

Identifying traditional whitebait stands in the lower Waikato River – a joint spatial analysis project



The Maori: Yesterday and To-day Whitebait Fisherwomen, Waikato River. — Large quantities of whitebait (inanga or matamata) are netted on the Lower Waikato in the spring and early summer. The Maoris camp on the low islands and the banks for several weeks. Their catch marketed is worth about £10,000 for the season. — [Photo. taken near Tuakau, August, 1929

James Cowan.

Source:

http://nzetc.victoria.ac.nz/tm/scholarly/CowYest-fig-CowYest_P001a.html

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Abstract

Waikato-Tainui and Waikato Regional Council undertook a joint spatial analysis project to identify and map traditional whitebait stands within the lower Waikato River. Waikato-Tainui's primary interests are the protection of customary access to the fishery and the restoration of freshwater habitats for taonga species. While the Waikato Regional Council has multiple interests in river and catchment management in the lower Waikato River, the immediate driver for Council participating in this project is the need to meet its obligations under s. 62 of the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010.

The project helps to develop a baseline understanding of whitebait stand locations, and the issues associated with their management. 869 whitebait stands in total were identified within the project area between the Coastal Marine Area and Tuakau Bridge in the lower Waikato River – more than 300 more than had been previously identified and recorded. Maori ownership is predominant within customary fishing areas, while non-Maori ownership is predominant outside customary fishing areas. The locations of all whitebait stands have been recorded, and can now be used to assist Council to meet section 62 of the settlement act 2010.

Thirty one percent of whitebait stands were associated with a bach and/or associated structure, with twenty-two percent were associated with medium-large baches with multiple rooms. These baches are generally unauthorised in terms of the Building Act. Sewage systems are generally basic, and in some cases appear to be unlawful.

Estimated rates of compliance for whitebait stands and associated structures with the Waikato Regional Plan and Coastal Plan whitebait stand permitted activity rules are low at around forty-three percent (if the minimum separation distance condition is excluded), and lower still at thirteen percent when including this condition. The resource management significance of this level of non-compliance is unclear. In addition to whitebait stand compliance issues, other issues such as navigation safety hazards, the potential for discharges (particularly of sewage and or greywater) to waterways, whitebait fishery regulatory issues and whitebait stand definitions were identified. Opportunities and next steps are identified, including potential agency agreements and collaborative solutions.

Executive summary

Waikato-Tainui and Waikato Regional Council entered into a joint spatial analysis project to identify and map traditional whitebait stands within the lower Waikato River. The primary purpose is to work collectively under co-management to help achieve the outcomes of the Vision and Strategy for the Waikato River.

This project provides for the establishment of a baseline map of whitebait structures to enhance our collective understanding of the use of whitebait stands and fisher behaviour. This baseline information included the collection of information relating to:

- Identification and mapping of sites of significance to local Iwi:
 - Waahi tapu areas;
 - Customary fishing areas and reserves;
 - Whitebait spawning areas;
- Identification of whitebait stand compliance issues; and
- Identification of issues and opportunities for the future.

Waikato-Tainui's primary interest in the project is to protect unfettered access of tribal members to their traditional whitebait (*matamata*), porohe (common smelt) and tunatuna (glass eel) fisheries. This includes a broader aspiration regarding the restoration and recovery of the whitebait fishery as it is related to the overall health and well-being of the Waikato River as captured under the Waikato Raupatu River Settlement legislation (2010). Whitebait is an important cultural fishery for the peoples of Te Puuaha (Port Waikato) especially, and is considered to be an important indicator of River health. Stopping the encroachment of non tangata whenua fishers into areas traditionally used by members of Waikato Tainui is one part of this overall aspiration.

While the Waikato Regional Council has multiple interests in river and catchment management in the lower Waikato River, the immediate driver for Council participating in this project was the need to meet its obligations under s. 62 of the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010. Waikato Regional Council is unable to do this at present, due primarily to a lack of information on the locations of traditional whitebait stands and the current regulatory approach.

Both partners recognise the importance of a collaborative approach to addressing the management of whitebait stands, and the broader issues associated with their usage.

The management of whitebait stands is governed by two key pieces of legislation:

1. The Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, which recognises the traditional activity of fishing for whitebait, including the use of traditional whitebait stands; and
2. The Resource Management Act 1991, which sets up the framework for whitebait stand management via the Waikato Regional Plan and Regional Coastal Plan.

The project began following a meeting between Waikato-Tainui and Waikato Regional Council staff in March 2012, where a collaborative approach was proposed. An initial scoping trip on the river with kaitiaki in June 2012 led to further detailed whitebait stand assessments in December 2012 and January 2013. In addition to Waikato-Tainui and Waikato Regional Council, other project partners were identified and invited to participate and contribute to the project. These agencies included Waikato District Council, Land Information New Zealand (LINZ), Huakina Development Trust, Department of Conservation (DOC), NIWA and the Ministry of Primary Industries (MPI).

Field work underpinning the spatial analysis of whitebait stands comprised collection of spatial, attribute and photographic data by boat. Field work was conducted with the participation of Waikato-Tainui - namely the Waikato Raupatu River Trust and kaitiaki

from Te Puuaha o Waikato, Waikato Regional Council staff, and participation from all other agencies during the six days spent on the river. Whitebait stands, waahi tapu and spawning grounds known to local people were captured as GPS point data, active customary fishing areas were captured as line data, and photos were GPS-referenced. Limitations of field work data gathering included time and budget constraints, impacts of the tidal ebb and flow and river currents, and spatially inaccurate data from the Waikato Regional Council resource database (RUAMS). Because of the methodology limitations, findings are regarded as best estimates only.

The findings of the project are:

- 869 whitebait stands were identified – 328 more than were identified within RUAMS.
- To Waikato-Tainui, the whole river is considered to be customary fishing however the following sites of significance by tangata whenua were identified:
 - Seven waahi tapu areas;
 - Three whitebait spawning grounds;
 - 41.5km of actively used customary fishing areas – noting that the whole River is considered to be a customary fishing area, of which:
 - 25.7km falls within the boundary of the project area; and
 - 15.8km falls between the lower end of the project area (around the CMA boundary) and the river mouth.
- Totals for whitebait stands ownership, associated structures, compliance issues and data match with RUAMS within the project area are:
 - Ownership: 25% Maori; 50% non-Maori; 25% unknown, within Maori ownership being high within active customary fishing areas;
 - Associated structures (baches): 69% had no bach; 9% had a small bach or bach under construction; 22% had medium-large baches;
 - Compliance issues: 43% of whitebait stands and associated structures were probably compliant with the Waikato Regional Plan and Regional Coastal Plan permitted activity rules for whitebait stands (sections 4.2.6.1 and 16.4.3 respectively) excluding the minimum distance requirement (30m between whitebait stands outside the Coastal Marine Area (CMA), and 20m within the CMA); 13% of whitebait stands and associated structures were probably compliant including the minimum distance requirement (refer to Appendix 2); and
 - RUAMS data match: 197 matches with RUAMS were made, being 36% of the existing RUAMS data, or 23% of the total stands identified.

While not the primary intent of the project, the following issues related to whitebait stand management were identified;

- Whitebait stands compliance issues, in terms of the RMA, the Building Act and the Health Act;
- Health and safety issues:
 - Buildings and associated structures;
- Stands posing potential navigation hazards;
- The potential for unauthorised discharges to waterways;
- Whitebait fishery regulatory issues; and
- Differences in the definition of what constitutes whitebait stands.

Opportunities and possible next steps include:

- Discussion and agreement between relevant agencies to look at potential collaborative solutions;
- Development of a collective plan to address whitebait stand management and related issues;
- The opportunity to review current regulatory approaches as a part of the review of the Waikato Regional Plan (scheduled for 2015);
- Development of a communications strategy for the local community; and
- Community consultation on plans and solutions, once agreed.

1 Waikato-Tainui and Waikato Regional Council perspectives

1.1 Waikato-Tainui

For tribal members of Te Puuaha o Waikato, the conversations regarding concerns around access to traditional fisheries and hauanga kai (harvestable foods, and materials) have extended nearly six decades. Dialogue has been attempted with representatives from the relevant authorities of the day, but has tended to go unheeded, and/or hindered by legislative and management authority changes over that time.

The completion of the Waikato Raupatu River Settlement (2010) and its mechanisms have consequently provided a more stable platform for tangata whenua to have greater attention paid to their concerns, and aspirations for their Tuupuna Awa, and its associated environs. Most importantly for the people of Te Puuaha, this brings to the fore concerns about a fishery that is complicated by a range of interests and management issues, extending across a broad range of agencies and stakeholders; but which has been given little of the attention that it sorely needs.

1.2 Waikato Regional Council (WRC)

1.2.1 Relationship with Waikato-Tainui

WRC and Waikato Tainui enjoy a strong and productive relationship. The enactment of the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act in 2010 has formalised that relationship into one of co-management of Area A of the Waikato River Catchment. Council has reflected the importance of its co-management relationships by incorporating co-management as one of three flagship goals, outlined within the *Strategic direction for the Waikato Regional Council 2010 – 2013*:

“The Waikato Regional Council meets its legislative co-governance requirements by working together in good faith and a spirit of cooperation”.

In a short period, the Council has already taken significant steps towards building meaningful working relationships across the organisation with Waikato-Tainui. Specific steps in relation to the Waikato River include:

- Formation of the Waikato Raupatu River Trust and WRC Joint Management Committee; and
- Co-management agreement for Waikato River related lands between Waikato Raupatu River Trust and WRC.

In addition, a Joint Management Agreement (JMA) between Waikato Raupatu River Trust and WRC is in development.¹ Another agreement of relevance to the Waikato River is the partnership agreement between Waikato River Authority and WRC.

1.2.2 Whitebait stands

1.2.2.1 Legislative/regulatory requirement

Under s. 13 of the Resource Management Act 1991 (RMA), it is unlawful for any person to build a structure in, on, under or over the bed of a river, unless the structure is expressly allowed by a national environmental standard, a rule in a regional plan or proposed plan, or by resource consent. The Waikato Regional Plan and Regional

¹ At the time of writing, the agreement is due to be signed off in June 2013.

Coastal Plan make the construction and use of whitebait stands a permitted activity, subject to the conditions of the activity being met², on the basis that whitebait stands in themselves are small structures that are unlikely to have significant adverse effects on the environment. It is worth noting that Waikato Regional Council has no regulatory role or powers relating to either accessing or using the whitebait fishery, other than permitting structures that many fishers use to fish from.

Under s. 62(4) of the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 (Settlement Act), the JMA must contain a provision that requires

“... a process to avoid the grant of a statutory authorisation by the Council to a person in relation to whitebait stands or eel weirs that gives rise to a significant adverse effect on the use of traditional whitebait stands or eel weirs by members of Waikato-Tainui.”

1.2.2.2 Issues

Currently, WRC is unable to meet its obligations under s. 62 of the Settlement Act. This situation has arisen for a number of reasons – primarily:

- Within the current Waikato Regional Plan and Regional Coastal Plan, the construction and use of whitebait stands is considered to be of low significance, because they have minor or no adverse effects. This had led to limited Council emphasis on whitebait stands management, and limited funding for this activity;
- Since the introduction of the permitted activity rules within the Waikato Regional Plan and Regional Coastal Plan, WRC has been unable to decline the construction of any whitebait stands in the lower Waikato River, provided that they meet the conditions of the permitted activity rule;
- While the Waikato Regional Plan permitted activity rule requires that stand holders notify the Council prior to constructing new whitebait stands, the stand location information provided by whitebait fishers is not independently verified. Poor quality spatial information provided by whitebait stand holders had led to inaccuracies in WRC's whitebait stand database³;
- In 2007, Huakina Development Trust informed the Council that Ngaa Marae o Te Puuaha had passed a resolution to refrain from engaging in the Council's notification requirements for new whitebait stands. For the people of Te Puuaha, they felt that the process unfairly constrained their long-standing access to the fishery and undermined traditional practices and values associated with it. Since this time, Council has received few notifications of the construction and use of whitebait stands from iwi, which means the Council has very little information about the locations of traditional whitebait stands; and
- The Settlement Act authorises all traditional whitebait stands in the Waikato River as of 17 December 2009. With current information, the Council is unable to distinguish which traditional whitebait stands fall into this category.
- Since the permitted activity rules came into place, new non-traditional whitebait stands have been constructed within areas traditionally considered by tangata whenua to be customary fishing areas. This has seen river etiquette being ignored, historical “gentleman's” agreements being broken, and an increase in conflict between tangata whenua and other whitebait fishers.

In addition to the issues described above, recent legal advice suggests that s. 62 of the Settlement Act does not apply to permitted activities, since these cannot be granted. This means that new non-traditional whitebait stands can be constructed and used at

² Refer to section 3.2 (Legislative/regulatory context).

³ Resource Use Authorisation Management System, or RUAMS.

locations where traditional whitebait stands are present, and cannot be declined by WRC provided they meet the permitted activity conditions.

2 Rationale for collaboration

The primary rationale for collaboration is to work in partnership to achieve to the purpose of the JMA⁴⁴:

“...to provide for an enduring relationship between the Parties through the shared exercise of functions, duties and powers and to give effect to the Waikato River Settlement Act.”

In essence, this means working collaboratively towards achieving the outcomes of the Vision and Strategy. This project is a practical example of the partnership between Waikato-Tainui and WRC.

In addition to the primary rationale, each partner has its own rationale for collaboration as follows:

2.1 Waikato-Tainui

This project:

- Provides a baseline of information including the confirmation of traditional stands and fishing locations;
- Enables Waikato-Tainui to assist the WRC to work towards meeting their obligations under s.62 of the Settlement Act;
- Enhances understanding of the concerns of the peoples of Te Puuaha; and,
- Provides a pathway for resolution of issues with the relevant agencies and fisher communities.

2.2 Waikato Regional Council

This project:

- Enables WRC to work towards meeting s. 62 of the Settlement Act;
- Makes it possible to identify traditional whitebait stands, which is not possible without the help of Waikato-Tainui kaitiaki;
- Greatly increases the knowledge of the use of whitebait stands in the lower Waikato River;
- Provides an opportunity to better understand customary fishing areas, waahi tapu sites and identify whitebait spawning grounds;
- Increases knowledge of whitebait stands compliance issues, and other compliance issues associated with the use of whitebait stands; and
- Helps to identify the range of issues and complexity of managing whitebait stands on the lower Waikato River.

⁴⁴ Note that the agreement is still in draft, awaiting sign off from both parties.

3 Background

3.1 Lower Waikato River whitebait fishery

3.1.1 A traditional, historical perspective

The peoples of Waikato-Tainui have had a relationship with the Waikato River and its resources for well over six centuries. Specifically, for tangata whenua in Te Puuaha o Waikato, there are long-standing traditions affiliated with the fishing of matamata (whitebait) and other associated marine and freshwater fisheries providing a cornerstone food source and “*sustain[ing] the Waikato-Tainui way of life, both physically and spiritually*” (Waikato-Tainui, 2013).

As further noted under the Waikato-Tainui Environmental Plan (2013):

“For Waikato-Tainui the restoration of taonga fish and shellfish species and the ability to provide these taonga as food in reasonable amounts to manuwhiri (visitors) is a critical marker of the tribe’s mana and status. It also confirms a tribe’s proficiency in manaaki taangata or the practice of generosity and reciprocity. The abundance of food and other resources that were traditionally available to Waikato-Tainui within its tribal rohe (boundaries) are well known by other tribes throughout the motu (country)”.

Above all else, the peoples of Te Puuaha are renowned for their matamata, provided as a primary kai to manuwhiri and whaanau alike during Poukai, tangihanga, Koroneihana and other tribally significant hui. And, for three months each year, whaanau reunite to fish along the River. These times are not only about the ‘catch’, but are also about engaging in the intergenerational transfer of knowledge pertaining to the activity of whitebaiting, and numerous other traditional activities around fishing, fishing implements, stand construction, indicators of biodiversity and River health and marae/whaanau/hapuu/iwi histories.

Since colonisation, and despite the Raupatu (confiscation) of Waikato-Tainui lands in the 1860s, whaanau at Te Puuaha have maintained a strong presence on the River as the dominant fisher community. Non-Maori have gradually entered the fishery, adopting roles as both fishers and as the main buyers of whitebait for supply to the historic cannery established in 1913 near Kaitangata (this has since shut-down). Taxes imposed on the sale of whitebait in the 1920s (the “whitebait levy”) were pooled to assist broader fundraising efforts by Princess Te Puea to develop Tuurangawaewae Marae (King, 1977).

Historically, access to the fishery was self-regulated between tangata whenua and non-Maori via ‘Gentleman’s Agreements’ whereby Waikato-Tainui primarily fished the main stem of the River, and non-Waikato Tainui primarily fished in the channels or backwaters. Whaanau at Te Puuaha still fish the main stem of the River, with smaller whaanau units operating in the backwaters of the delta islands. However, Regional Policy changes in 1998 relating to whitebait stands eroded the self-regulation mechanisms in place. Recent feedback from the communities at Te Puuaha indicate that fishers may have since been forced into potentially volatile interactions as each compete with the other for access to a financially lucrative, but unregulated fishery.

Moving towards change

As far back as the 1990s, Ngaa Marae o Te Puuaha have attempted to engage with the Regional Council (then called Environment Waikato or “EW”) and other agencies including the (now defunct) Franklin District Council to resolve issues around whitebait stands, baches, access to the fishery, and flood management schemes that were impacting on whitebait spawning areas (e.g. stopbanks and land accretion). They also voiced their concerns to DOC around the fishing implements that were becoming

popular on the River (e.g. set nets) which raised questions around equitable 'fishing shares' in the resource.

The signing of the Deed of Settlement for the Waikato River in 2008 provided in part, for the resolution of issues, or in the very least, meaningful conversations to begin with the relevant agencies via the establishment of the Conservation and Fisheries Accords (2008). Joint Management Agreements (JMAs) have presented an additional pathway for progressing matters with the Regional and District Councils. As the result of renewed concerns raised from Ngaa Marae o Te Puuaha regarding the whitebait fishery, the Waikato Raupatu River Trust has managed high-level discussions on behalf of Waikato-Tainui since 2011.

3.1.2 Overview of the whitebait fishery

A useful summary of the whitebait fishery in the lower Waikato River is provided within the Waikato River Independent Scoping Study (NIWA, 2010). This report covers fundamental information about the fishery including historical catch rates, species present, causes of declining abundance and advice on restoration of the whitebait fishery.

The following excerpts are taken from the report.

3.5.1 Whitebait (p. 69)

"The estimated total whitebait catch from the Waikato River in 2000 was three tonnes, compared with about 10 tonnes in the 1980s. This is significantly lower than the estimated average 46 tonnes per year caught between 1931 and 1950 (Baker and James, 2010).

Whitebait in the Waikato comprises two main species – iinanga and banded kookopu (with smaller numbers of giant kookopu). They are primarily found in the lower Waikato and Waipa. Whitebait are diadromous (i.e., spend part of their lifecycle in the sea and part in fresh water). Young whitebait ("matamata"⁵). move into the river each year in spring. Iinanga move into vegetated streams, shallow lakes and wetlands where they live as adults before moving out in the autumn to tidal areas of streams and rivers to spawn on riparian vegetation at high tides. Banded kookopu are a climbing species and move further up into headwater streams where adults spawn amongst riparian vegetation, with their larvae washed out to sea in floods.

The total length of stream for *adult* iinanga in the Waikato River is close to 800 kilometres. Approximately 320 kilometres (40 percent of the total iinanga habitat) occurs in catchments below the confluence of the Mangatawhiri River and the Waikato River. This is prime habitat for iinanga because it is close to the river mouth. Around 24 percent of the total iinanga habitat in the Waikato River catchment (192 kilometres) is potentially affected by flood protection works or inaccessible due to road culverts preventing migration. An estimated 180 road culverts and 5,000 farm culverts are impassable to iinanga, and 4,000 farm culverts are impassable to banded kookopu. In addition, the 23 tidegates at Aka Aka near Te Puuaha o Waikato may be impassable to iinanga.

Historically there was around 30 kilometres of prime iinanga spawning habitat in the Waikato River catchment but much of this has been lost as a consequence of changes in riparian vegetation related to farming practices (see Appendix 6: Whitebait). Degradation has mainly been caused by livestock grazing,

⁵ "iinanga" and "kookopu" are referred to as the 'common names' for these fish. However, as indicated by discussions with tangata whenua of Te Puuaha, these names are not recognised within the local dialect. Instead, the name "matamata" is given to all whitebait fish species when they enter the River. Work is currently underway to build a greater understanding of the local names given to the whitebait species when they are in their adult form.

vegetation removal and stock trampling eggs. Currently, there is only an estimated 10.5 kilometres of prime iinanga *spawning* habitat in the catchment.”

The following points on the causes of declining abundance are provided within Table 3.4 (p. 77):

- “Loss of floodplain connectivity;
- Loss of wetlands;
- Poor riparian conditions;
- Livestock access and degraded habitat at spawning areas (Waikato River and other West Coast rivers that support recruitment);
- Migration barriers such as culverts, pump stations, dams and floodgates reducing access;
- Shallow lake degradation (from silt, loss of macrophytes and pest fish);
- Lowland stream habitat degradation (from channelisation and excessive macrophytes);
- Poor fishery management;
- Competition/predation by pest fish (including trout); and
- Low clarity of the Waipa River reducing upstream migration.”

Other comments on the decline of the fishery, species and restoration actions are provided within Appendix 6 of the report as follows:

Trends in the whitebait fishery

- “In a recent review of the whitebait fishery in the lower Waikato River, Baker and James (2010) compared the annual catch of whitebait estimated from commercial buyers’ records between 1930 and 1990. Although there was some evidence of a decline between 1950 and 1980, more recent data suggest that the fishery may have improved. But these figures are highly variable and are of limited value for assessing the status of the fishery. For example, the decline in commercial purchases after 1955 is likely to represent the increased use of freezers by white baiters to preserve and retain their surplus catch. Similarly, the increase in total catch after 1985 could well represent an increase in commercial trading caused by the increased popularity of whitebait and the high prices paid for them in the restaurant trade. Because annual purchases of whitebait reflect fluctuations in demand and supply as well as large annual variations in the catch, Baker and James (2010) concluded that the historic catch statistics are of limited use and that whereas an historic decline in the fishery has probably occurred (according to anecdotal reports), the magnitude and timing of this change is unknown.” (Appendix 6, pp. 2-3)
- “The evidence for a decline in the whitebait fishery in the Waikato River is therefore anecdotal and based on reports of the decline of whitebait and the fisheries for these fish from other New Zealand rivers as well as in the Waikato River itself (e.g., Hayes, 1931; McDowall, 1984). The anecdotal reports clearly indicate that a decline in the number of whitebait entering rivers from the sea (and hence the river fisheries) has occurred, but there is no quantitative measure of the extent of this decline and therefore no baseline for its recovery.” Appendix 6, p.3).
- “A decline in the whitebait fishery can also be inferred from knowledge of the increase in threats to whitebait and from the decline of their key habitats in the Waikato River catchment.” (Appendix 6, p. 3).

Whitebait species

- “Whitebait fisheries in New Zealand rivers are based on the juvenile, upstream migrant phase of five species of galaxiid fish (McDowall, 1990). The main species is iinanga (whitebait – *Galaxias maculatus*) and its proportion in white baiters’ catches is typically 70 to 100 percent of the total catch (McDowall and Eldon, 1980; Rowe et al., 1992). All other species combined contribute least in

rivers where the catchment is dominated by pasture and most in the rivers where conversion of forest to pasture has been minimal (Rowe et al., 1992). Loss of forest cover (and replacement by pasture) has therefore been a major factor responsible for the decline of whitebait species other than iinanga. In the Waikato River catchment, where lowland forest has been largely replaced with pasture, iinanga comprised more than 85 percent of the galaxiids between 1984 and 1985. Banded kookopu (*Galaxias fasciatus*) contributed only 7.2–14.6 percent of the catch, whereas the next most common species (kooaro or *Galaxias brevipinnis*) accounted for only 0.1–0.2 percent of the catch (Stancliff et al., 1988). Historically, the proportions of banded kookopu and kooaro will have been much higher in the Waikato River fishery than today because they are all vulnerable to loss of forest cover, which has been extensive in the Waikato River catchment⁶.” (Appendix 6, p. 3)

Restoration of the fishery

- “Given that restoration of the whitebait fishery in the Waikato River needs to focus on increasing the stocks of iinanga and banded kookopu, viable actions related to river restoration need to be identified that will address the four approaches listed below.
 - Restore iinanga spawning habitat on river and stream banks and create new habitat.
 - Restore adult iinanga habitat in both streams and lakes.
 - Restore access to iinanga and banded kookopu habitat.
 - Restore adult banded kookopu habitat in small, tributary streams.

These approaches are based on current expert knowledge of the main limiting factors known to affect whitebait stocks in the lower Waikato River.” (Appendix 6, p. 8)

3.2 Legislative and regulatory context

There are numerous legislative requirements around the usage and management of whitebait fisheries, and multiple agencies have responsibilities for management of both the fisheries and related activities. The primary legislative requirements are the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, the Resource Management Act 1991 and the Conservation Act 1987.

3.2.1 Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010

The purpose of this Act, as defined by s. 4, is to:

- (a) give effect to the settlement of raupatu claims under the 2009 deed:
- (b) recognise the significance of the Waikato River to Waikato-Tainui:
- (c) recognise the vision and strategy for the Waikato River:
- (d) establish and grant functions and powers to the Waikato River Authority:
- (e) establish the Waikato River Clean-up Trust:
- (f) recognise certain customary activities of Waikato-Tainui:
- (g) provide co-management arrangements for the Waikato River:
- (h) provide redress to Waikato-Tainui relating to certain assets:
- (i) recognise redress to Waikato-Tainui of the Kiingitanga Accord and other accords provided for in the schedule of the Kiingitanga Accord.

The Settlement Act sets up the framework for outcomes through the Vision and Strategy, governance through the Waikato River Authority, recognition of certain customary activities and provision of co-management arrangements.

⁶ Giant kookopu (*Galaxias argenteus*) and shortjaw kookopu (*Galaxias postvectis*) are also minor (less than two percent) components of the catch and like kooaro and banded kookopu are dependent on forest cover.

In summary, the provisions of most relevance to the usage of traditional whitebait stands are:

- **Section 6(3) Interpretation:** definition of traditional whitebait stands:

“traditional whitebait stands and eel weirs means whitebait stands and eel weirs constructed, used, maintained, altered, and replaced in connection with the customs and traditional practices of members of Waikato-Tainui.”

- **Section 56 Crown acknowledgement:**

- Acknowledgement of the importance to Waikato-Tainui of the use of traditional whitebait stands and eel weirs, and that these are an integral part of Waikato-Tainui’s relationship with the Waikato River; and
- Requirement that all persons carrying out functions and exercising powers under the RMA and the navigation safety bylaw recognise and provide for the importance of whitebait stands and eel weirs:

“(1) The Crown acknowledges—

(a) the importance to Waikato-Tainui of authorised customary activities and the use of traditional whitebait stands and eel weirs; and

(b) the importance of authorised customary activities and the use of traditional whitebait stands and eel weirs as an integral part of the relationship of Waikato-Tainui with the Waikato River.

(2) All persons carrying out functions and exercising powers under the Resource Management Act 1991 and in relation to navigation bylaws must recognise and provide for the matters set out in subsection (1).”

- **Section 59 Statutory authorisation for certain structures:** provision of a statutory authorisation that members of Waikato-Tainui may continue to use, maintain alter and replace their traditional whitebait stands that were in the Waikato River on 17 December 2009, irrespective of the RMA or a rule in a regional or district plan (s. 59)

“(1) Members of Waikato-Tainui may continue—

(a) to use, maintain, and alter their traditional whitebait stands and eel weirs that were in the Waikato River on 17 December 2009; and

(b) to replace their traditional whitebait stands and eel weirs that were in the Waikato River on 17 December 2009 with other traditional whitebait stands and eel weirs in the Waikato River.

(2) Subsection (1) applies despite—

(a) sections 9 to 17 of the Resource Management Act 1991:

(b) a rule in a regional or district plan.”

- **Section 62 Joint management agreement must include processes relating to customary activities:** requirement that the JMA has a process to avoid the grant of a statutory authorisation by the Council (WRC) to a person in relation to whitebait stands or eel weirs that gives rise to a significant adverse effect on the use of traditional whitebait stands or eel weirs by members of Waikato-Tainui:

“(1) The joint management agreement between a local authority and the Trust must include the processes described in this section.”

.....

“(4) There must be a process to avoid the grant of a statutory authorisation by the Council to a person in relation to whitebait stands or eel weirs that gives rise to a significant adverse effect on the use of traditional whitebait stands or eel weirs by members of Waikato-Tainui.”

3.2.2 Resource Management Act 1991 (RMA)

The purpose of the RMA, as defined by s. 5, is:

- (1) to promote the sustainable management of natural and physical resources.
- (2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—
 - (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
 - (b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
 - (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

Section 13 makes it unlawful for any person to build a structure in, on, under or over the bed of a river, unless the structure is expressly allowed by a national environmental standard, a rule in a regional plan or proposed plan, or by resource consent.

3.2.2.1 The Waikato Regional Plan and Regional Coastal Plan

In summary, Rule 4.2.6.1 of the Waikato Regional Plan and Rule 16.4.3 of the Regional Coastal Plan provide for the use, erection, reconstruction, placement, extension or alteration of whitebait structures as permitted activities, subject to the conditions of the rules.

The rules provide a range of conditions that need to be met. In summary, the most important of these are:

- Platform size restrictions (up to 6m² between Tuakau Bridge and the Coastal Marine Area (CMA) boundary (refer to Figure 1), and up to 4m² upstream of Tuakau Bridge and within the CMA);
- Minimum separation distance between whitebait stands (30m outside the CMA, and 20m within the CMA);
- Minimum separation distance of 20m between whitebait stands and flood gates, confluences, culverts, bridges or sand/gravel mining operations;
- Placement restrictions depending upon size of the channel, potential impediments to water flow and being maintained in a sound structural condition;
- Requirements to inform WRC in writing of the location of the structure at least 10 working days prior to commencing construction; and
- Use of whitebait stands not to disturb any archaeological site or waahi tapu.

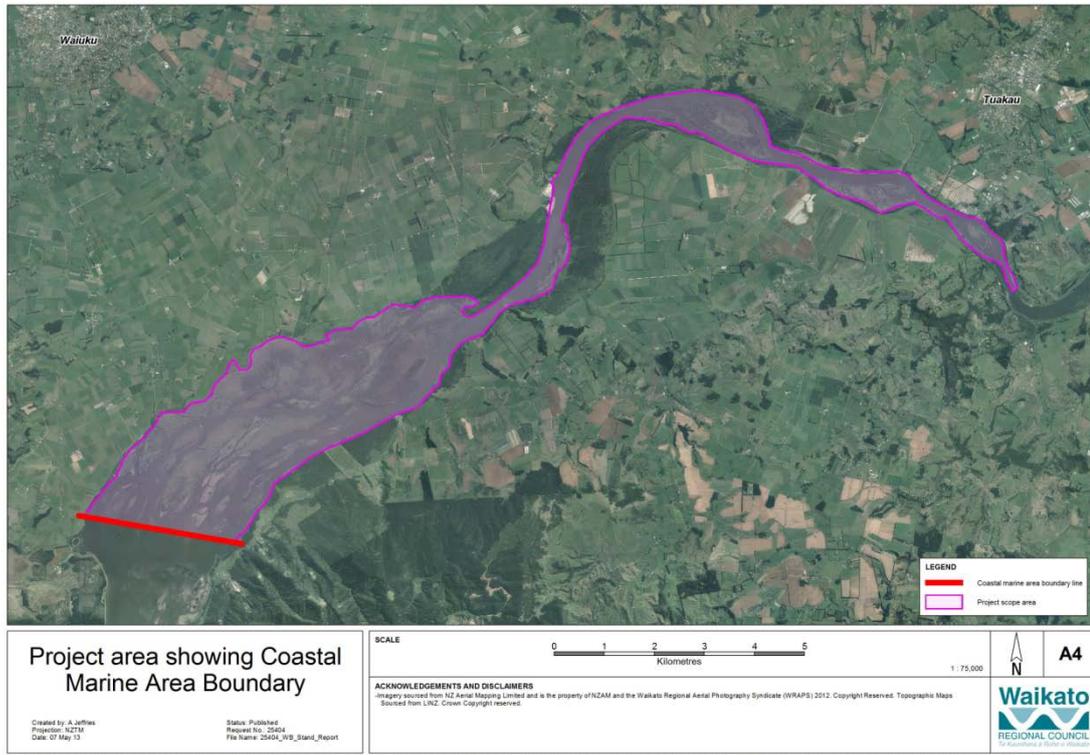


Figure 1: Project area showing the Coastal Marine Area boundary

The full text of both rules is provided within Appendix 2.

3.2.3 Conservation Act 1987

The Act was developed to promote the conservation of New Zealand’s natural and historic resources. The Act established the Department of Conservation (DOC), bringing together under one department the conservation functions formerly managed by five different government agencies.

Under s. 6(ab), one of the functions of DOC is:

“to preserve so far as is practicable all indigenous freshwater fisheries, and protect recreational freshwater fisheries and freshwater fish habitats”.

DOC manages whitebait fisheries according to regulations, which define when and how fishing is to be undertaken.

3.2.4 Related legislation/regulations

Other legislation and regulations of relevance to whitebait stands and associated structures includes:

- **Building Act 2004:** provides for regulation of building work and setting of performance standards – primarily via the Building Code;
- **Navigation Safety Bylaw 2009:** facilitates the safe use of the harbours, rivers, lakes and coastal waters of the Waikato region;
- **Land Act 1948 and Public Works Act 1981:** provide for management of Crown land via Land Information New Zealand (LINZ); and
- **RMA/Waikato Regional Plan:** rules on discharges to water, including sewerage discharge.

3.3 Lead-up to this project

In January 2012, Waikato Raupatu River Trust (WRRT) facilitated a boat trip in the lower Waikato River. The purpose of the boat trip was to visit two of the six Waikato

River islands returned to Waikato-Tainui through the Waikato River Settlement. It was also an opportunity to observe the various whitebait structures and stands on the Lower Waikato River to assist with the development of an Integrated River Management Plan.⁷

On 26 March 2012, a meeting was held between WRC and WRRT staff relating to whitebait stands, customary interests, historical concerns and challenges in the lower Waikato River. It was agreed that a joint field trip be organised with kaitiaki representatives and key staff to get a better understanding of the issues, and hopefully be able to identify solutions to address them.

On 16 June 2012, an initial scoping trip was carried out along the river between Tuakau Bridge and Te Puuaha o Waikato (Port Waikato) with WRC staff, WRRT staff and kaitiaki representatives. This initial scoping trip resulted in the development of a map, which provided a snapshot of whitebait stands, customary areas, waahi tapu sites, land interests and historical spawning grounds. The map was complemented by digital photos taken on the day.

On 3 July 2012, a follow-up meeting was convened to discuss the map, and options for further work. At this time, WRRT (on behalf of Waikato-Tainui) and WRC entered into a joint spatial project to identify all existing traditional whitebait stands and natural structures that are considered to be traditional whitebait fishing locations, so that these could be formally recorded within WRC's database.

It was agreed that the best approach was to work with WRRT and kaitiaki from Port Waikato to identify the location of the whitebait stands, including traditional whitebait stands, and waahi tapu along the Waikato River. A decision was made to jointly fund the project between WRC and WRRT.

⁷ HE PIKO HE TANIWHA - Waikato Raupatu River Trust Publication, February/March 2012, p. 12.

4 Project framework and participants

4.1 Project framework

Figure 2 illustrates participation in the project, and how this relates to achieving the outcomes of Te Ture Whaimana (the Vision and Strategy for the Waikato River).

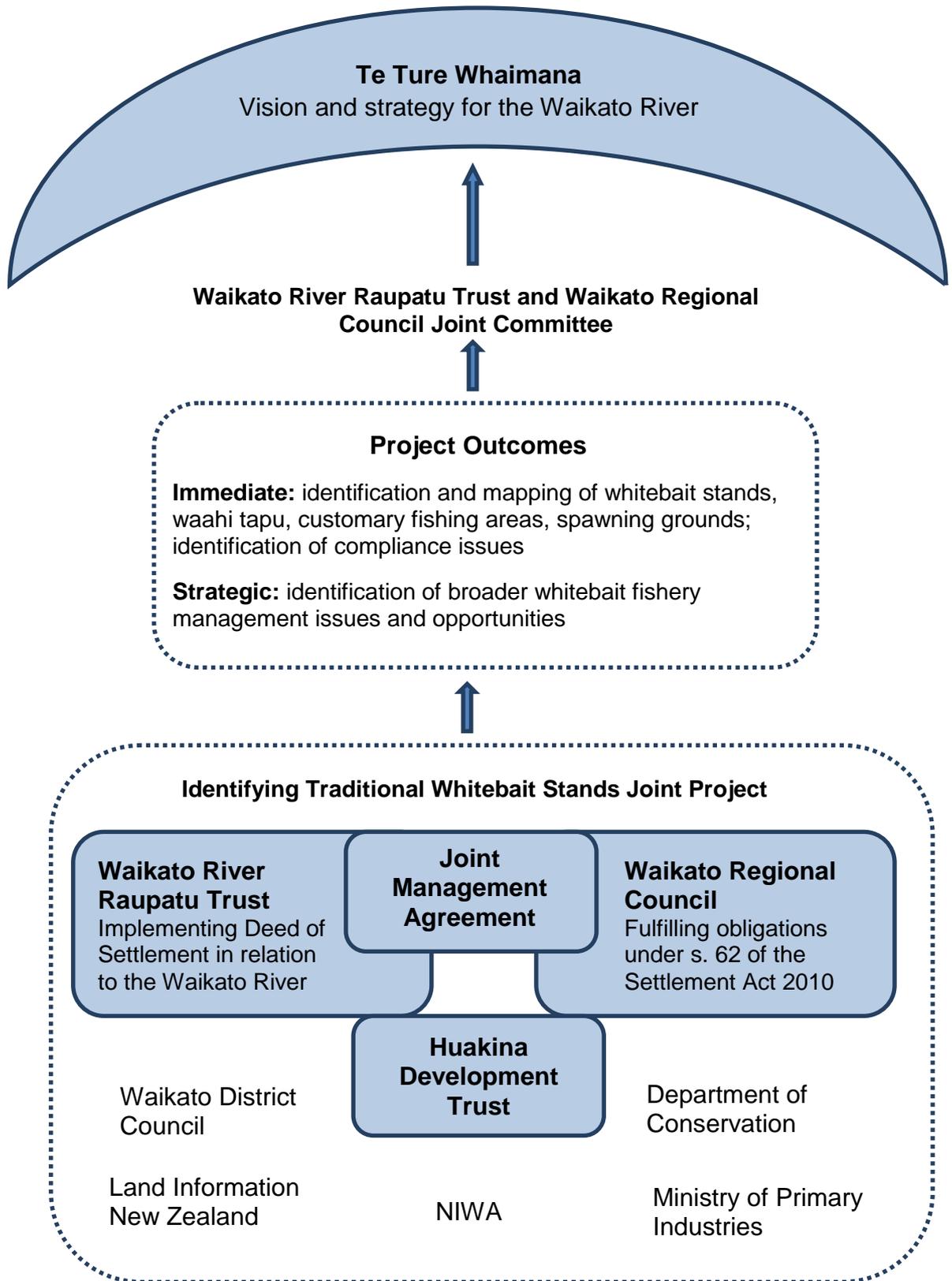


Figure 2: Project framework

4.2 Project participant roles and responsibilities

There are three project partners - WRRT, WRC and Huakina Development Trust. WRRT and WRC are the project co-leaders, and are co-funding the project. There are also a number of participating agencies that have roles and responsibilities related to the management of whitebait stands and the whitebait fishery.

The roles and responsibilities of the project partners and participating agencies are briefly outlined below.

4.2.1 Project partners

4.2.1.1 Waikato–Tainui Waikato Raupatu River Trust

The WRRT is the entity established following settlement of the Treaty of Waitangi claim by Waikato-Tainui in relation to the Waikato River. The overarching purpose of the WRRT and Claims Unit (of the Waikato Raupatu Lands Trust) is implementing the Waikato-Tainui Treaty Settlement with the Crown, and related statutory and regulatory reform, in relation to the Waikato River and the wider environmental interests of Waikato-Tainui.

4.2.1.2 Waikato Regional Council

WRC helps communities, industry and other groups in the Waikato region to live and work with natural resources. WRCs activities help look after the region's water, soil, air, geothermal areas and coasts. WRC is responsible for management of whitebait stands under the Regional Plan, implementation of co-management arrangements and flood protection, erosion control and drainage. The JMA with Waikato-Tainui includes agreed processes for input into resource consents, monitoring, enforcement and policy and planning matters to do with the river, as well as customary activities, including whitebait stands.

4.2.1.3 Huakina Development Trust

Huakina Development Trust represents the kaitiaki interests of a number of Marae and Papakainga within the lower Waikato River region known as Te Puaha o Waikato. The Marae of Te Puaha are represented on the Waikato-Tainui Te Kauhanganui which is the mandated iwi authority of Waikato iwi.

4.2.2 Participating agencies

4.2.2.1 Waikato River Authority (WRA)

The WRA is a statutory body formed under the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, the Ngati Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 and the Nga Wai o Maniapoto (Waipa River) Act 2012.

The purpose of the WRA is to:

- Set the primary direction through the Vision and Strategy to achieve the restoration and protection of the health and wellbeing of the Waikato River for future generations
- Promote an integrated, holistic, and co-ordinated approach to the implementation of the Vision and Strategy and the management of the Waikato River
- Fund rehabilitation initiatives for the Waikato River in its role as trustee for the Waikato River Clean-up Trust.

4.2.2.2 Waikato District Council (WDC)

WDC is the local government authority for the Waikato district. WDC manages the Waikato's resources, and implements plans to meet the present and future needs of the Waikato district. WDC is responsible for building and resource consents, and has a signed JMA with Waikato-Tainui covering land use beside the Waikato River in the district's rohe.

4.2.2.3 Land Information New Zealand

LINZ regulates the management and disposal of the Crown's interest in land and property in accordance with the Public Works Act 1981 and the Land Act 1948. Government agencies undertake acquisitions and disposals for their own purposes. LINZ ensures that robust statutory decisions are made and that government agencies comply with the statutory requirements in a consistent manner. LINZ is also responsible for managing Crown land and property in accordance with the regulatory framework, including the control of pest plants and animals on Crown lands and on Crown-owned river and lake beds.

4.2.2.4 Department of Conservation

DOC is the leading central government agency responsible for the conservation of New Zealand's natural and historic heritage. One of DOC's key functions as set out in the Conservation Act 1987 is "to preserve as far as practicable all indigenous freshwater fisheries, protect recreational fisheries and freshwater habitats". DOC is responsible for managing New Zealand's whitebait fisheries.

4.3 Relationship of participants to whitebait stand management and related issues

Figure 3 illustrates the primary relationships between whitebait stand management, the issues associated with this activity, and the project participants. Note that while whitebait stands are the nucleus and the original impetus for this project, there are numerous related management issues – as illustrated in Figure 3.

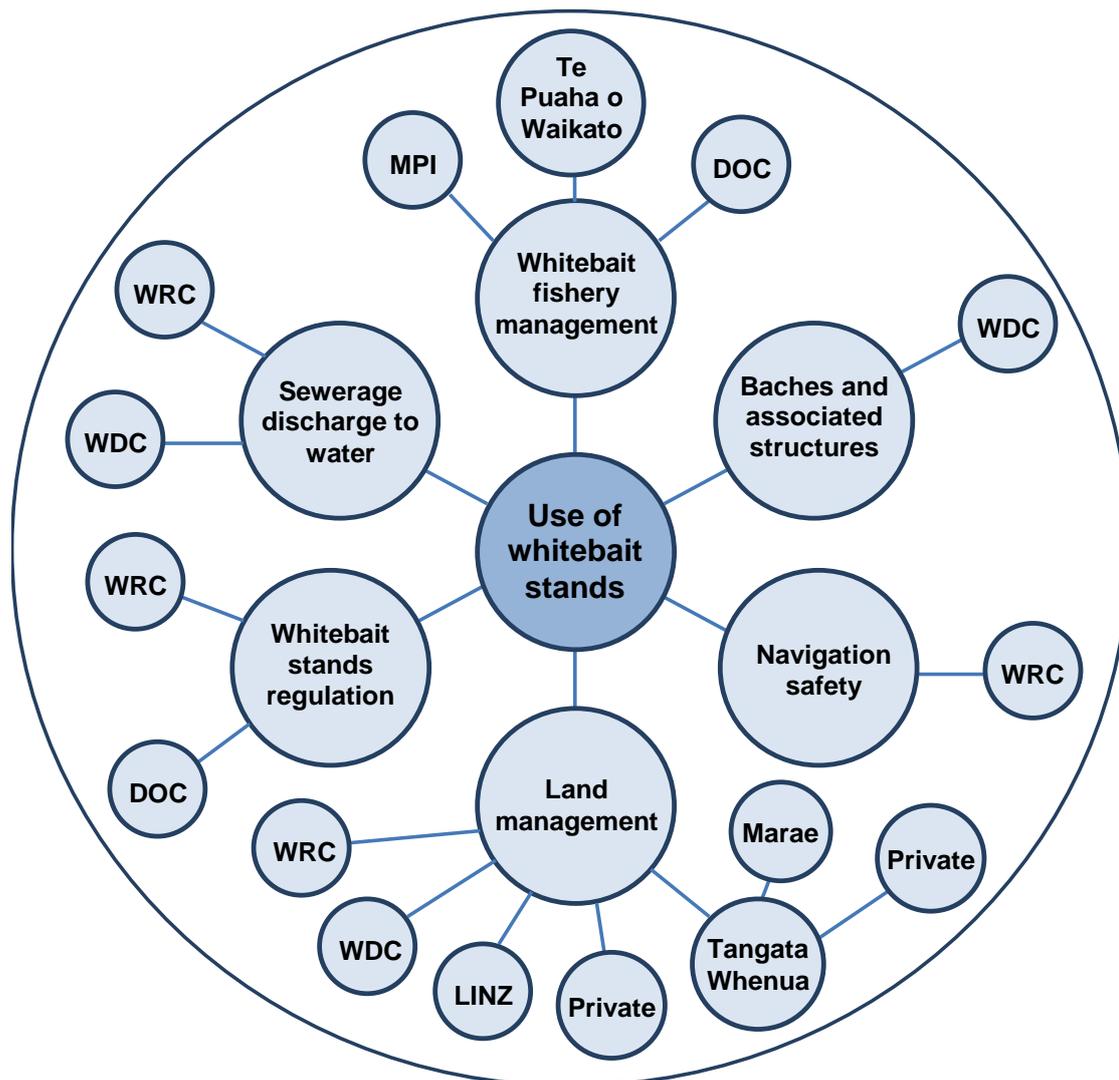


Figure 2: Whitebait stands, issues and project partners/participants

5 Purpose of the project

The primary purpose of this project is to work collaboratively to ensure both Waikato-Tainui and WRC meet their obligations under co-management and the Vision and Strategy.

This project provides for the establishment of a baseline understanding and mapping:

- whitebait stands (both traditional and non-traditional);
- Identification and mapping of sites of significance to local Iwi:
 - Waahi tapu areas;
 - Customary fishing areas and reserves;
 - Whitebait spawning areas;
- Identification of whitebait stand and adjoining structures compliance issues; and
- Identification of issues and opportunities for the future.

6 Scope

Within scope:

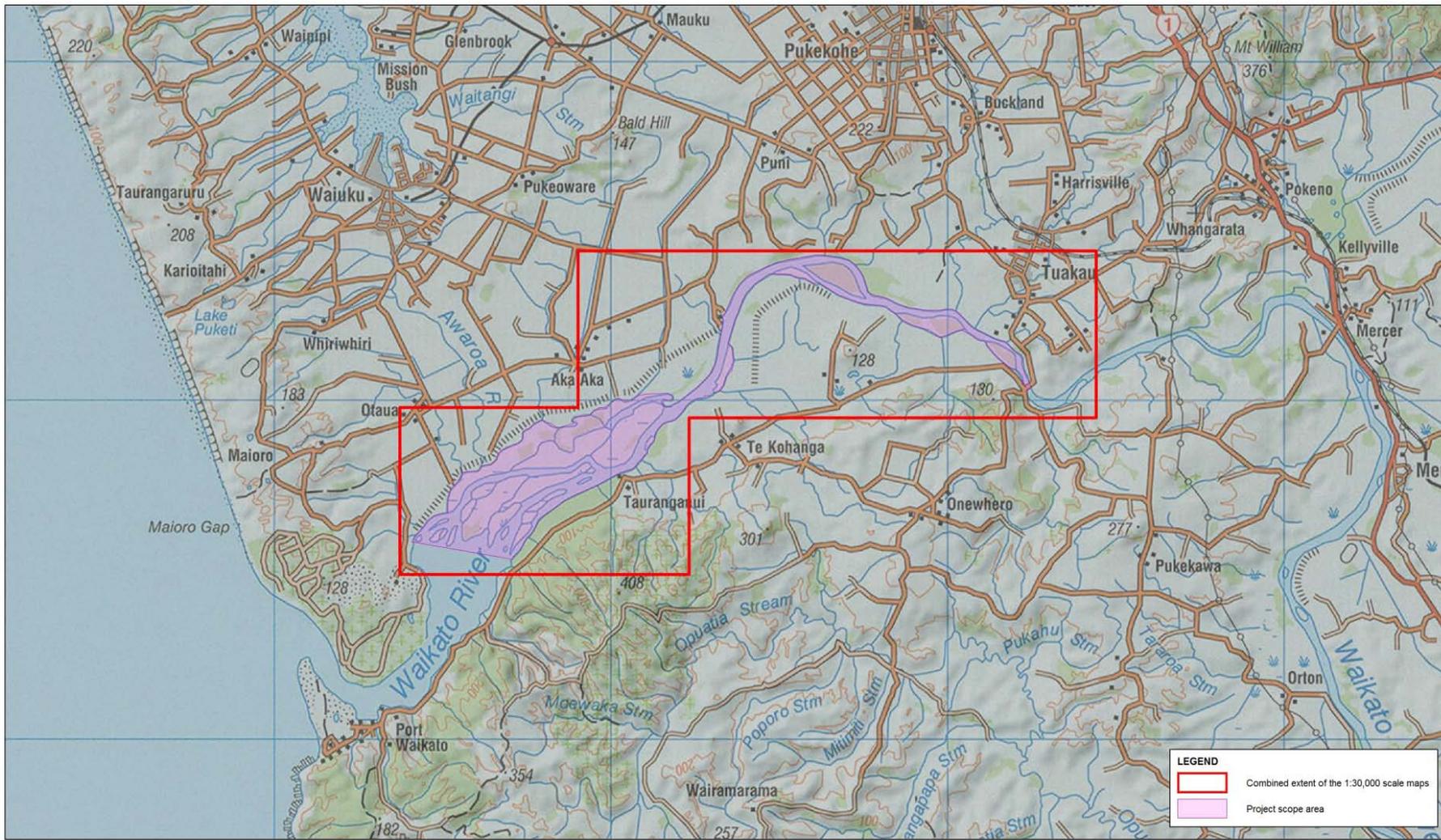
- The activities outlined under the purpose section above.

Outside of scope:

- Provision of highly accurate, detailed information on all whitebait stands within the Lower Waikato River;
- Definition of specific agency project roles and responsibilities for future management of the issues identified in this report; and
- Provision of specific recommendations on the future management of the whitebait fishery in the Lower Waikato River.

A map of the project area is provided in Figure 4.

Detailed maps on ownership, baches and compliance issues are provided within appendices 2, 3 and 4 respectively.



<h2>Project Area</h2> <h3>Whitebait Stands on the Waikato River</h3>		<p>SCALE</p> <p>0 2 4 6 8 10 Kilometres</p>	<p>1 : 150,000</p> <p>N</p> <p>A4</p>
<p>ACKNOWLEDGEMENTS AND DISCLAIMERS</p> <p>-Whitebait stands, waahi tapu, and riverbanks used for customary fishing were captured by GPS unit (Dec 2012 Feb 2013). The accuracy of the GPS unit is +/- 3m post-processing. Kaitiaki identified riverbanks used for customary fishing, waahi tapu, and Maori owned whitebait stands.</p> <p>-Whitebait spawning grounds have been identified by kaitiaki, and have been derived from the New Zealand Fisheries report titled "Whitebait Spawning Grounds on the Lower Waikato River" by CP Mitchell, June 1990.</p> <p>-Cadastral information derived from LINZ's Landonline Cadastral Database. CROWN COPYRIGHT RESERVED.</p> <p>-Imagery sourced from NZ Aerial Mapping Limited and is the property of NZAM and the Waikato Regional Aerial Photography Syndicate (WRAPS) 2012. Copyright Reserved. Topographic Maps Sourced from LINZ. Crown Copyright reserved.</p>		<p>Waikato REGIONAL COUNCIL <i>Te Kaitiaki a Hōriko o Waikato</i></p>	

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Figure 4: Map of project area

7 Methodology

The methodology used for this project is spatial analysis - a combination of data gathering in the field and post-field analysis to produce a series of maps. Spatial analysis requires collection of the following:

- Spatial data (physical location of whitebait stands, sites of significance and compliance issues);
- Attribute data (data describing the physical characteristics of whitebait stands and associated structures); and
- Gathering of photographic records.

The following attribute data was collected for whitebait stands and associated structures:

- Whitebait stands:
 - Whether there is a structure or no structure (traditional stand);
 - Ownership: either tangata-whenua, other ownership or unknown ownership;
 - The type of stand: no stand, fixed pile, floating or mobile;
 - Size of stand: greater than or less than 6m²;
 - Distance from River bank: greater than or less than 5m;
 - Whether the whitebait stand is associated with a bach; and
 - Whether the stand has a WRC authorisation number.
- Baches: whether the bach identified is:
 - Small: typically a simple, single-room dwelling or shelter;
 - Medium-large: typically baches with two or more rooms that may be either single or double-story.

Information on whitebait spawning areas was drawn from two sources:

1. Areas identified by kaitiaki during the field inspection (three sites); and
2. Areas known to WRC from information held by DOC (10 sites).

The locations of all spawning sites are shown in the detailed maps within Appendices 2-4.

7.1 Objectives

The primary objectives with respect to whitebait stands were to:

- Perform a stock take of all stands in the lower Waikato River;
- Identify ownership;
- Obtain contact details of owners; and
- Match the new data collected to existing data on the WRC Resource Use Authorisation Management System (RUAMS).

Other objectives included collection of data on the following:

- Sites of significance (to Waikato-Tainui), including:
 - Customary fishing areas;
 - Waahi tapu sites;
 - Whitebait spawning grounds known to tangata whenua;
- Tribal land interests; and
- Compliance issues.

7.2 Initial data gathering

Data gathering began on the initial project scoping field trip held on 16 June 2012. The overview map produced as a result of this trip provided a snapshot of whitebait stands, sites of significance and tribal land interests. Digital photos were also taken at this time.

7.3 Detailed data gathering

Six days of field work to gather detailed data was carried out on 3, 4, 5 and 7 December 2012, and 25 and 26 February 2013. The field work was conducted by boat, with kaitiaki, WRC and WRRT staff and representatives from all participating organisations aboard throughout the period, to provide local knowledge and advice on issues associated with whitebait stands. Field work comprised the gathering of spatial, attribute and photographic data as above. Other structures, such as those used for duck shooting were not captured unless they also served as a whitebait fishing site as indicated by an adjacent and/or attached whitebait stand.

Whitebait stands, waahi tapu and spawning grounds were captured as GPS⁸ point data, while active customary fishing areas were captured as line data. Photos were taken on a GPS enabled digital camera, or a non-GPS digital camera, where photos were linked to GPS point data.

A key component of field work was to join as much of the new data captured out in the field to data stored in RUAMS as possible, in order to determine ownership and contact details of whitebait stand owners. An attribute join based on unique authorisation numbers and/or last names was performed using Intergraph GeoMedia GIS software. Geomedia was also used to analyse the data and produce maps. Data analysis was completed using spatial queries and basic Structured Query Language queries, which were applied to the various attributes.

Draft maps were presented to local marae members, Huakina Development Trust staff members and those kaitiaki who participated in the scoping study and field work, to confirm the sites of significance. A final report-back to kaitiaki and tribal members of Te Puuaha was undertaken on May 17 and 18, 2013.

7.4 Limitations

7.4.1 Time and budget constraints

Data had to be captured efficiently, within the boundaries of time and budget constraints. This led the following data limitations:

- The characteristics of each whitebait stand were recorded via photographs and onsite observations, due to insufficient time to accurately measure each stand;
- Lack of clear visibility of some river structures;
- Sizes of baches are estimates based on observation from the River – often while the boat was moving. There was no time available to conduct onshore assessments of the exact size of baches, or the nature of specific building issues associated with individual baches; and
- Whitebait stand sizes and separation distances were estimated instead of being measured, therefore the attribute data is observational only.

Despite the lack of accurate measurement of stands, the length of the boat (six metres) provided a useful guide in size estimation. It is also noted that the 2012 aerial photos may assist in identifying some obscured river structures (see point 2 above).

7.4.2 Tidal ebb and flow and river currents

Tidal ebb and flow and river currents affected the level of accuracy of the point data captured. Tidal ebb and flow made it difficult to travel up and around certain parts of the river, which resulted in less than 5% of data either not being captured, or being captured at five or more metres from its actual location. The River current made it difficult to keep the boat stationary, and compromised the harbourmasters ability to navigate the boat right next to whitebait stands in places. The result was that point data was often captured one to four metres away from whitebait stands.

⁸ Trimble Juno 3 unit, accurate to +/-3m in post-processing, using ArcPad software.

7.4.3 Spatially inaccurate RUAMS data

A limited amount of the data captured out in the field could be joined back to RUAMS, as the join could only be done for whitebait stands displaying authorisation numbers (refer to section 8.3.4). All other whitebait stands could not be joined because there were no matching attributes. A spatial join for the unmatched data was considered but not completed. This was due to the spatial inaccuracies and inconsistencies within the RUAMS data, making any logical 'best fit' or 'accumulate nearest' spatial match impossible.

7.4.4 Customary fishing areas – historical vs. contemporary context

Historically, Waikato-Tainui fished the whole River stretch within their respective rohe for tuna (eels) and whitebait (matamata), and in some cases, still do. It is important then to be reminded that "customary fishing areas" within the context of this report, only refers to those areas that are still being actively fished by tangata whenua as at 17th December 2009. As a result, this report does not capture the full picture of how Waikato-Tainui have, and continue to utilise the Waikato River. This limitation is a result of the scope of the project which only focused on the Tuakau Bridge to CMA at the River Mouth.

8 Findings

The following findings are the result of data captured and analysed during the field work stage of the project. All figures contained within this section **must be** read with the limitations outlined within section 7.4 in mind.

Note that all figures within this section are **best estimates only**, based on the limitations of the data captured in the field, and may not be 100% accurate to single figures.

8.1 Total whitebait stands and location

The total number of whitebait stands identified within the project area is 869.

849 whitebait stands (or 98% of the total stands) are located within the river reach from the CMA boundary downstream to the Tuakau Bridge upstream (refer to Figure 4). Out of the total of 869 stands, 13 occupy the area upstream of Tuakau Bridge, and seven are located within the CMA.

8.2 Sites of significance to Waikato-Tainui

The following sites of significance were identified:

- Seven waahi tapu areas;
- Three whitebait spawning grounds;
- 41.5km of actively used customary fishing areas – noting that the whole River is considered to be a customary fishing area, of which:
 - 25.7km falls within the boundary of the project area; and
 - 15.8km falls between the lower end of the project area (around the CMA boundary) and the river mouth.

8.3 Whitebait stands

8.3.1 Ownership

Table 1 shows total whitebait stand ownership, whitebait stand ownership within those areas actively fished by tangata whenua within the project scope area ("customary fishing areas") and whitebait stand ownership outside of those. The majority of Maaori-owned stands are not captured under the Council notification process (refer to earlier

discussions about the Te Puuaha Marae Management resolution around this), and so the project team relied on the local knowledge of kaitiaki to confirm stand ownership.

Table 1: Whitebait stands ownership

Whitebait stand ownership	Total ownership		Within customary fishing areas		Outside customary fishing areas	
	#	%	#	%	#	%
Maori	214	25	173	58	69	12
Non-Maori	439	50	19	6	390	69
Unknown	216	25	109	36	109	19
Totals	869	100	301	100	568	100

While half the whitebait stands are non-Maori owned, the large majority of stands within customary fishing areas are Maori-owned. Unknown ownership is significant, at one quarter of all stands. Outside of customary fishing areas, the majority of stands are non-Maori owned.

8.3.2 Associated structures (baches)

Baches are a regular occurrence on the River and are generally (but not always) associated with whitebait stands. Local information shared with the team indicated that duck shooters may also participate in whitebait season and so accommodation on the River fits this seasonal activity. Additionally, there were indications that whitebait fishers are immigrating to the River delta from outside of the River catchment, and so again, the presence of accommodation supports a three-month stay on the River to access the fishery.

Table 2 shows total whitebait stands associated with and without baches, both within and outside of customary fishing areas.

Table 2: Whitebait stands and associated structures

Whitebait stands and baches	Total baches		Within customary fishing areas		Outside customary fishing areas	
	#	%	#	%	#	%
No bach	597	69	232	77	365	64
Small bach/ under construction	80	9	35	12	45	8
Medium-large bach	192	22	34	11	158	28
Totals	869	100	301	100	568	100

At 69%, the majority of whitebait stands have no baches associated with them, and this figure is higher within customary fishing areas at 77%. The size of baches within customary fishing areas is evenly split between small and medium-large, while the majority of baches outside customary fishing areas are medium-large.



Figure 3: Whitebait stand, no bach



Figure 4: Stand with small bach



Figure 5: Stand with medium bach (1-2 rooms)



Figure 6: Stand with large bach (multiple rooms)

8.3.3 Compliance totals

Table 3 shows compliance issues, including overall totals, totals within customary fishing areas and totals outside of customary fishing areas, both including and excluding the minimum distance requirement.

The “minimum distance” requirement referred to in Table 3 relates to WRC rules as follows:

- Outside the Coastal Marine Area - Waikato Regional Plan, Permitted Activity Rule 4.2.6.1 b: “*The [whitebait stand] structure shall be located at least 30 metres from the closest neighbouring whitebait stand on the same bank of the river*”; and
- Within the Coastal Marine Area - Regional Coastal Plan, permitted Activity Rule 16.4.3 i: “*The structure shall be located at least 20 metres from any other whitebait stand*”.

The full text of both rules is provided within Appendix 1.

Table 3: Compliance issues

Compliance Issues	Probably compliant		Probably non-compliant	
	#	%	#	%
Totals				
Excl. minimum distance requirement	374	43	495	57
Incl. minimum distance requirement	113	13	756	87
Within customary fishing areas				
Excl. minimum distance requirement	162	54	138	46
Incl. minimum distance requirement	38	13	263	87
Outside customary fishing areas				
Excl. minimum distance requirement	212	37	357	63
Incl. minimum distance requirement	75	13	493	87

Excluding the minimum distance requirements, the rate of probable compliance is 43% overall. This falls to 13% overall when the minimum distance rule is applied. Excluding the minimum separation distance rule, the rates of probable compliance are higher within customary fishing areas. When the minimum distance rule is included, the rates within and outside customary fishing areas do not change from the overall total.

8.3.4 Whitebait stands and the Resource Use Authorisation Management System (RUAMS)

As discussed earlier, the RUAMS system is a WRC database into which data related to the ownership of stands, and indicative locations of the stands are recorded. Table 4 shows a comparison between data contained within RUAMS, and data gathered during the field work stage of this project.

Table 4: Whitebait stands and RUAMS data

	Whitebait stands identified in RUAMS data	Actual whitebait stands identified by field work
Total	541*	869
Stands matched to RUAMS data	197 (36% of RUAMS data)	197 (23% of total stands identified)

* Identified at the time of the survey.

197 stands could be matched to RUAMS. This represents a 36% match rate between the 197 whitebait stands that could be matched with RUAMS, and the total number of stands that were identified within RUAMS at that time (541).

However, when the matched RUAMS stands (197) are compared to the actual number of whitebait stands identified (869), the percentage of matched stands drops to 23%.

8.4 Issues identified

During the course of the project, a number of issues relating to the use of whitebait stands and related activities were identified. The issues generally fell into the following categories:

- Whitebait stands compliance issues;
- Health and safety issues:
 - Buildings and associated structures;
 - Navigation safety hazards;
- Discharges to waterways;
- Whitebait fishery management; and
- Differences in the definition of what constitutes whitebait stands.

A brief description of each of the issues is provided below.

8.4.1 Whitebait stand compliance issues

The following whitebait stand compliance issues were identified:

- Whitebait stands situated within 30m of each other;
- One whitebait stand registration with numerous stands and/or multiple stands attached to one bach;
- Locations with a registration number only, and no whitebait stand present;
- Pre-sited poles, with no whitebait stand;
- Whitebait stands too far out from the river bank; and
- Stands not fixed to the bank or in river bed and/or floating structures.

The following description and photos illustrate these issues.

8.4.1.1 Distance between whitebait stands

Observations on the Delta highlighted that there are stands that are situated within 30m of other stands. This is in breach of the 30m minimum separation distance rule outlined under the permitted activity rules of the Waikato Regional Plan and Regional Coastal Plan (refer to photos below and Appendix 1). Socially, this creates issues for 'River etiquette' in terms of providing fair access for all fishers to the fishery. This is an issue that will need to be explored further by the relevant WRC policy and monitoring staff, in order to solidify expectations on fishers around stand compliance. Based on feedback from tangata whenua, this is an area that is perhaps not as well understood by locals as WRC assumes and needs to be rectified through a more effective public communication process.



Figure 7: Whitebait stands too close together

8.4.1.2 One whitebait stand registration number for multiple stands, and multiple stands attached to one bach

Under the Waikato Regional Plan and Regional Coastal Plan permitted activity rules, whitebait stand owners are expected to notify WRC of each stand they construct, to which WRC attributes a number. This means that each stand must have its own number – one number cannot be used for multiple stands (refer to photos below). Again, this raises issues around fair and equitable access for people to the fishery.

Historically, tangata whenua and non-Maori fishers very effectively self-regulated themselves in terms of establishing fishing areas. This was founded on a mutual recognition regarding the traditional fishing rights of local marae members and whaanau to the resources that they have fished for well over six centuries. However, feedback from tangata whenua and past non-Maori whitebait buyers highlight that the notification process has undermined this “gentleman’s agreement”. This is exemplified by the issue of multiple stands - one owner.



Figure 8 One site with multiple platforms.

Note that the very close distance between the multiple stands in figure 3 makes this stand ‘non-compliant’ under the Regional Plan because the stands together cover an area larger than 6m².

8.4.1.3 Whitebait stand numbers with no stand, and free-standing poles

In some cases, whitebait fishing areas may be identified by an authorisation number but have no associated structure. In other cases, whitebait fishing areas may be identified by free-standing poles placed in the River, without associated structures. In both cases, little is known about the actual usage of the site – including whether the site is actively used, and in the case of free-standing poles, who it is used by.

In the case of free-standing poles, it is assumed that they are associated with whitebait stands because of the height of the poles and distance between the poles. Refer to the photos below for examples of both issues.



Figure 9: Registration number only with no whitebait stand



Figure 10: Free-standing poles without a whitebait stand

8.4.1.4 Distance of stands from River banks

In some cases, whitebait stands are located too far from the River bank (refer to photos below). The Waikato Regional Plan states that “*The structure shall not extend out into the river from the river bank for more than 10 percent of the river width, or five metres, whichever is the lesser*” (Rule 4.2.6.1 f).

It is important to note that there may be various reasons for whitebait stands being located too far from the river bank, and some possible reasons are:

- Lack of awareness of rules;
- Non-compliance with rules;
- Erosion of the River bank over time;
- Seasonal variances in water levels in the River; and
- Changes to the River shape over time, due to the effects of River training works.



Figure 11: Stands too far from the river bank

8.4.2 Health and safety issues

8.4.2.1 Buildings and associated structures

The following issues with buildings and associated structures were identified:

- Buildings require a building code of compliance and resource consent;
- Buildings require a sanitary sewage system;
- Buildings are located within the flood plain, and subject to flood inundation;
- Some buildings are permanent dwellings; and
- There are further large structures under construction.

The purpose of building compliance is to ensure that buildings can be used safely by people, to promote sustainable development and to ensure accountability for individuals and organisations that have responsibilities under the Building Act 2004. The management of building code compliance within the project area is a responsibility of the Waikato District Council.

Some issues that arise from the usage of buildings may have multiple impacts. One example of this is the management of sewerage, which can have both human health and wider ecosystem impacts if not well managed. Observations from the field trips indicate that the use of baches is widespread, and that there are a number of new structures being constructed.

The following photos illustrate these issues:



Figure 12: Building compliance issues



Figure 13: Outside toilet



Figure 14: New structure under construction



Figure 15: Building compliance issues

8.4.2.2 Navigation safety hazard issues

The following issues with navigation safety were identified:

- Structures falling into river; and
- Structures and debris in the river.

The following photos illustrate these issues:



Figure 16: Structures falling into the river

During discussions with kaitiaki on the field trip, there was a suggestion that structures that have fallen into the River could be remediated by removal, and possible reimbursement for scrap metal. It was noted that preventing any further structures being constructed there could act not only as an environmental protection measure, but also enable recognition that the affected sites are historic customary fishing areas.⁹

⁹ Pers. comm. Ngaa Kaitiaki o Te Puuaha, May 2013.



Figure 17: Navigation debris and obstructions

8.4.3 Discharges to waterways

The following issues with discharges to waterways were identified:

- Potential point source discharges to waterways– such as sewerage discharges; and
- Poor farming practices - non-fencing off waterways, allowing stock access to waterways.

The following photos illustrate these issues:



Figure 18: Possible point-source discharge

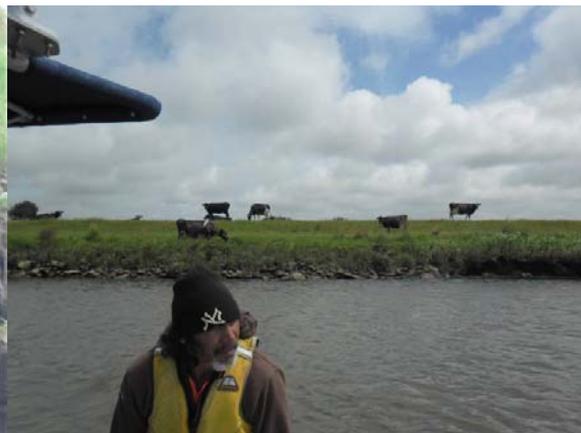


Figure 19: Unfenced waterway

8.4.4 Whitebait fishery management

The following issues with whitebait fishery management were identified:

- Breaching whitebait fishing regulations, such as nets or screens left in water; and
- Impacts of commercial whitebait fishing.

Management of the fishery includes DOC, who have responsibilities for freshwater fisheries under the Conservation Act 1987 (as outlined within section 3.2.3). Feedback from whaanau indicates that there may be an inconsistency between DOC and WRC regulations as to whether whitebait stands are fixed or floating, and that communication from agencies with responsibilities for whitebait management may need to improve.

The following photos illustrate these issues:



Figure 20: Nets left in water, in breach of regulations



Figure 21: Commercial eeling activities¹⁰

8.4.5 Definition of whitebait stands

After discussions between Waikato-Tainui staff, kaitiaki representatives and WRC staff, it became evident that the language used to describe whitebait stands, and the understanding of what constitutes a whitebait stand, differs between the parties.

Under the RMA and the Waikato Regional Plan, the definition of a structure is:

“any building, equipment, device, or other facility made by people and which is fixed to land; and includes any raft”.

Kaitiaki expressed that from their perspective, their long-held understanding of what constitutes a whitebait stand is that it is a place where you stood or stand to scoop out whitebait, or a traditional area where whitebait fishing occurs. A whitebait stand is more commonly known as a ‘bench’. Traditional whitebait stands can include, but are not limited to;

- A physical human-made structure such as a bench (fixed to the bed, and/or fixed to the bank);
- A beach area;
- A rocky outcrop; and/or
- An area along the bank of the river¹¹.

The following photos illustrate the difference between the definition of a whitebait structure as defined by the RMA, and the traditional definition of a whitebait stand.



Figure 22: Traditional whitebait stand



Figure 23: Whitebait structure as defined

¹⁰ Note that this is different to the commercial whitebaiting referred to in section 3.1.2.

¹¹ Refer to section 6(3) of the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 (as outlined in section 3.2.1 of this report) and pers.comm. Ngaa Kaitiaki o Te Puuaha, May 2013

9 Opportunities/next steps

This project has provided an opportunity to identify whitebait stands in the lower Waikato River, and identify the range of issues associated with their usage and management. The range of issues identified involves overlapping management responsibilities for multiple agencies.

There are a number of opportunities for further work to address how the various agencies could collaborate to improve the management of whitebait stands and the whitebait fishery. The following opportunities could be considered collectively as possible next steps:

- Discussion and agreement between relevant agencies to look at potential collaborative solutions, and determine how solutions could be managed and funded;
- Development of a collective plan to address whitebait stand management and related issues;
- Clarification of changes required to regulatory requirements as a part of the review of the Waikato Regional Plan (scheduled for review in 2015). . This could be captured under the proposed Integrated River Management Plan¹²;
- Development of a communications strategy for the local community. A strategy could:
 - Highlight how agencies are working together;
 - Raise awareness of the issues, and support positive changes in attitudes, behaviours and improving river etiquette;
 - Demystify and clarify:
 - Whitebait stands notification processes;
 - Queen's chain;
 - Squatters' rights;
 - River etiquette;
 - Provide information about the Waikato River Treaty Settlement, and customary activities within the river accords and joint management agreements;
 - Provide information that may assist with the development of integrated management plans; and
- Community consultation on plans and solutions, once agreed.

¹² Refer to the River Settlement 2010, and DOC and MPI Accords.

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Appendix 1: Waikato Regional Plan and Regional Coastal Plan excerpts

Waikato Regional Plan

4 River and Lake Bed Module

4.2 River and Lake Bed Structures

4.2.6 Whitebait Stands

4.2.6.1 Permitted Activity Rule – Whitebait Stands

1. Unless controlled by Rule 4.2.5.1 the use, erection, reconstruction, placement, extension or alteration of any structure, and associated bed disturbance, in, on, under or over the bed of any river or lake bed for the purpose of catching whitebait, and
2. Any discharge of sediment associated with construction activities;

are **permitted activities** subject to the following conditions:

- a. No damage to river protection works or to any existing structure shall occur as a result of the structure.
- b. The structure shall be located at least 30 metres from the closest neighbouring whitebait stand on the same bank of the river.
- c. Except that as provided for in condition d) of this Rule, the deck of the structure shall not exceed four square metres. This area does not include access ways onto the structure.
- d. In the Waikato River from the Tuakau Bridge downstream to the coastal marine area boundary (as defined in the Regional Coastal Plan 28 August 1997), the deck of the structure shall not exceed six square metres. This area does not include access ways onto the structure.
- e. The structure shall not be located on the bed of any river at a point not exceeding 10 metres wide.
- f. The structure shall not extend out into the river from the river bank for more than 10 percent of the river width, or five metres, whichever is the lesser.
- g. The structure shall be located at least 20 metres from any flood gate, confluence, culvert, bridge or sand/gravel mining operation.
- h. The structure shall not impede the flow of water.
- i. The structure shall be maintained in a structurally sound condition at all times.
- j. The owner of the structure shall inform the Waikato Regional Council in writing, of the location of the structure at least 10 working days prior to commencing construction.
- k. The structure shall be open piled*.
- l. The activity shall not disturb any archaeological site or waahi tapu as identified at the date of notification of this Plan, in any district plan, in the NZ Archaeological Association's Site Recording Scheme, or by the Historic Places Trust except where Historic Places Trust approval has been obtained.

- m. In the event of any waahi tapu that is not subject to condition l) being identified by the Waikato Regional Council to the person undertaking the use, erection, reconstruction, placement, extension or alteration of the structure, the activity shall cease insofar as it may affect the waahi tapu. The activity shall not be recommenced without the approval of the Waikato Regional Council.
- n. The construction works shall comply with the suspended solids discharge standards as set out in Section 4.2.21 of this Plan.
- o. Any erosion occurring as a result of the structure shall be remedied as soon as practicable.
- p. The structure shall be kept free of debris.
- q. All equipment and surplus construction materials shall be removed from the river or lake bed and the floodplain on the completion of that activity.
- r. No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint or solvents, but excluding sediment) shall be discharged to water from the activity.

Advisory Notes:

- If any of these conditions cannot be complied with, then the activity is a discretionary activity in accordance with Rule 4.2.4.4.
- The Department of Conservation also administers regulations associated with whitebaiting. People should contact the Department of Conservation to ascertain if any further approvals are required.
- Where waahi tapu site is identified whilst undertaking the activity, the process that Waikato Regional Council will follow in order to implement condition m) is set out in Section 2.3.4.22 of this Plan.

Explanation and Principal Reasons for Adopting Method 4.2.6.1

Whitebait stands are considered to be structures that have minor or no adverse effects and are therefore permitted in line with Policy 1 of Section 4.2.3 on low impact structures.

Regional Coastal Plan

16 Implementation Methods

16.4 Structures

16.4.3 Whitebait Stands (Permitted Activity)

The erection, placement, maintenance, alteration, use of or occupation of space by a structure in the CMA which is to be used solely as a whitebait stand is a permitted activity provided it complies with the conditions stated in this Rule.

Conditions

- i. The structure shall be located at least 20 metres from any other whitebait stand.
- ii. The structure shall be located at least 20 metres from any flood gate, tide gate, confluence, culvert or bridge.
- iii. The deck of the structure shall have an area no greater than 4 square metres¹.

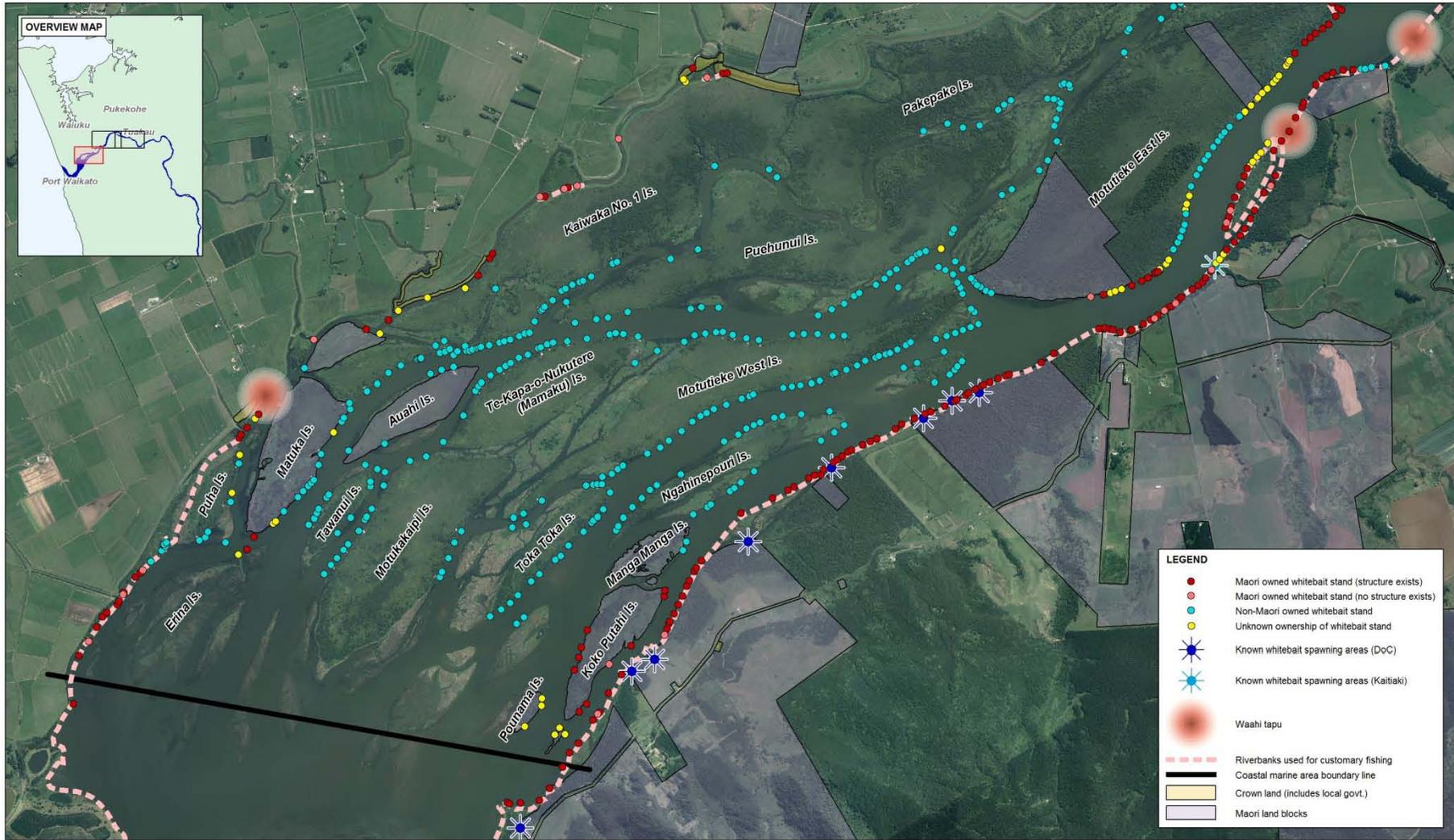
- iv. The structure shall be maintained in a structurally safe condition at all times.
- v. The structure shall not be located in any area identified as waahi tapu.

Principal Reasons for Adopting: There are few whitebait stands in the CMA. It is considered that the adverse effects of such structures are relatively minor.

Footnotes

1. For clarification, 4 square metres is an area equivalent to 4 metres x 1 metre.

Appendix 2: Ownership detailed maps



Ownership

Whitebait Stands on the Waikato River: Map 1 of 3

Created by: A Jeffries
Projection: NZTM
Date: 07 May 13

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ACKNOWLEDGEMENTS AND DISCLAIMERS

-Whitebait stands, waahi tapu, and riverbanks used for customary fishing were captured by GPS unit (Dec 2012 Feb 2013). The accuracy of the GPS unit is +/- 3m post-processing. Kaitiaki identified riverbanks used for customary fishing, waahi tapu, and Maori owned whitebait stands.

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Te Kaunihera o Pōhoro o Waikato

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LEGEND

- Maori owned whitebait stand (structure exists)
- Maori owned whitebait stand (no structure exists)
- Non-Maori owned whitebait stand
- Unknown ownership of whitebait stand
- ★ Known whitebait spawning areas (DoC)
- ★ Known whitebait spawning areas (Kaitiaki)
- Waahi tapu
- Riverbanks used for customary fishing
- Coastal marine area boundary line
- Crown land (includes local govt.)
- Maori land blocks

Ownership

Whitebait Stands on the Waikato River: Map 2 of 3

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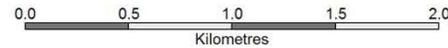
Ownership

Whitebait Stands on the Waikato River: Map 3 of 3

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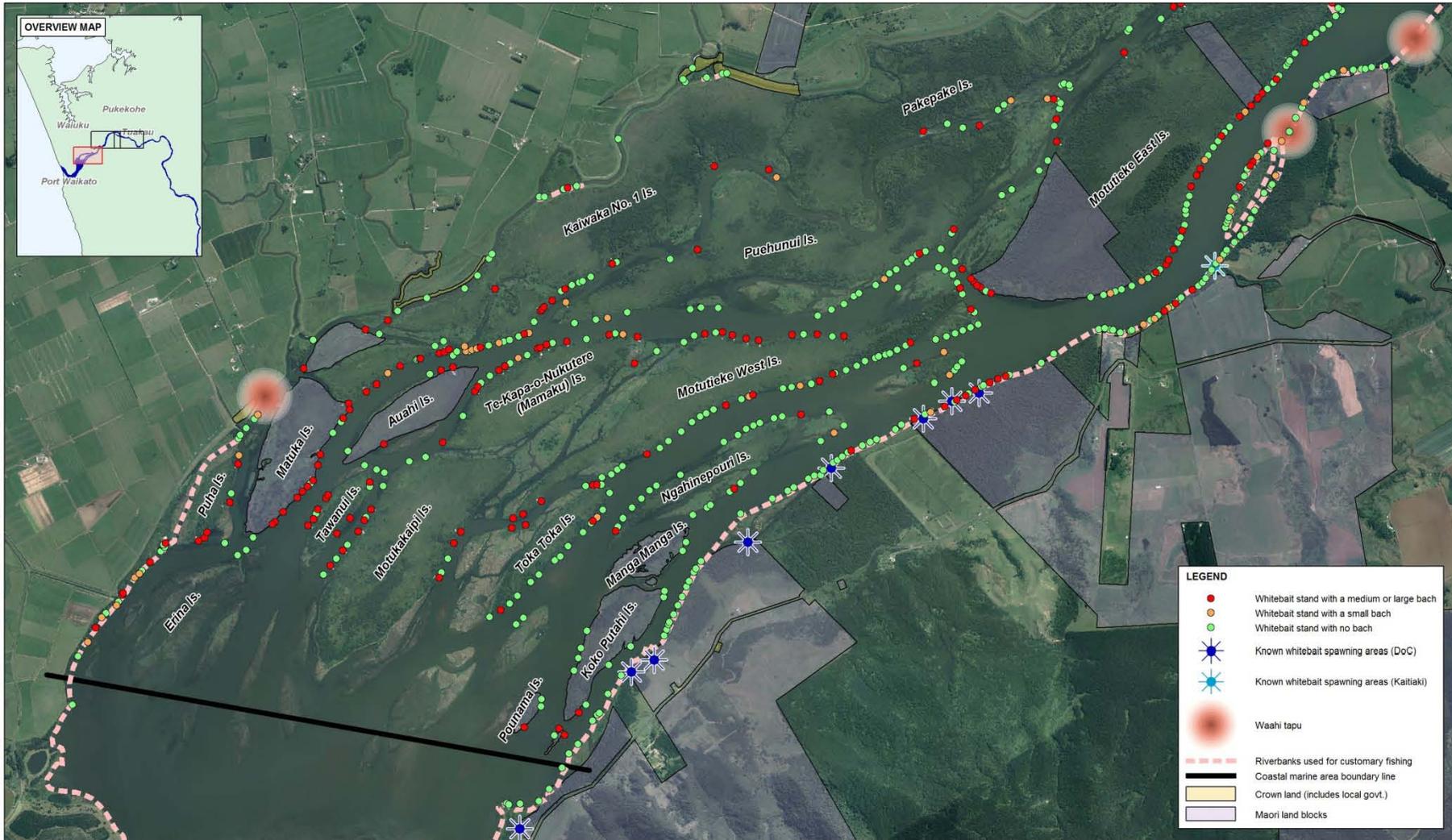
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Appendix 3: Baches detailed maps



LEGEND

- Whitebait stand with a medium or large bach
- Whitebait stand with a small bach
- Whitebait stand with no bach
- ★ Known whitebait spawning areas (DoC)
- ★ Known whitebait spawning areas (Kaitiaki)
- Waahi tapu
- - - Riverbanks used for customary fishing
- Coastal marine area boundary line
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- Maori land blocks

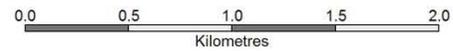
Baches

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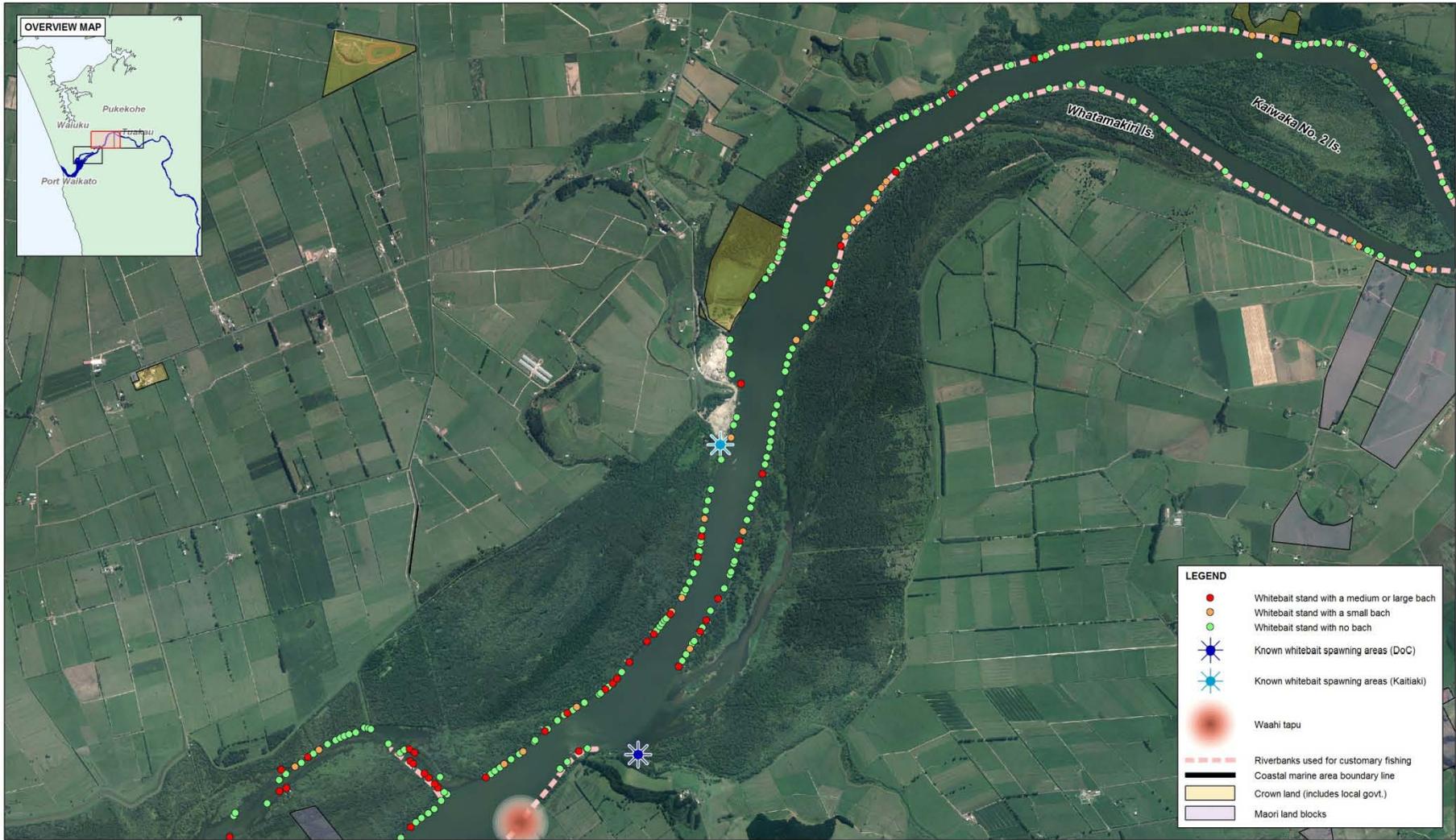
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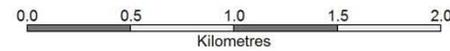
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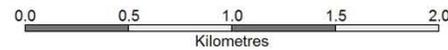
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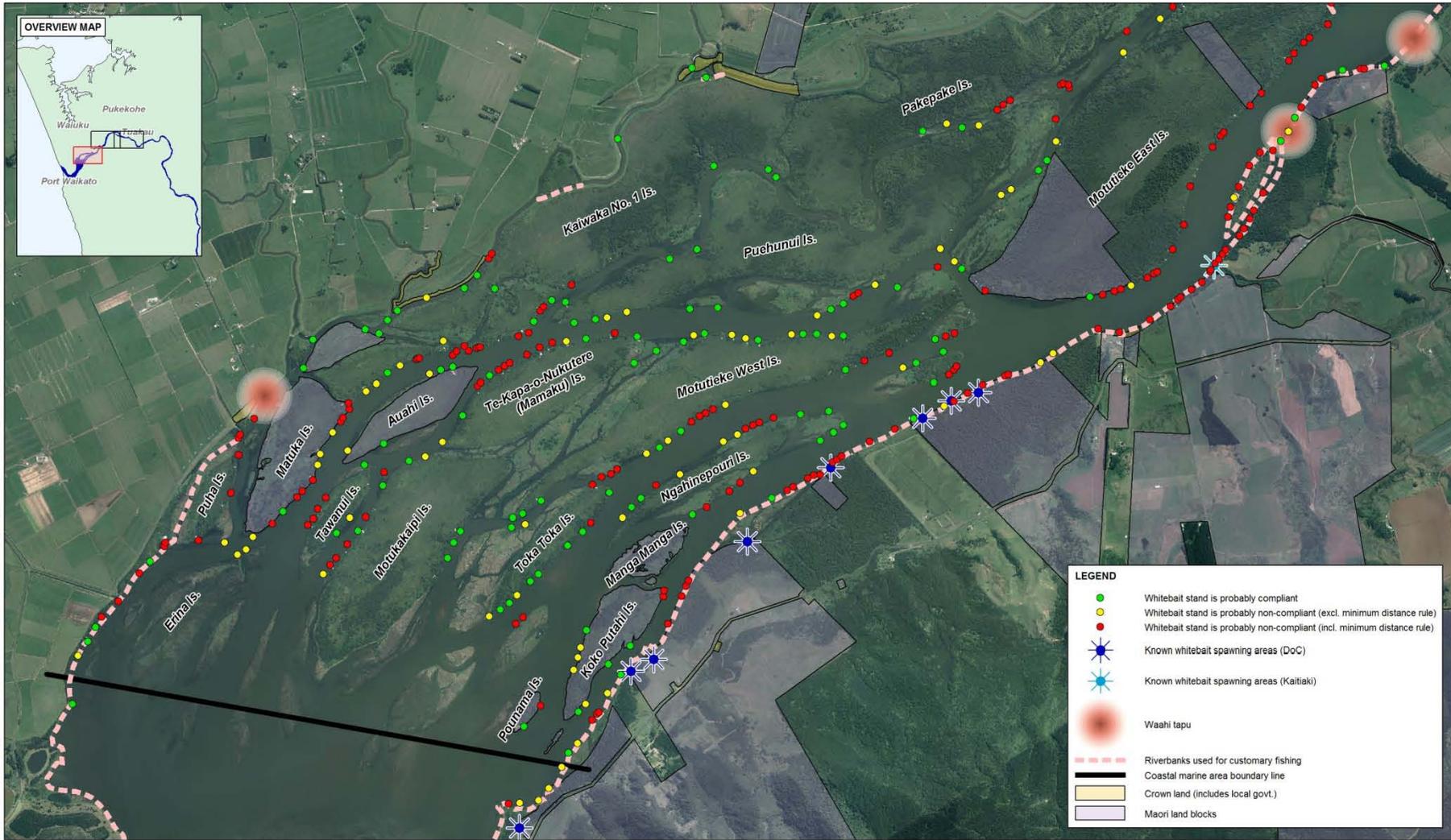
ACKNOWLEDGEMENTS AND DISCLAIMERS

-Whitebait stands, waahi tapu, and riverbanks used for customary fishing were captured by GPS unit (Dec 2012 Feb 2013). The accuracy of the GPS unit is +/- 3m post-processing. Kaitiaki identified riverbanks used for customary fishing, waahi tapu, and Maori owned whitebait stands.
 -Whitebait spawning grounds have been identified by kaitiaki, and have been derived from the New Zealand Fisheries report titled "Whitebait Spawning Grounds on the Lower Waikato River" by CP Mitchell, June 1990.
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Appendix 4: Compliance detailed maps



Compliance Issues

Whitebait Stands on the Waikato River: Map 1 of 3

Created by: A Jeffries
Projection: NZTM
Date: 07 May 13

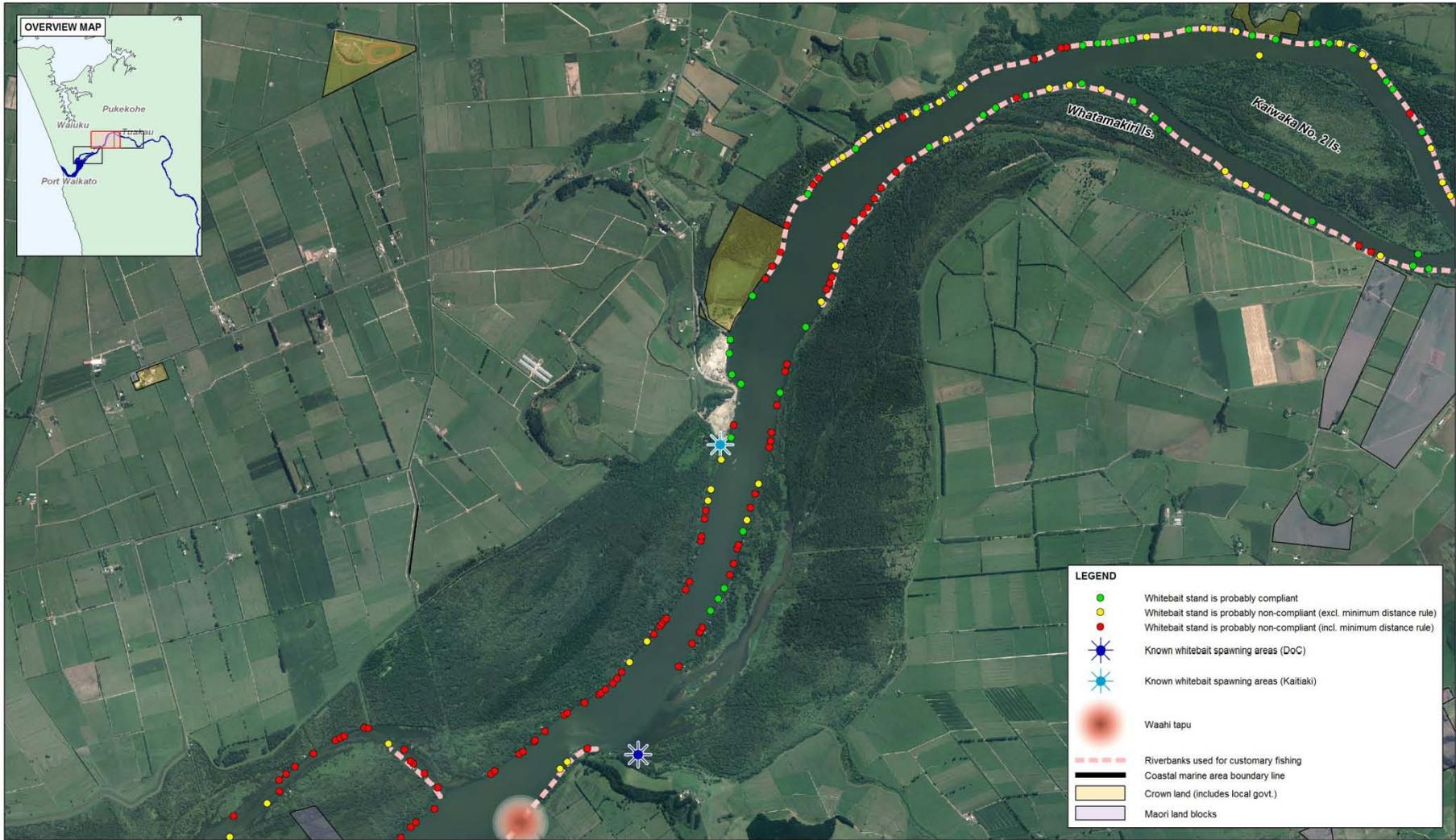
Status: Published
Request No.: 25404
File Name: 25404_WB_Stand_Report

ACKNOWLEDGEMENTS AND DISCLAIMERS

-Whitebait stands, waahi tapu, and riverbanks used for customary fishing were captured by GPS unit (Dec 2012 Feb 2013). The accuracy of the GPS unit is +/- 3m post-processing. Kaitiaki identified riverbanks used for customary fishing, waahi tapu, and Maori owned whitebait stands.
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Compliance Issues

Whitebait Stands on the Waikato River: Map 2 of 3

Created by: A Jeffries
 Projection: NZTM
 Date: 07 May 13

Status: Published
 Request No.: 25404
 File Name: 25404_WB_Stand_Report



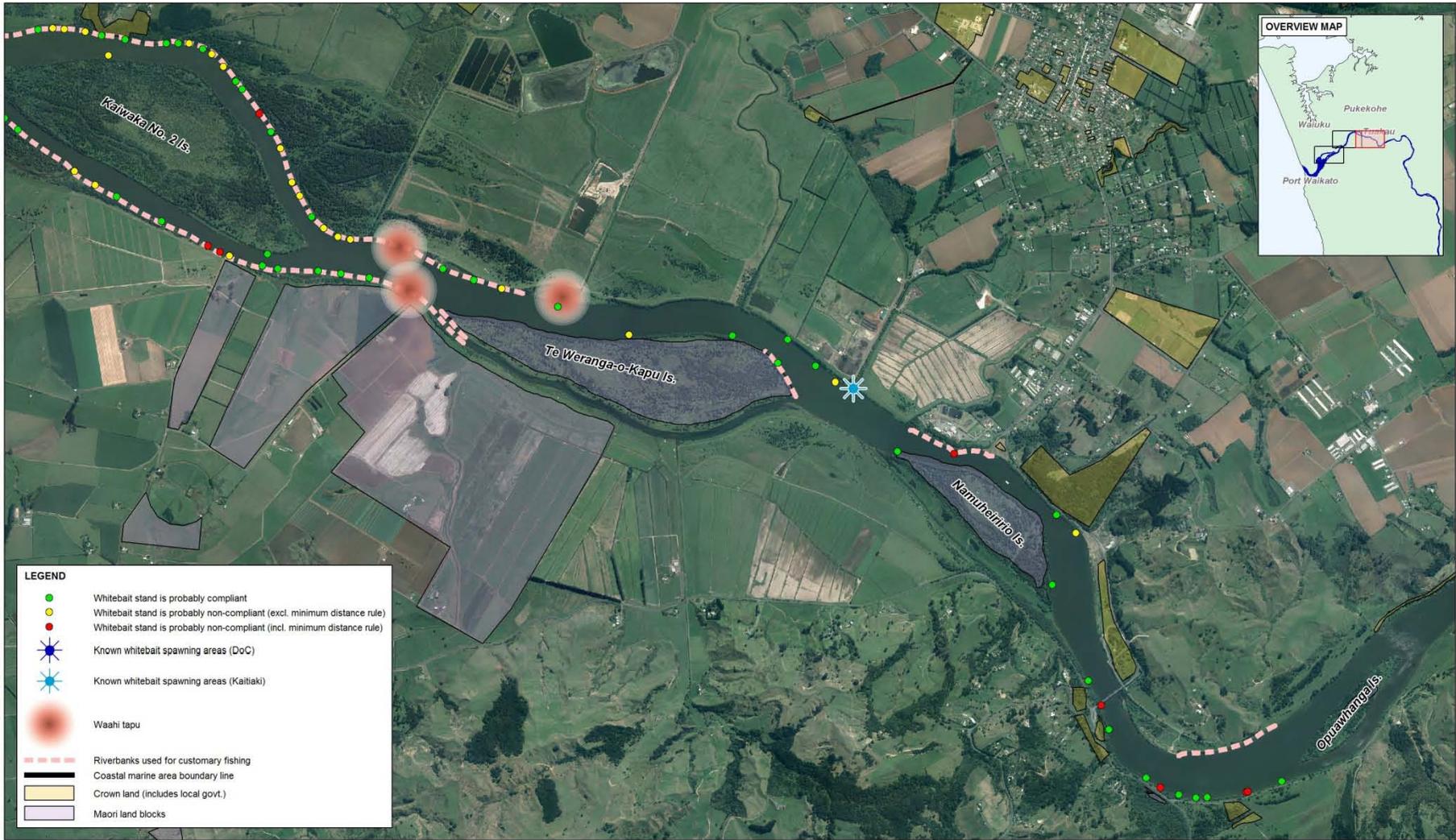
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ACKNOWLEDGEMENTS AND DISCLAIMERS

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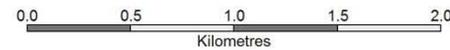
Compliance Issues

Whitebait Stands on the Waikato River: Map 3 of 3

Created by: A Jeffries
 Projection: NZTM
 Date: 07 May 13

Status: Published
 Request No.: 25404
 File Name: 25404_WB_Stand_Report

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ACKNOWLEDGEMENTS AND DISCLAIMERS

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