completed in the minimum time practicable; (b) The placement of excavated material in the flowing channel shall be avoided; (c) All machinery shall be kept out of the actively flowing channel, as far as practicable; and (d) All disturbed areas shall be reinstated. 		
<p>DIV.7</p>	<p>To avoid introduction of unwanted pests, all machinery shall be thoroughly cleaned of soil and plant debris prior to use on the stream diversion works.</p>		
<p>DIV.8</p>	<p>Where there is an existing upstream flow, the Consent Holder shall maintain a continuous flow of water in the stream channel downstream of the work area by ensuring that there are temporary clean water diversions around the active work sites.</p>		
	<p>Temporary Culverts (TRC s42A Sec Ref 16.5)</p> <ul style="list-style-type: none"> • 10616-1.0 - To install and use a temporary culvert (#1) in the Mangapepeke Stream. • 10617-1.0 - To install and use a temporary culvert (#2) in an unnamed tributary of the Mangapepeke Stream. • 10618-1.0 - To install and use a temporary culvert (#3) in the Mangapepeke Stream. • 10619-1.0 - To install and use a temporary culvert (#4) in the Mangapepeke Stream. • 10620-1.0 - To install and use a temporary culvert (#5) in an unnamed tributary of the Mangapepeke Stream. • 10621-1.0 - To install and use a temporary culvert (#6) in an unnamed tributary of the Mangapepeke Stream. • 10622-1.0 - To install and use a temporary culvert (#7) in the Mangapepeke Stream. • 10623-1.0 - To install and use a temporary culvert (#8) in an unnamed tributary of the Mangapepeke Stream. • 10624-1.0 - To install and use a temporary culvert (#9) in an unnamed tributary of the Mangapepeke Stream. • 10625-1.0 - To install and use a temporary culvert (#10) in the Mangapepeke Stream. • 10626-1.0 - To install and use a temporary culvert (#11) in the Mangapepeke Stream. • 10627-1.0 - To install and use a temporary culvert (#12) in an unnamed tributary of the Mangapepeke Stream. • 10628-1.0 - To install and use a temporary culvert (#13) in an unnamed tributary of the Mangapepeke Stream. 		

	<ul style="list-style-type: none"> • 10629-1.0 - To install and use a temporary culvert (#14) in the Mangapepeke Stream. • 10630-1.0 - To install and use a temporary culvert (#15) in an unnamed tributary of the Mangapepeke Stream. • 10631-1.0 - To install and use a temporary culvert (#16) in an unnamed tributary of the Mangapepeke Stream. • 10632-1.0 - To install and use a temporary culvert (#17) in an unnamed tributary of the Mimi River 		
TCV.1	All culverts shall be constructed generally in accordance with Condition GEN.1 and the certified SCWMP(s).		
TCV.2	The Consent Holder shall be responsible for the design and structural integrity of all culverts and shall undertake maintenance of the culverts and any erosion control works that become necessary to preserve the integrity and stability of the waterway channel and/or to control erosion as a result of the exercise of this resource consent. All works shall be in accordance with the relevant SCWMP.		
TCV.3	The Consent Holder shall notify the Chief Executive, TRC, in writing at least 5 working days prior to the exercise of this consent. Notification shall include details on the location and design of the temporary culverts, state the consent number and a brief description of the activity consented and be emailed to worknotification@trc.govt.nz . Final location co-ordinates shall be provided to the TRC at this time.		
TCV.4	Any work carried out in the river bed shall be in accordance with the CWMP and relevant SCWMP.		
TCV.5	The consent holder shall ensure that any wet concrete placed in the channel is not exposed to flowing water until it has cured.		
TCV.6	Between 1 May and 31 October no work shall be undertaken on any part of the stream bed that is covered by water, unless the work has been approved by the Chief Executive, TRC and all works is in accordance with the CWMP and relevant SCWMP.		
TCV.7	The Consent Holder shall undertake works in accordance with the CWMP and relevant SCWMP to minimise stream bed disturbance, sedimentation and increased turbidity during installation of the culvert The CWMP and SCWMP address how: <ul style="list-style-type: none"> (a) All works shall be completed in the minimum time practicable; (b) The placement of excavated material in the flowing channel shall be avoided; (c) All machinery shall be kept out of the actively flowing channel, as far as practicable; and (d) All disturbed areas shall be reinstated. 		
TCV.8	To avoid introduction of unwanted pests, all machinery shall be thoroughly cleaned of soil and plant debris prior to use on the stream diversion works.		
TCV.9	The temporary culverts shall allow for fish passage in accordance with the ELMP.		

TCV.10	The culvert structures authorised by this consent shall be designed, constructed and maintained in such a manner so as to avoid causing any new or exacerbating any existing more than minor adverse flooding effects on adjacent and upstream land.		
TCV.11	The Consent Holder shall repair any more than minor erosion, scour or instability of the stream bed or banks that the culvert causes and shall maintain the culvert so that it allows the free flow of water.		
TCV.12	All temporary culverts authorised by this consent shall be removed or decommissioned as soon as practical once they are no longer required, and no later than 6 months after the Completion of Construction Works.		
	<p>Permanent Culverts (TRC s42A Sec Ref 16.6)</p> <ul style="list-style-type: none"> • 10633-1.0 - To install and use a culvert (#1) in an unnamed tributary of the Mangapepeke Stream. • 10634-1.0 - To install and use a culvert (#2) in an unnamed tributary of the Mangapepeke Stream. • 10635-1.0 - To install and use a culvert (#3) in an unnamed tributary of the Mangapepeke Stream. • 10636-1.0 - To install and use a culvert (#4) in an unnamed tributary of the Mangapepeke Stream. • 10637-1.0 - To install and use a culvert (#5) in an unnamed tributary of the Mangapepeke Stream. • 10638-1.0 - To install and use a culvert (#6) in an unnamed tributary of the Mangapepeke Stream. • 10639-1.0 - To install and use a culvert (#) in an unnamed tributary of the Mangapepeke Stream. • 10640-1.0 - To install and use a culvert (#8) in an unnamed tributary of the Mangapepeke Stream. • 10641-1.0 - To install and use a culvert (#9) in an unnamed tributary of the Mangapepeke Stream. • 10642-1.0 - To install and use a culvert (#10) in an unnamed tributary of the Mangapepeke Stream. • 10643-1.0 - To install and use a culvert (#11) in an unnamed tributary of the Mangapepeke Stream. • 10644-1.0 - To install and use a culvert (#12) in an unnamed tributary of the Mangapepeke Stream. • 10645-1.0 - To install and use a culvert (#13) in an unnamed tributary of the Mangapepeke Stream. • 10646-1.0 - To install and use a culvert (#14) in an unnamed tributary of the Mangapepeke Stream. • 10647-1.0 - To install and use a culvert (#15) in the Mimi River. • 10648-1.0 - To install and use a culvert (#16) in an unnamed tributary of the Mimi River. • 10649-1.0 - To install and use a culvert (#17) in an unnamed tributary of the Mimi River. • 10650-1.0 - To install and use a culvert (#18) in an unnamed tributary of the Mimi River. • 10651-1.0 - To install and use a culvert (#19) in an unnamed tributary of the Mimi River. • 10652-1.0 - To install and use a culvert (#20) in an unnamed tributary of the Mimi River. • 10653-1.0 - To install and use a culvert (#21) in an unnamed tributary of the Mimi River. 		
PCV.1	The culverts shall be constructed generally in accordance with Condition GEN.1.		
PCV.2	The Consent Holder shall provide design plans and calculations for each culvert to the Chief Executive, TRC, at least 20 working days prior to any works authorised by this consent commencing. The purpose of this condition is to demonstrate compliance with the conditions of this consent.		

PCV.3	The culvert structures authorised by this Consent shall be designed, constructed and maintained in such a manner so as to avoid causing any more than minor new or exacerbating to a more than minor degree any existing adverse flooding effects on adjacent and upstream land.		
PCV.4	The Consent Holder shall notify the Chief Executive TRC, in writing at least 5 working days prior to the exercise of this consent. Notification shall include the consent number and a brief description of the activity consented and be emailed to worknotification@trc.govt.nz . Final location co-ordinates shall be provided to the TRC at this time.		
PCV.5	The Consent Holder shall undertake works in accordance with the CWMP and relevant SCWMP to minimise stream bed disturbance, sedimentation and increased turbidity during installation of the culvert. The CWMP and SCWMP shall address how: <ul style="list-style-type: none"> (a) All works shall be completed in the minimum time practicable; (b) The placement of excavated material in the flowing channel shall be avoided; (c) All machinery shall be kept out of the actively flowing channel, as far as practicable; and (d) All disturbed areas shall be reinstated as far as practicable. 		
PCV.6	The consent holder shall ensure that any wet concrete placed in the channel is not exposed to flowing water until it has cured.		
PCV.7	Between 1 May and 31 October no work shall be undertaken on any part of the stream bed that is covered by water, unless the works set out in a SCWMP have been approved by the Chief Executive, TRC.		
PCV.8	To avoid introduction of unwanted pests, all machinery shall be thoroughly cleaned of soil and plant debris prior to use on the stream diversion works.		
PCV.9	Where there is an existing upstream flow, the Consent Holder shall maintain a continuous flow of water in the stream channel immediately downstream of the work area by ensuring that there are temporary clean water diversions around the active work sites.		
PCV.10	With the exception of culverts 2, 10 and 13, the culverts shall provide for fish passage in accordance with Condition GEN. 24(b) (iii) and the ELMP. For those culverts where fish passage is to be specifically provided for, the Consent Holder shall arrange a peer review by a suitably qualified and experienced freshwater ecologist to verify that the detailed design process for these culverts has appropriately addressed effects on fish passage, and shall provide this written confirmation of such verification to the Chief Executive, TRC.		
PCV.11	The Consent Holder shall recover and relocate fish from the stream prior to the culvert installation occurring, and relocate any fish uncovered/stranded during the works in accordance with the Fish Recovery and Rescue Protocols in the ELMP.		
PCV.12	Riparian planting shall be undertaken in accordance with Condition GEN.24.		

PCV.13	On completion of works, the banks of the channel upstream and downstream of the culvert shall be no steeper than the existing natural banks. Where the bank consists of fill, the fill must be well compacted and stable and shall be constructed in accordance with the approved SCWMP.		
PCV.14	The Consent Holder shall repair any more than minor erosion, scour or instability of the stream bed or banks that the culvert causes and shall maintain the culvert so that it allows the free flow of water.		
	<p>Bridge Consent (TRC s42A Sec Ref 16.7)</p> <ul style="list-style-type: none"> 10654-1.0 - To construct, use and maintain a bridge over the Mimi River, including associated disturbance of the stream bed. 		
BRG.1	Bridges shall be constructed generally in accordance with Condition GEN.1.		
BRG.2	The Consent Holder shall notify the Chief Executive TRC, in writing at least 5 working days prior to the exercise of this consent. Notification shall include the consent number and a brief description of the activity consented and be emailed to worknotification@trc.govt.nz .		
BRG.3	The Consent Holder shall be responsible for the design, structural integrity and maintenance of bridges and for any erosion control works that become necessary to preserve the integrity and stability of the bridges and the underlying wetland at the Mimi swamp forest and the watercourse at or about Chainage 2400 and/or to control erosion as a result of the exercise of this resource consent.		
BRG.4	Works in the wetland beneath the bridge over the Mimi swamp forest are to be limited to the minimum required to achieve the bridge structure, and any areas that are disturbed are reinstated to their original condition.		Reference inserted to make specific to bridge over Mimi swamp forest
BRG.5	<p>The Consent Holder shall undertake works in accordance with the CWMP and SCWMP to minimise sedimentation and increased turbidity of the waterway during the construction, implementation and maintenance of the works. The CWMP and SCWMP shall address how:</p> <ul style="list-style-type: none"> (a) All works shall be completed in the minimum time practicable; (b) The placement of excavated material in the flowing channel shall be avoided; (c) All machinery shall be kept out of the actively flowing channel, as far as practicable; and (d) All disturbed areas shall be reinstated as far as practicable. 		
	<p>Consent for Vegetation Removal (TRC s42A Sec Ref 16.8)</p> <ul style="list-style-type: none"> 10657-1.0 - To remove and disturb vegetation associated with constructing the Mt Messenger bypass. 		
VEG.1	The vegetation disturbance and removal authorised by this consent shall be as generally described in the ELMP.		
VEG.2	To mitigate the effects of the exercise of this consent, the Consent Holder shall undertake restoration planting in accordance with the ELMP and LEDF		
VEG.3	The Consent Holder shall ensure that the slash is managed and stored in accordance with the ELMP and CWMP so as to minimise erosion or sediment discharges and/or avoid exacerbating flood risk, including		

	<p>(a) storing slash away from water ways and the paths of floodwaters;</p> <p>(b) ensuring slash piles are stable and placed away from steep slopes to prevent accelerated soil erosion from debris avalanche.</p>		
VEG.4	Where practicable, trees shall be felled away from, and not be dragged through, any waterway.		
	<p>Consent to Plant in Riverbeds (TRC s42A Sec Ref 16.11)</p> <ul style="list-style-type: none"> 10658-1.0 - To undertake riverbed planting for restoration of diverted stream beds associated with the establishment of the Mt Messenger Bypass 		
PLN.1	The planting shall be undertaken generally in accordance with the resource consent application and the ELMP.		
PLN.2	The Consent Holder shall notify the Chief Executive, TRC, in writing at least 5 working days prior to the commencement of planting work. Notification shall include the consent number and a brief description of the activity consented and be emailed to worknotification@trc.govt.nz . Final location co-ordinates shall be provided to the TRC at this time.		
PLN.3	The Consent Holder shall ensure that the area and volume of stream bed disturbance during planting is, as far as practicable, minimised and any areas that are disturbed are, as far as reasonably practicable, reinstated.		
PLN.4	<p>The Consent Holder shall undertake works in accordance with the CWMP and SCWMP to minimise sedimentation and increased turbidity of the waterway during the construction, implementation and maintenance of the works. The CWMP and SCWMP shall address how:</p> <p>(a) All works shall be completed in the minimum time practicable;</p> <p>(b) The placement of excavated material in the flowing channel shall be avoided;</p> <p>(c) All machinery shall be kept out of the actively flowing channel, as far as practicable; and</p> <p>(d) All disturbed areas shall be reinstated as far as practicable.</p>		
PLN.5	The planting shall not materially restrict flow or exacerbate flooding events.		

SCHEDULE 1: REQUIREMENTS ADDRESSED IN THE ELMP

Note: as set out in Condition GEN.23 only the matters addressed Sections 1 (Objectives & matters addressed in the ELMP), 2 (Landscape Management Plan) and 6 (Freshwater Management Plan) are relevant to these Resource Consents.

1. Overarching objectives and matters addressed in the ELMP

- a) The objective of the Ecology and Landscape and Management Plan (**ELMP**), dated [insert], is to identify how the potential adverse effects of the Project on the ecological, landscape and biodiversity values within the Project Area and its surrounds will be avoided, remedied, mitigated, offset and compensated for, including on: vegetation / habitats (including wetlands); herpetofauna (lizards and frogs); bats; avifauna; peripatus; fish, kōura and kākahi; and streams.
- b) The ELMP includes a summary of the ecological and landscape values and effects of the Project.
- c) The ELMP comprises a series sub-management plans that address the designation and resource consent conditions, including: Landscape and Vegetation Management Plan; Bat Management Plan; Avifauna Management Plan; Herpetofauna Management Plan; Freshwater Management Plan; Pest Management Plan; Peripatus Management Plan; and Biosecurity Management Plan.
- d) The ELMP also describes:
 - i. The physical mechanisms (e.g. fences) to protect the restoration and riparian planting from clearance and / or livestock, on an ongoing basis.
 - ii. The necessary rights to carry out the restoration and riparian planting, and to carry out the required pest management where these activities are to occur on land that is not owned by the Requiring Authority.
 - iii. The measures proposed for biosecurity management, including the management of risk associated with myrtle rust, and the management of pest plants and pest animals.
- e) The ELMP includes maps showing:
 - i. existing vegetation types for all areas of proposed mitigation plantings, to determine if these will result in habitat gain;
 - ii. the location and extent of the stream reaches proposed for restoration works;
 - iii. the location and extent of the Intended PMA.
- f) The ELMP contains details of monitoring and reporting to the Planning Lead (or Nominee) prior to, during and post-construction to determine if the ELMP objectives and the performance measures are being met, including a repeatable monitoring design incorporating adaptive management responses.
- g) The ELMP includes details of the roles and responsibilities of key staff responsible for implementing the ELMP and procedures for training of contractors and other Project staff regarding the ELMP.
- h) ELMP includes details of the process for reviewing and amending the Plan, in accordance with the Conditions of the Designation and Resource Consents.

2. Landscape and Vegetation Management Plan

Specific objectives

The Landscape and Vegetation Management Plan addresses:

- a) Details of the method for a pre-construction survey of wetland vegetation composition and structure to assist planning for the swamp forest restoration planting.
- b) The retention, where possible, of the high value ecological areas identified in Figures 4.1 and 4.2 in the ELMP dated [insert date] 2018.
- c) Provisions for the relocation or cultivation of threatened plants found within the Project Area.
- d) Details of how, prior to vegetation removal, the appropriate delineation of vegetation to be cleared will be made.
- e) A programme for vegetation clearance that allows for vegetation to be cleared only prior to Works beginning in any particular Stage (or Stages) of the Project Area in order to reduce habitat effects and reduce the potential for erosion and sediment generation.
- f) The staging of restoration planting and landscape treatments in relation to the construction programme to reduce the potential for erosion and sediment generation. Where practicable restoration planting shall commence after the completion of any Stage of Construction Work.
- g) Provisions for the cultural use of significant trees by Ngāti Tama.
- h) The supervision of vegetation clearance by a suitably qualified person.
- i) Landscaping design and treatments (landform and planting), including rehabilitation of all areas used for temporary work and construction yards.
- j) The location, details and principles for achieving the following restoration planting, including identification (maps) of where the restoration planting will take place:
 - i. At least 6 hectares of kahikatea swamp forest.
 - ii. At least 9ha of dryland planting using an appropriate mix of plant seedlings
 - iii. Planting of saplings in ecologically appropriate sites at a loss to replacement ratio of 1:200 on a 'like for like' species basis for each significant tree that is felled.

- iv. All new plantings must be eco-sourced from the North Taranaki Ecological District.
 - v. The Requiring Authority shall complete all restoration planting within three planting seasons of the Completion of Construction Works, unless natural conditions during Construction Works result in poor seed production, or poor seed condition and adversely limits seedling propagation for indigenous plant species, in which case completion would be delayed to reflect the availability of suitable seedlings.
 - vi. Should there be a delay in the completion of restoration planting due to the availability of suitable seedlings as described in v above, the Requiring Authority shall provide the Planning Lead (or Nominee) with an amended timeframe, which shall not exceed three planting seasons, and shall complete the planting as soon as reasonably possible within the agreed timeframe, informing the Planning Lead (or Nominee) when planting is complete.
- k) Provisions to monitor and manage all planting so that plants establish and those that fail to establish are replaced, such that the listed performance measures are met within their specified timeframes.

Performance measures

- l) The Landscape and Vegetation Management Plan addresses the following performance measures.
- i. For each significant tree felled, 90% survival of the 200 planted trees required by j)iii at 6 years following planting. If 90% plant survival has not been achieved within 6 years following planting, any necessary replacement planting and planting maintenance shall continue beyond year 6 until 90% survival is achieved.
 - ii. 80% canopy cover 6 years following planting for all restoration planting required by j)i and j)ii, in the areas where trees and shrubs are planted. If 80% canopy cover is not achieved at 6 years following planting, any necessary replacement planting and planting maintenance shall continue beyond year 6 until 80% canopy cover is achieved.
 - iii. For kahikatea swamp forest planting required by j)i, kahikatea forming 16% of the tree canopy at year 10. Additional kahikatea will be planted in the areas where the kahikatea contribution to the canopy is less than 16%.
 - iv. 65% canopy cover at year 35 for kahikatea swamp forest planting required by j)i.

Monitoring

The Landscape and Vegetation Management Plan includes the following survey and monitoring requirements.

- m) Provision to measure the extent of actual vegetation clearance within 6 months following the completion of Establishment Works and to reassess the extent of restoration planting required under j)ii and j)iii. The Requiring Authority shall prepare and provide a report to the Planning Lead (or Nominee) confirming the restoration planting required to achieve the amount specified under j)ii and j)iii. If additional restoration planting is required, the extent of the restoration planting required shall be identified in the report. If the recalculation results in lesser restoration planting area than that specified in j)ii and j)iii, the restoration planting shall remain as that required under j)ii and j)iii. The report shall be provided to the Planning Lead (or Nominee) for shall Certification of that the additional planting is in accordance with the restoration planting required under j)ii and j)iii.
- n) Provision to undertaken post-construction monitoring of vegetation condition for all restoration planting to demonstrate that the performance measures for the Landscape and Vegetation Management Plan have been met. The monitoring shall be undertaken, as required, until such time as all of the performance measures have been shown to be achieved.

3. Bat Management Plan

Specific objectives

The Bat Management Plan addresses the following matters:

- a) Provision for a long-tailed bat radio tracking programme to identify long-tailed bat roost locations and confirm the PMA location.
- b) Vegetation Removal Protocols (VRP) for :
 - i. the 17 significant trees.
 - ii. all other trees that are ≥ 80 cm Diameter at Breast Height (DBH), and trees between 50 cm and 80cm DBH which are considered by a specialist bat ecologist as having features suitable for bat roosting, such features including but not limited to nested epiphytes located on horizontal branches or sufficient damage to the tree crown or trunk that could provide roosting voids.
 - iii. all trees shown through the bat monitoring programme to be Maternity Roosts.

Advice Note: the VRP shall not apply to the removal of any other vegetation.

- c) When Automatic bat detectors (ABMs) are used to determine the presence of bats around potential roost trees, provision for monitoring to occur for a minimum of three consecutive nights.
- d) Provision for consultation with the DOC Operations Manager New Plymouth District Office to discuss appropriate actions if a bat roost remains occupied for longer than 7 days.
- e) Other than the amendments made through a) to c) above, the VRP shall be in accordance with Annex D and H of the 'NZ Transport Agency (the Transport Agency) research report 623 'Effects of land transport activities on New Zealand's endemic bat populations: reviews of ecological and regulatory literature' (Smith et al. 2017)'.

Performance outcomes

- f) The performance outcomes for bats will be achieved by the successful implementation of the VRP and by pest management in the PMA (refer to Pest Management Plan).

Monitoring

- g) There are no specific monitoring requirements for bats, other than those associated with the implementation of the VRP and the monitoring for pest management in the PMA.

4. Avifauna Management Plan

Specific objectives

The Avifauna Management Plan addresses the following matters:

- a) Measures to detect and protect kiwi from the likelihood of direct mortality during the construction and operation of the road, including:
- i. A North Island brown kiwi radio-tracking programme, prior to and during construction, conducted by a suitably qualified ecologist.
 - ii. Provision for the capture and relocation of kiwi and/or their eggs during construction, if deemed appropriate by the kiwi expert, and in accordance with DOC best practice for kiwi (2018).
 - iii. Based on the outcome of radio-tracking and the identification of kiwi territories, details on the design, installation and ongoing maintenance of kiwi exclusion fencing at locations where territories straddle the road corridor where there is a high risk of kiwi being able to enter the road corridor, to restrict kiwi accessing the road and to direct them to culvert locations where they can underpass beneath the road during low stream flow conditions. The design and location of these fences shall be discussed with the DOC Operations Manager New Plymouth District.
 - iv. Provision for the placement of appropriate road signage along the new road corridor to warn motorists about the possible presence of kiwi.
- b) Measures to provide for the detection of kōkako in the construction area and to prevent construction disturbance, along with measures outlining the subsequent actions to be taken that minimise disturbance in the event that any kōkako breeding pair or their nest is found within the Project Area, including, if kōkako are detected, the immediate notification to the DOC Operations Manager New Plymouth District Office and Ngāti Tama.
- c) Measures to provide for the detection of Australasian bittern in the construction area and to prevent construction disturbance and subsequent actions to be taken in the event that any Australasian bittern are found within the Project Area, including, placing automatic acoustic bird monitors at the Mimi wetland and Mangapepeke Valley in the spring of 2018. If bittern are detected, notification must be provided to the DOC Operations Manager New Plymouth District Office.

Performance outcomes

- d) The performance outcomes for avifauna will be achieved by the successful implementation of the measures outlined above under a) to c) for kiwi, kōkako and Australasian bittern and by pest management in the PMA (refer to Pest Management Plan).

Monitoring

The Avifauna Management Plan includes the following survey and monitoring requirements:

- e) Details of up to 1 year of post-construction monitoring utilising motion detection cameras deployed at selected locations to assess the effectiveness of the exclusion fences and use of the culvert underpasses by kiwi.
- f) Details of a survey involving the placing automatic acoustic bird monitors for bittern in the Mimi wetland and Mangapepeke Valley in the spring of 2018.
- g) Additional avifauna monitoring associated with the Pest Management Plan is set out in Section 7 below.

5. Herpetofauna Management Plan

Specific objectives

The Herpetofauna Management Plan addresses the following matters:

- a) Provision for (limited) salvage effort for lizards that may be located on vegetation cleared within the Project Area, focusing on high value habitat and known lizard locations. The provisions shall also include details on the relocation and release of salvaged lizards at the Rotokare Scenic Reserve.
- b) Provision for the development of a management plan for Hochstetter's frog (*Leiopelma aff. hochstetteri*) and Archey's frog (*Leiopelma archeyi*), if they are discovered in the Project Area.

Performance outcomes

- c) The performance outcomes for herpetofauna will be achieved by the successful implementation of the salvage measures outlined in a) above.

Monitoring

- d) The Herpetofauna Management Plan includes: provision for recording the details of any salvaged lizards, including: species, sex, age class, weight, snout to vent length, and location of capture and release. All records shall be reported to the BioWeb Herpetofauna database.

6. Freshwater Management Plan

Specific objectives

The Freshwater Management Plan addresses the following matters:

- a) The design and construction of reinstated and diverted streams in accordance with the Stream Ecological Design Principles attached to the LEDF.
- b) The measures to maintain fish passage in all affected waterways as a result of permanent culverts (with the exception of culverts 2, 10 and 13), which shall be informed by the New Zealand Fish Passage Guidelines for Structures Up to 4 Metres (2018).
- c) Riparian planting and exclusion from livestock of at least 8.455km of existing stream within the Mimi and Mangapepeke catchments. Riparian margins of an average of 10m each side of the channel shall be created and planted. Should culvert or stream diversion lengths be increased in the detailed design stage of the Project, the length of riparian planting required shall be re-calculated using the same Stream Ecological Valuation (SEV) method used to derive the 8.455km figure.
- d) Fish Recovery and Rescue Protocols, including addressing:
 - i. How the recovery and relocation of fish, kōura and kākahi will occur prior to instream works.
 - ii. How the rescue of fish, kōura and kākahi will occur from any spoil.
 - iii. The qualifications and experience required for fish recovery/rescue work.
 - iv. Details of fish recovery, relocation and rescue methods to be used.

Advice Note: Details of the water quality monitoring, response process and measures to address potential adverse effects of sediment and other contaminant discharges to waterways during construction, including streams and wetlands, are set out in the Construction Water Management Plan and the Construction Water Discharges Monitoring Plan.

Performance outcomes

The Freshwater Management Plan includes the following performance measures:

- e) Provision of fish passage through all permanent culverts, except culverts 2, 10 and 13.
- f) Implementation of stream diversions and riparian planting to achieve successful colonisation by aquatic biota, and to match existing habitat types compared with the original stream reach affected.

Monitoring

The Freshwater Management Plan includes the following survey and monitoring requirements:

- g) Provision for monitoring the fish passage performance after peak upstream migration (August – December) upstream of culverts 9, 15 and 18 annually for two years after construction is completed. The monitoring will be used to determine if recruitment is occurring by assessing if a suitable age structure (juvenile and adult fish) is present within the fish population above culvert 9 and culvert 15. If after 2 years the recruitment of young fish is not occurring then refinements to the culvert fish passage devices will be made.
- h) Provision for pre and post construction monitoring of macroinvertebrates and fish at 3 selected locations in each of the Mangapepeke and Mimi catchments.
 - i. Pre-construction and post-construction fish monitoring will be undertaken during base flow conditions at least two weeks following any large flood event in spring (October to December) and summer (February to April). Fish surveys will use methods consistent with the New Zealand freshwater fish sampling protocols (Joy et al. 2013). Fish will be identified, counted and lengths recorded.
 - ii. Pre-construction and post-construction aquatic macroinvertebrate monitoring will be undertaken during base flow conditions at least two weeks following any large flood event in spring (October to December) and summer (February to April). Aquatic macroinvertebrate surveys will use methods consistent with Protocols for sampling macroinvertebrates in wadeable streams (Stark et al. 2001). For each site the area sampled and type of stable habitat sampled will be recorded. The following metrics will be calculated from the aquatic macroinvertebrate data: taxa richness, Macroinvertebrate Community Index (MCI), Quantitative Macroinvertebrate Community Index (QMCI), %EPT taxa and %EPT abundance. EPT (Ephemeroptera-Plecoptera-Trichoptera) metrics will exclude the species Oxyethira and Paroxyethira. Following at least one year of baseline monitoring and one year of construction monitoring, aquatic macroinvertebrate monitoring will be reduced to annual monitoring if there is less than 20% change in QMCI or MCI comparable to baseline sampling..
- i) Provision for pre-construction and post-construction sediment deposition monitoring at a site within the raupo reedland, downstream of the Mimi Stream tributary draining the tunnel portal, located upstream of the Mimi swamp forest. This involves monitoring change in sediment accumulation e.g. artificial astroturf attached to a tray. The purpose of the monitoring is to assess sediment deposition that might extend from the end of the stream to the Mimi swamp forest. The monitoring will follow selected heavy rain events prior to the commencement of construction and in response to specific rainfall events during construction (set out in the Construction Water Discharge Monitoring Programme in Appendix C of the CWMP).

7. Pest Management Plan

Specific objectives

The Pest Management Plan addresses the following matters:

- a) The identification of the confirmed location for the 3,650ha Pest Management Area (PMA).
- b) Within the PMA, to:
 - i. reduce and maintain rats, possums, feral cats and mustelids to low levels in perpetuity.
 - ii. reduce and maintain feral goats and pigs to low densities in perpetuity.
 - iii. exclude farm stock in perpetuity
 - iv. monitor and control wasps along the road corridor during construction.
- c) To generate biodiversity benefits within the PMA across a wide range of plants and animals.
- d) An adaptive management approach to enable pest management techniques to be modified if the performance outcomes for avifauna identified below are not met.

Performance outcomes

The Pest Management Plan includes the following performance measures:

- e) The following target pest densities in the PMA, measured immediately prior to the breeding season (for bats and birds) and then through the critical stages when young remain in the roost / nest:
 - i. rat species – $\leq 5\%$ tracking tunnel index, with 10% or more in two consecutive years triggering the need to review the method used;
 - ii. mustelids – no detections;
 - iii. cats – no detections;And throughout any year, the following target pest densities in the PMA:
 - a. possums – $\leq 5\%$ chew card index;
 - b. goats and deer – < 1 kill per hunter/day;
 - c. feral pigs – < 1 kill per hunter/day;
 - d. farm livestock – zero presence.
- f) For palatable plant species:
 - i. The recruitment of vegetation species which are currently suffering ungulate induced recruitment failure. Indicator species will include: mahoe, hangehange, large leaved coprosma spp., pate, wineberry, tawa, hinau, kamahi and pikopiko.
 - ii. Recovery of condition of possum palatable trees. Indicator species will focus on measuring changes in foliage density of small trees such as; swamp maire, mahoe, kaikomako.
- g) A 20% increase in relative abundance for kiwi, tui, bellbird, kereru, whitehead, long-tailed cuckoo, fernbird, and North Island Robin in the PMA within 12 years of the Completion of Construction Works.

Monitoring

The Pest Management Plan includes the following survey and monitoring requirements within the PMA.

- h) Provision for monitoring pest levels to assess performance targets and enable adaptive management processes in the event targets are not met for 2 consecutive years.
- i) Provision for a quantitative assessment of canopy condition and understorey condition to establish pre-pest management and post-pest management vegetation condition knowledge for the PMA, including the composition and abundance of palatable vegetation.
- j) Provision for monitoring avifauna prior to establishment of pest management in the PMA to establish a relevant baseline, including for kiwi, kōkako, forest birds and fernbird.
- k) Provision for outcome monitoring of kiwi, tui, bellbird, kereru, whitehead, long-tailed cuckoo, fernbird, North Island Robin conducted for 12 years, at 3-yearly intervals, following the onset of the pest management measures.

8. Peripatus Management Plan

Specific objectives

The Peripatus Management Plan addresses the following matters:

- a) The specify procedures to avoid, remedy or mitigate adverse effects associated with the construction and operation of the Project on peripatus species through salvaging peripatus and relocating peripatus habitat elements into a suitable relocation site outside of the Project Area.

Performance outcomes

The Peripatus Management Plan includes the following performance measures:

- b) To locate and capture peripatus (preferably within their woody habitat – stumps and decaying logs) from the proposed Project Area, and to successfully release them at predetermined release sites, immediately adjacent to the Project Area, with minimal stress caused to the animals.

Monitoring

- c) There are no specific monitoring requirements for peripatus.

9. Biosecurity Management Plan

Specific objectives

The Biosecurity Management Plan addresses the following matters:

- a) The biosecurity measures to minimise the likelihood of spread or introduction of invasive pest plants and pest animals as a result of Project-related activities.
- b) Specific provisions for the minimisation of spread of Myrtle Rust onto and along the Project Area;
- c) Measures to minimise the introduction to the Project Area of invasive pest plants and animals with nursery produced seedlings

Performance outcomes

- d) Non-detection in the planting areas of pest plants and pest animals.

Monitoring

The Biosecurity Management Plan includes the following survey and monitoring requirements within the Project Area:

- e) Provision for pest plant and pest animal surveillance to be carried out by appropriately trained staff within the Project Area and at restoration planting areas for the first growing season of any new plantings and for 1 year after planting.
- f) Before-delivery inspections for invertebrate and plant pests at the premises of supplier nurseries of plant material being grown for planting in the Project Area and mitigation sites.
- g) Before construction walk-through survey of the Project Area to identify plant and animal pests and plant diseases already present.