

Environmental Code of Practice For River Control and Waterway Works

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Engineering

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1 Introduction

1.1 Purpose of the Environmental Code of Practice for River Control and Waterway Works.

The Hawke's Bay Regional HBRC (HBRC) Asset Management, Works Group and their subcontractors carry out most of their functions and duties under the Soil Conservation and Rivers Control Act 1941, the Land Drainage Act 1908 and the local Government Act 2002. In relation to river control and drainage, these functions and duties are carried out, as a **permitted activity** in the Hawke's Bay Regional Resource Management Plan (RRMP) and the Hawke's Bay Regional Coastal Environment Plan (RCEP).

The purpose of this **Code of Practice (CoP)** is to define both the range of operational activities undertaken by HBRC and its contractors, and to describe best practice environmental standards that will apply to river control and drainage works, regardless of whether an activity requires a consent or not. Specifically, this CoP will:

- Identify a range of values for the region's waterways, to be considered as activities are designed, authorized and undertaken.
- Adopt best practice standards to avoid, mitigate and minimise an activity's effect on the environment.
- Define activities and reasons for activities.
- Specify methodologies for each activity.
- List the procedures for consultation and notification, monitoring and reporting;
- Ensure works undertaken under the Environmental Code of Practice will acknowledge water body values and work in a way that does not adversely impact on those values.

Embedded in this Code of Practice are descriptions of the type of works carried out on riverbeds and waterways associated with these operations in order that there is a fuller explanation of the issues that arise and how these are managed as best practicable options.

This version of the CoP supersedes the Environmental Code of Practice for River Control and Drainage Works 1999.

1.2 Hawke's Bay Regional Council Responsibility to Undertake River Control and Drainage Works

The Hawke's Bay Regional HBRC is committed to providing affordable flood control, erosion protection and drainage works that ensure community safety and well-being, and allow for sustainable economic development without compromising environmental values. The activities undertaken to achieve this are underpinned by the following statutory framework and principles:

- Local Government Act 2002.
- Resource Management Act 1991
- Civil Defence Act 1983.
- Public Works Act 1981.
- Soil Conservation and Rivers Control Act 1941.
- Land Drainage Act 1908.

It is important to note that the principles of the above Acts are subject to the purpose and principles of the Resource Management Act, Hawke's Bay Regional Coastal Environment Plan (RCEP) and Hawkes Bay Regional Resource Management Plan (RRMP).

1.3 Plans and Guidelines Directly Related to this Environmental Code of Practice

Since the development of the Environmental Code of Practice for River Control and Waterway Works (1999) there has been a number of environmental plans and waterway guidelines written and published by HBRC that are directly linked with activities carried out in our waterways. The waterway guidelines for example are to be used by both HBRC staff and HBRC contractors as a minimum requirement for carrying out a particular activity. Compliance with these waterway guidelines implies automatic acceptance of the design for consenting purposes.

The following documents provide more specific details related to the design of waterways, waterway structures, cultural interests and ecological management. The CoP would typically be considered by HBRC staff and HBRC contractors alongside these guidelines and plans as appropriate.

- a. Hawke's Bay Waterway Guidelines
 - Stormwater Management
 - Erosion and Sediment Control
 - Works in Waterways
 - Small Dam Design
 - Low Impact Design
 - Industrial Stormwater Design
 - Forestry Erosion and Sediment Control (Draft)
- b. Ngaruroro River: Ecological Management and Enhancement Plan
- c. Tutaekuri River: Ecological Management and Enhancement Plan
- d. Tukituki Catchment Rivers: Ecological Management and Enhancement Plan
- e. Hawke's Bay Riverbed Gravel Management Plan
- f. Hawke's Bay Fish Passage Guidelines, HBRC 2011
- g. Inanga Spawning Sites: Heretaunga Rivers 2015
- h. Inanga Spawning Sites: Wairoa District Rivers and Streams 2016

Each of the above documents is related to a specific activity or river; they are comprehensive and in some cases quite detailed, therefore they have been included in this environmental code of practice via reference rather than attempting to condense them.

The **ecological management and enhancement plans (EMEP)** have a two-fold purpose. Firstly, is the management of the waterways (particularly within the flood protection scheme areas) focusing on the physical activities and associated ecological effects by relating them to the spatial arrangement and significance of ecological values. Where there is a conflict between scheme activities and notable ecological values, a range of specific management controls are recommended.

Secondly, EMEP's set out a strategy and prioritised plan for the enhancement of existing ecological values and the creation of new ecological sites. Where possible, enhancement activities are planned to achieve

outcomes across multiple values, in particular to achieve ecological as well as cultural and/or recreational benefits.

1.4 River Control and Drainage Activity

The Hawkes Bay Regional HBRC (HBRC) undertakes a range of construction and maintenance works in rivers and waterways within the region. For a description of these, refer to **Table 2** River Works and Waterways Activities later in this document.

The majority of significant works occur within designated scheme areas. There are two major schemes where significant flood control and drainage works occur and these are listed in Table 1 below. As well as the major schemes, there are eleven smaller schemes and two general schemes that cover the Central and Southern Rivers and Streams and the Northern Rivers and Schemes.

Table 1: Major Schemes

Scheme	Length	Main Waterways
Heretaunga Plains Flood Control and Drainage Scheme	87 km	Tutaekuri, Ngaruroro, Lower Tukituki
Upper Tukituki Flood Control Scheme	183 km	Tukituki, Waipawa, Tukipo, Mangaonuku, Makaretu

These two major schemes cover around 350 km of rivers, or approximately 22% of the total 1600 km of significant rivers and streams located within the Hawke's Bay region. In addition to these, HBRC oversees flood control and drainage programmes for eleven areas, from Kopuawhara in the Wairoa district to Porangahau in Central Hawke's Bay. HBRC also manages 470 km of drainage network (open waterways) throughout the Heretaunga Plains.

Within the two large schemes, the HBRC owns and actively manages large tracts of river and waterway berm land. The river berm areas are popular recreational venues for a diverse range of groups and individuals. They also provide good habitat and biodiversity values. The land owned or administered by HBRC is shown in **Figure 1**.

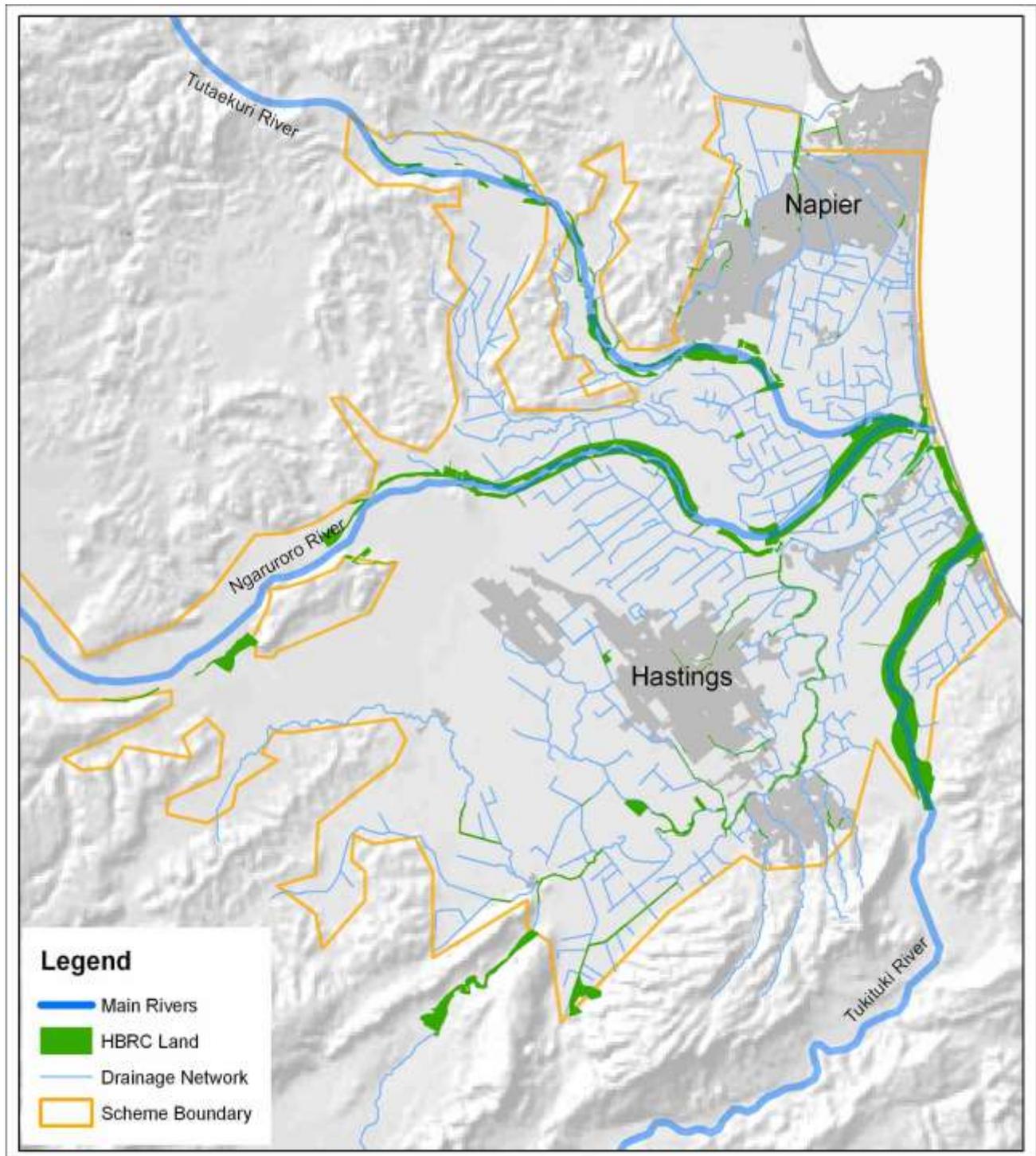


Figure 1: HBRC land within the Heretaunga Plains Flood Control and Drainage Scheme.

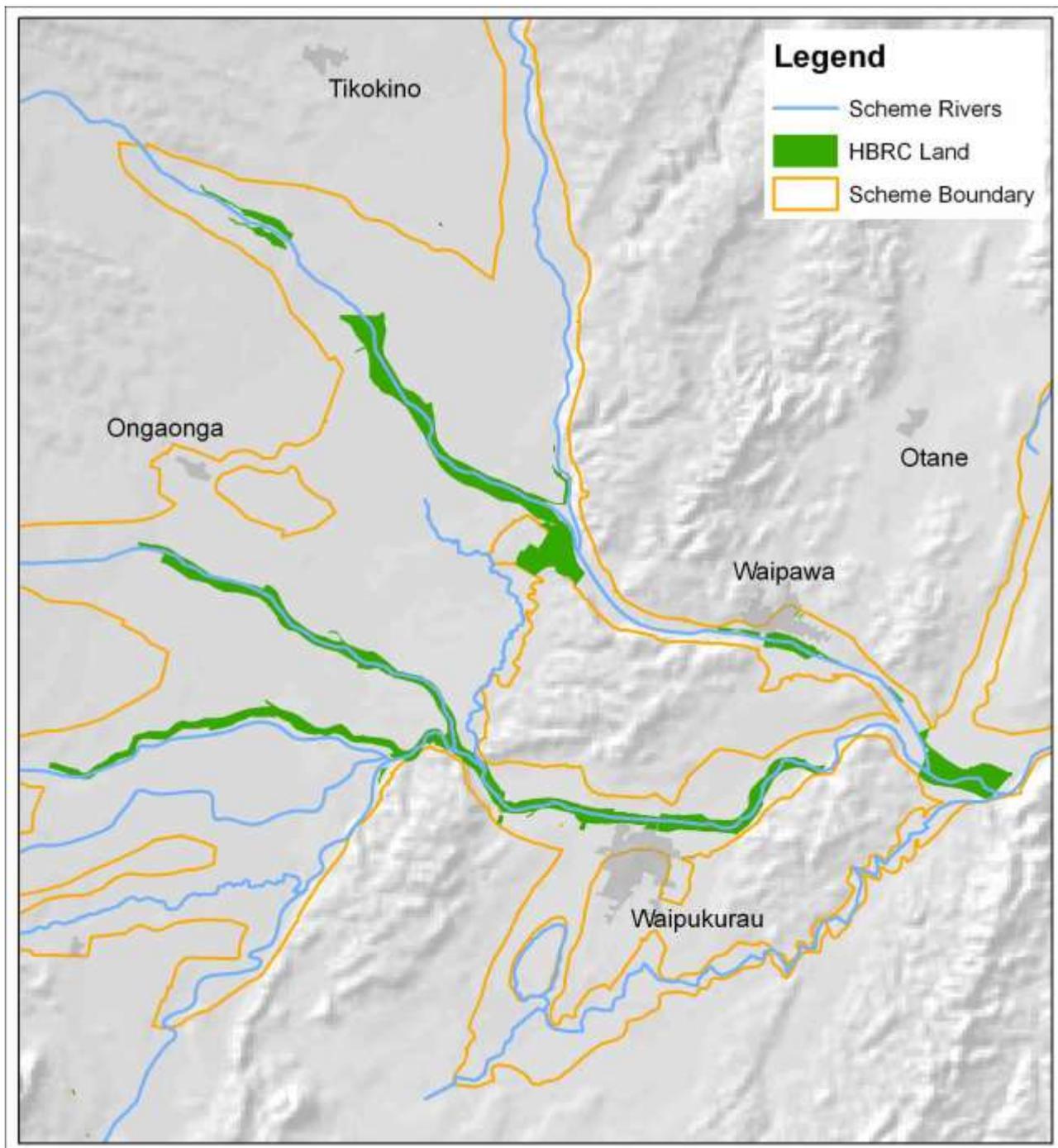


Figure 2: HBRC land within the Upper Tukituki Catchment Flood Control Scheme.

The HBRC's Regional Resource Management Plan¹ and Regional Coastal Environment Plan contains a permitted activity rule that encompasses the majority of river and drainage works undertaken within and near waterways, the active river channel, bed of the river and adjoining berm or riparian areas. Similar permitted activity rules have been adopted in the region's District Plans for the adjoining berm areas, particularly for those areas between established stopbanks and the river channel.

¹ Regional Plans are produced under the Resource Management Act to authorise or establish standards for activities restricted under the Act such as works in riverbeds.

1.5 Environmental Code of Practice

An Environmental Management Strategy for the Waterways of the Heretaunga Plains and Upper Tukituki Schemes, prepared for HBRC in 1998, recommended that HBRC produce an integrated “Rivers and Waterways Environmental Plan” for the development, management and enhancement of the waterways, and also an “Environmental Code of Practice” that would have input from the region’s iwi, the Department of Conservation and the Fish and Game Council.

HBRC staff agreed that the production of these additional detailed documents would be beneficial. Given the diverse views, aspirations and priorities amongst all of the groups and individuals with an interest in the river and drainage areas, a process was required to:

- Clearly identify those divergent views through consultation;
- Analyse those views and document the areas of agreement and divergence; and,
- Prepare an *Environmental Code of Practice* (the *Code*) that would dictate the way in which river and drainage works are undertaken, and the way in which river berm and drainage areas are managed by HBRC.

The first version of the *Code* was prepared and adopted in 1999 to:

- Provide clear standards of practice for river control and waterway works;
- Document the environmental enhancement and preservation practices to be followed to protect conservation interests, and identify areas for future enhancement or protection;
- Document the locations to be made available for public vehicular access, and the restrictions on public vehicular access imposed in other locations; and,
- Clearly identify those works that were covered by the permitted activity Rule within the Regional Resource Management Plan (RRMP).

The *Code* also provides a future common point of reference for all parties with an interest in the river and drainage berm areas, and removes any uncertainty regarding the HBRC policies or practices being implemented in specific locations.

The “Rivers and Waterways Environmental Plan” has taken the form of a comprehensive ***Ecological Management and Enhancement Plan (EMEP)***, which has been produced for each of the major scheme rivers and the recommendations are now being implemented.

The 1999 Environmental Code of Practice for River Control and Drainage Works is embedded in the RRMP. This 2017 version of the CoP incorporates the Ecological Management and Enhancement Plans, recognising the importance of the multi values associated with waterways.

1.6 Code Development Process

In order to provide effective guidance for HBRC staff, while also being acceptable to the various interest groups, the development of the Code was based on a robust consultative process circa 1999 involving all known stakeholder organisations having an interest in the rivers and waterway areas.

The consultation process undertaken and the results obtained are documented in a separate background report titled *Environmental Code of Practice for River Works: Consultation Process and Results, 1999* (the Consultation Report). The Consultation Report sets out the parties identified for consultation, the consultation process adopted for each party and the views expressed by them. For the sake of brevity, the contents of the Consultation Report are not repeated in the Code, but were utilised in its preparation. For

this review and update, consultation has been through specific meetings and the Local Government Act Special Consultative Procedure. Through this procedure, the 2017 version of the CoP, (after adoption by Council) will give weight to this document as an interim position until the RMA proposed plan change process is concluded.

1.7 Relationship with Other Relevant Documentation and HBRC Functions

The code of Practice is one of a suite of documents that provides guidance planning and standards for activities undertaken by Hawkes Bay Regional HBRC in rivers and waterways. The flowchart below shows how the Environmental Code of Practice for River and Waterway Works fits into the planning framework. The links between Hawke’s Bay Regional HBRC’s activities and interests is described in Figure 4.

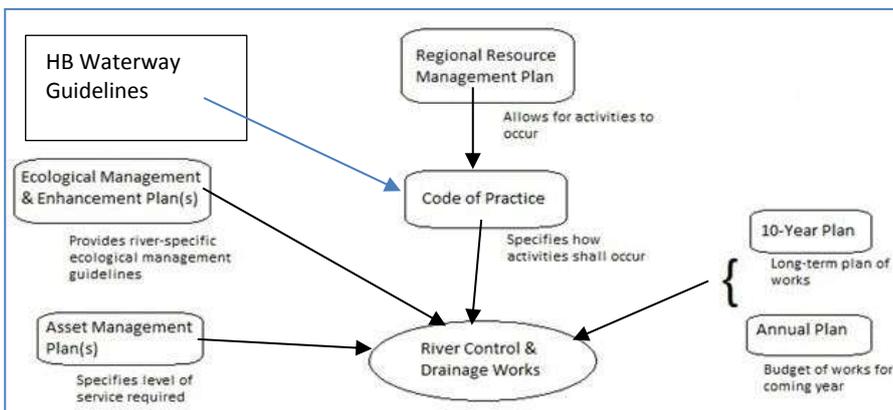


Figure 3: Relationship of Code of Practice with other HBRC plans...

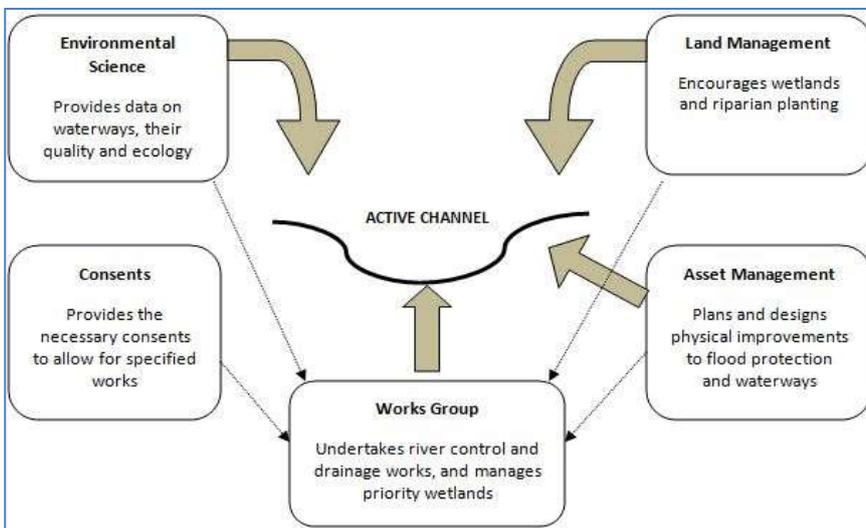


Figure 4: Relationship with other HBRC functions.

1.8 Prioritised Objectives

There are a wide range of views and interest with regard to the use and management of the rivers and waterway areas within the region. Consequently, there is a need for HBRC to state its management priorities for the rivers, drains and associated riparian areas. Based on the range of views and HBRC's responsibilities under various Acts, a hierarchy of priorities has been developed.

These ranked priorities are set out below.

HBRC's Hierarchy of River Management Priorities:

1. Protection of human life and property through the design and efficient operation of river and flood control works, and drainage systems.
2. Maintenance and protection of existing ecological values.
3. Acknowledgement of customary rights under the Treaty of Waitangi.
4. Enhancement of fishery (native and trout), wetland and riparian wildlife habitats.
5. Avoidance of health and safety risks posed by:
 - Grass and scrub fires;
 - General theft and stock rustling;
 - Vandalism;
 - Rubbish and car body dumping;
 - Public interaction with river works or gravel extraction operations.
6. Facilitation of vehicular and pedestrian public access to publicly owned river and drainage areas where such access does not conflict with the higher order management priorities (1) to (5) above.

2 Review

As well as setting general standards of practice for HBRC's river work activities, the Code also identifies other matters such as specific locations for public access for example. There are also plan changes and changes to river and drainage management practice. Consequently, it is preferable that the Code is reviewed from time to time so that the appropriateness of the standards and site-specific information can be assessed over time.

The Code will be reviewed to align with Asset Management Plan reviews that are every six years. The review process will involve consultation with:

- Iwi of the Hawke's Bay region;
- Department of Conservation;
- Fish and Game Council;
- Royal Forest and Bird Protection Society.

In addition, other parties requesting a direct involvement in the review process will be consulted, together with any other parties that HBRC considers appropriate at the time.

3 Description of River work and Waterways Activities.

The Hawke's Bay Regional Council undertakes a wide range of physical works in the rivers and waterways across the region. Most of these works are covered by a permitted activity Rule in the Regional Resource Management Plan (RRMP) and the Regional Coastal Environment Plan (RCEP) (see below for rule classifications).

A description of the works that can be undertaken as part of the permitted activity status is set out in Table 2 below. Also shown is work that requires a resource consent.

Figure 5 below shows a stylised representation of a river corridor with the berms, active channel and stopbanks shown to illustrate the descriptions in Table 2. The active channel is the area of gravel/sand/silt, non-vegetated riverbed between natural banks of the river. The active channels may or may not have flowing water in them from time to time.

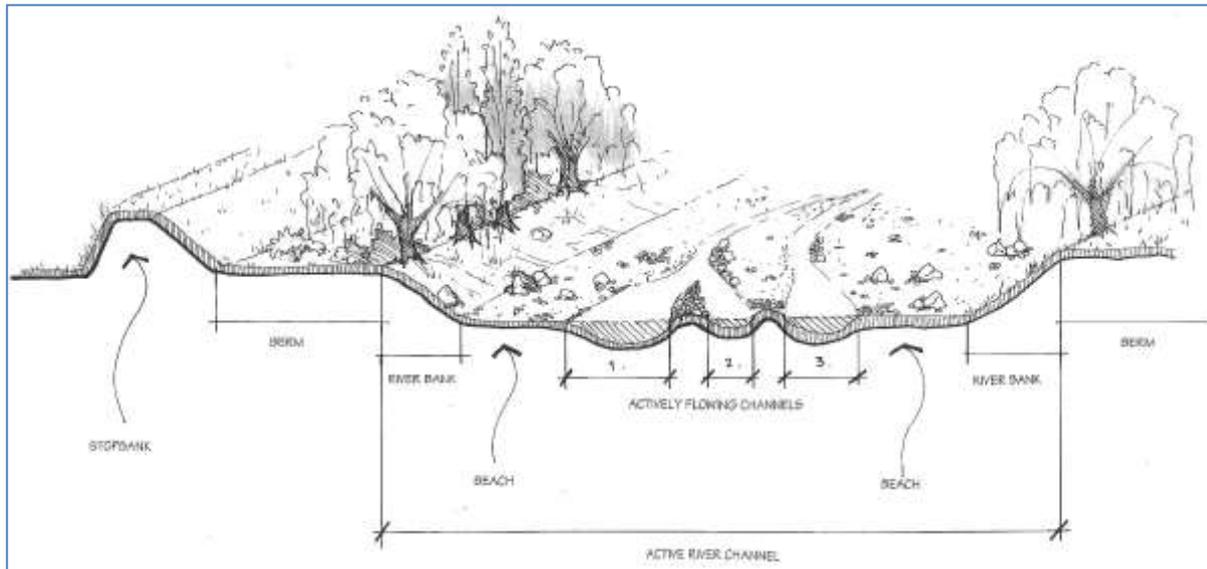


Figure 5: Active River Channel, Berms and Stopbanks Diagram.

Any work not covered by Permitted Activity rules in the Hawke's Bay Regional Resource Management Plan (RRMP) and Regional Coastal Management Plan (RCMP) will require resource consent from the Hawke's Bay Regional Council Environmental Regulation Section. In such cases, HBRC's Asset Management staff will consult with the following parties, where it is appropriate in accordance with the plan provisions and Resource Management Act requirements, prior to seeking resource consent:

- Iwi or hāpu;
- Department of Conservation;
- Fish and Game HBRC;
- Royal Forest and Bird Protection Society;
- Identified user groups, such as whitebaiters, remote-controlled airplane club, and others;
- Neighbouring landowners.

This consultation process shall attempt to inform, gather comments, concerns, and advice from these external parties, and help shape the proposed activity plans to the extent possible.

Rule Classifications

Rules in the RRMP and RCMP are classified as:

- (a) **Permitted**, it can be carried out without resource consent provided the conditions in the rule are met.
- (b) **Controlled**, a resource consent is required, HBRC must grant the consent, subject to conditions
- (c) **Restricted discretionary**, a resource consent is required, and HBRC will decide on whether or not to grant the consent, based on exercising its discretion on matters specified in the rule.
- (d) **Discretionary**, a resource consent is required and HBRC will decide on whether or not to grant the consent, based on how consistent the proposed activity is with the provisions of the RMA and the objectives and policies of the plan.
- (e) **Non complying**, a resource consent is required and can only be granted if the adverse effects are minor and not contrary to the objectives and policies of the plan.

(f) **Prohibited**, the activity is not allowed under any circumstances.

Table 2: River Work and Waterways Activities.

<u>Activity</u>	<u>Covered by Permitted Activity Rule</u>	<u>Description</u>
Live edge protection	✓	Includes trees planted on the river berm adjacent to the active river channel and on the riverbank. The trees reduce lateral scour and help confine high velocity flood flows to the main river channel. The species most commonly used are willows (<i>Salix</i> spp.), due to their hardy nature and large fibrous root mass.
Tree lopping and layering	✓	The process of felling existing live edge protection trees on to the ground while maintaining an adequate connection with the stump such that vigorous regrowth is encouraged at bank level where it is most useful.
Tree removal	✓	Live edge protection trees and unwanted trees on the berms etc. are physically removed for either reuse or disposal. The trees are usually stacked and burned, or reused as edge protection.
Edge retreat	✓	The riverbank and adjacent berm is physically excavated and removed or allowed to erode during flood events. This technique is used to realign or develop the active river channel to its design width.
Rockwork and hard edge protection	✓	Includes lining, revetments, groynes and riverbanks that consist mainly of rock other durable material to prevent erosion and stabilise the banks.
Groynes and spur banks	✓	Projections of rock or other durable material are constructed to protrude into the active river channel. They may be permeable or impermeable. These projections may also utilise gabions (wire mattresses filled with rocks), concrete shapes, steel cables or railway irons driven into the ground for extra stability. Groynes are used to deflect the active river channel away from vulnerable riverbanks. Earth groynes or spur banks are also used adjacent to stopbanks for the same purpose.
Beach raking	✓	Raking of exposed gravel beaches with a bulldozer or tractor towing large rippers to disturb the top armoured layer of stones and unwanted vegetation growth. Once the top layer of stones is disturbed, subsequent flood flows are able to erode the gravel within the beach and transport the material downstream. This is critical to prevent the formation of islands or beaches that deflect the flow and cause a lateral shift in the flow meander. This in turn puts pressure on the riverbanks. Timing and location

<u>Activity</u>	<u>Covered by Permitted Activity Rule</u>	<u>Description</u>
		of raking can adversely impact on biodiversity values (birds and fish) and requires careful management. Beach raking also assists with weed control, especially species that colonise open gravel areas such as Lupin, suckering willows, gorse and <i>Buddleia</i> . There can also be benefits in controlling woody vegetation that can invade bird-nesting sites.
Berm mowing	✓	The mowing of weeds and grass on river and waterway banks and berms. This assists with flow conveyance and potential summer fire problems. It can also enhance open space values in high public profile areas. Berm mowing can destroy whitebait habitat spawning sites in the lower reaches of rivers and streams near the coast and should be avoided in these areas.
Unwanted vegetation, plant pest spraying	✓	The spraying of various weeds, plant pests and unwanted vegetation on river beds, berms and drains by approved applicators. Spraying operations are to be carried out using best practice described in Section 4.1 below.
Willow regrowth spraying	✓	The spraying of unwanted willow regrowth within the active river channel. Spraying operations are to be carried out using best practice described in Section 4.1 below.
Weed boating	✓	Cutting aquatic weeds within waterways and rivers with the HBRC weed boat. Where practicable the cut weeds are collected and removed from the river or waterway. The weed boat requires thorough cleaning between sites of a different catchment to prevent the spread of aquatic weed pests.
Pole planting	✓	Planting of willow or poplar poles on river berm areas and banks.
Planting Native and Exotic plants	✓	Planting of native shrubs and trees. Planting of exotic shrubs and trees other than willows and poplars for biodiversity, enhancement and flood control purposes.
Bank reinstatement	✓	The reinstatement of eroded river and waterway banks to their original (pre-flood) state and profile or improved profile. This may involve using gravel material from within the active river channel, combined with either live edge protection plantings, rock revetments or other structural means.
Irrigation intake maintenance	✓	Removing accumulated sediment from around irrigation intakes, or directing flowing water to those intakes if the active river channel has migrated away from them.
Waterway maintenance²	✓	Removing accumulated sediment, weed or other debris from waterways. Reinstating slumped or eroded waterway side

² This does not include sediment or gravel removal from rivers or streams outside of drainage scheme areas.

<u>Activity</u>	<u>Covered by Permitted Activity Rule</u>	<u>Description</u>
		batters to their design standards. Includes clearing blocked or impeded floodgates.
Waterway upgrading	✓	The widening or regrading of waterways to improve the level of service. The replacement of culverts and other channel and bank control structures. Minor waterway diversion and realignment.
Waterway mowing	✓	Mowing the waterway banks and berms. Bank and berm mowing can destroy whitebait habitat spawning sites in the lower reaches of rivers and streams near the coast and should be avoided in these areas.
Waterway crossing	✓	Constructing vehicular and pedestrian crossings over waterways using bridges or culverts or fords. Where no structure is proposed, consideration shall be given and disturbance limited to the minimum necessary.
River mouth openings	✓	Physically breaching of river mouths that have become blocked with sediment (e.g. shingle) due to either low river flows or adverse sea conditions. River mouth openings are only undertaken when upstream flooding or degraded water quality is causing a problem, or where an agreed management regime exists such as at Whakaki.
Fencing	✓	Fencing river berms for the purpose of controlling stock or unauthorised vehicle access. Fencing of refuge areas, wetlands and whitebait habitat areas.
Pool creation	✓	The creation of pools on the outside of river bends in order to provide fishery habitat. Pool creation for fishing purposes will occur in consultation with Fish and Game NZ. Pool creation for recreation purposes in consultation with hāpu / iwi.
Minor diversions	✓	Diversions or redirection of the flowing river channel, where the diversion path is fully contained within the confines of the active river channel ³ . This includes temporary diversions associated with the construction of structures, such as culverts and weirs, and the maintenance or irrigation intakes.
Major diversions	✗	Diverting the active river channel from its present course by excavating a new channel through previous berm areas.
Gravel Extraction (using a mechanical device)	✗	Used as a tool to manage riverbed levels at predetermined profiles. HBRC will obtain Global Consents for the main gravel

³ The active river channel is the area of gravelled, non-vegetated river bed between the natural banks of the river. The active river channel may or may not be covered with flowing water. Actively flowing channels are channels within the active river bed that have flowing water in them (see Figure 5)

<u>Activity</u>	<u>Covered by Permitted Activity Rule</u>	<u>Description</u>
		rivers and issue Authorisations to extractors. Separate consents are required for areas outside the Global Consent areas...

Some of the activities permitted in the Regional Resource Management Plan and the Regional Coastal Environment Plan have rules relating to the scale of the permitted activity. Where any activity to be carried out exceeds the permitted scale identified, resource consent must be obtained before that activity is undertaken.

4 General Standards of Practice

The HBRC undertakes river and drainage works throughout the Hawke's Bay region. As noted, many of these works are carried out as a 'permitted activity' by the Regional Resource Management Plan and the Regional Coastal Environmental Plan, subject to a number of conditions that must be met by the HBRC when it undertakes the work. There are also other standards of practice that HBRC voluntarily abides by. These standards⁴ are detailed below.

- (1) Only Contractors approved through the approved contractor register or through the formal contractor tendering process, and with a track record of using well-maintained machinery, shall be engaged in river and waterway work.
- (2) Machinery shall be kept out of water to the extent possible. Where this is unavoidable, all measures shall be taken to minimise bed disturbance and release of sediment (e.g. use only one crossing point, typically upstream of riffles, sediment control or minimisation measures).
- (3) Appropriate machinery shall be used to ensure effective and efficient operations with minimal environmental impact.
- (4) Machine refuelling and fuel storage shall take place where no fuel can enter a water body in the event of spillage.
- (5) All machinery, equipment and material shall be stored above the anticipated flood level at the end of working day or when the site is unattended.
- (6) Machinery leaking fuel, lubricant, hydraulic fluids or solvents shall not work within a water body.
- (7) On completion of activity or in the event of anticipated extended suspension of works, all disturbed areas and access tracks, including public and recreational points, that have the potential to release sediment to water shall be reinstated.
- (8) All spray and fuel containers shall be safely disposed of at an authorised landfill site or re-used.
- (9) On the completion of works, all surplus vegetative material shall be either removed from the site or disposed of either by burying or burning as soon as material and weather conditions allow.
- (10) Burning on public land shall be supervised at all times and fire control equipment shall be available at the site.
- (11) On the completion of works, all surplus construction material shall be removed from the site.

⁴ All terms used in the standards shall have the same definition as Section 2 of the Resource Management Act, or as commonly defined in the Oxford Dictionary if they are not defined in the Act.

- (12) Debris that has the potential to increase the risk of flooding or erosion will be cleared as soon as conditions allow and if possible in conjunction with programmed activities.
- (13) On completion of the works all surplus excavated bed material shall be spread evenly leaving beaches well shaped and tapering uniformly from the water's edge to the riverbank.
- (14) All stock animals shall be excluded from the works area until vegetation is well established and fenced.
- (15) Fish passage shall be maintained in rivers at all flows during the execution of in-channel works.
- (16) Risk management procedures shall be in place on all work sites to minimise the potential for damage arising from inclement weather and/or elevated river levels during the course of work.
- (17) Where the activity poses, or is likely to pose a risk to the public, the contractor shall erect warning signs adjacent to the site. These signs will be removed when the activities on the site are no longer a danger to the public.
- (18) Activities shall not use any material that has a potential to have a significant ecological effect on the environment.
- (19) Activities shall comply with New Zealand Electrical Code of Practice for Electrical Safe Distance (NZECP 34:2001).
- (20) Machinery and plant shall maintain a minimum clearance distance of 4 meters from the transmission line conductors at all times.
- (21) The objectionable effect from the disposition of dust on neighbouring properties when undertaking activities shall be minimised by water spraying.
- (22) Concrete shall only be poured in a bunded area to prevent fresh concrete or cement entering the watercourse.

4.1 Weed Control by Spraying with Herbicides

Activity: This involves the application of approved herbicides from both ground-based operations and use of specialised spray boat. The purpose of the works is to control excessive weed growth on the banks, berm and active waterway channel so that the waterway is maintained, drain flow is not impeded and plant pests are restricted from spreading.

Good Practice Guidelines:

- a) All operations must comply with NZS 8409:2004 Management of Agrichemicals.
- b) In fish spawning areas, obtain from Fish and Game critical sites and timing of spawning prior to carrying out spraying in these areas.
- c) No spraying to occur near any whitebait (Inanga) spawning sites identified in Section 5.5
- d) No spraying of known native fish spawning sites/**Error! Reference source not found.**
- e) Avoid the discharge of herbicide spray onto the water surface.
- f) Use spot spraying techniques and avoid blanket spraying as far as practicable.
- g) Ensure correct calibration of spraying equipment.
- h) Ensure that staff are fully trained and well versed in the use of the agrichemical.
- i) Use the correct chemicals and follow the manufacturers written instructions.

- j) Always mix sprays well away from a watercourse.
- k) Avoid spraying in adverse weather conditions.
- l) Use an effective surfactant to reduce spray drift and enhance the effectiveness of the herbicide.

4.2 Beach Raking and Spraying

Beach raking will be undertaken in areas where gravel accumulation and excessive vegetation growth is evident and likely to pose a risk to edge protection works. It will also be undertaken in areas where commercial gravel extraction is not viable.

Beach spraying will be undertaken in other areas as a means of controlling unwanted vegetation.

Figure 6 identifies areas where beach raking and/or spraying is carried out.

Beach raking and other riverbed disturbances will not be undertaken during the Black-billed gull, Banded dotterel, Black-fronted dotterel and Pied stilt critical nesting periods for the particular river in question. The critical nesting times and opportunities for beach raking are described in the river **Ecology Management and Enhancement Plans**. River workers have been made familiar with these requirements and arrange work schedules around them.

Machinery used for beach raking or beach spraying shall not enter the active flowing river channel(s), other than to gain access to the beach being raked or sprayed.

Beach raking will not be undertaken within 0.5 m of actively flowing channels.

The windrowing of beaches shall not prevent the passage of small 4WD vehicles over the river beaches, except where critical nesting, breeding or rearing habitat has been identified for native bird populations.

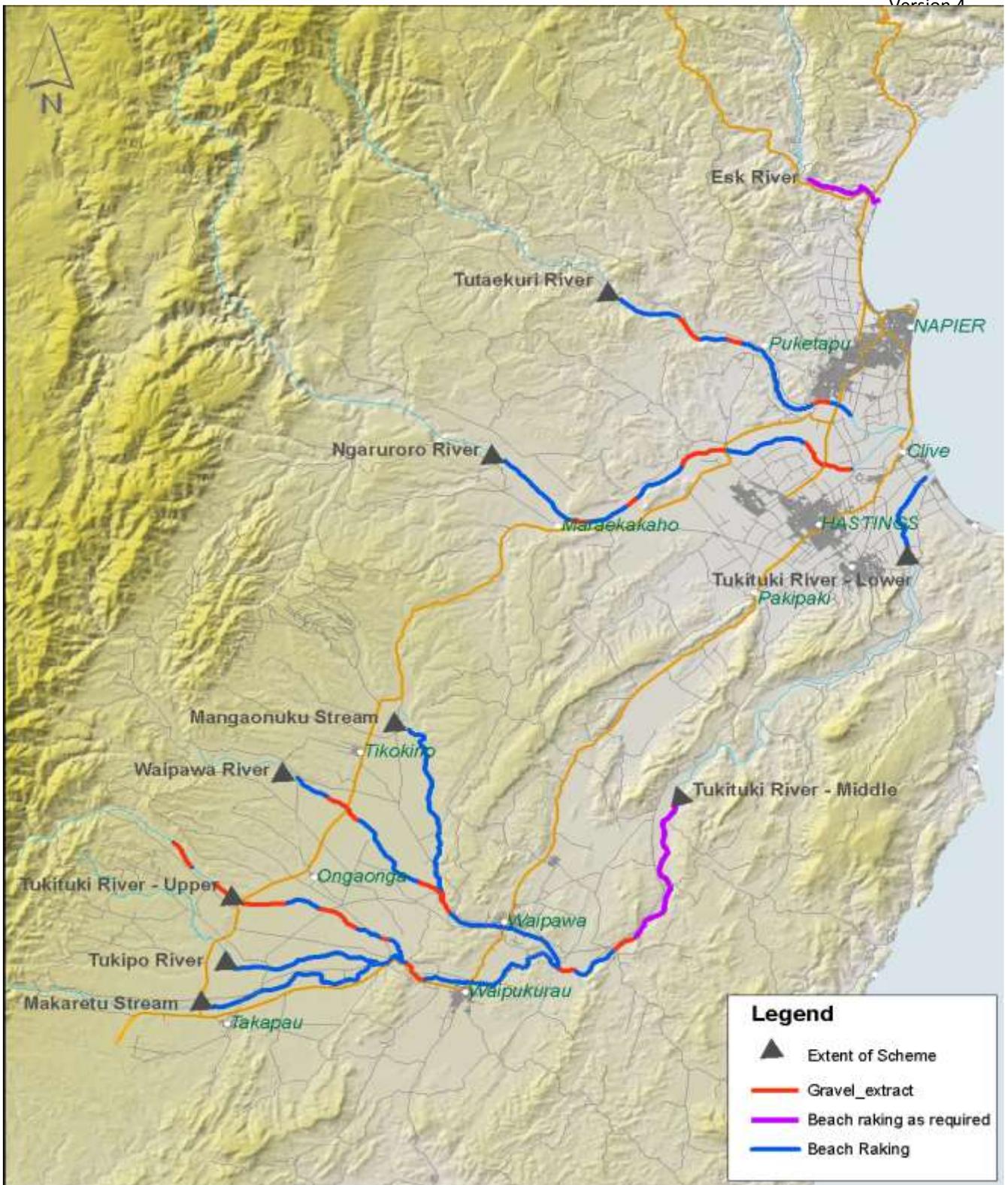


Figure 6: Beach Raking on HBRC managed land.

Existing vehicular tracks to the water's edge shall be left undisturbed or shall be reinstated once beach raking is completed. To the fullest extent possible, existing vehicular tracks shall be used in lieu of creating a new track.

The respective lengths of beach raking, gravel extraction and beach spraying river reaches, as shown on Figure 6 are indicative only, and may vary from year to year.

4.3 Berm Mowing

Berm mowing can be used on areas to control rank grass, pasture grass, and weeds. This activity is primarily carried out in the public access area.

A dense sward of grass, free of plant pests, shall be retained once mowing is completed.

Those areas that are not mowed (or grazed) support a scrub or tree habitat ideal for wildlife and upland game birds in particular.

The very sensitive and localised whitebait (Inanga) spawning sites should not be mown and this includes the active river channel edge. In general a band of uncut grass should be kept around the water margins as vital habitat. Consult the maps to identify these whitebait-spawning sites. If in doubt avoid the area and have it identified by a recognised expert for inclusion in future spawning site maps.

4.4 Buffer Zone Plantings

Buffer zone plantings are established behind the live edge protection and do not usually directly adjoin the river's edge. Current buffer zone planting species include varieties of willows, poplars and other exotic species. Native species are also used in specific sections of the buffer zone where ground conditions are suitable, and the integrity of the flood control assets being protected will not be compromised if the native species do not survive or grow as expected.

4.5 Channel Diversions

Any new channel shall be as similar to the natural shape of the river as practicable, both in cross-section and longitudinal slope, to maintain the physical habitat features occurring in the natural river channel (e.g. pools and riffles). In order to facilitate waterfowl access to drains and vegetative cover for nesting, drain sides shall not have a batter steeper than 1:1, unless steeper batters are necessary due to space restrictions. Steeper batters shall be evaluated for engineering options to reduce erosion and slip potential.

Channel diversion works shall avoid the primary fish-spawning period of May to September unless suitable fish passage is provided past the works. A suitable fish passage shall be provided for channel diversions where fish migrations upstream or downstream occur.

4.6 Drain Maintenance, Upgrading and Mowing

Sediment or vegetation removed from a waterway shall be deposited where it is unable to flow back into the waterway, and does not create an impediment to overland flow into the channel. Where drain inverts are to be excavated over a significant reach for grade improvement or cleaning purposes, assessment shall be made for the presence of fish by an aquatic ecologist. Where required fish shall be temporarily removed from harm's way and replaced once the activity has been carried out or placed in another suitable reach of the stream.

In order to provide a filtering effect from overland flow, and to ensure the stability of the channel sides, a healthy, dense sward of grass cover shall be retained on the sides of all channels, berms and wherever possible, also on the maintenance access tracks. Ideally, grass length shall be maintained in the range of 50 mm to 150 mm so that scour from flood flows is minimised and sediment deposition onto the berm is likewise minimised.

The use of Marsh Clubrush (*Bolboschoenus*) to provide filtering, erosion protection and stabilisation is encouraged where flooding and drainage is not unduly compromised. This grows naturally in many lowland waterways and is easy to establish using bulbs and plants removed from areas where they have become prolific.

4.7 Crossings

Any waterway crossing installed shall:

- Be able to pass the design flood flow for that particular⁵ drain;
- Incorporate downstream scour prevention measures, such as gabions or rockwork, if bed erosion is likely to occur as a result of high flow velocities through the structure; and,
- Not impede fish passage (see '*Hawke's Bay Fish Passage Guidelines*', HBRC 2011).

4.8 Edge Retreat

Fish and Game NZ will be consulted on an annual basis regarding areas to be targeted for edge retreat.

River edge vegetation that is cleared shall be removed to a location where the likelihood of the material re-entering the active channel is minimised. No material (vegetation or aggregate) shall be pushed or placed into the active river channel.

4.9 General Use of Machinery

Warning signs shall be erected adjacent to the site of machinery operations if the site is, or is likely to be, hazardous to the public.

Machinery shall be removed from the riverbed at the end of each working day.

No refuelling of machinery shall occur within 20m of the active river channel.

No fuel shall be stored within 30m of the edge of the active river channel.

In the event of a fuel spill or other chemical (oil, lubricant, hydraulic fluid) leak, the appropriate Works Group contact shall be notified immediately, and efforts shall be made to clean up the contaminant(s).

Crossing of the active river channel by machinery shall be avoided where practicable during the fish spawning months of May to September.

4.10 Gravel Extraction

Gravel extraction requiring an Authorisation from HBRC Asset Management (where HBRC hold Global Consents) shall only occur in areas specifically allocated by HBRC following its annual assessment of the sustainable gravel yield available from each river.

No gravel extraction shall occur within one metre of the active river channel with flowing water, unless specifically authorised by HBRC.

No hāngī stones are to be removed from the Mohaka River without the prior permission of the affected Ngati Pahauwera hāpu.

Gravel stockpiling within the riverbed shall only occur temporarily while gravel extraction is being actively undertaken. All other stockpiles shall be located outside the riverbed.

HBRC will provide designated access paths through any live edge protection plantings, and gravel extractors will not be permitted to cut their own access paths without prior HBRC authorisation.

⁵ Recognising that different design standards apply in different areas.

The gravel extractor shall immediately repair any damage caused to riverbanks or river protection works, other than damage associated with authorised access paths through live edge protection plantings.

The gravel extraction site shall be restored upon the completion of extraction activities as follows:

- All gravel previously heaped up or stockpiled shall be spread out to conform with the general ground profile; and,
- Reject, surplus or unused gravel from a gravel processing plant shall not be deposited within the active river channel.

Gravel extractors shall minimise the generation of dust from access tracks and storage and processing sites, through measures such as water application.

Gravel extractors shall be allowed to temporarily exclude the general public from gravel extraction and processing sites if the general public's health and safety is likely to be adversely effected by specific gravel extraction activities. If the public is excluded, the gravel extractors shall erect appropriate warning signs⁶. However, at all other times gravel extraction activities shall be undertaken in such a manner that public access is not compromised.

4.11 Groynes

Groynes will not protrude across more than 20% of the active river channel. Groynes will preferentially utilise local rock sources where possible. However, flow conditions in the larger rivers will dictate sizes and local rock sources are not usually available in sufficient quantities. In this case especially designed concrete shapes (i.e. Akmons) can be used. Demolition material (other than clean concrete with no protruding reinforcing steel⁷) and car bodies will not be used in the construction of groynes.

4.12 Irrigation Intake Maintenance

Providing and maintaining water supply to irrigation intakes is generally undertaken within the active channel of the river. Any excavation works associated with this activity shall, wherever possible, be carried out in an area separate from the main river flow. Once this diversion work is complete, the link between the river and the intake will be made.

Any necessary works within the flowing channel shall be undertaken as quickly as possible to minimise the disturbance to the waterway.

4.13 Live Edge Protection (including pole planting)

Edge protection plantings generally consist of willow species. It is vital that edge protection plantings are able to survive the harsh river edge environment, and are able to quickly establish and maintain an effective edge protection zone. Willows meet these needs where most other species may not. Consequently, other species will not generally be considered for edge protection plantings.

Edge protection plantings shall be fenced on their landward side if the area adjacent to them is used for stock grazing.

Edge protection plantings shall not include invasive exotic species, including those willow species known to aggressively spread. It is important that edge protection does not shade out Inanga spawning habitat.

⁶ Note that the general Health and Safety matters associated with gravel extraction activities are the responsibility of the gravel extractor.

⁷ Any reinforcing material that is subsequently exposed will be removed.

4.14 River Mouth Openings

River mouth opening shall be undertaken if:

- The river mouth is blocked and river is in risk of flooding.
- The river mouth is located in an undesirable location due to it migrating too far from an ideal position.
- Poor mouth conditions are adversely affecting drainage within the lower sections of the river.
- Poor water quality in the impounded river is having a significant adverse effect on the aquatic ecosystem.

Excavated material shall be placed alongside the newly cut river channel⁸ where it can be washed back into the tidal zone by the developing river mouth.

4.15 Rock Revetments

Rock revetments will be:

- Used only where live edge protection is not a feasible alternative;
- Not generally constructed on slopes steeper than 2:1;
- Constructed of local rock sources where these are structurally suitable, and a cost effective supply of rock is available; and,
- Designed and constructed to preserve the natural character of the river berm area as far as is practicable.

4.16 Tree Removal

Tree removal shall be carried out from the dry berm area, not the active river channel, unless the tree has become established in the active river channel and is likely to cause a problem.

Trees overhanging the active channel shall generally be removed in a manner that minimises the need to fell trees into the active river channel. Any trees felled into the active river channel shall be removed immediately once the felling work is completed.

The root systems of felled trees shall remain undisturbed (to avoid excess sediment generation) unless the area being cleared is targeted for edge retreat. Trees that are removed shall be stockpiled, and where possible, made available to the general public for removal as firewood. Otherwise, the stockpiles will be burnt in accordance with air discharge rules and good practice at an appropriate time, or physically removed off-site and disposed of at appropriate tree or stump dumps.

Where stump poisoning is deemed necessary to prevent further growth it shall be carried out generally in accordance with Section 4.1. good practice guidelines.

4.17 Weed Cutting including Weed Boating

Wherever practicable cut weeds shall be removed from the river or waterway and disposed of on dry land. An exception to this involves weed clearance using the weed boat, as weed cuttings from the weed boating operation may be floated downstream rather than piled adjacent to the waterway. Weed cutting shall not be undertaken on the Clive River or Grange Creek during the whitebait season (15 August to 30 November).

⁸ River mouths are generally opened using excavators and bulldozers to excavate a new channel between the river and the sea. The excavated material tends to be relatively clean and well graded with minimal silt and suspended sediments.

An exception to this is where whitebaiters have been notified and a defined time period is specified for the work.

The weed boat should be cleaned of weeds between sites of a different catchment to avoid the inadvertent transfer of aquatic weeds to a location where they currently do not exist.

Live eels caught up in the weed boat works should be placed back into the water.

5 Scheme Specific Standards of Practice

The general standards specified in Section 4 will apply to the majority of works undertaken within the Scheme areas. However, additional policies and standards are required for widespread grass control (grazing and mowing) as this only occurs within Scheme areas. In addition, there is the opportunity to undertake or facilitate environmental enhancement works on HBRC owned land. This matter is also addressed below.

5.1 Grazing

Due to the risk of grass and scrub fires during the dry summer months, and to minimise the excess siltation of river berm areas, it is essential that any open grass river berm areas within Scheme owned land are actively managed so that grass is generally kept below 300 mm in height. If this does not occur the Rural Fire Control Authorities are entitled to issue HBRC with legal notices requiring the grass to be cut.

There are only two practical options for grass management:

- Cattle grazing; and
- Mechanical mowing and associated weed spraying.

Approximately 55% of all HBRC owned river berm land on the Heretaunga Plains is grazed. This compares to 5% in the Upper Tukituki Scheme (Ruataniwha Plains).

Overall, approximately 35% of the HBRC owned and administered berm area within the major Schemes is grazed. The remaining berm area supports a grass, scrub and tree habitat ideal for wildlife, and upland game birds in particular.

Mechanical mowing and associated spraying is expensive. By comparison, stock grazing yields some annual revenue. Because of the high cost of mowing, grazing has continued to be used as the primary grass management option. Electric fencing has been installed and maintained to keep cattle grazing the berm land from entering the active channel. Other options are being considered for the future.

HBRC currently mows areas of high public use where grazing is either impractical or undesirable.

5.2 Wetland Enhancement

Wetlands in the river berm areas provide valuable habitat for wildlife and waterfowl.

Wetland areas are generally identified for enhancement through the Ecological Management and Enhancement Plans (EMEPs) and their associated Programmes of Work. In general, wetland enhancement works follow some criteria that will help ensure the best outcome.

The criteria used to identify areas for wetland enhancement are set out below.

Wetland Enhancement Criteria

Areas for wetland enhancement must be:

- Unlikely to compromise flood control or river management objectives*;
- Able to be fenced from livestock;
- Remote from areas of high public use;
- Accessible to pedestrians;
- Designed so as to prevent excessive infill or siltation during floods;
- Preferably containing non-invasive exotic and/or indigenous vegetation suitable as a food source and for shelter for wildlife; and,
- Based around a reliable water source (such as springs, drains or streams) to ensure ponding or saturation for at least 9 months per annum.

Wetland areas to have:

- At least 30% of margins in full vegetative cover;
- Undulating margins of variable water depth;
- At least 50% open water;
- Vegetated islands where possible; and,
- Good water quality

*Wetland areas established on river berms are at risk of destruction during major floods. Should this occur, the future of the site may be reconsidered jointly with the conservation interest groups. Any funding required for the reinstatement of the site may not be available from HBRC.

Once wetland areas have been established, all practical steps will be taken to ensure that future river control works and activities do not damage the wetland areas.

The identification of potential enhancement areas does not indicate a commitment from HBRC to fund the development of these areas. Clear lines of responsibility will need to be established between the interested parties; including establishment and long-term maintenance costs. HBRC will assist where possible with these costs, but this will need to be determined on a case-by-case basis.

5.3 Terrestrial Wildlife Habitat Enhancement

Areas of rank grass and scrub on the river berm areas can provide valuable habitat for wild fowl and upland game bird species. These areas need to be carefully selected and managed to ensure that they are viable in the long term. HBRC envisages that user and interest groups such as Iwi, Fish and Game, Department of Conservation and the Royal Forest and Bird Protection Society will be actively involved in establishing, managing and maintaining these areas.

Terrestrial wildlife areas will generally be identified for enhancement works through the EMEPs. In areas where there is no established EMEP, enhancement works will be identified in consultation with the parties noted above. The criteria to be used to identify areas for terrestrial wildlife habitat enhancement are set out below.

Terrestrial Habitat Enhancement Criteria

Areas for terrestrial wildlife habitat enhancement must be:

- Unlikely to compromise flood control or river management objectives*;
- Able to be fenced to exclude livestock;
- Remote from residential areas and areas of high public use;
- Accessible to pedestrians; and,
- Preferably containing vegetation, non-invasive exotic and/or indigenous, that provides suitable forage and/or shelter for wildlife.

If suitable vegetation is not already present, then HBRC will permit planting of approved plants by interest groups.

Grazing management for non-fenced wildlife habitat areas:

- Grazing is to be precluded during the August to December bird nesting period; and,
- A close grazed pasture effect is to be avoided by mob stocking for short-term periods only.

Temporary inundation from floods is acceptable, provided silt deposits are minimised.

*Any areas established are at risk of destruction during major floods. Should this occur, the future of the site may be reconsidered jointly with the interest groups. Any funding required for the reinstatement of the site may not be available from HBRC.

5.4 Diversity of Trees and Plants

Previous reports⁹ have noted the predominance of willow species in the HBRC's live edge protection plantings. From a landscape perspective, some commentators cite this as beneficial and some do not. Bee Keepers for example value the willows for the early availability of nectar and pollen in early autumn. HBRC's Asset Management and Works Group departments are actively working to develop and implement a riparian protection scheme that includes significant biodiversity values.

From a biodiversity perspective, a greater variety of tree species would be beneficial for enhancing wildlife habitat. Unfortunately, the application of HBRC's first order management priority for the rivers requires species to be used that are fast growing, drought tolerant, able to easily withstand the erosive effects of floods, and able to survive heavy silt deposition. Some willow species meet these needs and are the preferred species, however, due to the impact of willow sawfly (*Nematus ogilospilus*), a range of alternative species are being established. These include exotic species such as birch (*Betula* spp.), alder (*Alnus* spp.) and acacia (*Acacia* sp.), in addition to selected plantings of native species, such as flax (*Phormium* spp.), cabbage tree (*Cordyline australis*), manuka (*Leptospermum scoparium*), lacebark (*Hoheria populnea*), ribbonwood (*Plagianthus regius*) and tree daisy (*Olearia solandri*). Alternative planting areas are generally complimented with permeable rope and rail groynes for additional strength and protection in this zone.

HBRC will continue to actively protect any native species that are naturally emerging within the willow plantings, and where possible will favour tree species that offer food and shelter qualities for wildlife.

Recommendations for strengthening biodiversity in river berm areas are set out in HBRC's EMEPs. Where there is no established EMEP, the following criteria will apply:

Diversity Criteria for Trees and Plants

1. HBRC will actively protect significant native tree species growing within edge protection plantings (except that this will not preclude HBRC from removing silt deposited following a flood).
2. HBRC will plant alternative native and exotic species (such as cabbage trees, maples, alders, and oaks) on areas located away from the active river channel, if those areas are conducive to the long-term survival of those alternative species.
3. Appropriate alternative species will be selected in consultation with Iwi, the Department of Conservation, the Fish and Game HBRC and the Royal Forest and Bird Protection Society.

⁹ Boffa Miskell, Hawke's Bay Catchment Board, Hawke's Bay Regional Council.

5.5 Whitebait Spawning

Whitebait spawning occurs in rank grass and rushes at the saltwater interface on the banks of estuaries and rivers, small streams and waterways. These spawning areas are susceptible to damage from grazing stock, weed spraying, mowing and general public access. However, merely fencing these areas off can easily protect them from such damage. Mowing and shading out of spawning habitat by trees is to be avoided.

Whitebait spawning in the Heretaunga Plains, Napier, Hastings, Wairoa, Waimarama, Te Awanga, and Porangahau areas that have been identified and mostly fenced off to date are shown in the figures below. Any further whitebait spawning areas¹⁰ identified in conjunction with the region's Iwi and the Department of Conservation will also be fenced off¹¹.

The planting of any trees or shrubs at known spawning sites should be avoided as they can suppress the growth of desirable grasses in these areas.

The criteria to be used to identify areas for whitebait habitat enhancement are set out below.

Whitebait Habitat Enhancement Criteria

Areas for whitebait habitat enhancement must be:

- Identified as supporting whitebait spawning;
- Able to be fenced from livestock;
- In locations where either river works are unlikely, or existing river works are not compromised; and,
- Containing natural, rank grasses with no willows or silver poplar (or willows/poplars that are able to be removed).

Section 7, Reference below has a list of publications regarding whitebait spawning sites that should be referred to if further information is required. The maps below are the most up to date at the time of completing this COP, however HBRC have undertaken to maintain a database of whitebait spawning sites. This is in the form of a series of maps that are updated regularly on HBRC's website showing known whitebait spawning sites.

In the figures below, the orange shaded areas depict the overall spawning sites to be protected. The smaller shaded areas within these are where spawning has been observed, although the upper and lower limits require further work to better define.

¹⁰ The Department of Conservation estimates that up to 90% of known whitebait spawning areas have already been fenced off.

¹¹ Generally, the Hawke's Bay Regional Council will provide for fencing materials and DOC will provide labour to erect the fence.

The following figures show known Whitebait spawning areas.



Figure 7: Esk River (Whirinaki Stream).



Figure 8: Te Ngarue Stream.

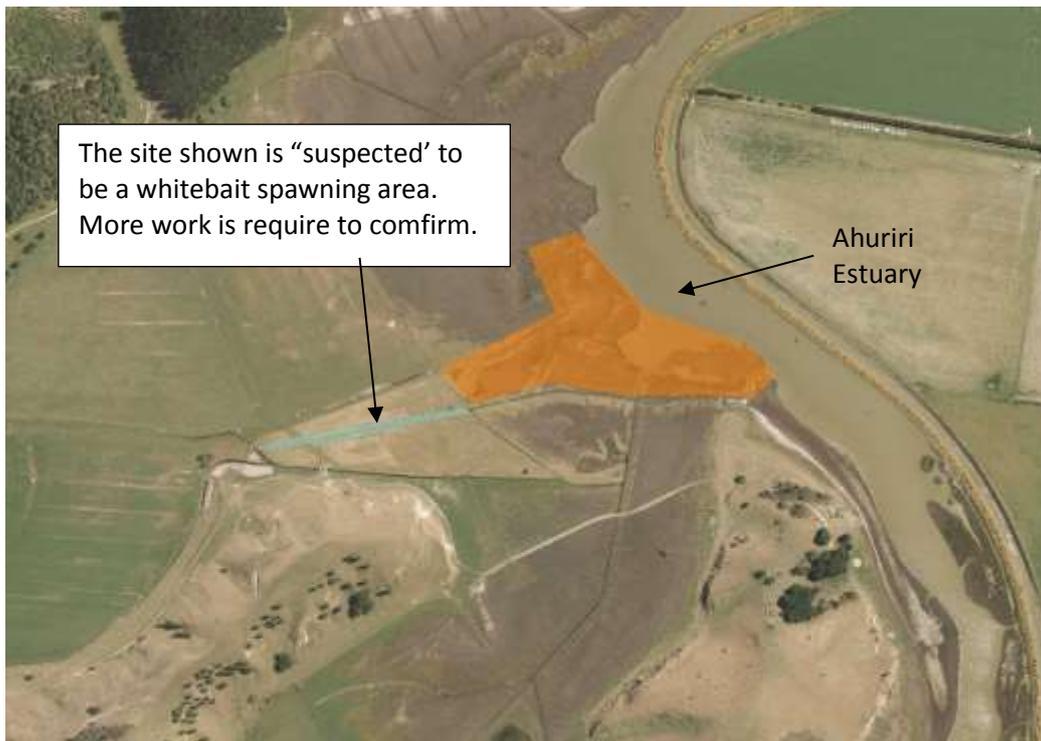


Figure 9: Ahuriri Estuary.



Figure 10: Taipo Stream.



Figure 11: Tukituki River and Grange Creek.



Figure 12: Ngaruroro and Tutaekuri river mouth.

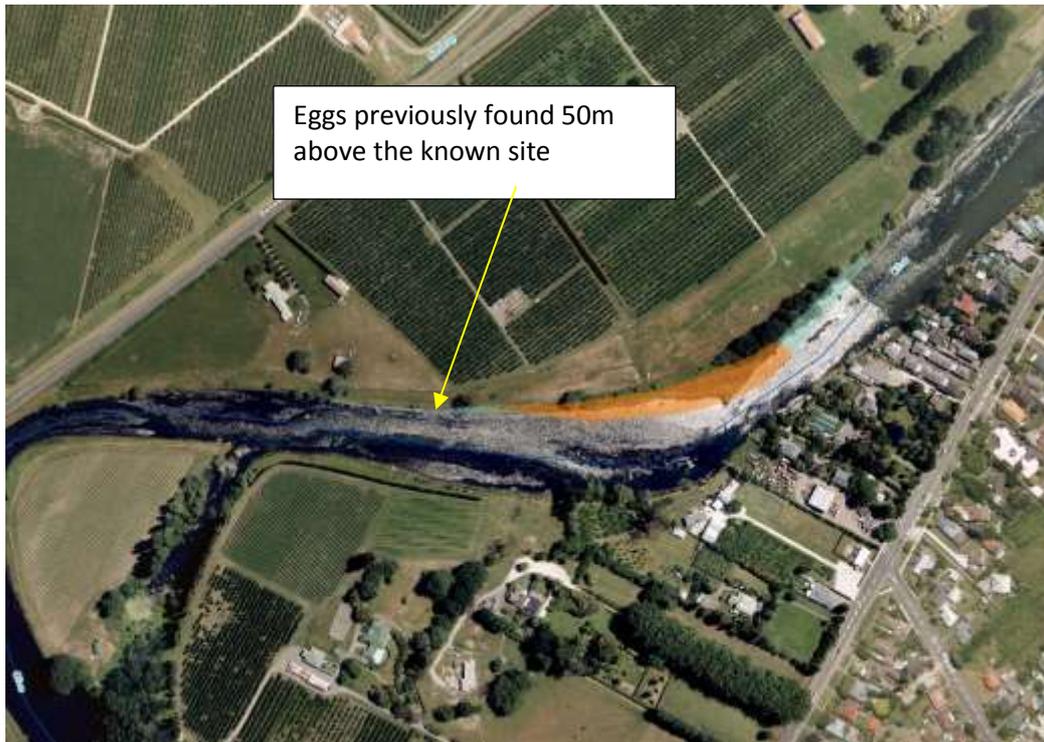


Figure 13: Clive River.



Figure 14: Maraetotara River.



Figure 15: Awatere (Wairoa).



Figure 16: Hine Rauriri (Mahanga).



Figure 17: Hurumua Stream (Wairoa).



Figure 18: Whangawehi (Mahia).



Figure 19: Puhokio Stream (Waimarama).



Figure 20: Waipuka Stream (Ocean Beach).



Figure 21: Waingongo (Waimarama).



Figure 22: Mangamarie (Porangahau).



Figure 23: Hunters Block (Porangahau).



Figure 24: Porangahau River



Figure 25: Unnamed Drain (Porangahau).



Figure 26: Known Whitebait Spawning Areas. (Central area)

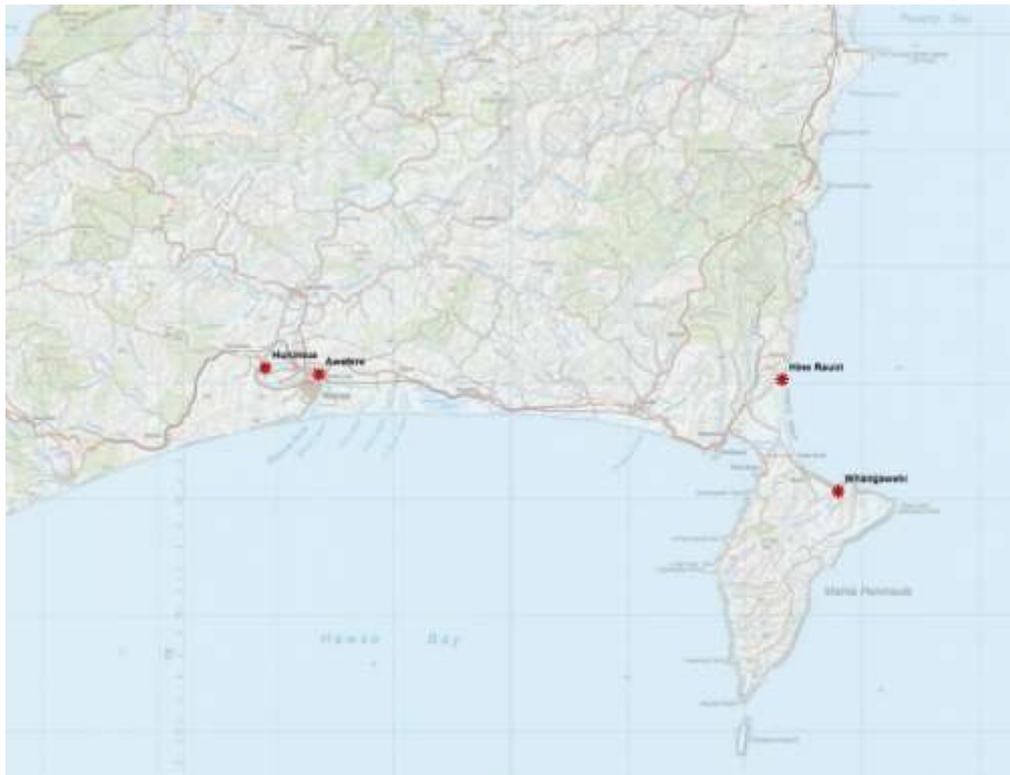


Figure 27: Known Whitebait spawning areas (Northern).

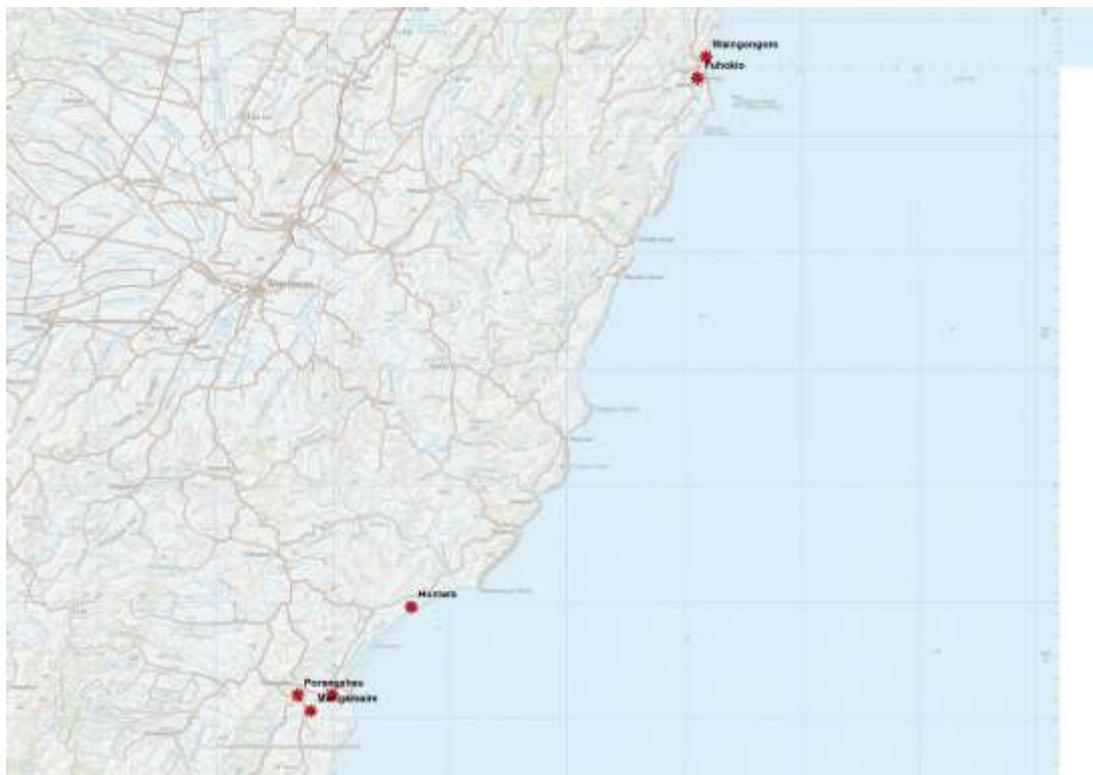


Figure 28: Known Whitebait spawning areas (Southern).

5.6 Waterway Wildlife Habitat

Specific areas of waterway that are suitable for waterfowl habitat enhancement will be identified in consultation with the Fish and Game HBRC. The criteria to be used to identify areas for drain habitat enhancement are set out below.

Waterway Habitat Enhancement Criteria

Areas for waterfowl habitat enhancement must have:

- Been identified as a known breeding area for waterfowl;
- Moderate to low gradient side batters; and,
- Flowing or standing water at least nine months of the year.

Identified areas will be excluded from edge mowing or spraying during the waterfowl breeding months of August through to November.

5.7 Pool Creation

The maintenance of permanent deep pools in rivers is important for providing habitat for fisheries, particularly as refugia during low flows and warm summer temperatures. Pools and riffles naturally migrate over time within a river system. However, there is potential for some river work activities, such as beach raking and edge retreat, to contribute to or exacerbate the natural instability of pool and riffle systems.

Consequently, the creation of artificial deep pools can be highly beneficial. These can also have the added advantage of being able to be used as swimming holes by the public and as water supply sources by the Rural Fire Control authorities. River locations that are suitable for pool creation will be identified in consultation with Iwi and the Fish and Game HBRC.

The criteria to be used to identify river locations for pool creation are set out below.

Pool Creation Criteria

Areas for pool creation must be:

- In locations that will not unduly interfere with Council river works or machinery movements; and,
- On the outside of river bends adjacent to existing tree, cover able to shade the pool.
- Pools primarily created for swimming holes are to be selected based on first criteria above and tree cover need not be a requirement.

6 Public Access

6.1 HBRC Policy

Different interest groups have conflicting aspirations regarding access to the river berm areas. Some groups and individuals desire public access to all parts of the river system by both foot and vehicle, while other groups and individuals wish to see access restricted to certain areas or certain times of the year.

HBRC's present policy is to allow public pedestrian access to all river berm land owned or administered by HBRC. This policy is to be retained. The exception is the need to prevent access to areas where work is being carried out for health and safety reasons.

HBRC is aware that free and open public access can create problems in terms of:

- High management costs;
- Vandalism to Scheme works and other infrastructure;
- Rubbish and car body dumping;
- General theft from adjoining properties and stock rustling from the river berms;
- Increased risk of grass and scrub fires; and,
- Illegal practices such as cannabis cultivation.
- Wildlife disturbance (e.g. from dogs)

These problems are particularly prevalent in areas where vehicular access is provided. Consequently, there is a need to restrict free and open public vehicular access.

Vehicular access for the general public is provided at 16 points on the Heretaunga Plains and 16 points in the Upper Tukituki River Catchment, as shown **Figure 10** and listed in **Table 4**. These existing vehicular access points will be maintained and monitored. Depending on management requirements, the number of access points may be increased or decreased.

The existing vehicular access points result in 30% of the HBRC owned or administered river berm area being open to vehicle access by the public.

Following consultation with the NZ Police, all existing access points have been designed with only one entrance and exit, to avoid the use of the river areas as travel corridors by criminals. This practice will be maintained.

Other vehicular access points are maintained so that HBRC can undertake its river management activities. These access points have locked gates.

6.2 General Public Access

The following HBRC Policy has been adopted for the major Schemes where HBRC owns or administers the land adjoining the river system.

Public Access Policy

1. Pedestrian access to the river berm and river channel areas owned or administered by Council will be generally unrestricted, other than where a potential risk to public health and safety arises from:
 - River management or gravel extraction activities; or
 - The risk of grass and scrub fires.
2. General vehicular access will be restricted to designated entry points and adjoining berm areas listed in *Table 3: Public Vehicular Access Points*. These vehicular access points may be closed at any time at Council's sole discretion.
3. HBRC will maintain controlled vehicular access points (with locked gates) at other locations, primarily for river management purposes.
4. Entry and use privileges may be provided through river management access points for special interest user groups on a case-by-case basis. However, no individual, group or sector of the community, will be provided with general vehicular access through all of the river management access points.
5. Hawke's Bay Regional Council security system keys shall not be given out to the public, but may be for recognised special interest user groups.
6. No camping shall be permitted on river berms.
7. Dogs may be excluded from some areas or required to be on a lead.

HBRC actively promotes public use within the management areas, by constructing pathways along stopbanks and in other areas. Pathways have multiple use designations, including cycling, pedestrian use and dog walking, and equestrian. Different sections of pathway have specific designation, to both provide a variety of recreational formats while also avoiding conflict of use.

Policy 4 above is designed to cater for special interest user groups that require vehicular access to a particular part of the river berm system that is not open to general vehicular access. However, HBRC does not consider it appropriate to provide any group with general vehicular access to all parts of the river berm system, due to the problems identified above.

Individual members of the public are not granted access privileges through HBRC gates as the proliferation of the number of keys handed out to individuals would soon make the security gate system unworkable.

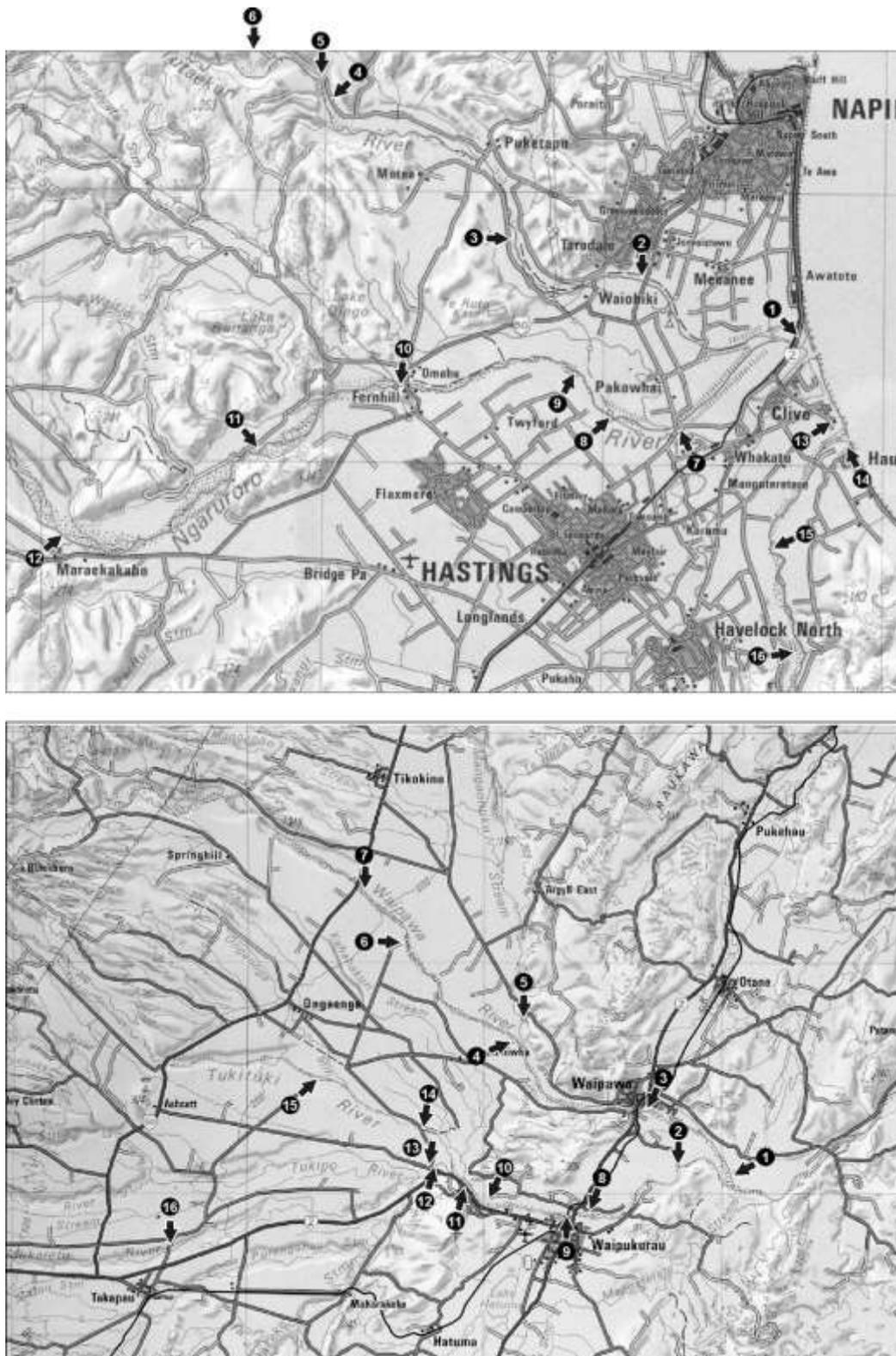


Figure 29: Public Access Points on the Heretaunga Plains (top) and Ruataniwha Plains (bottom).

Table 3: Public Vehicular Access Points.

<u>River</u>	<u>Site Reference Number</u>	<u>Site Name</u>
Heretaunga Plains		
Tutaekuri/Ngaruroro	1	Waitangi
Tutaekuri	2	Guppy Road
Tutaekuri	3	Omarunui Road
Tutaekuri	4	Hakowhai
Tutaekuri	5	Dartmoor
Tutaekuri	6	Mangaone
Ngaruroro	7	Pakowhai
Ngaruroro	8	Ormond Road
Ngaruroro	9	Carrick Road
Ngaruroro	10	Omahu
Ngaruroro	11	Ohiti
Ngaruroro	12	Maraekakako
East Clive Sea	13	Richmond Road
Lower Tukituki	14	Black Bridge
Lower Tukituki	15	Tennants Road
Lower Tukituki	16	River road
Ruataniwha Plains		
Upper Tukituki	1	Walker Road
Upper Tukituki	2	Tapairu Road
Waipawa	3	Reserve
Waipawa	4	Stockade Road
Mangaonuku Stream	5	Tikokino Road
Waipawa	6	Plantation Road
Waipawa	7	SH 50
Upper Tukituki	8	Ford Road
Upper Tukituki	9	Waipukurau
Upper Tukituki	10	Lindsay Road
Upper Tukituki	11	Pukeora
Tukipo	12	Ashcott Road
Tukipo	13	Mabins
Upper Tukituki	14	Ongaonga Road
Upper Tukituki	15	Burnside Road
Makaretu	16	Burnside Bridge

The public vehicle access points more fully described in a report titled *Public Access Development Programme, October 1996* (HBRC). That Report also details proposed recreational enhancement works at each public access point, including entranceways, car parking, barbecue areas, rubbish bins and information maps. Proposed horse-riding trails along the Tutaekuri, Ngaruroro and Tukituki Rivers are also described. For the sake of brevity, that descriptive information is not repeated in this *Code*.

6.3 Special Interest User Group

A range of special interest user groups has been provided with access and entry privileges through river management access gates that are normally locked.

A special interest user group is recognised by the following characteristics:

- A demonstrated responsible attitude;
- A nominated contact person responsible for liaison with HBRC;
- A specific documented purpose, function or constitution;
- A documented membership list;
- A regular meeting or activity schedule;
- A demonstrated need to use river berm areas as opposed to other public open spaces provided by territorial authorities (such as general parks and reserves);
- A willingness to maintain the area of river berm designated for their use, including rubbish removal; and,
- It supplies its own locks and gate security system (where appropriate).

The *Public Access Development Programme* documents the current special interest user groups. These groups and their associated sites and designated access points are listed in the following Table.

Table 4: Special Interest User Group.

<u>User Group</u>	<u>River</u>	<u>Site Location and Access Point</u>	<u>Access Arrangement</u>
Hawke's Bay Radio Flyers	Tutaekuri	Waitangi	Own lock and key
Hawke's Bay Motorcycle Club	Ngaruroro	Mere Road	Own lock and key
Kennels Gun Club	Tutaekuri	Allen's Road	Own lock and key
Paintball Hawke's Bay	Tutaekuri	Moteo	HBRC key
Riding for the Disabled	Tutaekuri	Powdrell Road Guppy Road Sandy Road	HBRC key
Whitebaiters	Tukituki Ngaruroro Tutaekuri		Own lock and key
Rifle range users	Ngaruroro	Higgins site, SH50	Open / HBRC Key

The Hawke's Bay Radio Flyers, Kennels Gun Club, Paintball Hawke's Bay and whitebaiters have specific land use agreements and licences to occupy with the HBRC.

The special interest groups may erect structures on the river berm areas, subject to the terms of their licences to occupy, and the normal restrictions set out in the District Plan and Building Act.

The access and entry privileges awarded to these special interest user groups requires them to act in a responsible manner, as the groups are allowed to put their own locks on HBRC gates and distribute keys to those locks amongst their members. This can result in the widespread distribution of keys to the locks, which in turn increases the potential risk of problems such as rubbish-dumping and vandalism occurring. Accordingly, HBRC has developed an Access Policy for these special interest user groups.

Special Interest User Group Access Policy

1. Where appropriate, special interest user groups as listed in Table 4 will be allowed to place their own locks on the river management access point gate closest to their site of activity.
2. The special interest groups shall ensure that entry keys are only distributed to recognised members of their group. The special interest groups shall maintain a Register documenting the holders of entry keys, and shall provide copies of that Register to Council upon request.
3. HBRC will review the access arrangements for each special interest group annually and any significant occurrence of rubbish dumping, vandalism or other nuisance may lead to the termination of the access privileges granted to that specific special interest group.
4. HBRC may establish land use agreements or licences to occupy berm land with the special interest groups.

6.4 Consultation and Communication with Fish and Game Council

In addition to other consultation procedures already stated in this document, the Hawke's Bay Regional Council will:

- a) Circulate all annual work plans to the Hawke's Bay Fish and Game Council, upon their approval and publication by Council.
- b) Facilitate and participate in an annual meeting with Fish and Game in order to maintain and improve the relationship between organisations. Where beneficial this meeting may be jointly held with other statutory agencies.
- c) Provide an opportunity for Fish and Game to suggest changes or improvements to river control and waterway works procedures.
- d) Aim to notify the Hawke's Bay Fish and Game Council, within 5 days of major works being undertaken.

6.5 Consultation with Forest and Bird and Department of Conservation

In addition to other consultation procedures already stated in this document, the Hawke's Bay Regional Council will:

- a) Facilitate and participate in an annual meeting (June / July) with Forest and Bird and the Department of Conservation to discuss the annual beach raking and gravel extraction programme and review past annual programmes.
- b) Provide an opportunity for Forest and Bird and the Department of Conservation to suggest changes or improvements to beach raking and gravel extraction procedures.

7 Reference

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