

# Mini Freshwater Environmental Plan

for lifestyle blocks and small farms



Ahuriri Tributaries Catchment Group Trust ("ATCGT") invites you to complete this planning process. We will collaborate with you to identify areas on your property that can lead to improved freshwater and environmental management. If, as a result, you agree to conduct any identified improvements that are endorsed by ATCGT we will gift you with up to \$300.of plants to be used on your property.

Note that your involvement in this programme is voluntary. While we are offering a gift as an incentive for your participation there is no compulsion to undertake any of the actions you may derive from going through the process. We are relying on your enthusiasm for the environment and any issues identified in the farm plan will help in reducing contaminant load to the estuary and therefore fresh water.

Note this process applies only to properties that are less than 20ha and greater than 1ha, or combined land use of 20 ha and are in the Ahuriri Estuary catchment area. Properties which are larger than 20 ha (or horticultural properties greater than 5 ha) must complete the Government's formal full Freshwater Farm Plan process. Our process does not apply to this.

PROPER	RTY DETAILS:
Owner:	
Address:	
Phone	
Email:	
PREPARED BY:	
Name:	
Date:	//

**Note** that any information supplied by you in relation to this programme is confidential to ATCGT and will NOT be individually shared with any other organisation, including Government agencies or local authorities. It may be shared in an aggregated form but your individual property details will not be identified.



## 1. Background

The Ahuriri Estuary (Te Whanganui ā Orutū) is a unique and precious ecological and historic area situated in Napier but fed by tributaries from rural and urban land in both Napier and the Hastings district. The Estuary is a tidal river mouth that connects to a shallow lagoon. It is classified as a nationally significant Wildlife Refuge, supporting a diverse array of flora and fauna in a variety of habitats including conservation wetlands, terrestrial wildlife, and native fish spawning areas.

It is a key breeding ground for much water and bird life. It supports a wide diversity of flora and fauna, not least the wonderful Spoon Bills and the amazing Godwits that migrate annually from Alaska.

Ahuriri hapū are kaitiaki (guardians) of Te Muriwai o Te Whanga (the Ahuriri Estuary and catchment areas). The Ahuriri hapu have statutory legislation to promote the protection and enhancement of the environmental, economic, social, spiritual, historical, and cultural values of Te Muriwai o Te Whanga (Ahuriri Estuary) for present and future generations.

The catchment area is unique in that it includes upwards of 500 lifestyle and small farm properties. These properties tend to be around what could be called the "dress circle" of the Estuary. So much of the freshwater that drains into the Estuary through streams or drains must pass through these smaller properties or originates from these properties. For that reason, ensuring that these smaller properties meet higher environmental standards is critical to the overall environmental quality of the Estuary. So, your involvement in this programme is much valued.

ATCGT was formed in 2022 to focus upon improving the catchment area. It is structured as a formal charitable trust and has attracted funding from various sources. We see this Mini Freshwater Environmental Plan initiative as a major focus.

One further point to note. ATCGT has access to a number of sources of expertise that can be called upon to assist you in your environmental plans. These experts include:

- Philip Schofield, soil scientist and Certified Environmental Practitioner
- Sean Murphy, Catchment Advisor, Hawke's Bay Regional Council
- Nathan Burkepile, NZ Landcare Trust HB

#### ATCGT coordinators;

Matthew Truebridge email; <u>matthew@ahuriricatchment.nz</u> Ph 021 374 591

## 2. Problem/Opportunity Identification

First, get a paper map of your property showing boundaries. Your ATCGT representative may provide this. Otherwise go to HB Regional Council's map service on the web:

#### GO TO:

www.hbrc.govt.nz More maps land valuation

Now take any areas for opportunities you may wish to improve. Number the areas 1...2...3 etc. Now, refer to the following table, add numbered areas, and then go to the sections specified that apply to you. You may have more than one. Do the costings and summarise your action plan in the boxes provided (just hand write...notes).

PROBLEM/OPPORTUNITY SCHEDULE			
Туре	Marked Areas on Map	Section Reference	
Waterways, critical source areas		Go to Section 3.	
Hill-side erosion or slippage		Go to Section 4.	
Riparian planting		Go to Section 5.	
Stock in unfenced waterways and crossings		Go to Section 6.	
Silt/sediment deposits		Go to Section 7.	
Create native plant or wetland area		Go to Section 8.	
Septic tank service history		Go to Section 9.	
Pest control		Go to Section 10.	
Other		Go to Section 11.	

## 3. Waterways and Critical Source Areas on your property

## On your map, identify any waterways (whether permanently or intermittently flowing).

Now, identify any Critical Source Areas. These are not as straight forward to see as waterways, run through the below to help identify CSAs.

What is a critical source area? A critical source area, (CSA), are small and low-lying areas on your land, such as gullies, where runoff gathers. When carried to waterways, this runoff takes with it sediment and nutrients that enter waterways. CSAs can also be point source on your land, if they have a connection to water (e.g. septic tanks and disposal fields, stock yards, offal pits)

Why are they important to identify and manage? Intercepting contaminants before they enter waterways is key to improved water quality. Up to 80% of contaminant loss form properties can come from these small areas in the landscape. Once identified it means mitigation strategies can be efficiently targeted, right action in the right place!

The below resources describe CSAS clearly:

landcare.org.nz/wp-content/uploads/2022/11/Nutrients-Critical-Source-Areas.pdf

orc.govt.nz/media/12789/fact-sheet critical-source-areas.pdf

The below resources describe how CSAs may be managed:

waikatoregion.govt.nz/assets/WRC/WRC-2019/6374-HRWO-critical-sourceareas.pdf (good examples and photos)

## 4. Manage potential or actual Hill-side Slippage and Erosion

There are a number of situations:

- A slippage (erosion) has already occurred.
- A hillside threatens or is likely to slip in the future. As a rule of thumb any slope greater than 15-20° is at risk, although this of course depends upon a number of factors including soil type, underlying geology, rainfall. You may feel that a slip could occur because of what you have observed on similar sites. Or you may simply want to reduce the risk of such slips in the future.

You may also be concerned about soil erosion which is the cause of sediment flowing into waterways.

Review the reference material specified in Section 12. You need to ensure what planting is best done to suit specific conditions, particularly if erosion and slippage has already occurred.

#### Area on map \_\_\_\_\_

SUMMARISE ACTION PLAN	

## 5. Riparian Planting

Planting of the banks of streams or lakes has a number of benefits:

- Firstly, it consolidates the banks and reduces possible erosion.
- Plants function as a filter to reduce silt entering the waterway.
- It helps to absorb undesirable pollutants and improve the waterway.
- It provides a positive habitat for birds and water animals and promotes biodiversity.

And it looks great!

## 5.1 Fence off an area of bank and plant in hardy, fast growing trees/shrubs/flaxes/grasses

#### Area on map \_

**Note:** the width of the bank border is not fixed. A width of 5 meters is ideal but it will be determined by the terrain and other land features. Do what is sensible.

## 5.2 Consider Poplar or willow poles with advice from catchment advisor.

Depending on the situation along the bank/stream or lake, Willows and Poplars will need careful selection to the site.

#### Area on map \_

Fencing may not be necessary. Poles can be protected by fabric sleeves.

SUMMARISE ACTION PLAN	

## 6. Stock in Waterways

Stock able to wade in waterways, particularly cattle, are a major source of water pollution. They excrete excessive amounts of nitrogen and phosphorus and are also a source of microbiological contaminants.

The <u>Stock Exclusion Regulations 2020</u> require stock (excluding sheep)to be excluded from lakes and wide rivers (rivers with a bed wider than one-meter) on flat land with a three-meter minimum setback.

If a permanent fence was already in place on 3 September 2020, the three-meter minimum setback doesn't apply.

A permanent fence is defined as a post and batten fence with driven or dug fence posts, an electric fence with at least two electrified wires and driven or dug fence posts, or a deer fence.

Stock must also be fully excluded from wetlands. There is no minimum setback distance.

To check whether any waterways on your property are within flatter areas that require stock exclusion check on this map:

mfe.maps.arcgis.com/apps/instant/sidebar/index.html?appid=42c325f726354d78a 38893983432aa65

If you have any applicable waterways that do currently have stock excluded (besides sheep) this should be the top action on your list. These regulations apply from 2025.

See the HBRC website for more information:

Excluding stock from waterways is, in most situations, the single most effective management practice on a farm for improving water quality.

# 6.1 Fence off a waterway, this could be a permanently flowing or a waterway that flows part of the year.

Fencing does not need to be permanent; a hot wire can do the job.

SUMMARISE ACTION PLAN	

## 6.2 Or, permanently fence and riparian plant beside a waterway.

Work on your biggest waterways first.

Area on map \_\_\_\_\_

## 7. Silt/Sediment

### 7.1 Sediment Deposits

Following a flood event sediment may be deposited on your property. The question is, what do you do with the sediment? Should you scrape it off, back to the original pasture or garden, or can it be treated as regular soil and planted? The answer is not straight forward, and it depends upon:

- the quality, depth and nature of the sediment.
- any drainage issues that might arise from the higher ground level created by the sediment.

We suggest you read the following web sites:

#### GO TO: organicnz.org.nz Find "Soil to soil: Rejuvenating silt organically" Iandcare.org.nz Find "Sediment Mitigation" Iandwise.org.nz Go to "Soil Repair after Cyclone Gabrielle"

In most cases the sediment can be left where it lies and planted. Flood deposits are made up of sand, silt, and clay. You first need to identify the proportion of each.

If there is a high proportion of sand in the sediment you may find difficulty growing plants and/or grass. However, most sediment is a mix of all three components and with a little time and careful planting it can be turned into healthy soil.

# *Undertake a 3-year planting regime to rejuvenate the sediment. Advice from latest HBRC recommendations following Cyclone Gabrielle*

Area on map

# 8. Create a native plant or wetland area

## 8.1 Fence off an area and plant hardy, fast growing trees/shrubs/flaxes/grasses

#### Area on map \_\_\_\_

This may be a phased or staged project. Once fenced the planting happens in stages. The first stage is to plant faster growing shrubs or flaxes/grasses that create a dense cover to overpower grasses and weeds and allow for moisture retention. The next stage, say 2-3 years, is to plant larger trees that will eventually form the forest.

See section 14 to estimate the costs of native tree planting.

#### Total cost \$\_\_\_\_\_

#### Next steps:

- Arrange a fencer (quote and book project)
- Order plants- Section 10.0 for suppliers.

#### 8.2 Create a wetland area.

This is the same as for 7.1 above, except the plants are different. You need to consult with the plant suppliers for the best plants to grow in your wetland area.

#### Area on map \_\_\_\_\_

SUMMARISE ACTION PLAN	

## 9. Septic Tank

Septic tanks are designed to decompose waste from your toilets, showers, dishwashers etc. into harmless water which can then drain into the surrounding area. However, this is dependent upon a number of factors.

- the wastewater being free from harmful chemicals e.g. bleach, paint, petroleum products.
- The system does not become blocked with larger items.
- The tank is not overloaded. Watch holidays with lots of people staying.
- Distance to waterways, lakes, and estuaries. The closer the tank and its disposal field is to waterbodies, the more risk it poses.
- The condition of the disposal fields

#### Refer to. Rule 35 page 160

hbrc.govt.nz/assets/Document-Library/Plans/Regional-Resource-Management-Plan/View-RRMP/New-Chapter-6.pdf

Look for the following warning signs:

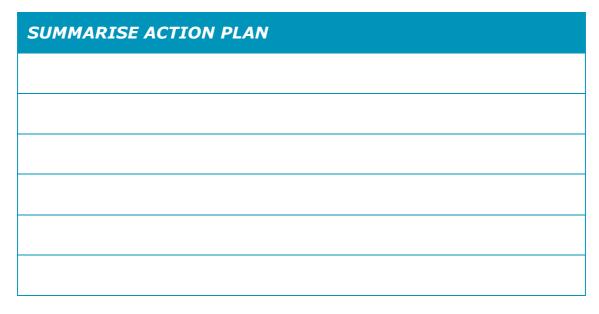
- Water and sewage from toilets, drains, and sinks are backing up into the home.
- Bathtubs, showers, and sinks drain very slowly.
- Gurgling sounds in the plumbing system.
- Standing water or damp spots near the septic tank or drain-field.
- Unpleasant odors around the septic tank or drain-field.

Your tank should be inspected and pumped of residue every 3-5 years. A list of certified septic tank cleaners is on the HBRC website. If the tank is not operating correctly advice can be provided to rectify the situation and have your tank serviced.

Resource: <u>Wastewater-pamphletv9.pdf (hbrc.govt.nz)</u>

#### Next Steps

- 1. If your tank exhibits any of the above warning signs, or if it has not been pumped for 3-5 years, call septic tank cleaning service and have tank cleaned.
- 2. Continue to be aware of any warning signs.



## **10. Pest Control**

There are a variety of pests you might have as a problem:

#### Possums

These are present in large numbers around the country and cause widespread damage to plants and trees. **Signs:** sight, nibbled small plants, pine tree corns nibbled **Solution:** trapping, shooting, poison.

#### **Rabbits & Hares**

Again, a widespread problem which have an impact particularly upon pasture and small shrubs and plants. **Signs:** sight, burrows **Solution:** shooting, poisoning

#### Cat (wild)

An increasing problem which causes substantial damage to the native bird population. **Signs:** sight **Solution:** shooting, trapping

#### Stoats & Weasels

Again, a major threat to the native bird population. **Signs:** sight, decimated domestic chickens **Solution:** trapping

#### Rats & Mice

A major threat to birds. **Signs:** sight, droppings **Solutions:** trapping, bait

#### **Advice**

Contact HBRCs pest management team, who can give advice on how best to manage each type of pest.

SUMMARISE ACTI	ON PLAN

#### **Next Steps**

Decide actions. See Suppliers section 12. Pest Control.

## **11. Other**

Consider other risk/problems/opportunities that may be unique to your property.

PROBLEM/ OPPORTUNITY	APPLY?	ACTIONS REQUIRED
Stream or ditch blocked?	Yes/No	
Paddocks pugged?	Yes/No	
Trough close to stream or ditch?	Yes/No	
Paddocks over-grazed?	Yes/No	
Possum or rabbit numbers high?	Yes/No	
Fertiliser applied within 5m of waterways and gullies?	Yes/No	
Stream ford crossings need bridge?	Yes/No	
Storm Water channel and outfalls	Yes/No	
Tracks/lanes cambered to give good drainage?	Yes/No	
Bush blocks fenced?	Yes/No	
Other	Yes/No	

## **12.** Suppliers

The following are suggested suppliers of services in relation to your plan.

#### Plants

Plant Hawke's Bay Contact Call Marie Taylor 06 844 1680 or 027 442 4536

#### **Midland Horticulture**

Contact t Michelle or Sandie on 0800 771 290

Te Wai Mauri Nursery Call 022 154 2617

HB Regional Council (source of poplar and willow poles) Phone 06 835 9200

Planting

#### Better Nature

Call Rob on 06 836 5590

**Tipene Cottrell** Call Tipene on 027 387 8430

### Fencing

Little Fencing Ltd Call Mark on 027 378 6608

### Septic Tank T Flanders Waste

Call Tracy on 06 877 6785 and she will arrange for Adam to clean your tank and advise on its health.

#### Pest Control

#### **Better Nature**

Call Rob on 06 836 5590

**Note** that in providing these contacts ATCGT does not warrant or underwrite their performance. You must satisfy yourself as to the quality, price, and suitability of the services they provide to you.

## 13. Reference/Reading

The following is a selection of reference web sites on key topics:

#### Farmers Hub

hbrc.govt.nz/environment/farmers-hub/

A well-presented website with lots of information on erosion management, planting and environmental regulations that are relevant to the Hawkes Bay area.

#### Sections on

#### **Riparian Planting**

hbrc.govt.nz/environment/farmers-hub/riparian-planting/

#### Managing erosion

hbrc.govt.nz/environment/farmers-hub/managing-erosion/

#### Sediment and Nutrients

hbrc.govt.nz/environment/farmers-hub/managing-sediments-and-nutrients/

#### **Biodiversity on Farm**

hbrc.govt.nz/environment/farmers-hub/biodiversity-on-my-farm/

#### Farmers and Freshwater (national regulations)

hbrc.govt.nz/environment/farmers-hub/essential-freshwater-package-farmers-guide/

Scroll further down to see a range of videos and a list of other useful websites.

#### nzfoa.org.nz

"Silt Traps and Soak Holes" Look for their "NZ Forest Road Engineering Manual 2020"

#### organicnz.org.nz

Find "Soil to soil: Rejuvenating silt organically."

#### landcare.org.nz

Find "Sediment Mitigation."

#### landwise.org.nz

Go to "Soil Repair after Cyclone Gabrielle."

## 14. Costing

Use this section to assist in estimating your costs if you feel this is necessary.

#### Plant poplar or willow poles

What area is involved?  $\__m2 / 285 = \____the likely number of poles required (planning 15m apart).$ 

Number of poles\_\_\_\_\_ X \$15 = \$\_\_\_\_\_ the cost of the poles including protective sleeves.

Cost of rammer \$75

Total cost \$\_\_\_\_\_

#### Native plants

Number of plants X \$3.30\*\* = \$\_\_\_\_\_ total cost of plants.

Number of plants X \$2.50 = \$\_\_\_\_\_ total cost of planting (zero if self-planting).

#### Total cost \$\_\_\_\_\_

#### Fencing

What is the length of fencing required? \_\_\_\_\_m X \$40\* = \$\_\_\_\_\_ fencing cost.

Total cost \$\_\_\_\_\_

### **Endorsement**

Thanks, and congratulations on completing your plan. Please now submit to ATCGT for review and comment.

This is very much your plan. ATCGT will collaborate with you as you wish to support and advise, as necessary.

#### ATCGT Endorsement \_\_\_\_\_

/	/

Post to: 637 Puketitiri Road, RD 2, Napier 4182, or

Email to: Matthew@AhuririCatchment.nz

**Disclaimer:** Note that the information and recommendations in this process are general and may not apply to you or your property. You need to assess the appropriateness of the information and seek additional expert guidance.

In recommending various suppliers ATCGT is not responsible for the performance of these suppliers and in no way guarantees their activities.

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