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Flood Resilience: Whirinaki Landscape Scoping Assessment

Summary

Based on this initial Landscape Scoping Assessment, it is considered that the Whirinaki Flood Resilience project could result in significant potential adverse effects on the dwelling at 1078 SH2 (a.k.a. 19 North Shore Road). Beyond this single property, no other significant effects were identified on residential properties or the coastal environment.

Purpose

Hawke's Bay Regional Council (**HBRC**) are currently undertaking a number of flood resilience projects in response to recent weather events (e.g. Cyclone Gabrielle). Narrative Landscape have been engaged to provide landscape advice in relation to the proposed Whirinaki stopbank upgrade (the '**Project**').

While the project is targeted at providing a desirable outcome (flood protection), there is still the potential for associated adverse effects. HBRC have an 'Order in Council' (OiC) that requires them to get a Controlled Activity consent for any work that isn't otherwise permitted by the district or regional plans. Under the conditions of the OiC, for the proposed Whirinaki stopbank, the following points need to be addressed by a Landscape Architect;

- *Before construction works begin, the consent holder must conduct a landscape scoping assessment to identify the potential visual landscape effects of the proposed works, including effects on any adjoining residential properties ...*
- *If the assessment identifies significant potential adverse effects, the consent holder must prepare and implement a landscaping plan for the use of planting and fencing as required to avoid, remedy, or mitigate those effects.*

This Whirinaki Landscape Scoping Assessment (**LSA**) has been prepared to address the first bullet point (above), and will consider potential visual landscape effects on the coastal environment and adjoining residential properties.



Methodology

This assessment has been prepared by Josh Hunt, a Registered Landscape Architect (NZILA), and although this is a relatively confined assessment, it is based on guidance from the NZ Landscape Assessment Guidelines and it is noted that assessment methods can be tailored to each situation¹. The Graphics Package (**Attachment 1**) includes a context map, planning map and site photographs.

The intention is to provide an initial landscape scoping assessment to determine the nature of effects and identify if any potential effects are approaching a 'significant' threshold, based on the following 7-point scale (Figure 1 & Appendix 1). Subsequently, additional landscape mitigation work can be designed/undertaken where this is necessary.

Very Low	Low	Low - Moderate	Moderate	Moderate - High	High	Very High
Less than minor	Minor		More than Minor		Significant	

Figure 1: Effects rating scale.

The methodology for this assessment includes:

- Preliminary desktop research and collation of relevant base information;
- Field observations from multiple site visits to collect photographs and develop an understanding of the surrounding site character (June/August 2024 & January 2025);
- Description of the proposal;
- Consideration of the Relevant Statutory Planning Framework;
- Undertaking a brief assessment of potential landscape and visual effects;
- Review of updated cross-sections and road-raising/stopbank location plans provided by HBRC and PDP (August 2025).
- Comparison with previous Landscape Scoping Assessments and Addenda.
- Recommendations to mitigate potential adverse effects (where necessary).

Proposal

The project is planning to extend an approximately 3m high stopbank along the eastern edge of the existing Whirinaki Drain. The revised alignment broadly maintains the stopbank footprint from earlier designs (east of Whirinaki Drain), with a key difference being that the raised portion of SH2 has been shifted further north.

The project is described in the PDP Report² as having two portions (Figure 2). Portion 1 is 1.25km long and referred to as the Whirinaki Stopbank (a 100-year LOS) that connects from the Ararata Urupā through to SH2. Portion 2 is 1.4km long and referred to as the Pan Pac Stopbank (a 500-year LoS) which extends inland from SH2.

¹ 'Te Tangi a te Manu: Aotearoa NZ Landscape Assessment Guidelines', Tuia Pita Ora NZILA, July 2022. - Paragraph 1.04

² PDP Ltd. Whirinaki Drain Stopbank Upgrade Design Report (1/08/2025)





Figure 2: Proposed Stopbank Alignment.

The components of the proposal include;

- Stopbank / Road Raising
 - The proposal involves raising part of SH2 and North Shore Road to function as a combined road and stopbank structure.
 - The stopbank alignment has been slightly shifted in places compared to earlier options, particularly at the tie-ins near Pohutukawa Drive.
 - The stopbank crest height will be an RL of 3.5m. This results in in typical stopbank heights of 2.7m (500-year LOS) and 1.5m (100-year LOS) above existing ground.
- Scour Protection
 - Potential scour protection along parts of the Whirinaki Drain and coastal edge, using rock armouring or engineered revetment, to stabilise erosion-prone areas.
- Ancillary Works
 - Drainage culverts, scour outlets, and road tie-ins are included in the drawings.
 - There will also be temporary effects associated with stockpile locations, borrow areas, laydown area and the temporary bypass road during construction.

The primary visual intrusion as a result of this proposal relates to the construction of a the stopbank and the raising of portions of two roads. Following construction, the stopbank will be grassed and maintained through mowing.

Planning Context

I am advised that stopbanks are a permitted activity under the Hastings District Plan, provided that they are located within the River Hazard overlay, which is displayed by the blue wave symbol overlay on HDC planning maps (Attachment 1: Sheet 02). The Pan Pac portion of stopbank (west of SH2) is outside of this hazard overlay, while approximately half of the Whirinaki stopbank is located within this overlay (the section south of North Shore Rd). Additionally, the work required to lift the road height is primarily addressed through the NZTA designation.

It is understood that the OiC provides for a non-notified consenting process, but requires that significant effects (as identified in bullet point 2 on page 1) are appropriately mitigated. The comprehensive planning assessment for this project is being undertaken by Strategy.

Visual Effects

“A visual effect is a kind of landscape effect. It is a consequence for landscape values as experienced in views. Visual effects are a subset of landscape effects. A visual assessment is one method to help understand landscape effects.”³

The key viewing audience is considered to be those residential properties along North Shore Rd, Pohutukawa Dr, and at the southern end of Whirinaki Rd (backing onto SH2).

Coastal Environment

The Hawke’s Bay Regional Coastal Environment Plan identifies the extent of the ‘Coastal Environment’ in this area as the properties accessed along North Shore Rd and Whirinaki Rd (blue dotted line on Attachment 1: Sheet 02). The project is primarily situated outside of the mapped coastal environment. However, the southernmost section of the proposed stopbank (near the Ararata Urupā) is situated within the mapped coastal environment.

It is my opinion that the proposed stopbank will not have a significant adverse effect on the landscape character, visual amenity or natural character values of this locality. This opinion is influenced by the modified surrounding area (farmland, residential, state highway and Whirinaki Industrial area), in conjunction with the generally low amenity of the Whirinaki Drain where it joins the Esk River outlet. Additionally, there are still notable influences from Cyclone Gabrielle which have degraded the setting (Figure 3). Furthermore, there is a drop in elevation (embankment) that separates the active coastline from North Shore Road which obscures views toward the proposed stopbank from the adjacent foreshore.

³ Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines. Page 135, 6.08.



Figure 3: Aerial view of the southern end of the project area.

Pohutukawa Dr Residential Properties

The residential properties situated along Pohutukawa Rd were initially identified as the likely location of the greatest degree of visual change. However, the overall height has reduced during the design refinement and a degree of mitigation is provided by the triangular parcel of open pasture (within which this portion of the project is located), as this provides a useful separation between the majority of the Pohutukawa Drive properties and the proposed stopbank. Despite the introduction of a 1.5m high stopbank, in all situations the views orientated to the west from along Pohutukawa Drive retain visibility of the inland hills backdrop.

Those Pohutukawa Dr properties nearest the proposed stopbank (e.g. 33, 35, 37, 39 & 41 Pohutukawa Dr), have a slightly higher degree of visual effect due to the proximity, however upon review (Figure 4), it is observed that these properties are not orientated to take advantage of views to the west (e.g. toward the stopbank). Instead, the garaging and fencing⁴ reduce visibility toward the stopbank.



Figure 4: Pohutukawa Dr dwellings nearest the southern extent of the proposed stopbank

It is considered that the adverse visual effect on these 5 dwellings Pohutukawa Dr dwellings (33, 35, 37, 39 & 41) will be **Low** when views are obtained from their dwellings. The remaining properties along Pohutukawa Dr will experience no more than a **Very-Low** adverse effect.

⁴ Some fencing (e.g. 39/41) has not yet been replaced following previous storm events

North Shore Rd Residential Properties (& 1078 SH2)

In relation to the proposed stopbank, the residential properties situated along North Shore Rd are considered to have a sufficient degree of separation to ensure minimal intrusion on visual amenity (like those properties at the northern end of Pohutukawa Dr). However, in relation to the roading upgrades, there is one property that is considered to potentially be affected by the proposed increase in road height and that is the address of 1078 State Highway 2 (which has a mailbox and access at 19 North Shore Rd).

The proposed stopbank will be crossed by a newly raised North Shore Road carriageway directly in front of this dwelling (Attachment 1: Viewpoint H). As a result, 1078 SH2 (19 North Shore Rd) is likely to have a notable reduction in visual amenity from their dwelling due to having a direct line of sight to this elevated section of road. Additionally, it is understood that the existing roadside vegetation and earth bund providing a buffer to SH2 is required to be removed to accommodate the proposed roading/stopbank upgrades.

It is acknowledged that the dwelling is generally orientated to take advantage of an open view north across their landholding, and that the storage shed (shipping container) provides a degree of buffering from the SH2. However, it is considered that this single property may potentially have an adverse visual effect that is **High** (significant), and that mitigation options should be explored in consultation with the landowner to address the SH2/North Shore Rd interface (general location of landscape treatment indicated by blue line on Figure 5 below).

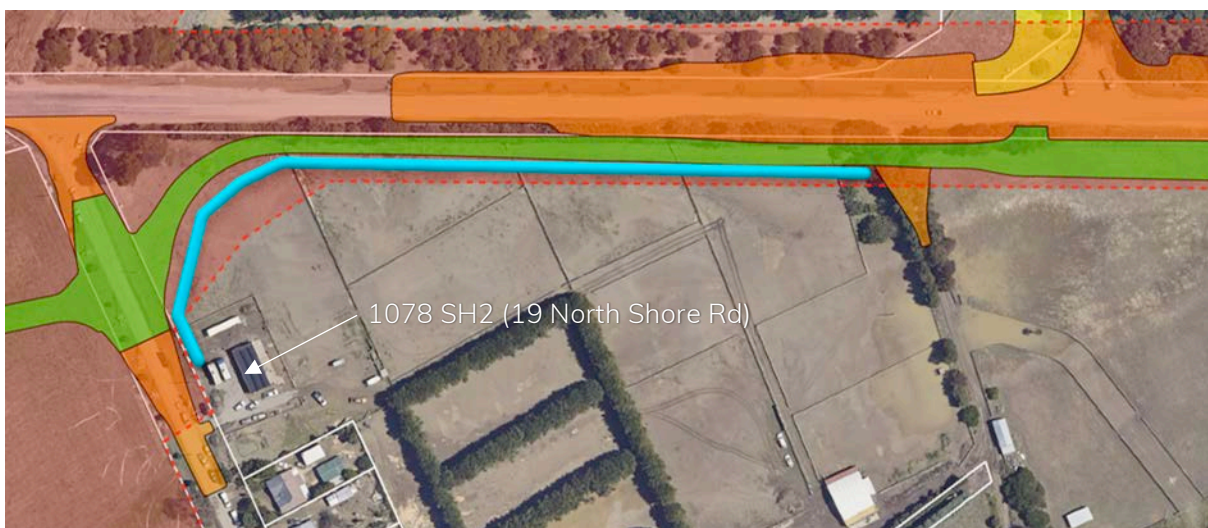


Figure 5: Potential mitigation planting for property at 1078 SH2 indicated by blue line

Additionally, it is noted that the properties at 1074 & 1076 North Shore Road are accessed through the Mason property, from what will become a revised SH2 entrance. This alteration to their entrance will, at most, result in a visual effect on these residential properties that is **Low**.

Whirinaki Road Residential Properties

There is also grouping of residential properties, accessed from Whirinaki Rd, which are situated near the northern extent of the Whirinaki Stopbank portion of this project. Based on the broad footprint of both the stop bank and SH2 road raising these properties warranted consideration. However, upon review of the engineering drawings in this vicinity, the stopbank tapers off to nothing near 161 Whirinaki Road, while the road raising is only gently begging in front of 163, 171, 172 & 173 Whirinaki Rd. Overall, the potential adverse visual effects are minimal given the more gradual level change and much more dominant constant presence of the SH2 corridor. Effects on this group of properties is considered to be **Very Low to Low**.

Petāne Urupā

It is acknowledged that consultation has occurred with representatives of the Petāne Urupā. Following the preparation of the 'Petāne Urupā Viewpoint Document' (January 2025), the proposed alignment has altered toward the northern section of the Whirinaki Stopbank and reduced in overall height. However, this broader alteration does not appreciably change the outcome for stopbank visibility observed from the Petāne Urupā.

Potential Scour Protection

In October 2024 an addendum was prepared (for the original stopbank alignment) that considered the potential inclusion of scour protection along the southern end of the Whirinaki Drain (adjacent to the proposed stopbank near Ararata Urupā). It is understood that this scour protection may still be included in the future, however it has been recommended that it is no longer necessary due to the improved flood protection achieved by the current proposal. Instead, with the engineering recommendation being to monitor the erosion in this location. It is noted that should scour protection be required along the southern end of the Whirinaki Drain, this will not result in a significant adverse effect on either visual amenity or natural character. From a general amenity standpoint, the 'Rock Armour' option is considered to have a slightly better outcome (when compared to a utilitarian 'geobag' option), with both options only resulting in a **Low** adverse effect on visual amenity and natural character.

North Shore Rd Street Trees

While not an issue for residential visual effects, it is noted that the roading upgrades required along North Shore Rd (to enable crossing of the proposed stopbank) will result in the removal of approximately 6 existing *Metrosideros excelsa* (Pohutukawa) street trees.

Conclusion

Beyond this single property at 1078 SH2, no other significant effects were identified on residential properties or the coastal environment.

Joshua Hunt - Registered NZILA Landscape Architect



Appendix 1: Effects Scale

The following table outlines the scale of effects used within this assessment. It is noted that while the primary consideration is typically in relation to negative effects of a proposal, effects can also be neutral or positive.

Very High	Total loss/modification of key elements / features / characteristics, i.e. amounts to a fundamental change of landscape character or visual amenity.	Significant Effect
High	Major loss/modification or loss of most key elements / features / characteristics, i.e. substantial change to the pre- development landscape character or visual amenity.	Significant Effect
High- Moderate	Loss/modification of several key elements / features / characteristics of the baseline, i.e. the pre-development landscape character or visual amenity remains evident but is distinctly changed.	More than Minor Effect
Moderate	Partial loss/modification to key elements / features / characteristics of the baseline, i.e. new elements may be prominent but not necessarily uncharacteristic within the receiving landscape or views.	More than Minor Effect
Low- Moderate	Minor loss/modification to one or more key elements / features / characteristics, i.e. new elements are not prominent or uncharacteristic within the receiving landscape or views.	Minor Effect
Low	No material loss/modification to key elements / features / characteristics. i.e. modification or change is not uncharacteristic and integrates seamlessly within the receiving landscape or views.	Less than Minor Effect
Very Low	Little or no loss/modification to key elements / features / characteristics of the baseline, i.e. approximating a 'no change' situation that is barely discernible.	

HBRC FLOOD RESILIENCE - WHIRINAKI
Landscape Effects Scoping

Prepared for
Hawke's Bay Regional Council

25 August 2025

ATTACHMENT 1 - GRAPHICS PACKAGE





LEGEND

- Whirinaki Stopbank (Portion 1)
- Pan Pac Stopbank (Portion 2)
- Areas of Raised Road
- OiC Boundary



**Flood Resilience
WHIRINAKI**

LANDSCAPE
SCOPING

**Context Map
SHEET 01**

Print @ A3

Scale 1:3000
 Date 20/08/2025
 Job No. #2415
 Drawn JH



Urupā

Project Footprint

PŌHUTUKAWA DRIVE

NORTH SHORE ROAD

LEGEND

-  River Hazard Overlay
-  Rural Zone
-  Coastal Settlement Zone
-  Whirinaki Industrial
-  Open Space
-  OIC Boundary
-  Coastal Environment Boundary



**Flood Resilience
WHIRINAKI**

LANDSCAPE
SCOPING

**HDC Planning Map
SHEET 02**

Print @ A3

Scale 1:3000

Date 20/08/2025

Job No. #2415

Drawn JH

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VIEWPOINT A - PHOTO DETAILS

Date: 19/06/2024
 Time: 10:32am
 Latitude: 39° 23' 12.378" S
 Longitude: 176° 53' 5.934" E
 Camera/Lens: Canon 6D mkii/24mm
 Field of View: 40°



VIEWPOINT B - PHOTO DETAILS

Date: 19/06/2024
 Time: 10:28am
 Latitude: 39° 23' 16.566" S
 Longitude: 176° 53' 15.462" E
 Camera/Lens: Canon 6D mkii/24mm
 Field of View: 40°



**Flood Resilience
WHIRINAKI**

LANDSCAPE
SCOPING

**Viewpoint A & B
SHEET 03**

Print @ A3

Scale	N/A
Date	20/08/2025
Job No.	#2415
Drawn	JH

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VIEWPOINT C- PHOTO DETAILS

Date: 19/06/2024
Time: 10:23am

Latitude: 39° 23' 32.7" S
Longitude: 176° 53' 9.438" E

Camera/Lens: Canon 6D mkii/24mm
Field of View: 40°



VIEWPOINT D - PHOTO DETAILS

Date: 19/06/2024
Time: 10:22am

Latitude: 39°23'34.96"S
Longitude: 176°53'8.65"E

Camera/Lens: Canon 6D mkii/24mm
Field of View: 40°



**Flood Resilience
WHIRINAKI**

LANDSCAPE
SCOPING

**Viewpoint C & D
SHEET 04**

Print @ A3

Scale	N/A
Date	20/08/2025
Job No.	#2415
Drawn	JH

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VIEWPOINT E - PHOTO DETAILS

Date: 19/06/2024
Time: 10:20am

Latitude: 39°23'36.83"S
Longitude: 176°53'12.30"E

Camera/Lens: Canon 6D mkii/24mm
Field of View: 40°



VIEWPOINT F - PHOTO DETAILS

Date: 09/2024

Latitude: 39°23'1.22"S
Longitude: 176°53'20.33"E



**Flood Resilience
WHIRINAKI**

LANDSCAPE
SCOPING

**Viewpoint E
SHEET 05**

Print @ A3

Scale	N/A
Date	20/08/2025
Job No.	#2415
Drawn	JH

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VIEWPOINT G - PHOTO DETAILS

Date: 19/06/2024
 Time: 9:46am
 Latitude: 39° 23' 37.608" S
 Longitude: 176° 53' 4.386" E
 Camera/Lens: DJI Mini3 Pro/24mm
 Field of View: 40°



VIEWPOINT H - PHOTO DETAILS

Date: 19/06/2024
 Time: 10:32am
 Latitude: 39° 23' 12.378" S
 Longitude: 176° 53' 5.934" E
 Camera/Lens: Canon 6D mkii/24mm
 Field of View: 40°



VIEWPOINT I - PHOTO DETAILS

Date: 19/06/2024
 Time: 10:34am
 Latitude: 39° 23' 25.122" S
 Longitude: 176° 52' 55.488" E
 Camera/Lens: Canon 6D mkii/24mm
 Field of View: 40°



**Flood Resilience
 WHIRINAKI**
 LANDSCAPE
 SCOPING
**Viewpoints F, G & H
 SHEET 06**

Print @ A3
 Scale N/A
 Date 20/08/2025
 Job No. #2415
 Drawn JH

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