

# **Ravensdown Napier Works**

## **Habitat Abundance Restoration Project Plan**

**Author: Helen McCarthy**

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**Document Review**

<b>ROLE</b>	<b>NAME</b>	<b>VERSION</b>
Partner – Mitchell Daysh Ltd.	Stephen Daysh	V1.1

**Document Sign-off**

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Works Manager	Andrew Torrens		27/11/2021

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## 1. Introduction

The Napier Works Sustainable Site Project (**NWSSP**) embraces a step change on site in the management and treatment of discharges. This step change is reflective of:

- The strong desire for Ravensdown to be outward looking, responsive and respectful towards both its Napier neighbours and wider stakeholders by championing excellence in environmental performance and compliance.
- The location of the Site adjacent to the significant Waitangi Estuary area, and on a main arterial route between Napier and Hastings.
- The new requirements for water quality set out in national and regional planning documents.

Water treatment will consist of a multi-step treatment train, which will be installed in a phased approach. This is outlined in the project *Water Discharge Strategy - Ravensdown (November 2021a)* and *Adaptive Management Plan -Ravensdown (November 2021d)*.

As part of Ravensdown's Discharge Strategy a long-term commitment will be made to improve the ecological values of the area through a HARP (Habitat Abundance Restoration Project) with the restoration of a wetland area south of the Ravensdown Works site in the Waitangi Regional Park.

The concept of a wetland area, to maximise the restoration potential, by establishing a permanent shallow wetland was previously proposed to the Hawkes Bay Regional Council in 2001<sup>1</sup>.

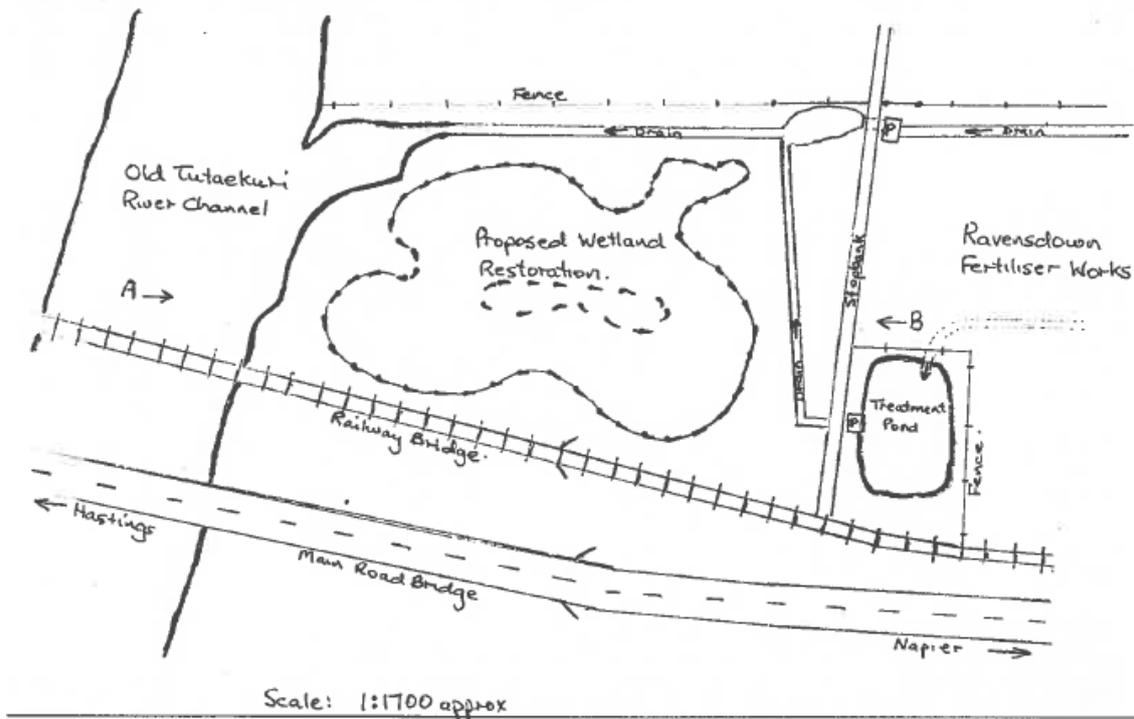


FIGURE 1: ORIGINAL SKETCH OF PROPOSED WETLAND SOUTH OF RAVENSDOWN NAPIER WORKS

<sup>1</sup> Bay Eco Solutions (2001), Ravensdown Fertiliser Works Wetland – Concept Plan

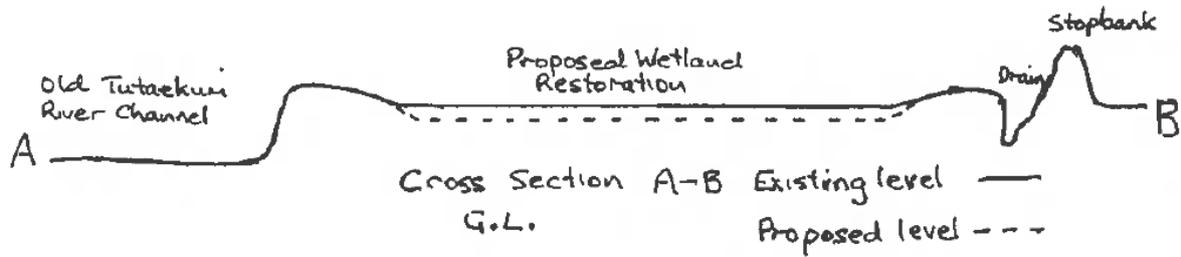


FIGURE 2: CROSS SECTION OF PROPOSED WETLAND SOUTH OF RAVENSDOWN NAPIER WORKS

As part of the consent process Ravensdown formed a Technical Focus Group (TFG), made up of representatives from key stakeholder groups to engage with Ravensdown during the renewal of both the water and air discharge permits. The purpose of the TFG was to provide advice and input to Ravensdown as part of a two-way information sharing process, including input into the assessment of alternative options for the treatment and discharge of the stormwater and process water from the site. During this process it was identified that the diminishing levels of Mahinga Kai within the immediate and outlying areas was a significant cultural concern to Mana Whenua.

A HARP team was subsequently established with several representatives from the TFG. The project objective was developed through this group and a Te Reo translation was provided by Mana Whenua.

Ravensdown also met with key staff from the Open Spaces Team at the HBRC and will partner with the council in the restoration of this wetland area. HBRC have provided a partnership agreement for the project included as Appendix 1. Final sign-off for the development will be sought through the HBRC both as landowners and the consent authority for resource consent associated with the project. Conditions have been proposed as part of Ravensdown’s resource consent applications using an adaptive management approach with targets for increasing habitat abundance for key species. A monitoring programme will also be developed in consultation with Mana Whenua and an Ecologist.



FIGURE 3: SCHEMATIC REPRESENTATION OF THE PROPOSED HARP WETLAND

## 2. Project Objectives

The primary objective developed and agreed by the HARP working group is:

***“Mā te mahi ngātahi te taiao me ngā taonga o te wahapū o Waitangi e whakapai ake”***

***“Wholistically partnering in improvement of the habitat and taonga of the Waitangi Estuary”***

This objective will be delivered by:

1. The development of a wetland area that will provide amenity through natural and cultural landscape values and biodiversity.
2. Acknowledging the mana whenua and history of the area by providing visual displays commemorating the history of the area.
3. Agreeing a suitable name for the wetland that will bring together the values and history of the area.

## 3. Proposed Delivery Mechanisms

Ravensdown have engaged with experienced local wetland experts, John Cheyne and Hans Rook, along with mana whenua and HBRC experts to assist with the wetland design and to provide construction oversight/consultation.

The following provides a list of design requirements:

- A buffer zone of 30m from the toe of the stopbank to the new wetland to allow for service investigation requirements by the HBRC and potential widening or lifting.
- Permanent water to be supplied by a combination of:
  - Ravensdown discharge directly into the wetland area, following treatment of water through a treatment train.
  - Artesian bore supply from Ravensdown’s existing consented bores, or a dedicated bore within the regional park area.
- Allowance for Evapotranspiration at a rate of 0.7 litres per hectare per second. This equates to a maximum of 3,670m<sup>3</sup> per month for 2 hectares that would be required for wetland sustainment.
- Construction of a fish pass/outlet where the Ravensdown Drain enters the Awatoto Drain.
- Shallow water areas less than 0.4 metres to attract waterfowl and wading birds.
- Sloping margins to allow birds to walk out of the water to rest or enter the water for food.
- Open margins, low lying mud banks and half submerged logs to provide loafing spots where waterfowl can rest and sun themselves.
- Irregular and long length edging to provide for feeding, loafing and shelter.
- Islands to provide additional edge as well as the least disturbance for nesting and loafing sites. Islands should not be too tall as this increases their attractiveness to rodents.
- Patches of tall grass and low bushy shrubs close to, or within the wetland providing good nesting sites and for Inaunga spawning.
- A 50/50 proportion of open water and vegetation.
- Overhead cover through emergent vegetation or overhanging trees.
- Flood zone effects through scouring and debris.
- Ecosourcing of plants.

A detailed planting plan will be developed as the project progresses.

Ravensdown have approached both HBRC Open Spaces team and Ngāti Pārau Kaitiaki Rangers to discuss maintenance of the wetland area, and Ravensdown will ensure a suitable contract arrangement will be entered into for the long term maintenance program.

To establish a suitable level of stability within the wetland the advice is that a 12 month period will be required between any initial earthworks to shape the area and introducing water to the wetland. To encourage the establishment of the wetland a Rāhui would be placed on the area. The following table sets out the proposed timeframes.

**TABLE 1: PROPOSED IMPLEMENTATION TIMEFRAMES**

TIME FROM CONSENT GRANT	PROJECT COMPLETION
Year One	<ul style="list-style-type: none"> <li>▪ Rāhui placed on the area.</li> <li>▪ Earthworks undertaken.</li> <li>▪ Grassing of the wetland</li> </ul>
Year Two	<ul style="list-style-type: none"> <li>▪ Wetland flooded with water</li> <li>▪ Initial planting completed.</li> </ul>
Year Three	<ul style="list-style-type: none"> <li>▪ Maintenance Plan implemented.</li> <li>▪ Further planting.</li> </ul>

## 4. Performance Targets

- Restoration of 2 hectares of land south of the Ravensdown Napier Works, within the Waitangi Regional Park.
- Increased biodiversity and abundance of habitat for key taonga species (measured each five years of the 35 year resource consent period through habitat abundance surveys).
- Effective pest control in the project area (measured through annual trapping statistics).
- Ongoing maintenance and management of the area.

## 5. Project Costs

**TABLE 2: SUMMARY OF PROJECT COSTS**

ITEM	ANNUAL COST	TOTAL PROJECT COST
Earthworks	\$ 60,000	\$ 60,000
Grassing	\$ 5,000	\$ 5,000
Planting (approximately 4,000 plants in years 2 and 3)	\$ 20,000	\$ 40,000
Management and maintenance (over 35 years) <sup>2</sup>	\$ 15,000 <sup>3</sup>	\$525,000
<b>Total Cost</b>	<b>\$100,000</b>	<b>\$630,000</b>

<sup>2</sup> Annual management and maintenance costs to be based on a contracted weed control and pest control program for the HARP area.

<sup>3</sup> CPI adjusted

# Appendix 1

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04 November 2021

Andrew Torrens  
Works Manager  
Ravensdown  
**Napier, Hawke's Bay**

Dear Andrew

### SITE FOR PROPOSED ECOSYSTEM DEVELOPMENT, WAITANGI REGIONAL PARK

Thank you for the interest shown by Ravensdown to partner in the development of a new wetland with native planting at Waitangi Regional Park, location shown attached to this letter.

It is noted that Ravensdown have worked with ecologists, local hapu and interested high school students over the last year to partner in the development of this space within Waitangi Regional Park. Hawke's Bay Regional Council (HBRC) also note the following:

- HBRC own the land
- Ravensdown commit to the establishment, consenting process and ongoing maintenance of the wetland following development with suitably trained volunteers.
- As one of Hawke's Bay's top ecosystem sites, only treated water should be permitted to pass through the stormwater treatment facility into the Regional Park, within the acceptable parameters as outlined in the consent and through the TANK process. Which will align with the proposed moving of the Ravensdown stormwater discharge pipe to feed directly into the wetland rather than meet the HBRC stormwater drain as currently set up.
- Ravensdown will allow a buffer zone of 30m is left from the toe of the stopbank to the new wetland for proposed Stopbank Level of Service investigation and potential widening or lifting. This will allow HBRC access right to do any work and maintenance as required around the stopbank and pumpstation areas surrounding that encompass the wetland.

HBRC look forward to working together in developing this space to further enhance the biodiversity of this significant site.

Yours sincerely

**Martina Groves**  
Regional Asset Manager





## Ravensdown Wetland – Partnership Agreement

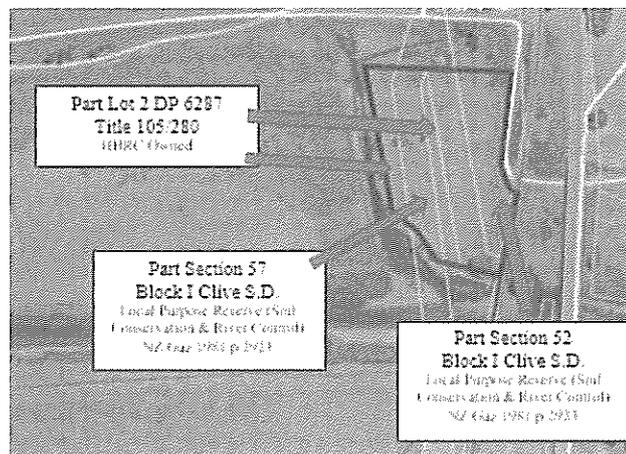
Agreement made this 29th day of November 2021

Between:

**Hawke's Bay Regional Council** ("Council") and  
**Ravensdown Limited** ("Ravensdown").

### Background:

- a) Council has the management and control of the Tutaekuri River in terms of the Hawke's Bay Regional Resource Management Plan, ("the Management Plan"). The Management Plan has an Objective OBJ45 being *'The maintenance or enhancement of the natural and physical resources, and use and values, of the beds of rivers and lakes within the region as a whole.'*
- b) Council owns a parcel of land shown in Red below. This land parcel contains 1.34 hectares (subject to survey), ("the Wetland Area")



- c) As an opportunity to support mana whenua and the wider community Ravensdown are developing the Wetland Area within the Waitangi Regional Park with the support of Council.

## **Partnership Agreement:**

### **Council Obligations**

1. The proposed Wetland Area is located upon land that is owned by Council. This land is held as Local Purpose Reserve (Soil Conservation and River Control) or held in Record of Title 105/280 in the name of the Hawke's Bay Regional Council.
2. Council has agreed to grant a non-exclusive Licence to Occupy to Ravensdown for the Wetland Area.
3. Council may carry out any works on land adjacent to, or near the 'Wetland Area'. Council will take all reasonable steps to ensure that the works are carried out in a way that causes a minimum of inconvenience to the 'Wetland Area'.
4. Council and Ravensdown may terminate this Licence at any time by giving six months' notice in writing. There is no entitlement to any compensation for any such early termination.
5. In the event of a flood that damages or destroys the Wetland Area within the duration of the Licence, Ravensdown will take all reasonable measures to remediate and restore the Wetland Area.

### **Ravensdown Obligations**

6. For the duration of the Licence, Ravensdown will undertake the establishment, the consenting process and the ongoing maintenance of the Wetland Area in accordance with the HARP Plan presented to Council.
7. Ravensdown will only allow treated water to enter into the Wetland Area from their adjoining sites. This water shall be of the quality as outlined in the discharge consent and through the TANK process.
8. Ravensdown will redirect water entering the Wetland Area from their adjoining sites from the Council stormwater drain, directly into the Wetland Area. The design of this will be submitted to Council for approval prior to construction.
9. Ravensdown agrees to:
  - (a) occupy and use the Wetland Area at their own risk;
  - (b) take all reasonable care in developing the Wetland Area; and
  - (c) comply with its obligations under this Agreement.
10. Ravensdown acknowledges that Council may give notice requiring remedy of any breach of this Licence within a reasonable period of time.

11. The Council acknowledges that Ravensdown is undertaking the development and maintenance of the Wetland Area as a beneficial project for mana whenua and the community. Ravensdown will be responsible for the direct consequences of any breach of its obligations under this Licence.

Signed by

  
.....  
**Ravensdown Limited**

in the presence of:  
Signature of witness



Jaclyn Hankin

.....  
Name of witness

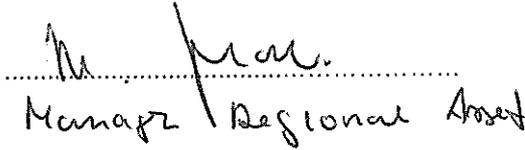
41 Heipipi Drive, Eskdale

.....  
Address of witness

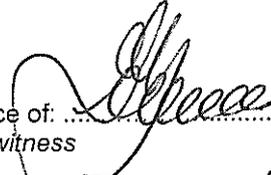
Engineer

.....  
Occupation of Witness

Signed for and on behalf of the Hawke's  
Bay Regional Council

  
.....  
Manager Regional Asset

in the presence of:  
Signature of witness



Louise van Jaarsveldt

.....  
Name of witness

611 St Aubyn Street West

.....  
Address of witness

Environmental Engineer

.....  
Occupation of Witness