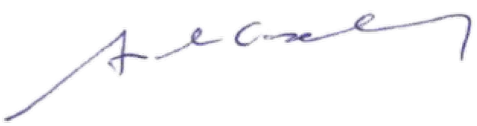
Resource Consent Application For Stopbank Works

Wairoa Flood Protection

Signed by – Andrew Caseley
Manager Regional Projects/Programme Director



HAWKE'S BAY REGIONAL COUNCIL
TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

IRP Infrastructure Resilience Programme
NGĀ MAHI TŪROA

STRADEGY
Urban, Environmental & Strategic Planning

Resource Consent Application for Flood Mitigation Works

Wairoa

Hawke's Bay Regional Council

25131AP1
15 December 2025

APPLICATION DETAILS

Consent Authority:	Hawke's Bay Regional Council Wairoa District Council
The Applicant:	Hawke's Bay Regional Council
Address for Service:	Stradegy Planning Limited, PO Box 239 Napier 4140
Address for Invoice:	Hawke's Bay Regional Council c/- graeme.hansen@hbrc.govt.nz
Site Details:	Various sites in Wairoa - as follows:

Legal Description
Fee Simple, 1/1, Te Rato 1A4B Block
Fee Simple, 1/1, Part Te Rato 1B Block
Fee Simple, 1/1, Part Te Rato 1D Block
Fee Simple, 1/1, Part Te Rato 1C Block
Fee Simple, 1/1, Te Rato 1A4D Block
Fee Simple, 1/1, Part Te Rato 1E2 Block
Fee Simple, 1/1, Te Rato 1A4C Block
Fee Simple, 1/1, Part Te Rato 1B Block, Part Te Rato 1C Block and Part Taumata-o-teo 32D Block
Partition Order, 1/1, Te Rato 1A3 Block
Fee Simple, 1/1, Te Rato 1A4A Block
Fee Simple, 1/1, Part Te Rato 1E1 Block
Fee Simple, 1/1, Lot 2 Deposited Plan 17914
Fee Simple, 1/1, Part Taumataoteo 20A Block, Part Taumataoteo 20B Block and Lot 3 Deposited Plan 17920
Fee Simple, 1/1, Te Rato 1F2 Block Maori Land Plan 2322
Fee Simple, 1/1, Part Lot 1 Deposited Plan 8639
Fee Simple, 1/1, Lot 1 Deposited Plan 6699
Partition Order, 1/1, Paeroa No 1E No 14 Block
Fee Simple, 1/1, Lot 1 Deposited Plan 5279
Fee Simple, 1/1, Te Rato 1A2 Block
Part TAUMATAOTEO 21 BLK V CLYDE S D
Fee Simple, 1/1, Lot 4 Deposited Plan 17920
Fee Simple, 1/1, Poutaka 13A1 Block
Fee Simple, 1/1, Part Poutaka 13B Block
Fee Simple, 1/1, Poutaka 13C Block
Fee Simple, 1/1, Poutaka 12B Block
Fee Simple, 1/1, Lot 2 Deposited Plan 7513
Fee Simple, 1/1, Lot 3 Deposited Plan 17077
Fee Simple, 1/1, Poutaka 9 Block
Fee Simple, 1/1, Poutaka 8 Block
Fee Simple, 1/1, Lot 1 Deposited Plan 28534
Fee Simple, 1/1, Lot 3 Deposited Plan 9927

Fee Simple, 1/1, Poutaka 4A Block
Part SEC 1 SO 10489 - (ROWING CLUB)
SEC 1 SO 10489 BLK V CLYDE SD
Part SEC 1 SO 10489 - (SKI CLUB)
Part SEC 1 SO 10489 - AUDITORIUM/SKATE PARK & LAND
Part SEC 1 SO 10489 - SPORTS COMPLEX (INCL POOL)
Part SEC 1 SO 10489 - ALEXANDRA PARK CAMPING GROUND
Fee Simple, 1/1, Part Section 9 Survey Office Plan 9425
Fee Simple, 1/1, Section 1 Survey Office Plan 620593
Ruataniwha Road Road Reserve
Waihirere Road Road Reserve
Kiwirail corridor (in the process of being transitioned to road reserve)

Activity for which Consent is sought:

Resource consent to undertake **flood protection works** under the Severe Weather Emergency Recovery (Hawke's Bay Flood mitigation Works) Order 2024 ("**OiC**") is sought as a **Controlled Activity**. The works involve a range of activities otherwise regulated under section 9, 12, 13, 14 and 15 of the Resource Management Act 1991.

Prepared by:

Cameron Drury BRP(HONS) MNZPI
Principal Planner I Director

Reviewed and Approved for Release by:

Catherine Reaburn MNZPI
Senior Associate | Planning

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1. INTRODUCTION

The Wairoa flood mitigation project ("**Project**") is an initiative by Hawke's Bay Regional Council to construct a new floodway and stopbank that will provide enhanced flood resilience to the Wairoa community and in particular to allow those properties currently classified as Land Category 2C to move to Land Category 1.

The Project involves:

- The construction of a floodway formed by two stopbanks / floodwalls to convey and constrain high flows – the floodway 'activates' at approximately a 30-year ARI flood event and is designed to limit flooding, primarily to the North Clyde area, up to and including a 100-year ARI flood event,
- Construction of a townside stopbank to provide protection to part of the Wairoa township during a 100-year ARI.

Figure 1: Overview of Project

Funding for the project comes from the integrated package agreed between all five Hawke's Bay Councils and Central Government. Regulatory approval for the project is being sought under Severe Weather Emergency Recovery Legislation (Hawke's Bay Flood Protection Works) Order 2024 ("**the OiC**") – developed to facilitate the timely provision of flood protection works following the severe weather events of February 2023 (Cyclone Gabrielle).

Reference to 'Māori entities' as opposed to mana whenua is used in this application to maintain consistency with the terms used in the OiC.

Expert assessments have been provided to support this resource consent application. These are detailed below in **Table 1** and included as appendices to this application.

Table 1: Expert Reports

Expert Report	Author	Purpose
Cultural Impact Assessments: 1. Proposed flood mitigation options for North Clyde, Wairoa [Options 1C and 1D], 2. Ruataniwha Marae 3. Option 1C+ Wairoa Flood Mitigation Project – Takitimu Marae. Cultural Research Report - Tawhiti-A-Maru Marae	Piripi Winiata Ruataniwha Marae Takitimu Marae. Tawhiti-A-Maru Marae	To advise on cultural context and cultural values associated with the area.
Archaeological Risk Assessment	Insitu	To determine the risk of encountering archaeology and advise on the appropriate response in regard to progressing the works.
Ecological Impact Assessment	WSP	To determine ecological values and methods to manage ecological effects.
Landscaping Scoping Assessment	WSP	To determine the need for landscape mitigation.
Preliminary / Detailed Site Investigation	WSP	To determine the potential for soil contamination and the nature of any management procedures.
Preliminary Consent Report and Plans	WSP	To provide details of the proposal.
Consequential Flooding Effects Assessment	WSP	To determine any changes in flood impacts as a result of the proposal and the need for mitigation.
Consequential Flooding Assessment	Beca	To peer review the consequential flooding effects of the proposal.

Overall:

1. The application meets the requirements of Section 12 of the OiC.
2. Key considerations informing the application included:
    - Reducing impacts on North Clyde and the Wairoa township,
    - Consideration of consequential flooding arising from the new floodway and stopbanks,
    - Input of mana whenua in developing the design,
    - Accommodating existing drainage patterns,
    - Managing existing infrastructure (e.g. roads) and impacts on Alexander Park,

- Determining the potential impact on wildlife and developing appropriate responses.

3. Engagement with mana whenua, local authorities and key stakeholders, together with technical assessments and careful consideration of conditions has ensured the development of a robust flood mitigation proposal that will achieve significant benefits to Category 2C land and the Wairoa community.
4. The standardised conditions of the OiC have been largely adopted to avoid, remedy or mitigate the actual or potential adverse effects of the proposal.

2. BACKGROUND AND STATUTORY CONTEXT

2.1 Impacts of Cyclone Gabrielle

Cyclone Gabrielle bought intense rainfall that caused the Wairoa River to overtop its banks, particularly affecting the North Clyde area. Homes and properties were inundated, with floodwaters flowing northwest to southeast across North Clyde.

The town was completely isolated from Napier and Gisborne – with emergency supplies having to be flown in due to road closures. Drinking water, wastewater and stormwater systems were all compromised.

Hundreds of homes, properties and commercial premises were impacted, with many damaged by silt and debris.

The emotional toll remains high, with many residents still living in uncertainty and social wellbeing remaining a critical concern.

2.2 Project Purpose

The purpose of the Project is to provide flood mitigation to parts of the Wairoa community and to specifically allow the identified Category 2C properties to move to Category 1 (if not already released). This change will have significant implications for these properties, as it will allow residential activity to safely resume and will remove insurance related uncertainty.

In terms of background context, shortly after Cyclone Gabrielle, on the 1st of May 2023, the Government released a series of risk categories and their definitions. These were developed to support the local authorities affected by Cyclone Gabrielle and the Auckland severe-weather events to complete risk assessments of the properties affected by the weather events.

Hawke's Bay Regional Council developed both a process and a technical framework to assess affected properties. In short:

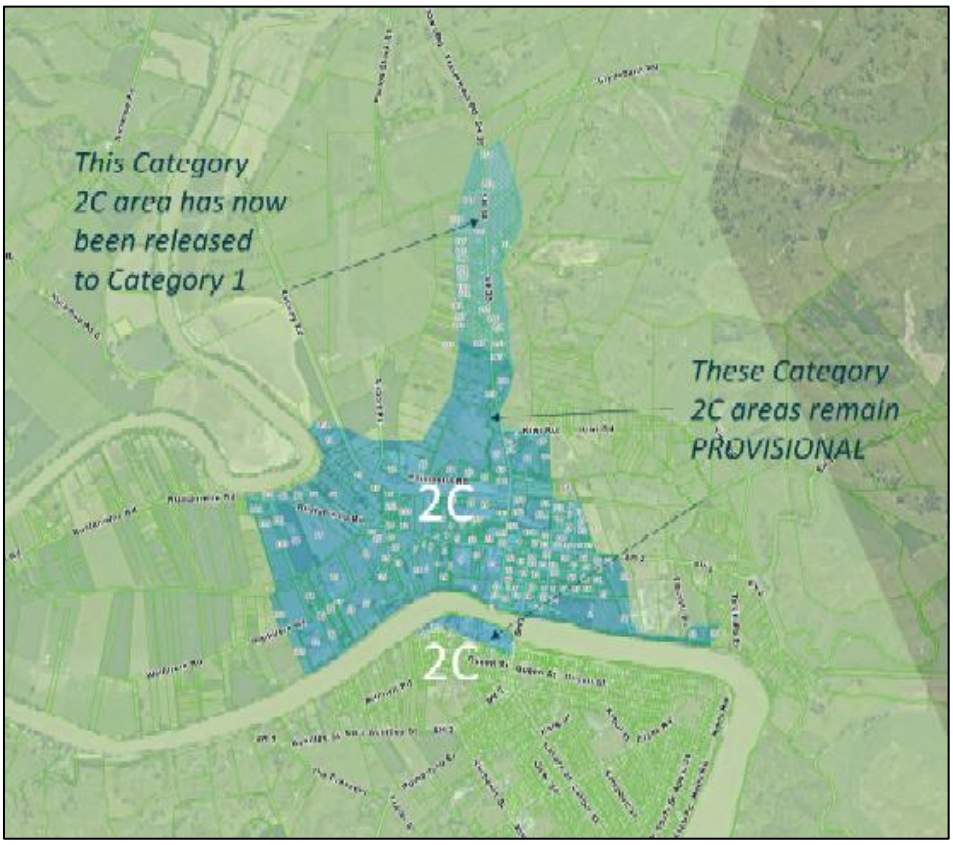
- Where the future risk from flooding is determined to be intolerably high, and where that risk cannot be sufficiently mitigated, those properties were identified as Category 3,

- Where future flood risk can be mitigated by community or property level interventions, those properties were identified as Category 2 (being either 2P and 2C) – those properties within Wairoa are shown in **Figure 2** below,
- Where there was a tolerable risk, those properties were identified as Category 1.

As outlined above, Category 2C is where community-level interventions are required to sufficiently reduce the risk to life from future flooding. Being re-categorised from Category 2C to Category 1 allows repair or rebuild of affected dwellings/property and land development according to Regional and District Plans. It also serves to remove potential for insurance related uncertainty.

Category 1 does not mean that there is no risk of flooding at the property however, and landowners are still encouraged to find out more about planning for an emergency including flooding. Indeed, the target Level of Service for Category 1 land is protection up to a 1:100 year event[1].

Figure 2: Category 2C Area



[1] The peak 100 yr flows are advised by NIWA following their post Cyclone Gabrielle Flood Frequency assessment.

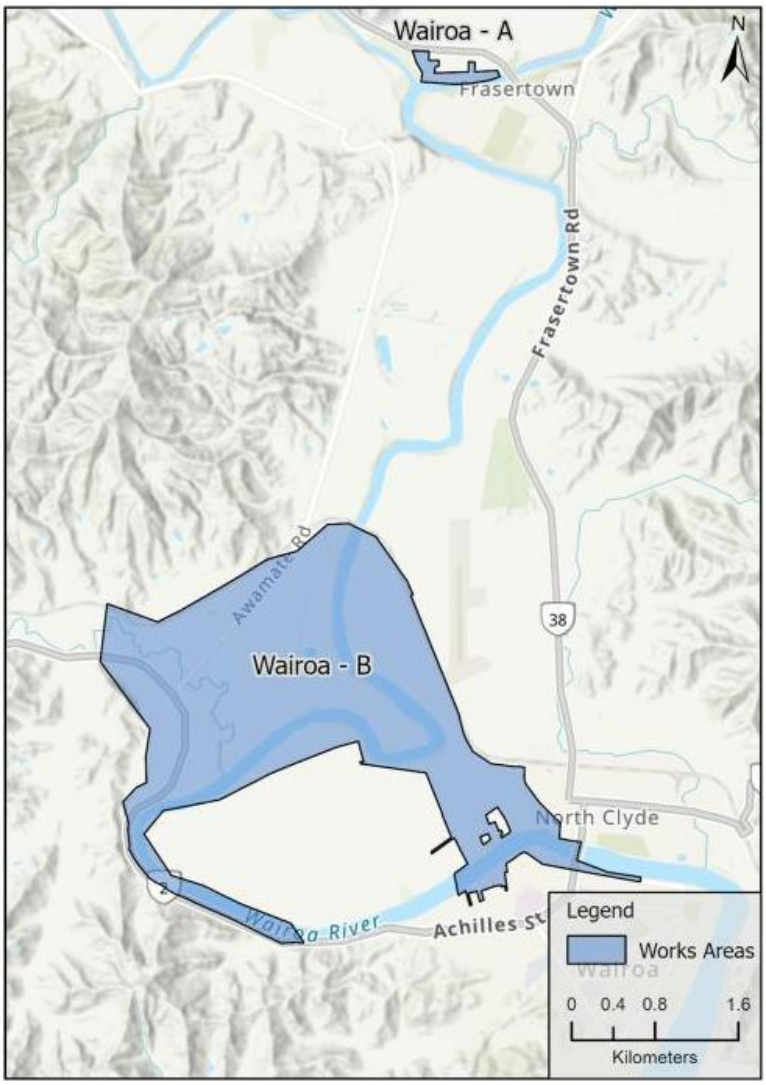
2.3 Severe Weather Emergency Recovery Legislation (Hawke's Bay Flood Protection Works) Order 2024

The Severe Weather Emergency Recovery Legislation (Hawke's Bay Flood Protection Works) Order 2024 (the OiC) was established to facilitate the timely provision of flood protection works following the severe weather events of February 2023 (Cyclone Gabrielle). In short:

- Clause 6 sets out the meaning of 'flood protection works', which is

  '*activities that involve or are concerned with the construction or reinstatement of, making safety enhancements to, or improving the resilience of land and flood protection infrastructure, including stopbanks, floodways, retaining walls, bridges, pump stations, stream realignments, and earthworks; and any incidental or subsidiary activity*'.
- The OiC applies to such works when they are carried out within the affected areas identified in Schedule 2 of the Order (refer **Figure 3** below),

Figure 3: OiC Footprint



- The OiC sets out that all flood protection works subject to the Order (in Clauses 5 and 6) are to be assessed as a Controlled Activity (Clauses 7 and 8). Under Section 104A of the RMA an application for a Controlled Activity must be granted, and any conditions imposed must be limited to those over which control has been reserved.
- Only a Hawke's Bay local authority may apply for a resource consent under the Order (Clause 9),
- Clause 10 essentially requires an application made under the order to be considered and decided upon by a hearings commissioner,
- Where the proposed flood protection works require resource consent from more than 1 consent authority, Clause 11 requires the applicant to apply to every relevant consent authority at the same time and for those consent authorities to act jointly in performing all their functions, duties, and powers in relation to the application,
- Instead of complying with section 88(2)(b) of the RMA, Clause 12 sets out what is required to be included in an application under the Order. In short, this includes:
    - a detailed description of the works,
    - a map showing the area of the works and description of that area,
    - identification of the cultural values associated with the area and where applicable any culturally significant land within the area,
    - an assessment of all potential effects of the works – including any potential effects on any cultural values / culturally significant land identified – recognising the limitations in Section 104A,
    - proposals to avoid, remedy, or mitigate potential adverse effects identified,
    - any conditions proposed that are a variation of, or additional to the standard conditions set out in Schedule 2 of the Order (refer Clause 17 below),
    - a description of any consultation undertaken in relation to the works and the names and contact details of all persons consulted – or an explanation as to why consultation has not been carried out,
    - a list of all relevant Māori entities,
    - a list of the names and contact details of all persons the consent authority is required to notify under clause 15(2)(a) of the Order,
- Clause 14 requires the application to be assessed on a non-notified basis. Clause 15 nevertheless sets out the parties from whom the consent authority must invite written comment. The consent authority must consider all comments received. A person invited to make written comments on an application may not:
    - appeal under Part 6 of the RMA against the consent authority's decision on the application; or
    - object to the decision under Part 14 of the RMA.
- While the direction in Section 104A(a) to grant consent remains, Clause 17 of the Order amends Section 104A(b) in respect to its directions around and references to matters of control and states:
    - The consent authority may impose any 1 or more of the conditions set out in Schedule 2,
    - The consent authority may amend any condition it imposes under subclause (2) (other than the condition in clause 1 of Schedule 2) if it considers the amendment necessary for the purposes of the authority's responsibility for a matter of control.

- The consent authority may impose any 1 or more additional conditions it considers necessary for the purposes of the authority's responsibility for a matter of control. Of note:
    - This clause applies despite anything to the contrary in:
        a) any requirements in a national environmental standard or a national policy statement:
        b) any rules or assessment criteria in any plan or proposed plan.
    - Matter of control means any of the matters specified in Schedule 3, which are matters over which the consent authority is taken to have reserved control. These include matters associated with:
        - General matters –
            - Flooding
            - Construction management
            - Effects on ecology
        - Cultural values
        - Freshwater
        - The coastal environment
        - Stormwater management
        - Visual effects and amenity
        - Adjoining landuses
        - Heritage and archaeology
        - Access and transport
        - Contaminated land
- Once an application is accepted as meeting all the information requirements in Clause 12(2) and all necessary resource consents have been lodged (activities included), Clause 18 requires the consent authority to give notice of its decision on the application within 30 working days. There is no provision to request further information, and the deadline may not be extended, deferred, or altered in any way.

Central to the OiC's approach is that an application can be lodged on the basis of only concept level project design information – with the standardised conditions containing earthworks and ecology principals in particular, and other directions, to develop mitigation of effects through further design development/refinement post granting of the resource consent. This approach is quite different to the standard RMA process which typically requires these matters to be resolved at the application stage.

Where a greater degree of assessment and design has occurred as part of preparing the application than what the OiC may have anticipated, it follows that components of the standardised conditions to require and guide mitigation post granting may not be necessary. Amendments to the standardised conditions are discussed in various sections of this report in response.

3. SITE DESCRIPTION

The following sets out:

- Site location and neighbouring community,
- The subject properties,
- Planning context:
    - Wairoa District Plan,
    - Designations,
    - Hawkes Bay Regional Council Regional Planning Documents,
- Site values and environmental context:
    - Cultural context,
    - Archaeology,
    - Water bodies and ecological values,
    - Flood hazard management,
    - Landscape and amenity values,
    - Land contamination,
    - Productive capacity of land,
    - Network Utility Operators and other infrastructure and services,

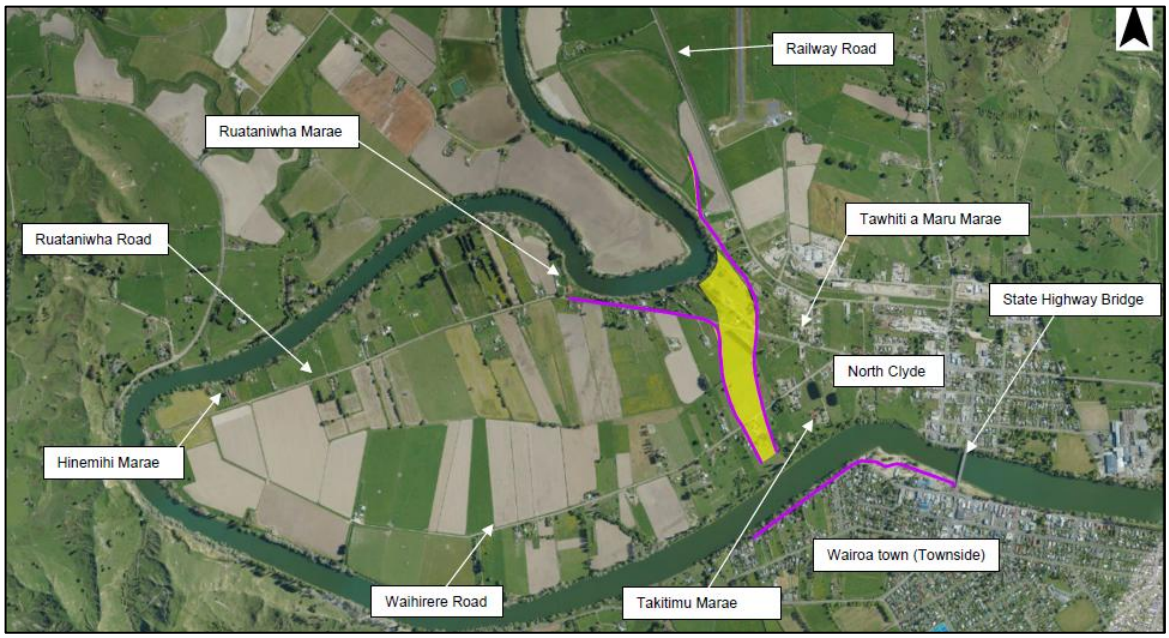
3.1 Site Location and Neighbouring Community

The area of works (floodway and associated stopbanks and townside stopbank) is shown in respect to the OiC Footprint in **Figure 4** below. Of particular note:

- There are a number of marae and urupa in close proximity to the floodway and associated stopbanks, and within the immediate area,
- Both Ruataniwha and Waihirere Road will traverse the floodway and associated stopbanks,
- The townside stopbank will run along the frontage of residential properties to the west and through Alexander Park to the east,
- Marine Parade contains a number of community buildings and recreational facilities,
- Although impacted by Cyclone Gabrielle, the riparian margin along the river is relatively well vegetated where townside stopbank runs along the frontage of residential properties to the west,
- It is our understanding that there are no registered drinking water supplies in the vicinity.

These and other key features are discussed below.

Figure 4: Site location



3.2 Subject Properties

The properties on which the proposed works are to be carried out are illustrated in **Figure 5** and detailed in **Table 2** below.

Specific properties/areas are intended to be acquired by HBRC or easements negotiated to accommodate the footprint of the proposed flood mitigation features.

Agreements to acquire or access the relevant land are currently being worked through with the relevant landowners.

Figure 5: Land on which the works will be undertaken

Table 2: Land on which the works will be undertaken

Map Ref	LINZ Property ID	Legal Description
1	2170861	Fee Simple, 1/1, Te Rato 1A4B Block
2	2173186	Fee Simple, 1/1, Part Te Rato 1B Block
3	2173190	Fee Simple, 1/1, Part Te Rato 1D Block
4	2173188	Fee Simple, 1/1, Part Te Rato 1C Block
5	2039776	Fee Simple, 1/1, Te Rato 1A4D Block
6	2199954	Fee Simple, 1/1, Part Te Rato 1E2 Block
7	2254457	Fee Simple, 1/1, Te Rato 1A4C Block
8	2016131	Fee Simple, 1/1, Part Te Rato 1B Block, Part Te Rato 1C Block and Part Taumata-o-teo 32D Block
9	4970596	Partition Order, 1/1, Te Rato 1A3 Block
10	2044881	Fee Simple, 1/1, Te Rato 1A4A Block
17	2188590	Fee Simple, 1/1, Part Te Rato 1E1 Block
18	1909705	Fee Simple, 1/1, Lot 2 Deposited Plan 17914
19	2192001	Fee Simple, 1/1, Part Taumataoteo 20A Block, Part Taumataoteo 20B Block and Lot 3 Deposited Plan 17920
21	1984345	Fee Simple, 1/1, Te Rato 1F2 Block Maori Land Plan 2322
24	1871688	Fee Simple, 1/1, Part Lot 1 Deposited Plan 8639

25	1881343	Fee Simple, 1/1, Lot 1 Deposited Plan 6699
26	1875475	Partition Order, 1/1, Paeroa No 1E No 14 Block
27	1876322	Fee Simple, 1/1, Lot 1 Deposited Plan 5279
30	2231962	Fee Simple, 1/1, Te Rato 1A2 Block
39	4219230	Part TAUMATAOTEO 21 BLK V CLYDE S D
45	1916849	Fee Simple, 1/1, Lot 4 Deposited Plan 17920
49	2300750	Fee Simple, 1/1, Poutaka 13A1 Block
54	2069573	Fee Simple, 1/1, Part Poutaka 13B Block
55	2203040	Fee Simple, 1/1, Poutaka 13C Block
56	2271482	Fee Simple, 1/1, Poutaka 12B Block
58	1864318	Fee Simple, 1/1, Lot 2 Deposited Plan 7513
60	1917681	Fee Simple, 1/1, Lot 3 Deposited Plan 17077
63	2173189	Fee Simple, 1/1, Poutaka 9 Block
65	2298123	Fee Simple, 1/1, Poutaka 8 Block
67	1779641	Fee Simple, 1/1, Lot 1 Deposited Plan 28534
70	1930184	Fee Simple, 1/1, Lot 3 Deposited Plan 9927
73	2345309	Fee Simple, 1/1, Poutaka 4A Block
81	4201326	Part SEC 1 SO 10489 - (ROWING CLUB)
82	4201326	SEC 1 SO 10489 BLK V CLYDE SD
83	4201326	Part SEC 1 SO 10489 - (SKI CLUB)
84	4201326	Part SEC 1 SO 10489 - AUDITORIUM/SKATE PARK & LAND
85	4201326	Part SEC 1 SO 10489 - SPORTS COMPLEX (INCL POOL)
86	4201326	Part SEC 1 SO 10489 - ALEXANDRA PARK CAMPING GROUND
87	2001683	Fee Simple, 1/1, Part Section 9 Survey Office Plan 9425
146	5308458	Fee Simple, 1/1, Section 1 Survey Office Plan 620593
		Ruataniwha Road Road Reserve
		Waihirere Road Road Reserve
		Kiwirail corridor (in the process of being transitioned to road reserve)

3.3 Planning Context

The works will be undertaken within the district and region of the Wairoa District Council and Hawkes Bay Regional Council.

The following provides an outline of the planning context in regard to:

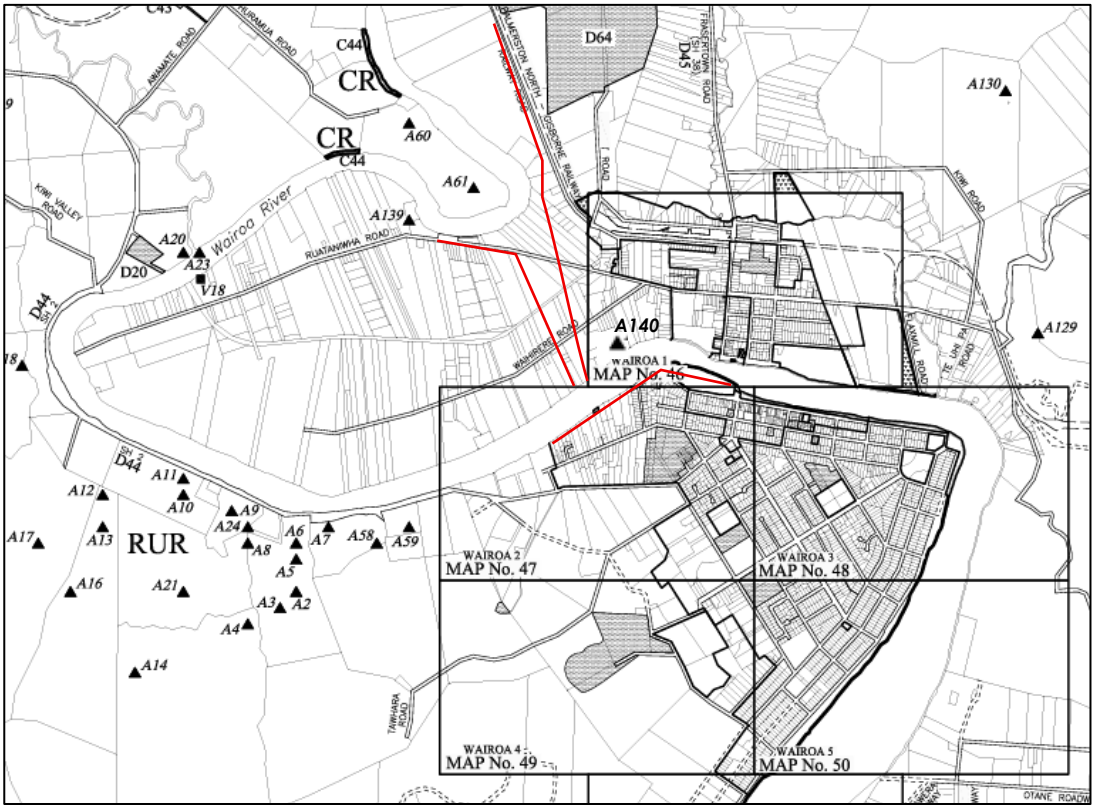
- The Wairoa District Plan (including Designations),
- The Hawkes Bay Regional Council Regional Planning documents.

3.3.1 Wairoa District Plan

The flood mitigation works will be undertaken on land zoned Rural, Residential and Conservation and Reserves in the Wairoa District Plan as generally shown in **Figure 6** below (indicative extents of flood mitigation features shown in red). Other notations on the planning map include:

- Map 46 shows an Archaeological Site (A140) south of Waihirere Road and east of the floodway – 'Papakainga, Wai-hirere, Takitimu [modern marae]',
- Map 45 shows an Archaeological Site (A139) north of Ruataniwha Road – 'Pa, Ruataniwha',
- Map 47 shows Reserve R4 – 'Esplanade' on the south side of the Wairoa River,
- Land between Marine Parade and the Wairoa River is zoned Conservation and Reserves and contains Reserve R51 – 'Alexander Park - Recreation and Community Facilities'.

Figure 6: Wairoa District Plan Planning Map Features



Designations

It is noted in the Wairoa District Plan that while State Highways in the district are designated, Council roads are not and are managed under the Local Government Act. According to the developed concept design plans, while the eastern extent of the townside stopbank will connect into the abutment area under the Wairoa River bridge, it is our understanding of the cadastral layout that it does not extend into the actual State Highway Road Reserve.

While the Palmerston North – Gisborne Railway runs along the eastern side of Railway Road to the north, it is not within the area of works. There is however a railway corridor running through the floodway. It is our understanding that the Wairoa District Council is in the process of having this transitioned to road reserve. No other identified Designations are affected.

3.3.3 Hawke's Bay Regional Council Regional Planning Documents

The flood mitigation works are within an area subject to various planning map overlays within the RRMP. Of particular relevance:

- The area of work is inland of the coastal environment,
- The riparian margin of the Wairoa River upstream of the State Highway 2 Road Bridge is included in Schedule VIII – Riparian Protection – although there are no rules applying to this,
- The area of works is within a confined productive aquifer system,
- The area of works, with the exception of Alexander Park is within an area excluded from consideration under Rule 7(c) in respect to vegetation clearance and disturbance.

3.4 Site Values and Environmental Context

The following provides an outline of the site values and environmental context in regard to:

- The cultural context,
- Archaeology,
- Water bodies and ecological values,
- Flood hazard management,
- Landscape and amenity values,
- Land contamination,
- Network Utility Operators and other infrastructure and services.

3.4.1 Cultural Context

Overview

According to the HBRC Pataka GIS and the records of Statutory Acknowledgments in the Regional Resource Management Plan, the construction area is:

1. Within the rohe of Ngāti Kahungunu,
2. Within the Area of Interest of Tatau Tatau o Te Wairoa,
3. Within the 'Wairoa River and Tributaries (OTS-198-23)' Statutory Acknowledgement Area,
4. Within the Wairoa Taiwhenua,
5. Within the proximity of Ngāi Te Kapuamātotoru, Ngāi Te Apatu and, Ngāti Moewhare hapu, and the Ruataniwha, Tawhiti a Maru and Tākitimu (Waihirere) Marae.

Customary Marine Title Groups

Te Takutai Moana Act 2011 and Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019 provide for recognition of customary interests of iwi, hapū and whānau in the common marine and coastal area of Aotearoa New Zealand and its offshore islands and allows iwi, hapū or whānau groups to make applications for a Customary marine title.

With the works occurring outside the Coastal Marine Area there are no holders of, or any applicants for, customary marine title.

Relevant Māori Entities

Section 12(2)(i) requires an applicant to identity all relevant Māori entities. A Māori Entity is defined in the OiC as having the same meaning in Section 13(5) of the Severe Weather Emergency Recovery Legislation Act 2023, which is as follows:

> ***Māori entity***—
> *(a) has the same meaning as in section 9 of the Urban Development Act 2020; and*
> *(b) includes any entity or other body, incorporated or unincorporated, comprising or representing a collective group whose members are 1 or more of the Māori entities.*

In respect to (a), a Māori Entity is defined in the Urban Development Act 2020 as:

> *meaning any of the following persons or entities:*
> *(a) a post-settlement governance entity:*
> *(b) an iwi authority:*
> *(c) a hapū:*
> *(d) an urban Māori authority:*
> *(e) a Māori Trust Board:*
> *(f) a Māori association:*
> *(g) the Māori Trustee:*
> *(h) a board, committee, authority, or other body, incorporated or unincorporated, recognised in, or established under, iwi participation legislation:*
> *(i) a body corporate, the trustees of a trust, or any other entity or persons who have an ownership interest in Māori land:*
> *(j) a body corporate or the trustees of a trust appointed to administer a Māori reservation:*
> *(k) a customary marine title group or protected customary rights group:*
> *(l) the entity that is authorised to act for a natural resource with legal personhood*

HBRC has identified the following parties in respect to Section 12(2)(i):

- Ngāti Kahungunu,
- Tatau Tatau o Te Wairoa – being the Post Settlement Governance Entity,
- Ngāi Te Kapuamātotoru, Ngāi Te Apatu and Ngāti Moewhare hapu – being the local hapū,
- The Ruataniwha, Tawhiti a Maru and Tākitimu (Waihirere) Marae – being the local marae.

Culturally Significant Land

Section 12(2)(d)(ii) requires an applicant to provide a description of any culturally significant land, which is defined in the OiC as land that:

> *(a) is on, or adjoins, a wāhi tapu (or a site of cultural significance); or*
> *(b) is on, or adjoins, land that has an area that is subject to a statutory acknowledgement; or*
> *(c) is within, is adjacent to, or directly affects the statutory overlay of ngā rohe moana and ngā rohe moana o ngā hapū o Ngāti Porou, as described in section 11 and Schedule 3 of the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019*

In terms of (a), the Wairoa District Plan identifies 'A140 – Papakainga, Waihirere, Takitimu marae' and 'A139– Pa, Ruataniwha' in the proximity of the works. The Cultural Impact Assessments ("CIAs") referred to below provide greater insight to the culturally significant land comprising the project area.

In terms of (b), and as outlined above, the construction area is within the Te Tira Whakaemi o te Wairoa 'Wairoa River and Tributaries (OTS-198-23)' Statutory Acknowledgement Area,

Subclause (c) is not applicable.

Cultural Impact Assessment and Research Report

The following Cultural Impact Assessments and Cultural Research Report have been prepared:

1. Cultural Impact Assessment – proposed flood mitigation options for North Clyde, Wairoa [Options 1C and 1D],
2. Ruataniwha Marae - Cultural Impact Assessment,
3. Cultural Impact Assessment Option 1C+ Wairoa Flood Mitigation Project – Takitimu Marae.
4. Cultural Research Report - Tawhiti-A-Maru Marae,

Referenced as **Appendix 1, 2, 3 and 4**, these have been provided to HBRC on a confidential basis.

The CIA relating to Options 1C and 1D, which were previously considered options, was completed in January 2025 prior to the preferred option (1C+) being developed, which the proposal is a further version of. With the proposed floodway essentially being between these two previous options, the CIA remains applicable. **Figure 7** shows the alignment of options 1C and 1D for the purpose of illustrating the spatial area in relation to which the CIA was based. To be clear, Options 1C and 1D do not form part of the proposal but given the location of the proposed floodway between them, the CIA remains applicable.

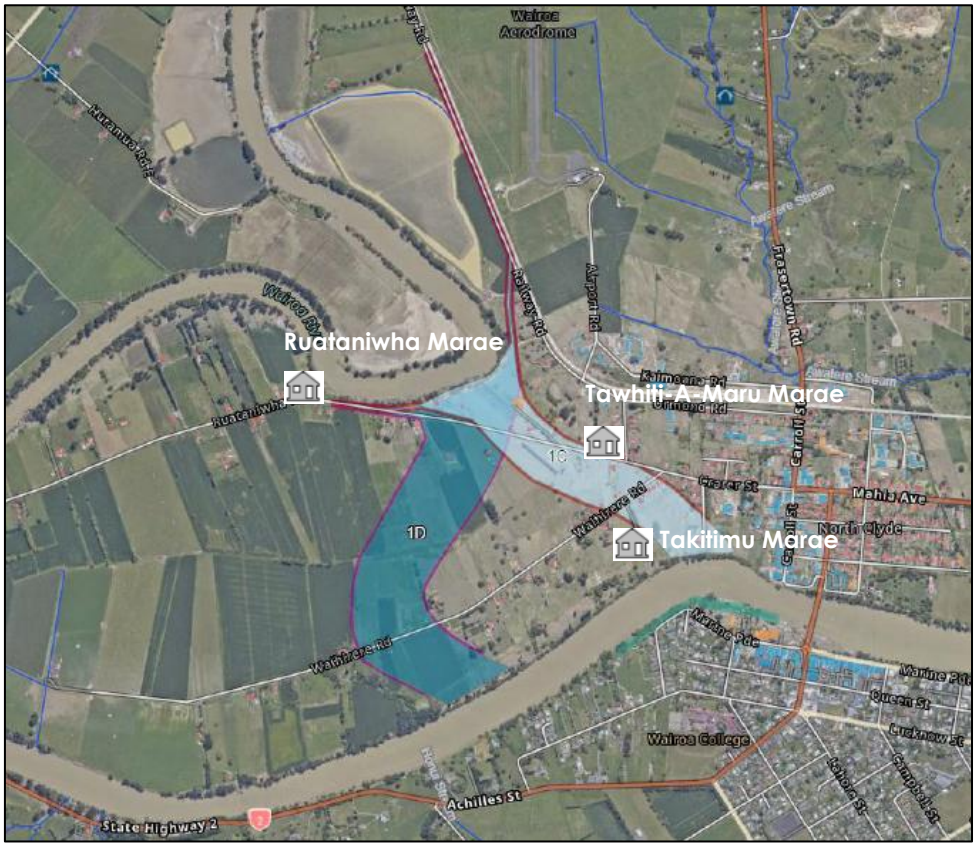
In addition to this CIA, the Ruataniwha Marae CIA examines the potential cultural impacts on Ruataniwha Marae, also shown in **Figure 7** - noting the assessment's environmental and geographical scope extends beyond the Te Wairoa Hōpupu Hōnengenenge Mātangirau (Wairoa River) to include associated and interrelated landscapes and resources.

Likewise, the Takitimu Marae CIA aims to understand the perspective of tangata whenua, mana whenua and Takitimu Marae trustees, to articulate their vision, values, objectives and aspirations and to document any sites of significance or natural resources in order to provide recommendations to avoid, remedy or mitigate cultural and environmental concerns.

The Cultural Research Report prepared by Tawhiti-A-Maru Marae represents the collective narrative, cultural evidence base, and assessment of the flood-mitigation impacts grounded in mātauranga Māori, whakapapa and kaitiakitanga.

Each CIA and the Cultural Research Report contain recommendations on the project. These are considered in Section 7.3.

Figure 7: Spatial Area and Marae Location



Copies of each CIA are provided in **Appendix 1, 2, 3 and 4** for decision makers to fully digest. Consistent among all four however is the value of Te Wairoa Hōpupu Hōnengenenge Mātangirau, commonly known as the Wairoa River, identified to hold profound cultural, social, spiritual, and environmental significance. It is stated that the river is not only a physical feature but also a central element in the whakapapa, or genealogical connections, that link individuals and communities to their ancestors, and that these connections form the basis of collective identity and the transmission of knowledge, values, and traditions throughout generations.

Combined, the CIA's provide an overview of the cultural context and identify a number of sites of significance and wāhi tapu.

Together, Figure 7 above, which identifies the location of marae and urupa, and Figure 2 of the CIA relating to Options 1C and 1D (which contains markers to estimate the location of sites of significance and wāhi tapu) provide a good spatial representation of the location of sites of significance and wāhi tapu. It is HBRC's interpretation that the location of physical works and alignment of the stopbanks and floodway avoid these identified areas (noting

the potential for unexpected discoveries, which would be managed through accidental discovery protocols).

3.4.2 Archaeology

An Archaeological Assessment has been undertaken by Insitu and is provided in **Appendix 5.**

The assessment considered the risks of the disturbances and excavations associated with constructing the stopbanks to form the floodway and the townside stopbank. The assessment involved:

- Analysis of ArchSite to understand known site distribution in the region around the project area,
- Review of historic aerial photographs (Retrolens), together with historic maps (Premise) and LiDAR models (LINZ), to identify the extent of known sites and to determine the presence or absence of unrecorded archaeological features on the property,
- Review of relevant previous archaeological reports and other documentary sources.

The assessment has determined there are no currently recorded archaeological sites within the area of proposed work, although there are six sites near the area.

Although there are no recorded sites in the footprint of the proposed works it was concluded that there is a reasonable cause to suspect that sub-surface archaeological material relating to pre-1900 Māori and European activity may be encountered during earthworks. This aligns with risks identified in the CIA's and working alongside an urupa.

3.4.3 Water Bodies and Ecological Values

An Ecological Scoping Assessment has been undertaken by WSP and provides an assessment of the ecological values that are likely to be present. A copy of the report is provided in **Appendix 6.**

The assessment reports on findings from various desktop and field assessments undertaken over 2024 and 2005. Key points in relation to the floodway, townside stopbank and the Wairoa River include:

Floodway Area

Vegetation:

- The vegetation surrounding/impacted by the floodway is predominantly grazed pastoral land, likely dominated by common exotic species,
- The vegetation is considered likely to be of low value,

Birds:

- Vegetation within and adjacent to the proposed floodway is likely to provide some suitable nesting and foraging habitat for common native and exotic bird species,
- Utilisation of this habitat by rare or threatened species is considered unlikely,

Bats:

- Features forming suitable habitat for long-tailed bats was identified,
- In the absence of specific monitoring, bat presence cannot be discounted,

Lizards:

- The area impacted by the proposed floodway is predominately rank grass used for agricultural purposes with scattered native shrubs and of exotic trees,
- It is possible that the areas of rank grass and other vegetation cover other than regularly grazed pasture, provide habitat for copper skink (At Risk - Declining), ornate skink (At Risk - Declining) and northern grass skink (Not Threatened),
- Two northern grass skink were identified within the A & P Society property showgrounds ((refer **Figure 8** below – reproduced from Figure 3 of the WSP report), which had the highest quality habitat present across the project area,

Wetlands:

- Seven natural inland wetland areas were identified (refer **Figure 8** below – reproduced from Figure 3 of the WSP report), but based on conditions, were assessed to be of low ecological value,
- Further assessment of drainage patterns, wetland extent and values was recommended to inform the scale of effects and appropriate response measures,

Freshwater:

- Three permanent streams and one overland flow path as outlined below ((refer **Figure 8** below – reproduced from Figure 3 of the WSP report), were identified within the proposed floodway:
    - A permanent stream in the northwest of the project area (specifically to the northwest of the Te Kopua Urupa),
    - An overland flow path to the northeast of the A & P showgrounds, draining into the Wairoa River,
    - Two permanent streams, near the southern extent of the floodway, which provide surface flow to a significant wetland to the southwest of Takitimu Marae.
- The streams are reported to function as semi-rural drains with significant agricultural input but are considered by WSP to likely serve as suitable habitat for a number of freshwater species. The streams have therefore been assessed to have an ecological value of Low to Moderate.

Figure 8: Freshwater Features

Townside Stopbank Area

Vegetation:

- Vegetation generally comprises common exotic species, some natives, ornamental shade trees and mown grassland/park areas,

Birds:

- The vegetation has low quality nesting habitat for birds,
- Utilisation of this habitat by rare or threatened species is considered unlikely,

Bats:

- In absence of specific monitoring the potential for mature trees to be used as roosts cannot be discounted,

Lizards:

- Owing to the lack of suitable habitat the presence of the Hawke's Bay Skink (Threatened – Nationally Endangered) is unlikely,
- The riparian margin contains areas of dense rank grass, tradescantia and convolvulus as well as toetoe which is suitable for native skinks, especially copper skink (At Risk - Declining), ornate skink (At Risk - Declining) and northern grass skink (Not Threatened),

Wetlands:

- No wetlands are present within this area,

Freshwater:

- Besides the Wairoa River, in which there will be no works, the area of the stopbank is not characterised by any freshwater bodies.

Wairoa River

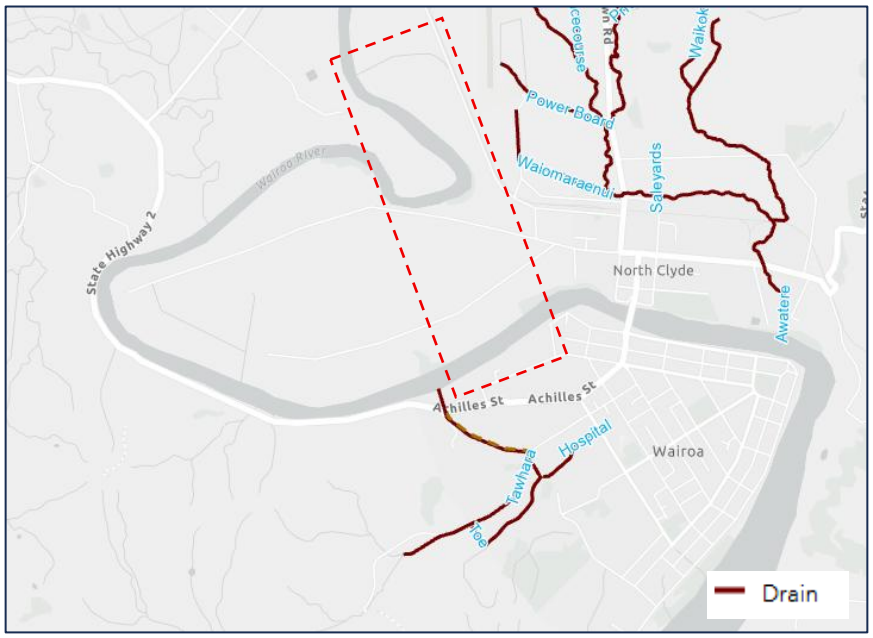
- A desktop assessment of the Wairoa River found approximately 16 species of native fish and 3 species of exotic fish.
- Species with a threat classification included 'At Risk, Declining' inanga, koaro, longfin eel, bluegill bully, torrentfish; 'At Risk, Naturally Uncommon' giant bully and 'Threatened, Nationally Vulnerable' lamprey,
- Several of the species identified are important mahinga kai and/or Taonga species.
- Whitebait (inanga, koaro and banded kokopu) form part of a commercial and recreational sport fishery. Further, brown trout, chinook salmon and rainbow trout are recognised as important recreational sports fish.
- The banks of the Wairoa River and lower reaches of tributaries of the Wairoa River are also likely important inanga spawning areas.

In short, further scoping work is required in relation to (1), the likelihood of bats and lizards and the need for a Wildlife Act Authority, (2), the extent and value of the potential natural wetlands identified, and (3), the values of the identified water bodies to inform construction methodology (need for fish relocation) and the need for any offsetting.

3.4.4 Flood Hazard Management

There is currently no existing flood mitigation scheme for the Wairoa community. As shown in **Figure 9,** the area of works does not comprise any regional drainage assets.

Figure 9: Existing flood mitigation scheme features



3.4.5 Landscape and Amenity Values

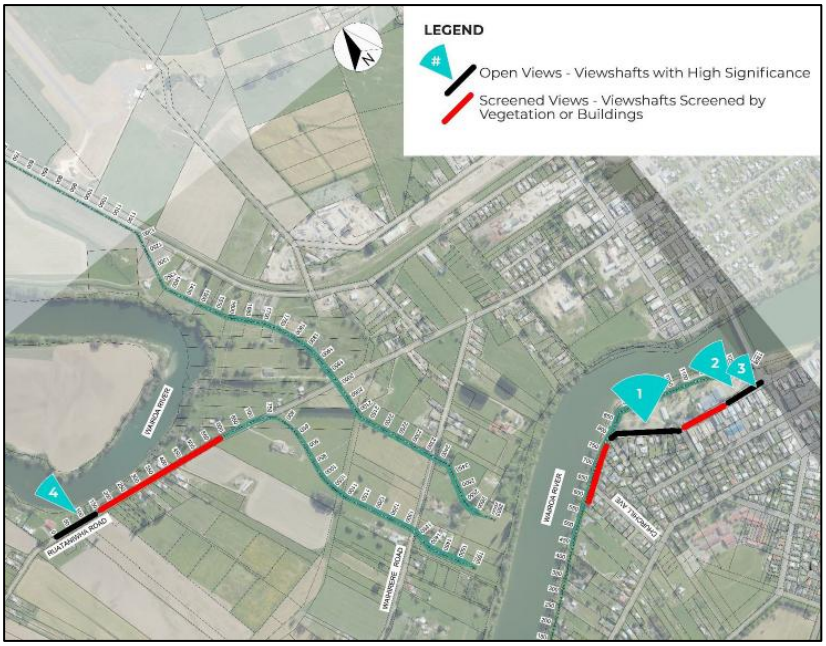
A Landscape Scoping Assessment has been prepared by WSP to identify the potential visual landscape effects of the proposed works, including effects on any adjoining residential properties. A copy of the assessment is provided in **Appendix 7**.

Key points in terms of the existing landscape character include:

- The Wairoa River is considered an attribute of particular cultural, environmental and recreational significance in the landscape, and is listed as a Significant River in the WDP. The WDP does not however contain any Significant Natural Areas,
- The broader landscape comprises the expansive agricultural plains of the Wairoa Valley,
- Within this broader landscape, there are two primary character areas comprising the landscape context of the area of works. These include:
    1. The flat, agricultural landscape between the wide bend of the river, which is characterized by wide vistas across the landscape broken up by shelterbelts, fence lines, residences and small farm buildings.
    2. The township's edge where land parcelization becomes smaller, with single-family homes and garden style plantings, recreational park space, a campground, and urban features (such as footpaths, parking areas and fences) marking the transition between town and countryside.
- Four key viewing audiences were identified as follows:
    - Residential property owners,
    - Motorists,
    - Recreationalists, and
    - Commercial establishments.

- Four primary viewshafts with open views to the river, being the primary attribute of the landscape, together with screened views were identified

Figure 10: Viewshafts



Although a further assessment of the effects will be undertaken in Section 7 of this report, the assessment does not identify any 'significant' potential adverse effects, thus there is no need in respect to Condition 24 of the OiC to prepare and implement a landscaping plan in respect to potential visual landscape effects.

3.4.6 Land Contamination

Contaminated land is defined in the OiC as:

> *land to which the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 apply (see regulation 5(1) of those regulations).*

In the same manner as the potential soil contamination would be investigated and assessed under the NESCS, a combined Preliminary Site Investigation (PSI) and Detailed Site Investigation (DSI) report has been prepared by WSP and is provided in **Appendix 8**. The work undertaken in regard to each involved:

PSI stage:

- Review of historical aerial imagery available from Retrolens and Google Earth,
- Review the HBRC's online hazard portal for HAIL information,
- A review of the New Zealand Geotechnical Database (NZGD, 2025),
- Review of geological information for the site and wider area,
- Site walkover,

DSI stage:

- Collection and laboratory analysis of surface soil samples.

WSP concluded:

- The concentrations of contaminants of concern in soils sampled do not exceed adopted criteria for protection of human health and the environment for commercial/ industrial land use therefore soils are considered suitable for re-use on site within the alignment,
- There were no soil contamination matters identified in surface soils that are likely to present a constraint to the development of the protection scheme or give rise to human health risks during construction.

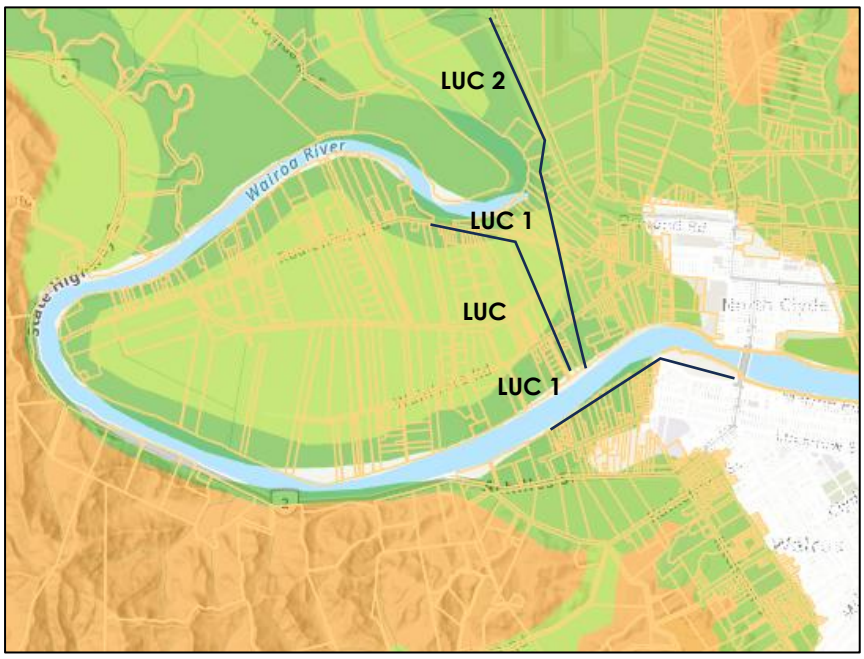
It was noted, however, that:

- Given the expanse of the site an Unexpected Discovery Protocol (UDP) should be prepared for disturbance works outlining the procedures and processes that will be followed should anything of contaminated relevance be identified during excavations works (i.e. asbestos or buried rubbish),
- There was a small area of visibly stained soils at 147 Railway Road exceeding the Class 4 WAC for TPH, which should be removed from site to an appropriately licenced facility,
- Buildings to be removed with asbestos cladding should be removed by licenced asbestos removal specialists.

3.4.7 Productive Capacity of land

As shown in **Figure 11** below, land within the project extent is classified in the Land Use Classification maps as LUC 1, 2 and 3 (indicative extents of flood protection features in black).

Figure 11: Land Use Classification Maps

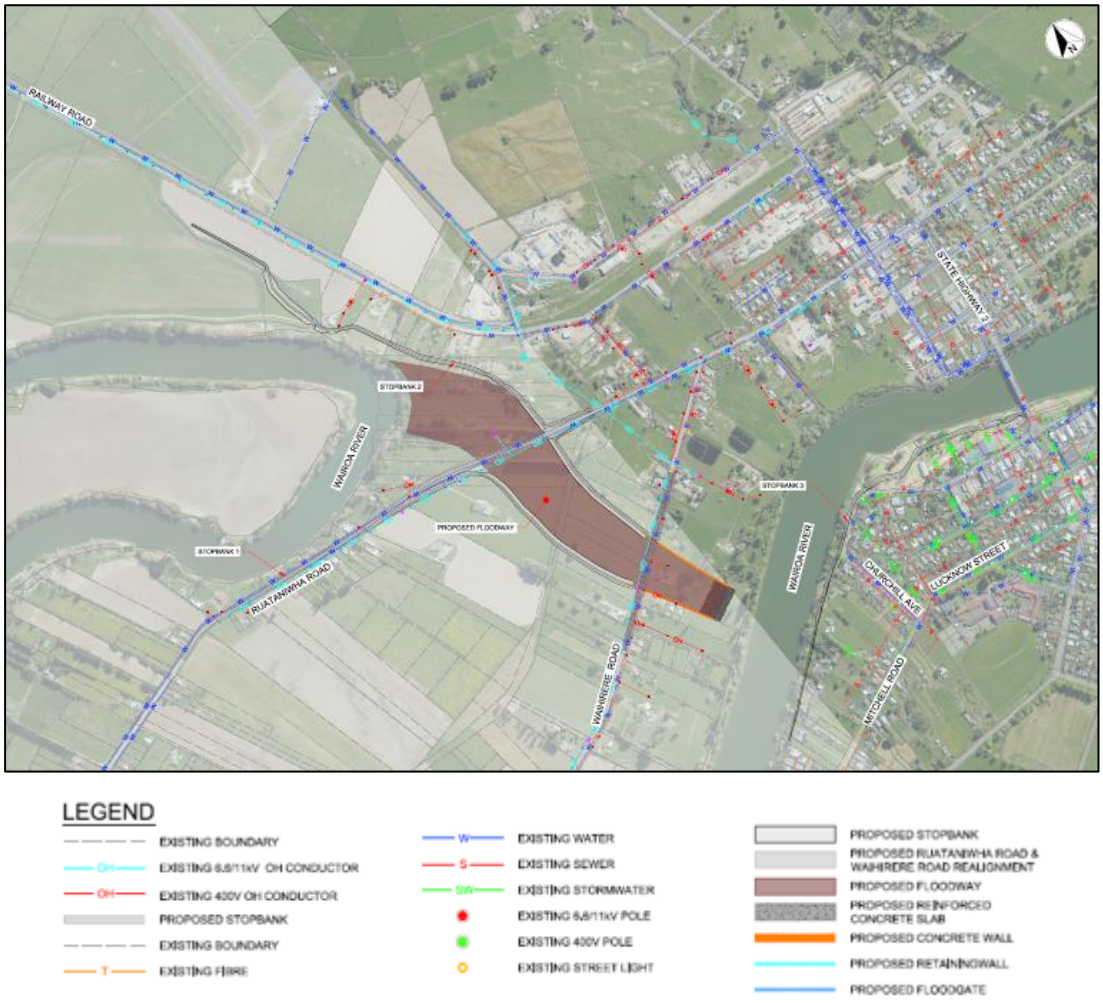


3.4.7 Network Utility Operators and Other Infrastructure and Services

An existing Services Plan showing existing network utilities and other infrastructure is provided in the Developed Consent Design Report and is reproduced in **Figure 12** below. Key points include:

- Power lines run parallel to both Ruataniwha Road and Waihirere Road (Firstlight Network) – both which traverse the floodway,
- Fibre optic lines cross the area of the floodway,
- Municipal wastewater infrastructure is installed along Waihirere Road and Alexander Park,
- Municipal water supply infrastructure is installed along Ruataniwha and Waihirere Roads,
- There are multiple culverts that are part of the municipal stormwater network within Alexander Park.

Figure 12: Existing network utilities and other infrastructure



4. DESCRIPTION OF PROPOSAL

The Wairoa Flood mitigation Project involves the following, the general extent of which are illustrated in **Figure 13** below.

- The construction of a floodway formed by two stopbanks or floodwalls to convey and constrain high flows – the floodway 'activates' at approximately a 30-year ARI flood event and is designed to limit flooding, primarily to the North Clyde area, up to and including a 100-year ARI flood event,
- Construction of a townside stopbank or floodwall to provide protection to part of the Wairoa township during a 100-year ARI.

Key to the location and form of the stopbanks and floodway has been the location of the Waihirere urupa near Takitimu Marae and adjoining maori land between Waihirere Road and the Wairoa River. The urupa, potential for koiwi beyond the urupa and limited access to these areas has necessitated the design of a narrower floodway through this location. This has also resulted in an excavation depth of circa. 2.0m to compensate for the restriction of floodway width.

These responses have been taken to proactively avoid land access matters and the disturbance of koiwi. Ground Penetration Radar surveying has been undertaken to provide greater confidence that the alignment is unlikely to give rise to the disturbance of koiwi – noting that either an Accidental Discovery Protocol, or more likely, an Archaeological Authority will also be in place.

It is primarily these matters and the subsequent narrowing of the floodway that have led to the armouring across the lower extent i.e. the narrower form of the floodway increases velocities that need to be managed to avoid scouring.

Associated works include:

- Road raising,
- Cross drainage (stormwater) management,
- Subsurface drainage.

Specific details of the design together with plans are provided in the Developed Concept Design Report prepared by WSP provided in **Appendix 9**.

Figure 13: Stopbank Project Extent and Alignment

The OiC sets out "standardised conditions" developed to provide consistency in how the flood protection works enabled by this process will avoid, mitigate or remedy potential environmental effects. As outlined above, the OiC provides the opportunity for applicants to seek variations to the standardised conditions where appropriate for each individual project. The decision maker may also amend the standardised conditions to address specific environmental effects associated with each proposal.

The applicant proposes to largely adopt the standardised conditions of the OiC, with some variations to account for the specific characteristics of this proposal. The standardised conditions have guided the development of the proposal, including the effects management that is proposed. A full suite of proposed conditions, based on a template of the standardised conditions (in the OiC) provided by the HBRC Consents Team[2] and including minor alterations to tailor them to this specific project is included at **Appendix 10**.

The following sets out details of the proposal with reference to proposed conditions in respect to:

- The proposed stopbanks and associated activities,
- Ecological management,
- Landscaping,

[2] Text highlighted yellow are minor amendments made by HBRC. With exception of number references, we are assured that no other changes have been made to the text in Schedule 3 of the OiC.

- Archaeology,
- Construction (including a water take),
- Alexander Park,
- Communication and engagement.

4.1 Proposed Stop Bank and Associated Activities

Drawing on the details of the Developed Concept Design Report prepared by WSP, the following provides an overview of the proposed stopbank and associated activities in respect to:

- Design considerations,
- Floodway and roading,
- Townside Stopbank,
- Cross drainage (stormwater) management,
- Floodway Drainage,
- Earthworks and vegetation clearance,
- Managing the detailed design process.

4.1.1 Design Considerations

The design has been informed by the need to avoid as far as possible whenua Maori land and residential homes as well as various surveys, flood modelling, geotechnical testing, groundwater level monitoring and considerations of various design standards and guidelines applicable to the project. Preliminary analysis of liquefaction, stability, seepage and settlement has been undertaken with further analysis to be undertaken as part of detailed design.

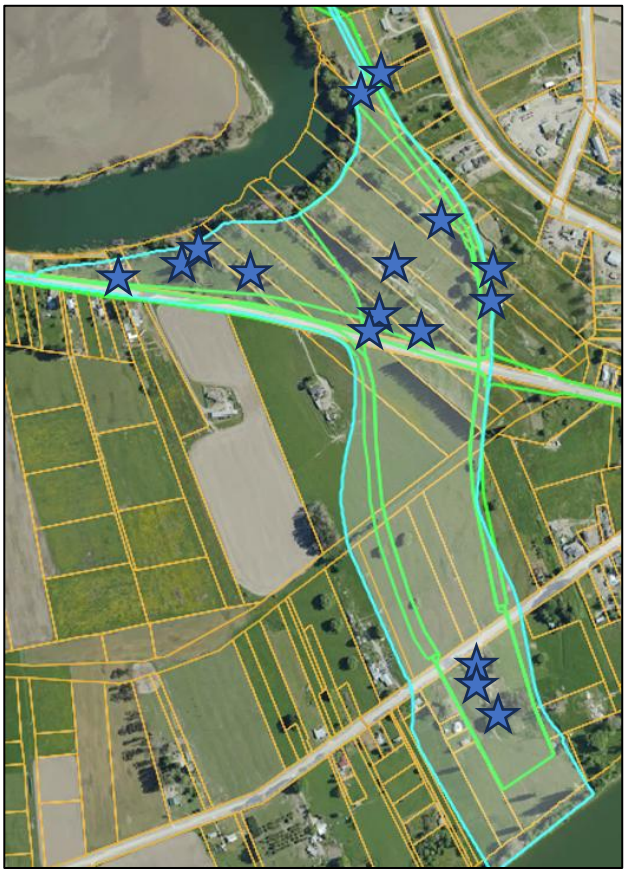
4.1.2 Floodway and Roading

Stopbanks / Floodwalls

The proposed floodway will be formed by two stopbanks or floodwalls at a point where the Wairoa River has historically overtopped its banks and (subsequently) caused flooding of the surrounding and North Clyde areas. The purpose of the floodway is to constrain flows that would otherwise result in flooding and convey these back to the Wairoa River. The floodway will 'activate' at approximately a 30-year ARI flood event and has been designed to limit flooding, primarily to the North Clyde area, up to and including a 100-year ARI flood event.

The buildings identified in **Figure 14** below will be removed from within the floodway. This is part of the land access agreements and will be undertaken as construction site establishment works (refer Section 4.5.1 below) by either the consent holder or landowners – depending on the land access agreements.

Figure 14: Builings to be removed



Key points regarding the stopbanks and floodwalls:

- The west stopbank (Stopbank 1) will be approximately 1,520m long. The first 1,260m (approx.) will comprise an earth stopbank, with the final circa 260m (commencing just above Waihirere Road) being a floodwall,
- The western extent (first 500m) will follow the alignment of Ruataniwha Road – with the road being re-built on top. The alignment and the level of service of the road will not be affected. The road elevation will simply be raised,
- Along the Ruataniwha Road alignment, the stopbank will be constructed with a crest width of approx. 4m and 1V:3H batter slopes. The road will be built over top of this 'core' with a 6m minimum carriageway width. Batter slopes will be graded as required,
- The remaining length of the earth stopbank will have a crest width of approx. 4m and 1V:3H batter slopes,
- Including a compaction and selectivity factor, approximately 30,000m^3 of fill is expected to be required to construct Stopbank 1,
- The east stopbank (Stopbank 2) will be approximately 1,800m long. The first 1,520m (approx.) will comprise an earth stopbank, with the final circa 280m (commencing just above Waihirere Road) being a concrete wall structure,
- The earth stopbank will be constructed with a crest width of approx. 4m and 1V:3H batter slopes,

- Including a compaction and selectivity factor, approximately 45,000m^3 of fill is expected to be required to construct Stopbank 2,
- The crest of the stopbanks will be designed to the 100-year ARI level plus freeboards of between 410mm – 600mm at different sections (refer Figure 5 of the Developed Concept Design Report),
- Stopbank 1 will generally present as less than 1m high to CH 300 and 1-2.5m thereon (above existing ground level), with a few higher points along the concrete portion at localised low points,
- Stopbank 2 will generally present as less than 1m high to CH240 and 1-2m thereon (above existing ground level) – with the exception being along CH250-440 where the stopbank is currently shown to be formed along a lower lying area between the river and the Te Kopua urupa (this section of the alignment is yet to be confirmed, as while the developed concept design shows the alignment between the river and the urupa, the applicant has been unbale to progress this opportunity due to the lack of contact from the trustees of the land. In the event that this cannot be confirmed, an alternative alignment around the landward side of the urupa will be adopted. This may involve either an earth stopbank or floodwall i.e. timber wall structure or similar. This will be confirmed as part of detailed design),
- As with stopbank 1, there are a few higher points along the concrete portion at localised low points downstream of Waihirere Road,
- The batters of the earth stopbanks will be grassed,
- The undercut width and depth will vary but is expected to be generally in order of 500mm deep,
- The stopbanks will be formed utilising site-won materials (yielded from the floodway excavations).

The floodwalls forming the lower extents of each stopbank will be designed to resist two primary loading scenarios - seismic loading when the floodway is empty and hydrostatic pressure when water depth is at maximum flood level. The walls will stand 3.6m high, accommodating a maximum water depth of 3.0m while providing a 0.6m freeboard. To facilitate this, approximately 2m of soil will be excavated along the floodway, resulting in 2 m height of retained soil behind the wall. The lower 40m of the retaining wall system will be integrated with a reinforced concrete slab that will span the full width of the floodway.

As indicatively shown in **Figure 9** above, there is a permanent stream in the northwest of the project area, specifically to the northwest of the Te Kopua Urupa (northern permanent stream) and an overland flow path to the northeast of the A & P showgrounds, draining into the Wairoa River (overland flow path).

It is stated in Section 8.1 of the Developed Concept Design Report that external drainage will be modified as required to maintain its function and to prevent water being trapped behind the stopbank. Where diversion is not practical, it shall be diverted into the floodway via a culvert installed with a non-return valve / flap gate. Subject to detailed design, this response may to be adopted for the northern stream at approximately CH240m and the overland flow path at approximately CH600m.

While the potential culvert at approximately CH600m will be within an overland flow path, the water body within which potential culvert at approximately CH240m may be installed has been defined as a permanent stream. Owing to the need for a non-return valve / flap gate, fish passage will be denied.

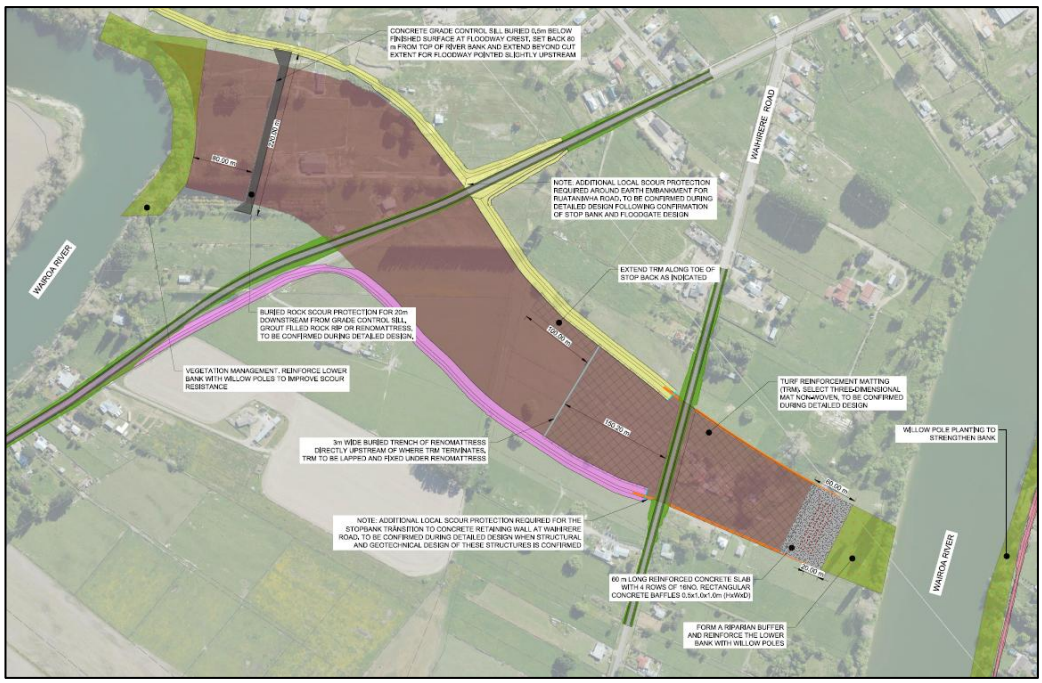
Floodway

The floodway itself will be approximately 1,000m long – with the first 800m being 200-250m wide and the last circa 200m narrowing to approximately 105m wide along the final lengths where the concrete retaining walls will be used.

As shown in **Figure 15** below (reproduced from the drawing set), the lower bank at the inlet will be reinforced with willow poles to improve scour resistance with a buried concrete sill constructed across the floodway approximately 80m downstream followed by a 20m length of buried rock scour protection (approximately 1m deep).

The first 800m will be grassed, and either mowed for bailage or used for low-intensity grazing (with appropriate fencing). Armouring / reinforcement is likely to be required upstream of Waihirere Road through to reinforced concrete slab that will span the full width of the floodway. In this regard, the developed concept design currently involves a 3m wide buried trench of reno mattress installed approximately 150 upstream of Waihirere Road with turf reinforcement matting (or similar) installed until it reaches the reinforced concrete slab spanning the full width of the floodway. Final solutions will be confirmed as part of detailed design.

Figure 15: Floodway Features



The concrete slab will be 60m long and extend appropriately 20m further than the floodwalls. Baffles will likely be installed to reduce water velocity and enhance hydraulic performance. A flow direction structure maybe constructed to reduce the impact of the higher velocity flows which will be clarified in the final design. A riparian buffer with willow poles will form the lowest extent of the floodway where it adjoins the river.

The floodway cut depth will vary from approximately 1m at the inlet to 2m at the outlet (but no deeper than 2m). The Earthworks Plan provided in the drawing set refers to approximately 220,000m^3 of cut to form the floodway. An additional 40,000m^3 of cut may be required for associated works. Final cut depths and volumes will be confirmed as part of detailed design.

As indicatively shown in **Figure 9** above, there are two permanent streams within the southern extent of the floodway that drain towards the east. The top extent of these will be reclaimed as part of forming the floodway. The lower extents of the streams, outside the footprint of the floodway, will remain.

Roading

Modifications to both Ruataniwha and Waihirere Roads will also be required as these roads will extend through the floodway.

Running from the west, Ruataniwha Road will gradually 'drop off' the stopbank and extend through the floodway and stopbank 2, which will be designed to 'flank' the road until it rises above the flood level. Ruataniwha Road will be flooded when the floodway is being used. Manual road barriers will be used to prevent driving through the floodway during flood events. Minor works will be required at the western end of Ruataniwha Road slightly beyond the OiC Footprint. These will be limited to pavement/reinstatement works that are not considered to require resource consent. Works associated with the stopbank / flood protection activity will be within the OiC Footprint.

In the case of Wiahirere Road, this road will essentially enter the floodway though flood gates within the floodwall portions of the stopbank. The floodgates will be closed during flood events to both retain flood flows within the spillway and to prevent driving through the floodway.

Final alignments and solutions for each road will be confirmed as part of detailed design, but key points include:

- The carriageways will be formed to match the existing form of roads,
- Pavement design in respect to the floodway conditions has been considered and will be finalised as part of detailed design,
- The watermains running parallel to Ruataniwha and Waihirere Roads will need to be lowered to allow adequate cover and maintain service integrity. The intent is to trench those services as per the current alignments below the base of the floodway,
- Each 50mm diameter PE pipe watermain will be replaced with a 110mm PE pipe to future proof the section of pipe across the floodway. The lowered pipes will reconnect with the existing water pipes well outside the floodway stopbanks to allow easy access for future repair works.

In regard to other services:

- Ducts will be allowed for at detailed design within the same trenches as the watermains for replacement of the fibreoptic lines across the floodway,
- In terms of the existing powerlines running parallel with both Ruataniwha and Waihirere Roads, options involve either spanning the power lines across the floodway as per the current alignments or undergrounding below the base of the floodway. This will be determined during the detailed design in consultation with Firstlight Network.

4.1.3 Townside Stopbank

The Townside Stopbank will be constructed to provide protection to the Wairoa township during a 100-year ARI. While the plans provided in Appendix 9 show the alignment at what is currently the developed concept design stage, the final alignment of the stopbank upstream of Churchill Ave may shift inland to mitigate erosion potential along the riverbank (if necessary). This will be confirmed as part of detailed design. Any changes to the alignment that may arise are not at this stage expected to be of scale that would necessitate the relocation of any existing buildings or swimming pools, although final design matters will be addressed as part of the land access agreements, which would be the case regardless.

Subject to the above, key points include:

- The length of the stopbank and floodwalls (Stopbank 3) will be approximately 1,200m long,
- The stopbank will be constructed with a crest width of approx. 4m and 1V:3H batter slopes from the Town bridge upstream to opposite Churchill avenue, where within an area constrained by land availability the crest width is reduced to 3m wide and batters increased to 2H:1V and a mechanically stabilised earth (MSE) wall with steeper batter slopes is proposed between approximately CH500 and CH710. The remainder of the stopbank upstream of this point will be constructed with a crest width of 3.0m and 1V:2H batter slopes.
- The crest of the stopbank will be designed to the 100-year ARI level plus appreciate freeboards (refer Figure 5 of the Developed Concept Design Report) – and will generally present as less than 1m high to CH380 and 1-2m thereon rising to 2.4m high at isolated low points (above existing ground level),
- The batters will be grassed,
- The undercut width and depth will vary but is expected to be generally in order of 500mm deep,
- The stopbank will be formed utilising site-won materials from the floodway excavations on the northern side of the river.
- Including a compaction and selectivity factor, approximately 18,500m^3 of fill is expected to be required to construct Stopbank 3.

The following facilities within Alexander Park will need to be relocated:

- The skate park and the flying fox,

- Boat ramp access to the river – there are two existing boat ramps to the river, one concrete, one earth. A new single access will be designed as part of detailed design,
- Ski club building,
- Part of the Wairoa campground faciality.

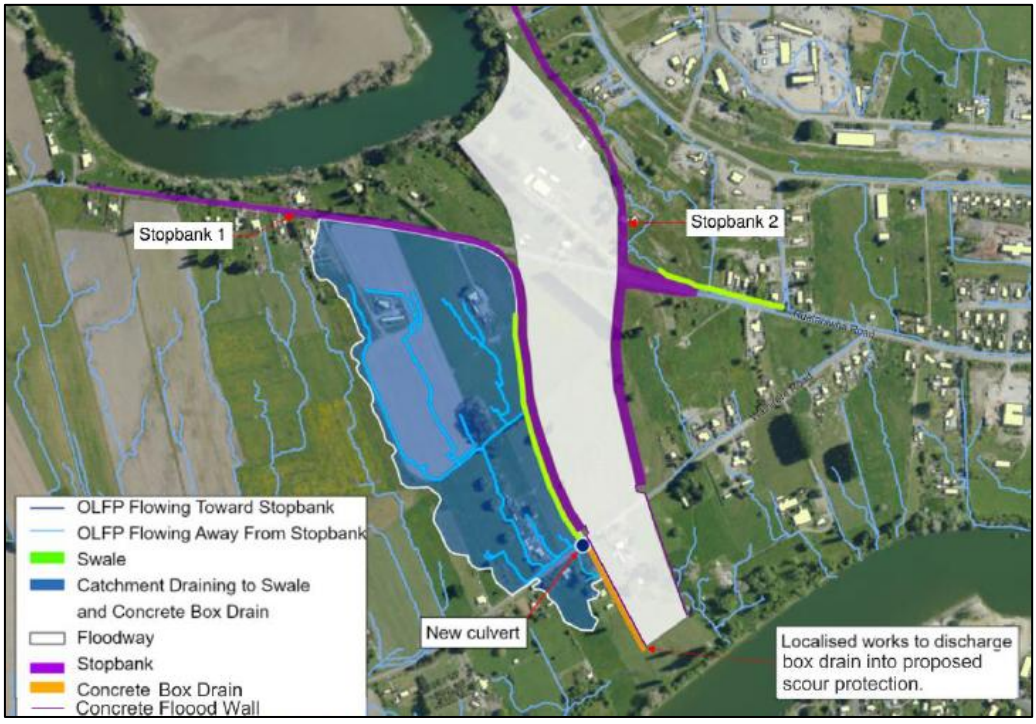
Engagement with WDC and other stakeholders is ongoing in regard to how these facilities are re-established within Alexander Park or elsewhere within the township. This is discussed further in Section 4.5 below.

There are multiple culverts crossing the townside stopbank. Subject to detailed design, the stopbank is planned to be built over these – with non-return valves being installed at the outlet of each. There is also a wastewater pipe that will cross under the stopbank at approximately CH1175. Subject to detailed design, no upgrades or deepening of the pipe is expected although some form of protection due to the extra weight and risk of settlement may be required. This will be considered as part of detailed design.

4.1.4 Cross Drainage (Stormwater) Management

Cross drainage solutions are discussed in Section 8.2 of the Developed Concept Design Report and are shown in **Figure 16**.

Figure 16: Cross Drainage Features



In summary:

- Existing overland flow paths (OLFP) west of the floodway will be obstructed by the proposed stopbanks, necessitating the formation of a vegetated swale (along the

earth stopbank) and a concrete box drain (along the concrete wall extent) on the land side of stopbank 1 to intercept this flow and convey it to the end of the stopbank. It will then discharge at the bottom of the floodway and flow over land to the river.

- The swale and box drain will also pick up intersecting farm drains and roadside drains, which govern the size and invert of the swale (typically 0.5 m deep) and box drain (varies in depth up to 1.7 m).
- A typical section through the stopbank and the swale is shown in **Figure 17. Figure 18** shows a typical section through the concrete floodwall and the box drain. A culvert will be required where the swale crosses Waihirere Road.
- Final details will be confirmed as part of detailed design.

Figure 17: Typical Swale

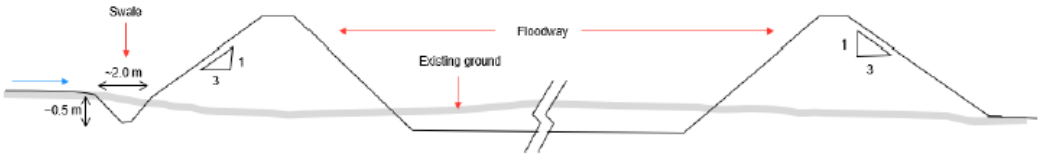
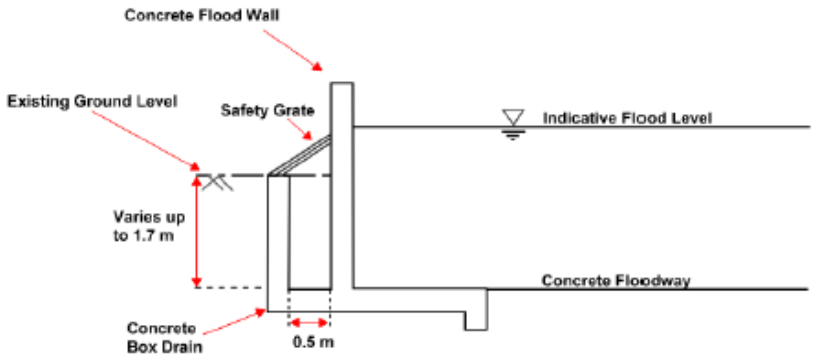


Figure 18: Typical Floodwall Section



- A small section of swale is required on the eastern side of the floodway along Ruataniwha Road (stopbank 2),
- The flow from the stopbank 2 swale then connects with the existing well-defined flow path that conveys runoff. This flow path will also discharge into the scour protection at the bottom of the floodway,
- It is expected that a new culvert will be required where the existing flow path crosses Waihirere Road on the side of stopbank 2,
- Both culverts will be sized during detailed design to prevent runoff building up and causing flooding behind the road embankment.

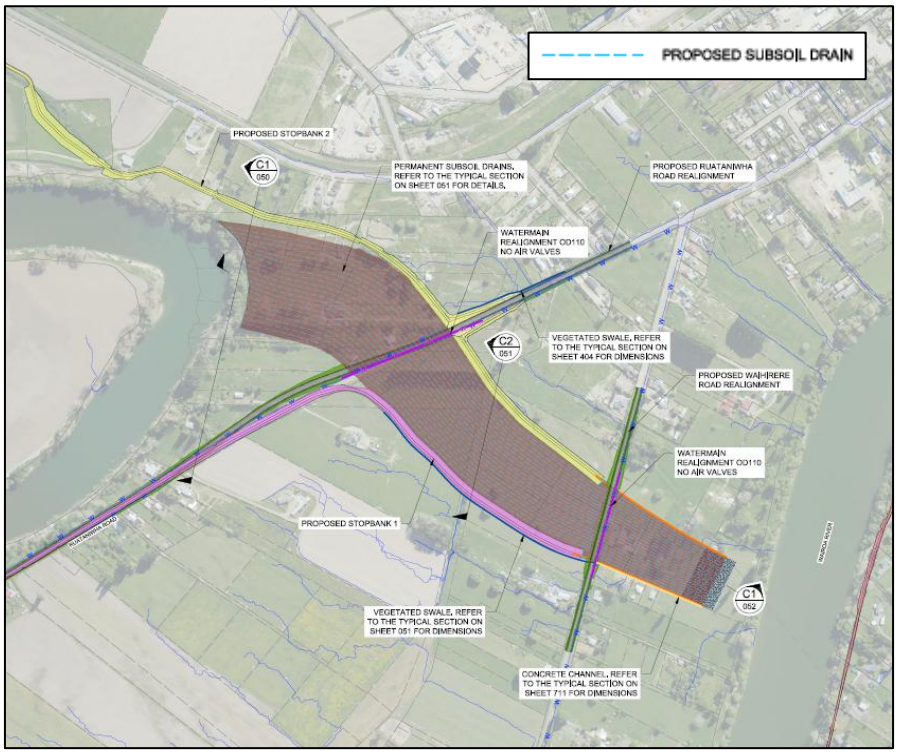
Regarding the townside stopbank:

- The proposed townside stopbank will be built over a number of stormwater pipes and overland flow paths that service the urban area and discharge to the Wairoa River.
- Additional drainage and pipe upgrades are required to collect and discharge stormwater that would otherwise be trapped behind the stopbank.
- The Wairoa District Council's stormwater model is being used to size the stormwater upgrades required to avoid flooding behind the stopbank (i.e. when it rains but the river is not in flood).
- Sizing will be confirmed during detailed design and will allow for potential future network upgrades.
- All outlets discharging to the river through the stopbank will include non-return valve / flap gate to prevent high river levels back flooding the town.
- Outlets will also have a concrete headwall to provide some protection from vegetation and debris that could cause blockage as well as providing for easier inspection and maintenance.

4.1.5 Floodway Drainage

Drainage to maintain a "dry" floodway is discussed in Section 11.1 and 11.3 of the Developed Concept Design Report. Here it stated that the shallow groundwater table of between 0.3 m and 0.6 m deep needs to be permanently lowered 1 m below the finished floodway floor level. This is proposed via installing 10-20 subsoil drains within an along the entire length of the floodway as shown in **Figure 19** below at an approximate depth of 1 m below the finish surface level.

Figure 19: Subsurface Drainage



The drains are estimated to discharge approximately 1,300m³ of groundwater per day initially, with a long-term discharge of around 150m^3 per day. As shown in **Figure 19** above, the proposed drainage system will discharge into the scour protection at the floodway's outlet.

4.1.6 Earthworks and Vegetation Clearance

Approximate earthwork volumes have been discussed above. Condition 12 of the standardised conditions set out earthworks principles that will apply to the detailed design and implementation of earthworks associated with the project. This includes generally minimising the scope of earthworks to those required to facilitate the project, maximising the effectiveness of erosion and sediment control measures, avoiding or otherwise minimising potential adverse effects on receiving environments and ecology, landscape values and culturally significant land, and stabilisation of land as soon as reasonably practicable. The preliminary design incorporates these principles. Further consideration will be given to these matters in developing the detailed design, construction methodology and response that will form the part of the ESCP and CEMP as outlined below.

The contractor will be required to prepare an erosion and sediment control plan that addresses specific requirements (outlined in condition 14), and this will form part of the overall CEMP for the project. Dust management is also required, together with procedures for managing de-watering if required.

Vegetation clearance will generally involve (1), removal of trees and shelterbelts within the floodway, (2), along the true right bank of the Wairoa River and (3), within Alexander Park.

4.1.7 Managing the Detailed Design Process

The OiC framework envisages that further refinements to the flood protection works design and the associated documentation will continue to occur post-consenting. It is important that the conditions of consent do not pose barriers to implementation where such design changes are not substantial or likely to result in a change to the activity or the expected scale of adverse effects. The following condition is proposed as Condition 1B:

Tracking changes in the design process

> Changes that occur between developed concept and detailed (final) design shall be recorded and reported on as part of a final design report. The final design report shall record the changes, outline the reasons for them and provide a view as to whether the changes are in accordance with documents referred to in Condition 1.

In this context, "in accordance with" means changes that do not introduce a new activity, do not introduce a substantial change in alignment, do not result in a change to outcomes sought under the conditions of this consent, and does not cause any material increase in consequential flooding effects to other properties.

The Final Design Report shall be provided to the Hawke's Bay Regional Council (Manager Compliance) prior to construction commencing.

4.2 Ecological Management

Standard OiC condition 26 sets out ecology principles that the consent holder must apply when designing the flood protection works and carrying out construction works.

While an ecological assessment has been undertaken, it is acknowledged that further scoping work is required in relation to (1), the likelihood of bats and lizards and the need for a Wildlife Act Authority, (2), the extent and value of the potential natural wetlands identified, and (3), the values of the identified water bodies to inform construction methodology (need for fish relocation) and the need for any offsetting – with findings influencing the development of the proposed Ecology Management Plan. In this regard, it is proposed:

- To retain Condition 27, with minor amendments, to essentially undertake a further ecological scoping survey to determine:
    - The presence of lizards within the area of the floodway works,
    - The presence of bats,
    - The extent and value of wetland areas identified,
    - The ecological value of northern permanent stream and southern permanent streams to inform construction methodology and the need for any offsetting,
- Retain Condition 28, with minor amendments, to prepare an Ecology Management Plan which must include:
    - Pre-commencement procedures for the disturbance of vegetation and ground in areas where the Ecological Scoping Assessment undertaken in accordance with Condition 27 identifies the presence of lizards,
    - Pre-felling procedures for trees where the Ecological Scoping Assessment undertaken in accordance with Condition 27 identifies the presence of bats,
    - In the event that the Ecological Scoping Assessment undertaken in accordance with Condition 27 confirms the presence of natural inland wetlands, measures to remedy, or if required, offset effects to achieve, as far as practicable, a net positive ecological outcome where identified natural inland wetlands may be affected by the construction works,
    - A construction methodology for work within the northern permanent stream and southern permanent streams (including capture and relocation of fish if required) and any responses required to remedy, or if required, offset the effects of deprived fish passage in the northern permanent stream and reclaiming the southern permanent streams, to achieve, as far as practicable, a net positive ecological outcome,
    - A planting plan for the vegetated swales along stopbank 1 and stopbank 2.

It is also proposed to identify, as part of detailed design, areas where riparian vegetation alongside the townside stopbank will be removed and for a planting plan for replacement vegetation to be prepared.

The Project Ecologist will work with the Māori Entities representatives to prepare the Ecology Management Plan.

As outlined above, central to the OiC's approach is that an application can be lodged on the basis of only concept level project design information – with the standardised conditions containing ecology principals in particular, and other directions, to develop mitigation of effects through further assessment and design development/refinement post granting of the resource consent – as is set down through conditions 25 – 28 of the OiC. The approach proposed above is consistent with this approach and focuses areas of further assessment and management to tailor the approach of the OiC to the Wairoa project.

4.3 Landscaping

In respect to landscaping to avoid, remedy, or mitigate potential visual effects of the proposed works, it is concluded in the Landscaping Scoping Assessment that the project will not result in 'significant' potential adverse effects. On the basis that Condition 24(2) of the OiC only requires landscaping where 'significant' potential effects are identified, no further landscaping is proposed in respect to Condition 24.

As outlined above however, it is nevertheless proposed to identify, as part of detailed design, areas where riparian vegetation alongside the townside stopbank will be removed and for a planting plan for replacement vegetation to be prepared from a standard / good practice perspective to site reestablishment.

Landscaping matters associated with the reestablishment of Alexander Park is addressed in Section 4.6 below.

4.4 Archaeology

Although there are no recorded sites in the footprint of the proposed works it was concluded by Insitu that there is a reasonable cause to suspect that sub-surface archaeological material relating to pre-1900 Māori and European activity may be encountered during earthworks.

This view did not however lead Insitu to recommend that an Archaeological Authority be applied for – rather further assessment was recommended to determine this.

The structure of Condition 29 of the standardised conditions provides for this approach i.e. an Accidental Discovery Protocol will apply as a default, and should an Authority be deemed necessary, the conditions of that Authority will apply as/where applicable.

4.5 Construction

The following outlines the works involved in establishing the construction site and general construction management matters.

4.5.1 Establishment of Construction Site Works

The OiC recognises that the consent holder will need to commence site establishment works as soon as possible following the issue of consent to enable the timely delivery of the flood protection schemes. It is for this reason that works associated with the 'establishment of the construction site' are excluded from the definition of 'construction works' (refer Condition 3 of the OiC). This has the effect allowing such works to occur ahead of / separate to a number of 'pre-commencement' requirements embedded in the standardised conditions, including preparation of the Construction Environmental Management Plan (CEMP) required under Condition 10.

Provision to undertake the following 'construction site establishment works' is proposed:

- Removal of fencing and vegetation along construction areas,
- Establishment of contractor site and storage areas including silt management if applicable,
- Installation of fencing,
- Bringing in and positioning of site offices and buildings,
- Installation of temporary power cables and water supply lines,
- Removal of Alexander Park facilities,
- Removal of buildings within the floodway (buildings with asbestos cladding will be removed by licenced asbestos removal specialists),
- Subsurface drainage.

Regarding the subsurface drainage, it is proposed to draw down the groundwater by installing cut off drains approximately one month ahead of the earthworks phase. The drains will be 1 m to 2 m deep, and daylight at the floodway lowest point (the floodway outlet). If undertaken as 'construction site establishment works', the methodology will be confirmed as part of a Sediment Control and Environmental Management Plan prepared specifically for this activity. Condition 1C is proposed to this effect, otherwise the works will be addressed in the Construction Environmental Management Plan discussed below.

4.5.2 Construction Management

Standard OiC condition 10 requires a detailed Construction Environmental Management Plan (CEMP) to be prepared prior to works commencing. The purpose of the CEMP is to ensure mechanisms are in place to avoid, mitigate or otherwise minimise potential effects on the environment, cultural values and adjoining properties for the duration of the project construction works. Aspects of the CEMP will be informed by mana whenua, the consent holder, contractor and Project Ecologist.

The process for the CEMP is for a draft to be prepared in accordance with the specified requirements, and for this draft to be circulated to a number of parties for feedback prior to being finalised and works commencing on the site. This provides an opportunity for mana whenua (who would have already been involved in the preparation of aspects of the CEMP), consenting authorities and stakeholders to provide input. While the CEMP is far reaching, the following considers:

- Laydown and stockpile areas,

- Construction water,
- Erosion and sediment control,
- Contaminated soil,
- Construction noise and vibration.

Laydown and Stockpile Areas

Areas to accommodate contractor operations including temporary site buildings, storage and parking, together with material stockpile sites are likely to be established within the planned floodway on the North Clyde side of the Wairoa River and in agreed areas on Alexander Park (or other properties on which the works will be carried out). Exact locations together with access (and specific layout details) will be confirmed as part of preparing the CEMP. Haulage routes and construction traffic management will also form part of the CEMP, which is required to be prepared by the contractor and circulated to key stakeholders for feedback prior to works commencing.

Construction Water

Water will be required for construction and dust suppression purposes – with the upper demand expecting to be up to 500m^3 per day.

Water will be abstracted from the Wairoa River via temporary intakes established at the northern end and southern end of the floodway – with the maximum rate of take from each being 25l/s.

In taking guidance from the decisions version of Plan Change 9, a condition is proposed to prevent fish, including eels, from entering the reticulation system (refer condition (d) of Rule TANK 6). It is recognised that one means of compliance is a screen (or screens) that has a screen mesh size not greater than 3 millimetres so that the intake velocity at the screen's outer surface is less than 0.3 metres per second.

With the rate of take being greater than 5l/s, measurement and reporting of water use will be undertaken and provided to Council in accordance with the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010.

Erosion and Sediment Control

Erosion and sediment controls will be confirmed by the contractor prior to works commencing, as per the standardised conditions of consent. The type of controls/measures that are likely to be involved included:

- Silt fencing or earth bunds around working areas based on on-site risk assessments,
- Progressive stabilisation of stopbank faces and borrow site areas with topsoil and planting of grass,
- Stockpile stabilisation – grassing and surface roughening when in use,
- Use of erosion control devices where large open earthworks faces are proposed. This may include decanting earth bunds, clean and dirty water diversion bunds, sediment ponds and other means of sediment retention such as flocculation,
- Stabilised haul roads,
- Stabilised entranceway and wheel wash,

- Dust suppression measures, including consideration of water carts, sprinkler systems or similar.

Final solutions and associated detail will be provided within the Erosion and Sediment Control Plan which is required to be prepared under Condition 14 of the standardised conditions and included in the CEMP prepared under Condition 10.

Contaminated Soil

Although no exceedances of human health guidelines or environmental criteria were identified in the combined PSI/DSI, it was recommended by WSP that:

- Given the expanse of the site an Unexpected Discovery Protocol (UDP) should be prepared for disturbance works outlining the procedures and processes that will be followed should anything of contaminated relevance be identified during excavations works (i.e. asbestos or buried rubbish),
- The small area of visibly stained soils at 147 Railway Road exceeding the Class 4 WAC for TPH should be removed from site to an appropriately licence facility.

A basic Contamination Site Management Plan is proposed to be prepared to give effect to these recommendations. Condition 17 pertaining to work on contaminated land is therefore proposed to be deleted and Condition 10 amended to require the CSMP to be included in the CEMP.

It was also recommended that buildings to be removed with asbestos cladding should be removed by licenced asbestos removal specialists. With these works being undertaken as part of construction site establishment works, a separate condition is proposed to facilitate this.

Construction Noise and Vibration

In line with standard condition 23 of the OiC, construction activity is to be undertaken in accordance with the New Zealand Standard NZS 6803:1999 "Acoustics – Construction Noise" to the extent practicable. To this end, the construction works will be limited to daytime/working hours, being 6.00am – 7.00pm Monday-Saturday.

4.6 Alexander Park

As outlined above, the townside stopbank will be aligned through part of Alexander Park and a number of park facilities will need to be relocated.

Alexander Park and the facilities concerned are all WDC assets. While all impacted facilities will be relocated, the final location and form is yet to be agreed with WDC. The same approach is to be taken with providing access over the stopbank to the river margin particularly for the rowing and ski clubs.

This will be resolved during the land access agreement with WDC for this section of land.

4.7 Communication and Engagement

The OiC standardised conditions provide mechanisms to minimise or mitigate effects of the project via ongoing engagement with Māori entities and stakeholders throughout the detailed design and implementation phases. Standard conditions 4-11 of the OiC are proposed to be adopted with some minor amendments. These require the consent holder to:

- Invite each relevant Māori entity to appoint a representative to a Stakeholder Advisory Group (STAG),
- Take identified cultural indicators into account in preparing plans and reporting to the Māori entities representatives on how those indicators have been taken into account,
- Invite identified parties to form a STAG to inform and advise the consent holder about managing and monitoring the flood protection works,
- Appoint a person as a Project Engagement Lead to act as the consent holder's main point of contact with the Māori entities representatives and the Stakeholder Advisory Group,
- Record all information and advice provided by the STAG and report to the group how the information and advice have been taken into account in the carrying out of the flood protection works,
- Develop and implement a Communication Plan containing processes for communications, throughout the construction works, with:
    - the general public,
    - local residents and businesses,
    - the Māori entities representatives,
    - the persons and bodies represented by the stakeholder advisory group,
    - all other persons potentially affected by the construction works,
- Invite the STAG to comment on the proposed CEMP.
- Submit the finalised CEMP with the STAG.

OiC Standard Condition 9(4)(a) requires the Communications Plan to be provided to the Manager Compliance at least 20 working days before construction works begin. With such a long timeline risking commencement, it is proposed that the Communications Plan instead be provided alongside the CEMP according to the timeline in Condition 10(1)(b). Amendments to Condition 9(4)(a) are made to this effect.

5. STATUTORY CONSIDERATIONS

Section 5.1 sets out the consents required to undertake the proposed works.

Section 5.1 sets the activities associated with the flood mitigation works for which resource consent would ordinarily be required. Section 5.2 demonstrates how this application meets the requirements of the OiC for this application to be accepted for processing.

5.1 Consents Required

As outlined in Section 6 of the OiC, flood protection works means works that:

(a) are of a kind described in subclause (2); and

(b) are carried out—

(i) by or on behalf of any 1 or more Hawke's Bay local authorities; and

(ii) in any part of the severe weather events affected area that is at a location specified in subclause (3); and

(c) for the purposes of the RMA,—

(i) would ordinarily require a resource consent; and

(ii) are not described in any plan or national environmental standard as a permitted activity; and

(iii) are not a prohibited activity.

All of the proposed works will be carried out by HBRC and are of a kind described in subclause 6(2), being activities that involve or are concerned with the construction or reinstatement of, making safety enhancements to, or improving the resilience of land and flood protection infrastructure; or any incidental or subsidiary activity.

The activities involved in the works that would ordinarily require a resource consent in respect to c(i) have been identified having worked through the analysis below – taking c(ii) into account - and are outlined in **Table 3**. None of the proposed works are classified as a prohibited activity under any relevant NES or plan.

Rule Analysis

Key points in regard to the Wairoa District Plan include:

District Wide Activities:

- Any land disturbance occurring in any defined area of significance to tangata whenua identified in Schedule 1 (which contains Archaeological Site A140 – 'Papakainga, Waihirere, Takitimu marae and 'A139– Pa, Ruataniwha' as shown on Maps 45 and 46) is classified as a Discretionary Activity under Rule 22.17. While the works have been designed/aligned to avoid these, resource consent may have deemed necessary on the basis that the planning maps do not define the exact areas,
- Owing to vegetation clearance occurring within 20m of the Wairoa River, which is defined as a significant indigenous vegetation and/or significant habitats of indigenous fauna, resource consent would have otherwise been required as a Discretionary Activity under Rule 23.1.2,
- Given that the works may result in the clearance or disturbance of a naturally occurring wetland of potentially over 100m^2 in area with an average width of at least 5m, resource consent would have otherwise been required as a Discretionary Activity under Rule 23.1.3,
- Noting that work associated with some new/reinstated utilities will occur within 20m of the Wairoa River, these activities would have otherwise fallen to be classified as a Discretionary Activity under Rule 26.5.6.

Land Management Zones:

- The works will exceed the earthwork thresholds in conditions 16.8.18 and potentially the noise levels in condition 16.8.1 pertaining to the Rural Zone. Resource consent would have otherwise been required under Rule 16.7.2 as a Discretionary Activity,
- The works will exceed the earthwork thresholds in conditions 18.8.16 and potentially the noise levels in condition 18.8.1 pertaining to the Residential Zone. Resource consent would have otherwise been required under Rule 18.7.2 as a Discretionary Activity,
- The works will exceed the earthwork thresholds in conditions 14.8.11 and potentially the noise levels in condition 18.8.1 pertaining to the Conservation and Reserve Zone Reserve Zone. Further, the works may not be expressly provided for within the relevant Management Plan. Resource consent would have otherwise been required under Rule 14.7.2 as a Discretionary Activity.

These, together with the relevant consent triggers under the applicable NES's and regional plan relating to the proposed activity are summarised in respect to each consenting authority in the table below.

Stormwater discharge arising from existing infrastructure are not included as the works simply involve providing for/reinstating existing infrastructure in this respect as opposed to introducing new discharge activities.

Table 3: Rules Otherwise Applying

Activity	Rule	Rule Description	Status	Consent Authority
Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011				
Disturbance of soil	10	Removing or replacing fuel storage system, sampling soil, or disturbing soil	Restricted Discretionary	WDC
Wairoa District Plan				
Disturbance works in the proximity of A139 and A140	22.1.7	Any land disturbance occurring in any defined area of significance to tangata whenua identified in Schedule 1	Discretionary	WDC
clearance or disturbance of areas of significant indigenous vegetation and/or significant habitats of indigenous fauna.	23.1.2	Activities that involve the clearance or disturbance of areas of significant indigenous vegetation and/or significant habitats of indigenous fauna.	Discretionary	WDC
clearance or disturbance of any naturally occurring wetland	23.1.3	Activities that result in the clearance or disturbance of any naturally occurring wetland, not provided for as a permitted activity.	Discretionary	WDC
New/reinstated utilities	26.5.6	All activities that are not permitted or controlled activities, or do not meet the performance standards or conditions for permitted activities.	Discretionary	WDC
Flood mitigation activities, including construction works, within the: • Rural Zone • Residential Zone • Conservation and Reserve Zone	 16.7.2 18.7.2 14.7.2	Any activity unable to comply with all the standards and conditions for permitted activities	Discretionary	WDC

Resource Management (National Environmental Standards for Freshwater) Regulations 2020				
Reclamation of the southern permanent streams	57	Reclamation of the bed of any river	Discretionary	HBRC
Activities affecting wetlands – natural inland wetland	45	Construction of specified infrastructure	Discretionary	HBRC
Installation of a culvert with in the northern permanent stream	71	The placement, use, alteration, extension, or reconstruction of a culvert in, on, over, or under the bed of a river.	Discretionary	HBRC
Regional Resource Management Plan				
Vegetation clearance and soil disturbance	8	Vegetation clearance or soil disturbance activities which do not meet the conditions in Rule 7.	Restricted Discretionary	HBRC
Discharge of dust	30	The discharge of contaminants into the air that: • is from an industrial and trade premises and is not specifically classified by any other rule in this Plan as a discretionary, noncomplying or prohibited activity, or • does not comply with all relevant conditions on a permitted activity rule, or • does not comply with all relevant standards and terms on a controlled activity rule or restricted discretionary activity rule.	Restricted Discretionary	HBRC
Discharge of drainage water (during construction and ongoing)	33 (if not considered permitted under Rule 32)	The diversion and discharge of drainage water into water or onto or into land, from a pumped system	Controlled	HBRC

Other takes & uses of surface & ground (relating to the 'take' of drainage water and the taking and use of water from the Wairoa River for construction and dust suppression purposes)	55	The take and use of surface water or groundwater, including takes and uses associated with, or ancillary to Community Irrigation Schemes, except as provided for by Rules 53, 54 TT3, TT3A, TT3B and TT4.	Discretionary	HBRC
Discharge of sediment laden water to land or water Discharge of solid contaminants within 20 m of a surface water body (not meeting Rule 48)	52	The discharge of: • contaminants onto or into land, or into water, or • water into water which does not comply with any condition on a permitted activity rule, or any standard or term on a controlled activity rule within this Plan, but which is not expressly classified as a discretionary, noncomplying or prohibited activity.	Discretionary	HBRC
Diversion of the Wairoa River during times of flood arising from the stopbanks / floodway	59	Any diversion of water which cannot comply with any condition on a permitted activity rule, or any standard or term on a controlled activity rule within this Plan, but which is not expressly classified as a discretionary or non-complying activity.	Discretionary	HBRC
Planting and other activities not deemed to comply with Permitted Activity rules in Section 6.8	69	Any activity which cannot comply with any of the rules in section 6.8 of this Plan and which is not expressly regulated by other rules in this Plan.	Discretionary	HBRC
River & lake bed activities (disturbance of the northern and southern permane**nt** streams, installation of culverts, stormwater outlets and scour protection solutions)	69	Any activity which cannot comply with any of the rules in section 6.8 of this Plan and which is not expressly regulated by other rules in this Plan.	Discretionary	HBRC

5.2 Application Requirements of the Order in Council

As outlined above, Section 88 of the RMA has been amended by the OiC – with Section 12(2) of the OiC setting out the information that is required to be included in an application under the Order. **Table 4** confirms compliance with these requirements. The application can therefore be accepted for processing without the need to invoke Section 13(3).

Table 4: Section 12(2) Application Requirements

S88 requirements (modified by clause 12(2) of Oic)	AEE section reference
(a) A detailed description of the flood protection works	Refer Section 4 – Description of Proposal
(b) A map that shows – i. The area in which flood protection works are to be carried out; and ii. Every proposed work site in that area	Refer to the Design Report
(c) A general description of the area	Refer Section 3 – Site Description
(d) A description of – i. Any identified natural and physical resources at the site that have cultural value identified by a relevant iwi authority or hapū as significant for present or future generations; and ii. Any culturally significant land in the area (including a description of the nature of the cultural significance).	Refer Section 3.4.1 – Cultural Context
(e) An assessment of all potential effects of the work with input from appropriate experts, including consideration of: i. All information reasonably available to the applicant; and ii. The potential effects on any cultural values identified by a relevant iwi authority or hapū; and iii. The potential effects on any culturally significant land that is within or adjoining the area where the works are to be carried out	Refer Section 7 - Assessment of Environmental Effects, and Section 7.3 – Cultural Values
(f) Proposal to avoid, remedy, or mitigate potential adverse effects identified by the assessment described in paragraph (e)	Refer Section 7 – Assessment of Environmental Effects
(g) Any conditions that the applicant proposes for the resource consent that are a variation of, or additional to, a condition set out in Schedule 2	Refer Sections 4 – Description of Proposal and 7 – Assessment of Environmental Effects, and **Appendix 10** – Proposed Resource Consent Conditions
(h) A description of any consultation undertaken in relation to the proposed work, including with relevant Māori entities.	Refer Section 6 – Summary of Consultation
(i) A list of all relevant Māori entities	Refer Section 3.4.1 – Cultural Context and **Appendix 11** containing a list of Māori Entities and stakeholder contact details

(j)	A list of the names and contact details of all persons the consent authority is required to notify under clause 15(2)(a)	Refer **Appendix 11**

The statutory process for assessing an application is outlined in Section 2.3 above.

6. SUMMARY OF CONSULTATION

Section 12(2)(h)-(j) of the OiC requires the applicant to provide:

(h) a description of any consultation undertaken in relation to the works (including with relevant Māori entities) and the names and contact details of all persons consulted:

(i) a list of all relevant Māori entities:

(j) a list of the names and contact details of all persons the consent authority is required to notify under clause 15(2)(a).

Where consultation has not been carried out in respect to Section 12(2)(h), the application must explain why.

Consultation has largely been led by the Wairoa Crown Manager, Lawrence Yule, and his support team with additional support from the HBRC Infrastructure Programme Management Office. This has involved many meetings, hui, community wānanga, site visits and discussions with interested parties, including directly with impacted landowners, over the period June 2023 through to October 2025. The way in which the design and alignment have been refined during the project development and design phase has been included in the consultation undertaken.

The applicant has engaged with a large number of stakeholders – at community hui, drop-in sessions and one-to-one meetings – regarding the flood mitigation options considered and specific alignment options assessed, as well as design, associated works and land access matters. Discussions with those consulted have covered matters including:

- Refinement of the proposed floodway alignment,
- Extent of the stopbank footprints,
- Cultural impacts,
- Consequential flooding effects,
- Drainage solutions,
- Scale of road works,
- Vegetation removal,
- Land access requirements and impacts on properties - rural and residential.

These are among the primary matters that have been considered and responded to in developing the proposal.

Sections 6.1 – 6.5 below provide further detail regarding the following key parties:

- Relevant Māori entities,
- Wairoa District Council,

- Directly impacted home and landowners,
- Wairoa community,
- Other key stakeholders.

6.1 Māori Entities

Consultation with relevant Māori entities has been ongoing through the project, led by the Crown Manager with support from HBRC's Māori Partnerships team. Key points include:

Identified Māori entities

- Tātau Tātau o Te Wairoa (Post Settlement Governance Entity),
- Te Rohe o Te Wairoa Matangirau Reserves Board,
- Takitimu Marae (local Marae and directly impacted mana whenua and landowners),
- Ruataniwha and Tawhiti a Maru Marae (local Marae and mana whenua),
- Te Kopua Urupā Trustees (directly impacted landowners),
- Makeakea Urupā Trustees (mana whenua),

Governance engagement

- Initial regular engagement through Tripartite governance structure (HBRC, WDC, and Tātau Tātau o Te Wairoa) from September 2024 onwards,
- Tripartite endorsement for early engagement with mana whenua, including potentially impacted whānau and property owners, in October 2024,
- At February 2025 Tripartite meeting, Tātau Tātau indicated decision on preferred option should be made by mana whenua,
- Tātau Tātau representative/s invited to attend regular project management meetings from 2025 onwards.

Marae and hapū engagement

- Marae representatives appointed to Wairoa Flood mitigation Scheme Stakeholder Group (November 2023 to October 2024),
- Regular, ongoing engagement with Takitimu Marae Trustees,
- Hui with Makeakea Urupā Trustees (November 2024),
- Cultural and lived experience hui held at Hinemihi Marae (December 2024) where upper catchment management, including native planting, was discussed,
- Hui with Te Rauhina Marae (December 2024, March 2025),
- Direct engagement with Te Wairoa Tapokorau Whanui Trust (2025 onwards),
- Hui with Ruataniwha Marae Trustees (July 2025),
- Direct engagement with Tawhiti a Maru Marae Trustees, including cultural walkover (August 2025).

Cultural assessments

- Cultural Impact Assessment for Options 1C and 1D completed, including Makeakea Urupā Trustees Cultural Memorandum (January 2025),
- Cultural Values Assessment in development with Tātau Tātau o Te Wairoa (from May 2025),
- Cultural hīkoi and walkover led by Marae-appointed Cultural Advisor, John Hovell (September 2025),

- Ground Penetrating Radar testing on Takitimu Marae and Waihirere Urupā whenua (September 2025),
- Additional Marae-led Cultural Impact Assessments for Option 1C+ commissioned from Takitimu Marae, Ruataniwha Marae and Tawhiti a Maru Marae (October 2025).

Māori Land Court facilitated engagement

- Judicial conference held (February 2025),
- Information hui with owners of directly impacted whenua Māori (from March 2025),
- Multiple hui with Te Kopua Urupā Trustees (from March 2025),
- Hui with individual whānau and landowners throughout 2025, including ongoing whenua Māori owner engagement and land access negotiations facilitated by Maurea Law.

Key outcomes from engagement with Māori entities include:

- Shared kaupapa to minimise negative impacts on whānau, their land and homes and protect marae, urupā and cultural taonga in the process,
- Early engagement with community to include all flood mitigation options considered,
- Refinement from Option 1C to Option 1C+ specifically to reduce impacts on whenua Māori and culturally significant sites,
- Recognition that decisions about whenua and home are deeply personal and need to be made by mana whenua,
- Additional Marae-led Cultural Impact Assessments completed for Option 1C+,
- Cultural indicators and monitoring integrated into consent conditions framework,
- Cultural monitors (Kaiwhakarite) and advisory roles established, to oversee all flood mitigation project construction activities and to serve as kaitiaki ensuring tikanga and kawa are observed,
- Further consideration of upper catchment management opportunities, including native planting.

6.2 Wairoa District Council

WDC is a key stakeholder and an active member of the project's Tripartite governance structure.

In addition to having interest in flood mitigation, WDC has particular interest in works associated with Ruataniwha and Waihirere Roads, management of existing water infrastructure, and management of Alexander Park and other Council-owned assets both with respect to construction works and the re-establishment of any impacted facilities. Key points in respect to consultation with WDC include:

Governance engagement

- Regular engagement through Tripartite governance structure,
- Tripartite endorsement for early engagement with mana whenua, including potentially impacted whānau and property owners, in October 2024,

- At February 2025 Tripartite meeting, WDC endorsed the Crown Manager's recommendation to progress with Option 1C,
- WDC Finance, Assurance and Risk Committee briefings (November 2024, March 2025),
- WDC Māori Standing Committee meeting (March 2025),
- Workshops with WDC elected members (January 2025 and July 2025),
- Regular engagement with Wairoa Mayor and Deputy Mayor,
- WDC representatives included in Wairoa Flood Mitigation project team,
- WDC representatives included in regular project management meetings.

Operational engagement

- WDC representatives appointed to Wairoa Flood mitigation Scheme Stakeholder Group (November 2023 to October 2024),
- Regular meetings with WDC Chief Executive, Chief Operating Officer, and Group Manager, Assets and Infrastructure (from November 2024),
- Regular meetings with relevant WDC staff regarding land access and property matters,
- Coordination on Alexander Park facilities and potential impacts,
- Integration with WDC stormwater management approach.

Key outcomes from engagement with WDC include:

- Shared kaupapa to minimise negative impacts on whānau, their land and homes and protect marae, urupā and cultural taonga in the process,
- WDC support for Option 1C,
- Refinement from Option 1C to Option 1C+ specifically to reduce impacts on whenua Māori and culturally significant sites,
- WDC support for refined Option 1C+,
- Coordination on road works (Ruataniwha and Waihirere Roads),
- Agreement on approach to relocation/re-establishment of impacted Alexander Park facilities,
- Integration of stormwater design with WDC standards.

6.3 Directly Impacted Home and Landowners

Engagement was undertaken on an individualised basis, taking into account of individual home and landowners' personal circumstances, whānau aspirations and preferences. This approach recognised the deeply personal nature of decisions about whenua and home, particularly for those on whenua tuku iho (inherited ancestral land). Engagement included:

- Direct engagement with all potentially impacted homeowners from November 2024 onwards
- Multiple individual meetings and land access negotiations held with all home and landowners impacted by refined Option 1C+ from March 2025 onwards
- Land access and compensation framework developed and communicated
- Property valuation and independent legal advice processes commenced with costs met by project

Key outcomes from engagement with directly impacted home and landowners include:

- Tailored engagement approach for each whānau/landowner reflecting their unique situation and preferences,
- Land access framework providing flexibility for owners, including option to retain ownership,
- Transparent valuation and compensation processes,
- Commitment to like-for-like relocation opportunities where possible, including for whānau who wish to remain near their whenua tuku iho (also noted in CIA recommendations).

6.4 Wairoa Community

Engagement with the broader Wairoa community was undertaken through multiple channels and forums, recognising that flood mitigation decisions affect the entire community and that community members have diverse preferences for how they receive information and participate in decision-making. This approach acknowledged both the urgency of delivering flood mitigation and the importance of building community understanding, trust, and support through transparent and accessible communication. Engagement included:

- Hui held to gather local knowledge of the river, experiences during Cyclone Gabrielle, and community ideas, which informed the development of 18 potential flood mitigation options (June 2023 onwards),
- Community representatives appointed to Wairoa Flood mitigation Scheme Stakeholder Group (November 2023 to October 2024),
- Launch of project website (wairoafloodproject.co.nz) with comprehensive information including all 18 options reviewed,
- Public meetings held at War Memorial Hall and Takitimu Marae (November 2024 onwards),
- Proactive PR and project updates distributed through existing recovery communication channels,
- Targeted information sessions for specific groups (e.g., Mitchell Road/Huramua Road residents regarding consequential flooding),
- Series of drop-in sessions held at Wairoa Taiwhenua providing informal opportunities for discussion (July 2025),
- Public meeting held on 4 December 2025.

Key outcomes from engagement with the Wairoa community include:

- Community understanding of option development and option selection process, including the technical, cultural and practical considerations that shaped the preferred Option 1C+,
- Strong community support for comprehensive flood mitigation approach including river mouth management,
- Recognition of community priorities for both immediate flood mitigation and longer-term catchment-wide solutions.

6.5 Other Key Stakeholders

As key stakeholders and community groups in Wairoa, direct engagement was also undertaken with:

- Wairoa Business Association
- Wairoa Rotary Club
- Wairoa Yacht Club
- Wairoa Water Ski Club
- Adventure Wairoa
- Wairoa Riverside Motor Camp
- Wairoa A&P Society
- Wairoa Racing Club
- Firstlight Networks

7. ASSESSMENT OF ENVIRONMENTAL EFFECTS

Being a Controlled Activity, and according to the requirements of the OiC, the purpose of the following assessment of environmental effects is to:

(1) Determine, and if necessary, refine the standardised conditions in Schedule 2 of the OiC to avoid, remedy, or mitigate potential adverse effects i.e. link the established/ standardised conditions embedded in the OiC (to avoid, remedy, or mitigate potential adverse effects) with the identified matters/effects, and
(2) Determine the need for any additional conditions to avoid, remedy, or mitigate potential adverse effects (within the scope of the matters of control in Schedule 3 of the Order).

This analysis is structured through Section 7.2 – 7.13 according to the topics under which various matters of control are grouped in Schedule 3 of the OiC – these being:

- General matters
- Cultural values
- Freshwater
- The coastal environment
- Stormwater management
- Soil, land and ecology
- Visual effects and amenity
- Adjoining landuses
- Heritage and archaeology
- Access and transport
- Contaminated land

Prior to this, the permitted baseline established by rules in the District and Regional Plans is considered in Section 7.1.

Identified amendments to the standardised conditions are outlined in **Appendix 10.**

7.1 Permitted Baseline

When considering the effects of an activity, a consent authority may disregard an adverse effect on the environment if the plan permits an activity with that effect (s 104(2)). The permitted baseline is useful in this context as it assists in establishing what the anticipated outcomes of the District and Regional Plans are with respect to environmental effects on the river berm and visual and amenity effects in particular. Here it is noted:

District Council functions

- Outside naturally occurring wetlands and beyond 20m from the Wairoa River, clearance and disturbance of vegetation is permitted,
- While new and reinstated infrastructure may trigger resource consent when considering the full package of works at a broad spatial scale, many pieces of work associated with the new roading, reinstatement of pavement and reinstatement of infrastructure pipes is permitted when considered at a more discrete spatial scale,
- Subject to noise levels, the establishment of contractor site and storage areas / laydown/ stockpile areas is permitted within the zones concerned,
- Removal of buildings is permitted,
- Removal of features from Alexander Park is permitted / not regulated by the District Plan,

Regional Council functions

- Flood management activities permitted under Rule 70 in relation to river protection maintenance works of the Regional Resource Management Plan (RRMP) and/or Clause 51 of the National Environmental Standard: Freshwater (NES:F) that do not otherwise trigger consent under the NES:F,
- The discharge of drainage water from gravity flow systems is permitted under Rule 32 of the RRMP. While the potential need for resource consent has been identified in Table 4 above, it is the applicant view that the proposal can comply with Rule 32.

The scale and intensity of those effects associated with the above activities are relevant when assessing the comparative impact of the current proposal.

7.2 General Matters **(as referenced in Schedule 3 of the OiC)**

The following matters of control are listed under 'General':

(a) The risk (likelihood and severity) of flooding upstream or downstream of the proposed flood protection works as a result of the works, and measures to avoid or minimise that risk.

(b) The risk (likelihood and severity) of erosion resulting from the proposed works, and measures to avoid or minimise that risk.

(c) Potential adverse effects on fisheries, and measures to avoid or minimise that risk.

(d) Potential adverse effects on wildlife, habitat and ecosystems, and the application of the effects management hierarchy.

(e) *The management of construction works to avoid, remedy, or mitigate potential adverse effects on receiving environments, including adverse effects of hazardous substances, spills, and stormwater run-off.*

Matter (a) is considered in Section 7.2.1 below, but with matters (b), (c) and (d) relating more to the matters grouped under 'Soil, Land and Ecology', these are considered in Section 7.7 Although not a specific topic listed in Schedule 3 of the OiC, matter (e) pertaining to construction is considered in Section 7.13.

7.2.1 Consequential Flooding

(a) *The risk (likelihood and severity) of flooding upstream or downstream of the proposed flood protection works as a result of the works, and measures to avoid or minimise that risk.*

Planning Context

It is recognised within the Regional Policy Statement (RPS) that there is widespread potential for flooding within Hawke's Bay, and that individual rainfall events causing flooding can range from localised downpours affecting particular catchments, to cyclonic storms causing general flooding over large parts of the region.

Considerable flood mitigation works have been carried out by HBRC, particularly on the Heretaunga and Ruataniwha Plains. In addition to the obvious potential impact of large floods on unprotected areas however, it is noted in the RPS that while these works have significantly reduced the risk from most flood events, very large events exceeding flood protection design standards can impact normally protected areas.

Indeed, the risk of flooding cannot be completely avoided, and there will always be potential for incidences when land is impacted by flooding, regardless of whether that land benefits from an existing flood protection scheme or how that land may have experienced flooding in the past. In this context the RPS refers to broader land use planning and adequate and timely flood forecasting being fundamental to managing the risk of flooding.

For context, Objective 31 of the RPS is the avoidance or mitigation of the adverse effects of natural hazards on people's safety, property, and economic livelihood. In regard to flooding, Policy 55 directs HBRC to focus both hazard avoidance and mitigation on areas of high human population density as a first priority, and to provide flood mitigation measures where the benefits can be shown to outweigh the costs. While there is reference (in the Policy) that costs should be met by beneficiaries, this directive is not applicable in this circumstance given the funding approach for projects covered by the OiC / Land recategorization process.

Risk Assessment

A consequential flood effects assessment of the proposal was undertaken by WSP and is provided in **Appendix 13**. This has been reviewed by Beca, a copy of which is provided in **Appendix 14** with reference to a previous review of a consequential flood effects assessment of an earlier scheme involving a slightly wider floodway – provided in **Appendix 15.** The following consideration draws on the content of these assessments.

Consideration:

Consequential flooding (i.e. additional flood risk occurring as a result of the proposed flood mitigation) is a matter that the designers have been cognisant of and have been testing throughout the design process to arrive upon the solution proposed in this application, which essentially includes the townside stopbank as a mitigation measure to the primary flood mitigation measure – being the floodway and stopbanks flanking it.

Having worked through various matters to develop the solution to be proposed, further assessment has been undertaken by comparing the following two scenarios. Both scenarios were modelled for the 100-year ARI events with the current climate estimate:

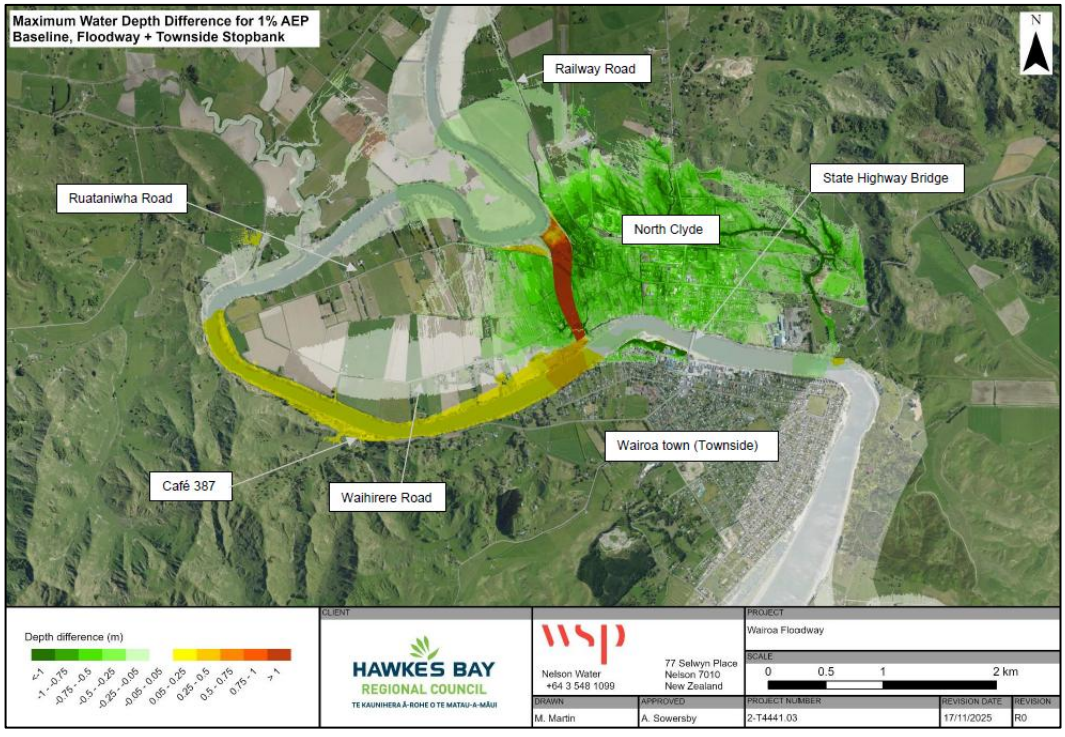
1) "Baseline" – no flood protection (existing situation),
2) "With scheme" – includes representations of the proposed floodway and Stopbanks.

Flood Levels:

Figure 9 of the WSP report shows the difference in flood levels as a result of the proposed flood mitigation project under the different modelled scenarios. While there is a significant decrease in flooding within the North Clyde area and small reductions in the Waihirere Road and Townside areas, the flow diverted by the floodway and the reduction in the volume of flood water held within the floodplain is observed to have some adverse impacts on flood depth and hazard in other areas. These can be seen in **Figure 20** below where the yellow through to red colour chart represents an increase in flood depth and generally include:

1. Rural land downstream of the floodway inlet between the river and Ruataniwha Road,
2. Rural land on the true left side of the river upstream of the floodway,
3. Along an approximate 500m stretch of State Highway 2 near the Café 287.

Figure 20: Depth Difference



Within these areas, there are four buildings reported to experience a small rise in floodwater depth (less than 0.25m increase). These buildings are reported as being ancillary (shed/garage) or farm buildings – with none being dwellings.

Regarding the rural land affected, this is reported to be approximately 22ha with the predicted increase in flooding depth, over and above the baseline flooding depth, being between 0.1 m and 0.25 m.

In terms of the State Highway and area around Café 287, this area is already reported to flood in the baseline scenario to approximately 2.46m deep – with the increase being only 0.11m. Any change in the duration and velocity of the flooding on the State Highway is reported as being very small with no adverse impacts on its use.

Table 4 of the WSP report provides a summary of the predicted flood impacts on urupā from the implementation of the scheme. The impacts are reported in terms of the changes to the depth and velocity of floodwater compared to the do-nothing scenario (i.e. not building the scheme).

In terms of depth, it is predicted that there will no longer be flooding at Waihirere Urupā at Takitimu Marae and Te Kopua urupā. It is also predicted that there will be small reductions in flood depth at the other urupā, except Makeakea Urupā where a small increase in flood depth is predicted. As Makeakea urupā is already subject to flooding in the do-nothing situation to a 1.22 m deep however, the predicted 0.20m increase is considered by WSP to be relatively small and not likely to result in a measurable physical impact – noting that the existing flood depths are already classified as H3/H4 - unsafe for people and vehicles. Where flooding may still occur, all velocities have reduced.

If the stopbank was to take the alternative alignment around the Te Kopua urupā, WSP has advised:

> *"In the existing (baseline) situation, the water depth over the Urupa ranges from 400 – 600mm depth, depending on the terrain. The water level is ~11.4m NZVD2016.*
>
> *In the proposed floodway situation, the water level is 50-60mm lower than the existing (baseline) situation on the river-side of the stopbank. If the stopbank were to be moved to the opposite side of the Urupa, this would mean that the water level (& depth) within the Urupa would also lower by a similar amount (50-60mm). Hence it is predicted to be around 350-550mm deep.*
>
> *There are negligible changes in water velocity on the river-side of the stopbank between proposed and existing (<0.1m/s.")*

Flood Hazard Risk:

With reference to Policy 55 of the RPS, which directs HBRC to focus both hazard avoidance and mitigation on areas of high human population density as a first priority and to provide flood mitigation measures where the benefits can be shown to outweigh the costs, the assessment demonstrates a significant increase in overall flood protection. Key points in regard to this view include:

- The area subject to flooding reduces from 1,003ha to 681ha,
- The numbers of buildings in flooded areas reduces from 960 to 101.

While the impacts of larger events have not been considered, it is recognised in the RPS that while flood protection schemes can reduce the risk from most flood events, very large events exceeding flood protection design standards will still have impacts (even on normally protected areas), and it is broader land use planning and adequate and timely flood forecasting that are fundamental/the appropriate tools to managing the risk of flooding in this regard.

The WSP assessment has evaluated the benefits of the proposal against its potential adverse effects and has concluded that the consequences are acceptable. No further mitigation has been proposed.

The Beca review considers this analysis and concurs with the conclusion drawn by WSP that the overall consequences of the proposed works are beneficial in reducing flood hazard overall. No further mitigation was recommended.

7.3 Cultural Values

The following matters of control are listed under 'Cultural Values':

(a) Potential adverse effects on cultural values, including effects on the relationship of tangata whenua with the land on which the works are carried out and receiving environments.
(b) Whether the works will affect wāhi tapu or wāhi taonga.
(c) Measures proposed to monitor adverse effects on cultural values throughout flood protection works.
(d) Whether the values of kaitiakitanga, manaakitanga, and whanaungatanga will be provided for.

Section 12(2)(e) also requires consideration of:

(ii) the potential effects on any cultural values identified by a relevant iwi authority or hapū; and
(iii) the potential effects on any culturally significant land within or adjoining the area where the works are to be carried out:

As noted above, it is HBRC's understanding that the location of the physical works and alignment of the stopbanks and floodway will avoid identified sites of significance and wahi tapu. It is further noted that the location and form of the stopbanks and floodway has been specifically designed in regard to avoiding the location of the Waihirere urupa near Takitimu Marae.

In regard to consequential flooding effects (considered above) there will be many positive effects through greater flood mitigation, and that where flooding may still occur, there will be reduced velocities.

In terms of the Te Wairoa Hōpupu Hōnengenenge Mātangirau, putting aside the effects of construction which will be managed through the ESCP and CEMP, the proposal will essentially

transform a largely rural-residential dominated area with existing agriculture to a grassed and grazed floodway. Increased water quality impacts are unlikely. Further, the proposal will involve considerable vegetation planting with conditions that seek net positive ecological outcomes.

As outlined, three CIAs and a Cultural Research Report have been prepared and include recommendations in regard to a broad range of matters. Each recommendation has been considered and responded to by HBRC. Copies of HBRC's responses are provided in **Appendix 12** - provided to HBRC on a confidential basis.

Where this resource consent process provides scope, the following summary:

- Points to the standardised conditions/ approaches embedded in the OiC to be adopted to manage effects on cultural values in respect to the matters over which control has been reserved,
- Outlines amendments to conditions where necessary to manage effects on cultural values in respect to the matters over which control has been reserved.

In summary, conditions of consent are proposed to reflect the approach in the OiC of:

- Inviting Maori Entities to appoint representatives to the Stakeholder Advisory Group, the purpose of which is to inform and advise the consent holder about managing and monitoring the flood protection works, and appoint cultural monitors to:
    - Support the Māori entities representatives in their role on the Stakeholder Advisory Group,
    - Provide advice to those preparing the Communications Plan, aspects of the CEMP referred to in condition 10(c)(iii) and Ecology Management Plan,
    - Provide the consent holder with on-site guidance to enable effective management of impact on culturally significant land and other natural and physical resources that have cultural value,
- Providing opportunity for the Maori Entities representatives to make comment on the CEMP – noting amendments will be made to provide for a higher level of engagement and input in regard to specific aspects,
- Providing opportunity for the Māori Entities representatives to nominate a suitably qualified and experienced person to work in partnership with the consent holders project Ecologist to prepare the Ecology Management Plan.

For the Wairoa project however, a 'Mana Whenua Project Liaison Lead' role will be established. This is envisaged to be a Te Wairoa Tapokorau Whanui Trust – Kahui appointed role which will coordinate:

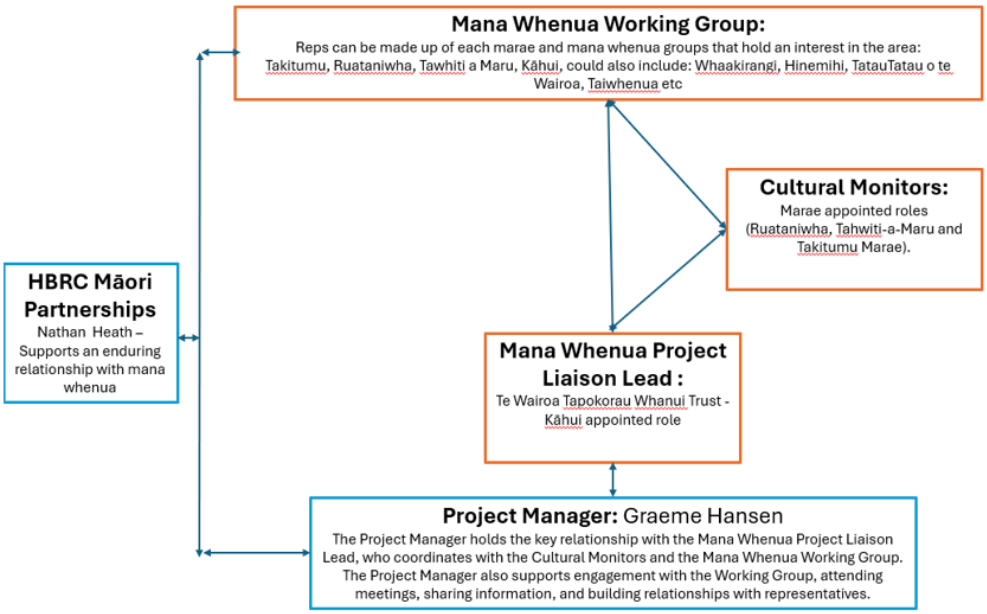
- A Mana Whenua Working Group, which will comprise representatives from each marae and mana whenua groups holding interest in the area (this group will essentially form the Maori Entities representatives referred to in condition 4 of the OiC and thereon),
- Marae appointed cultural monitors (this group will essentially form the cultural monitors is referred to in condition 4 of the OiC and thereon).

While names of specific people and groups may change, this structure, together with how it interacts with HBRC staff, is illustrated in **Figure 21** below.

While the approach in the standardised conditions of the OiC will generally be adopted to manage effects on cultural values in respect to the matters over which control has been reserved, minor amendments are proposed to give effect to this modified structure, and to also clearly provide for a cultural induction prior to the commencement of works, including processes associated with implementing the Accidental Discovery Protocol, which will be developed in collaboration with the Māori Entities representatives / Mana Whenua Working Group (condition 29).

Notes have been included alongside HBRC's responses to the recommendations (in Appendix 12) to either point to the conditions that may already provide for the matters raised or summarise the changes/conditions proposed.

Figure 21: Mana Whenua Working Group Structure



7.4 Freshwater

The following matters of control are listed under 'Freshwater':

(a) *Potential adverse effects on the values of any natural inland wetland and hydrological regime.*
(b) *Provision for the passage of fish.*
(c) *Application of the effects management hierarchy to works affecting any natural inland wetland.*
(d) *The use of reclamation and diversion to facilitate flood protection works.*
(e) *The management of flood protection works to avoid, remedy, or mitigate potential sedimentation or contamination effects on any receiving environment.*

Matters (a) and (c) relate to natural inland wetlands and are considered in Section 7.4.1. Matter (d) relating to the reclamation/diversion of the bed of water bodies is considered in Section 7.4.2 and fish passage in Section 7.4.3.

Matter (e) relating to the management of potential sedimentation and contamination is considered in regard to construction in Section 7.13 and Section 7.4.4 below in regard to the discharge of drainage water to maintain a 'dry floodway'.

7.4.1 Natural Inland Wetlands

(a) Potential adverse effects on the values of any natural inland wetland and hydrological regime.

(c) Application of the effects management hierarchy to works affecting any natural inland wetland.

The Ecological Assessment identified the presence of seven natural inland wetland areas within the proximity of the floodway – all assessed to be of low ecological value. In considering the matters of control, it is proposed to undertake further assessment to identify the extent and value of the wetland areas identified (condition 27) and with this information, develop responses to achieve, as far as practicable, a net positive ecological outcome (Condition 28) where these areas may be impacted by the construction works. This is expanded upon in Section 7.7.3 relating to broader ecological matters.

7.4.2 Reclamation/Diversion of the Bed of a Water Body

(d) The use of reclamation and diversion to facilitate flood protection works.

While the stopbanks themselves and the proposed floodway will in effect divert flood flows, diversions and reclamations will also arise:

1. From managing cross drainage west of the stopbank 1,
2. From managing cross drainage on the eastern side of the floodway along Ruataniwha Road (stopbank 2),
3. In the lower extent of the floodway where two streams (southern permanent streams) will be reclaimed as part of forming the floodway.

Regarding (1) and (2), the features affected are generally rural drainage paths with limited ecological value. The swales to be constructed will be vegetated and are anticipated to achieve a net positive ecological outcome in line with Condition 26(2)(c) pertaining to ecological principles and enhance the positive ecological role of the works area in the wider ecological context in respect to Condition 26(2)(d).

Regarding (3), it is proposed to undertake further assessment of the ecological value of these water bodies to inform the construction methodology and the need for any responses to remedy or, if required, offset effects (condition 27), and with this information, develop a construction methodology (including capture and relocation of fish if required) and responses in regard to the effects of reclamation, to achieve, as far as practicable, a net positive ecological outcome (condition 28).

These measures are expanded upon in Section 7.7.3 relating to broader ecological matters.

7.4.3 Fish Passage

(b) Provision for the passage of fish.

With the majority of works being undertaken outside water bodies or only affecting rural drainage networks, consideration of the passage of fish is limited to the potential installation of culverts and non-return values / flap gates within the northern permanent stream at approximately CH240m and reclamation of the southern permanent streams.

In terms of the northern permanent stream there are practicality challenges around providing for the passage of fish when it is of critical importance to retain flood flows within the stopbank. While installation of a culvert will likely deny the passage this needs to be weighed in light of the low-moderate ecological value of the water body concerned and the importance of ensuring proper functioning of the stopbank. In response, it is proposed to undertake further assessment of the ecological value of this water body to inform the construction methodology and the need for any measures to remedy, or if required, offset effects (condition 27), and with this information, develop a construction methodology (including capture and relocation of fish if required) and any responses in regard to the effects of denied fish passage, to achieve, as far as practicable, a net positive ecological outcome (condition 28). Consequential changes are also proposed to conditions 18 and 19 relating to works within water bodies.

Regarding the southern permanent streams, the assessment and construction methodology referred to above will consider effects on fish during construction and provides for capture and relocation of fish if required.

These measures are expanded upon in Section 7.7.3 relating to broader ecological matters.

7.4.4 Discharge of Drainage Water

(e) The management of flood protection works to avoid, remedy, or mitigate potential sedimentation or contamination effects on any receiving environment.

The Regional Plan defines 'drainage' as meaning the activity of lowering the water table to achieve productive land use to facilitate stability of land or structures, or to achieve some other resource use activity. Installing the proposed drainage to lower the water table to maintain a 'dry floodway' is essentially this.

The diversion and discharge of drainage water into water or onto or into land, from a gravity flow system (without pumping) is classified as a permitted activity under Rule 32 of the RRMP provided an activity meets the following conditions:

a) There shall be no adverse flooding effects on any property owned or occupied by another person, as a result of any discharge from the drainage activity.
b) The discharge shall not cause any scouring or erosion of any land or any water course beyond the point of discharge.
c) The activity shall not adversely affect any wetland.

d) The discharge shall not cause the natural temperature of any receiving water to be changed by more than 3oC from normal seasonal water temperature fluctuations, after reasonable mixing.
e) Any discharge of water arising from a drainage system shall be to the same catchment as that to which the water would naturally flow.
f) Any suspended solids in the discharge shall comply with Policy 72.

These matters have been adopted in considering the above matter of control and the need for additional consent conditions.

In short:

- The discharges from drains proposed will be within the bottom of the floodway and will not result in flooding of other properties,
- The discharge will be to within the armoured sections of the floodway to avoid scouring or erosion of any land or any water course beyond the point of discharge,
- Regarding effects on wetlands, further assessment is proposed to define the extent and value of wetland areas identified (condition 27) and to use this information to develop offsetting responses as required, including the approach to offsetting, to achieve, as far as practicable, a net positive ecological outcome,
- The discharge of drainage water is unlikely to cause the natural temperature of any receiving water to be changed by more than 3°C (from normal seasonal water temperature fluctuations) after reasonable mixing,
- The discharge of water arising from the drainage system will be to the same catchment as that to which the water would naturally flow,
- Being subsurface water, the drainage water is unlikely to compromise the guidelines pertaining to suspended solids in Policy 72.

On the basis that the effects of the proposed drainage of the floodway are essentially permitted by the Plan. No additional conditions are considered necessary.

7.5 Coastal Environment

The following matters of control are listed under 'Coastal Environment':

(a) The methods to be used to avoid, remedy, or mitigate the effects of any identified coastal hazard on the flood protection works.
(a) Potential adverse effects of the flood protection works on landscape values of the coastal environment, and measures to avoid, remedy, or mitigate those effects

Being located some distance inland and outside the coastal margin, the location of the proposed works does not raise any matters in relation to on or of effects on the coastal environment.

Minor amendments have been made to the standardised conditions to remove reference to the coastal environment or CMA.

7.6 Stormwater Management

The following matters of control are listed under 'Stormwater Management':

(a) The quality of stormwater discharged from the area where flood protection works are carried out, including the concentration of any hazardous substances in the stormwater, and measures to avoid, remedy, or mitigate contamination and the sediment loading.

(b) Potential adverse effects (including potential cumulative effects) on water quality in any receiving freshwater or coastal environment, and measures to avoid, remedy, or mitigate those effects.

The standard condition in the OiC is to avoid, remedy or mitigate effects in relation to stormwater is Condition 21, which states:

(1) The consent holder must, not later than 3 months after the completion of the construction works,

(a) document the requirements for the effective operation and maintenance of all stormwater treatment devices (including sediment traps, if practicable); and

(b) submit the documents to the consent authority.

(2) The consent holder must design any new permanent culvert to ensure that any headwater ponding upstream in the relevant design event does not have any significant adverse effect in that area.

(3) The consent holder must ensure that stormwater discharge from construction works does not cause erosion or scouring of the bed or any bank of any downstream watercourse or receiving drain.

(4) The consent holder must ensure that the design of culverts and stormwater detention devices is, so far as practicable, in accordance with the HBRC Stormwater Management Guidelines.

In terms of (2) and (4), the Developed Concept Design Report states that the stopbanks and concrete floodwalls shall not create nuisance flooding outside of the scheme boundary on other property in addition to that existing during a 10-year ARI rainfall event. This essentially confirms compliance with subclauses (2) and (4) in respect to managing drainage and avoiding unreasonable upstream ponding. Both are nevertheless proposed to be retained to guide detailed design.

Likewise, subclauses (1) and (3) are proposed to be retained to suitably manage effects on water quality – with minor amendments to (1) noting that the final design is unlikely to involve permanent 'treatment' devices.

7.7 Soil, Land and Ecology

The following matters of control are listed under 'Soil, Land and Ecology':

(a) Potential soil erosion and other adverse effects on soil stability, and measures to avoid, remedy, or mitigate those effects.

(b) Potential soil run-off and sedimentation, and measures to avoid, remedy, or mitigate those effects.

(c) Potential adverse effects on natural landforms and contours, and measures to avoid, remedy, or mitigate those effects.

(d) Potential adverse effects on terrestrial ecology, and measures to avoid, remedy, or mitigate those effects.

Matter (a) relating to potential erosion and stability is considered in 7.7.1 together with matter (b) from 'General'.

Matter (b) is similar to matter (e) from 'Freshwater' and is considered in Section 7.13 pertaining to construction.

Matter (c) is considered in Section 7.7.2 and matter (d) in Section 7.7.3, where (c) and (d) from 'General' are also considered.

The effects of the proposed water take are considered in regard to (d) from 'General' in Section 10.7.4.

7.7.1 Erosion and Stability

(a) Potential soil erosion and other adverse effects on soil stability, and measures to avoid, remedy, or mitigate those effects.

The Developed Concept Design Report considers geotechnical matters and provides an overview of the following assessments/matters:

- Ground conditions,
- Liquefaction and lateral spread,
- Stability and seepage,
- Settlement.

Preliminary findings include:

- Liquefaction response across the site is indicated to be low during an SLS earthquake (1/25 year) – with there being no lateral spreading expected. Liquefaction and lateral spreading increases during larger earthquake scenarios.
- Slope stability modelling has been undertaken on a range of representative stopbank heights (up to 3.5m) and representative ground conditions across the Floodway and Townside areas. The model results suggest that at the design dimensions, the proposed stopbanks meet all target Factor of Safety (FoS) values for all design cases,
- No critical seepage is expected to occur,
- Estimate ground settlement is moderate. This matter will be further considered and any required responses developed as part of detailed design.

HBRC's approach in regard to liquefaction lateral spreading is to take a 'repair-when-damaged' approach in the event of a significant seismic event.

In respect to soil erosion, this will be managed during construction under the CEMP and ESCP, while specific scour protection is to be included in the design of the floodway and considered and confirmed for the upstream extent of the townside stopbank as part of detailed design.

No additional conditions are considered necessary in this regard to this matter of control.

7.7.2 Natural Landform and Contour

c) Potential adverse effects on natural landforms and contours, and measures to avoid, remedy, or mitigate those effects.

The proposed works have considered the natural landform and provided for drainage features. No additional conditions are considered necessary in this regard.

7.7.3 Ecology

(d) Potential adverse effects on terrestrial ecology, and measures to avoid, remedy, or mitigate those effects.
(c) Potential adverse effects on fisheries, and measures to avoid or minimise that risk.
(d) Potential adverse effects on wildlife, habitat and ecosystems, and the application of the effects management hierarchy.

Condition 26 of the standardised conditions set out the following ecology principles to be applied to the design of the flood mitigation works and in carrying out the works:

(a) to apply the effects management hierarchy to the following potential adverse effects:
  (i) permanent habitat loss (including in coastal, terrestrial, and freshwater habitats):
  (ii) loss of naturally uncommon and highly depleted ecosystem types, significant indigenous vegetation, significant habitats of indigenous fauna, and habitats for at-risk or threatened species and taonga species:
  (iii) habitat fragmentation or habitat barriers (including in coastal, terrestrial, and freshwater habitats):
  (iv) impacts on habitat connectivity (including coastal, terrestrial, and freshwater habitats):
  (v) impacts on at-risk or threatened species and taonga species:
  (vi) effects on water quality (including on kaimoana and mauri) from sediment:
  (vii) alteration of natural hydrology patterns, except as necessary to facilitate the flood protection works:
  (viii) spread or establishment, or both, of pest plants or animals:
  (ix) impacts on habitats that play an important role in the life cycle and ecology of native species:
(b) as far as practicable, to create safe habitats, especially for at-risk or threatened species and taonga species:
(c) to avoid, remedy, mitigate, or offset (using biodiversity offset) adverse ecological effects in order to achieve, as far as practicable, a net positive ecological outcome:
(d) to enhance the positive ecological role of the works area in the wider ecological context, including its role as a buffer that protects or enhances other areas with ecological significance.

Condition 27 of Schedule 2 requires preparation of an Ecological Scoping Survey to:

- Identify all ecological values relevant to applying the ecology principles to the places where construction works, and,

- To assess the adverse effects the construction works have had on the ecological values identified by the ecological scoping survey.

Finally, Condition 28 relates to preparation of an Ecology Management Plan, which requires ongoing recording and reporting in anticipation of the design of the works occurring on a progressive basis.

While an Ecological Scoping Survey has been carried out, it is acknowledged that further scoping work is required in relation to (1), the likelihood of bats and lizards and the need for a Wildlife Act Authority, (2), the extent and value of the potential natural wetlands identified, and (3), the values of the identified water bodies to inform construction methodology (need for fish relocation) and the need for any offsetting – with findings influencing the development of the proposed Ecology Management Plan.

In this regard, it is proposed:

- To retain Condition 27, with minor amendments, to essentially undertake a further ecological scoping survey to determine:
    - The presence of lizards within the area of the floodway works,
    - The presence of bats,
    - The extent and value of wetland areas identified,
    - The ecological value of northern permanent stream and southern permanent streams to inform construction methodology and the need for any offsetting.
- Retain Condition 28, with minor amendments, to prepare an Ecology Management Plan which must include:
    - Pre-commencement procedures for the disturbance of vegetation and ground in areas where the Ecological Scoping Assessment undertaken in accordance with Condition 27 identifies the presence of lizards,
    - Pre-felling procedures for trees where the Ecological Scoping Assessment undertaken in accordance with Condition 27 identifies the presence of bats,
    - In the event that the Ecological Scoping Assessment undertaken in accordance with Condition 27 confirms the presence of natural inland wetlands, measures to remedy, or if required, offset effects to achieve, as far as practicable, a net positive ecological outcome where identified natural inland wetlands may be affected by the construction works,
    - A construction methodology for work within the northern permanent stream and southern permanent streams (including capture and relocation of fish if required) and any responses required to remedy, or if required, offset the effects of deprived fish passage in the northern permanent stream and reclaiming the southern permanent streams, to achieve, as far as practicable, a net positive ecological outcome,
    - A planting plan for the vegetated swales along stopbank 1 and stopbank 2.

It is also proposed to identify as part of detailed design areas where riparian vegetation will be removed and for a planting plan for replacement vegetation to be prepared.

As outlined above, this is consistent with the approach embedded in the OiC and focuses areas of further assessment and management.

It is also noted that:

- The Project Ecologist must still work with the Māori Entities representatives to prepare the Ecology Management Plan,
- The consent holder must still report to the Stakeholder Advisory Group every 2 months on work undertaken according to the Ecology Management Plan and on any other works deemed necessary by the Project Ecologist, working with the Māori Entities representatives,
- A report must still be provided at the completion of works that describes the ecological mitigation works carried out by the consent holder.

10.7.4 Water Take

(d) Potential adverse effects on wildlife, habitat and ecosystems, and the application of the effects management hierarchy.

The use of water in the construction of stopbanks is essential to achieving structural stability and managing dust, while abstracting water from the Wairoa River close to the construction site represents an efficient use of water on the basis that municipal supplies will not be affected and transport associated effects and costs significantly reduced.

The applicable matter of control relates to effects on wildlife, habitat and ecosystems rather than effects on other users. In this regard:

- The volume identified is based on contractor inputs and expectations around the likely needs,
- Taking will be temporary and limited to the duration of the construction works (expected to be an 18-month period),
- Conditions are proposed to manage effects on fish,
- The Wairoa River is not subject to a minimum flow.

7.8 Visual Effects, Landscape and Amenity

The following matters of control are listed under 'Visual Effects, Landscape and Amenity':

(a) Potential adverse visual effects on the following:
  (i) the residential or recreational (including tourism) use of land in the vicinity of the flood protection works:
  (ii) the existing character of the locality and amenity values:
  (iii) outstanding or significant landscape areas.
(b) Potential adverse amenity effects on adjoining land.
(c) Construction noise, vibration, and dust generation, including having regard to the noise sensitivity of the receiving environment.

(d) Potential adverse effects of the hours of operation of flood protection works.
(e) Potential adverse effects on identified recreation areas.
(f) Potential adverse effects on public health and safety during works.
(g) Measures to avoid, remedy, or mitigate the effects described in paragraphs (a) to (f), including post-completion reinstatement and landscaping in relation to the effects described in paragraph (a).

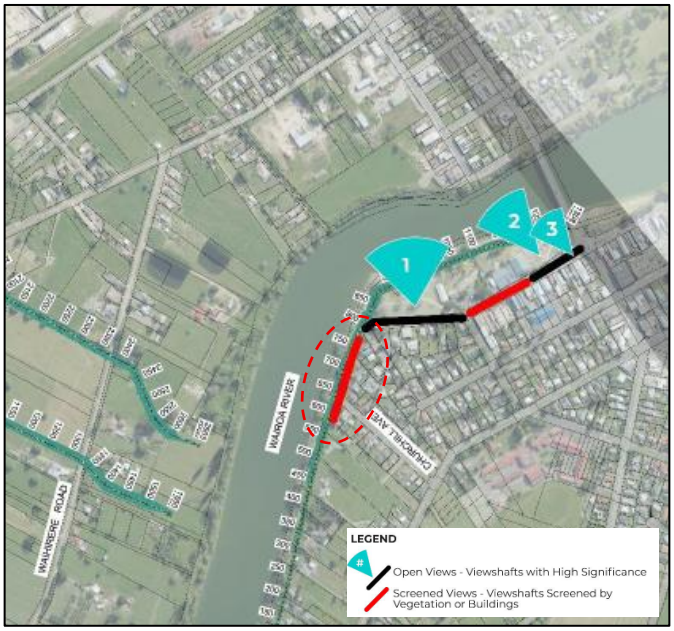
Matters (a), (b), (e) and (g) are considered below. Matters (c), (d) and (f) relate more to construction and are considered in Section 7.13.

In terms of (a), the area of works is not within an outstanding or significant landscape area. In terms of (i) and (ii), potential adverse visual effects have been considered in the Landscape Scoping Assessment where a series of open and screened views have been identified and assessed.

Here it is concluded that the stopbanks will modify the landform and views primarily at a local scale, with the most noticeable changes being for viewers in close proximity to the stopbanks. Overall, the horizontal form of the proposed stopbanks is considered to integrate relatively well with the broad, open character of the rural landscape. In terms of views of the townside stopbank from residential properties and Alexander Park, visual impacts range from low – where residential views may be partially obstructed – to moderate to high, particularly in areas where the river holds cultural and recreational importance.

It is recognised however that mitigation of the 'obstruction' to views is not practicable i.e. the alignment and height of the stopbank is a functional reality of the flood mitigation feature required to reduce the impacts of flooding. With the stopbank generally presenting as less than 1m high to CH480, and as recognised in the Landscape Scoping Assessment, the residential properties subject to the change in outlook are limited to those at the end of Churchill Avenue/Marine Parade as identified in **Figure 22** below.

Figure 22: View Shafts



Regarding (e) and Alexander Park as an identified recreation area, the townside stopbank will be aligned through part of the park and a number of park facilities will need to be relocated. As noted above, all the facilities concerned are WDC assets and where these will be relocated to and how they will be re-established will be worked through with WDC as part of the land access agreement over this piece of land. In this regard, and focusing on the end outcome, it is proposed that:

- That Condition 10(d) pertaining to the CEMP be amended to include identification of affected park facilities and the likely period over which access to the Park will be affected,
- That Condition 10(g) be amended to include procedures for managing public access to the Park,
- Condition 9 pertaining to the Communications Plan be amended to include the likely period over which access to the Park will be affected and the procedures for managing public access to the Park,
- A condition be imposed to require:
    - Establishment of an access over the stopbank to facilitate watercraft and public uses as part of detailed design,
    - Relocation and re-establishment of affected Park facilities prior to the completion of works, unless otherwise agreed with Wairoa District Council.

Overall, whilst the stopbank will impact the current recreational use of the park, public access will be maintained and the opportunities for the future master planning of this recreational asset will not be hindered.

Noting the existing requirement of the CEMP and conditions pertaining to noise, vibration and dust, which the applicant has adopted, there is no need for any further conditions to mitigate potential effects on amenity in respect to (b).

7.9 Adjoining Land Uses

The following matters of control are listed under 'Adjoining Land Uses':

(a) Potential adverse effects on the use of land on which works are carried out and adjoining land, and measures to avoid, remedy, or mitigate those effects.

(b) Potential adverse effects on infrastructure assets and facilities (including those of network utility operators), and measures to avoid, remedy, or mitigate those effects.

Matter (a) relating to effects on the subject and adjoining land is considered in Section 7.9.1 with effects on infrastructure assets and facilities in Section 7.9.2.

7.9.1 Effects on the Subject Land and Adjoining Land

(a) Potential adverse effects on the use of land on which works are carried out and adjoining land, and measures to avoid, remedy, or mitigate those effects.

Land comprising the floodway and associated stopbanks will be impacted - insofar as landuse being limited to bailage/ low-intensity grazing. If the land is not required by HBRC, these impacts will be addressed through the land access agreements being worked through

with affected landowners. Further, use of Ruataniwha and Waihirere Roads and the conveyance of services will be provided for. No further conditions are necessary.

Regarding the townside stopbank, the proposed works are not anticipated to materially compromise the actual use of the properties concerned, including Alexander Park (refer above).

In terms of the adjoining land, noting effects in relation to flooding and visual outlook/amenity have been considered in Sections 10.2.1 and 10.8 above respectively:

- Swales and culverts are proposed to accommodate the existing stormwater drainage pattern,
- The flood mitigation works themselves are not anticipated to compromise existing or potential landuse activities on adjoining land.

No additional conditions are considered necessary.

7.9.2 Effects on Infrastructure Assets

(b) Potential adverse effects on infrastructure assets and facilities (including those of network utility operators), and measures to avoid, remedy, or mitigate those effects.

As outlined above, the area of works is characterised by various infrastructure services and public roads.

All these features have been taken into account in the design of the scheme. The presence of this infrastructure is not expected to impact construction, and responses in regard to road realignment and managed closures and re-instatement/realignment of utilities have been developed in respect to the potential impacts of the proposed flood mitigation on this infrastructure. In terms of the State Highway, while the eastern extent of the townside stopbank will connect into the abutment area under the Wairoa River bridge, it is our understanding that it does not extend into the actual State Highway Road Reserve, nor is the activity considered to prevent or hinder the function of the state highway network in regard to s176 of the RMA. NZTA may provide further comment on this as part of the assessment process.

In terms of the rail corridor through the floodway, the Wairoa District Council is in the process of transitioning this to road reserve. Use of this corridor/area will be resolved through land access agreements.

Further consultation will be undertaken with network utility operators and WDC as part of the detailed design process and in preparing the CEMP, while they will also be invited to appoint a member to the Stakeholder Group under Condition 6, which, under Condition 11, will enable the opportunity to comment on the CEMP. No further conditions/amendments are considered necessary to address effects on infrastructure assets.

7.10 Heritage and Archaeology

The following matters of control are listed under 'Heritage and Archaeology':

(a) *Potential adverse effects on identified heritage values, and measures to avoid, remedy, or mitigate adverse effects.*
(b) *Accidental discovery protocols to reduce risk to unidentified archaeological sites.*

As outlined above, further assessment will be undertaken to determine the need for Archaeological Authority.

The structure of Condition 29 provides for this approach and is considered a reasonable response to avoiding, remedying, or mitigating adverse effects on heritage values.

7.11 Access and Transport

The following matters of control are listed under 'Access and Transport':

(a) *Potential adverse effects on access to and along or around watercourses and water bodies, and measures to avoid, remedy, or mitigate those effects.*
(b) *Potential adverse effects on the safe and efficient operation of the transport network during flood protection works, and measures to avoid, remedy, or mitigate those effects.*

Matter (a) is considered below, with matter (b) being considered in relation to construction in Section 7.13.

A new boat ramp will be constructed at Alexander Park. With this in place, the location and form of the proposed stopbank features will not prevent opportunities for future access to the Wairoa River by boat ramp users. As such, no specific measures/conditions to avoid, remedy, or mitigate effects associated with access to and along or around watercourses and water bodies are considered necessary.

In terms of access during construction, Condition 10(3)(g) requires the CEMP to include procedures for managing public health and safety - including restrictions on public access to work sites and the river. Further, the Communications Plan required under Condition 9 requires a description of the construction works, which will include such procedures.

These standardised conditions are proposed to manage potential adverse effects on access to and along or around watercourses and water bodies during construction. No further measures/conditions are considered necessary.

7.12 Contaminated Land

The following matters of control are listed under 'Contaminated Land':

(a) *Potential adverse effects on human health from disturbance or use of contaminated soil.*
(b) *Measures to avoid, remedy, or mitigate those effects, including—*
    (i) *remediation or management methods proposed to reduce risk posed by contaminants; and*

(ii) timing of remediation; and

(iii) standard of remediation on completion of works.

In its combined PSI/DSI report WSP concluded there were no exceedances of human health or environmental criteria. On this basis, there are no specific soil contamination matters to manage, and in this regard, Condition 17 of the standardised conditions in the OiC pertaining specifically to works on contaminated land is not necessary.

Notwithstanding this, a Contamination Site Management Plan is proposed to be prepared to address the recommendations as outlined in section 4.5.2 above.

Amendments to Conditions 10 and 17 have been made to this effect.

This approach is considered a reasonable response to managing potential effects on human health in respect to contaminated soil.

7.13 Construction

Although not a specific topic noted in Schedule 3, many of the matters of control listed under other topics relate to construction. These include:

General:

(e) The management of construction works to avoid, remedy, or mitigate potential adverse effects on receiving environments, including adverse effects of hazardous substances, spills, and stormwater run-off.

Freshwater:

(e) The management of flood protection works to avoid, remedy, or mitigate potential sedimentation or contamination effects on any receiving environment.

Soil, Land and Ecology:

(b) Potential soil run-off and sedimentation, and measures to avoid, remedy, or mitigate those effects.

Visal Effects, Landscape and Amenity:

(c) Construction noise, vibration, and dust generation, including having regard to the noise sensitivity of the receiving environment.

(d) Potential adverse effects of the hours of operation of flood protection works.

f) Potential adverse effects on public health and safety during works.

Access and Transport:

(b) Potential adverse effects on the safe and efficient operation of the transport network during flood protection works, and measures to avoid, remedy, or mitigate those effects.

These matters essentially cover:

- Stormwater management and erosion and sediment control
- Nuisance effects i.e. noise, vibration and dust
- Hours of operation
- Public health and safety

- Construction traffic

Each is considered below:

Stormwater Management and Erosion and Sediment Control:

- An Erosion and Sediment Control Plan is required to be prepared under Condition 14 and will be circulated to key stakeholders for feedback as part of preparing the CEMP prior to works commencing,
- Condition 13 requires an Erosion and Sediment Control Manager to be appointed for the duration. This will ensure a focused approach to erosion and sediment control and managing the potential for sedimentation of waterbodies,
- Condition 15 outlines the process for managing/responding to any failures,
- Condition 19 sets out specific requirements particularly in regard to managing the potential for spills when working within, or adjacent to, the bed of a river,

Nuisance Effects (Noise, Vibration and Dust):

- Condition 16 states the consent holder must, as far as practicable, ensure that dust arising from construction works (including earthworks and related activities) does not spread beyond the boundary of the work sites,
- Condition 23 states:
    1. The consent holder must ensure that noise from construction, maintenance, and demolition work complies, so far as practicable, with the long-term duration limits set out in Table 2 and Table 3 of NZS 6803:1999.
    2. The consent holder must take all practicable steps to reduce levels of noise and vibration from plant and equipment operating on site during construction.
- Dust, noise and vibration are all matters to be considered in preparing the CEMP, which must be circulated to key stakeholders for feedback,

Hours of Operation:

- Hours of operation will generally be 6.00am to 7.00pm each day, Monday to Saturday,
- The start time is to allow for erosion and sediment control measures to be implemented, monitored and checked. The use of dust suppressants is far more effective if they are first used in the early morning,
- The broader working hours will enable the works to be completed as soon as possible,
- As outlined above, noise will be managed according to the long-term duration limits set out in Table 2 and Table 3 of NZS 6803:1999,

Construction Traffic:

- Site access and on-site traffic management is a matter to be considered in preparing the CEMP under Condition 10, which is required to be prepared by the contractor and circulated to key stakeholders for feedback prior to works commencing.

Public Health and Safety:

- In addition to the matters already discussed, public health and safety is a matter to be considered in developing the CEMP,
- The CEMP is also required to consider procedures for managing hazards, including any risk of flooding and restrictions on public access to work sites and the river. Access to Alexander Park is proposed to be included in these procedures.

The requirements of Conditions 10 and 14 pertaining to the preparation of a CEMP and an Erosion and Sediment Control Plan are comprehensive and considered sufficient to ensure that overall, effects with regard to construction can be suitably managed. No other conditions are considered necessary.

7.14 Summary

In summary, with the benefit of a greater degree of design and assessment being undertaken as part of preparing the application than necessarily anticipated by the context of the OiC, many of the outcomes provided for in the standardised conditions have already been met and components of them are not required as conditions of consent. Amendments to the standardised conditions are proposed to enable more effective implementation of the works.

It is also relevant to note that while cut material to form the floodway will be used to form the stopbanks, the floodway area is not deemed a borrow site in the context of condition 22 of the OiC. As with condition 20 (applying to extraction of material and gravel – not disturbance as part of the construction works), condition 22 is nevertheless retained to provide scope.

Other than the new conditions already proposed by the applicant, no additional conditions are required to avoid, remedy or mitigate the effects of the proposal in relation to the matters over which control has been reserved.

8. CONCLUSION

The works are a Controlled Activity, and the application for these works must be granted and processed on a non-notified basis. The OiC does, however, require engagement with mana whenua, local authorities and key stakeholders, together with technical assessments, which collectively ensures that a robust flood mitigation works consent is confirmed that will achieve significant benefits to Category 2 land while managing potential adverse environmental effects of the project to the extent practicable.

Key issues arising from the specific flood mitigation works design that are relevant to the matters of control have been identified and worked through in this report, with the standardised conditions being largely adopted to avoid, remedy or mitigate any actual or potential adverse effects of the proposal. Where a sufficient degree of design and assessment has been undertaken such that effects and mitigation are clear, amendments have been made to the standardised conditions to enable efficient implementation of the recovery works.

Appendix 1

Cultural Impact Assessment

(to be provided confidentially)

Appendix 2

Cultural Impact Assessment

(to be provided confidentially)

Appendix 3

Cultural Research Report

(to be provided confidentially)

Appendix 4

Cultural Impact Assessment

(to be provided confidentially)

Appendix 5

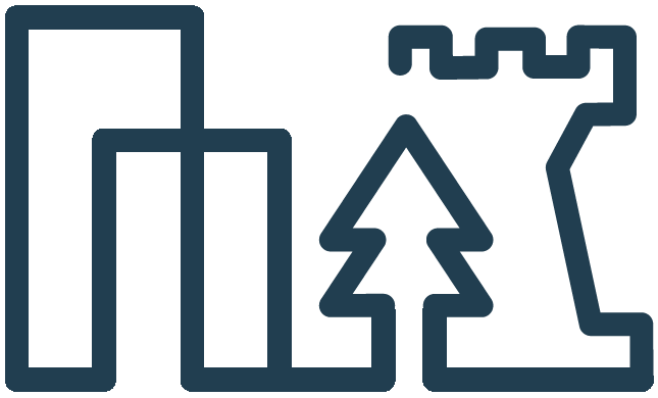
Archaeological Screening Assessment

Appendix 6

Ecological Impact Assessment Report

Appendix 7

Landscape Scoping Study



Appendix 8

Preliminary and Detailed Site Investigation

Appendix 9

Developed Concept Design Report

Appendix 10

Proposed Resource Consent Conditions

Appendix 11

List of Māori Entities and Section 15(2)(a) Parties

Some names and contact details to be provided confidentially

Appendix 12

Responses to CIA Recommendations

(Provided Confidentially)

Appendix 13

Consequential Flooding Effects Assessment

(WSP)

Appendix 14

Consequential Flooding Assessment – Letter Review

(Beca)

Appendix 15

Consequential Flooding Assessment

(Beca)