Your Comment on the Takitimu North Link – Stage 2

If you wish to make comments on the application, please include all the contact details listed below with your comments and indicate whether you can receive further communications from us by email to substantive@fastrack.govt.nz.

1. Contact Details			
Please ensure that you have authority to comment on the application on behalf of those named on this form.			
Organisation name (if relevant)	Bay of Plenty Regional Council (BOPRC)		
First name	Eleanor		
Last name	Christensen		
Postal address	PO Box 364, Whakatane		
Home phone / Mobile phone	[redacted]	**Work phone**	[redacted]
Email ***(a valid email address enables us to communicate efficiently with you)***	[redacted] and [redacted]		

2. We will email you draft conditions of consent for your comment			
☒	I can receive emails and my email address is correct	☐	I cannot receive emails and my postal address is correct
Please include Marlene Bosch in any emails regarding this Substantive Application			

Thank you for your comments

1 Introduction

Bay of Plenty Regional Council (BOPRC) has undertaken a review of the Takitimu North Link (TNL) Stage 2 Substantive Application lodged with the Environmental Protection Agency (EPA) on 31 July 2025. This document summarises the key outstanding issues / areas of disagreement and areas of agreement that BOPRC has regarding the proposal.

BOPRC has reviewed the Substantive Application, the appendices, excluding the Integrated Transport Assessment (Appendix 9.4.1), Economic Benefits Report (Appendix 9.4.2), Assessment of Acoustic and Vibration Effects (Appendix 9.4.3) and the Landscape and Visual Effects Assessment (Appendix 9.4.5).

2 Planning

The applicant has applied for all relevant consents under the Regional Natural Resources Plan (RNRP) and the National Environmental Standards for Freshwater (NES-F). The applicant has applied for consent to discharge dust during earthworks under Rule AIR R16 of the RNRP. BOPRC do not generally authorise the discharge of dust under the Air Chapter of the RNRP so this consent possibly isn't required under Rule AIR R16. The permitted rule, nothing offensive or objectionable beyond the use of the work site, by the use, of dust control (water / dust suppressant chemicals) generally is sufficient.

3 Key outstanding Issues

The key items BOPRC disagree with the applicant on are:

3.1 Deemed certification of management plans, documents and plans.

BOPRC do not support deemed certification / default certification which would deem certain plans to have been certified if BOPRC have failed to certify them within the specified time period. This has the potential to result in sub-standard plans, which haven't been certified, to be adopted by default with sub-optimal sustainable management outcomes. Alternative conditions have been proposed instead of deemed certification.

3.2 Written Certification

The applicant has proposed some conditions whereby management plans / documents / plans are provided to BOPRC for information purposes only. BOPRC have recommended conditions that require management plans /documents / plans are provided to BOPRC for written certification by a suitably qualified and experienced professional.

3.3 Stream recreation / realignments

The applicant has proposed the reclamation of 3,066 metres (m) of perennial stream, with the loss to be replaced with 3,183 m of constructed channels. This results in the complete loss of stream values and functions at the site of impact. The key difference of opinion between the applicant and BOPRC concerns with tier of the effects management hierarchy in the National Policy Statement for Freshwater Management (NPS-FM) is applied to manage the loss of stream value and extent due to reclamation.

The applicant considers that the effects associated with stream reclamation are to be remedied through the creation of new stream channels / lengths across the entire project area, which

encompasses multiple catchments. BOPRC disagree that this is a form of remediation. The loss of stream length is not being addressed by remedying at the site of impact, but by offsetting stream loss at alternative locations within the wider landscape.

Consent conditions have been recommended to address the loss of stream extent and values and recreated / realigned streams. DOC have provided support for the recommended conditions to address this.

3.4 Offset ratio for wetlands:

1:1:1 (loss: creation: restoration) is not supported. BOPRC does not consider that wetland restoration is equivalent to wetland creation as it still results in a loss of wetland extent overall. If restoration is used, the ratio should be higher and should reflect the type/intensity of restoration undertaken and maintenance should continue for the duration of the consent (or longer). Consent conditions have been proposed requiring 1:1:3 for wetland loss: creation: restoration.

3.5 Maintenance of wetland restoration areas

Maintenance of wetland restoration areas for the duration of the relevant consent. The applicant does not consider that wetland restoration areas need to be maintained for the duration of the relevant consent whereas BOPRC consider this to be required.

3.6 Contaminated soils

BOPRC recommend a robust set of conditions to address the effects associated with disturbing / remediating contaminated. The Detailed Site Investigation(s) (DSI) have not yet been undertaken so the conditions recommended by BOPRC allows for all potential eventualities and enable the consent to be flexible enough to respond to the management plan and remediation requirements of the project. The applicants' proposed conditions do not include all the management plans and remediation requirements that may come out of the DSIs – i.e. management plan for asbestos, works completion report, management plan for contaminated soils remaining on site.

3.7 Temporary discharges

BOPRC and the applicant disagree on whether water quality limits should be included for temporary discharges during construction / earthworks. BOPRC consider that water quality limits should be included, particularly for compliance / enforcement purposes.

3.8 Consent conditions

The applicant and BOPRC do not currently agree on all conditions. BOPRCs recommended conditions are attached to these comments.

4 Engineering

Ms Sue Southerwood and Mrs Kate Everett (Contract Engineers, BOPRC) have reviewed and provided feedback / comments, from an engineering perspective, on the substantive application.

The following documents have been reviewed:

- Substantive Application – TNL Stage 2.
- Appendix 9.4.11 Construction Water Assessment, including Appendix C – ESCP.

- Appendix 9.4.9 Stormwater Assessment TNL Stage 2.
- Appendix 9.6 Full Drawing set 144702-00-1200 to 144702-00-1296 and 144702-00-2100 to 144702-00-2340. This set includes catchment plans, wetlands, swales and pipe networks, stream realignments, culverts and bridges.
- Consent conditions

During the pre-application period, the following documents were reviewed by Ms Southerwood and Mrs Everett:

- TNL Stage 2 Specimen Design – Stormwater Management.
- TNL Stage 2 Specimen Design – Culverts, Bridges and Streams.
- TNL Stage 2 Specimen Design – Downstream Flood Effects Investigation.

The above three specimen design documents have not been lodged with the EPA as part of the Substantive Application.

The following guidelines and standards have informed Ms Southerwood's and Mrs Everett's review of the information provided:

- BOPRC Hydrological and Hydraulic Guidelines.
- Stormwater Management Guidelines for the Bay of Plenty Region.
- BOPRC Hydraulic Modelling Guidelines.
- BOPRC Erosion and Sediment Control Guidelines.

4.1 Water Quality

From an engineering perspective, the permanent stormwater discharging from impervious areas relating to the TNL Stage 2 can be treated through appropriate devices, with water quality treatment design methodology being comparable with the BOPRC guidelines. There will be a reduction of paved road surfaces within the designation discharging untreated stormwater into the receiving environment. This is principally because the existing State Highway 2 (SH2) currently does not have any treatment of stormwater.

4.2 Water Quantity

There will be an increase in the quantity of stormwater generated due to the additional impervious area(s) created by the project. The proposed attenuation devices with extended detention are appropriate and those sub-catchments without attenuation are acceptable, due to:

(a) the downstream environment being tidal; or

(b) there are no downstream flooding effects as determined by a catchment analysis; or

(c) the downstream effects have been thoroughly examined, and consultation has been adequate and appropriate.

These measures meet the appropriate BOPRC guideline. As part of the pre-application document review the 'Downstream Flood Effects Assessment' has been reviewed by Ms Southerwood and Mrs Everett. This document specifically addresses those areas where due to the upscaling of NZTA bridges and culverts there is an increase in flows and levels. This document adequately addresses the effects and mitigation. Ms Southerwood and Mrs Everett have also viewed the relevant correspondence from potentially affected parties and consider that the flooding matters have been suitably addressed.

4.3 Stream Realignments

BOPRC agree with the applicant that adequate consideration has been given to conveyance of the various design flows within the realigned channels and are in accordance with the BOPRC Stormwater Management Guidelines, the BOPRC Hydrological and Hydraulic Guidelines and the BOPRC Hydraulic Modelling Guidelines.

4.4 Erosion and Scour

BOPRC agree with the applicant that the increased flows that are not attenuated, due to discharging into coastal zones are either very small changes compared with the upstream tributary discharges or will be adequately erosion protected (including stormwater outfalls). These measures are appropriate and meet the BOPRC Stormwater Management Guidelines and the BOPRC Hydrological and Hydraulic Guidelines.

4.5 Culvert and Bridge Design

The structural aspects of the structures have not been considered as part of Ms Southerwood's and Mrs Everett's review as this will be considered under the relevant building consent(s) by the Western Bay of Plenty District Council (WBOPDC). The existing culverts under the current SH2 have been shown to be undersized and restrict fish passage.

The current proposal provides culvert and bridge designs for the TNL 2 that meet the BOPRC Stormwater Management Guidelines, the BOPRC Hydrological and Hydraulic Guidelines and the BOPRC Hydraulic Modelling Guidelines. Additionally, the proposal includes upgrades to the undersized culverts under SH2 where those crossings will remain.

Ms Southerwood and Mrs Everett have relied on the peer reviewers for more in-depth review and have confirmed that these reviewers are suitably qualified professionals and their comments have been satisfied by the applicant.

4.6 Downstream Flooding Effects

BOPRC agree with the applicant that the existing SH2 acts as an embankment for much of the project length and acts as a barrier to flood flows. Parts of the proposal include infilling for the new highway in flood storage areas. Along with the upgrading of culverts and construction of bridges and infilling, there is an increase in peak flows downstream. BOPRC accept that these effects have been thoroughly investigation and quantified using appropriate stormwater modelling and hydrological and hydraulic computer programmes that meet the BOPRC Stormwater Management Guidelines, the BOPRC Hydrological and Hydraulic Guidelines and the BOPRC Hydraulic Modelling Guidelines.

This assessment of effects has been outlined in the document titled 'Downstream Flood Effects Investigation. BOPRC agree with the summary of flooding effects in the document titled 'Substantive application for approval: 1', NZTA, namely that *'The project eliminates existing flooding upstream of SH2 in all flood events up to and including a 100 year ARI flood. The elimination of existing upstream flooding results in a small increase in downstream flood depth that ranges from no effect to no more than minor effect.*

Documentation has been provided from downstream landowners and reviewed by Ms Southerwood and Mrs Everett as part of the pre-application review. This confirms that detailed consultation has been carried out by the applicant.

4.7 Construction and Air Quality Effects and Mitigation Measures

The construction effects will be mitigated by an Erosion and Sediment Control management plan, a Dust Management Plan and other Management Plans. The Construction Water Assessment and the Construction Air Discharge Assessment are thorough and have addressed potential risks. BOPRC agree that the proposed management methods can be implemented and are in accordance with the BOPRC Erosion and Sediment Control Guidelines and best practice.

4.8 Mitigation Measures

BOPRC accept that the proposed mitigation measures for the above-mentioned effects are appropriate and meet the respective guideline.

4.9 Plans

The plans show the stormwater design features in sufficient detail to achieve the desired outcomes but that they do not preclude alternative designs that could achieve the same outcome. BOPRC accept this approach.

It is recommended that:

- All plans, including the Erosion and Sediment Control Plans / Site Specific Erosion and Sediment Control Plans, clearly show the direction of NORTH.
- Drawing numbers for TNL Stage 1 are shown on plans where they cross over with TNL Stage 2 (e.g. Stream Realignment SR9A Plan and Section 144702-00-2320 where it ties into an existing stream realignment as part of TNL Stage 1).

5 Wetlands and Terrestrial Ecology

Ms Shay Dean (Environmental Scientist, BOPRC) has reviewed the application from a wetland and terrestrial ecology perspective. Ms Nancy Willems has provided input into this review and the pre-application review of the application and consent conditions.

5.1 Key concern/effect

The key concern for BOPRC is the permanent loss of 6.14 hectares (ha) of freshwater wetland extent, particularly the loss of 2.58 ha from two high value wetlands – Ōmokoroa and Merrin Wetland.

5.2 Ecological Context for Wetlands

Freshwater wetlands are estimated to have been reduced to less than 10 percent (%) of their original extent both nationally and in the Bay of Plenty region. Freshwater wetlands are estimated to have been reduced to approximately 6.9% of their original extent in the Tauranga Ecological District (based on BOPRC mapping).

The loss of 6.14 ha of wetland, as a result, of this application, represents a further loss of approximately 0.5% of freshwater wetland extent in the Tauranga Ecological District and a loss of approximately 5.5% of the BOPRC mapped freshwater wetland in the three affected catchments (Waipapa, Te Puna and Oturu). Wetlands are a National Priority for Protection on private land (MfE/DOC 2008 Protecting our places: Introducing the national priorities for protecting rare and threatened biodiversity on private land).

5.3 Key points and comments on the Ecological Effects Assessment (EEA)

The EEA assesses effects of wetland loss at a catchment scale, rather than at the individual wetland scale, with *'Magnitude of Effect'* considered 'High' for loss of low and moderate value wetlands and 'Very High' for loss of high value wetlands.

BOPRC doesn't agree with the Magnitude or Level of Effect listed for each individual wetland in Tables 29 and 30, BOPRC does support the overall *'Magnitude of Effect'* given the low, moderate (high) and high value wetlands (very high).

There is a very high level of effect, pre-mitigation, at many of the wetlands if assessed at the individual wetland level. The EIANZ Guidelines 2018 state that where very high adverse effects cannot be avoided a *net biodiversity gain* would be appropriate and wherever high and moderate effects cannot be avoided *no net loss* of biodiversity values would be appropriate.

According to page 29 of the EEA eleven (11) wetlands will suffer total loss of wetland extent:

- 6 moderate value wetlands.
- 4 low value wetlands.
- 1 high value wetland.

5.4 Compensation and offsetting

High Value Wetlands: The proposed compensation package for loss of high value wetlands is supported, provided, that it includes at least 2.56 ha of wetland creation – as suggested by Table 1 of the Compensation Modelling Report -Wetland and avifauna habitats Prepared for NZTA (Boffa Miskell, 28 July 2025).

The proposed compensation package needs to be adequately referenced in the consent conditions. The Compensation Modelling Report and / or relevant sections of the EEA are not referenced in the applicant's proposed conditions. This will therefore lead to compliance issues in regards to ensuring that the compensation proposed is enforceable.

Moderate Value Wetlands: The offsetting for the loss of wetland extent from moderate value wetlands at a ratio of 1:2 (loss: creation) is supported. The alternative of 1:1:1 (loss: creation: restoration) is not supported. Restoration is not equivalent to wetland creation as it still results in a net loss of wetland extent overall. If restoration is used, the ratio should be higher and should reflect the type/intensity of restoration undertaken. Maintenance of restored areas must continue for the duration of the consent, or longer, as restoration gains typically diminish once maintenance ceases and pests reinvade.

Low Value Wetlands: BOPRC supports the offsetting the loss of wetland extent from low value wetlands at a ratio of 1:1.

The EEA defines wetland creation as *"the modification of an area that is not currently a wetland sufficient to intercept or otherwise interact with ground or surface water creating hydrological conditions suitable for the maintenance of a wetland ecosystem"*. Page 150 of the EEA suggests potential areas for wetland creation but these are not mapped. The applicant has also stated that they do not wish to reference the EEA in the consent conditions.

It is noted that the wetland restoration proposed in the compensation package includes the reestablishing of native vegetation in areas that are currently dominated by exotics. This is at the more intensive end of the restoration spectrum, compared to for example, controlling scattered pest plants in an area with a high cover of native species.

The EEA states that *"Where wetlands have been bisected or otherwise impacted by the Project, but a wetland feature remains, or where wetlands are directly adjacent to the earthworks footprint (for example S2b Wetland 24 and S2b Wetland 15), remaining wetlands are to be **restored** and buffered with dense plantings on the road side escarpments to minimise disturbance from construction and operational effects of the road"*.

It is unclear from this statement the extent to which remaining wetlands will be restored, specifically:

- Will restoration apply to the full extent of each remaining wetland, or only to selected areas?
- Will restoration of these remaining wetlands be subject to the same performance standards and monitoring requirements as those applied to wetlands restored as part of compensation or offset measures?
- All stormwater treatment infrastructure should be located outside of the wetland as far as practicable. If stormwater treatment infrastructure cannot be located outside of the wetland, the total footprint of that infrastructure should not form part of wetland restoration / revegetation. The area of wetland that has been lost to the stormwater treatment infrastructure should be mitigated in accordance with the offset ratios for wetlands as outlined in BOPRCs recommended conditions.

To address these uncertainties, conditions should be included setting out the minimum requirements restoring remaining areas of affected wetlands. Conditions should require that the full extent of remaining areas of impacted wetlands are restored, and restoration should meet the performance standards proposed in section 5.5.8 of this document.

To ensure that appropriate restoration and compensation for wetland loss is achieved, the required restoration and/or wetland creation, including pest control, must be clearly mapped and be included in the conditions, as proposed in section 5.5 below.

If restoration is included in the alternative offset ratio for moderate value wetlands, then it should be at a higher rate than 1:1:1 (wetland loss: creation: restoration). If restoration is used to offset loss of wetland area then this will result in a net loss of wetland extent from an Ecological District with only ~6.9% of its original freshwater wetlands remaining.

5.5 Proposed management plans

5.5.1 Ecological Management Plan (EMP) (condition 14.1 of RM25-0466-LC.01)

1. The EMP should be submitted to BOPRC for written certification by a suitably qualified and experienced ecologist to certify that it satisfies the conditions of consent. The works should not proceed until written certification of the EMP is provided.

5.5.2 Wetland Management Plan (WMP) (condition 22.1 of RM25-0466-LC.01)

The WMP should be prepared by a suitably qualified and experienced ecologist and should include the species to be planted *in each planting zone and vegetation tier* within wetlands and riparian buffers.

The WMP should be submitted to BOPRC for written certification by a suitably qualified and experienced ecologist to certify that it satisfies the conditions of consent. The WMP should be submitted at least 40 working days prior to works commencing to provide adequate time for review.

5.5.3 Avifauna Management Plan (condition 24.1 of RM25-0466-LC.01)

This plan should be submitted to BOPRC for written certification by a suitably qualified and experienced ecologist to certify that it satisfies the conditions of consent. It should be required as a sub-plan of the EMP and be implemented for the duration of the project. Conditions have been recommened setting out the minimum requirements of this plan.

5.5.4 Bat Management Plan (BMP) (condition 25.2 of RM25-0466-LC.01)

The BMP must be prepared by a suitably qualified and experienced ecologist / bat specialist. The BMP should be submitted to BOPRC for written certification by a suitably qualified and experienced ecologist to certify that it satisfies the conditions of consent.

The latest version of the Department of Conservation's Protocols for Minimising the Risk of Felling Occupied Bat Roost (Bat Roost Protocols) should be referenced as a minimum standard in the conditions. Species selection and planting plans, mut take into account, the New Zealand Bat Recovery Group Advice Note – Planting to provide roosts 2 for bats in the long-term.

5.5.5 Lizard Management Plan (LMP) (condition 27.1 of RM25-0466-LC.01)

BOPRC recommend that the LMP is included in the BOPRC conditions. The Department of Conservation have suitably qualified and experienced ecologists who can certify this plan. BOPRCs recommended condition regarding the LMP reflects this.

5.5.6 Vegetation clearance

Conditions should reference the EMP and its sub-plans. The following information should be included for terrestrial vegetation and wetlands:

- If any vegetation clearance occurs within the main bird breeding season (1 September to 28 February (inclusive), a suitably qualified and experienced ecologist must conduct a bird nesting survey of the vegetation proposed for removal and exclusion zones must be established around any nests of At Risk and Threatened bird species.
- If the survey identifies any native nesting birds within the site an exclusion zone, minimum 50 metre radius for at risk native nesting birds and 100 metre radius for threatened species, must be demarcated and all works within this zone are prohibited until a suitably qualified and experienced ecologist identifies that the chicks have fledged or the vegetation no longer contains an active nest.

These requirements should be included in the relevant management plans.

5.5.7 Wetland restoration and creation

The offsetting and compensation package proposed in the Compensation Modelling Report and/ the relevant sections of the EEA should be referenced in the conditions. The nature of offsetting and compensation shouldn't be left solely to the EMP.

As outlined above, the consent conditions should include performance standards for wetland creation, restoration and planting to ensure they achieve the desired outcomes.

The offset ratios should be included in the consent conditions (see section 5.4).

Conditions should reference the WMP. Conditions should be included to ensure wetland creation and restoration works proceed as soon as practically possible.

5.5.8 Performance standards

The following performance standards are recommended:

- All plantings and wetland creation must be maintained for a minimum period of five years from the date planted to achieve at least 90% cover of indigenous species, with no more than 5% total cover of exotic species in any tier. The species shall be appropriate for all tiers found in a mature habitat, and shall include ground cover, sub canopy and canopy species (except for wetlands). If monitoring shows that 90% cover has not been achieved after five years of maintenance, the maintenance period shall be extended until that is achieved, or a suitable mitigation and/or compensation alternative is agreed in writing between the consent holder and BOPRC.
- All wetland restoration must achieve a minimum of 90% cover of all indigenous plant species and a maximum of 5% cover of exotic plant species across all vegetation tiers (groundcover, understorey and canopy) within five years of the commencement of restoration works. Following this initial establishment period, the cover of exotic species must be maintained at or below 5% for the duration of the consent.
- All plantings, wetland creation and restoration to use eco-sourced (Tauranga Ecological District) indigenous plant species appropriate to the locality, and the ecosystem/wetland type being restored (i.e. the ecosystem/wetland type that would have occurred at the locality under natural conditions. These indigenous species shall be represented in appropriate diversity, proportions, cover and configuration as would be expected for natural examples of the same ecosystem/wetland types within the Tauranga Ecological District.

5.5.9 Works within and impacting wetlands

Conditions have been recommended by BOPRC to address works within and impacting wetlands.

6 Freshwater Ecology

SLR Consulting New Zealand Limited (SLR) have been engaged by BOPRC to review the TNL Stage 2 substantive application from a freshwater ecology perspective. Ms Nicola Pyper (Principal Ecologist, SLR) has reviewed the Ecological Effects Assessment (EEA) (Boffa Miskell, 2025), relevant sections of the Stormwater Assessment (BBO 2025) and a high level review of the Construction Water Assessment prepared by Southern Skies Environmental and the Erosion and Sediment Control Guidelines prepared by BBO.

SLR were involved in the pre-application review of the proposal. The review of the substantive application undertaken by Ms Pyper has therefore focused on the proposed measures to manage and address residual effects on freshwater ecology. BOPRC is in general agreement with the methods used to gather data to inform the EEA and agree with the conclusions of the assessment of ecological values detailed within the EEA. The review undertaken by Ms Pyper has focused on section 5.8 of the EEA which provides recommendations for management measures to address residual adverse ecological effects (i.e. those that cannot be avoided, minimised and/or remediated through the projects design).

One key difference in opinion remains – the management of stream reclamation and the associated loss of stream extent and values which is discussed below. The applicant proposes the reclamation of over 3,066 m of perennial stream, with the loss to be replaced with 3,183 m of

constructed channels. The applicant has also proposed to upgrade or construct new culverts and the removal of others (e.g daylighting streams). The total length of culverts in perennial streams within the project area will decrease by 47 m.

6.1 Stream Reclamation

The reclamation of streams/rivers results in the loss of stream extent and the complete loss of stream values and function at the site of impact. The proposed reclamation of over 3 km of stream is therefore considered a significant adverse ecological effect. The majority of streams within the project area are lowland streams close to the coast, which represent key connectivity pathways for native migratory fish or have this potential if barriers are removed. Some of these streams also support At Risk[1] native species such as īnanga (*Galaxias maculatus*) and long fin eel (*Anguilla dieffenbachii*). The EEA also notes that At Risk[2] kākahi / freshwater mussels (*Echyridella menziesi*) are likely to inhabit the catchments within the project area.

The NPS-FM requires that the loss of river extent and values is avoided, unless *"there is a functional need for the activity in that location; and the effects of the activity are managed by applying the effects management hierarchy"*. The substantive application addresses the functional need for the reclamation of streams. The EEA refers to the effects management hierarchy but it is not discussed in detail and it is unclear how it has been applied to the management of the loss of stream extent and values though stream reclamation.

BOPRC have recommended a consent condition to ensure that the total length of watercourses impacted by permanent diversions and/or realignment and culverting is no greater than 3500 m (condition 12.8 of RM25-0466-BC.01).

6.2 Remediation vs. Offsetting

The effects management hierarchy, as defined in the NPS-FM requires effects on the extent or values of rivers to be approached as follows:

(a) adverse effects are avoided where practicable; then
(b) where adverse effects cannot be avoided, they are minimized where practicable; then
(c) where adverse effects cannot be minimised, they are remedied where practicable; then
(d) where more than minor residual adverse effects cannot be avoided, minimised or remedied, aquatic offsetting is provided where possible; then
(e) if aquatic offsetting of more than minor residual adverse effects is not possible, aquatic compensation is provided; then
(f) if aquatic compensation is not appropriate, the activity itself is avoided.

The key difference in opinion concerns which tier of the hierarchy is applied to manage the loss of stream value and extent due to reclamation. The EEA states that effects associated with stream reclamation are to be remedied through the creation of new stream channels. BOPRC disagrees that this is a form of remediation.

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[1] Dunn, N.R., Allibone, R.M., Closs, G.P., Crow, S.K., David, B.O., Goodman, J.M., Griffiths, M., Jack, D.C., Ling, N., Waters, J.M., Rolfe, J.M. 2018. Conservation status of New Zealand freshwater fishes, 2017. Department ofConservation New Zealand Threat Classification Series 24. 15 pp. https://www.doc.govt.nz/Documents/scienceand-technical/nztcs24entire.pdf.

[2] Grainger, N.; Harding, J.; Drinan, T.; Collier, K.; Smith, B.; Death, R.; Makan, T.; Rolfe, J. 2018. Conservation status of New Zealand freshwater invertebrates, 2018. *New Zealand Threat Classification Series 28.* Department of Conservation, Wellington, 29 p. https://www.doc.govt.nz/globalassets/documents/science-andtechnical/nztcs28entire.pdf

Remediation inherently refers to fixing or mending something. In the context of the management of ecological effects, remediation refers to, for example, the reinstatement or planting of habitat, the restoration of damaged habitat or the rehabilitation of site conditions. This should be undertaken at the point of impact / at the affected site. This is outlined in the industry standard (Environment Institute of Australia and New Zealand ecological impact assessment guidelines[3].

In contrast, biodiversity offsetting should be applied to address residual adverse effects by providing long term protection for areas of habitat at an alternative location to the point of impact. The applicant has proposed (confirmed at a meeting held with the applicant on 21 November 2025) that the reclaimed waterways are to be replaced with new stream lengths across the entire project area, which encompasses multiple catchments. Therefore, loss of stream length is not being addressed by remedying at the site of impact, but by offsetting stream loss at alternative locations within the wider landscape.

This difference between an interpretation of remediation versus offsetting is important as it results in different ecological outcomes as discussed below.

6.3 Outcomes for freshwater ecological values

The applicant has provided a mitigation package that includes the enhancement of several stream realignments to remedy the impact on stream ecological values and the extent on the basis that stream loss can be remedied rather than offset. Differing outcomes for ecological values could occur depending on whether the effects of reclamation are remedied or offset. This is because if aquatic offsetting is undertaken, the principles of aquatic offsetting are applied as outlined in Appendix 6 of the NPS-FM. The offsetting principles work together to ensure that adverse effects are appropriately addressed and no net loss (or preferably a net gain) is achieved for extent and values. Two key offsetting principles that have not been addressed by the EEA and mitigation package are highlighted below to emphasise the risk presented to freshwater ecological values and stream extent if offsetting is not appropriately applied.

6.3.1 No Net Loss (Principle 3)

The offsetting principles include the requirement for a like-for-like quantitative loss/gain calculation to ensure the extent or values at the offset site are equivalent to or exceed those being lost at the impact site. In the absence of these calculations there is a significant degree of uncertainty that the adverse effects on stream extent and values will be addressed and BOPRC have no certainty that these effects will be managed to a level that is acceptable.

The Stream Ecological Valuation (SEV)[4] methodology has been employed to inform the values assessment in the EEA. The SEV is also useful for informing methods for offsetting the loss of stream values. However the EEA does not present any data or information on how the realigned streams will achieve SEV scores at least equal to those of the streams reclaimed, nor does the EEA consider the potential value of the streams to be lost. The NPS-FM clearly provides for the

[3] Roper-Lindsay, J., Fuller S.A., Hooson, S., Sanders, M.D., Ussher, G.T. 2018. Ecological impact assessment. EIANZ guidelines for use in New Zealand: terrestrial and freshwater ecosystems. 2nd edition. 136 pp. https://www.eianz.org/document/item/4447

[4] Storey, R.G., Neale, M.W., Rowe, D.K., Collier, K.J., Hatton, C., Joy, M.K., Maxted, J.R., Moore, S., Parkyn, S.M., Phillips, N., Quinn, JM. 2011. Stream Ecological Valuation (SEV): a method for assessing the ecological functions of Auckland streams. Auckland Council. 76 pp. https://knowledgeauckland.org.nz/media/1397/tr2011-009-stream-ecological-valuation.pdf

protection of potential values in streams and rivers. In Section 3.2.1, the definition of loss of value *"means the wetland or river is less able to provide for the following existing or potential values"*. In addition in Section 3.24(3)(a)(i), in relation to an application for consent, the applicant must demonstrate *"how each step in the effects management hierarchy will be applied to any loss of extent or values of the river (including cumulative effects and loss of potential values)"*.

6.3.2 Time Lags (Principle 8)

The time required for aquatic fauna to recolonise a stream is complex and riparian vegetation can take several years to mature. Therefore, it would likely take several years to achieve values and function similar to that of the streams to be lost following the construction of new stream channels. This has not been discussed in the EEA, so it is unclear what time lag could be expected. This is important, as a significant time lag (i.e. several years) is a justification for applying a multiplier to the Environmental Compensation Ration (ECR)[5]. A multiplier may therefore be applicable to this situation. Therefore, the stream reinstatement and enhancement proposed, may be insufficient to compensate for stream loss.

Moreover, re-engineering a natural system inherently has risk that, due to unforeseen factors, the intended outcome may not be achieved. In other words, there is a risk of failure or risk that the resulting ecological values are less than what was anticipated. This could occur, for example, due to the loss of connection between a stream and underlying groundwater. The consequence for ecological value could be significant. Using an ECR and incorporating a multiplier is an appropriate way of mitigating this risk.

Consent condition 27.1(a), proposed by the applicant, requires biannual monitoring for a minimum of two years following completion of construction or until the installation requirements for stream realignments are confirmed. It is unclear what the "installation requirements" are, and no requirement for additional or remedying works has been included in conditions should the "installation requirements" not be met. This provides no insurance against failure. Additionally, two years of monitoring is considered insufficient. The streams will require more than two years to achieve values similar to those that were lost. At a minimum monitoring of stream realignments is recommended to occur for ten years following the completion of construction.

Overall, the approach to management of stream loss detailed in the application and the associated EEA provides no certainty that significant adverse effects on stream extent and values will be appropriately managed so that there will be no net loss or preferably a net gain. The mitigation package should include an offsetting approach to the loss of stream extent and values, providing justification for the offsetting proposed, accounting for the risk of failure and time lags, and detailing methods for success monitoring.

Therefore, BOPRC recommend that a consent condition that requires formal offsetting to be conducted to determine the length of stream to be recreated. A consent condition (condition 16.12 of RM25-0466-BC.01) is recommended that requires monitoring of constructed stream channels for a minimum of ten years and that directs a course of action should success monitoring indicate that ecological values have not been achieved as intended.

[5] Ibid.

6.4 Stream Management and Monitoring Plan (SMMP)

The applicant proposes to manage and monitor effects on freshwater ecological values by way of the SMMP. This is appropriate; however, amendments to the condition proposed by the applicant are recommended by BOPRC.

It is considered vital that stream realignments are monitored for a sufficient period of time, and that a clear course of action is required in the instance that monitoring shows that anticipated ecological have not been achieved.

The applicant proposes to submit the SMMP to BOPRC for written certification 20 working days prior to the commencement of instream works. This is not considered appropriate as the SMMP is to detail the methodology for and approach to baseline stream monitoring, which is to be undertaken two years prior to instream works commencing. This is important as it will allow for a review of the methodology and will also reduce risk to the applicant who may have to repeat baseline monitoring if the management plan is not certified by BOPRC. Considering the above the following wording is recommended for the SMMP condition:

26. Stream Management and Monitoring Plan

26.1 The Consent Holder shall prepare a **Stream Management and Monitoring Plan (SMMP)**. The SMMP shall be prepared by a suitably qualified and experienced ecologist. The purpose of the SMMP is to monitor and manage the ecological effects of the Project on aquatic ecosystems.

(a) The SMMP shall:

1. Establish the aims and objectives of stream management and monitoring**, including the aims and objectives for each stream realignment;**
2. Establish qualitative and/or quantitative indicators of stable or improving trends in aquatic ecosystem health, fish and/or kākahi populations, water quality and physical habitat, as compared to baseline data obtained under Condition 26~~7~~.1(a)4~~i~~ and which will inform the success monitoring for stream realignments required under condition 26.1(a)4iv;
3. Include sampling and survey methods that align with relevant industry standards and protocols;
4. Details of stream aquatic ecosystem health monitoring to be carried out prior to, during, and post construction, including:
    a. Monitoring locations, including establishment of permanent monitoring reaches within ~~the~~ each impacted Watercourse, and a minimum of two nearby representative reference Watercourses for monitoring of;
        i. Deposited fine sediment;
        ii. Physical habitat descriptions;
        iii. SEV monitoring;
        iv. Kākahi surveys;
        v. Quantitative macroinvertebrate community sampling;
        vi. Quantitative fish community surveys; and
        vii. Fish passage.
    b. Monitoring requirements, including:
        i. Quarterly baseline stream monitoring for a minimum of one year prior to Construction Works commencing;
        ii. Monthly water quality monitoring of each Watercourse while earthworks are taking place within the catchments that contain each Watercourse;
        iii. Biannual monitoring during Construction Works;
        iv. ~~Biannual monitoring for a minimum of two years following the Completion of Construction, or until the installation requirements pursuant to Condition 27.1(a)7 are confirmed, whichever is earlier~~ Successive monitoring for stream realignments to be

carried out for a minimum of ten years following the completion of Construction Works;

5. Details on actions to be taken in the instance that indicators in Condition 26~~7~~.1(a)2 are exceeded Water quality thresholds, as informed by baseline stream monitoring results, which if exceeded will trigger further investigation. The SMMP shall also detail actions to be taken in the instance that thresholds are exceeded, including any stop works policies and additional sampling or investigations to be undertaken.
6. Detailed culvert and stream realignment installation requirements as identified by a SQEP and informed by the baseline stream monitoring results under Condition 26~~7~~.1(a)~~.4(a)2~~;
7. Reporting requirements, including the minimum reporting expectations for each type of monitoring under Condition 26~~7~~.1(a)~~4~~, and timeframes for when reports shall be provided to BOPRC;
8. Mitigation contingency measures to apply in the event of accidental / unexpected adverse effects on the impacted Watercourses to manage those effects; and
9. Stream designs for each affected stream or reach that includes a proposed stream realignment, stream reinstatement (i.e., daylighting) and/or culvert, as informed by baseline stream monitoring results, including measures to replicate natural stream channels and it provide the same or, preferably, enhanced stream values, function and extent when compared to that of the streams reclaimed to the extent practicable and taking into account the NZ Fish Passage Guidelines, Version 2.0, 2024.

(b) At least ~~20~~ 40 Working Days before starting baseline monitoring ~~streamworks~~, the SMMP shall be submitted to BOPRC for written certification by a suitably qualified and experienced freshwater ecologist that the SMMP satisfies the requirements of Condition 26~~7~~.1(a).

(c) The certified SMMP shall be implemented for the duration of the streamworks and thereafter until success has been confirmed. Success shall be determined by a SQEP (freshwater ecology) based on stable or improving trends in the indicators of aquatic ecosystem health, fish and~~/or~~ kākahi populations, water quality and physical habitat, as determined in accordance with condition 26.1(a)2 and as compared to baseline data and the culvert and stream designs (required under Conditions 26~~7~~.1(a)). Upon confirmation of success, the SMMP requirements shall be considered fulfilled, and no further monitoring or management under the SMMP will be required.

(d) If monitoring shows that stream realignments are failing to achieve the aims and objectives established in accordance with condition 26.1(a)2, the consent holder shall:

1. Provide a Stream Realignment Management Plan to the Bay of Plenty Regional Council identifying the adaptive management actions to be taken, the timeframes in which these are to be implemented, and ongoing monitoring to be undertaken of the management actions; and
2. Implement the actions detailed in the Stream Realignment Management Plan within the relevant timeframes.

(e) The consent holder shall review and update, if required, the SMMP on an annual basis for the duration of this consent. Any updates must be provided to the Bay of Plenty Regional Council for written certification by a suitably qualified and experienced professional prior to implementation.

6.5 Culvert design for fish passage

The review for fish passage focused on the Specimen Design Report. Overall, BOPRC consider the approach to designing culverts for fish passage to be appropriate. The design recommendations provided in the New Zealand Fish Passage Guidelines[6] (cf. pg.59) for standard stream crossings have been mostly adhered to.

[6] 12 National Institute of Water and Atmospheric Research 2024. New Zealand Fish Passage Guidelines. Prepared by the National Institute of Water and Atmospheric Research for MfE. 427 p.

However, the results of the modelling presented in the Specimen Design Report reveal that the triple-cell box culvert TNL-11560 will be too long (124 m) for the benchmark species (īnanga) to be able to pass without rest. Therefore, the report proposes the use of small (300 mm x 300 mm) baffles along one side of the culvert. This baffle design is not in accordance with the recommendations of the New Zealand Fish Passage Guidelines, which advise that either spoiler baffles or vertical baffles should be used. Clarity is needed regarding how the proposed baffle configuration will ensure the target species will be able to traverse the culvert. If modelling has been undertaken, the results of this could be provided.

The EEA recommends that detailed culvert installation processes and methodology should be captured within monitoring plans and that these processes incorporate direction from a suitably qualified and experienced ecologist. The EEA also recommends that monitoring be undertaken to ensure the long-term successful operation of the proposed culverts. BOPRC supports these recommendations.

6.6 Fish and kākahi rescue and relocation to avoid/minimise injury/mortality

The EEA proposes that an Aquatic Fauna Management and Monitoring Plan (AFMMP) be prepared to direct native fish and kākahi (*Echyridella menziesii*) salvage during instream works. BOPRC agree with this recommendation and a condition has been proposed to require the provision and certification of an AFMMP to BOPRC prior to work commencing.

As no surveys specific to kākahi were carried out to inform the EEA, the species' presence/absence is unknown (but conservatively assumed) within the project envelope. It is important that protocols specific to kākahi salvage are documented within the AFMMP and implemented at all salvage sites. Kākahi are not effectively captured by the same methods used for fish salvage (i.e. netting and electric fishing) and could be missed if specific protocols appropriate for this species aren't employed.

6.7 Monitoring and receiving environments during construction

The EEA recommends that water quality and ecological monitoring be carried out during works and that this should include monthly water quality monitoring, event-based monitoring and biannual macroinvertebrate monitoring. BOPRC support this and also agree that baseline water quality sampling should be undertaken over two years prior to construction commencing to inform trigger values. The requirements for this monitoring should be detailed in management plan that should be certified by the relevant BOPRC experts prior to works commencing.

6.8 Contaminant release – concrete

The EEA recommends the use of pre-cast concrete within watercourses or, where this is not possible, that measures be put in place to completely isolate aquatic systems from any area where concrete is poured (i.e. concrete should only be poured in 'dry' areas). BOPRC agree with this recommendation. This recommendation has not been replicated in the Construction Water Assessment, which only requires details for managing concrete wash water should be included in site specific erosion and sediment control plans. The Construction Water Assessment or other appropriate management plan should clearly outline standards that will be applied to working with concrete in/around water throughout the duration of the project.

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https://niwa.co.nz/sites/default/files/inlineimages/NZ%20Fish%20Passage%20Guidelines%202024%20v4.4_FINAL_FEB2025.pdf

Neither the EEA nor the Construction Water Assessment address the potential effects on construction-phase waste materials/contaminants or the use of machinery fuel/oil on waterways. This is considered a gap and should be addressed in a construction management plan. Consent conditions have therefore been recommended by BOPRC to address this gap.

6.9 Stormwater discharge

The EEA recommends the use of best practice stormwater treatment to manage operational phase stormwater. This is supported by BOPRC. The applicant proposes to install a combination of bio-retention devices such as treatment wetlands and swales. This has been identified by the applicant as providing a net-positive effect on stormwater quality if best practice stormwater treatment is implemented.

6.10 Conclusions

A detailed review of the EEA has been undertaken. BOPRC agree with the majority of the recommendations made in the EEA. These recommendations must be implemented and formalised in the consent conditions and management plans.

BOPRC disagree with the applicants' assertion that address the loss of stream length by creating a new habitat is a form of remediation. The creation of new stream habitat is rather a form of offsetting. Therefore, the principles of offsetting should be applied, and the applicant should demonstrate how these principles will be achieved through the proposed stream diversion designs.

7 Marine and Water Quality

SLR were engaged by BOPRC to review the stormwater report, EEA and substantive application regarding the marine aspects and water quality associated with the permanent stormwater discharge for TNL Stage 2. Dr Pete Wilson (Team Leader – Whangārei, Auckland and Hamilton – Ecology and Marine Science, SLR) has provided reviews as part of the pre-application process and has reviewed the following as part of this review:

- BBO (2025) Takitimu North Link Stage 2: Stormwater Assessment, NZTA (dated 24 July 2025).
- Boffa Miskell (2025) Takitimu North Link – Stage 2: Ecological Effects Assessment, NZTA (dated 31 July 2025).
- Substantive Application (dated 1 August 2025).

7.1 Permanent stormwater effects

The potential effects of permanent stormwater discharges from the TNL Stage 2 are identified for freshwater and marine receiving environments in the EEA. BORPC agree with the identified effects, which result from the long-term discharge of road run-off containing elevated levels of contaminants, including:

- Suspended sediment.
- Heavy metals (copper, lead, zinc).
- Hydrocarbons.

Being long-term discharges, the key concern is the cumulative effects of sediment deposition and the accumulation of contaminants in sediment over time. A combination of bio-retention devices, such as treatment wetlands and swales, will collect and treat stormwater road runoff

before it is discharged into adjacent waterways. As such, there is some mitigation of the potential contaminants before being discharged to the receiving environment. BOPRC acknowledge that there is currently no stormwater treatment from SHA and that this could result in an improvement in water quality.

7.2 Water quality limits

The Stormwater Assessment and Substantive Application focuses on the stormwater treatment devices (e.g. wetlands and swales) being effective in mitigating flows and reducing contaminant concentrations. The consent conditions proposed by the applicant include a requirement to collect representative stormwater samples within one year of the consent being exercised and then every five years thereafter. The samples are proposed to be tested for Total Suspended Sediment (TSS) and total petroleum hydrocarbons (TPH). BOPRC consider that every five years is a very low sampling frequency.

From BOPRCs perspective the purpose of this monitoring is to determine whether the treatment devices are working effectively and as expected (i.e. decreasing concentrations of TSS, and, to a lesser extent, nutrients, hydrocarbons, and heavy metals) and that annual sampling should be the minimum. BOPRC recommend that the heavy metals, copper, lead and zinc, be included, which are identified as potential contaminants in the EEA, in addition to TSS and hydrocarbons.

All parameters should have appropriate trigger limits to make it clear for compliance purposes. The exceedance of such limits may trigger further investigation into the sources of contaminants and/or the effectiveness of the treatment devices. Exceedances do not trigger the need to stop discharging while investigations are undertaken.

The following are recommended at the point of discharge (Fuel Industry Guideline):

- TSS: 100 mg/L.
- TPHs: 15 mg/L.

Taking into account reasonable mixing (ANZG (2018); 90% level of species protection for freshwater) the following are recommended for freshwater receiving environments:

- Copper: 1.8 µg/L.
- Lead: 5.6 µg/L.
- Zinc: 15 µg/L.

Taking into account reasonable mixing, the following have been recommended for marine receiving environments:

- Copper – 3.0 µg/L.
- Lead – 6.6 µg/L.
- Zinc – 12 µg/L.

These limits have been included in the consent conditions proposed by BOPRC.

7.3 Freshwater environments

Section 5.8.7 of the EEA recommends a Stream Management and Monitoring Plan (SMMP) to assess any changes in freshwater ecological values over time. BOPRC agree that such a plan is necessary and should be included in consent conditions and require the inclusion of the recommendations in the EEA. The recommended monitoring is primarily to assess the effects of stream realignments and other works rather than the effects of stormwater discharges on water

quality. However, monitoring of macroinvertebrates, as recommended, will similarly indicate whether the long-term discharges are having adverse effects on freshwater receiving environments.

In addition to the recommendations in section 5.8.7 of the EEA, BOPRC recommend that sediment samples be collected and analysed for copper, lead, zinc and polycyclic aromatic hydrocarbons (PAHs). These measurements will help inform the benthic macrofauna results and will identify if the accumulation of contaminants is occurring over time or if the treatment devices are working as proposed and improvements in water quality are occurring. These results should be assessed against the ANZG (2018) sediment quality guidelines. BOPRC have recommended consent conditions relating to sediment sampling collection and analysis.

7.4 Marine environments

The EEA states that surveys near the project area did not identify infaunal species that are likely to be sensitive to deposited sediment. The applicant expects similar benthic communities in Mangawhai Bay Inlet. The EEA concludes that the small amount of long-term deposition of sediment is considered to be a cumulative effect, which BOPRC agrees with.

Section 5.9 of the EEA recommends that a Marine Monitoring Plan (MMP) be developed for inclusion in the Environmental Monitoring Plan. BOPRC agree with this approach, and that pre, during and post construction monitoring is conducted in Te Puna Estuary and Mangawhai Bay Estuary. As stormwater discharges are permanent, ongoing monitoring of these estuaries is recommended. The monitoring frequency could be reconsidered following a review of the monitoring results. BOPRC have recommended consent conditions to reflect this.

BOPRC agree with the recommended monitoring parameters, with the inclusion of sediment metals (copper, lead and zinc) and PAHs to be assessed against the ANZG (2018) sediment quality guidelines. BOPRC agree with the approach that monitoring should be triggered if a sediment discharge event occurs.

The purpose of the Marine Monitoring Plan should be broader to include both accidental sediment discharges and ongoing stormwater discharges into the marine receiving environment. The EEA states that long-term deposition of sediment is considered to be a cumulative effect. This suggests that ongoing monitoring is appropriate. The monitoring frequency could be reconsidered following a review of the monitoring results five years after the completion of construction works. BOPRC have recommended consent conditions to reflect this.

7.5 Recommendations

Based on the above assessment, the below are recommended by BOPRC:

- Require sampling of representative stormwater discharges to confirm that the stormwater treatment devices are working as expected. Samples should be tested for TSS, TPHs, copper, lead and zinc. Every measured parameter should have an appropriate water quality trigger limit.
- Require sediment sampling, in freshwater and marine environments for the duration of the permanent stormwater consent.
- A SMMP should be required as a condition of consent. It should implement the recommendations outlined in section 5.8.7 of the EEA and also include the measurement sediment, copper, lead, zinc and PAHs to assess the effects of long-term discharges. These results should be assessed against the ANZG (2018) sediment quality guidelines.

- A MMP should be required as a condition of consent. It should implement the recommendations in section 5.9 of the EEA and also include the measurement of sediment metals (copper, lead and zinc) and PAHs to be assessed against the ANZG (2018) sediment quality guidelines.

8 Contaminated Soils

Ms Rita Martin (Senior Regulatory Project Officer – Contaminated Land, BOPRC) has reviewed the Substantive Application TNL Stage 2 from a contaminated land perspective.

8.1 Preliminary Site Investigation and Detailed Site Investigations

The application outlines that a Preliminary Site Investigation (PSI) has been completed for the Designation Boundary. The PSI has confirmed that many properties within the Designation Boundary are described as a 'piece of land' in accordance with the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS).

The PSI recommends intrusive investigations (Detailed Site Investigations (DSI)) of the properties described as a 'piece of land' are undertaken to understand the level of contamination in the soil that will be disturbed during the project. It is concluded that the future risk posed by contaminated land within the Designation Boundary once the road has been built will be low, but the risk during the construction phase is currently unknown.

DSIs for the relevant properties described as a 'piece of land' in the PSI have not been completed and do not form part of the application. The completion of a DSI for the relevant properties described as a 'piece of land' in the PSI should form a condition of consent.

The results of the DSIs will inform what management or remediation is required during the project to protect human health and the environment. Management or remediation plans have not been prepared and do not form part of the application. The preparation of management or remediation plans should form a condition of consent.

The consent will need to allow for all potential eventualities depending on the results of the DSIs, as acknowledged in Section 4.6.4 of the application.

Section 2.5.8 of the application reads *"This assessment has revealed that there are 55 areas within the Designation Boundary which meet the definition of a "piece of land" under the NES-Soil"*. Whereas section 1.1 of the PSI identifies 79 sites *"At this stage areas on-site considered to be a "piece of land" under NES Legislation include areas on Site ID: 1, 3, 4, 7, 8, 9, 11, 14, 15,16, 17, 18 (a & b), 19, 20, 21, 22, 23, 24, 25, 26, 30, 31, 34, 35, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 56, 59, 61, 62, 63, 64, 65, 66, 70, 71, 72, 73, 75, 77, 78, 80, 81, 82, 83, 84, 85, 86, 88, 89, 92, 93, 94, 96, 98, 104, 106, 107, 110, 111, 112, 114, 117 & 118, Road Designation Opposite Lot 1 DPS 11415"*. Table 2 in Appendix F2 lists all sites requiring investigation and includes Road Designation Opposite Lot 1 DPS 11415 bringing the total number of sites requiring investigation to 80 in the Designation Boundary.

The application relies soley on the PSI and substantial information needs to be prepared and submitted as part of the consent conditions. While it is agreed that the risk posed by the disturbance of contaminated land can be mitigated through the provisions of consent, the consent conditions will need to be robust and allow for all potential eventualities depending on the results of the DSIs.

The updated PSI (Appendix 9.4.12 of the application) has also been reviewed by Ms Martin. The following comments have been made:

- The latest version of the PSI has been updated to address the comments made by BOPRC through the pre-application process.

A review of the text and tables has been completed to ensure that the conclusions presented are consistent (that is the same sites are identified through the report as requiring further investigation) based on the desktop information reviewed and site visits completed. In addition, Table 4 and Table 5 have been reordered numerically.

8.2 Consent conditions and review of documents / reports

BOPRC recommend that a robust set of conditions to address the effects associated with disturbing / remediating contaminated soils. This would not only provide the relevant regulatory authorities and community assurance that the risks will be appropriately assessed and mitigated but will also provide the applicant and their contractors similar assurances – that the consent allows for all potential eventualities and is flexible enough to respond to the management plan and remediation requirements of the project.

BOPRC have therefore proposed a robust set of conditions that allow for all potential eventualities resulting from the project works.

BOPRC can certify documents / reports (e.g. Remedial Action Plan) on behalf of BOPRC and the Western Bay of Plenty District Council (WBOPDC). BOPRC certified versions can then be provided to WBOPDC.

9 Groundwater

SLR were engaged by BOPRC to review the Substantive Application, the Groundwater Impact Assessment (GIA) (Appendix 9.4.10). Ms Gillian Holmes (Principal Consultant – Hydrology and Hydrogeology) has undertaken this review. Ms Holmes was also involved in the pre-application review of the proposal.

9.1 Impacts on existing bores

BOPRC concur with the applicants' use of assessing drawdown in neighboring bores within 1 km of the alignment given the level of drawdown modelled to occur during construction is not expected to exceed 1 km as well as the depth of neighboring bores.

9.2 Effects on surface waterbodies

The applicant identified one stream in the GIA (SR3C – Stream 1 Tributary 1) which could be affected by the proposed construction. This stream is proposed to be infilled, with the tributary being realigned to accommodate stormwater flows in the surrounding catchment and reconnected to the original tributary.

An assessment on the groundwater baseflow associated with this existing tributary and anticipated baseflow of the proposed stream realignment has been undertaken. This assessment determined that there would be a 5-8% increase in groundwater discharge to the wetland area adjacent to the Mangawhai Bay estuary as a result of the realignment. The EEA concluded that that the small increase in groundwater baseflow would not have any adverse effects on the receiving environment. In addition, it is proposed that any wetlands affected by earthworks will be offset by either wetland restoration or creation.

BOPRC can confirm that the information contained in the GIA is sufficient to assess effects on surface water bodies.

9.3 Mitigations and recommendations

Section 7 of the GIA states that given the permanent nature of the cuts and groundwater level changes along the proposed alignment, the primary mitigation strategy for groundwater drawdown risks are proactive design measures. Recommendations for these proactive design measures for inclusion as consent conditions are:

- Supplementary piezometer installations, testing and monitoring at groundwater drawdown locations and neighboring properties.
- 3D numerical modelling of groundwater drawdown at applicable locations.
- Establishment of trigger levels based on pre-construction surveying/monitoring and detailed design analysis.
- Identify physical mitigation measures to address potential building/structure settlement, groundwater bore interference and surface water resource depletion.
- Compilation of all of the information above into a Groundwater Drawdown Management Plan (GDMP).

These mitigation measures appear to form part of the information required to assess the potential effects of the cuts on groundwater. The applicant has proposed to submit a GDMP to BOPRC for written certification by a suitably qualified and experienced professional 40 working days prior to construction commencing. BOPRC do not consider this timeframe for the submission of the GDMP to BOPRC to be appropriate given the GDMP will outline the piezometer locations and monitoring undertaken to determine trigger levels (i.e. this work has not yet been undertaken).

Piezometers are required to be installed and baseline groundwater levels to determined trigger levels should be established at least one year prior to construction starting.

BOPRC therefore recommend the following for the GDMP. Consent conditions have been recommended by BOPRC to reflect this recommendation:

- Stage 1 – providing the location of proposed piezometers, settlement, monitoring locations as well as an outline of the proposed monitoring frequency. This GDMP should be reviewed and certified by BOPRC at least one year prior to construction commencing.
- Stage 2 – outline the piezometer information, monitoring undertaken to date and the development of alarm and alert trigger levels for groundwater level and settlement monitoring to be undertaken once construction commences. This should be provided to BOPRC for written certification at forty working days prior to construction commencing.

10 Ngāti Taka – Cultural Impact Assessment

BOPRC have reviewed the CIA provided with the application lodged with the EPA.

11 Statutory Assessment

The applicant has assessed the proposal against the following:

- Regional Natural Resources Plan.
- Regional Coastal Environment Plan.

- Regional Policy Statement.
- National Policy Statement for Freshwater Management.
- National Policy Statement for Highly Productive Land.
- National Policy Statement for Indigenous Biodiversity
- NZ Coastal Policy Statement.
- National Environmental Standard for Assessing and Managing Contamination in Soil.
- Relevant Iwi / Hapu Management Plans.
- RMA.

BOPRC consider that the applicant has considered all relevant legislation, policies and plans in their Substantive Application.

12 BOPRC recommended consent conditions

BOPRC recommend a suite of consent conditions for each activity proposed to be undertaken by the applicant.

The conditions recommended by BOPRC, take into account, the comments provided by each of the experts who have technically reviewed the proposal, BOPRCs standard conditions (earthworks, contaminated soil, temporary discharges), project specific conditions and compliance recommendations and the applicants proposed consent conditions.

There are some activities (e.g. temporary and permanent diversions) with limited conditions proposed, and no related management plans. BOPRC have recommended conditions to address these gaps.

12.1 Written certification

Written certification from BOPRC should be provided by a suitably qualified and experienced person (e.g. ecologist, engineer or contaminated soils professional) or by compliance staff.

12.2 Use of appendices

The details required in the management plans could be put into Appendices that can be referenced within each set of conditions.

12.3 Management plans and deemed certification conditions

BOPRC strongly **oppose** default / deemed certification conditions which would deem certain plans to have been certified if the council has failed to certify them within the specified time period. This has the potential to result in sub-standard plans (which haven't been certified) to be adopted by default with sub-optimal sustainable management outcomes. The Court has confirmed that such an approach is not sound environmental management. Alternative wording is proposed to ensure which would ensure that plans are certified within reasonable timeframes if the applicant prefers to see something more detailed. Ultimately BOPRC is required under s21 of the RMA to provide certification functions without undue delay.

12.4 BOPRC System Limitations

BOPRC use Accela for generating consent conditions, undertaking compliance and report generation.

Accela has certain limitations and does not allow tables to be used in conditions. Consents are also broken up in Accela, generally based on sections of the RMA / activity type. BOPRC

conditions have therefore been set out to accommodate this structure, with each set of conditions included in a separate word document:

- RM25-0466-LC.01 – earthworks, vegetation clearance, wetland modification / destruction, temporary use of dust suppressants during earthworks, discharge contaminants to air (dust).
- RM25-0466-LC.02 – drilling.
- RM25-0466-DC.01 – temporary discharges during works.
- RM25-0466-DC.02 – contaminated land disturbance / remediation.
- RM25-0466-DC.03 – permanent stormwater discharges.
- RM25-0466-BC.01 – structures, temporary and permanent diversions.
- RM25-0466-WT.01 – permanent groundwater diversion.
- RM25-0466-WT.02 – temporary groundwater diversion.

12.5 Reference to documents and plans in the consent conditions

BOPRC recommend conditions relating to works being undertaken in accordance with the substantive application, management plans, erosion and sediment control plans etc. Where effects are managed through a management plan or there is reliance on detail in any other document, the management plan / document must be referenced in the conditions to make the detailed requirements enforceable.

13 Summary

BOPRC has undertaken a review of the Takitimu North Link (TNL) Stage 2 Substantive Application lodged with the Environmental Protection Agency (EPA) on 31 July 2025. This document has summarised the key outstanding issues / areas of disagreement and areas of agreement that BOPRC has regarding the proposal.

For any questions or comments on the content of this document please contact:

Eleanor Christensen (Senior Consents Planner) and/or Marlene Bosch (Principal Advisor, Consents)

[redacted]

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Nga Mihi Nui,

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