

6 December 2024

Western Bay of Plenty District Council
Attn: Bevan Hudson, Senior Consents Planner
Via email: Bevan.Hudson@westernbay.govt.nz

Kia ora Bevan

RE: RC14513(L) - Coastal Erosion Protection Structure on the Glen Isla Reserve at 95 Seaforth Road, Waihi Beach - GIPS Response to the Request for Further Information

This letter sets out the response from the Glen Isla Protection Society (“GIPS”) to the further information matters identified in the Western Bay of Plenty District Council (“WBOPDC”) letter dated 8 November 2024. The responses are provided in the table below.

As requested in ‘Other Matters – Item #1’, also submitted with this letter are the written approvals from the property owners of 9, 11, 12, 14, 15 and 16 Glen Isla Place who are all part of GIPS.

By way of update, we also prepared a further information response for the Bay of Plenty Regional Council application on 29.11.24 and a response to supplementary questions on 6.12.24. We have provided these responses (Refer to **Attachment A(i) and A(ii)**), for your information.

I trust the information in this response addresses the further information requests, however, if there are any outstanding matters please do not hesitate to get in touch.

Yours sincerely,



Luke Faithfull

Mitchell Daysh Limited

luke.faithfull@mitchelldaysh.co.nz

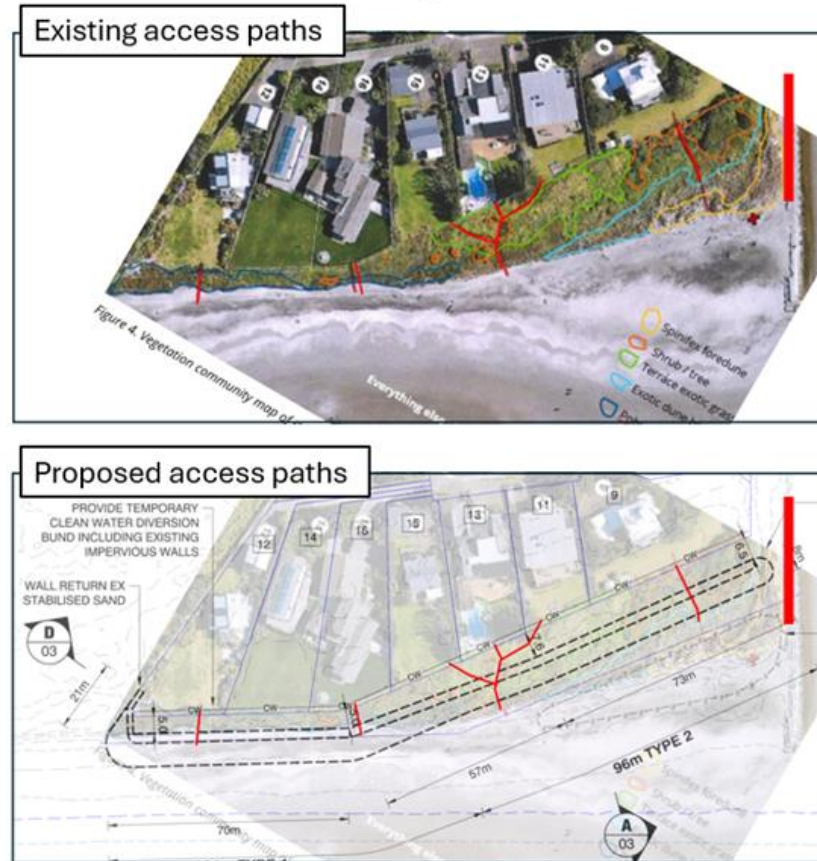
WBOPDC Request	GIPS Response
Planning	
1. Please provide the Record of Title page(s) for the reserves.	Appendix A provided with the District Council Application contained the Plan Survey titles for the Reserve Land.
2. Based on the plans it appears that the works will be within 12 Glen Isla Place. Can you confirm this forms part of the “subject site” and the extent of works within this site.	Yes, the proposed work will occur within No. 12 Glen Isla Place comprise: • The construction of a 1.5m (Nom) wide stabilised sediment beam adjacent to the boundary extending 8-10m into the property. • The beam would be constructed by stabilising the sand insitu with Ordinary Portland Cement. • The volume of disturbance within No12 will be approximately 200 m³ comprised all sand to the bottom of the beam for the full width of the beam. The area of disturbance will be approximately 30 m² being the width disturbed by stabilising plant for the length of the beam.
3. As referred to on page 16 of the application, please provide a copy of the BOPRC email dated 13 May 2024.	A copy of the email correspondence with BOPRC has been provided as Attachment B to this response.
4. On page 31 of the application, there appears to be a typographical error in the first sentence which states that “The site is not identified as an area of Outstanding, Very High or High Natural character in statutory planning documents”. The site is within the S24 - Open Coastal Landscape Landward Edge Protection Yard, which is listed in Appendix 2 - Schedule of Identified Outstanding Landscape Features, of the District Plan. Can you please clarify the statement.	The statement was taken from Section 1.14 of the Landscape and Visual Effects Assessment (Appendix C(i) of the Application). Additionally, the Project Landscape Advisor states: <i>The site is within Outstanding Natural Feature (ONF) S24 - Open Coastal Landscape Landward Edge Protection Yard in the Western Bay of Plenty District Plan.</i> <i>Natural character is a “type” of character - as set out in Te Tangi a te Manu (the Aotearoa New Zealand Landscape Assessment Guidelines (TTatM)). Under the RMA natural character values are mapped separately from landscape values.</i> <i>Natural character is mapped in the Bay of Plenty Regional Policy Statement (RPS). The site is not within any of the areas identified in the RPS as having Outstanding, Very High or High natural character.</i> <i>The LVA includes evaluation of both landscape and natural character attributes and values (at section 4.0); and assessment of effects on both natural character (at section 8.0) and landscape (at section 9.0).</i> <i>Refer to the LVA Appendix A for the definitions of landscape and natural character used in the LVA, as taken from TTatM.</i> <i>Refer to LVA paragraph 3.4 for the methodology used to avoid “double-counting,” in considering effects on landscape and natural character values.</i>

WBOPDC Request**GIPS Response**

5. Has a single, combined access point been considered for pedestrians from the Glen Isla reserve to Waihi Beach, for short and long term access.

The proposed approach regarding access is:

- The access along the Three Mile Creek boundary will be maintained throughout the construction works;
- The proposed residential access points for the beach front properties will be provided post construction and they largely mimic the existing access points. As informed by the Project Ecologist, the access points are unlikely to result in any different dune ecology effects than currently experienced even though the areas to be crossed will be better native dune plant assemblages than currently is the case. The current and proposed access paths are shown in the figure below.



WBOPDC Request	GIPS Response
6. Please provide any “Augier” conditions that the applicant has agreed to, as per the specialist reports and/or through any consultation.	No Augier conditions have been proposed because of any consultation to date. Notwithstanding, and further to the proposed Remediation Planting Plan condition contained in the response to Question Ecology #6, GIPS propose to work with WBOPDC to develop a set of consent conditions which adopt the recommendations in the technical reports and the further information responses below.

Bay of Plenty Regional Council Toi Moana (BOPRC)

1. As per the initial review referral, dated 25 October 2024 (which I understand you have received a copy of) which commented that: The application appears to be inconsistent with a number of objectives and policies of the New Zealand Coastal Policy Statement (NZCPS), Bay of Plenty Regional Policy Statement and Bay of Plenty Regional Coastal Environment Plan (RCEP). Please provide an updated assessment of all the relevant clauses.	GIPS note that the ‘initial review referral’ completed by BOPRC is one that is completed by BOPRC on District Consent applications they are provide as an ‘interested party’. GIPS note that the review is not done by the Consent Planner processing the application although the BOPRC Planner has received a copy of the comments. For completeness, GIPS notes that the BOPRC s92 did not contain any commentary on inconsistencies with the statutory framework or request any further assessment or response on statutory matters. Further, as part of the District Application, GIPS provided a detailed assessment of the key provisions in the relevant statutory documents as they relate to the authorisations sought from the District Council. The Regional Application contains a detailed assessment of the key provisions in the relevant statutory documents as they relate to the authorisations sought from the Regional Council. The assessment in the Regional Application provided further commentary on the RCEP and some other elements which were not contained in the District Application. Noting that the assessment in the District Application was focused on the matters relevant to the district provisions and the Regional Application focused on regional matters, the conclusion of the statutory assessments is that the proposal was not inconsistent with the NZCPS, the Bay of Plenty RPS or the RCEP. GIPS has provided a copy of the BOPRC Regional Consent Application and the BOPRC s92 Request (Refer to Attachment C and Attachment A). Please refer to: • Section 8.3 of the Regional Application for the commentary on the relevant NZCPS objectives and policies • Section 8.6 of the Regional Application for the commentary on the relevant Bay of Plenty RPS objectives and policies • Section 8.7 of the Regional Application for the commentary on the relevant Bay of Plenty Regional Coastal Environment Plan objectives and policies
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Transportation

1. Please advise what the duration of the transporting activity is.	There is expected to be rock deliveries for sixty to eighty working days from late April (Autum and winter months), subject to consents being granted.
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WBOPDC Request	CIPS Response
2. Please confirm the daily and overall total number of rock loads /vehicle movements from Waihi Beach quarry to the site.	It is proposed that there will be an average of four to five rock deliveries to site per working day.
3. Can you provide a plan showing the route between the Waihi Beach quarry and the site, noting Council may have concerns with heavy vehicle / tractor and trailer movements through the Waihi Beach village.	Please refer to Attachment D for a plan showing the proposed transport route from the quarry to the site. Please note: • All heavy transport to Waihi Beach uses Wilson Road. • The rock deliveries for the recently completed Council Three Mile Creek rock revetment project were transported through Wilson Road. • The first delivery per day is expected to be in the morning before most businesses' hours commence.
4. Please provide an assessment of traffic related effects on properties that adjoin or are adjacent to the construction access.	Section 6.5 of the District Application provides an assessment of Transport Impacts of the proposal. The key conclusions remain relevant being: • The proposal utilises an existing vehicle access to Three Mile Creek Reserve from 91 Seaforth Road. • The nearest intersection, being the intersection with Glen Isla Place, is located some 60m to the southeast. No heavy vehicles or construction machinery will use Glen Isla Place. • The access is sufficiently wide to accommodate turning trucks and provides for sight lines in excess of 100m. • The access will be used intermittently (4-5 rock deliveries per working day between 60 – 80 days) for the delivery of machinery and construction materials. • Any potential impacts on traffic are further minimised by the timing of the construction period over the quieter winter months, when roads are anticipated to be less busy. • This is the same access point which is used by WBOPDC contractors for their machinery which undertakes the maintenance / dredging works within three Mile Creek. Regarding noise effects, please refer to the responses provided in the 'Response to s92 Queries Memo' prepared by Marshall Day (Refer to Attachment E). In particular, the responses to Questions 1, 3 and 5 provides commentary on the traffic related noise effects at the construction access. In summary, the modelling shows that the noise generation will comply with the relevant construction noise standards identified in the District Plan.

WBOPDC Request	GIPS Response
Ecology	
1. Records and/or any reports on previous attempts to plant the subject area, as referred to in the ecological assessment (e.g. 2011).	GIPS does not have copies of any reports as they were not the consent holder for the historical planting activities. GIPS understands that this work was undertaken by WBOPDC therefore, they would be the point of contact for any historical reports.
2. Details of how invertebrates, specifically katipo, are to be addressed during the construction process.	As determined by the Ecology Assessment (provided as Appendix D to the District Application), the risk of encounter of valued indigenous dune fauna is low and related in the main to the large woody items on site. The Project Ecologist confirmed that the process to ensure minimal species disturbance is recommended to be to remove these woody habitat items from the construction footprint in advance of the works and relay them in the retained areas with an ecologist on hand to recover taxa found beneath the item. This could include skink and beetle larvae as well as Katipo. Katipo are most likely to be transferred with the wood. There are no spinifex/ katipo plant habitat features being removed or disturbed and the risk to katipo after woody debris transfer is considered to be 'minimal to unmeasurable'. Noting the recommendation from the Project Ecologist, GIPS accepts a condition requiring a suitably qualified ecologist to be present during the pre-commencement vegetation clearance (and woody material removal) to ensure, that in the event they are located, lizards are suitably managed (moved to the non-impacted areas of the wider dune environment).
3. Details of how lizards are to be addressed in the construction process.	The Ecology Assessment did not recognise any presence of lizards nor good habitat for lizards within the construction corridor but could not conclude an absence of lizards. As advised by the Project Ecologist, the most precautionous approach would be to clear the vegetation in the construction corridor prior to large woody debris transfer (to be undertaken by a suitable qualified and experienced Ecologist) such that lizards are forced to move out of the works corridor and / or captured and transferred outside of the corridor. Once cleared, disturbance in the corridor will mean it is unlikely lizards will move back into the corridor until it is revegetated. Noting the recommendation from the Project Ecologist, GIPS accepts a condition requiring a suitably qualified ecologist to be present during the pre-commencement vegetation clearance (and woody material removal) to ensure, that in the event they are located, lizards are suitably managed (moved to the non-impacted areas of the wider dune environment).
4. Further explanation of the justification for splitting the dune vegetation into different types, with widely varying rankings for ecological significance, when the dune unit,	The Project Ecologist has confirmed that the vegetation assemblage is very different across the dune environment with one area being highly exotic and weeds and the other being indigenous and representative.

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when considered at this scale, should perhaps be considered as a single unit.	If the site was treated as a whole, either the exotics, which dominate area cover and quanta, would result in a very low value over the site to predominate or the converse situation, with the high value indigenous flora creating an artificial situation where the entire site (of weeds) was of high value. It is the opinion of the Project Ecologist that where there are extremes of values and condition of vegetation types these different assemblages and conditions should be recognised in an assessment not “lumped” together. This is the basis on which the Ecological Assessment for the project has occurred.
5. Details on how the planting proposed for the southern end of the works will be integrated into the adjacent existing natural dune system (which will be further from the coast than the new dune structure).	The southern foredune planting, beyond the proposed site, is similar to but better than the existing (in which there are indigenous components) while the southern higher dune of the neighbouring Island View Reserve area is poorer / more exotic. The foredune areas will merge as they do now and over time as the reinstated dune plantings within the construction footprint. While there may be a more pronounced coastal vegetation area, this makes no impact on the southern dune face and its position or relation to the vegetation community.
6. Details of how and when the planting proposed for the newly constructed foredune will be reinstated if the dune structure and/or plantings are lost due to a storm event(s) shortly after the work is completed.	GIPS note that the Remediation Planting Plan, recommended as part of the Ecological Assessment, will include details of the timing, layout and methodology of planting and monitoring and, where required, replating of plants within the existing vegetated areas which die off. Further, upon completion of the replanting and the ‘manage and maintain’ period (GIPS accept a 60% coverage trigger or 2 year period of management of planting within the ‘reinstatement areas’), the structure will be vested to WBOPDC Reserves Team and they will continue to provide for management and maintenance of the Three Mile Creek reserve area in which the structure is located. GIPS agrees to the provision of a Remediation Planting Plan to be certified by Councils as a requirement of any consent conditions for the proposal. The proposed condition is as follows: Conditions for Remediation Planting Plan: 1. <i>At least 20 working days prior to the commencement of any planting activities on site, the Consent Holder shall submit a Remediation Planting Plan ("RMP") to the Council (or relevant authority) for certification. The purpose of the RMP is to reinstate disturbed vegetation and preserve the ecological functioning of the Glen Isla dune environment. The RMP must be prepared by a suitably qualified and experienced ecologist and, as a minimum, include the following details:</i> a. Contact Person: <i>Identification of the suitably qualified and experienced ecologist who prepared the RMP and identification of the party who will oversee the replanting and the maintenance activities.</i> b. Planting Layout: <i>A detailed planting plan that outlines the locations and density / spacing of the planting including identification of the ‘reinstatement areas’ and the ‘landscape areas’ (Refer to Advice Note below) to be planted.</i>

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	c. Species Selection: A list of native species to be used in the replanting of the areas, in accordance with the ‘Revegetation Planting Mix’ as identified in BlueGreen – Glen Isla Dune Coastal Protection Project – Ecological Assessment. Where practicable, plants shall be sourced from the same ecological district. d. Timing: A planting schedule indicating the start and finish of planting activities, considering seasonal variations and plant availability. e. Methodology: Details of site preparation and planting methods that are suitable for coastal dune conditions. f. Maintenance: A description of how, in consultation with a suitably qualified and experienced ecologist, the Consent Holder will ‘manage and maintain’ the ‘reinstatement areas’, until the earlier of: • The date that, in the opinion of the suitably qualified and experienced ecologist, the reinstatement areas achieve 60% coverage; or • The date two years after the completion of work. <i>This should include the methods proposed to ‘manage and maintain’ (Refer to Advice Note) the ‘reinstatement areas’ plantings to ensure successful establishment of plantings, including monitoring, watering and weed control strategies.</i> Advice Note: For the purpose of the RMP Condition: 1. ‘Reinstatement areas’ means the disturbed areas of existing vegetation within the Glen Isla dune, as a result of the construction activity. Shown as ‘reinstatement areas’ on the planting plan (to be provided as part of the final RMP). 2. ‘Landscape area’ means the area of further planting outside of the ‘reinstatement areas’ that will be planted, subject to there being sufficient substrate available following construction. The purpose of this landscape planting is to provide a naturalised appearance of the dune environment following the completion of the construction activity, this planting is beyond that which is required to address the ecological effects of the proposal therefore, this area is not subject to ongoing management beyond the initial planting activity. Shown as ‘landscape area’ on the planting plan (to be provided as part of the final RMP). 3. ‘manage and maintain’ means: a. Managing pest plants and weeds within the ‘reinstatement areas’; and b. Where plants have died off, replanting at 1 metre spacings or less: i. When the suitable plants are available for planting; and ii. Provided relevant substrate (i.e., sand) is available to plant into.

Landscape Architect

1. ...

Please provide an assessment of the effects of the proposed sea wall on natural character and visual amenity in the short, medium and long term, including commentary on how the incremental exposure of the wall has influenced the nature and degree of effect over time. In addition to the proposed sea wall the assessment needs to provide commentary on the potential cumulative effects of the proposal and the existing, fully exposed seawall/rock revetment approximately 200 meters north (see photo below). The latter appears to be a fair representation of the anticipated 20-30 year scenario referred above.

Natural character

Assessment of effects on natural character over time is provided at LVA section 8.0 (Appendix C(i) of the District Application).

As set out at section 8.0, **at completion of the project** the effect on natural character at the site is assessed as **Moderate-High positive**.

Should erosion from large-scale storm events cause parts of the structure to become temporarily visible, (likely to occur over the next approximately 20 years), there will be a **reduction** in natural character at the south end of the site. The effect of the proposed structure on natural character will **still be positive** because:

- New planting will be retained to the north and top parts of the dune, (protected by the structure), and this will be an improvement to the existing levels of planting;
- The proposed structure will provide a higher-quality “naturalised” edge than the eroded edge which would occur at southern parts of the Glen Isla dune without coastal protection.

Should parts of the structure become increasingly or permanently exposed (likely to occur only at southern parts, beyond 20 years), the effect of the structure will **still be positive** because:

- New planting will be retained to the north and top parts of the dune, (protected by the structure), and this will be an improvement to the existing levels of planting;
- The proposal will provide a higher-quality “naturalised” edge than the eroded edge which would occur at southern parts of the Glen Isla dune without coastal protection.

Context is relevant to perceptual aspects of the natural character effect - as set out at paragraph 8.24 of the LVA.

The proposed modification at the dune has a reduced significance, as the dune has been modified in the past. As such, it is already a “naturalised” dune.

Visual amenity

Ratings provided in the LVA for visual amenity effects relate to effects at completion of the project (a fully-planted “naturalised” sand dune with buried rock structure).

Changes to the visual amenity effect over time will correlate with natural character effects over time, as the visual amenity provided by the dune derives from its natural character and the perceived “quality” of this.

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	Visibility of parts of the structure (seen from the beach), will cause a reduction in visual amenity offered by the dune, compared to the proposed fully planted dune (with buried structure) at the end of construction. However, whether the structure (southern parts) is seen temporarily or permanently, the visual amenity effect will remain positive. This is because: • New planting will be retained to the north and top parts of the dune, (protected by the structure), and this will provide improved visual amenity to that provided by the existing levels of planting; and • The proposal will provide a higher-quality edge than the eroded edge which would occur at southern parts of the Glen Isla dune without coastal protection. As described in the LVA the structure will be visually consistent with other rock seawalls present along Waihi Beach. The proposal will provide more visual amenity than some other existing areas of rock wall, (such as at the area shown in the RFI photo, where new planting has not been integrated with the rock protection works). Cumulative effects The proposal will, in time, result in a further area of rock wall visible at the coastal edge along Waihi Beach. The cumulative effect will not be adverse. This is because: • The proposal will result in improved natural character and visual amenity outcomes at the Glen Isla frontage compared to the existing environment; • The proposed structure will be visually consistent with existing rock wall (and will provide better natural character and visual amenity outcomes than some areas of existing rock wall); • The proposal will protect landscape values associated with the Three Mile Creek Reserve and ONF S24; and • The alternative scenario (to the proposal) is the eventual loss of reserve land, loss of (existing) indigenous planting, and an eroded coastal edge which provides poor visual amenity.
2. ... Confirmation of the retention or removal of this section of the dune is required. If removal is to occur, then the LVA needs to provide commentary on potential visual effects on the properties to the north of Three Mile Creek. If the dune is to be retained, then confirmation of whether the area is to be fenced to	GIPS have confirmed that the proposed structure (including the construction footprint) will not impact the sand crest. Figure 5.0a of the Construction Methodology (Refer to Attachment F) now includes a schematic providing an illustration of the methodology in the vicinity of the sand crest. Additionally, the construction drawings (Refer to Attachment G) have also been amended to show the proposed wall stopping short of this dune. The Project Landscape Architect confirms that with the sand crest retained, views of the construction work (which will occur to the south of / behind the crest) will be predominantly screened for existing properties to the north of Three Mile Creek. For dwellings to the north of Three Mile Creek, any temporary views of the construction activities (e.g. vehicles arriving or leaving) would likely be no more adverse than views of the ongoing maintenance which occurs at Three Mile Creek.

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achieve vegetation protection is needed.	Many properties to the north of Three Mile Creek (along The Loop) include vegetation at boundaries which will screen views towards the site, and the dwellings are distant (more than 100m) from the north end of the site. At completion of the project, views from north of Three Mile Creek will be of replanted disturbed areas ('reinstatement area') at the Glen Isla dune – similar to existing views of the dune.

Noise and Vibration

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| <p>1. The MDA memo states that the relevant construction noise limits are 75dB LAeq and 90dB LAFmax. These have been taken directly from Table 2 of NZS6803:1999 for “typical duration” works without any adjustment for the duration of the work. I understand that the likely best case scenario is four months to complete the works, but the applicant is seeking up to six months. The threshold between “typical duration” and ‘long term’ works in NZS6803:1999 is 20 weeks, or five months. “Long term” works are subject to noise limits that are 5dB lower than those applying to “typical duration” works. Can the MDA advice be updated with permitted construction noise limits that reflect the possible ‘long term’ nature of the works? These will be 70dB LAeq and 85dB LAFmax.</p> | <p>Refer to the Response to Question 1 in the ‘Response to s92 Queries Memo’ prepared by Marshall Day (Refer to Attachment E).</p> |
| <p>2. There seems to be a bit of a discord between the construction methodology assumptions in the MDA memo and the way that the construction process was explained</p> | <p>Refer to the Response to Question 2 in the ‘Response to s92 Queries Memo’ prepared by Marshall Day (Refer to Attachment E).</p> <p>Further to the Marshall Day response, the query states “... whereas we were told that the rocks will be delivered by a truck...”. GIPS wish to clarify that the rocks will be delivered to the site via a road legal tractor unit on pneumatic tyres, towing a tipping trailer carrying up to 20 tonnes of rock.</p> |

WBOPDC Request	GIPS Response
	to us on the site visit. The MDA memo appears to be based on the rocks being dropped near the eastern end of the reserve north of 7 Glen Isla Place and the excavator being used in the reserve, whereas we were told that the rocks will be delivered by a truck, driven through the reserve and around the foreshore area and dumped near to where they will eventually be placed (which will vary as the works progress). Additionally, the excavator will only traverse the council reserve twice (once in, and once out) or more often if there is a severe storm forecast and the machinery has to be moved away from the beach area. The MDA memo appears to take this distance into account by stating that the works will be at least 35m from 7 Glen Isla Place (rather than the 55m or-so away where the rocks were dropped), but there is no diagram or clear explanation of this. Can MDA clarify that the noise level and vibration predictions in the memo are intended to reflect the proposed construction methodology and the effects at 7 Glen Isla Place?
3. As above, the MDA memo seems to be based on the proposed construction methodology and the levels and effects at 7 Glen Isla Place. These are separated by approximately 30-35m. On this basis,	Refer to the Response to Question 3 in the 'Response to s92 Queries Memo' prepared by Marshall Day (Refer to Attachment E).

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the MDA memo states that the permitted construction noise limits will be complied with. However, the works will be much closer to other dwellings on sites that are not part of the application site, such as 16 Glen Isla Place. The works appear to be around 10m from the nearest part of the dwelling on that site. Accordingly, I consider it likely that noise from the works will not necessarily comply with the permitted construction noise limits at some of the dwellings immediately adjacent to the works, and that resource consent will be necessary to enable this infringement. I understand that many or all of these dwellings are owned by the ‘applicant’ and that written approval to any infringement of the permitted standards will be forthcoming. Accordingly, I suggest that the application include noncompliance with the permitted construction noise standards at these properties as a reason for consent, and that the applicant provides written approval to these infringements and the construction noise and vibration effects generally.	
4. I understand that the applicant may want to be able to work on Sundays and Public Holidays to take advantage of weather windows and tides. However, the permitted construction noise standards are	Refer to the Response to Question 4 in the ‘Response to s92 Queries Memo’ prepared by Marshall Day (Refer to Attachment E).

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much lower on these days and consent will be required to exceed these limits. Can the applicant confirm whether works will be undertaken on Sundays and Public Holidays or not, and if so, can MDA address this in terms of compliance and effects on the receivers that have not given written approval?	
5. Following 1, 2, 3 and 4, I suggest MDA provide a diagram showing all properties on the northern and eastern sides of Glen Isla Place, along with 96 Seaforth Road, to label those that have given written approval to construction noise exceeding the permitted limits, and then label all other receivers with approximate noise level predictions for both the main works, and also for trucks and the excavator traversing the reserve (for the receivers close to the reserve).	Refer to the Response to Question 5 and the supporting noise contour maps provided in the ‘Response to s92 Queries Memo’ prepared by Marshall Day (Refer to Attachment E).
6. The MDA memo compares the measured / predicted vibration levels to the DIN4150 standard designed to avoid damage to buildings (including cosmetic damage). Can MDA please provide a description of the likely effects of vibration on people? This should acknowledge the small sample of the ‘rock drop trial’ and that it is likely that there could be considerable variation in the levels	Refer to the Response to Question 6 in the ‘Response to s92 Queries Memo’ prepared by Marshall Day (Refer to Attachment E).

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during the works. (I would expect that there could be some isolated instances where levels could be 100% of those measured). The assessment of effects should also take into account the apparent predominant low frequency (<25Hz) nature of the vibration recorded.	
7. The MDA memo states that the excavator movement generated vibration levels of “around 0.2 – 0.4 mm/S PPV” at 7 Glen Isla Place, where the machine was tracking around 32-33m away, and with Three Mile Creek in between. These levels seem high compared to vibration levels in more dense / cohesive soil conditions. Can MDA provide some comment on whether the sandy soil conditions in this area are likely to result in vibration levels that are higher, lower, or similar to vibration levels in other soil conditions such as dense / cohesive soils?	Refer to the Response to Question 7 in the ‘Response to s92 Queries Memo’ prepared by Marshall Day (Refer to Attachment E).
Other Matters	
1. At the site visit you indicated that Written Approval of Affected Persons would be provided for the properties that fronted the beach side of the reserve. Please include any that have been provided.	Please refer to the written approvals from the property owners of 9, 11, 12, 14, 15 and 16 Glen Isla Place enclosed with this response.

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2. Who on behalf of the Glen Isla Protection Society is the Applicant.	For the purposes of resource consents, the RMA defines a 'person' as '<i>person - includes the Crown, a corporation sole, and also a body of persons, whether corporate or unincorporate.</i>' Therefore, as an incorporated society, GIPS can be an Applicant for a resource consent. The contact person on behalf of GIPS is Lincoln Fraser and Luke Faithfull is agent for the Applicant (contact details for both parties were provided as part of the Application through the WBOPDC Online portal).

29 November 2024

Bay of Plenty Regional Council
Attn: Tracey Bowers, Senior Consents Planner
Via email: Tracey.Bowers@boprc.govt.nz

Kia ora Tracey

RE: RM24-0537-AP - GIPS Response to the BOPRC Request for Further Information

This letter sets out the response from the Glen Isla Protection Society (“GIPS”) to the further information matters identified in the Bay of Plenty Regional Council letter dated 29 October 2024. The responses are provided in the table below.

Also enclosed with this letter are the written approvals from the property owners of 9, 11, 12, 14, 15 and 16 Glen Isla Place.

By way of update, we are currently preparing a further information response for the Western Bay of Plenty District Council application. We will forward this response, for your information, when we submit it to the Council.

I trust the information in this response addresses the further information requests, however, if there are any outstanding matters please do not hesitate to get in touch.

Yours sincerely,



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luke.faithfull@mitchelldaysh.co.nz

BOPRC Request	GIPS Response
1. An engineering assessment has identified that post-earthworks, the sand around the structure may settle and be subject to wind erosion, leading to depressions in the dune or a sand cover of less than 0.5 meters over the structure. Please propose appropriate methods to ensure the sand dune is maintained at the proposed level and contours until it stabilizes through settlement and vegetation establishment. This should describe the method and frequency of inspection, and method of replenishment if required.	Methods to manage risk of wind erosion immediately after earthworks are completed are described in Sections 4.2 and 4.10 of the Engineering Design Report and in Section 6.3 of the AEE. In summary, the disturbed areas are proposed to be planted with indigenous species and, where required, wind fences can be established and will be removed once disturbed areas have settled. It is noted that the existing dune environment is subject to these natural processes, and they will reach a natural point of stabilisation without intervention. Further to the information in the Engineering Design Report, The Project Engineer, Davis Coastal, has advised that ‘stabilised’ means that the planting is preventing erosion, within limits. For a beach / dune environment there will always be some sand blown erosion, however, with planting the sand deposited within the plant areas tends to exceed that removed. Any dune built over the seawall will be a natural dynamic system and will not require replenishment. The design provides for depressions in the dune and variable height sand cover are entirely consistent with a natural dune. The proposed 0.5m cover specified is cognisant that in some places there may be some settlement. The sand readily redistributes and Davis Coastal do not see any issue with there being less than 0.5m in the dune as time progresses. Indications from the site and monitoring is that the dunes will prograde and increase in depth and size naturally over time. This is evident in the new foredune area adjacent to the Three Mile Creek sand groynes that is being protected in the proposal, which is an area that has established itself since the storm events of Cyclone Gabrielle and Hale. In addition to the above, given the historic accretion and placement of dredged sand from Three Mile Creek adjacent to the works area, no additional sand replenishment is anticipated to be required. GIPS note that the Remediation Planting Plan, recommended as part of the Ecology Report, will include monitoring and, where required, replating of plants within the existing vegetated areas which die off. Further, upon completion of the replanting and the ‘manage and maintain’ period (GIPS accept a 60% coverage trigger or 2 year period of management of planting within the ‘reinstatement areas’), the structure will be vested to Western Bay of Plenty DC Reserves Team and they will continue to provide for management and maintenance of the Three Mile Creek reserve area in which the structure is located. The Applicant agrees to the provision of a Remediation Planting Plan to be certified by Councils as a requirement of any consent conditions for the proposal. The proposed condition is as follows: Conditions for Remediation Planting Plan: 1. <i>At least 20 working days prior to the commencement of any planting activities on site, the Consent Holder shall submit a Remediation Planting Plan ("RMP") to the Council (or relevant authority) for certification. The purpose of the RMP is to reinstate disturbed vegetation and preserve the ecological functioning of the Glen Isla dune environment. The RMP must be prepared by a suitably qualified and experienced ecologist and, as a minimum, include the following details:</i> a. Contact Person: <i>Identification of the suitably qualified and experienced ecologist who prepared the RMP and identification of the party who will oversee the replanting and the maintenance activities.</i>

BOPRC Request	GIPS Response
	b. Planting Layout: A detailed planting plan that outlines the locations and density / spacing of the planting including identification of the ‘reinstatement areas’ and the ‘landscape areas’ (Refer to Advice Note below) to be planted. c. Species Selection: A list of native species to be used in the replanting of the areas, in accordance with the ‘Revegetation Planting Mix’ as identified in BlueGreen – Glen Isla Dune Coastal Protection Project – Ecological Assessment. Where practicable, plants shall be sourced from the same ecological district. d. Timing: A planting schedule indicating the start and finish of planting activities, considering seasonal variations and plant availability. e. Methodology: Details of site preparation and planting methods that are suitable for coastal dune conditions. f. Maintenance: A description of how, in consultation with a suitably qualified and experienced ecologist, the Consent Holder will ‘manage and maintain’ the ‘reinstatement areas’, until the earlier of: g. The date that, in the opinion of the suitably qualified and experienced ecologist, the reinstatement areas achieve 60% coverage; or h. The date two years after the completion of work. This should include the methods proposed to ‘manage and maintain’ (Refer to Advice Note) the ‘reinstatement areas’ plantings to ensure successful establishment of plantings, including monitoring, watering and weed control strategies. Advice Note: For the purpose of the RMP Condition: 1. ‘Reinstatement areas’ means the disturbed areas of existing vegetation within the Glen Isla dune, as a result of the construction activity. Shown as ‘reinstatement areas’ on the planting plan (to be provided as part of the final RMP). 2. ‘Landscape area’ means the area of further planting outside of the ‘reinstatement areas’ that will be planted, subject to there being sufficient substrate available following construction. The purpose of this landscape planting is to provide a naturalised appearance of the dune environment following the completion of the construction activity, this planting is beyond that which is required to address the ecological effects of the proposal therefore, this area is not subject to ongoing management beyond the initial planting activity. Shown as ‘landscape area’ on the planting plan (to be provided as part of the final RMP). 3. ‘manage and maintain’ means: a. Managing pest plants and weeds within the ‘reinstatement areas’; and b. Where plants have died off, replanting at 1 metre spacings or less:

BOPRC Request	GIPS Response
	<i>i. When the suitable plants are available for planting; and</i> <i>ii. Provided relevant substrate (i.e., sand) is available to plant into.</i>
1. Please describe suitable methods to mitigate adverse effects on avifauna from the proposed activity. An ecological assessment has identified that there are potential effects on avifauna from the proposed works and recommends that if works occur during the months of August-March, a pre-work inspection by a suitably qualified ecologist should be undertaken to ensure there are no breeding pairs of shorebirds within the work area. If a breeding pair is found works should be delayed until chicks have fledged.	Given the construction period is proposed to commence in April and take 4-6 months, it is unlikely that avifauna will choose to nest in the vicinity of the active works site due to the activity in that location. Therefore, when considering the proposed timing and where works will (and will not) occur, there ceases to be any real risk to avifauna from the proposal. If works continue into the breeding season, the Project Ecologist has recommended a pre works survey by a suitably qualified and experienced avian ecologist is undertaken to ensure no risk of nesting disturbance occurs. If nests are found in the vicinity of the active works footprint and works are to be continued, then that viability will depend on the distance works are from the nest/s. The Project Ecologist advised that it is common practice to set up a distance limit from nest barrier and ensure works are beyond that barrier (noise and physical disturbance can be governed in that way successfully depending on the species and location). While this demarcation limit is a viable and common construction option it will depend on what species and where a nest occurs. This would be at the discretion of the ecologist. Therefore, if works are to occur during the breeding season (August – March), GIPS accepts a condition requiring a pre-work inspection by a suitably qualified and experienced ecologist to be undertaken to ensure no risk of nesting disturbance of shorebirds within the active works area. Where nests are found, the Ecologist shall identify the necessary mitigation measures to ensure any adverse impacts on the species will be avoided. The mitigation measures identified must be implemented prior to the commencement of works in the vicinity of the nesting sites are determined by the Ecologist.
2. Please describe suitable method to mitigate adverse effects on lizards from the proposed activity. The ecological assessment identified at there may be micro-habitats within the site that could be used by lizards, and recommends that a lizard management plan is prepared by a suitably qualified ecologist prior to works that includes a pre-work survey (noting that absence during a survey doesn't necessarily mean absence from the site), monitoring and relocation of individuals	As advised by the Project Ecologist, a pre survey for lizards should be abandoned in favour of a pre works, by hand, vegetation removal and woody debris transfer action with herpetologist. This is the approach recommended as a pre works survey may still be inconclusive and such a survey would (in the absence of any real probability of returning a high value conservation species) be an inefficient use of time and resource. Noting the recommendation from the Project Ecologist, GIPS accepts a condition requiring a suitably qualified ecologist to be present during the vegetation clearance (and woody material removal) to ensure, that in the event they are located, lizards are suitably managed (moved to the non-impacted areas of the wider dune environment).

BOPRC Request	GIPS Response
disturbed during and vegetation removal. The plan shall include management of plague skinks.	
3. Please propose suitable methods to mitigate the risk of pest plant species spread from on-site machinery. The ecological assessment highlights the risk of pest plant spread from on-site machinery. It recommends cleaning machinery before site arrival and before moving to another site. Machinery hygiene standards should be documented and implemented in accordance with the document identified at the following link 'Keep it Clean'.	As advised by the Project Ecologist, the suitable method is as stated ensuring machinery and plant material brought on site is clean of seed material etc. The Project Ecologist notes that it is more about advent of weeds in the plant soils brought onto site than machinery bringing material on to site as there will be no fill material imported to site. It is assumed that post planting, the 'reinstatement area' is maintained and that weeding occurs at that time and through the 'manage and maintain' period. Beyond that period, the site will be vested back to the District Council and any risk will be no different than is present now. GIPS accept a 'Keep it clean' condition for any construction machinery working within the dune area but consider it is not practicable or necessary to apply this to the vehicles used for rock deliveries as they will be outside of the dune area and on site for short durations. GIPS propose that it is included as a requirement of the Construction Management Plan (CMP) condition which would set out the CMP requirements including: > <i>Contact details of contractor</i> > <i>Final design plans</i> > <i>Final construction methodology and timing</i> > <i>Measures /methods to address:</i> > <i>Erosion and dust discharges from the site.</i> > <i>The risk of pest plant species spread from on-site machinery including cleaning machinery before site arrival and before moving to another site. Machinery hygiene standards should be documented and implemented in accordance with the document identified at the following link 'Keep it Clean'</i> > <i>Details of the location of temporary storage of construction machinery onsite</i> > <i>Any accidental oil / fuel spills on site.</i> > <i>Details of site monitoring requirements and inspection schedules</i> > <i>Details of how any complaints will be managed and recorded.</i>

BOPRC Request	CIPS Response
	> <i>Any other information required to demonstrate compliance with the consent conditions</i>
4. Please propose a method to mitigate the adverse effects on the IBDA-B from the invasion of pest plant and exotic species in the disturbed and freshly planted areas. The application describes that replanting the disturbed area of the dune will be in accordance with a planting plan, however the ecological assessment has identified the risk of pest plant species from the adjoining area spreading into the newly planted area. The planting plan is recommended to be carried out by a suitably qualified ecologist and to include a restoration plan of the entire dune area that includes the removal of exotic and pest plants and planting to ensure the dune vegetation is restored to indigenous dominance and mitigate the effects of the disturbance activity on the IBDA-B.	As set out in the response to Item #1 above, the planting within the ‘reinstatement areas’ will have a ‘manage and maintain’ period where weed species are managed (removed). Further, the Project Ecologist states that given the wide array of exotic species already present within the Glen Isla dune environment, the risk of a change in status is very low. In the long-term, even if the existing weeds were to spread into the revegetated native areas over time, the ecological outcome will still be better (greater indigenous dune species diversity and cover) than that is present within the Glen Isla dune environment today.

From: Luke Faithfull
Sent: Friday, 6 December 2024 3:09 pm
To: Tracey Bowers
Cc: Lincoln; allan
Subject: RE: RM24-0537 - ecology, engineering effects.

Kia ora Tracey

Please see the responses to the further matters set out below:

1. This was a question asked in the WBOPDC s92, and the response, informed by BlueGreen, was:

As determined by the Ecology Assessment (provided as Appendix D to the District Application), the risk of encounter of valued indigenous dune fauna is low and related in the main to the large woody items on site.

The Project Ecologist confirmed that the process to ensure minimal species disturbance is recommended to be to remove these woody habitat items from the construction footprint in advance of the works and relay them in the retained areas with an ecologist on hand to recover taxa found beneath the item. This could include skink and beetle larvae as well as Katipo. Katipo are most likely to be transferred with the wood. There are no spinifex/ katipo plant habitat features being removed or disturbed and the risk to katipo after woody debris transfer is considered to be 'minimal to unmeasurable'.

Noting the recommendation from the Project Ecologist, GIPS accepts a condition requiring a suitably qualified ecologist to be present during the pre-commencement vegetation clearance (and woody material removal) to ensure, that in the event they are located, lizards are suitably managed (moved to the non-impacted areas of the wider dune environment).

2. The structure design, rock sizing and methodology of placing each rock all work together to minimise any risk of significant depressions or 'sink holes' forming post-construction. Additionally, the covering of the exposed wall with 0.5m of sand from the excavations and recontouring of the dunes following the excavation works will further ensure that any settlement of sand into the spacings between the rock will minimise the likelihood of 'sink holes'. The Project Engineer provided the following comment:

Any depressions in the sand surface due to sand "arching" between rocks causing unfilled voids in the wall are likely to be localised and relatively small. The provision of 500mm sand cover will address the issue with localised voids quickly being infilled to form depressions. The wall will be completed sequentially and some of the wall will have a number of weeks completed and will be trafficked by excavators numerous times before planting.

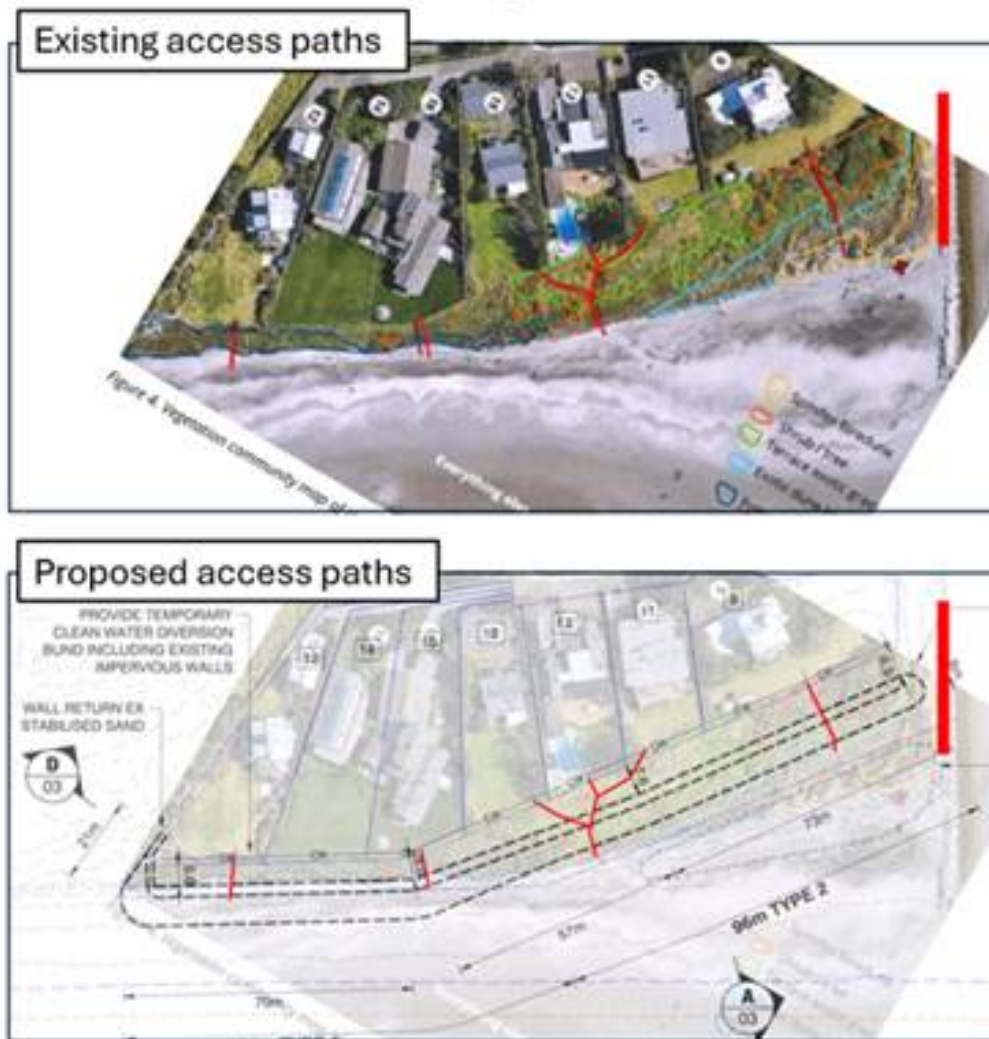
A monitoring visit could be undertaken prior to planting. Following completion of the works and planting any settlement that does occur will be minimal and further contribute to naturalised dune contours. Over time, natural dune processes will move sand around the dune environment tending to smooth contours. In an accretionary phase any depressions fill

and an erosion event will completely level contours within the eroded profile. The contours will progressively change naturally over time.

Therefore, the Applicant accepts the inclusion of a condition as follows: *Prior to the replanting of the reinstatement area, the Consent Holder shall undertake a visual inspection of the reinstated dune area within the reinstatement area to monitor any significant wind erosion and/or sink holes that may have appeared due to the settlement on sand between the voids of the rock revetment. Where a depression greater than 0.5m in depth is found, the Consent Holder shall move sand from the surrounding area, using raking (or a similar method), to contour the depression with the surrounding dune height prior to any planting occurring.*

3. As GIPS is not the Glen Isla dune area landowner, providing any exclusion to the area following the completion of construction is outside of the ability of GIPS as the Consent Holder. It is noted that the Glen Isla dune is not a commonly used recreation area and those who primarily use the area are the Glen Isla residents who traverse the dune area to access the beach. As part of the proposal, GIPS propose to retain the existing access points as shown below. Additionally, it is noted that the existing access to the beach from Glen Isla Place along the true right bank of Three Mile Creek will be retained through the works period as well as the access along the true left bank of Three Mile Creek from the Seaforth Rd carpark, noting that there will be temporary closures of this access when rock deliveries occur. These access ways further mean that public do not typically use the Glen Isla dune area for access to the beach, therefore, any risk of damage from the public will be minimised.

Notwithstanding, as part of the Remediation Replanting Plan, there is a requirement to maintain planting within the 'reinstatement area' to a point of 60% coverage or for a 2 yr period. It is considered that this provision for monitoring and management is sufficient to deal with any unexpected impacts on the planting activity within the reinstatement area.



Lastly, happy with the use of s37 to resolve these matters.

Nga mihi

Luke

From: Luke Faithfull
Sent: Thursday, 5 December 2024 12:05 pm
To: Tracey Bowers <Tracey.Bowers@boprc.govt.nz>
Cc: Lincoln <Lincoln@newcrest.co.nz>
Subject: RE: RM24-0537 - ecology, engineering effects.

Kia ora Tracey

I will confirm responses to the below with the client and come back to you.

Nga mihi

Luke

From: Tracey Bowers <Tracey.Bowers@boprc.govt.nz>
Sent: Wednesday, 4 December 2024 5:22 pm

To: Luke Faithfull <luke.faithfull@mitchelldaysh.co.nz>

Cc: Lincoln <Lincoln@newcrest.co.nz>

Subject: RM24-0537 - ecology, engineering effects.

Good afternoon Luke

On further discussion with the ecologist and engineer in response to the s.92 there are a couple of items that I need some further information on to understand effects, these may be addressed by suitable consent conditions?

1. Regarding invertebrates specifically Katipo in the sand dune, Katipo have a threat status of at risk declining with loss and modification of dune habitat a key driver of decline over time. Although Katipo were not found in the survey by Blue Green, they could still be present in low numbers at the site. Conditions could require a katipo survey at the same time as the lizard survey is carried out by the Ecologist?
2. As the disturbed sand within the modified dune area settles between the voids of the rock revetment there is a risk of localised sink holes forming, and rocks potentially becoming uncovered due to the settlement of sand. Will the applicant redistribute sand to fill in any sink holes that may appear once the loose sand settles in between the gaps in the rock structure? A suggested condition of consent "visual inspection of the rehabilitated dune to monitor any significant wind erosion and/or sink holes that may have appeared due to the settlement on sand between the voids of the rock revetment". I don't think the monitoring needs to be too onerous or long-term (say at 1, 3 and 6 months after completion), but just long enough to ensure the sand within the disturbed areas has fully settled and the planting has become established.
3. Public may cause damage to the exposed dunes and freshly planted vegetation immediately following construction and planting works. Can you propose a method to mitigate effects to the area during this vulnerable period prior to it becoming fully established with plants and stable.

Can we please place the application on time extension under s.37, while we work to resolve these couple of issues?

Kind regards

Tracey Bowers

Senior Consents Planner

Bay of Plenty Regional Council Toi Moana

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Joe Franklin

From: Tracey Bowers <Tracey.Bowers@boprc.govt.nz>
Sent: Monday, 13 May 2024 8:37 am
To: Luke Faithfull
Cc: Katalin Maltai
Subject: RE: RM24-0128-PA Meeting - Glen Isla Coastal Protection Project - Waihi Beach

Good morning Luke

I hope you had a nice weekend

I have received the following response from Katalin Maltai:

The proposed sea wall is to be located along the seashore effected by coastal processes. When considering a hard engineering structure built in the coastal environment we need to look at the natural process effecting the structure and any adverse effects it may create. The applicant would like to find out if the structure is within the CMA would this trigger a consent. The CMA is defined in the RMA as follows:

coastal marine area means the foreshore, seabed, and coastal water, and the air space above the water—

(a) of which the seaward boundary is the outer limits of the territorial sea:

(b) of which the landward boundary is the line of mean high water springs, except that where that line crosses a river, the landward boundary at that point shall be whichever is the lesser of—

(i) 1 kilometre upstream from the mouth of the river; or

(ii) the point upstream that is calculated by multiplying the width of the river mouth by 5

The RMA does not define the time period in which MHWS needs to be considered. NZ Engineering best practice is to assess any structures for the design life of the structure and consider the process that will take place during that time.

Given the proposed location, during the lifetime of this structure it will be affected by shoreline erosion (as per WBOPDC Plan) which will move the MHWS further inland and the level of MHWS will increase significantly due to sea level rise. Our advice is that for the assessment of the proposed sea wall to take into consideration both erosion and sea level rise during the lifetime of the structure to decide if the structure is in the CMA area.

The intent is that any structure constructed today should have no current or future adverse effects on the environment, natural coastal processes, natural character and the community.

From a planning perspective, the proposed structure will not be located within the CMA on installation, therefore the relevant rules for occupation and use of a structure in the CMA will not apply.

However the location of MHWS may move further inland at some point in the future and the structure may become located within the CMA. At that time the relevant rules of the operative Regional Coastal Plan will apply and the structure may require resource consent for occupation and use of the CMA.

kind regards

Tracey Bowers

Senior Consents Planner

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From: Luke Faithfull <luke.faithfull@mitchelldaysh.co.nz>
Sent: Friday, May 10, 2024 3:15 PM
To: Tracey Bowers <Tracey.Bowers@boprc.govt.nz>
Subject: RE: RM24-0128-PA Meeting - Glen Isla Coastal Protection Project - Waihi Beach

Thanks Tracey

 **Luke Faithfull**
Partner

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From: Tracey Bowers <Tracey.Bowers@boprc.govt.nz>
Sent: Friday, May 10, 2024 3:05 PM
To: Luke Faithfull <luke.faithfull@mitchelldaysh.co.nz>
Subject: RE: RM24-0128-PA Meeting - Glen Isla Coastal Protection Project - Waihi Beach

Hi Luke

I completely understand, however the cogs are turning very slowly in the engineering team at the moment, they are incredibly busy.

I have requested a response three times this week and have been promised a response by the end of the day today.

I hope I can provide it to you before the weekend.

Sorry for the delay

Tracey

From: Luke Faithfull <luke.faithfull@mitchelldaysh.co.nz>
Sent: Friday, May 10, 2024 2:45 PM
To: Tracey Bowers <Tracey.Bowers@boprc.govt.nz>
Cc: allan@newcrest.co.nz; craig@daviscoastal.co.nz
Subject: RE: RM24-0128-PA Meeting - Glen Isla Coastal Protection Project - Waihi Beach

Kia ora Tracey

Just following up again on the CMA memo comments, as you understand this matter is a priority for us to get squared away as it has implications for the consenting approach.

Ngā mihi

Luke



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From: Luke Faithfull
Sent: Wednesday, May 8, 2024 11:17 AM
To: Tracey Bowers <Tracey.Bowers@boprc.govt.nz>
Cc: allan@newcrest.co.nz; craig@daviscoastal.co.nz
Subject: RE: RM24-0128-PA Meeting - Glen Isla Coastal Protection Project - Waihi Beach

Kia ora Tracey

Just seeing if there was any progress on the CMA memo comments?

Ngā mihi

Luke

From: Tracey Bowers <Tracey.Bowers@boprc.govt.nz>
Sent: Friday, May 3, 2024 3:25 PM
To: Luke Faithfull <luke.faithfull@mitchelldaysh.co.nz>
Cc: allan@newcrest.co.nz; craig@daviscoastal.co.nz
Subject: RM24-0128-PA Meeting - Glen Isla Coastal Protection Project - Waihi Beach

Good afternoon Luke

Just an update, I have requested and am waiting on a final response re the location CMA from our engineers

I will let you know the outcome as soon as I have it.

have a great weekend

Tracey Bowers
Senior Consents Planner
Bay of Plenty Regional Council Toi Moana

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From: Luke Faithfull <luke.faithfull@mitchelldaysh.co.nz>
Sent: Tuesday, April 30, 2024 10:47 AM

To: Tracey Bowers <Tracey.Bowers@boprc.govt.nz>

Cc: allan@newcrest.co.nz; craig@daviscoastal.co.nz

Subject: RE: Meeting - Glen Isla Coastal Protection Project - Waihi Beach

Kia ora Tracey

Thanks for your time last week to introduce the Glen Isla Protection Society proposal.

My notes are set out below, please amend or update as necessary.

Allan Fraser (**AF**), Craig Davis (**CD**) and I (**LF**) met with BOPRC Consents (Tracey Bowers (**TB**)) on Wednesday last week and the matters discussed are summarised below.

- Introduction:
 - o AF provided an overview of the site and the previous protection approaches and their failings – provided TB with a copy of the GIPS Information Memo
- CMA boundary
 - o CD provided an overview of the approach to defining the CMA boundary and described the structure and general location and approach to construction – provided TB with the CMA Boundary with the map with the structure location.
 - o TB advised that BOPRC engineers had stated that the approach was generally accepted but they wished to have a further (~50yr) sea level rise factor applied for changes over the life of the structure as they were concerned that the structure may end up in the CMA. CD advised his approach was conservative and he had applied a 0.5m factor for sea level rise and structure was still outside CMA. CD also said that, as part of the effects assessment, he will look at what size / scale of events may result in exposure of the structure and if any sand replenishment, etc would be required.
 - o TB said that she would circulate the formal feedback from the Engineers and CD would respond based on that feedback – LF proposed that the BOPRC and GIPS Engineers get together to work through any comments and then report back to Council and GIPS.
 - o LF spoke to the fact that we were consenting the structure now and not for 50 yrs therefore, as it was outside the CMA (subject to final confirmation from BOPRC Engineers) then Regional Council consents would be limited to the temporary activities associated with the construction and maintenance activities and that would allow a separation of the consenting processes between district and regional councils. TB generally accepted this is an approach subject to confirmation of the CMA boundary. LF said that once the CMA matter was confirmed and the construction methodology was progressed, he would provide a list of activities from which consent would be required from BOPRC for TB to confirm.
- Other matters
 - o AF and LF provided a summary of the options workshop and the process to date in developing the approach.
 - o AF advised that GIPS had engaged a range of experts to inform the application including a Landscape / NC expert, an Ecologist, Coastal process / engineer, noise and vibration.
 - o LF advised that the GIPS ecologist had been out on site and his initial observations were that there was limited ecological / biodiversity value within the proposed footprint of works and that the replanting of the footprint with dune species following the works would likely result in a positive ecological outcome.
 - o AF advised that GIPS intend to do a noise and vibration trial to assess potential impacts on neighbouring properties. LF said we request a methodology from the contractor to confirm no consents were required from BOPRC given the temporary works would only involve vehicles traversing the CMA (across Three Mile Creek) with the rest of the works occurring above the CMA boundary.

- Iwi engagement – TB had provided a list of iwi and MACAA groups to engage with. LF confirmed that the list was received and that we would progress iwi engagement once the CMA boundary matter had been resolved.
- Action points:
 - TB to provide response from BOPRC Engineer re CMA boundary
 - CD to arrange a meeting with BOPRC Engineers to address any outstanding matters. CD to provide an update on outcomes of any meeting.
 - AF / CD / LF to work with contractors to develop a general construction methodology that we can use to inform that activities which require consent

Ngā mihi

Luke



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-----Original Appointment-----

From: Tracey Bowers <Tracey.Bowers@boprc.govt.nz>

Sent: Friday, April 19, 2024 3:40 PM

To: Tracey Bowers; Luke Faithfull

Subject: Meeting - Glen Isla Coastal Protection Project - Waihi Beach

When: Wednesday, 24 April 2024 1:00 pm-2:30 pm (UTC+12:00) Auckland, Wellington.

Where: T: Ground Floor Meeting Room 3 [4/VC]

Hi Luke

Meeting as requested in the Tauranga Office.
Please let me know an agenda prior to the meeting.

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GLENN ISLA PROTECTION SOCIETY

**GLENN ISLA DUNE – WAIHI
BEACH - COASTAL PROTECTION
PROJECT**

Bay of Plenty Regional Council -
Resource Consent Application and
Assessment of Environmental Effects

11 October 2024

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REPORT INFORMATION

Report Status	FINAL
Our Reference	MDL002583
Author	Ellen Robotham
Review By	Luke Faithfull
Version Date	11 October 2024

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PART A

Resource Consent Application

FORM 9

APPLICATION FOR RESOURCE CONSENT

Sections 88 and 145, Resource Management Act 1991

To: Bay of Plenty Regional Council

1. Glen Isla Protection Society (“GIPS”) apply for the following type(s) of resource consent:

- > Coastal Permit, as a discretionary activity, in accordance with section 12(1) of the Resource Management Act 1991; and
- > Land Use Consent, as a discretionary activity, in accordance with section 9(2) of the Resource Management Act 1991.

2. The activity to which the application relates (the proposed activity) is as follows:

- > Disturbance of the foreshore by vehicle use in the Coastal Marine Area;
- > Earthworks in the Erosion Hazard Area and Sand Dune Country within 50m of the Coastal Marine Area; and
- > Land and soil disturbance by vegetation clearance in Sand Dune Country and Erosion Hazard Area.

3. The site at which the proposed activity is to occur is as follows:

Recreational Reserve and Esplanade Reserve land at Waihi Beach comprising part of the reserve commonly referred to as Three Mile Creek Reserve and legally described as Lot 18 DPS 22035 and Lot 19 DPS 22035.

The site is adjacent to 9, 11, 13, 15, 16, 14 and 12 Glen Isla Place, Waihi Beach, and immediately south of Three Mile Creek. The site is described further in the attached Assessment of Environmental Effects.

Copies of the Records of Title for the site is attached as **Appendix A** to the Assessment of Environmental Effects.



4. The full name and address of each owner or occupier (other than the applicant) of the site to which the application relates are as follows:

Western Bay of Plenty District Council,
1484 Cameron Road,
Greerton,
Tauranga 3112

5. The other activities that are part of the proposal to which the application relates are as follows:

Discharge of stormwater to land soakage, which is proposed to comply with the relevant permitted conditions of rule DW R22 of the Bay of Plenty Regional Natural Resources Plan, as described in the attached Assessment of Environmental Effects.

6. The following additional resource consents are needed for the proposal to which this application relates and have been applied for:

Land use consent from the Western Bay of Plenty District Council for:

- > Establishment of a coastal protection structure and associated earthworks in the Coastal Erosion Area – Primary Risk and Coastal Erosion Area - Rural; and
- > Structures, earthworks and clearance of native vegetation within Natural Feature/Landscape – S24 – Open Coastal landscape Landward Edge Protection Yard.

Resource consent for these activities has been sought under a separate application.

7. I attach an assessment of the proposed activity's effect on the environment that—

- (a) Includes the information required by clause 6 of Schedule 4 of the Resource Management Act 1991; and
- (a) Addresses the matters specified in clause 7 of Schedule 4 of the Resource Management Act 1991; and
- (b) Includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.

8. I attach an assessment of the proposed activity against the matters set out in Part 2 of the Resource Management Act 1991.

9. I attach an assessment of the proposed activity against any relevant provisions of a document referred to in section 104(1)(b) of the Resource Management Act 1991, including the information required by clause 2(2) of Schedule 4 of that Act.



10. I attach the following further information required to be included in this application by the district plan, the regional plan, the Resource Management Act 1991, or any regulations made under that Act:

- > Records of Title
- > Coastal Process Assessment (Davis Coastal Consultants)
- > Landscape and Visual Effects Assessment (Isthmus Group)
- > Ecological Effects Assessment (BlueGreen Ecology)
- > Memorandum – Location of Mean Highwater Springs, Glen Isla Place, Waihi Beach (Davis Coastal Consultants)
- > Engineering Design Report (Davis Coastal Consultants)
- > Glen Isla Place Tree Protection Plan (Arbor Care Ltd)
- > Construction Methodology (Davis Coastal Consultants)
- > Noise Trial Report (Marshall Day Acoustics)

Date: 11 October 2024

Signature:



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Email: luke.faithfull@mitchelldaysh.co.nz

Contact person: Luke Faithfull



PART B

Assessment of Environmental Effects

1. INTRODUCTION

The Glen Isla Protection Society Incorporated (“**GIPS**” or “**the Applicant**”) comprise a group of beachfront homeowners at 9, 11, 13, 15, 16, 14 and 12 Glen Isla Place, Waihi Beach. Their properties, located immediately south of “Three Mile Creek”, adjoin an approximately 200m stretch of unarmoured coastline which is part of the Three Mile Creek Reserve and owned by the Western Bay of Plenty District Council (“**WBOPDC**”).

Following a series of recent large erosion events, including Cyclone Gabrielle, GIPS proposes to establish a buried revetment structure (“**the structure**”), supplemented with dune reshaping and replanting at Three Mile Creek Reserve on land legally described as Lot 18 DPS 22035 and Lot 19 DPS 22035. The intent is to protect the Reserve land and adjacent properties from further erosion, and future-proof the properties from the effects of sea-level rise.

This Assessment of Environmental Effects (“**AEE**”) supports a resource consent application to the Bay of Plenty Regional Council (“**BOPRC**”) to undertake earthworks and vegetation removal outside the Coastal Marine Area (“**CMA**”) as a **discretionary activity** under the Bay of Plenty Natural Resources Plan (“**Regional Plan**”); and to provide for the temporary use of vehicles in the CMA as a **discretionary activity** under the Bay of Plenty Regional Coastal Environment Plan (“**Coastal Plan**”).

This AEE is supported by the following information and technical assessments:

- > Records of Title
- > Coastal Process Assessment (Davis Coastal Consultants)
- > Landscape and Visual Effects Assessment (Isthmus Group)
- > Ecological Effects Assessment (BlueGreen Ecology)
- > Memorandum – Location of Mean Highwater Springs, Glen Isla Place, Waihi Beach (Davis Coastal Consultants)
- > Engineering Design Report (Davis Coastal Consultants)
- > Glen Isla Place Tree Protection Plan (Arbor Care Ltd)
- > Construction Methodology (Davis Coastal Consultants)
- > Noise Trial Report (Marshall Day Acoustics)

An application for the necessary land use resource consents from WBOPDC has been made separately to this application.

2. BACKGROUND

Waihi Beach is a coastal township located on the east coast of the North Island at the northern extent of the Bay of Plenty Region. It is an approximately 10km long, open-coast barrier beach orientated north-east, with a long history of coastal erosion and protection / mitigation activities.

The Coastal Processes Assessment (**Appendix B**) provides a detailed review of historic beach changes at the site, and the below summarises the various coastal erosion mitigations that have been adopted along Waihi Beach, particularly the coast fronting 9, 11, 13, 15, 16, 14 and 12 Glen Isla Place.¹

Following severe storm events in the late 1950s, the former Ohinemuri County Council put coastal erosion protection measures (primarily hard protection structures) in place along Waihi Beach in response to beachfront residents' concerns. This response continued over the following 30 years.

In 1983, a seawall was constructed south of Three Mile Creek, approximately 20m seaward of the boundary of the Glen Isla Place properties which border the coast. This seawall was essentially an extension of the various sections of sea walls that had been built over the preceding decades to the north of Three Mile Creek.

Between 1993-2008, WBOPDC investigated and sought consent to undertake protection works to replace existing sea walls and ad hoc protection at Waihi Beach. Construction of the scheme began in 2009/2010. A permanent revetment, which was to be located 5 metres off the private property boundaries, was originally investigated for the Glen Isla dunes. This proposal was substituted with a soft protection method involving enhanced sand dunes and planting of dune vegetation, which was subsequently constructed in 2011. Remnants of the historic seawall were also removed at this time.

The soft protection dune enhancement was entirely washed away by a severe storm within a few weeks of being finished. No erosion protection or care initiatives have been put in place since 2011.

Tonkin & Taylor Ltd provided a review of Primary and Secondary Risk Coastal Protection Areas ("**CPA**") in 2015. Two planning timeframes were applied to identify the coastal hazard extent at sufficient time scales for planning and accommodating future development, being

¹ The summary of coastal erosion mitigations relies on C. Dullnig, 'Waihi Beach Coastal Protection Consequence of 1930's Stormwater Control Measures', 2016, other publicly available documents, and observations of GIPS members.

2065 (50 years) and 2115 (100 years). Maps attached to the reassessment report identify properties at 1, 3, 5, 7, 9, 11-12 Glen Isla Place as “Primary Risk CPA” (shown as double hatch in **Figure 1**), and the wider coastal area as “Secondary Risk CPA” (shown as single hatch in **Figure 1**).

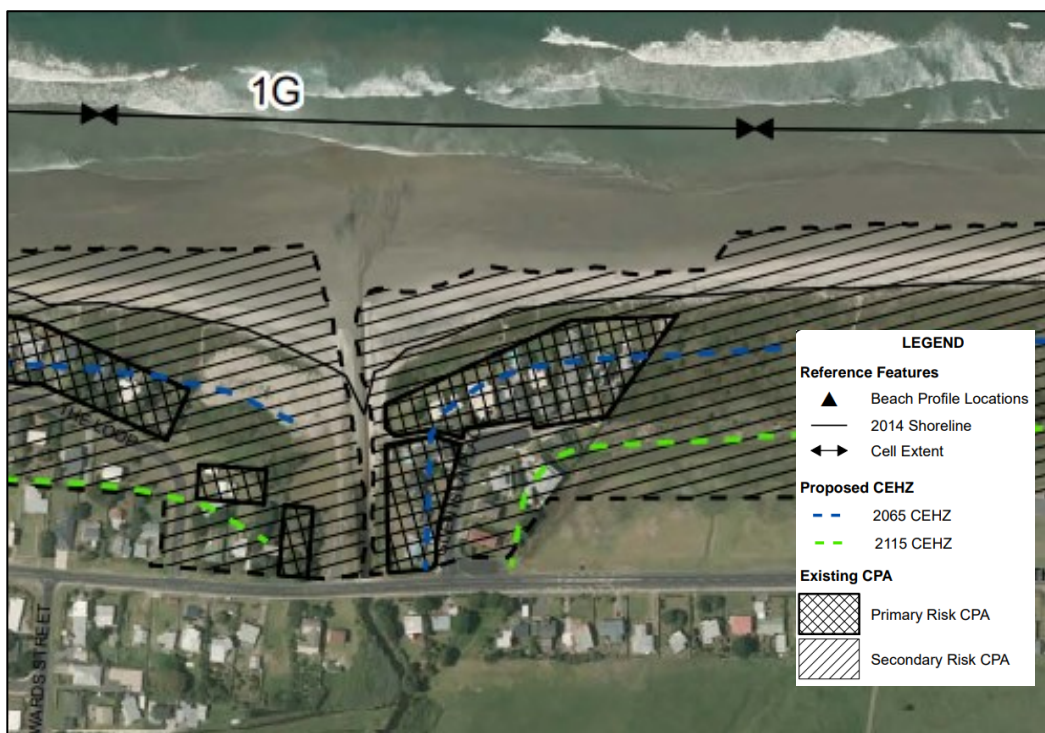


Figure 1: Map from 2015 Tonkin & Taylor Report

Significant further erosion of the remaining dune area occurred during Cyclones Hale and Gabrielle in early 2023 which resulted in the loss of up to 3 metres, in horizontal dune width.

While some indigenous vegetation has regenerated in the northern half of the Glen Isla dunes, southern parts of the Glen Isla dune have not naturally recovered, and are now approximately 5 meters wide, a loss of up to 15 metres from the position of the 1983 seawall.

In response to recent events, GIPS approached WBOPDC to explore coastal protection options for the Glen Isla dune within the Council’s Reserve land. The outcome of this is the subject of this resource consent application and a separate application to WBOPDC.



3. EXISTING ENVIRONMENT

3.1 SITE LOCATION AND CONTEXT

Waihi Beach is a coastal township in the Western Bay of Plenty at the base of the Coromandel Peninsula, approximately 10km east of the inland town of Waihi. The settlement is well established with a mixture of traditional baches and recent beach house development. The township's layout is generally parallel to the beach, with development located close to the coastal margin for much of the central and northern beach extent.

Various ad-hoc structures and coastal protection works have been constructed over the decades to manage coastal erosion at Waihi Beach. Notably, exposed rock revetments extend along approximately 420m in front of The Loop, and approximately 500-600m in front of Shaw Road.

The profile of Waihi Beach is generally very flat, with a broad intertidal zone offering a deep open beach at low tide, and a narrow beach against the fore dune and existing coastal erosion structures at high tide.

The site is located approximately halfway along Waihi Beach within the Three Mile Creek Reserve at Waihi Beach which is classified as Local Purpose Esplanade and Recreation Reserve under the WBOPDC. The site is adjacent to nine private residential properties, being 9, 11, 13, 15, 16, 14 and 12 Glen Isla Place, which are owned by GIPS members. The project site is legally described as Lot 18 DPS 22035 (.4130 ha) Rec Res and Lot 19 DPS 22035 (.6620 ha) LP Espl (refer **Figure 1**).²

² These legal descriptions and areas are as described in Appendix 1 to the Katikati-Waihi Beach Ward Reserves Management Plan.



Figure 2: Site location at Waihi Beach (Source: Coastal Processes Assessment).

The coastline at the site is characterised by a gently sloping intertidal area that rises slowly to an unarmoured, narrow, vegetated bank. The dune slope is gentler at the northern end, where sand accumulation appears to be supported by the presence of groynes along the banks of Three Mile Creek. The southern end of the site comprises a narrow dune terrace with a steep, eroded face exemplary of the susceptibility of the frontal dune to episodic storm erosion. The Coastal Processes Assessment (**Appendix B**) provides a detailed description of the morphology and coastal processes at the site.

The GIPS properties are located landward of the narrow frontal dune, at an elevation of approximately Relative Level (“RL”) 4.0m. Residential dwellings on the GIPS properties are generally set at the landward edge of the property with grassed lawns on the seaward side. The dwellings are a mix of single and two-storey dwellings. Some properties have fences erected along the seaward property boundary. These built structures are easily seen at the top of the dune from the beach. The Landscape and Visual Amenity Effects Assessment (“LVA” at **Appendix C**) provides a more detailed description of the character of the site and broader context.

The vegetated extent of the back dune system is approximately 20m wide closest to the channel outlet and narrows to approximately 4-5m wide towards 12 and 14 Glen Isla Place. Indigenous plants are most prominent in the northern foredune (including beach bind weed, spinifex, and pingao), and in the very south (where pohuehue on the terrace and spinifex

along the erosion scarp face are notable). Knobbly club rush and pohuehue are the common native dune plants throughout, however, the great majority of the back terrace and terrace slope is covered by exotic species, many of which are considered serious weed species. A mature Norfolk Pine is located close to the boundary, on private land at 13 Glen Isla Place.

The predominant vegetation types are summarised in **Figure 3**. A fulsome description of the site's flora and fauna is provided in the Ecology Assessment at **Appendix D**.



Figure 3: Predominant vegetation types (Source: Ecology Assessment).

Three Mile Creek Reserve is a 'Neighbourhood Amenity Reserve' and provides public access to and along Waihi Beach. From Seaforth Road, the public can access the coast via the public pedestrian accessways on the northern and southern banks of Three Mile Creek which run all the way to the open beach. From Glen Isla Place, there is a dedicated pedestrian access way between property numbers 9 and 7 that connects to the accessway along the southern bank of Three Mile Creek. The open beach provides for access along the coast. The unmanicured vegetated dune area does not provide for public access or other recreation, given it is a sensitive habitat and the public are discouraged from walking through these areas.

Public walking access from Seaforth Road and Glen Isla Place via Three Mile Creek Reserve is indicated in the figure below.



Figure 4: Indicative location of public beach access at Three Mile Creek.

Three Mile Creek is located immediately to the north of the site. Three Mile Creek is a man-made diversion of inland drainage channels that was dug through the dune in the early 1940's. Training walls, made of sandbag groynes, line the northern and southern banks of Three Mile Creek. Three Mile Creek is periodically dredged by WBOPDC in accordance with the relevant Reserve Management Plan. Dredging typically occurs monthly and sand is deposited immediately south of Three Mile Creek, seaward of the dunes.

Island View Reserve is located to the south of the site. The open beach is vested in Council as Esplanade Reserve, and the vegetated dune land to the south is Crown Land (owned by Department of Conservation (“DoC”)) held for conservation purposes and is a Recreation Reserve.³ WBOPDC has been appointed by the Minister to control and manage the reserve.

³ As per the Katikati Waihi Beach Ward Reserves Management Plan.



Figure 5: DoC Reserve land (orange speckle) and Council Reserve / Esplanade Reserve land (green speckle). (Source: District Plan maps).

The following photos, taken during a site visit on 4 and 5 April 2024, are indicative of the existing environment.



Figure 6: Dune face looking north from 16 Glen Isla Place. The Norfolk Pine at 13 Glen Isla Place is prominent in the middle ground.



Figure 7: Dune face looking north from in front of 13 Glen Isla Place. Sand spoil disposal area is visible as lighter sand area.



Figure 8: Sand spoil disposal area from Three Mile Creek maintenance works located in front of 9 Glen Isla Place. Regenerating vegetation can be seen behind the sand disposal area.



Figure 9: Example of existing dune vegetation in front of 11 Glen Isla Place, looking north.





Figure 10: Example of existing dune vegetation in front of 15 and 16 Glen Isla Place, looking southeast.

3.2 PLANNING OVERLAYS

Under the Coastal Plan (refer **Figure 11**), the reserve land is located within the Coastal Environment (delineated by the yellow line) and Indigenous Biological Diversity Area B1 – Central Waihi Beach (“**IBDA-B1**” delineated by the black hatch).





Figure 11: Excerpt of the Coastal Plan.

The reserve land at Glen Isla Place is within 150m of the CMA and comprises of a sand dune system with sand soils such that it falls within the definition of “Sand Dune Country” as defined in the Regional Plan:

Sand Dune Country – coastal dune systems with sand soils, which are characterised by low amounts of organic matter and low cohesiveness. Includes areas with Land Use Capability of Vlle and Vllle, and Land Management Suite of LMS 3 or LMS 4. For the purposes of the rules in the Land Management section of this regional plan, it is coastal land measured horizontally from the Coastal Marine Area to either:

- (i) 150 metres landward of the Coastal Marine Area; or
- (ii) the point where land changes from sand dune country to another soil type; whichever is the lesser distance.

The reserve land also falls within the “Erosion Hazard Zone” as defined by the Regional Plan:

Erosion Hazard Zone – Land that has very severe to extreme erosion hazards. For the purposes of the rules in this regional plan, the Erosion Hazard Zone is:

- (a) Any Sand Dune Country; excluding sand dune country within urban areas or already developed subdivisions that are on land between 50-150 metres from the Coastal Marine Area.

...



The reserve land is not within the “Coastal Margin” because it is Sand Dune Country, which is specifically excluded by the definition of “Coastal Margin” in the Regional Plan:

Coastal Margin – for the purposes of rules in the Land Management section of this regional plan, the Coastal Margin is the land on the edge of an estuary, harbour, or the open rocky coast, excluding Sand Dune Country, as measured horizontally from the Coastal Marine Area to 40 metres landward of the Coastal Marine Area.

For completeness, it is noted that the site is zoned Rural in the Western Bay of Plenty Operative District Plan (“**District Plan**”). The adjacent properties at 9-16 Glen Isla Place are zoned Residential.

Parts of the site are also subject to the following District Plan overlays:

- > Coastal Erosion Area – Primary Risk (delineated by the faded red line);
- > Coastal Erosion Area – Rural (land zoned rural and within 100m of Mean High Water Springs);
- > Coastal Inundation Area (delineated by the burgundy hatch area); and
- > Landscape Area: Natural Feature/Landscape – S24 – Open Coastal landscape Landward Edge protection Yard (delineated by the black dots).

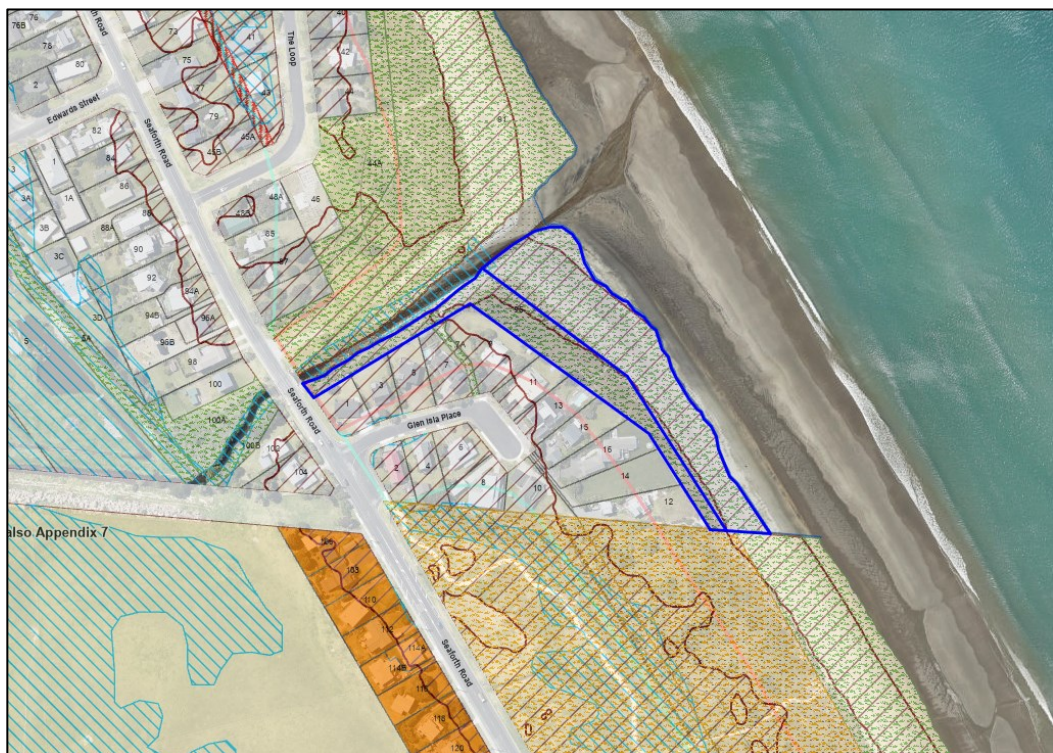


Figure 12: District Plan Zoning and Overlays

3.3 COASTAL MARINE AREA

The proposed works are located within the Coastal Environment but not within the coastal marine area (“**CMA**”).

The CMA is defined by the RMA as follows:

***coastal marine area** means the foreshore, seabed, and coastal water, and the air space above the water—*

- (a) of which the seaward boundary is the outer limits of the territorial sea:*
- (b) of which the landward boundary is the line of mean high water springs, except that where that line crosses a river, the landward boundary at that point shall be whichever is the lesser of—*
 - (i) 1 kilometre upstream from the mouth of the river; or*
 - (ii) the point upstream that is calculated by multiplying the width of the river mouth by 5*

GIPS engaged Davis Coastal Consultants to analyse the position of mean high water springs (“**MHWS**”), to inform identification of the landward boundary of the CMA. The methodology and conclusions utilised by Davis Coastal Consultants are set out in full in **Appendix E**.

The position of MHWS springs is shown in **Figure 7**, with the red area representing the envelope within which MHWS has been since 1987. The 2011 and 2024 MHWS are represented by blue dashed lines. As demonstrated by the figure below, the project site is landward of the CMA (noting that the project design has evolved from the below figure).

This position was provided to BOPRC and subsequently accepted via email on 13 May 2024. This is the basis upon which the project has progressed, the position against which the consenting requirements have been determined and the proposed construction methodology and management measures have been developed.



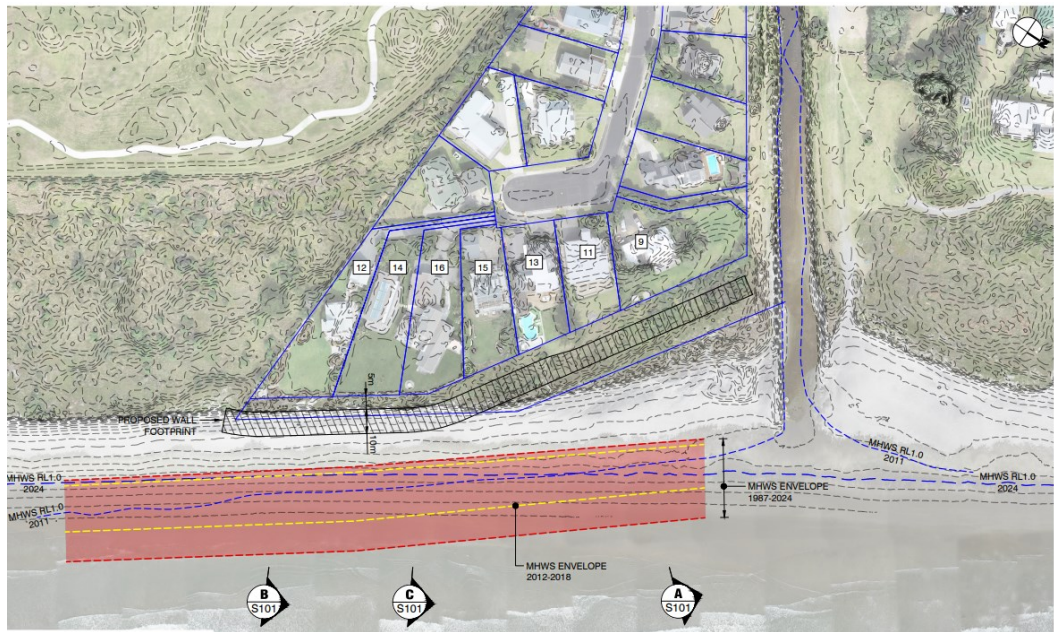


Figure 13: Historic Extent of MHWS 1987-2024 (Source: Davis Coastal CMA Memo)

4. DESCRIPTION OF THE PROPOSAL

The Applicant proposes to undertake earthworks and vegetation clearance in the Coastal Environment associated with the installation of a buried coastal protection structure on Reserve land at Waihi Beach. The structure has been designed by Davis Coastal with the specific design details set out in Engineering Design Report (**Appendix F**).

The earthworks associated with the construction of the structure will be located in the back and foredune area seaward of 9, 11, 13, 15, 16, 14 and 12 Glen Isla Place but landward of the CMA. The use of the land has been agreed to by WBOPDC Reserves through a separate process and is subject to a formal agreement which sits outside of the RMA process.

The proposal seeks to minimise the extent of land disturbance and vegetation removal by undertaking all construction activities within a dedicated “construction trench”. The length of the proposed structure is approximately 200m, and the maximum width of the construction trench is 13m at the northern end.

Earthworks will be setback from the property boundaries of 12, 14 and 16 Glen Isla Place by approximately 5m. The setback will increase to approximately 7.6m from the Norfolk Pine between 11 and 13 Glen Isla Place, and then decrease towards the northern end to approximately 6.5m. The setback off the Norfolk Pine is recommended by Arbor Care Ltd to protect the health of the tree (refer **Appendix G**).

An area of high value dune vegetation, consisting of spinifex and pingao, at the northern end will be fenced, as shown in **Figure 13**. The alignment of the proposed structure, the earthworks extent and the separation of the works from this area will avoid any disturbance of this area.

The northern end will be separate from the Three Mile Creek groynes and not impact the integrity of these structures. At the southern end, a return continuing approximately 20m landward is proposed, with no construction works extending into the neighbouring DOC reserve area.

The total area of disturbance, subject to final design of the structure, is approximately 2,500m². Earthworks are to occur to a depth of approximately 0.0mRL, requiring a maximum excavation of 5m at the northern end. An aerial image and cross section of the proposed construction trench is shown in **Figure 14** and **Figure 15**.



Figure 14: Indicative location of vegetation removal (blue), proposed structure (black dashed line) and northern dune vegetation to be protected.

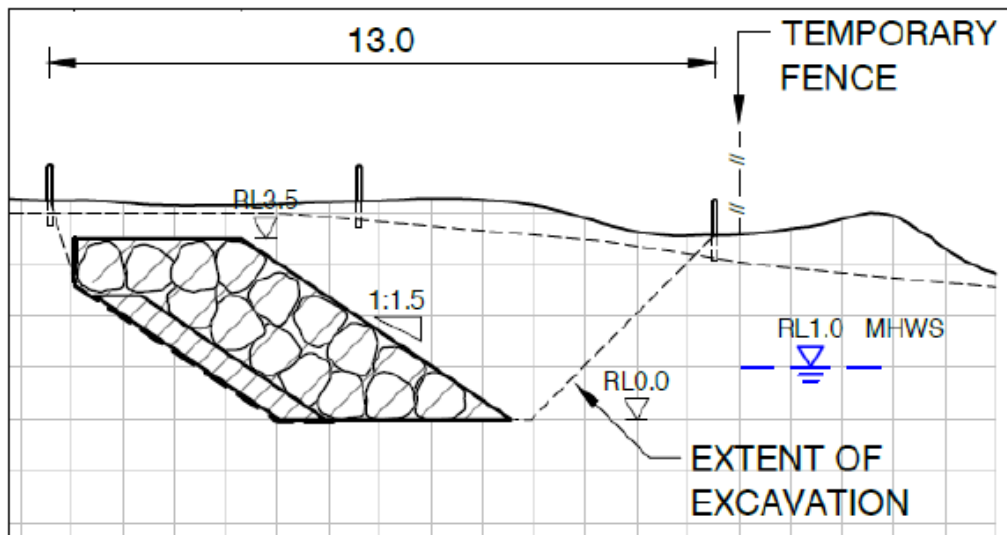


Figure 15: Indicative cross sectional area of excavation to place the structure in the northern portion (Source: Construction Methodology).

Rock material is proposed to be brought to site on an “as required” basis, to minimise adverse visual effects of rock stockpiles. Rocks, sourced from a local Waihi Beach quarry, will be placed on a heavy gauge geotextile and will be generally completely removed (i.e. placed within the structure) daily.

Excavated sand and rock will be temporarily stockpiled on site, landward of the CMA and high-tide mark, for re-use onsite.

With regard to erosion and sediment controls, the site is atypical due to being a sand dune in close proximity to the CMA. The run-off of fines is not considered a concern because all



excavated material will be beach sand. A clean water diversion bund is proposed to minimise risk of contamination.

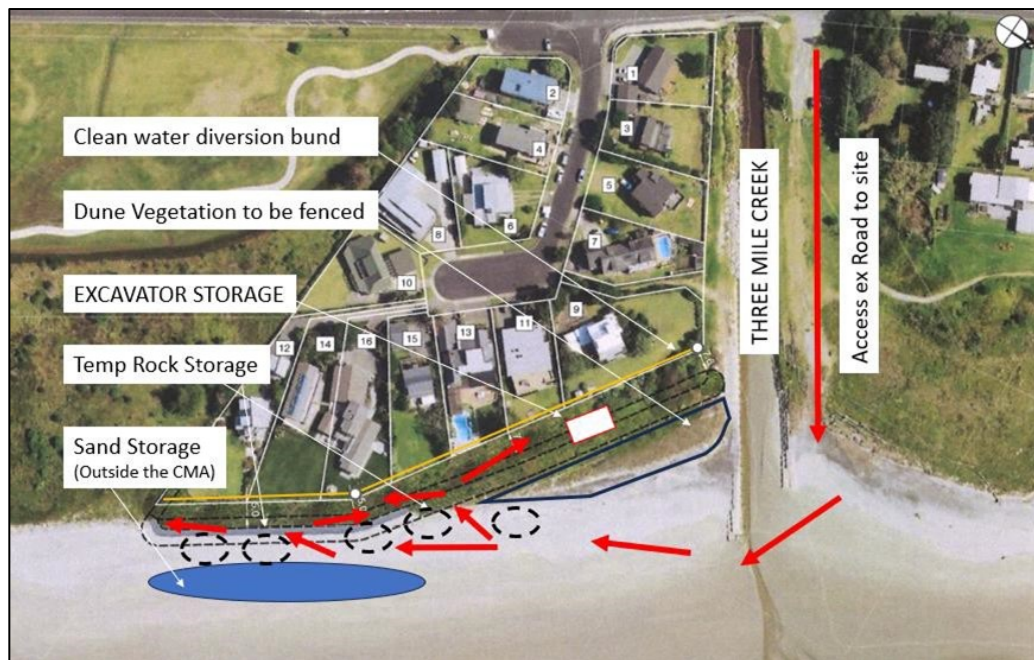


Figure 16: Indicative location of construction activities

Vehicle access is proposed from the existing vehicle entrance at north of Three Mile Creek from 100 Seaforth Road, then along the CMA seaward of the Three Mile Creek groynes. Due to the presence of groynes on the left and right banks of Three Mile Creek, vehicles must cross a small section (approximately 50m lineal) of the CMA to access the project site from the north.

Vehicle movements will be limited to delivery and removal of an excavator at the beginning and end of works, and a road legal, pneumatic tyred tractor and tipping trailer unit for the delivery of rock and construction materials. The excavator will be left on site for the duration of the project, outside the CMA, within the footprint of the construction trench.

To the extent practicable, all work and material delivery shall take place above the high tide mark. Three Mile Creek will need to be crossed where it discharges onto the foreshore for material and plant delivery. Vehicle movements will be managed to minimise time below high tide and avoid contamination of the tidal area as practicable and so that disturbance is restored by natural processes in 7 days. Machinery will be clean to the extent practicable and free from any leakage of petrochemicals.



Provision of vehicle access through the CMA is the best practicable option because:

- > This is the same access point and route use by WBOPDC contractors who undertake regular (approximately monthly) maintenance works within Three Mile Creek and the CMA area.
- > Island View Reserve (DoC reserve land) to the south of the proposed earthworks is vegetated sand dune which is identified as IBDA-B1. The proposed route avoids disturbance of this sensitive habitat.
- > WBOPDC Reserve land on the true right bank (southern side of Three Mile Creek) is an existing and well used public accessway to the beach, is too narrow to accommodate the construction vehicles and does not provide a formed vehicle access to Seaforth Road.

The entire structure will be buried under at least 0.5m of sand, sourced from the footprint of the structure, and recontoured to mimic natural dune form. The dune face at the southern end will be placed at 1:3, on approximately the alignment of the dune face surveyed by LiDAR in 2011, slightly landward of a typical stable dune face. The dune face will be kept as landward as practicable. The northern end will be reinstated to match existing ground level.

All disturbed areas will be revegetated with indigenous dune plant species, as recommended in the Ecology Assessment, which will placed to avoid the appearance of “lines or bands as per the LVA recommendations. **Figure 17** and **Figure 18** provide an indication of the finished contours and planting of earthworks.

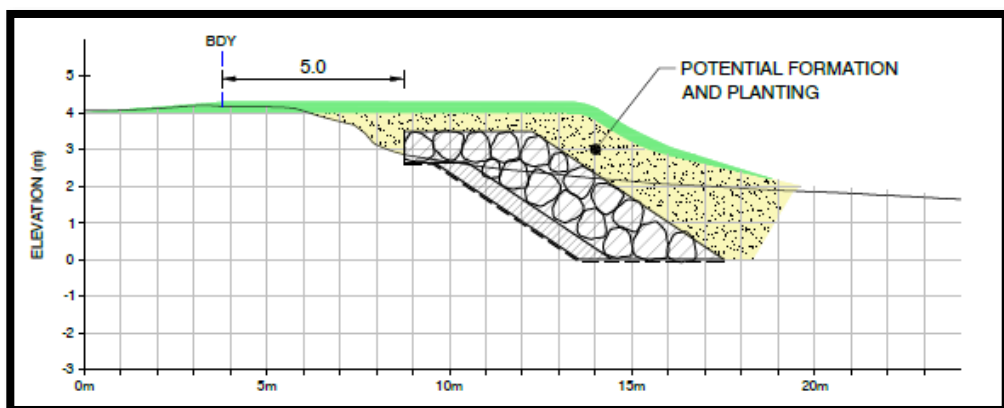


Figure 17: Example cross section of southern portion

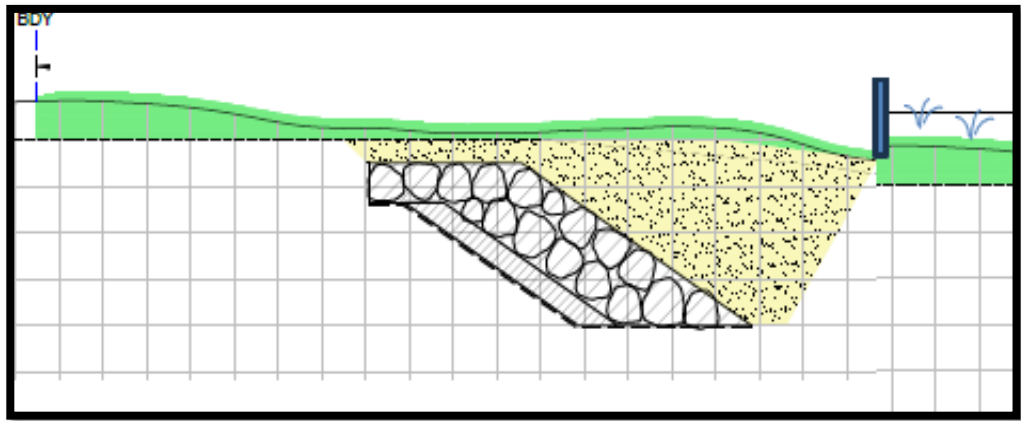


Figure 18: Example cross section of northern portion

4.1 CONSTRUCTION METHODOLOGY

The full construction methodology is attached as **Appendix H**. Key elements of the construction methodology include:

- > Working hours will be 7am – 5pm, Monday – Friday when enabled by the tide. Work will not be undertaken at night or once daylight becomes unsuitable. However, the work is tidally and storm dependent and work may continue outside working hours for up to three days a week every two weeks. This may include Saturday working outside school holiday periods. No work will take place before 6am or after 8pm.
- > It is anticipated that the entire project will be completed in 4 months however, an allowance of 6 months is proposed to accommodate periods of inclement weather, and other unforeseen issues. On this basis a specified project duration of 6 months between April to November, inclusive, is proposed. Work will not be undertaken at Easter or other Public Holidays.
- > Where strong onshore conditions, storms or extreme tides threaten the works footprint, the works site shall be made safe, and works will cease while there is a threat of tidal interaction with the works.
- > The only activity below MHWS will be vehicle movements with the express purpose of delivering machinery and materials to the project site. During these times, signage and spotters from the construction team will ensure that the health and safety of other users of the beach is provided for.
- > Construction activities will occur within an identified construction corridor to minimise disturbance of the dunes as far as practicable. Given the sandy nature of the site, no specific erosion and sediment control measures are required.



- > Construction will occur in a staged manner. In general, the footprint will first be lowered to RL 2.0 to form a work platform. Works anticipated to occur within a single tidal cycle include excavation to target depth and the first lift (placement of geotextile and first armour layer) occurring in approximately 10m long sections. Placement of second and third armour layers is anticipated to occur in sections of approximately 50m. Should this extent of works not be feasible within a tidal cycle, the construction methodology will be updated as required.
- > Excavated material will be stored seaward of the construction area, above the normal tide range, for use in site reinstatement. All material is anticipated to be reused onsite and there will be no disposal of any material in the CMA .
- > Rock material will be delivered to site on an “as required” basis as much as practicable such that stockpiling on site is minimised but efficient construction can continue. Temporary stockpiles will be placed on heavy gauge geotextile. Any rocks not placed during the work day will be stored within the construction corridor.
- > All machinery and equipment shall be kept overnight on the wall alignment above RL 3.0. All equipment will be kept in good condition, clean and free from any leaks. No refuelling will be undertaken within the CMA and only equipment that cannot readily leave site (excavators) will be refuelled on site. A spill kit will be present on site.
- > Noise and vibration monitoring will be undertaken while works are occurring. The construction methodology will be updated if monitoring results show levels higher than the permitted construction levels.
- > At the completion of construction, disturbed dune areas to be re-vegetated with a mix of indigenous fore- and back-dune species to effectively bind the disturbed sand and re-build the dune. The planting will be with species as identified in the planting plan to be developed by the project ecologist. There will be no introduction of exotic plant species into IBDA-B1.
- > If required, a wind fencing may be utilised along face of new planting and at dune crest to minimise wind-blown sand to back dune area and protect plants while they are establishing.

4.2 ALTERNATIVES CONSIDERED

In developing the Proposal, the Applicant considered a range of coastal protection options, which have been summarised below. A full assessment of various options is provided in the Engineering Design Report (**Appendix F**).



It is noted that avoidance and managed retreat are not considered appropriate options in this scenario because development has already occurred adjacent to the coast, and the coastal erosion risks can be addressed by conventional engineering approaches, similar to those elsewhere on the Waihi Beach. Historical 'soft' options have also been unsuccessful when used in isolation.

GIPS considered that dune reestablishment and a high-quality dune revegetation approach would be part of any coastal protection option.

A buried rock revetment solution has been identified as the preferred option because of the benefits of:

- > Providing for construction outside the CMA;
- > Enabling a soft engineering / dune enhancement approach to be incorporated into the overall design;
- > Widely, tested and accepted design formulation for coastal erosion;
- > Proven solution on at Waihi Beach , with northern seawall walls managing recent large storm events;
- > Using locally sourced rock for the revetment; and
- > Local contractor experience with rock revetments.



5. RESOURCE CONSENT REQUIREMENTS

The relevant regional planning documents to the proposal are the:

- > Regional Coastal Environment Plan; and
- > Regional Natural Resources Plan.

5.1 COASTAL PLAN REQUIREMENTS

Rules in the Coastal Plan apply only within the CMA. The only activity proposed to occur within the CMA is the use of vehicles for the sole purpose of providing access to a site for the delivery of machinery, rock, material and plantings.

The permitted activity Rules DD 7 and DD 9 do not apply to the proposal as the proposed earthworks and vegetation clearance are not solely conservation management or soft protection method activities and are not associated with Coast Care. Additionally, the proposed vehicle use in the CMA is not prohibited by DD 18.

Therefore, the proposed vehicle use in the CMA is considered to be provided for by Rule DD 14 as a **discretionary activity**, which provides for the disturbances of the foreshore and seabed that is not provided for by another rule in the plan.

5.2 REGIONAL PLAN REQUIREMENTS

Activities within the Coastal Environment, but outside the CMA, are subject to the rules set out in the Regional Plan.

Earthworks in the Erosion Hazard Area and Sand Dune Country within 50m of the CMA are not provided for by any other rule in the Regional Plan and are therefore a **discretionary activity** under LM R4.⁴

Land and soil disturbance by vegetation clearance in Sand Dune Country and Erosion Hazard Area is not provided for by any other rule in the Regional Plan and is therefore a **discretionary activity** under LM R10.

The discharge of stormwater to land soakage is a **permitted activity** under DW R22. The proposal does not introduce impervious area, concentrate or divert stormwater such that:

- > Stormwater will not exceed the maximum rate of discharge (condition a), or cause or contribute to flooding or ponding on neighbouring land (condition f);

⁴ The note at LM R1 Table LM1 confirms that any earthworks within the Erosion Hazard Zone and on Sand Dune Country within 50 metres of the CMA are discretionary activities under LM R4.



- > Stormwater will not cause the production of conspicuous oil, grease films, scum or foams, or floatable materials (condition b), contain waste from a trade or industrial process (condition c), and is not from a site where chemically treated timber preserved, treated, or stored (condition d); and
- > Stormwater will not cause or induce erosion to the bed or banks of Three Mile Creek (condition e).

The Regional Plan does not contain rules controlling the use of land within the Erosion Hazard Zone or Sand Dune Country.

Overall, the proposal requires resource consent for earthworks and vegetation clearance as a **discretionary activity**.

For completeness, it is noted that the requisite resource consents from WBOPDC for land use activities, including earthworks, are being sought separately.



6. ASSESSMENT OF ENVIRONMENTAL EFFECTS

This section of the AEE addresses the actual and potential environmental effects associated with the proposed earthworks and vegetation clearance outside the CMA, including:

- > Positive effects;
- > Effects on coastal processes;
- > Natural Character and Natural Features;
- > Ecological effects;
- > Public access; and
- > Cultural effects.

This section of the AEE has been informed by the technical reports provided as appendices to this AEE.

6.1 POSITIVE EFFECTS

The proposal will enable the construction of a structure which will protect Three Mile Creek Reserve land and adjacent existing residential development from coastal erosion.

The proposal will also result in positive effects which are discussed in further detail under the relevant headings below. In particular, the proposal is anticipated to result in net benefit for ecological values due to the proposed remediation/mitigation planting of indigenous dune vegetation and will result in predominantly Moderate-High positive effects on natural character, landscape, and visual amenity.

6.2 CONSTRUCTION EFFECTS

The Applicant has engaged Davis Coastal Consultants to develop a Construction Methodology Statement which recognises the unique nature of the site to assist in understanding the potential effect of the works. The Construction Methodology, summarised in Section 4.1 above, is attached in full as **Appendix H**.

The site is atypical with regards earthworks and typical silt and dust control measures. All material being excavated will be beach sand so that management of fines run off will not be an issue. The downhill part of the site is bounded by sandy beach and the tide. Silt fences are not required. Additionally, given the sandy nature of the material, no specific dust control is proposed.

All machinery and equipment shall be kept overnight on the wall alignment above RL3.0. All equipment will be kept in good condition, clean and free from any leaks.



No refuelling will be undertaken within the CMA and only equipment that cannot readily leave site (excavators) will be refuelled on site. A spill kit will be present on site.

Where strong onshore conditions, storms or extreme tides threaten the site, the site will be made safe and works would cease while there is a threat of tidal interaction with the works.

With regard to construction noise, the Applicant engaged Marshall Day Acoustics (“**Marshall Day**”) to undertake a trial of construction noise and vibration effects associated with the proposal. The findings of this trial are attached in full as **Appendix I**. The trial confirmed any noise or vibration from the proposal will comply with the District Plan construction noise standards. While any noise will be permitted, the Applicant proposes to undertake noise and vibration monitoring while works are occurring to ensure noise and vibration effects are kept within acceptable levels at adjacent residential areas. The works methodology will be updated if required as a result of monitoring.

A Construction Management Plan, informed by the Construction Methodology, is to be developed once a contractor is appointed to undertake the works.

It is therefore considered that, with the management of construction activities in accordance with the proposed Construction Methodology, adverse effects of the proposal will be less than minor.

6.3 COASTAL PROCESSES

The Applicant has engaged Davis Coastal Consultants to undertake an assessment of effects on coastal processes. The Coastal Processes Assessment is attached in full as **Appendix B** and has been summarised below.

The Assessment primarily relates to the potential effect of the proposed coastal erosion structure and considers existing coastal processes, projected sea-level rise and provides a probabilistic analysis of future erosion hazard and long-term shore retreat.

The project site is located outside of the CMA, well above the area of tidal interaction and changes at this level tend to represent the storm driven erosion and dune rebuilding. The site will have limited interaction with coastal processes and it is considered that the landward position, length, alignment, and design of the proposal appropriately avoids, to the extent possible, and otherwise minimises adverse effects on coastal processes.

For completeness, it is noted that the effects arising from the landward position, length, alignment, and design of the proposed structure appropriately avoids and minimises



adverse effects on coastal processes, even when taking into account the effects of sea-level and shoreline retreat over the long-term. In particular:

- > The proposed structure will have less impact on coastal processes than other structures present at Waihi Beach.
- > End effects⁵ will be negligible due to the limited interaction of the structure with coastal processes. During the 30-50 year period, some storm scour may occur at the southern end, however, it is likely to be no worse than, and difficult to discern from, dune erosion elsewhere on the natural coastline.
- > The potential for the proposed structure to cause “sediment lock-up” and adversely affect the availability of sand will be negligible and will have no discernible effect on the surrounding beach.
- > Even in the advent of shoreline retreat, beach lowering and groyne effects will be less than minor due to the lack of protrusion into the surf zone and shore parallel alignment, and the proximity of the far larger Three Mile Creek groynes.

Overall, it is therefore considered that adverse effects of the proposal on coastal processes will be less than minor.

6.4 VEHICLE USE IN THE CMA

When considering the effects of the proposed vehicle use in the CMA, it is relevant that while the use of vehicles in the CMA to provide access to activities outside the CMA is not explicitly provided for, the vehicle use associated with the proposal will comply with the permitted conditions of Rule DD7 of the Coastal Plan. In particular:

- > There will be no discharge of contaminants;
- > The vehicles will not traverse any shellfish beds or vegetation in the CMA and will occur outside of any bird nesting area during the nesting season;
- > The vehicles will not exceed a speed of 15 km/hr;
- > The shortest possible distance between the two landward points either side of Three Mile Creek has been chosen for the route across Three Mile Creek being the CMA;

⁵ Such as rip currents / differential head, deflection of swash and wave energy by end of the structure, and sediment lock-up.



- > Vehicles will not be parked on the beach when not in use. Machinery to be kept on site for the duration of the project will be stored outside the CMA, within the proposed construction footprint as shown in Figure 16; and
- > The route and access point to the CMA is shown on Figure 16 above and it will be sign posted with a traffic controller present on the day.

In summary, while the vehicle use of this type is not explicitly provided for, the vehicle use associated with the proposal it is consistent with the intent of the rule and it meets all of the relevant permitted standards. Therefore, it is considered that any potential effects of the proposed vehicle use in the CMA will be appropriately provided for and managed to ensure any effects are negligible.

6.5 NATURAL CHARACTER AND NATURAL FEATURES

The Applicant has engaged Isthmus to undertake an Assessment of Landscape and Visual Amenity Effects (“**LVA**”) for the proposal. It includes an assessment of effects on the natural character of the site and its immediate surroundings. The LVA is attached in full as **Appendix C**.

The key aspects of the LVA are:

- > The site is not identified as an area of Outstanding, Very High or High natural character in statutory planning documents. This is consistent with the observed character of the area.
- > The site is within ONF S24 - Open Coastal Landward Edge Protection Yard under the District Plan. The overlay is defined as containing “all land adjoining the open coastline, zoned Rural and within 100m of MHWS”. No other specific characteristics or values are identified in the District Plan for the ONF. The proposal will avoid adverse effects on the characteristics contributing to values of the ONF overlay.
- > The site contributes to the natural character of Waihi Beach through its naturalised dune landform and planting. The existing natural character of the site is reduced by the earlier dune modifications and placement of structures; the exotic and residential/amenity-type plantings present on the dune (and visible from the beach); and the clear views of dwellings and associated structures (fencing and garden structures) at the top of the dune.
- > At completion, the effect on natural character at the site is assessed as **Moderate-High positive**. Perceptions of natural character will increase particularly at the south end with a higher-quality coastal edge and new planting visible across the full extent of the dune.

- > If exposed, either in the short or long term, the structure would be seen with planting retained to the north and top parts of the dune (at areas protected by the structure). It would be seen as part of a modified context which includes other structures close to the site; and would be visually consistent with other areas of rock revetment to the north of the site along Waihi Beach. In the long term, the structure will ensure a higher-quality coastal edge (providing a “naturalised” appearance of rock revetment seen together with planting), than would be likely to occur with the (future) effects of climate change.
- > Landscape effects relating to public access are assessed as **High positive**, as the proposal will protect the existing public access along the coast.
- > In views from Waihi Beach, effects on visual amenity are assessed as **Moderate-High positive**. The increased visual amenity will result from views of enhanced and more extensive areas of naturalised indigenous planting.
- > Effects on views from Three Mile Creek are assessed as **Neutral**. Views will be of new planting at the northern end of the site and the change will be less discernible.
- > **Low adverse** temporary construction effects are considered to be appropriately minimised by the proposed construction methodology and timing of works. These are interpreted to be “less than minor”.⁶
- > The proposal meets the relevant objectives and policies of the New Zealand Coastal Policy Statement (“**NZCPS**”) and the regional and local statutory planning documents, in that it will not generate adverse effects on the attributes/characteristics contributing to values of the ONF identified over the site; and will not generate significant adverse effects on the attributes contributing to the natural character of the site and its more immediate surroundings at Waihi Beach.
- > The LVA recommends that:
- > A detailed planting plan is provided for the proposed revegetation of the site, with confirmation of plant placement on the ground by an ecologist or landscape architect prior to planting, to ensure that a naturalised appearance to new planting is achieved, with species located in naturalised groupings and any appearance of “bands” or “lines” of particular species avoided.
- > Rock is sourced from a local Waihi Beach quarry, and with a variety of sizes selected to ensure a more naturalistic appearance to the revetment (should rocks become exposed after a large storm event or over time due to the effects of climate change). For parts of

⁶ Per the NZILA Rating Scale guidance provided in Appendix A to the LVA.



the structure at risk from erosion/exposure, rocks with a weathered appearance should be used (as far as possible).

The Applicant has accepted and adopted the recommendations of the LVA.

Overall, the effects of the proposal on natural character, landscape and visual amenity are predominantly positive effects and construction effects are temporary and are appropriately managed.

6.6 ECOLOGICAL EFFECTS

The Applicant has engaged BlueGreen Ecology to undertake an assessment of effects on ecological values. This report is attached in full as **Appendix D**. By way of summary, the assessment concludes that:

- > The site is located within an 'Indigenous Biological Diversity Area B (IBDA B1 Central Waihi Beach)' layer overlay of the Coastal Plan.
- > The site contains three main vegetation assemblages:
- > 'Northern spinifex foredune' (400 m²) of High ecological value;
- > 'Central exotic terrace, hollow and riser slope' (2430 m²) of Negligible ecological value; and
- > 'Southern pohuehue' (175 m²) of Low ecological value.
- > The 'northern spinifex foredune' meets the following criteria under the NZCPS:
- > Policy 11(a)(i) due to the presence of pingao (*At Risk*);
- > Policy 11(a)(iii) due to sand dunes being natural rare ecosystems;
- > Policy 11(b)(i) being an area of predominantly indigenous vegetation in the coastal environment; and
- > Policy 11(b)(iii) being indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable to modification.
- > The proposed construction methodology appropriately avoids effects on the 'northern spinifex foredune'.
- > The 'southern pohuehue assemblage' meets Policy 11(b)(i) of the NZCPS, being an area of predominantly indigenous vegetation in the coastal environment.
- > The proposed structure and construction footprint will result in the loss of 0.17% of that 'southern pohuehue assemblage' vegetation community assemblage at the local scale (0.007 ha of 4 ha), which is considered Negligible. Given the Low ecological value of this



vegetation assemblage and Negligible effect, this effect is considered Very Low at the local scale, and any adverse effects can be appropriately remedied and mitigated.

- > The loss of 0.5% of exotic dune vegetation at the local scale (0.2425 ha of 52 ha) will have a Very Low adverse effect due to the Negligible ecological value of this vegetation assemblage and negligible magnitude of effect.
- > With the proposed remediation / mitigation planting to restore and enhance disturbed areas, the proposal is considered to have a net benefit.

A planting plan is proposed which seeks to replace all disturbed vegetation with appropriate native species and to secure the disturbed area.

As noted above, the proposal avoids significant adverse effects and appropriately remediates and mitigates all other adverse effects such that the proposal will have a net positive ecological benefit.

6.7 PUBLIC ACCESS

As noted in section 3 of this AEE, public access along this extent of Waihi Beach is provided above the MHWS and connects to the formed public accessway provided on both the northern and southern banks of Three Mile Creek.

With regards to temporary effects arising during construction, the proposed works are to occur for a 4-6 month period, predominantly over the colder winter months. This ensures that public access at the busiest times of year, particularly the summer/Christmas holiday period, will not be interrupted.

The location of the works, within the dunes and back dune area in front of 9 and 11-16 Glen Isla Place, will mean that even during high tide there will be public access maintained along the beach. Access to the beach will remain available at all times on the northern side of Three Mile Creek, and via Island View Reserve to the south.

Access along the southern side of Three Mile Creek to the beach will be maintained, to the extent practicable, during constitution of the northern section of the structure. However, there may be a short period, 1-2 weeks, where access restrictions may be in place when the construction works are located in the northern most extent of the structure immediately adjacent to the accessway. These restrictions will be managed through fencing off the construction site from the accessway to separate any pedestrians from the site for health and safety reasons.



Any temporary interruption of public access is considered appropriate for protecting the health and safety of the public around an active construction area and will be managed through the use of signage and spotters from the construction team.

Overall, the proposed location of the structure is the best practicable option and will not contribute to public access issues on the wider beach. It is therefore considered that the proposal will not result in any adverse effects on public access along the coast and to the wider beach environment due to its location in the dune system.

6.8 CULTURAL EFFECTS

Regarding the impacts of the project on cultural values and interests, as set out in Section 7.2, GIPS extended opportunities to engage with mana whenua in order to build a further understanding of their relationship with the project area, and how their relationship can be recognised and provided for, as well as their role as kaitiaki. However, it is noted that none of these engagement offers have been accepted.

Notwithstanding, and acknowledging no specific commentary has been provided by mana whenua, when considering the proposal and tangible cultural impacts it is noted that:

- a) The project will not be located within any recorded 'Sites of Significance to Māori' as identified in the District Plan;
- b) The project will not be located within any Statutory Acknowledgement Area nor will any aspects on the project impact on these areas; and
- c) The Applicant has considered the impacts of the project on the natural values of the coastal environment and coastal processes. In this regard it is noted that the proposed site remediation will result in net ecological benefit and predominantly positive effects on natural character, landscape and visual amenity.

The Applicant proposes to implement an Accidental Discovery Protocol to prudently manage the risk of unearthing any kōiwi or other wāhi tapu during earthworks.



7. CONSULTATION

Through development of the project, GIPS have consulted with and / or extended invites to engage to:

- > Neighbouring landowners, including residents of 1-10 Glen Isla Place;
- > Ngāti Ranginui Iwi Society Inc;
- > Ngāti Te Wai;
- > Te Runanga o Ngai Te Rangi Iwi Trust;
- > Te Runanga o Ngāti Pukenga Iwi;
- > Te Whanau a Tauwhao ki Otawhiwhi;
- > WBOPDC; and
- > BOPRC.

7.1 RESIDENTS OF 1-8 AND 10 GLEN ISLA PLACE

GIPS have held numerous formal and informal conversations with neighbouring properties at Glen Isla Place since early 2024. A range of correspondence and information documents on the proposal has been provided to the Glen Isla residents (provided as **Appendix J**) through the development of the proposal.

GIPS understand that key:

- > Adverse noise and vibration effects of construction;
- > Traffic impacts; and
- > Walking access to the coastal margin.

With regard to noise and vibration effects and effects on traffic, these matters will be appropriately considered under the District Council application and are not considered further here.

The impacts of the proposal on public access to the coastal margin are detailed in Section 6.7.

7.2 IWI, HAPŪ AND MARAE

GIPS have extended multiple invitations to engage to iwi, hapū and marae who were identified as having a cultural association with Waihi Beach.



A high-level summary of the proposal and an invitation to meet to discuss the proposal was sent to Ngāti Ranginui Iwi Society Inc, Ngāti Te Wai, Te Runanga o Ngai Te Rangi Iwi Trust, Te Runanga o Ngāti Pukenga Iwi, and Te Whanau a Tauwhao ki Otawhiwhi on 2 July 2024, again on 29 July 2024 and on 27 August 2024.

Other than a response from Ngāti Te Wai Hapu deferring to Te Whanau a Tauwhao ki Otawhiwhi received on 31 July 2024 via email, no responses have been received on the invitations to engage.

In addition, the following applicant groups seeking a customary marine title under the Marine and Coastal Area (Takutai Moana) Act 2011 (“**MACAA**”) have been sent a copy (Refer to **Appendix K**) of the proposal in accordance with section 62A of the MACAA:

- > Ngati Whanaunga;
- > Ngati Hako;
- > Ngati Pukenga;
- > Nga Hapu o Ngati Ranginui Settlement Trust;
- > Ngati Tara Tokanui;
- > Ngai Te Rangi; and
- > Nga Hapu o Ngai Te Rangi.

Where responses are received and where those responses are relevant to the proposal, the views obtained from the applicant groups will be provided to BOPRC.

7.3 WESTERN BAY OF PLENTY DISTRICT COUNCIL

In October 2023,⁷ GIPS sought approval in principle from the WBOPDC for a proposal to establish a buried coastal protection structure on the Reserve land adjacent to their properties. The Council approved in principle the private construction of a consented structure subject to the following conditions:

- > A resource consent being granted by the relevant consent authority;
- > Consents and construction fully funded by the property owners; and
- > Agreement with WBOPDC on operational cost and responsibilities.

⁷ The meeting [agenda](#) and [minutes](#) are available on the District Council’s website.



In accordance with these conditions, an application for the requisite consents from WBOPDC have been applied for under a separate application concurrently, and the consent and construction costs are fully funded by GIPS.

Subsequent to the discussions with WBOPDC Reserves team, GIPS have also attended a pre-application meeting and had discussions with WBOPDC regarding specific consent requirements and undertaking of a noise trial.

7.4 BAY OF PLENTY REGIONAL COUNCIL

Pre-application consultation with BOPRC has largely focussed on the location of the structure with regard to the CMA and defining consent requirements as well as the regional activities associated with the noise trial.



8. STATUTORY ASSESSMENT

8.1 INTRODUCTION

The RMA is the principal statutory document governing the use of land, air and water. The purpose of the RMA, as set out in Section 5 of the RMA, is to “promote the sustainable management of natural and physical resources”. This section of the AEE sets out the framework under the RMA that applies to the resource consents that are being sought from BOPRC.

8.2 SECTION 104 ASSESSMENT

Regarding the consideration of resource consent applications, section 104 of the RMA states:

104 Consideration of applications

- (1) When considering an application for a resource consent and any submissions received, the consent authority must under section 104(1), subject to Part 2, have regard to—*
 - (a) any actual and potential effects on the environment of allowing the activity; and*
 - (ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and*
 - (b) any relevant provisions of—*
 - (i) a national environmental standard:*
 - (ii) other regulations:*
 - (iii) national policy statement:*
 - (iv) a New Zealand coastal policy statement:*
 - (v) a regional policy statement or proposed regional policy statement:*
 - (vi) a plan or proposed plan; and*
 - (c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.*

Section 104 of the RMA does not give primacy to any of the matters to which a consent authority is required to have regard. All of the relevant matters are to be given such weight as the consent authority sees fit in the circumstances, and all matters listed in section 104(1) are subject to Part 2 of the RMA (although it is understood that a consent authority is not



required to consider Part 2 of the RMA unless there is uncertainty in the relevant statutory planning documents).

With respect to Section 104(1)(a) of the RMA, the actual and potential effects on the environment from the activities are set out in Section 6 of this AEE. In summary, while there may be some temporary impacts during the construction, the proposal will result in an overall positive effect.

In terms of Section 104(1)(b) of the RMA, the following sub-sections provide an assessment of the resource consent application against the:

- > NZCPS;
- > National Policy Statement for Indigenous Biodiversity 2023 (“**NPS-IB**”);
- > Bay of Plenty Regional Policy Statement (“**RPS**”); and
- > Coastal Plan; and
- > Regional Plan.

In terms of Section 104(1)(c) of the RMA, the following documents are considered relevant and reasonably necessary to determine the application, and are assessed below:

- > Tauranga Moana Iwi Management Plan 2016-2026; and
- > Customary Marine Title Planning Documents.

8.3 SECTION 104B ASSESSMENT

Section 104B of the RMA relates to consideration of discretionary activities:

104B Determination of applications for discretionary or non-complying activities

After considering an application for a resource consent for a discretionary activity or non-complying activity, a consent authority—

- (a) may grant or refuse the application; and*
- (b) if it grants the application, may impose conditions under section 108.*

8.4 NEW ZEALAND COASTAL POLICY STATEMENT 2010

The NZCPS is a national policy statement under the RMA and took effect in December 2010. Change 1 to the RPS, which gives effect to the NZCPS, became operative on 3 June 2015 and the Coastal Plan was made operative on 3 December 2019. The RPS and Coastal Plan implement the NZCPS within the context of the Bay of Plenty Region, and therefore it can be expected that the higher-order NZCPS is also satisfied.



Despite the assessment of this proposal against the RPS and Coastal Plan later in this section, for completeness the project is also assessed against the relevant NZCPS provisions as follows.

Objective 5, Policy 24, Policy 25, Policy 26 and Policy 27 (Coastal hazard risks)

Objective 5 is the dedicated coastal hazard objective. It seeks to ensure that the management of coastal hazard risks considers responses for existing development and protects or restores natural defences to coastal hazards. It is given effect to by Policies 24-27.

Policy 24 lays the foundation for a risk-based coastal hazard management approach which takes a 100-year perspective. The identification of coastal hazard risks is to take into account national guidance and the best available information on the likely effects of climate change on the region or district. As noted in Section 2 above, WBOPDC have undertaken hazard mapping in accordance with the requirements of Policy 24 and included hazard maps in the District Plan. The project site has been identified as being susceptible to coastal erosion and coastal inundation over the next 100 years and also as an Erosion Hazard Zone under the Regional Plan. Furthermore, the Coastal Processes Assessment (**Appendix B**) and Engineering Design Report (**Appendix F**) consider the effects of the proposal over a 100-year timeframe, and the proposed design of the structure responds accordingly.

Policy 25 is the overarching policy for managing the risk of social, environmental and economic harm from coastal hazards in areas of the coastal environment that are potentially affected by coastal hazards. Policy 26 addresses natural defences against coastal hazards while Policy 27 specifically addresses the protection of significant existing development in areas likely to be affected by coastal hazards. NZCPS Guidance on Objective 5 and Policies 24-27 indicates that “*Areas of significant existing development may include areas of residential development...*”.

With regard to Policies 25 and 26, given its intent, the proposal will not increase the risk of adverse effects from coastal hazards, and the proposal will contribute to the protection and enhancement of natural defences provided by the existing sand dunes which hold significant biodiversity value.

With regard to Policy 27:

- > The proposal relates to the protection of existing residential development;
- > The opportunity to avoid the risks from coastal hazards has already passed for existing residential development at Glen Isla Place and a hard protection structure is the only practical means to protect these properties. A ‘do-nothing’ approach is not considered



acceptable in this context. Earthworks and vegetation clearance are essential to enable the coastal protection works;

- > The form and location of the proposal, and the proposed construction methodology have been designed to minimise adverse effects on the coastal environment, including visual and amenity effects on beach users, and the ecological effects on existing indigenous sand dune vegetation; and
- > The proposal provides significant environmental benefits through the removal of exotic vegetation, proposed dune enhancement following construction and protects significant indigenous biodiversity, and it is appropriate to be located on reserve land (which has been supported by the WBOPDC Reserves team through a separate agreement).

Objective 3, Policy 2 and Policy 17 (The Treaty of Waitangi, tangata whenua and Māori heritage)

Objective 3 and Policy 2 relate to the relationship of tangata whenua with their rohe and protecting characteristics of special value, which include places of historic cultural or spiritual significance. Policy 17 directs the protection of historic heritage in the coastal environment from inappropriate development.

Policy 2 of the NZCPS specifically requires kaitiakitanga to be taken into account in relation to the coastal environment, including provision for the exercise of kaitiakitanga by tangata whenua, and providing opportunities for direct involvement of tangata whenua in decision making. As referenced in Section 7.2, the Applicant has extended multiple invitations to iwi, hapū and marae groups to engage on the proposal however, none of these invitations have been taken up.

While there are no known sites of significance to Māori within the proposed project area, an Accidental Discovery Protocol is proffered as a condition of this consent to ensure a proactive approach is taken should items of potential significance or interest be uncovered during earthworks.

Objective 6 and Policy 6 (Activities in the coastal environment)

Objective 6 and Policy 6 recognise that some uses and development in the coastal environment, including the provision of infrastructure, is important for social, economic and cultural well-being and the protection of coastal environment values does not preclude appropriate uses and development.



The proposal has a functional need to be located in the coastal environment in order to protect existing development and Council reserve land from coastal erosion. The proposal does not seek to enable further urban development.

The proposal is setback from the CMA and has been designed to be of an appropriate form, scale and location to ensure coastal environment values are protected. Public access along the beach will be maintained, significant adverse effects on ecology and biodiversity will be avoided, and the proposal appropriately remediates and mitigates all other adverse effects on ecology such that the proposal will have a net benefit. The proposal will have predominantly positive effects on natural character, as described in preceding sections of this report.

Objective 1 and Policy 11 (Indigenous biological diversity)

The reserve land is identified as IBDA-B1 and contains some areas of indigenous dune vegetation. The Ecological Assessment (**Appendix D**) identifies that the ‘northern spinifex foredune’ meets the following criteria under Policy 11 of the NZCPS:

- > Policy 11(a)(i) due to the presence of pingao (At Risk);
- > Policy 11(a)(iii) due to sand dunes being natural rare ecosystems;
- > Policy 11(b)(i) being an area of predominantly indigenous vegetation in the coastal environment; and
- > Policy 11(b)(iii) being indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable to modification.

In addition, the ‘southern pohuehue assemblage’ meets Policy 11(b)(i) of the NZCPS, being an area of predominantly indigenous vegetation in the coastal environment.

Policy 11(a) requires that adverse effects on more sensitive areas of indigenous biodiversity are avoided and Policy 11(b) seeks to avoid significant adverse effects however other adverse effects may be avoided, remedied or mitigated.

As described in Section 6.6, adverse effects of the proposal are considered to be appropriately avoided, remedied or mitigated for the following reasons:

- > Adverse effects on ‘northern spinifex foredune’ will be avoided through the design of the proposal and construction methodology, which avoids the identified area of *At Risk* vegetation;
- > There are no significant adverse effects associated with the loss of the ‘southern pohuehue assemblage’ or the ‘central exotic terrace, hollow and riser’;



- > Other adverse effects arising from the loss of vegetation in these areas is of a negligible magnitude, and appropriately remedied and mitigated through the minimisation of disturbed area and revegetation of disturbed areas with indigenous dune species; and
- > A planting plan is provided to ensure remediation / mitigation of the disturbance will result in a net ecological benefit at the local scale.

Objective 2, Policy 13 (Preservation of natural character), and Policy 15 (Natural features and natural landscapes)

Objective 2 seeks the preservation of natural character and the protection of natural features and landscape values. The reserve land is identified as Natural Feature/Landscape – S24 in the District Plan. The LVA confirms the proposal is not in or adjacent to any an area of Outstanding, Very High or High Natural Character.

For natural character areas that are not ‘outstanding’, Policy 13(b) requires significant adverse effects on natural character to be avoided, and all other effects on natural character are to be avoided, remedied or mitigated.

For natural features and natural landscapes that are not ‘outstanding’, Policy 15(b) requires that significant adverse effects on other natural features and landscapes (including seascapes) be avoided, and all other effects on those features and landscapes be avoided, remedied or mitigated.

With the adoption of the recommendations made in the LVA, the proposal is considered to give rise to predominantly positive effects on natural character, landscape and visual amenity. Construction effects on these values will be temporary, minimised through methodology, and overall less than minor. Once completed, the proposal will avoid adverse effects on the characteristics contributing to values of the Natural Feature/Landscape overlay.

The proposal is therefore consistent with the direction of Policy 13(b) and 15(b) to avoid significant adverse effects, and avoid, remedy or mitigate other adverse effects.

Objective 4, Policy 18 (Public open space) and Policy 19 (Walking access)

Objective 4 seeks to maintain and enhance public open space qualities and recreation opportunities of the coastal environment. Policy 18 requires the need for public open space to be recognised and the provision of public space. Policy 19 requires the public expectation and need for walking access to and along the coast to be recognised, and that walking access is maintained and enhanced.



The location of the works, within the dunes and back dune area in front of 9 and 11-16 Glen Isla Place, will mean that even during high tide there will be public access maintained along the beach. Access to the beach will remain available at all times on the northern side of Three Mile Creek, and via the Island View Reserve to the south.

Access along the southern side of Three Mile Creek to the beach will be maintained, to the extent practicable, during construction of the northern section of the structure. However, there may be a short period, 1-2 weeks, where access restrictions may be in place when the construction works are located in the northern most extent of the structure immediately adjacent to the accessway. These restrictions will be managed through fencing off the construction site from the accessway to separate any pedestrians from the site for health and safety reasons.

Upon completion of the works, all existing accessways will be available for use.

As per the assessment against Objective 2, Policy 13 and Policy 15 above, the proposal is considered compatible with the natural character, natural feature, landscape and amenity values associated with the reserve land. These values would be maintained and enhanced through the proposed planting. In this regard, it is noted that the existing dunes do not provide for active or passive recreation.

Policy 20 (Vehicle access)

Policy 20 relates to the control of vehicles on beaches and adjacent public land in certain circumstances. The only vehicles proposed to be used in the CMA are vehicles with the express purpose of undertaking the proposed earthworks.

With regard to the disturbance of the foreshore that may arise due to vehicle use in the CMA, the Construction Methodology (**Appendix H**) identifies the measures take to control vehicle use, including:

- > Vehicle use in the CMA will be restricted to an excavator which will be left onsite for the duration of the works, and a pneumatic tyred tractor and tipping trailer unit for delivery of materials;
- > The proposed route is considered the best practicable option and avoids disturbance of vegetated sand dune identified as IBDA-B1 to the south of the project site;
- > Vehicle movements will be managed to take a direct route to minimise disturbance;
- > Any disturbance caused, such as vehicle tyre tracks, are anticipated to be restored by natural processes within 7 days;

- > Machinery will be clean to the extent practicable and will be free of any leakage of petrochemicals; and
- > No vehicle or machinery refuelling, or maintenance will occur within the CMA.

Potential damage to sand dunes or harm to indigenous vegetation and habitat that may be caused by these vehicles is controlled by the proposed construction methodology. As noted in Section 6, the works have been designed to minimise the disturbance of the dune area and all disturbed areas will be subject to replanting upon the completion of works.

8.5 NATIONAL POLICY STATEMENT FOR INDIGENOUS BIODIVERSITY 2023

The NPS-IB came into effect in August 2023. It provides direction to councils to protect, maintain and restore indigenous biodiversity requiring at least no further reduction nationally. It provides direction on how to identify and protect significant indigenous biodiversity and manage the adverse effects of subdivision use and development.

The NPS-IB includes one objective:

(1) The objective of this National Policy Statement is:

- (a) to maintain indigenous biodiversity across Aotearoa New Zealand so that there is at least no overall loss in indigenous biodiversity after the commencement date; and*
- (b) to achieve this:*
 - (i) through recognising the mana of tangata whenua as kaitiaki of indigenous biodiversity; and*
 - (ii) by recognising people and communities, including landowners, as stewards of indigenous biodiversity; and*
 - (iii) by protecting and restoring indigenous biodiversity as necessary to achieve the overall maintenance of indigenous biodiversity; and*
 - (iv) while providing for the social, economic, and cultural wellbeing of people and communities now and in the future.*

The most relevant policies are replicated and commented upon below.

Policy 2: Tangata whenua exercise kaitiakitanga for indigenous biodiversity in their rohe, including through:

- (a) managing indigenous biodiversity on their land; and*
- (b) identifying and protecting indigenous species, populations and ecosystems that are taonga; and*
- (c) actively participating in other decision-making about indigenous biodiversity.*



The Applicant has extended invitations to engage on the proposal to hapū, marae and iwi with an interest in Waihi Beach in an attempt to understand how to provide for their relationship with Waihi Beach and their role as kaitiaki. While none of these invitations have been taken up, commentary on impacts of the proposal on ecology and biodiversity have been provided in Section 6 above.

Policy 3: A precautionary approach is adopted when considering adverse effects on indigenous biodiversity.

A precautionary approach is required when the effects of a proposed activity on indigenous biodiversity are uncertain, unknown, or little understood but those effects could cause significant or irreversible damage to indigenous biodiversity (Clause 3.7).

The potential effects of the proposal have been identified and assessed in the Ecology Assessment (refer **Appendix D**) and summarised in Section 6.6 above. The Ecology Assessment concludes that the proposal will have a net ecological benefit. It is therefore considered that the potential effects of the proposal on indigenous biodiversity are known and well understood and will not cause significant or irreversible damage to indigenous biodiversity such that a precautionary approach is not necessary to adopt in relation to this proposal.

Policy 7: SNAs are protected by avoiding or managing adverse effects from new subdivision, use and development.

It is noted that the RPS and District or Regional Plans have not yet been amended to include provisions giving effect to Clause 3.21, however, the project site is identified as IBDA-B1 in the Regional Plan.

The proposal includes the enhancement of the indigenous dune vegetation and will not involve the permanent destruction of significant habitat of indigenous biodiversity. Clause 3.11(3) requires any adverse effects on an SNA to be managed by applying the effects management hierarchy (as specified by clause 3.10(3) and (4)) or under any alternative management approach that is consistent with provisions of the RPS, District Plan and Regional Plan relating to restoration (Clause 3.21).

The Ecology Assessment includes an assessment of the proposal against the effects management hierarchy and recommends a planting plan which will ensure remediation / mitigation of the works result in a net ecological benefit.

Policy 10: Activities that contribute to New Zealand's social, economic, cultural, and environmental wellbeing are recognised and provided for as set out in this National Policy Statement.



In giving effect to Policy 10, Clause 3.5. requires local authorities to consider that the protection, maintenance, and restoration of indigenous biodiversity contributes to the social, economic, and cultural wellbeing of people and communities. The proposal will provide benefits for cultural, social and economic well-being as documented in Section 5 of this AEE. In this context, this is primarily achieved through the ecological remediation and mitigation which will result in a net ecological benefit, and the proposed construction methodology which avoids disturbance of, therefore avoids significant adverse effects on, high value indigenous dune vegetation.

Local authorities must also consider that the protection, maintenance, and restoration of indigenous biodiversity does not preclude subdivision, use and development in appropriate places and forms. The proposal has a functional need to be located in this area and significant adverse effects of the proposal on indigenous biodiversity are avoided and all other adverse effects are remedied / mitigated, demonstrating that the proposal is located in an appropriate place and is of an appropriate scale and form to fulfill its function.

Policy 13: Restoration of indigenous biodiversity is promoted and provided for.

The proposal seeks to enhance the indigenous biodiversity within the Glen Isla dune area. The Applicant has adopted the planting plan recommendation in the Ecology Assessment and proposes to carry out the plantings in the first planting season after works are completed as a requirement of consent conditions

Overall, the proposal is consistent with the objective and relevant policies of the NPS-IB.

8.6 BAY OF PLENTY REGIONAL POLICY STATEMENT (RPS)

The RPS sets out regionally significant issues, and associated objectives and policies to address the issues. This planning policy framework is to be given effect by the Regional Plan and Coastal Plan, which are discussed later in this report.

The issues, objectives and policies relevant to this application relate to the management of the coastal environment, integrated resource management, iwi resource management, matters of national importance, natural hazards.

The following sections identify the relevant objectives and provide an assessment against the relevant policies which give effect to those objectives.



Coastal Environment

The relevant objectives pertaining to the coastal environment are:

Objective 2

Preservation, restoration and, where appropriate, enhancement of the natural character and ecological functioning of the coastal environment.

Objective 4

Enable subdivision, use and development of the coastal environment in appropriate locations.

Policy CE 12B requires the avoidance of inappropriate hazard mitigation in the coastal environment. In this regard, it is noted that:

- > The proposal is the only practical means to protect the reserve land at the Glen Isla dune and the adjoining existing residential properties at Glen Isla Place, and the proposed land disturbance is required to enable these works;
- > The proposal incorporates soft engineering over top of hard structures to enhance natural defences provided by the sand dunes and a naturalised coastal area; and
- > Public access along and to the beach will be maintained throughout the construction period. Once the works are complete, public access to the beach along the existing formed accessways either side of Three Mile Creek will not be impacted..

The proposal has been designed and located to be consistent with the other relevant policies of the coastal environment chapter. In particular:

- > The proposal is not in an area identified as having Outstanding, Very High or High Natural Character in Appendices J or I and significant adverse effects on natural character are avoided by minimising the area of disturbance and enhancing the sand dunes;⁸
- > Proposed dune reinstatement will protect and restore the capacity of the sand dunes to provide existing development with a protective buffer from coastal erosion;⁹
- > An assessment against Policy 11 of the NZCPS is provided above. An assessment of ecological effects provided in Section 6.6 confirms that indigenous biodiversity will be protected and enhanced by the proposal;¹⁰

⁸ Policy CE 2B

⁹ Policy CE 4A

¹⁰ Policy CE 6B



- > The proposal has been designed in a manner which is appropriate to the natural character of the coastal environment. The natural character of the site and an assessment of effects is attached at **Appendix C**. The proposal is appropriately located outside the CMA and has a functional need to locate in the coastal environment. Section 6 provides an assessment of effects of the proposal and describes the manner in which those effects are avoided, remedied or mitigated;¹¹
- > The proposal safeguards the life supporting capacity of coastal ecosystems by maintaining the extent and profile of the sand dunes and undertaking planting of indigenous dune plant species to enhance habitat for indigenous species;¹² and
- > Potential adverse effects of the proposal on marine water quality have been provided for in the proposed construction methodology by managing the refuelling of machinery and ensuring sand and rock stockpiles are located outside the tidally influenced area. The proposal does not create significant impervious area.¹³

Integrated Resource Management

The first relevant objective relating to integrated resource management is:

Objective 11

An integrated approach to resource management issues is adopted by resource users and decision makers.

Objective 12

The timely exchange, consideration of and response to relevant information by all parties with an interest in the resolution of a resource management issue.

The Applicant, as a resource user, has adopted an integrated approach as demonstrated by:

- > Undertaking a number of technical assessments to reduce scientific uncertainty and avoid serious or irreversible adverse effects;¹⁴
- > Having regard to the likely effects of climate change with particular regard to predicted sea level rise, and cumulative effects as demonstrated through the Coastal Processes Assessment attached as **Appendix B** and the Engineering Report attached as **Appendix F**;¹⁵

¹¹ Policy CE 8B

¹² Policy CE 9B

¹³ Policy CE 10B

¹⁴ Policy IR 1B

¹⁵ Policy IR 2B



- > Designing the proposal in a way which recognises the interconnected nature and multiple values of natural and physical resources, responds to potential adverse effects, and maximises the potential benefits by combining hard protection with enhancement of natural defences. The proposal has been informed by assessment against a number of alternatives over 100-year period;¹⁶
- > Consulting with neighbours, community members and tangata whenua, as detailed in Section 7 of this AEE;¹⁷
- > The effects of the proposal are assessed in Section 6 of this AEE. Overall, adverse effects are considered to be appropriately avoided, remedied and mitigated. The proposal is not anticipated to contribute to the incremental degradation of water quality or sites of significance to Māori, or increase risk from natural hazards;¹⁸ and
- > The necessary resource consents from WBOPDC are being applied for in a separate application.¹⁹

Iwi Resource Management

With regard to iwi resource management matters, the following objectives are relevant to the proposal:

Objective 13

Kaitiakitanga is recognised and the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) are systematically taken into account in the practice of resource management

Objective 15

Water, land, coastal and geothermal resource management decisions have regard to iwi and hapū resource management planning documents

Objective 17

The mauri of water, land, air and geothermal resources is safeguarded and where it is degraded, where appropriate, it is enhanced over time

¹⁶ Policy IR 3B

¹⁷ Policy IR 4B

¹⁸ Policy IR 5B

¹⁹ Policy IR 6B



As noted above, GIPS has extended invitations to engage with mana whenua who have an interest in Waihi Beach to understand their relationship with the project area, and how their relationship can be recognised and provided for, as well as their role as kaitiaki.²⁰

The proposal has been developed taking into account the mātauranga-based policy-framework articulated in the Tauranga Iwi Management Plan 2016-2026, as detailed further in Section 8.9.²¹

The Applicant has, from a western science perspective, sought to avoid and remedy adverse effects on values of the coastal environment, including by protecting water quality of coastal and freshwaters and enhancing indigenous biodiversity values. The Applicant also proposes to implement an Accidental Discovery Protocol during construction works to prudently manage the risk of unearthing kōiwi or other wāhi tapu during earthworks.²²

Matters of National Importance

With regard to matters of national importance, the relevant objectives are:

Objective 19

The preservation of the natural character of the region's coastal environment (including coastal marine areas) wetlands, lakes and rivers and their margins

Objective 20

The protection of significant indigenous habitats and ecosystems, having particular regard to their maintenance, restoration and intrinsic values.

Objective 21

Recognition of and provision for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga

Objective 22

The coastal marine area, lakes and rivers are generally accessible to the public

The Applicant has recognised and provided for the relevant matters of national importance by:²³

- > Giving particular consideration to the protection of IBDA-B1 by designing works to minimise disruption to areas with predominantly indigenous vegetation. The Applicant

²⁰ Policy IW 2B and Policy IW 3B

²¹ Policy IW 4B

²² Policy IW 5B and IW 6B

²³ Policy MN 1B



also proposes to undertake enhancement works to recognise and protect the significant indigenous habitat provided by these dune ecosystems;²⁴

- > Using the identified criteria to inform assessments of effects on natural character, natural features and landscapes, indigenous vegetation and public access;²⁵
- > Incorporating the retention of sand dunes and enhancement of indigenous vegetation as part of the proposal;²⁶
- > Public access along and to the beach will be maintained throughout the construction period. Once the works are complete, public access to the beach along the existing formed accessways either side of Three Mile Creek will not be impacted;²⁷ and
- > Avoiding adverse effects on natural character and indigenous biodiversity to the extent practicable, and remedying and mitigating all other adverse effects.²⁸

Land Use and Water Quality

With regard to land use and water quality, the following objective and policy are considered relevant to the proposal:

Objective 29

Land use activities are:

- 1 *Within the capability of the land to support the activity;*
- 2 *Integrated with the wider environmental values of their surroundings; and*
- 3 *Within the capacity of receiving waters to assimilate any discharge*

Policy WL 7B: Minimising the effects of land and soil disturbance

Achieve regional consistency by controlling land and soil disturbance activities to:

- (a) *Avoid accelerated erosion and soil loss; and*
- (b) *Minimise silt and sediment runoff into water, or onto or into land that may enter water, so that healthy aquatic ecosystems are sustained.*

The proposal is consistent with Policy WL 7B in that earthworks will be managed to avoid erosion and loss of the sand dunes, and minimise sediment run off. Measures to protect the health of Three Mile Creek and the coastal aquatic ecosystems include:

²⁴ Policy MN 2B

²⁵ Policy MN 3B and Policy MN 7B

²⁶ Policy MN 4B

²⁷ Policy MN 5B and Policy MN 6B

²⁸ Policy MN 8B



- > Setting the area of works back from the CMA and the open waters of Three Mile Creek;
- > Ensuring all excavated material is reused onsite to bury the structure and no material is placed in the CMA;
- > Limiting activities in the CMA to only those vehicle movements required to deliver machinery and construction materials; and
- > Ensuring no refuelling occurs within the CMA and refuelling of equipment that cannot readily leave the site will occur in accordance with a refuelling plan.

In addition, enhancement planting of indigenous dune vegetation will assist in minimising accelerated erosion and loss of this area.

Natural Hazards

There is one objective specific to natural hazards in the RPS:

Objective 31

Avoidance or mitigation of natural hazards by managing risk for people's safety and the protection of property and lifeline utilities.

The supporting policies establish a risk management approach and require the management of risk to result in lower levels of risk or maintain low levels of risk.²⁹

With regard to the proposed earthworks and vegetation disturbance, it is noted that;

- > The District Plan identifies the project site as within Coastal Erosion Area – Primary Risk and Rural;
- > The proposal does not include any land use change or development that would increase the risk from coastal erosion, and the proposal directly reduces the risk of coastal erosion to existing residential development;³⁰ and
- > Davis Coastal Consultants has considered the effects of sea-level rise over a 30, 50 and 100-year period.³¹

For completeness, it is noted that the District Plan maps natural hazard areas and contains provisions which give effect to the RPS. The District Plan provides for coastal hazard

²⁹ Policies NH 1B, 2B and 3B.

³⁰ Policy NH 5B.

³¹ Policy NH 11B.



protection as a discretionary activity. The Applicant has lodged an application for the requisite land use consents separately.³²

Overall, it is therefore considered that the proposal is consistent with the relevant provisions of the RPS.

8.7 BAY OF PLENTY REGIONAL COASTAL ENVIRONMENT PLAN (COASTAL PLAN)

Notwithstanding the vehicle use within the CMA, the site is located within the Coastal Environment therefore the Coastal Plan applies. This section assesses the proposal against the relevant objectives and policies of the Coastal Plan.

Natural Heritage

The relevant Natural Heritage objectives are:

Objective 2

Protect the attributes and values of:

- (a) Outstanding natural features and landscapes of the coastal environment; and*
- (b) Areas of high, very high and outstanding natural character in the coastal environment;*

from inappropriate subdivision, use, and development, and restore or rehabilitate the natural character of the coastal environment where appropriate.

Objective 3

Safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems by:

- (a) Protecting Indigenous Biological Diversity Areas A,*
- (b) Maintaining Indigenous Biological Diversity Areas B;*
- (c) Promoting the maintenance of indigenous biodiversity in general; and*
- (d) Enhancing or restoring indigenous biodiversity where appropriate.*

Objective 4

Prevent the further loss of the quality and extent of rare and threatened habitats in the coastal environment of the region. These include coastal forest, seagrass beds, saltmarsh wetlands and sand dunes.

³² Policy NH 12A.



Objective 5

Enable the restoration and rehabilitation of the natural heritage of the coastal environment, including:

- (a) Kaimoana resources;*
- (b) Natural heritage landforms or features that would increase resilience to natural hazards, and*
- (c) Degraded cultural sites which tangata whenua wish to restore for natural heritage and cultural reasons.*

The proposed activities are consistent with the above objectives because they:

- > Have a functional need to be located in the coastal environment, are of an appropriate form, scale and design to be compatible with the existing sand dune system and will not adversely affect the natural processes or ecological functioning of the CMA;³³
- > Are not located in an area of Outstanding Natural Character, Features or Landscapes, therefore Policy NH 8 and Policy NH 9 are relevant to the consideration of adverse effects on natural character, natural features and landscape. Significant adverse effects on natural character that is not outstanding are avoided by reinstating the disturbed areas to follow natural contours of the sand dunes and undertaking enhancement planting with indigenous species. This approach is considered consistent with Schedule 4 to the Coastal Plan;³⁴
- > Are not located in an area identified as IBDA A. The ecological assessment confirms adverse effects on the ‘northern spinifex foredune’ area which meets the criteria of Policy 11(a)(i) and (iii) of the NZCPS will be avoided;³⁵
- > The ecological assessment confirms that there are no significant adverse effects on indigenous vegetation arising from vegetation loss in the ‘southern pohuehue assemblage’ or the ‘central exotic terrace, hollow and riser slope’. Other adverse effects are appropriately remediated and mitigated by replanting of the disturbed area through the implementation of the proposed planting plan which uses indigenous species;³⁶
- > The adverse effects on the ecological values of the ‘southern pohuehue assemblage’ and the ‘central exotic terrace, hollow and riser slope’ are avoided. It is also noted that

³³ Policy NH 1.

³⁴ Policy NH 5, NH 9 and NH 21.

³⁵ Policy NH 5.

³⁶ Policy NH 6, NH 8, NH 11, NH 14 and NH 21.



the site is proposed to be enhanced in a manner which results in a net ecological benefit, and supports resilience to natural hazards provided by sand dunes;³⁷ and

- > The Applicant has applied relevant Iwi Resource Management Policies, as assessed below.³⁸

Water Quality

With regard to coastal water quality, the following objective is most relevant to the proposed earthworks:

Objective 8

Discharges of contaminants to the coastal marine area are managed to meet the following goals:

- (a) After reasonable mixing, discharges of contaminants meet the water quality classification of the receiving water bodies as a minimum; and have no more than minor adverse effects on aquatic life, habitats, and recreational uses.*
- (b) Discharges of contaminants occur in a manner that recognises and provides for the cultural values of mana whenua acknowledged for that area.*
- (c) Cumulative effects of discharges are managed in a way that recognises the sensitivity and assimilative capacity of the receiving environment.*

The Applicant proposes to avoid the discharge of contaminants into coastal waters by strictly adhering to the proposed construction methodology (refer **Appendix H**). The risk of discharge is managed by:

- > Setting the area of works back from the CMA and the open waters of Three Miles Creek;
- > Ensuring all excavated material is used to cover the structure at the completion of works to mimic the dune form and no material will be placed in the CMA;
- > Ensuring sand and rock stockpiles are stored outside the CMA and the tidally influenced area;
- > Limiting activities in the CMA to only those vehicle movements required to deliver machinery and construction materials; and
- > Ensuring no refuelling occurs within the CMA and refuelling of equipment that cannot readily leave the site will occur outside of areas where a spill could enter water.

³⁷ Policy NH 7(a) and (b)(vi).

³⁸ Policy NH 14.



Iwi Resource Management

Objectives 13 to 18 relate to Iwi Resource Management. The most relevant of these objectives are:

Objective 13

Take into account the principles of the Treaty of Waitangi and provide for partnerships with the active involvement of tangata whenua in management of the coastal environment when activities may affect their taonga, interests and values.

Policy IW 1

Proposals which may affect the relationship of Māori and their culture, traditions and taonga must recognise and provide for:

- (a) Traditional Māori uses, practices and customary activities relating to natural and physical resources of the coastal environment such as mahinga kai, mahinga mātaītai, wāhi tapu, ngā toka taonga, tauranga waka, taunga ika and taiāpure in accordance with tikanga Māori;*
- (b) The role and mana of tangata whenua as kaitiaki of the region's coastal environment and the practical demonstration and exercise of kaitiakitanga;*
- (c) The right of tangata whenua to express their own preferences and exhibit mātauranga Māori in coastal management within their tribal boundaries and coastal waters; and*
- (d) Areas of significant cultural value identified in Schedule 6 and other areas or sites of significant cultural value identified by Statutory Acknowledgements, iwi and hapū resource management plans or by evidence produced by tangata whenua and substantiated by pūkenga, kuia and/or kaumatua; and.*
- (e) The importance of Māori cultural and heritage values through methods such as historic heritage, landscape and cultural impact assessments.*

Policy IW 4

The following shall be taken into account during decision-making:

- (a) The consistency of the proposal with any iwi or hapū resource management plan recognised by an Iwi Authority and lodged with the Regional Council that applies to the area affected;*
- (b) Recognition provided under any other legislation – including but not limited to: Treaty of Waitangi settlements; gazetting of Rohe Moana and Mātaitai under the Kaimoana Customary Fishing Regulations 1998 and the customary rights recognitions available under the Marine and Coastal Area (Takutai Moana) Act 2011 and*
- (c) The principles of Te Tiriti o Waitangi (the Treaty of Waitangi), recognising that these will continue to evolve and be defined.*



As noted above, GIPS have extended invitations to engage with mana whenua who have an interest in Waihi Beach to understand their relationship with the project area, and how their relationship can be recognised and provided for, as well as their role as kaitiaki.

The proposal has been developed taking into account the mātauranga-based policy-framework articulated in the Tauranga Iwi Management Plan 2016-2026, as detailed further in Section 8.9.

The Applicant has, from a western science perspective, sought to avoid and remedy adverse effects on values of the coastal environment, including by protecting water quality of coastal and freshwaters and enhancing indigenous biodiversity values. The Applicant proposes to implement an Accidental Discovery Protocol to prudently manage the risk of unearthing kōiwi or other wāhi tapu during earthworks.

Coastal Hazards

The relevant Coastal Hazard objectives are:

Objective 20

Coastal communities are aware of risks from natural hazards, and mitigation actions are in place to enhance the resilience of existing and future communities.

Objective 21

Development and activities in the coastal environment are managed to take account of the dynamic nature of coastal processes.

Objective 22

Development is managed to recognise the future effects of climate change and to maintain or enhance the natural biological and physical processes which occur in the coastal environment.

Objective 23

Recognise and provide for the protection and enhancement of natural defences to coastal hazards

With regard to the above objectives, it is noted that:

- > The proposal is consistent with the relevant policies of the NZCPS and RPS, as assessed above;³⁹
- > The proposal maintains and enhances the sand dunes that provide a natural defence from coastal hazards. The sand dunes will be recontoured to replicate a natural form

³⁹ Policy CH 1, Policy CH 9.



and planted with native sand dune plant species. Existing public walking access will be retained throughout the works and following their completion;⁴⁰ and

- > Coastal erosion and inundation hazard zones have been identified with respect to the project site.⁴¹

Activities in the CMA

Part Four of the Coastal Plan contains policies specific to activities in the CMA. The only activity proposed to occur within the CMA is the use of vehicles for the sole purpose of providing access to a site outside the CMA for the delivery of machinery, rock, material and plantings.

Objectives and policies relevant to disturbance of the CMA for providing vehicle access are:

Objective 27

Activities and structures that depend upon the use of natural and physical resources in the coastal marine area, or have a functional need to be located in the coastal marine area are recognised and provided for in appropriate locations, recognising the positional requirements of some activities.

Objective 42

The generation of unreasonable levels of noise or light in the coastal marine area is avoided.

Policy RA 4

Public walking access along the coastal marine area may only be restricted in the following situations, and where it is restricted the restriction should cover as small an area as possible and alternative access routes or methods should be provided:

...

- (f) *To protect public health or safety, having regard to land use and land-based activities occurring adjacent to the coastal marine area;...*

Policy DD 2

Restrict the use of vehicles on the foreshore and seabed to those which have a legitimate need to use such areas.

Policy DD 7

Activities that cause disturbance of the foreshore and seabed shall:

⁴⁰ Policies CH6 and CH 7.

⁴¹ Policy CH 14.



- (a) *Be undertaken at times of the day or year and using methodologies, that will avoid significant adverse effects and remedy or mitigate other adverse effects on the environment, particularly on:*
 - i) *The feeding, spawning and migratory patterns of indigenous fauna, including bird roosting, nesting and feeding, and whitebait runs;*
 - ii) *Indigenous ecosystems and habitats that are particularly vulnerable to modification, including: estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass and saltmarsh; and*
 - iii) *Habitats of indigenous species that are important for recreational, commercial, cultural or traditional purposes, including traditional Māori gathering, collection or harvest of kaimoana; and*
- (b) *Ensure that the foreshore or seabed is, as far as practicable, reinstated in a manner which is in keeping with the natural character and visual amenity of the area;*
- (c) *Avoid significant adverse effects on biota caused by the release of contaminants; and*
- (d) *Be undertaken at times of the day or year, and using methodologies, that will avoid as far as practicable, remedy or mitigate adverse effects on:*
 - i) *Recreational use of the coastal marine area; and*
 - ii) *Other lawfully established activities in the coastal marine area.*

Vehicle access through the CMA is required to provide site access for machinery and the delivery of rock and materials for the coastal erosion protection structure and enhancement planting. The proposed route is the only practicable option because:

- > DoC reserve land to the south of the proposed earthworks is vegetated sand dune which is identified as IBDA-B1. The proposed route avoids disturbance of this sensitive habitat and potential adverse effects on that duneland.
- > WBOPDC Reserve land on the true right bank is too narrow and does not provide a formed access to Seaforth Road.
- > Due to the presence of groynes on the left and right banks of Three Mile Creek, vehicles must cross the CMA to access the project site from the north.

It is therefore considered that vehicles accessing the site have a functional and legitimate need to use the CMA. Where the provision of vehicle access may temporarily impact public access along the CMA, this is considered appropriate for the purpose of protecting public health and safety.



With regard to the disturbance of the foreshore that may arise due to vehicle use in the CMA, it is noted that:

- > Access is restricted to an excavator which will be left onsite for the duration of the works, and a pneumatic tyred tractor and tipping trailer unit for delivery of materials;
- > Vehicle movements will be managed to take a direct route to minimise disturbance;
- > Any disturbance caused, such as vehicle tyre tracks, are anticipated to be restored by natural processes within 7 days;
- > Machinery will be clean to the extent practicable and will be free of any leakage of petrochemicals;
- > No vehicle or machinery refuelling, or maintenance will occur within the CMA.

It is also noted that this is the same access point and route use by WBOPDC contractors who undertake regular (approximately monthly) maintenance works within Three Mile Creek and the CMA area.

With regard to noise and light, while the proposed construction activities are not occurring within the CMA, there is potential for these activities to give rise to noise effects in the CMA. However, the noise trial undertaken by the Applicant (**Appendix I**) confirms that the proposal will comply with permitted construction noise standards in the District Plan. The Applicant also proposes to monitor noise and vibration during the project and update the construction methodology as required to ensure unreasonable levels of noise is avoided.

Overall, it is therefore considered that the proposal is generally consistent with the relevant provisions of the Coastal Plan.

8.8 BAY OF PLENTY REGIONAL NATURAL RESOURCES PLAN (REGIONAL PLAN)

This section assesses the proposal against the relevant Regional Plan objectives and policies.

Kaitiakitanga

The most relevant objectives relating to kaitiakitanga are:

KT 04 (Objective 4)

The water, land and geothermal concerns of tangata whenua are taken into account and addressed as part of resource management processes, while recognising that different iwi and hapu may have different concerns or practices.



KT 05 (Objective 5)

Water, land and geothermal resource management decisions have regard to iwi resource management planning documents.

The proposed earthworks and vegetation disturbance is consistent with the above objectives, noting that GIPS have extended invitations to engage directly with mana whenua interested in Waihi Beach to understand their connection to the project area, and to provide the opportunity for their relationship and role as kaitiaki to be recognised and provided for.⁴²

The proposal has been designed with respect to the mātauranga-based policy framework outlined in the Tauranga Iwi Management Plan 2016-2026, as elaborated in Section 8.9.⁴³

From a western science perspective, the Applicant has sought to prevent and address negative impacts on the coastal environment, focusing on preserving water quality in both coastal and freshwater systems and enhancing indigenous biodiversity. Proposed enhancement planting is considered to provide a net ecological benefit. Additionally, the Applicant has proposed the implementation of an Accidental Discovery Protocol during construction to manage the risk of encountering kōiwi or other wāhi tapu during earthworks.

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Integrated Management

With regard to Policy IM P1(e), it is noted that regard has been given to the relevant policies of the Coastal Plan. Assessment of the relevant provisions is recorded in Section 8.7 above.

Land Management

The relevant Land Management objectives are:

LM 01 (Objective 9)

Land use and land management practices are appropriate to the environmental characteristics and limitations of the site, and avoid, remedy or mitigate adverse effects on the life-supporting capacity of soil resources, the receiving environment and heritage values.

LM 03 (Objective 19)

Protect vulnerable areas from erosion.

LM 05 (Objective 21)

Maintain and improve the protective function of coastal sand dunes.

⁴² Policy KT P13 (Policy 13)

⁴³ Policy KT P17 (Policy 17)

⁴⁴ Policy KT P5 (Policy 5) and Policy KT P11 (Policy 12).



With regard to the above, it is noted that the proposal:

- > Has benefited from an ecological and landscape effects assessment to understand the baseline values of the site and to inform design of the proposal and its construction methodology;
- > Is associated with works to protect WBOPDC reserve land and the adjacent private properties on Glen Isla Place from coastal erosion and natural hazards; and
- > Includes enhancement planting of the Glen Isla sand dunes to maintain and improve the protective function of these sand dunes that will result in a net ecological benefit.

Discharges

The relevant objectives and policies are:

DW O13 (Objective 35)

Stormwater is discharged to land, where appropriate.

DW O15 (Objective 37)

Stormwater discharges avoid, remedy or mitigate adverse effects on the ecological, natural character, landscape, recreational, and Māori cultural values of streams, rivers and lakes.

DW P15 (Policy 51)

To require the appropriate management of stormwater quality, including:

- (a) *The use of source controls to avoid the contamination of stormwater.*
- (b) *The use of best practicable options.*
- (c) *Treatment of stormwater to prevent the contamination of receiving environments.*

As noted in Section 5 above, stormwater discharges associated with proposal will comply with the permitted conditions of Rule DW R22.

It is acknowledged that the site is atypical with regard to earthworks and typical silt control measures. The use of silt fences seaward of the site are necessary nor practicable as they would likely be affected by the tides and adversely affect public access. The Applicant therefore proposes to manage stormwater quality by:

- > Ensuring stormwater landside of the earthworks site does not discharge through the site; and
- > Ensuring machinery refuelling and maintenance does not occur within the CMA and only in accordance with the proposed Construction Methodology (**Appendix H**).

Overall, it is therefore considered that the proposal is consistent with the relevant provisions of the Regional Plan.



8.9 TAURANGA MOANA IWI MANAGEMENT PLAN 2016-2026: A JOINT ENVIRONMENTAL MANAGEMENT PLAN FOR NGĀTI RANGINUI, NGĀI TE RANGA AND NGĀTI PŪKENGĀ

The Tauranga Moana Iwi Management Plan is the collective voice of Ngāti Ranginui, Ngāi Te Rangi and Ngāti Pūkenga as it relates to Tauranga Moana: Te Awanui (Tauranga Harbour), surrounding lands and waters, including the CMA from Ngā Kuri-a-Whareī in the north-west to Wairakei Stream in the south.

The collective vision for Tauranga Moana is:

Tauranga Moana Iwi and hapū work together and are actively involved in restoring and enhancing the mauri of Tauranga Moana.

For local authorities and plan users, the Plan is intended to influence resource management documents and processes, articulate expectations regarding engagement, and build cultural awareness and understanding.

It is the opinion of the Applicant that the proposal is consistent with the relevant objectives and policies for the reasons summarised below.

The provisions of section 6 relate to Tūhauora Tinana: Healthy Waters and emphasise:

- > Restoration and protection of the mauri of Te Awanui and coastal areas;
- > Avoidance of the degradation of water quality; and
- > Reduction of the impacts of sedimentation on Te Awanui.

The proposal is located outside the CMA and Te Awanui / Tauranga Moana and the proposed methodology will ensure that the earthworks do not result in sediment or other contaminants entering the CMA, such that mauri of these coastal waters will be protected.

The provisions of Section 7 (Tūhauora Whenua: Healthy Land) emphasise the protection, and where possible enhancement, of the mauri of land.

The proposed works will ensure the health of the sand dune habitat is enhanced by undertaking planting of native dune plants species following the completion of works.

With regard to Tūhauora Wairua: Cultural Heritage (Section 8) and Tūhauora Whanau: Our People and Relationships (Section 9), the Plan seeks to:

- > Recognise and protect traditional sites, areas, landscape and practices of cultural and spiritual significance;
- > Empower Tauranga Moana Iwi and hapū to participate in resource management process and decisions; and
- > Emphasise the importance of active involvement and effective working relationships.



As set out in Section 7.2, the Applicant has extended the offer of engagement to iwi, hapū and marae with an interest in Waihi Beach to recognise the importance of active involvement and participation in resource management processes. Acknowledging that none of these offers have been taken up by any party, the intent of this engagement is to understand the connection of iwi, hapū and marae to the project area, and to ensure their relationship is and role as kaitiaki is recognised and provided for.

The Applicant acknowledges that effects on cultural values will continue to be considered where engagement with mana whenua continues.

8.10 CUSTOMARY MARINE TITLE PLANNING DOCUMENTS

Section 104(2B) of the RMA requires:

When considering a resource consent application for an activity in an area within the scope of a planning document prepared by a customary marine title group under section 85 of the Marine and Coastal Area (Takutai Moana) Act 2011, a consent authority must have regard to any resource management matters set out in that planning document.

There are currently several hundred applications for recognition of Coastal Marine Title (“CMT”) before the High Court under the MACAA, as well as direct negotiations being conducted with the Crown.

The CMT applications which specifically include the project site and the open coast at Waihi Beach are yet to be heard or decided. Therefore, there are no CMT planning documents which affect the proposal.

As noted in Section 7.2 above, the following applicant groups seeking a customary marine title under the MACAA have been sent a copy of the proposal in accordance with section 62A of the MACAA:

- > Ngati Whanaunga;
- > Ngati Hako;
- > Ngati Pukenga;
- > Nga Hapu o Ngati Ranginui Settlement Trust;
- > Ngati Tara Tokanui;
- > Ngai Te Rangī; and
- > Nga Hapu o Ngai Te Rangī.

Where responses are received and where those responses are relevant to the proposal, the views obtained from the applicant groups will be provided to BOPRC.



9. ASSESSMENT AGAINST PART 2 OF THE RMA

It is noted that case law in the Court of Appeal decision on *RJ Davidson Family Trust v Marlborough District Council* 2018 NZCA 316 determined that:

“If a plan that has been competently prepared under the Act it may be that in many cases the consent authority will feel assured in taking the view that there is no need to refer to pt 2 because doing so would not add anything to the evaluative exercise. Absent such assurance, or if in doubt, it will be appropriate and necessary to do so. That is the implication of the words “subject to Part 2” in s 104(1), the statement of the Act’s purpose in s 5, and the mandatory, albeit general, language of ss 6, 7 and 8.”

This decision confirms that it can be appropriate to consider Part 2 when assessing a resource consent in specific circumstances but otherwise an assessment against Part 2 will not add to the evaluative exercise. In this instance, the application is a Discretionary Activity under the Regional Plan and the Coastal Plan.

A comprehensive assessment has been provided against the relevant objectives and policies the NZCPS, RPS, Regional Plan and Coastal Plan, all of which have been prepared having regard to Part 2. It is relevant that the RPS includes objectives and policies which relate directly to Part 2 matters and was changed to give effect to the NZCPS in 2015, and the Coastal Plan was made operative on 3 December 2019.

In this circumstance then, it is considered that an assessment against Part 2 would ‘not add anything to the evaluative exercise’ and is not therefore necessary.



10. NOTIFICATION

As a discretionary activity, notification of this application needs to be considered in accordance with tests set out in sections 95A and 95B of the RMA.

10.1 PUBLIC NOTIFICATION

Section 95A of the RMA sets out that a consent authority may, in its discretion, decide whether to publicly notify an application. However, in this case it is considered there are no circumstances that warrant public notification.

Step 1 - Mandatory public notification:

- > The Applicant does not request public notification of the application (s95A(3)(a)).
- > The application does not include an exchange of recreation reserve land (s95A(3)(c)).

Step 2 - Public notification precluded:

- > Public notification is not precluded by any rule or national environmental standard (s95A(5)(a)).
- > The application is for a discretionary activity. Therefore, public notification is not precluded as the preclusion section in s95A(5)(b) does not apply.

Step 3 - Public notification required in certain circumstances:

- > There are no rules or national environmental standards that require public notification in s95A(8)(a).
- > For the reasons set out in the Section 6 in this report, the activity is expected to have adverse effects on the environment that are no more than minor (s95A(8)(b) and s95D).

Step 4 - Public Notification in special circumstances:

- > The Applicant considers that there are no special circumstances in relation to this application.

10.2 LIMITED NOTIFICATION

Section 95B of the RMA sets out that a consent authority must determine whether to give limited notification of an application. Section 95B(1) of the RMA requires a consent authority to determine whether to give limited notification of an application if it is not publicly notified under s95A. Limited notification is assessed against section 95B of the RMA as below.

Step 1 - Certain affected groups and affected persons must be notified (s95B(2)):



- > Limited notification is not required under Step 1 as there are no affected protected customary rights groups or affected customary marine title groups.
- > The site is not located within a Statutory Acknowledgment Area.

Step 2 - If not required by Step 1, limited notification precluded in certain circumstances:

- > Limited notification is not precluded under Step 2 as the proposal is not subject to a rule in the District Plan or an NES that precludes notification, and it is not for a controlled activity.

Step 3 - If not precluded by Step 2, certain other affected persons must be notified:

- > The proposal is not a boundary activity and therefore s 95B(7) is inapplicable.
- > The proposal therefore falls into the ‘any other activity’ category and the consent authority must determine under s95E if there are any other affected persons. The Applicant considers that the assessment provided in Section 6 of this AEE indicates that there are no affected persons.

Step 4 – Special circumstances:

- > The Applicant considers there are no “special circumstances” that warrant limited notification of the application to any person.

Based on the foregoing, limited notification of the application is not required.

10.3 NOTIFICATION CONCLUSION

As set out in Section 6, the actual and potential adverse effects of the proposal are expected to be predominantly positive and, for the purposes of s95E, less than minor.

Based on the effects assessment relevant to the BOPRC consenting matters, it is the Applicant’s opinion that there are no person(s) who would be adversely affected by the proposal.

As such, the Applicant considers the resource consent application to BOPRC can be processed on a non-notified basis.



11. CONCLUSION

GIPS seek a coastal permit for the use of vehicles in the CMA and land use consent for earthworks, land disturbance and vegetation removal associated with the construction and establishment of a buried coastal protection structure at the Glen Isla dune, adjacent to private properties at 9, 11, 13, 15, 16, 14 and 12 Glen Isla Place, Waihi Beach.

At the completion of construction, the approximately 200m long coastal protection structure would be completely buried with sand and recontoured and revegetated with indigenous dune species, to present as a natural dune face upon completion.

The proposed land disturbance and vegetation removal is appropriately located outside of the CMA and designed to avoid and minimise potential adverse effects on coastal processes and high value indigenous flora. Soft protection elements have been incorporated into the proposal, including the contouring and revegetation of dune faces with indigenous biodiversity, which will contribute to a net ecological benefit and positive effects on natural character, landscape and visual amenity values.

The proposed disturbance of the foreshore from the movement of vehicles through the CMA is considered the best practicable option. While not explicitly provided for as such, the activity will comply with permitted standards of the Coastal Plan and any use of this area will be temporary in nature.

Construction phase effects of the proposal, such as construction discharges and dust effects, are considered to be appropriately managed by the timing of the works and proposed construction methodology.

A comprehensive suite of assessments has been undertaken to support the resource consent application. The conclusions from these assessments are summarised in Section 6.

Overall, the proposal has been developed to be consistent with the relevant provisions of the NZCPS, RPS, Coastal Plan and Regional Plan, in that it avoids significant adverse effects, appropriately minimises or mitigates other effects, and provides for the protection and restoration of natural character at the coast.

In summary, for the reasons set out in this assessment of environmental effects, the Applicant considers that there are no impediments to granting a coastal permit and a land use consent for the proposed works without notification of the application.





A



APPENDIX A

Records of Title



APPENDIX B

Coastal Process Assessment (Davis
Coastal Consultants)



APPENDIX C

Landscape and Visual Effects
Assessment (Isthmus Group)



APPENDIX D

Ecological Effects Assessment
(BlueGreen Ecology)



APPENDIX E

Memorandum – Location of Mean
Highwater Springs, Glen Isla Place,
Waihi Beach
(Davis Coastal Consultants)



APPENDIX F

Engineering Design Report (Davis
Coastal Consultants)



APPENDIX G

Glen Isla Place Tree Protection Plan
(Arbor Care Ltd)



APPENDIX H

Construction Methodology (Davis
Coastal Consultants)



APPENDIX I

Noise Trial Report (Marshall Day
Acoustics)



APPENDIX J

Glen Isla Place Residents – Project
Summary Documents



APPENDIX K

Copy of Letter Sent to MACAA
Applicants

Attachment D – Proposed Transport Route to the GIPS site



MEMO

Project:	Glen Isla Coastal Protection Project		Document No.:	Mm 002 r02	
To:	Glen Isla Protection Society		Date:	6 December 2024	
Attention:	Allan Fraser		Cross Reference:	Mm 001 r01	
Delivery:	Email		Project No.:	20240399	
From:	James Whitlock		No. Pages:	8	Attachments: Yes
CC:	Lincoln Fraser	Luke Faithfull			
Subject:	Response to s92 queries				

We have reviewed the Section 92 queries from Western Bay of Plenty (WBOP) District Council (prepared by Styles Group) received by email on 14 November 2024.

In this memo we set out their questions (in blue font) and answer each one.

We note that to date we have only prepared that memo, which was a report on the noise and vibration trial we undertook in July 2024, not an assessment of effects. Nevertheless, we have addressed Mr Styles' queries relating to effects.

Question 1

The MDA memo states that the relevant construction noise limits are 75dB L_{Aeq} and 90dB L_{AFmax} . These have been taken directly from Table 2 of NZS6803:1999 for "typical duration" works without any adjustment for the duration of the work. I understand that the likely best case scenario is four months to complete the works, but the applicant is seeking up to six months. The threshold between "typical duration" and 'long term' works in NZS6803:1999 is 20 weeks, or five months. "Long term" works are subject to noise limits that are 5dB lower than those applying to "typical duration" works.

The applicant is seeking six months to account for potential bad weather and other unforeseen issues, but all going well the work will be completed in 4 months.

Our predicted noise levels show compliance with the long-term duration noise limits at all dwellings (save the applicant's house), and compliance with the typical duration limits at all dwellings. So the outcome and compliance status in terms of noise is the effectively the same.

Question 2

There seems to be a bit of a discord between the construction methodology assumptions in the MDA memo and the way that the construction process was explained to us on the site visit.

The MDA memo appears to be based on the rocks being dropped near the eastern end of the reserve north of 7 Glen Isla Place and the excavator being used in the reserve, whereas we were told that the rocks will be delivered by a truck, driven through the reserve and around the foreshore area and dumped near to where they will eventually be placed (which will vary as the works progress).

Additionally, the excavator will only traverse the council reserve twice (once in, and once out) or more often if there is a severe storm forecast and the machinery has to be moved away from the beach area. The MDA memo appears to take this distance into account by stating that the works will be at least 35m from 7 Glen Isla Place (rather than the 55m or-so away where the rocks were dropped), but there is no diagram or clear explanation of this.

Can MDA clarify that the noise level and vibration predictions in the memo are intended to reflect the proposed construction methodology and the effects at 7 Glen Isla Place?

Yes, the intention of the trial was to measure noise and vibration at distances relevant to the works.

Our memo outlines the measurements we made during a *trial* methodology, which we designed and carried out to capture relevant noise and vibration data. We then used that data to predict levels during the actual works occurring in the foreshore area.

We understand that we were not permitted to use the foreshore area for the trial, so we were limited to the WBOP reserve land. We set up the source and monitor locations in the trial so they were directly relevant to the actual works. Although since developing the trial, the proposed source-receiver distances of the actual works have increased, which will reduce noise and vibration levels.

Question 3

As above, the MDA memo seems to be based on the proposed construction methodology and the levels and effects at 7 Glen Isla Place. These are separated by approximately 30-35m.

On this basis, the MDA memo states that the permitted construction noise limits will be complied with. However, the works will be much closer to other dwellings on sites that are not part of the application site, such as 16 Glen Isla Place.

The works appear to be around 10m from the nearest part of the dwelling on that site. Accordingly, I consider it likely that noise from the works will not necessarily comply with the permitted construction noise limits at some of the dwellings immediately adjacent to the works, and that resource consent will be necessary to enable this infringement.

I understand that many or all of these dwellings are owned by the 'applicant' and that written approval to any infringement of the permitted standards will be forthcoming.

Accordingly, I suggest that the application include noncompliance with the permitted construction noise standards at these properties as a reason for consent, and that the applicant provides written approval to these infringements and the construction noise and vibration effects generally.

Yes – the owners of all beachfront dwellings (9, 11, 12, 13, 14, 15 and 16 Glen Isla Place) are members of the Glen Isla Protection Society (GIPS), and they have all provided written approvals. This is why we didn't assess the levels at their façades. But we have done so in response to this s92 request and included them below (GIPS members coloured grey). Note that we modelled three scenarios, as per the proposed construction plan:

- Rock drop adjacent to 15 Glen Isla Place (the northern-most drop location)
- Rock drop adjacent to 12 Glen Isla Place (the southern-most drop location)
- North end works - tractor arrival and departure, Marooka crawler and excavator works

The predicted noise levels below are for the scenario that generates the highest noise level at 1 metre from the dwelling façades. Predicted vibration levels are in the ground outside the dwelling (rather on the dwellings themselves, because vibration transfer is unknown).

Receiver	Predicted noise level (dB L _{Aeq})	Predicted vibration level (mm/s PPV)
16 Glen Isla Place	72	0.80
15 Glen Isla Place	69	0.65
13 Glen Isla Place	68	0.65
12 Glen Isla Place	68	0.65
14 Glen Isla Place	67	0.65
11 Glen Isla Place	66	0.60
9 Glen Isla Place	64	0.50
8 Glen Isla Place	56	0.55

Receiver	Predicted noise level (dB LAeq)	Predicted vibration level (mm/s PPV)
7 Glen Isla Place	61	0.55
5 Glen Isla Place	59	0.50
3 Glen Isla Place	57	0.50
1 Glen Isla Place	55	0.45
10 Glen Isla Place	58	0.60
6 Glen Isla Place	58	0.55
96 Seaforth Road	53	0.35
4 Glen Isla Place	48	0.55
2 Glen Isla Place	47	0.50

These results show compliance for all dwellings, except 16 Glen Isla Place. This dwelling is owned by the applicant, and written consent has been provided.

Question 4

I understand that the applicant may want to be able to work on Sundays and Public Holidays to take advantage of weather windows and tides. However, the permitted construction noise standards are much lower on these days and consent will be required to exceed these limits. Can the applicant confirm whether works will be undertaken on Sundays and Public Holidays or not, and if so, can MDA address this in terms of compliance and effects on the receivers that have not given written approval?

As set out in Section 4.2 of the application:

‘Working hours will be 7am – 5pm, Monday – Friday when enabled by the tide. Work will not be undertaken at night or once daylight becomes unsuitable. However, the work is tidally and storm dependent and work may continue outside working hours for up to three days a week every two weeks. This may include Saturday working outside school holiday periods. No work will take place before 6am or after 8pm.’

Therefore, no work is proposed on Sundays or Public Holidays.

Question 5

Following 1, 2, 3 and 4, I suggest MDA provide a diagram showing all properties on the northern and eastern sides of Glen Isla Place, along with 96 Seaforth Road, to label those that have given written approval to construction noise exceeding the permitted limits, and then label all other receivers with approximate noise level predictions for both the main works, and also for trucks and the excavator traversing the reserve (for the receivers close to the reserve).

See the figures attached to this memo. We have provided a 3D diagram for each of the three scenarios.

Question 6

The MDA memo compares the measured / predicted vibration levels to the DIN4150 standard designed to avoid damage to buildings (including cosmetic damage).

Can MDA please provide a description of the likely effects of vibration on people? This should acknowledge the small sample of the ‘rock drop trial’ and that it is likely that there could be considerable variation in the levels during the works. (I would expect that there could be some isolated instances where levels could be 100% of those measured). The assessment of effects should also take into account the apparent predominant low frequency (<25Hz) nature of the vibration recorded.

Vibration amenity effects are caused mainly by building owners' concerns about building damage, which we have covered off with our DIN4150 assessment. But we agree that occupants will feel vibration at levels much lower than those that would cause cosmetic damage.

Here is a description of potential effects at various vibration levels. They are generally based on British Standard BS 5228-2:2009 *Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration*, but we have supplemented them with our own descriptions for 2mm/s and 5mm/s (which weren't provided in the Standard):

- 0.14mm/s PPV Just perceptible in the particularly sensitive environments
- 0.3 mm/s PPV Just perceptible in normal residential environments
- 1 mm/s PPV Typically acceptable with prior notification
- 2 mm/s PPV Clearly perceptible but typically acceptable (during daytime only) in dwellings and workplaces if it occurs intermittently, and with effective prior engagement.
- 5mm/s PPV Highly unsettling in dwellings and workplaces. If prolonged, some occupants may want to leave the building. Computer screens will shake, and items could fall off shelves if they are not level.
- 10 mm/s PPV Likely to be intolerable for any more than a very brief period

In our memo, we predicted 0.7 mm/s PPV at the closest dwelling (9 Glen Isla Place). We agree that there could be considerable variation during the works. So, if we double this value to 1.4 mm/s PPV (and ignore the potential reduction in vibration level as it transfers from the ground into the house structure), we can compare with the effects listed above. This indicates vibration will be clearly perceptible, but typically acceptable with prior notification, particularly if it occurs intermittently (which it will, for the rock dropping activity). We understand that 4 – 5 rock drops a day are planned for 60 to 80 working days.

Regarding the low frequency vibration content, it is not dissimilar to frequencies generated by trains and heavy vehicles, which is to say, familiar to most people. In terms of low-frequency damage risk, we have applied the most stringent PPV value from DIN 4150-3 which, for transient vibration events, applies between 1 – 10 Hz.

Overall, the risk of damage to dwellings is small, and with good communications about the works timing and duration (which we understand is already occurring), any vibration effects on neighbours will be acceptable.

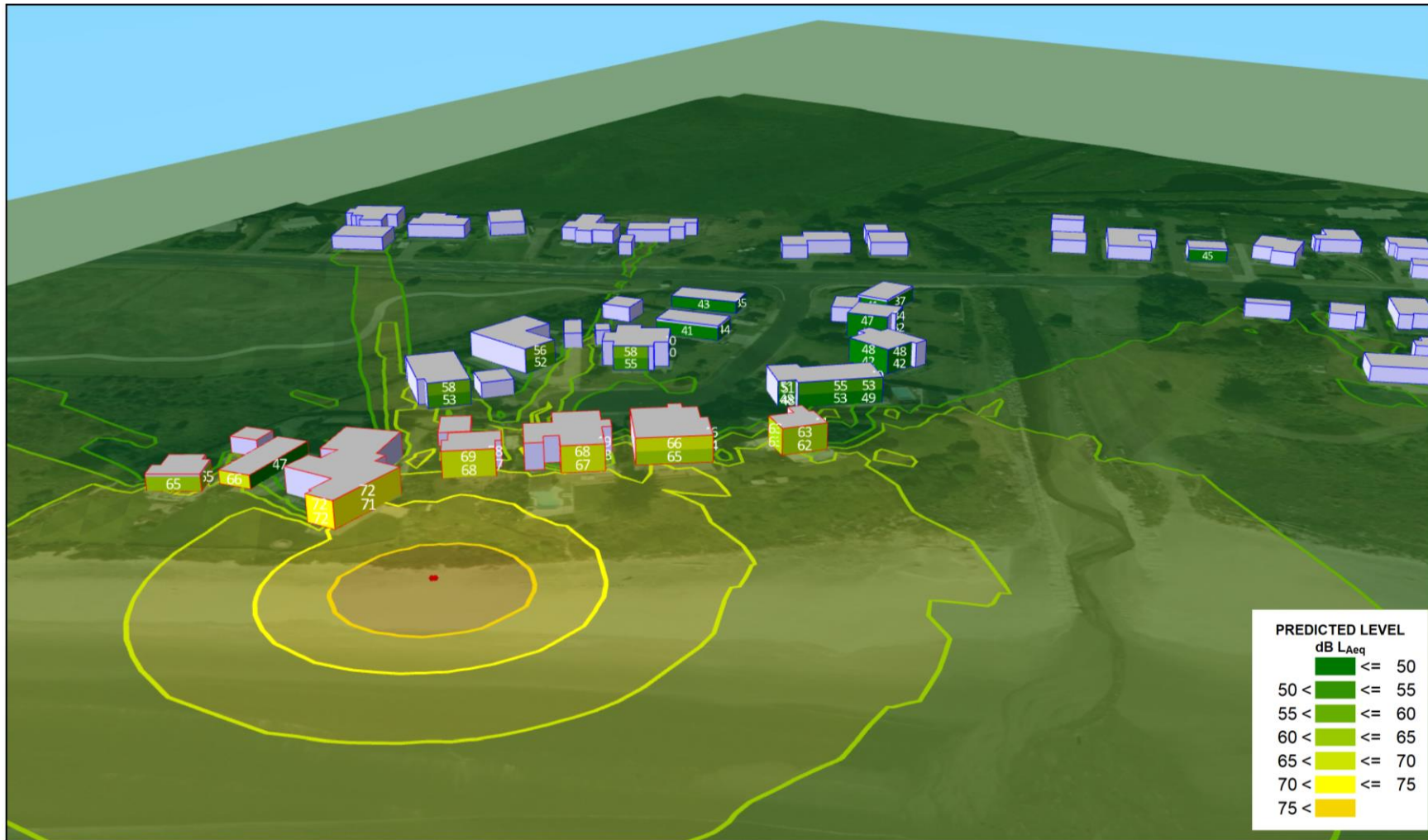
Question 7

The MDA memo states that the excavator movement generated vibration levels of “around 0.2 – 0.4 mm/s PPV” at 7 Glen Isla Place, where the machine was tracking around 32-33m away, and with Three Mile Creek in between. These levels seem high compared to vibration levels in more dense / cohesive soil conditions. Can MDA provide some comment on whether the sandy soil conditions in this area are likely to result in vibration levels that are higher, lower, or similar to vibration levels in other soil conditions such as dense / cohesive soils?

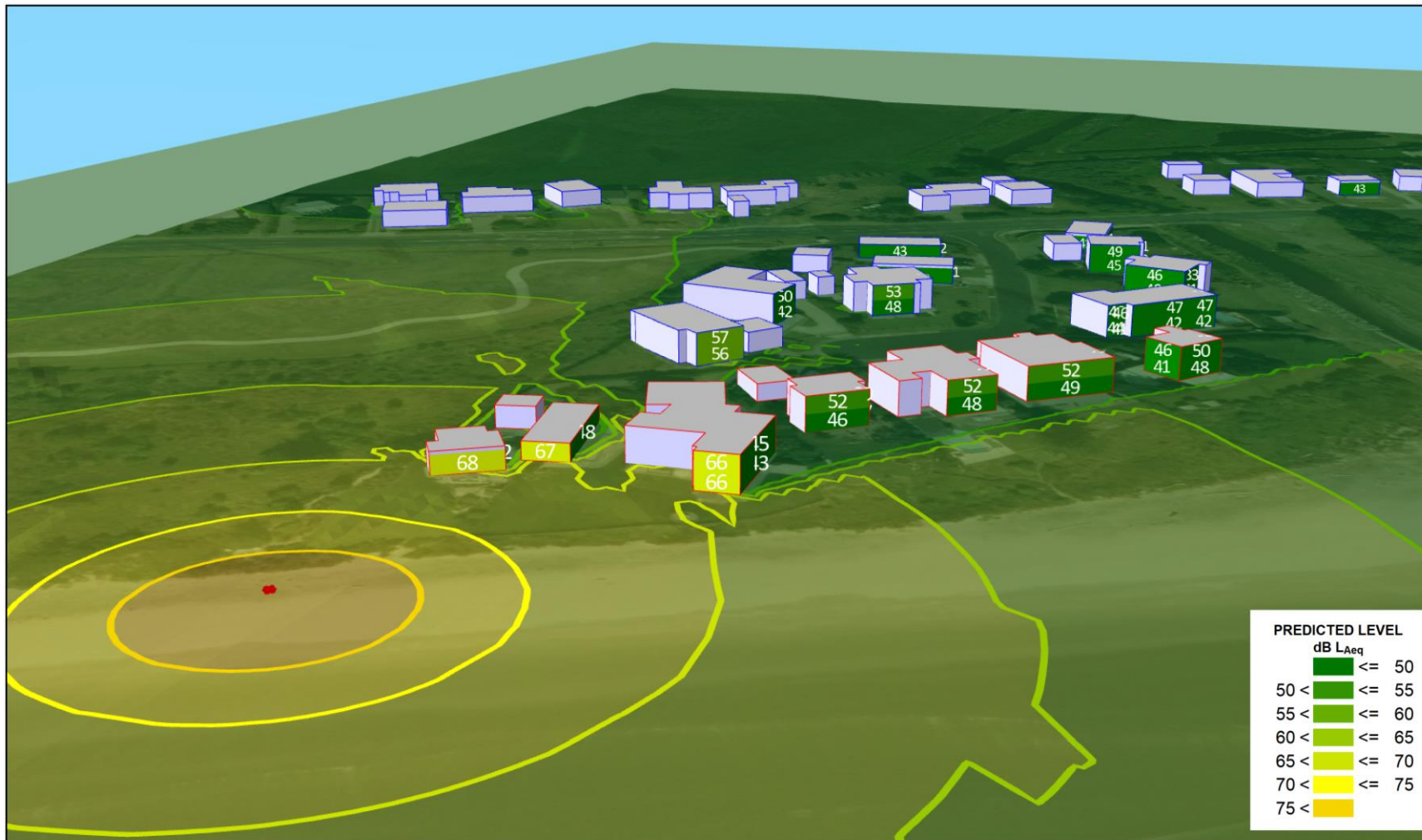
The attenuation with distance was less than we expected in sandy soils, but this wasn't an issue when the levels themselves are as low as we measured. Water content has an appreciable effect on vibration propagation in sandy soils, so the proximity to the creek and ocean, and the rain that occurred at the site several days before our measurements may have had an effect.

Vibration waves that travel downwards (P and S waves, as opposed to surface Raleigh waves) can also reflect off a saturated water table, bringing some vibration energy back to the surface.

There is no value in commenting on what vibration level would be like in other soil conditions, because only the soil at the site is relevant. Our measurements are the best evidence of its propagation characteristics.



LEGEND - Point Source - WA Received - Cadastral Boundary - Moving Point Source - No WA Received	Version: SoundPLAN 9.1 Prediction method: ISO 9613-2:1996 Model number: SP 001 Run No & Title: 103/FNM S2 Excavator and R File: S2 3D GNM Prediction Height: 1.5 m	Project: Glen Isla Coastal Protection Structure Project number: 20240399 Client name: Glen Isla Protection Society SCALE 0 5 10 20 30 40 m	GLEN ISLA CPS Rock Drop Noise - Drop adj No.15 MARSHALL DAY Acoustics
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LEGEND

- Point Source
- WA Received
- Cadastral Boundary
- Moving Point Source
- No WA Received

Version: SoundPLAN 9.1
Prediction method: ISO 9613-2:1996
Model number: SP 001
Run No & Title: 104/FNM S3 Excavator and R
File: S3 3D GNM
Prediction Height: 1.5 m

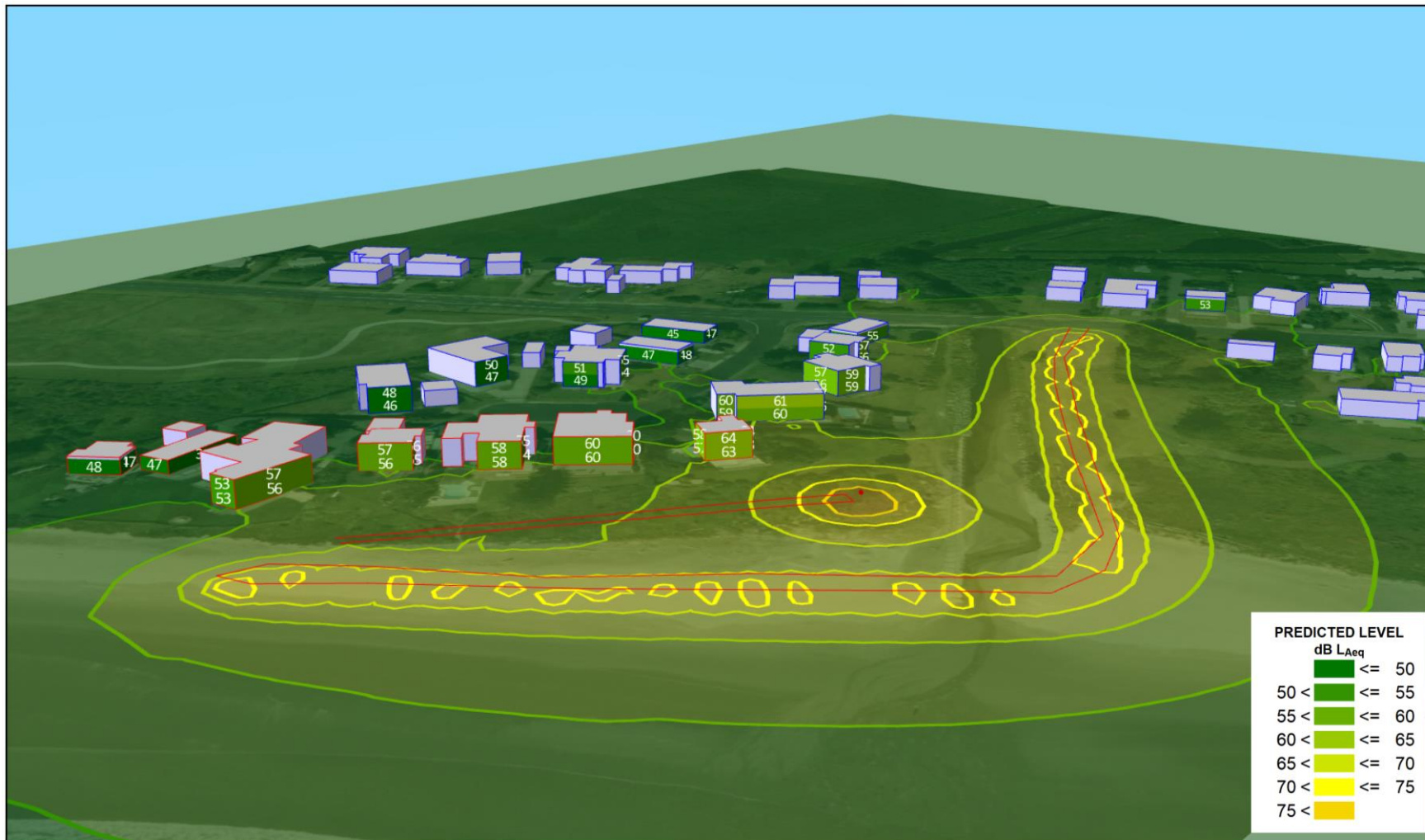
Project: Glen Isla Coastal Protection Structure
Project number: 20240399
Client name: Glen Isla Protection Society

SCALE
0 5 10 20 30 40
m



GLEN ISLA CPS
Rock Drop Noise - Drop adj No.12

MARSHALL DAY
Acoustics



LEGEND Point Source WA Received Cadastral Boundary Moving Point Source No WA Received	Version: SoundPLAN 9.1 Prediction method: ISO 9613-2:1996 Model number: SP 001 Run No & Title: 1004/FNM S4 Excavator Placi File: S4 GNM Prediction Height: 1.5 m	Project: Glen Isla Coastal Protection Structure Project number: 20240399 Client name: Glen Isla Protection Society SCALE 0 5 10 20 30 40 m 	GLEN ISLA CPS Construction Noise - North End MARSHALL DAY Acoustics
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Coastal Protection Project Glen Isla Dune, Waihi Beach



Construction Methodology Statement

November 2024

Job Ref: 23028

Rev C



P.O. Box 185

Orewa

P: 09 428 0040

M: 021 627 193

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Coastal Protection Project Glen Isla Dune, Waihi Beach

for

Glen Isla Protection Society

Construction Methodology Statement

October 2024

Job Ref: 23028

Rev A



P.O. Box 185

Orewa

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1.0 Introduction

A Construction Methodology has been prepared to detail the likely scope and extent of permanent of works required to achieve the proposed buried coastal protection structure. It is intended to assist in understanding the potential effect of the works so these can be assessed for consideration of the Resource Consent application.

2.0 Proposal

It is proposed that a buried revetment be constructed along approximately 200m of the coastline at the site, located immediately south of Three Mile Creek, Waihi Beach. The revetment is continuous over the frontage of seven beach front properties from 12 Glen Isla Place to number 9 Glen Isla Place. It is proposed that the structure is located in the Three Mile Creek Reserve which is vested in the Western Bay of Plenty Council's Reserve (Figure 2.0a).

The southern end of the revetment is seaward of 12 Glen Isla Place, with the rear of the revetment proposed 5m from the private property boundary. The structure is continuous to the north parallel to the boundary until a change of direction of the boundary midway through 16 Glen Isla Place. From this point the wall extends north to become 7.6m from the boundary at the existing large Norfolk Pine near the boundary of 11 and 13 Glen Isla Place. The 7.6m is the distance recommended by the Arborist to ensure the proposed construction would not endanger the Norfolk Pine. From this point the wall extends further north angling closer into the boundary, such that the wall is 6.5m from the boundary at the northern end of 9 Glen Isla Place.



Figure 2.0a: Layout Plan of rock wall

Detailed Design of the revetment has not been completed however the structure will be designed in accordance with accepted design guidelines (CIRIA C683), comprising a:

- Slope no steeper than 1:1.5
- Double armour layer
- Double underlayer
- Crest width minimum of three primary armour stone widths

In addition, the crest level is to be approximately RL 3.5 to ensure the structure is buried beneath approximately 0.5m of sand (Figure 2.0b). Footing depth will be confirmed at Detailed Design but is likely to be approximately RL 0.0 or below

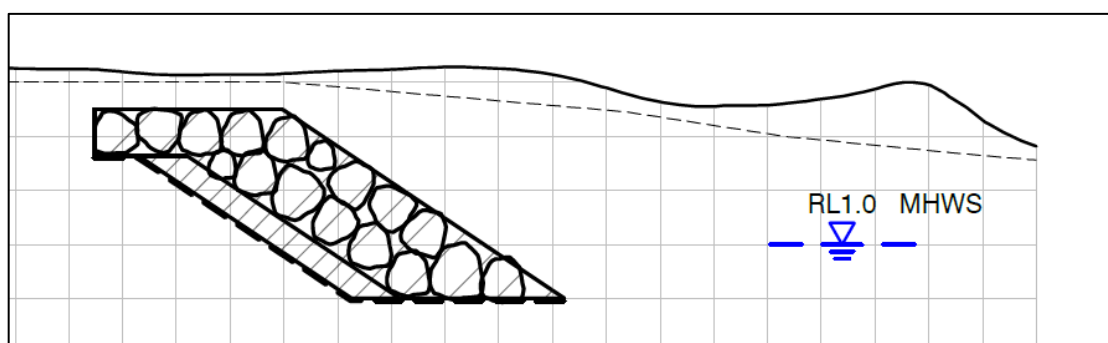


Figure 2.0b: Typical section through buried backstop wall

3.0 Construction Access

The primary construction access for delivery of machinery and rock spalls will be through the Council Reserve at 100 Seaforth Road, on the northern side of Three Mile Creek. Rock delivery by rubber tyred trailer will track through the Reserve and along the beach seaward of the groynes. (Figure 3.0a). The road frontage has a wide and open entrance off the road (Figure 3.0b) and provides a ready point of access to the foreshore. Access will be required around the seaward side of the groynes that are either side of the creek outlet and will be tidally limited.

Delivery of the excavator will occur through this access at the start of the project. It will then be left on site for the duration of the project, outside the CMA, within the Construction footprint.

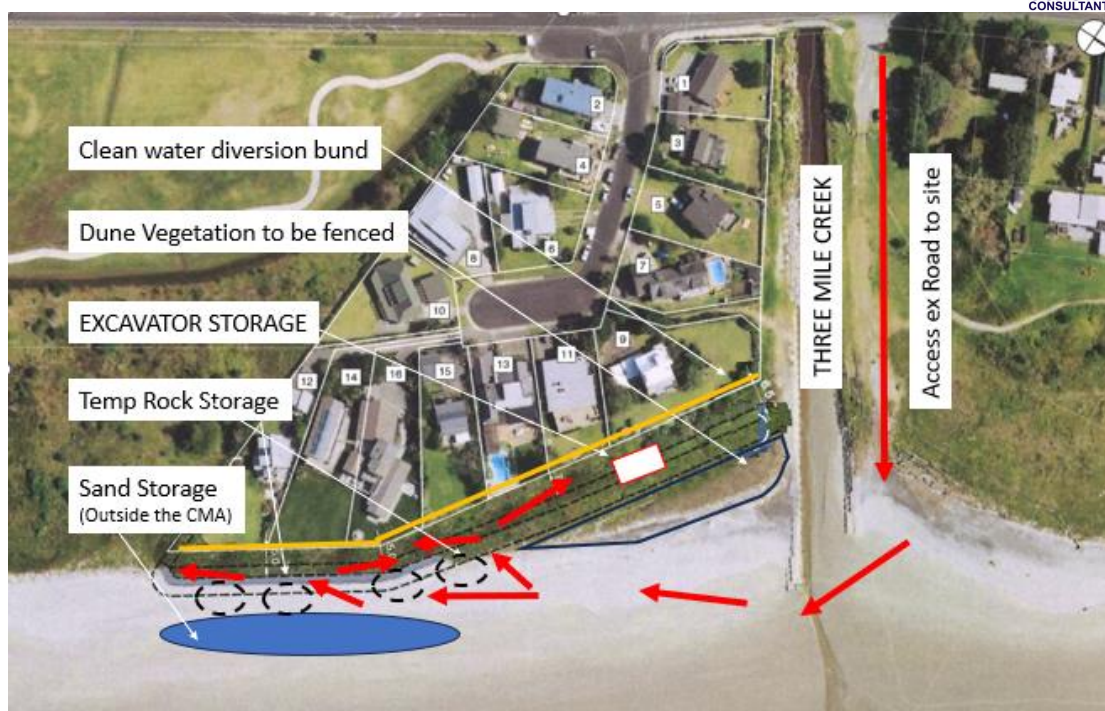


Figure 3.0a: Indicative access through Reserve and excavator storage



Figure 3.0b: Seaforth Road Reserve access

4.0 Erosion and Sediment Control

The site is atypical with regards earthworks and typical silt control measures. All material being excavated will be beach sand so that management of fines run off will not be an issue. The downhill part of the site is bounded by sandy beach and the tide. Silt fences are not practicable as they get washed away and/or prevent public access outside work hours. Uphill side of the site is well vegetated with contour generally flat but falling back from the mounded dune crest. A continuous uphill clean water diversion bund will be formed incorporating the impervious boundary walls to some sites (shown on Figure 3.0a above). No other sediment controls will be provided.

5.0 Vegetation Clearance

The extent of existing vegetation that requires clearance will be limited as much as practicable. In principle, the area of disturbance will comprise the footprint of the wall plus any sloping sides to the trench where that area is currently vegetated. An indicative area has been highlighted below (Figure 5.0a). There is a northern area of incipient and foredune with high quality Spinifex and Pingao vegetation. This area will be marked out and fenced off prior to work commencing

The southern extent of wall, seaward of 12-16 Glen Isla Place, has a limited extent of existing vegetation requiring removal. The indicative area allows for 1m landward of the rear of the wall to batter existing sand to a stable gradient.

The northern extent of wall, seaward of 9-15 Glen Isla Place, requires a greater width of clearance. This is due to the excavation for the wall placement being deeper below existing ground level. An approximate width of 13m has been defined by extending the batter above the rear of the wall near vertically to meet ground level, and forming a steep temporary batter (45°) from the wall toe to ground level on the seaward face (Figure 5.0b)



Figure 5.0a: Indicative area of vegetation requiring removal

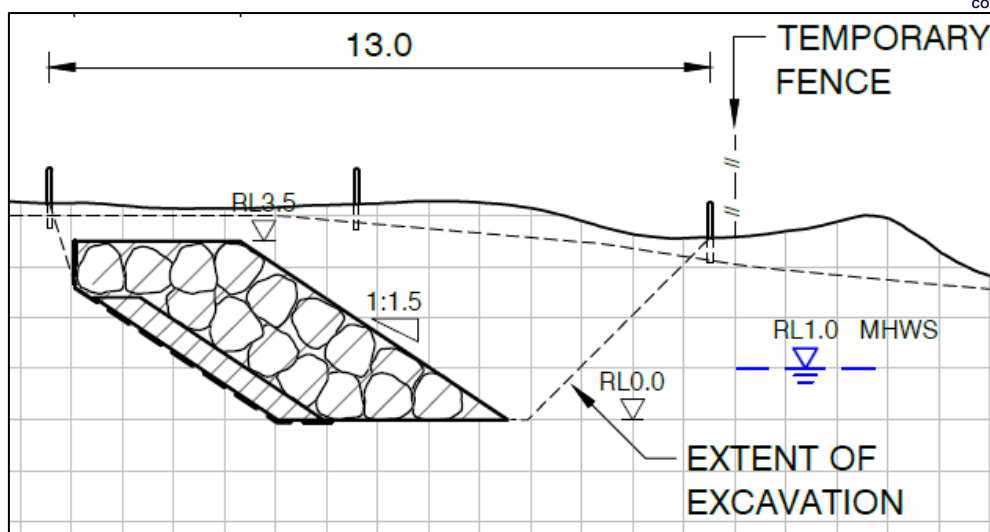


Figure 5.0b: Indicative excavation to place wall

6.0 Rock Supply and Delivery

Rock is to be supplied from the Waihi Beach quarry. It will be graded at the quarry and stock piles of suitable rock size will be established there. The engineer will agree 4-6 representative rocks for each size grade providing examples of the upper and lower bounds of the grade. These rocks will be marked and kept at the quarry adjacent to stockpile areas throughout the project. Suitable size rock will be stockpiled ahead of being required onsite and the engineer shall approve all stockpiled rock before delivery to site.

Rock will be loaded into a road legal, pneumatic tyred tractor and tipping trailer unit. It will travel directly from the quarry to the 100 Seaforth Road access point and then along the beach to the active work site. Rock will be delivered in the required grades to site on an “as required” basis, as much as is practicable, such that stockpiling on site is minimised. There may be temporary piles in order to maintain efficient construction operation, but it is anticipated that these piles will be almost completely removed daily.

Rocks will be dumped off the trailer from the minimum height practicable to minimise vibration. The dumping methodology is to be agreed with the Engineer prior to rock delivery. Areas where rock is temporarily stockpiled on site will have a heavy gauge geotextile placed before rock delivery and this will be held in place by suitably sized rocks. Following completion of rock delivery to any temporary stockpile location the geotextile under that location and all rock chips and fragments on the beach shall be removed and disposed of off-site.

During Rock placement for wall construction access to the southern section will be directly from the beach. The excavator will sit seaward of the working face and place rock. Access to the northern section shall only be along the approved wall alignment. The contractor shall maintain fencing along this alignment to ensure no damage to vegetation occurs outside the agreed access way.

7.0 Wall Construction Methodology

The proposed construction methodologies are slightly different for the two wall sections highlighted below (Figure 7.0). The southern section is to be built at and slightly landward of

the existing dune face. Less excavation is required and access is available seaward of dune. The **northern wall** section, will be constructed entirely within the existing dune and seaward vegetation is to be retained. Work will generally be along the wall foot print.

For the **southern wall section**, less excavation is required and access is available seaward of dune. The construction sequence following vegetation clearance is detailed below. However, in general terms, an excavator will work from the beach placing excavated sand seaward of its work site but outside the CMA. Lengths (approximately 20-30m) of the wall foot print will be lowered to RL 2.0 to form a work platform and then shorter lengths (say 10m) excavated to target depth with the rear trench face at design batter. The geotextile, underlayer of small rock and then armour layers of rock will be progressively placed. This is likely to be in two lifts, lift 1 to RL2.0 and lift 2 to RL 3.5 (crest level). Ground level in front of the wall will be raised again to approximately RL2.0 to meet current beach level and the wall above this covered with sand full height. Wind fences will be placed before planting of the dune is undertaken.



Figure 7.0: Wall sections

7.1 Construction Sequence Southern End

1. Work will commence from the southern end, with the excavator seaward of wall. Excavation will be undertaken on the wall foot print to approximately RL2 for the wall end detail and along approximately 20m of the wall length.
2. A length of footing able to be backfilled with (at a minimum) geotextile and first underlayer in a single tidal cycle, likely to be approximately 10m will be excavated to design level
3. Sand excavated from footing can be placed in a wind row seaward of the active work site to slightly extend the working window. All sand will be placed above MHWS, outside the CMA.
4. Rear wall batter will be shaped to 1:2, this is critical as it determines final face slope
5. The batter slope seaward of wall toe will be as steep as temporarily stable, likely approximately 45°
6. Geotextile will be laid in the excavated trench including below toe of wall – ideally single 6m wide roll of geotextile used extending to full crest height and as far under wall as these reaches

7. The underlayer of smaller rock will be placed on geotextile to design batter, starting from the toe and working upwards to approximately RL 2.0, Approximately 1m clear geotextile will be left uncovered at ends (and top if required) for lapping with the subsequent section
8. This is the minimum works that need to be completed in a single tidal cycle to save re-work the following day. If this is unachievable, the excavated length or height should be reconsidered.
9. Armour rock layers are then to be placed on underlayer to just below RL 2.0 such that completion of the underlayer can be readily undertaken.
10. Excavate next (10m) section and repeat steps 1-9 above.
11. On the second lift, much longer sections (50m) of wall can be completed as this construction is above ground and outside tidal and ground water effects.
12. The second lift of geotextile and rock underlayer will be placed. This will then be covered by the armour rock before the upper wall is buried in sand.

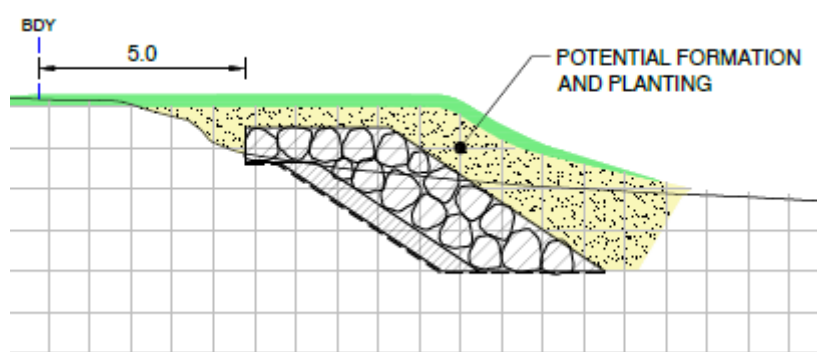


Figure 7.1: Completed Southern Wall section

For the **northern wall**, where the wall is to be entirely within the existing dune and seaward vegetation is to be retained, machinery, trucks and tracked “marooka” delivering wall materials will access along the alignment of the wall. The excavator will sit within the wall foot print and move longitudinally along the alignment.

The construction sequence following vegetation clearance is detailed below. However, in general terms, an excavator will work from within the alignment. The entire foot print will be lowered to RL 2.0 to form a work platform. Then working from the northern end, short lengths (approximately 10m) will be excavated to target depth with the rear trench face at design batter. The excavator will be within the trench and may require the temporary shoring of the seaward face of the lower trench. It is likely to need to partly fill the trench between placing the lower and upper armour layers and it may be useful to extend the lower armour layer across the base of trench.

The construction can be considered as comprised of three lifts, lift 1 to RL2.0 including first armour layer, lift 2 to RL2 including second armour layer and lift 2 to RL 3.5 (crest level). Ground level will be raised again to RL2.0 at the foot of the wall and the wall face covered with sand full height. On completion, dune planting will be established.

7.2 Construction Sequence Northern End (see Figure 7.2a)

1. Work from northern end (A), with excavator on wall alignment excavate wall foot print to approximately RL 2.0 for length of wall trucking sand to beach (B) and depositing in front of 12-16 Glen Isla Place above high tide (outside the CMA).
2. Excavate to design level a length of footing able to be backfilled with (at a minimum) geotextile and first underlayer in a single tidal cycle, likely to be approximately 10m
3. Sand excavated from first excavation would be also be deposited on front of 12-16 above high tide. However, sand excavated from subsequent sections will be used to backfill and cover completed section.
4. The rear wall batter will be shaped to 1:1.5, this is critical as it determines final face slope
5. The seaward slope of wall toe will be battered as steep as temporarily stable, likely approximately 45°. The lower part of the toe is likely to be shored up to make safe and practicable for digger operation within trench(C).
6. Lay geotextile in excavated trench including below toe of wall – ideally single 6m wide rolls of geotextile will be used extending to full crest height and as far under wall as these reach.
7. The small rock underlayer will be placed on the geotextile to design batter, starting from the toe and working upwards to RL2.0, leaving approximately 1m clear geotextile at end (and top if required) for lapping with the subsequent section.
8. This is the minimum works that need to be completed in a single tidal cycle to save re-work the following day. If this is unachievable, the excavated length or height should be reconsidered.
9. Place first rock armour layer on the underlayer working from northern end back towards south (D).
10. Remove shoring and cover the lower rock with sand to raise excavator so that a wider trench is accessible (E) to place the second rock armour layer to just below RL 2.0. The armour layer should be kept low enough such that completion of the underlayer can be readily undertaken (F).
11. Excavate next (10m) section and repeat steps 2-10.
12. On the third lift much longer sections (50m) of wall can be completed as this construction is in a wider trench and outside tidal and ground water effects.
13. The third lift of geotextile and underlayer rock will be placed. This will then be covered by the armour rock before the upper wall is buried in sand.

Following placement of the rock wall, rehabilitation of the site and installation of planting will be undertaken. This will comprise:

- A minimum of 0.5m of sand will be spread over the upper wall crest and battered down at approximately 1:2 to 1:3 to meet existing ground level over the full length of the southern section.
- Sand will be reestablished within the northern section to meet the adjacent contours along the entire length of the section.
- Disturbed dune areas will be re-vegetated with appropriate mix of indigenous fore- and back-dune species, as defined in the planting plan by the Ecologist, to effectively bind the disturbed sand and re-build the dune following works. Foredunes will be planted predominantly with Spinifex with pockets of Pingao.

- Wind fencing will be established along face of new planting and at dune crest to minimise wind-blown sand to back dune area and protect plants while they are establishing
- Planting timed for spring or autumn as practicable.

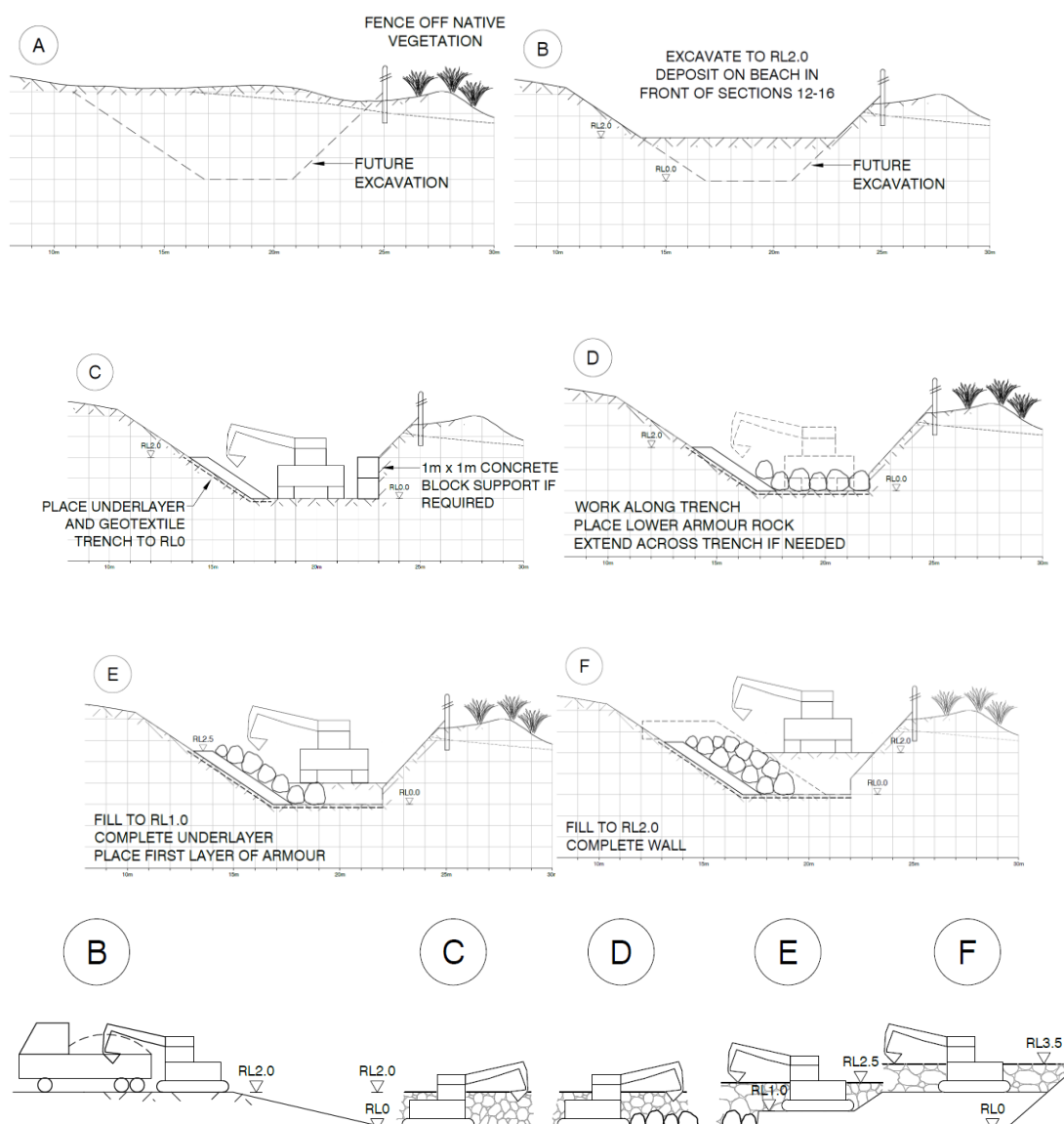


Figure 7.2a: Methodology Diagrams

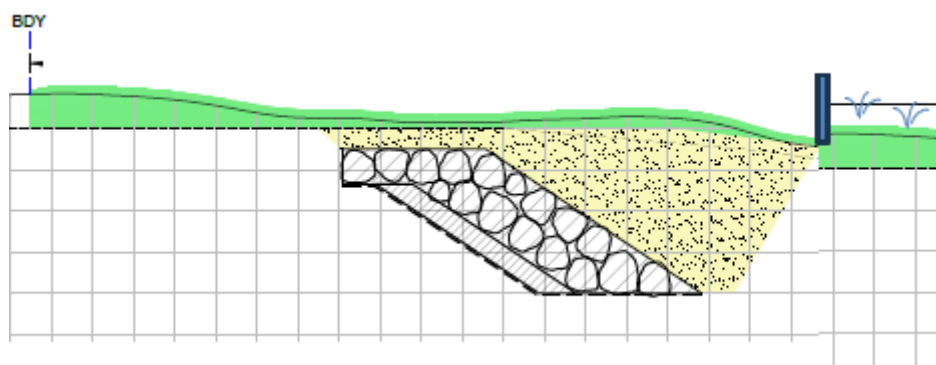


Figure 7.2b: Completed Northern Wall section

8.0 Tidal Work

To the extent practicable, all work and material delivery shall take place above high tide. Three Mile Creek will need to be crossed where it discharges onto the foreshore for material and plant delivery. Vehicle movements will be managed to minimise time below high tide and avoid contamination of the tidal area as practicable and so that disturbance is restored by natural processes in 7 days. Machinery will be clean to the extent practicable and free from any leakage of petrochemicals.

Where strong onshore conditions, storms or extreme tides threaten, the site will be made safe and works would cease while there is a threat of tidal interaction with the works.

9.0 Monitoring

Vibration monitoring of the works will be undertaken while works being are established to quantify vibration at adjacent residential areas and confirm the acceptability of the methodology. Monitoring will be undertaken throughout the project as required to ensure vibration is to be kept within acceptable levels to the relevant code of practice. The construction methodology shall be amended if required by the monitoring.

10.0 Work Hours and Project Duration

Work will be kept to within 7.00 am to 5.00pm Monday to Friday (working hours) to the extent practicable. Work will not be undertaken at night or once daylight becomes unsuitable. However, the work is tidally and storm dependent and work may continue outside working hours for up to three days a week every two weeks. This may include Saturday working outside school holiday periods. No work will take place before 6am or after 8pm.

The project is expected to be undertaken between the months of April 2025 and November 2025. It is anticipated that the entire project will be completed in 4 months. An allowance has been made for periods of inclement weather, possible slow working conditions where the construction is constrained along the wall alignment and other unforeseen issues such as rock availability at the quarry etc. On this basis a specified project duration of 6 months is proposed

between the dates of April –November, inclusive. However, work will not be undertaken at Easter or other Public Holidays.

11.0 Equipment Storage and Refuelling

All machinery and equipment shall be kept overnight on the wall alignment above RL3.0. All equipment will be kept in good condition, clean and free from any leaks. No refuelling will be undertaken within the CMA and only equipment that cannot readily leave site (excavators) will be refuelled on site. A spill kit will be present on site and an agreed refuelling plan is to be submitted by the contractor to the satisfaction of the engineer and Consent Authority.

COASTAL PROTECTION PROJECT

GLEN ISLA DUNE

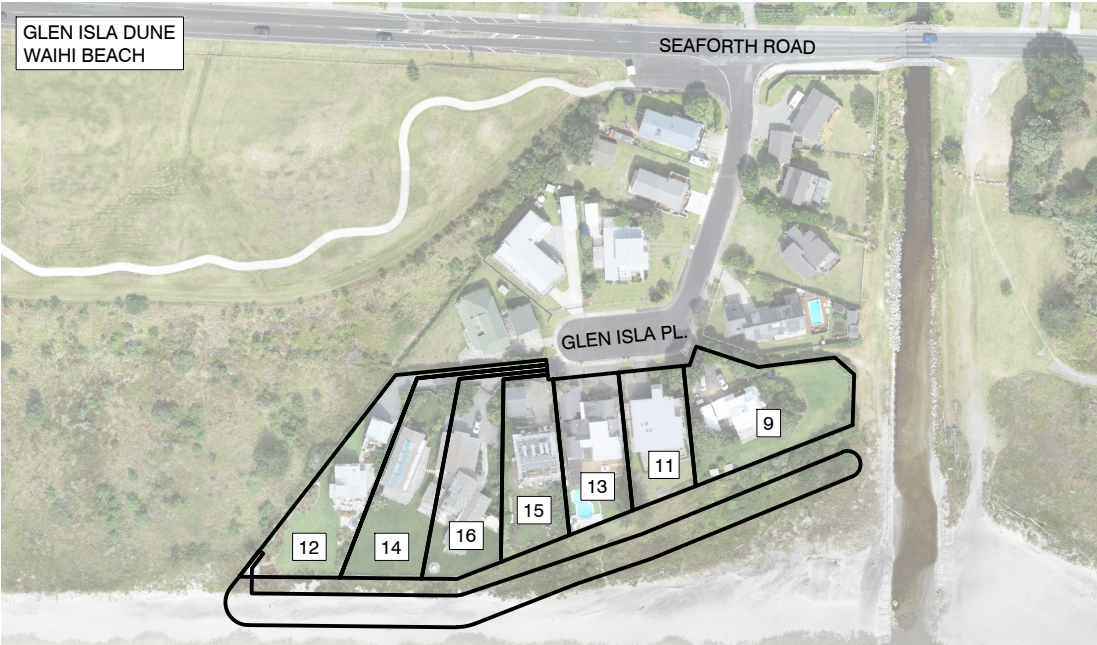
FOR

GLEN ISLA PROTECTION SOCIETY

PREPARED BY

DAVIS COASTAL CONSULTANTS

RESOURCE CONSENT



DRAWING SCHEDULE			
NO	TITLE	REV	DATE
01	DRAWING SCHEDULE AND LOCATION PLAN	B	26.11.24
02	PROPOSED LAYOUT	A	26.11.24
03	PROPOSED SECTIONS	-	23.08.24

			DESIGN: DAVIS COASTAL CONSULTANTS
			SURVEY: SEAM SPATIAL
			DRAWN: JMA
			CHECKED: -
			DATE: November 2024
			SCALE: NTS
			CAD FILE: 23028-02 Glen Isla Place Waihi
B	WALL LENGTH AMENDED	26.11.2024	NOT FOR CONSTRUCTION
A	RESOURCE CONSENT ISSUE	10.10.2024	
-	RESOURCE CONSENT ISSUE	23.08.2024	
No.	REVISION DETAILS	DATE	

JOB TITLE:

COASTAL PROTECTION PROJECT

GLEN ISLA DUNE

WAIHI BEACH



**COASTAL MANAGEMENT
AND ENGINEERING**

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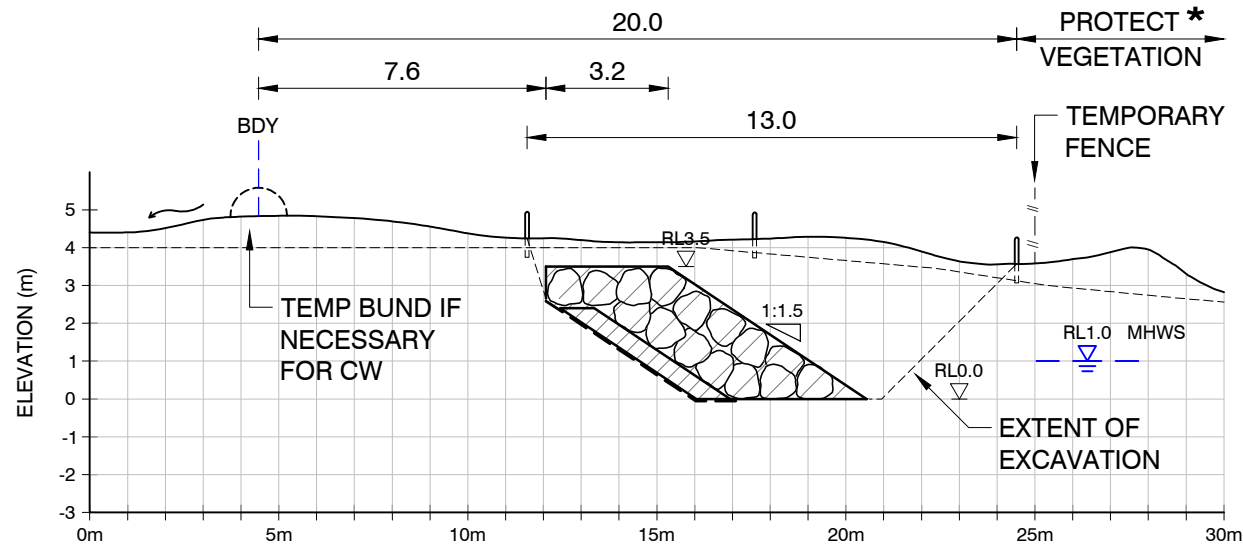
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**DRAWING SCHEDULE AND
LOCATION PLAN**

SERIES:
RESOURCE CONSENT

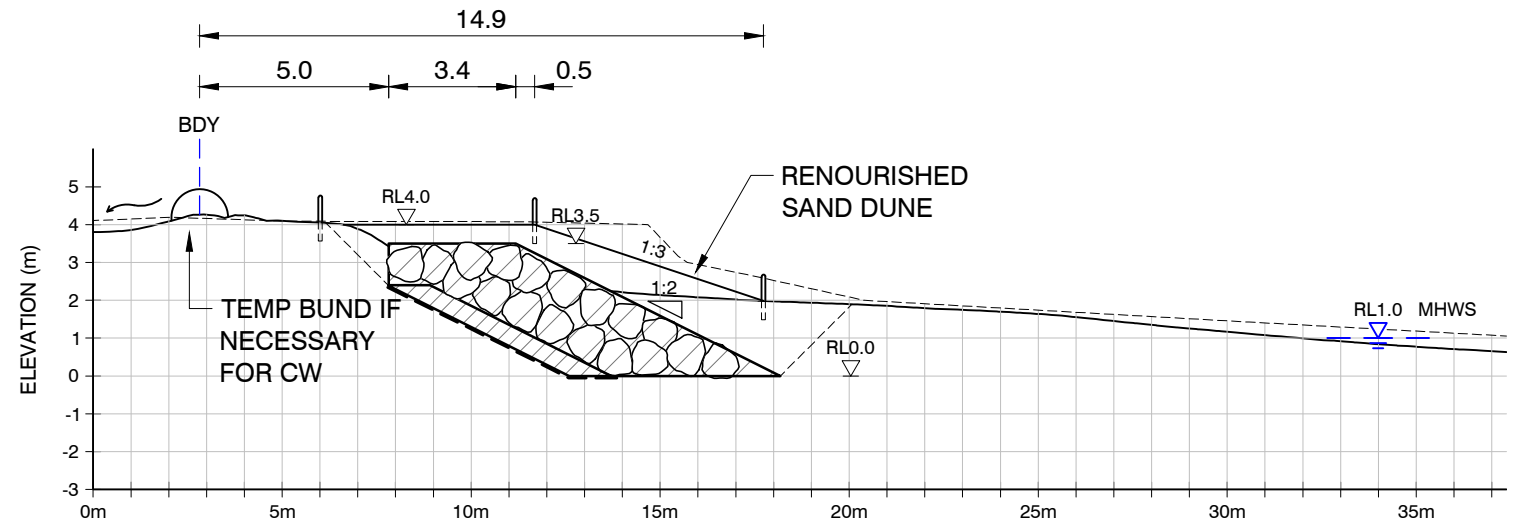
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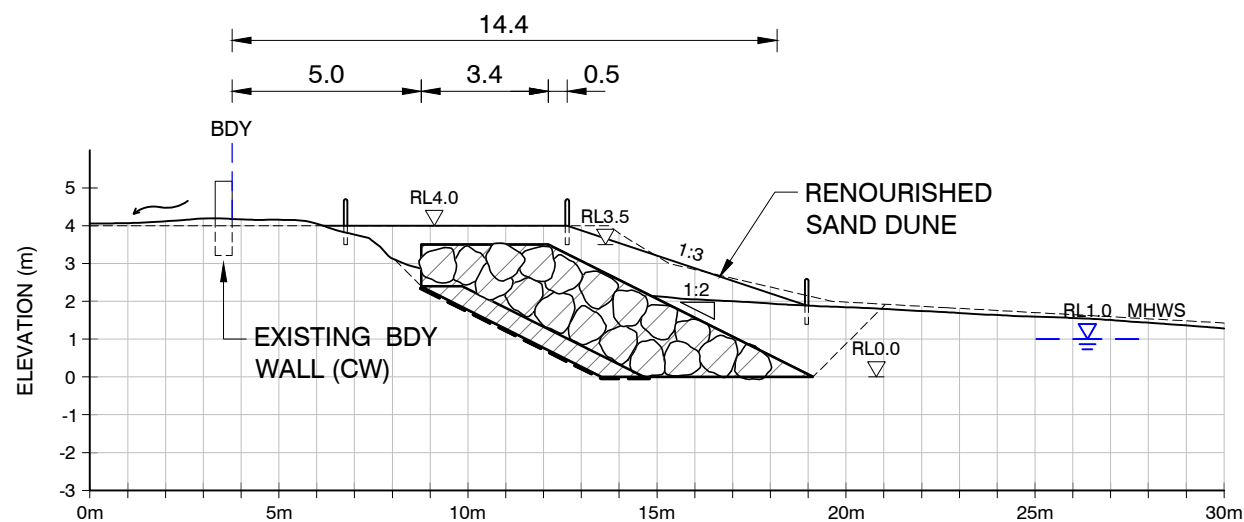
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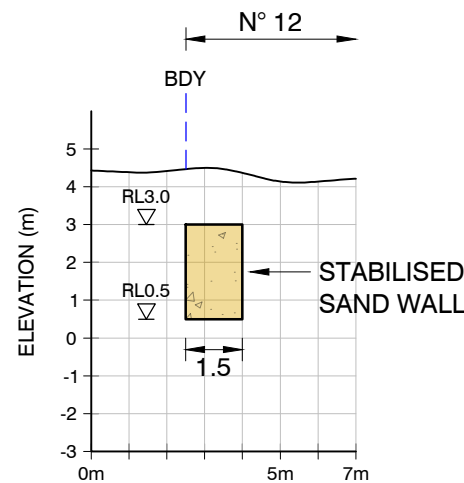
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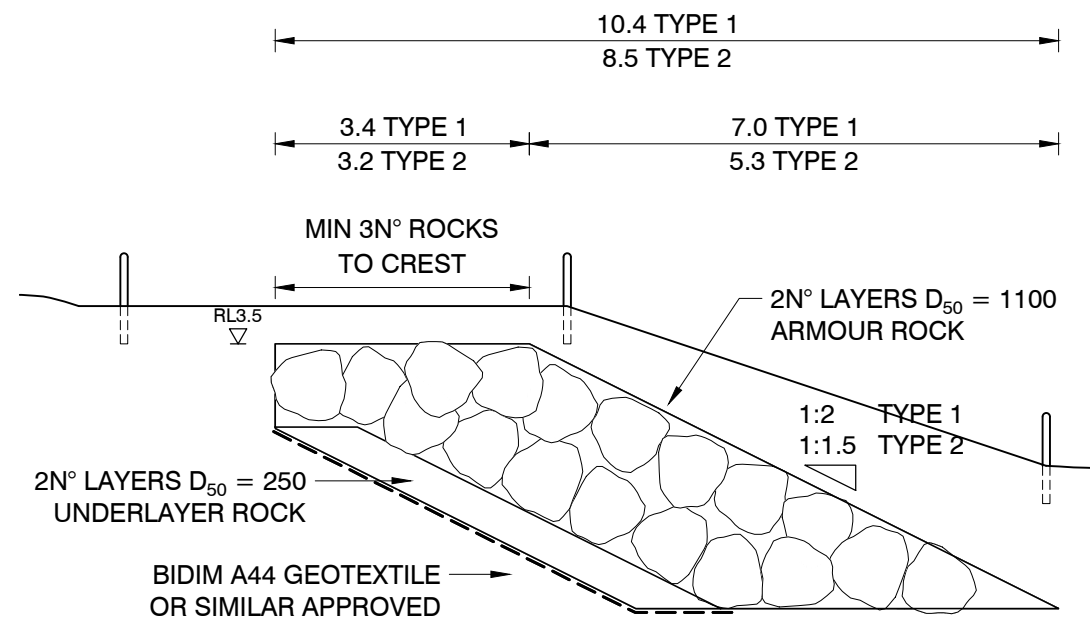
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SCALE 1:200



C
02 **No 16 GLEN ISLA - TYPE 1**
SCALE 1:200



D
02 **SECTION**
SCALE 1:200



TYPICAL RIPRAP SECTION
SCALE 1:100

NOTES

- * AREA OF EXISTING HIGH QUALITY DUNE VEGETATION TO BE DEFINED ON SITE BY ECOLOGIST AND PROTECTED BY TEMPORARY FENCE FOR DURATION OF WORKS

KEY

—	EXISTING SURFACE - 2024
- - - - -	HISTORIC SURFACE - 2011

DESIGN:	DAVIS COASTAL CONSULTANTS
SURVEY:	SEAM SPATIAL
DRAWN:	JMA
CHECKED:	-
DATE:	AUGUST 2024
SCALE:	VARIES @ A3
CAD FILE:	23028-02 Glen Isla Place Waihi
RESOURCE CONSENT ISSUE	23.08.2024
No.	REVISION DETAILS
	DATE

NOT FOR CONSTRUCTION

JOB TITLE:

COASTAL PROTECTION PROJECT GLEN ISLA DUNE WAIHI BEACH



**COASTAL MANAGEMENT
AND ENGINEERING**
P.O. Box 185
Orewa
Phone: 09 428 0040
Mobile: 021 627 193
Email: coastal@daviscoastal.co.nz

DRAWING TITLE:
PROPOSED SECTIONS

SERIES:

RESOURCE CONSENT

FILE NO: 23028
SHT NO: 03
REV: -