Constraints Mapping Report

Wairarapa-Wellington-Horowhenua Future Development Strategy

AUGUST 2023

Wellington
Regional Leadership Committee

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Introduction

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Ka ora te whenua
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Mo te iti - mo te rahi

If the water is healthy
the land will be nourished
If the land is nourished
the people will be provided for

For the little - for the large

Detailed regional constraints mapping was initially undertaken to inform the Wellington Regional Growth Framework (WRGF). This report is updated from the WRGF and represents our region's[1] current thinking around the incorporation of constraints into the Future Development Strategy (FDS). This report seeks to identify constraints and values which place a restriction on the spatial extent of development in the region. This will include a recognition of mana whenua values and relationships with land and water.

What's Changed since the WRGF?

Many councils in our region have embarked on full District Plan reviews or intensification plan changes since the WRGF. This has meant that constraints have been updated based on the latest information. We have identified the following key changes and the maps have been revised accordingly.

Across the region key native ecosystems, wetlands, coastal marine area and riparian margins, earthquake hazards, high quality soils mapping has recently been updated and incorporated as constraints. Regional flood data has been updated through a new flood exposure model. Moderate and high flood hazard from the regional flood exposure model are considered Wahi Toitu.

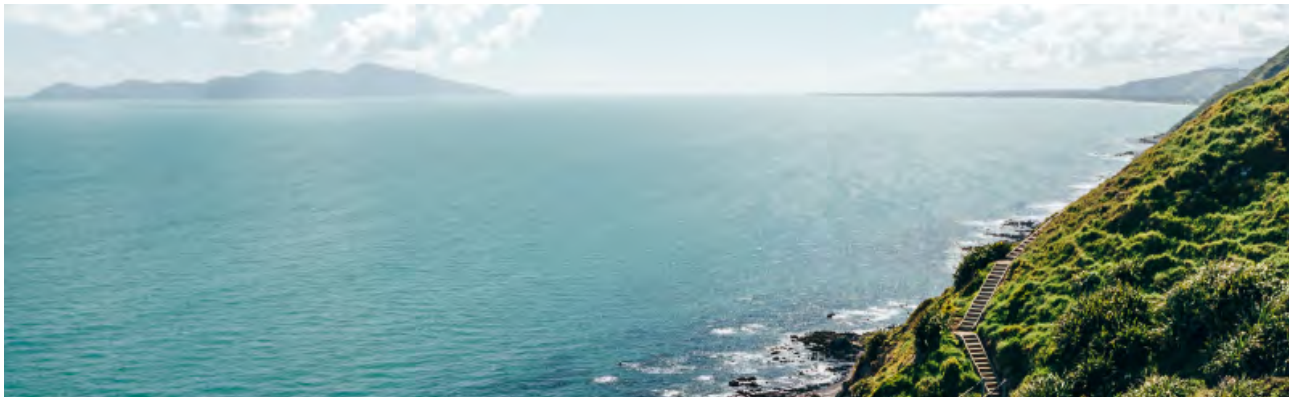
Wairarapa and Horowhenua have updated sites of regional environmental and landscape values. Wellington City constraints are mapped to be consistent with the Proposed District Plan. For Upper Hutt we have added updated maps of recreation areas and protected trees.

Disclaimer: *The maps shown in this document are at a regional scale and that viewers should check with their local council for more detailed information for their individual property. Also note, there is not consistency with some layers and that lack of information in a particular district doesn't necessarily mean this constraint is not applicable in an area. It likely means that we have no information. Please contact your local council for more information about a specific property.*

The region is characterized by major natural features, including the:

- Tararua, Remutaka, Akatarawa and Aorangi ranges,
- Te Whanganui a Tara Wellington Harbour and Te Awarua-o-Porirua Harbour,
- Te Awa Kairangi/Hutt River Valley,
- rolling hill country in the Wairarapa,
- river flats, valleys, plains and terraces surrounding the Ruamāhanga River and Manawatu River,
- Foxtangi Dunes and Hokio Beach South Dune fields,
- Ko te Waewae Kāpiti o Tara Rāua ko Rāngitane, Matiu, Mākaro, Mokopuna and Mana islands,
- Taupō swamp complex, and
- large water bodies, including the Wairarapa Moana, Lake Onoke and Lake Horowhenua.

[1] The region for the Future Development Strategy covers the Wairarapa, Wellington and Horowhenua



It is the ancestral home to generations of Māori. There are seven iwi partners within the area covered by the FDS, many of whom have reached Treaty settlement with the Crown. There are a number of outstanding Waitangi Tribunal claims that relate to public land within the region.

The region's geology, tectonic setting and climate mean that it is prone to hazards. Many existing urban areas are located on flood plains, steep hillsides, reclaimed land, active earthquake faults and coastal areas. Some regional hazards, such as drought, wildfire, coastal flooding, fluvial/pluvial flooding and severe wind, will be exacerbated by a warming climate.

Land is both valued and used for a range of reasons. Large areas of the region are subject to environmental protections which limit housing and business development. These include regional park and forest park land along the central mountain ranges. Some of this mapping will be incomplete, and detailed investigation is required prior to undertaking development signalled in the Future Development Strategy.

Our relationship with land is interconnected with our histories, communities, economy and the natural environment. Te ao Māori provides holistic ways of thinking about the environment, and kaupapa principles which are part of our thinking in developing this report, include:

- **Ki uta ki tai (connectedness)**: managing natural and physical resources in a holistic manner, recognising they are interconnected and reliant upon one another).
- **Wairuatanga (identity)**: recognition and respect for mauri and the intrinsic values of natural and physical features, and including the connections between natural processes and human cultures.
- **Kaitiakitanga (guardianship)**: recognition that we all have a part to play as guardians to maintain and enhance our natural and physical resources for current and future generations.
- **Tō mātou whakapono (judgement based on knowledge)** – recognition that our actions will be considered and justified by using the best available information and good judgement.
- **Mahitahi (partnership)** – partnership between iwi (mana whenua of the Wairarapa-Wellington-Horowhenua area) and the community, based on a commitment to active engagement, good faith and a commonality of purpose.

When planning for new regional housing and business development, it is important to recognise both the constraints and different values that are attributed to areas of land and whether these should pose limits to the urban footprint.

'Constraints based thinking' is just one lens for considering how to interact with our environment. The Future Development Strategy includes looking at spatial opportunities for new development outside of the no go constraint areas.

Te Ao Māori

He wa to nga mea katoa—to Papa, to Rangi.
Kaore he mea e taea te ki no Papa anake,
no Rangi anake

Everything has a space of its own—
of the earth (Papa) and of heaven (Rangi).
There is nothing of which it can be said it belongs to
the earth alone, or to the heavens above.[2]

The Māori worldview (Te ao Māori) recognises the holistic and interconnected relationships between people and te taiao (the environment).

Some key concepts that underpin Māori relationships with te taiao include:

- mauri (life force)
- kaitiakitanga (guardianship)
- whakapapa (genealogy)
- whanaungatanga (kinship, working together)
- rangatiratanga (right to exercise authority)
- mana (authority, status, spiritual power)
- wairua (spirit, soul)
- tapu (scared)
- noa (common),
- taonga (treasure)
- mahinga kai (food gathering)
- rāhui (temporary prohibition)
- taniwha (powerful spiritual beings)

Mana whenua relationships with land and water

Māori values in the Wairarapa-Wellington-Horowhenua Region, in relation to te taiao, are summarised in the s32 Māori values report for the PNRP[3] as follows:

While Māori values are held in common by all iwi, mana whenua express these specifically through their own lens of whakapapa (genealogy), history, traditions, location, kawa (principles) and tikanga (practices). Each [iwi and or hapū have] their own distinct identity formed through a longstanding relationship with place.

The relationships of mana whenua with their ancestral water and land are based in a Māori cosmology that describes a shared genealogy as the basis for what is a familial relationship between te ira tangata (mankind) and te taiao (the environment). The elements making up the environment are embodied in the form of ngā atua, ancestral deities whose individual attributes and dynamic relationships are readily observable and play out in the day-to-day interactions of land and water, wind and sky.

Māori relationship with the environment is governed by the direct identification of the physical world as being fundamental to and synonymous with human identity and well-being. This is reflected in the direct association of individual hapū and iwi with specific rivers, mountains and other natural features as entities that define and support their existence.

The relationship of tangata whenua with land and water is adversely affected by the inappropriate use and/or degradation of natural and physical resources.

Mauri is the life force that exists in all things in the natural world, including people. Mauri comprises both physical and spiritual qualities and can be harmed by pollutants and by development which diminishes the natural character, life-supporting capacity and ecosystem health.

Kaitiakitanga is the responsibility of mana whenua to sustain the familial relationship with the environment. This is done by maintaining enhancing and restoring natural and physical resources including cultural rituals and practices for current and future generations.

[2] Journal of Polynesian Society: Tetahi wahi o te whakaakonga i roto i te whare-wānanga na nepia Pohuhu, Vol 32, No.125 (1923).

[3] http://www.gw.govt.nz/assets/Plans--Publications/Regional-Plan-Review/Proposed-Plan/Section-32-report-Maori-values.PDF

Purpose

This document is intended to be reflective of the views of the project partners at this point in time.

The purpose of this report is to:

1. Identify, for the purposes of spatial planning, areas of the region where new housing and business development should not occur due to constraints and protections that are present.
2. Identify, for the purposes of spatial planning, areas of the region where constraints and values require care to be taken as new housing and business development occurs.
3. Recognise constraints and values that already inform land use decision making.
4. Highlight data deficiencies (research and mapping).

Limitations

This report is intended for spatial planning purposes only. This report is not intended as a substitute to local level assessments of constraints and values.

The identification of constraints and values included in this report has been informed by current knowledge, existing land protections, established policy, proposed policy with legal effect and the project kaupapa.

Not all land use considerations are included in this report; it is focused on the key constraints/values which may limit housing and business development at the regional scale[4].

The mapping in this report is based on the existing information and GIS data available to the Future Development Strategy. We have used the best available data held by Greater Wellington Regional Council, Horizons Regional Council and councils. For some constraints, mapping data is unavailable, incomplete or reliant on emerging policy with legal effect.

There are a number of partner iwi that have not yet reached Treaty settlement with the Crown. There are also a number of outstanding Waitangi Tribunal claims that relate to public land within the region that are not identified in this report.

The mapping within this report is not intended to identify specific properties covered by existing constraints or values, but to look at the high level spatial distribution of constraints and values across the region.

We are aware that there are a number of existing communities located within areas that are subject to significant constraints and risk. In developing this report, the project partners recognise that there are future discussions to be had with vulnerable communities in areas where retreat or significant investment towards adaptation may become necessary. Decision making within these areas is complex and should be made locally, with appropriate consideration and mitigation of risks.

Future Report updates

Environmental management is a continuously evolving field; with

- the policy cycle and regular update of planning policy instruments,
- evolving national policy direction,
- new research which improves our understanding of risk and interconnections,
- increasing reflection and incorporation of mātauranga Māori into planning policy,
- data sharing developments between project partners, and
- technological innovations which change the way we interact with the environment.

It is therefore anticipated that this report will be updated over time, as the Future Development is updated and reviewed every 3 years.

[4] For the purpose of the Framework and this Constraints Report, the region includes the territorial authorities of Masterton, Carterton, South Wairarapa, Upper Hutt, Lower Hutt, Wellington, Porirua, Kāpiti Coast and Horowhenua.

Our Approach

Categorisation

The same categorisation of constraints and values presented in the WRGF is used for the Future Development Strategy. They are categorised in this report under the following headings:

- **Wāhi Toitū**: areas with enduring presence that, for the purposes of spatial planning, are to be protected from new urban development.
- **Wāhi Toiora**: areas where, for the purposes of spatial planning, potential urban development must be carefully managed with appropriate consideration and mitigation of risks.

The Wāhi Toitū category relates specifically to additional housing and business development; capturing both greenfield development and infill/ intensified development in urban areas.

The Wāhi Toiora category relates to both areas of existing and potential additional housing and business development.

Mapping

High level mapping is included in this report to provide a better understanding of the spatial distribution of constraints and values throughout the region.

These diagrams are based on GIS layer data that was obtained from a wide variety of sources; including local and central government, CRIs, and other bodies such as the QEII Trust. It is believed to be the best available data and is currently hosted at GWRC on behalf of this project.

Individual GIS layers have been grouped by category (Wāhi Toitū, Wāhi Toiora) and by sub-categories (cultural, environmental, hazards and other). Maps have been prepared at the level of these sub-categories. These layer groups have then been aggregated upwards to create two composite maps for the Wāhi Toiora and Wāhi Toitū categories.

For the Wāhi Toitū composite map, layer aggregation has been made using the following methods:

- Yes/no ("One or more constraints present" versus "No constraints present");

For the Wāhi Toiora composite map, layer aggregation has been made using the following methods:

- Yes/no ("One or more constraints present" versus "No constraints present"); Count of constraints by overlay;

All GIS data was originally sourced as vector layers (point, line, or polygon). Point and line data was buffered at 50m radius to convert to polygons.

After initial map creation, vector data has been converted to a raster grid format at 50 m cell size for ease of aggregation. This makes processing faster but implies some loss of spatial resolution from the original data. The nominal mapping scale is 1:40,000 which is suitable for a regional-level overview.

Wāhi Toitū

This category identifies areas with enduring presence that are to be protected from new housing and business development.

Wāhi Toitū

- Certain sites with significant mana whenua values
- Ngā Whenua Rāhui
- Existing environmental protections
- Recreation land
- Known well defined earthquake fault rupture and deformation zones
- Areas subject to significant hazards associated with sea level rise and medium-high risk flooding
- Drinking water protection areas
- Highly productive land
- Significant infrastructure

The Wāhi Toitū category relates specifically to additional housing and business development; capturing both greenfield development and infill/ intensified development in urban areas.

Kaitiakitanga, and the recognition that we all have a part to play as guardians to maintain and enhance our natural and physical resources for current and future generations, is a key value informing the identification of values and constraints within this category. Ki uta ki tai (interconnectedness), wairuatanga (identity), tō mātou whakapono (judgement based on knowledge), mahitahi (partnership) and whenua tūhono (connecting whānau and whenua) are also important concepts for determining areas of the region as Wāhi Toitū.

[5] Uniform protection could impose barriers to mana whenua in developing their own land.

Sites with significant mana whenua values

Te Upoko o Te Ika a Māui is ancestral home to generations of Māori tribes, each with distinctive histories and values that contribute to our region's rich cultural heritage.

This report recognises that the entire region is a cultural landscape; with the areas of interest for the seven partner iwi overlapping to cover the extent of the region.

Many of the seven iwi partners, within the area covered by the Future Development Strategy, have reached Treaty settlement with the Crown. The relationship of mana whenua with the land is interconnected with identity and well-being. These relationships can be adversely affected by environmental degradation and loss of physical access.

European settlement resulted in the alienation of the majority of Māori land within the region by 1864. The current day city and town footprint extends over many sites of significance to mana whenua (including pā and kāinga). As a result, many mana whenua sites are now inaccessible or unusable to iwi for their traditional purpose.

Sites and areas with significant mana whenua values can include wāhi tapu, wāhi tūpuna, statutory acknowledgement areas, areas with customary rights, historic sites, cultural landscapes, taonga and other culturally important sites and areas. Public identification of these sites can be a matter of great sensitivity. Some are recorded in public documents, however this mapping for the region as a whole is incomplete. Physical and natural elements which play a strong part in wairuatanga, such the central mountainous spine, key lakes, islands and harbours, are places which are likely to possess enduring presence for mana whenua.

Undeveloped sites of significance could be protected from new housing and urban development if this reflects mana whenua aspirations[5]. The WRGF involves a project to progress conversations with mana whenua to identify any additional Wāhi Toitū areas with significant cultural values that should be protected from new urban development. This work is yet to commence and will be included in future updates to this report and the Future Development Strategy

Ngā Whenua Rāhui

The Department of Conservation supports the protection of indigenous biodiversity on Māori owned land through its Ngā Whenua Rāhui fund. Landowners retain rangatiratanga (ownership and control) of their land, and the land is protected from development by 25 year Kawenata (covenants).

Areas covered by active Ngā Whenua Rāhui Kawenata (covenants) are protected from urban development, and are therefore appropriate for inclusion in the Wāhi Toitū category for the duration of the kawenata.

Existing environmental protections

The natural environment is highly valued and enjoyed by communities for various cultural, social, and economic reasons. It is interconnected with our regional identities, wellbeing and livelihoods. As detailed above, mana whenua have a special relationship with te taiao and the environment plays an important role in whakapapa, wairuatanga and kaitiakitanga.

The intrinsic value of our natural environment and physical landscape is reflected in many existing environmental protections. This includes through various National Policy Statements and National Environmental Standards, the Natural Resources Plan and the Regional Policy Statement.

The Wellington Natural Resources Plan also contains numerous schedules with associated provisions protecting the natural environment, including ecosystems and habitats with significant biodiversity, outstanding water bodies, sites of significant mana whenua values, sites with significant historic heritage values, recreation and Māori customary use and community drinking water supply areas.

The recently notified Proposed Change 1 to the Wellington Regional Policy Statement seeks to address four significant and urgent resource management issues in the Wellington Region in an integrated way:

- Lack of urban development capacity
- Degradation of fresh water
- Loss and degradation of indigenous biodiversity
- The impacts of climate change.

Proposed Change 1 includes new provisions that seek for integrated management of the region's natural and built environments that is guided by Te Ao Māori. By strengthening some environmental protections and establishing links between urban development and other objectives under the Regional Policy Statement, its direction is to enable development that:

- Occurs in locations and uses approaches that prioritises the health of water bodies and freshwater ecosystems, and
- Is resilient to the effects of climate change and accounts for a transition to a low/no carbon future, and
- Protects areas of significant indigenous vegetation and significant habitats of indigenous fauna.

Horowhenua District Council is part of the Horizons Regional Council Rohe. The Horizons One Plan has identified the "big four" challenges facing the region – Surface water quality degradation, Increasing water demand, unsustainable hill country land use and threatened indigenous biodiversity.

Horizons have recently notified Plan Change 3 to the One Plan, which is intended to give effect to the National Policy Statement on Urban Development. Plan Change 2 took effect in December 2022 and added provisions to give effect to the National Environmental Standards for Freshwater, They are also implementing a freshwater protection and enhancement programme called 'Our Freshwater Future', which will result in some changes to the RPS that will further give effect to the National Policy Statement for Freshwater in 2024.

- **PARK LAND**

Large areas of the region are already in the form of open space, which will remain in a natural state. This includes Department of Conservation land, QEII Trust sites, Regional Parks and Regional Forest parks. Many of these areas have great cultural significance.

These areas are also important ecological corridors and native habitat, provide quality regional water supply catchments and are important as the 'lungs of the region'. The significant natural, cultural, recreation, scenic and economic value of these areas should continue to be protected from new housing and business development.

- **FRESHWATER ECOSYSTEMS**

Wetlands, lakes, rivers and streams in the Region have a number of ecological and cultural values; as habitat for indigenous species, mahinga kai, wildlife corridors, a natural nutrient filtration system, natural water storage and carbon sequestration.

Less than 3% of the Wellington region's natural freshwater wetlands remain. There are already existing protections for natural wetlands through the Natural Resources Plan and the National Environmental Standards for Freshwater, however recent amendments are more permissive and allow for some housing and business development and other activities such as quarrying in certain circumstances, reducing the protection of remaining wetlands.

Policy 6 of the National Policy Statement for Freshwater Management 2020 (NPS-FM) requires that there is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted. Policies 7 and 9 requires the avoidance of river extent loss and the protection of habitats of indigenous freshwater species. Remaining natural wetlands, rivers and streams should therefore continue to be protected from housing and business development, with adherence to the effects management hierarchy in certain circumstances where consenting pathways are provided by the National Environmental Standards for Freshwater.

- **SIGNIFICANT INDIGENOUS BIODIVERSITY**

Tangata whenua have a special relationship with our indigenous biodiversity. Indigenous biodiversity also contributes to our regional identity, and our social and economic wellbeing.

New Zealand is a global hotspot for biodiversity, however many native species are threatened or at risk. Threats to our native species include habitat loss, competition by exotic and invasive species and degradation through human activities. Many of our land-based native ecosystems cannot survive without active management.

Some areas of locally, regionally and nationally significant indigenous biodiversity areas are already protected from land use and housing and business development. The operative Regional Policy Statement for the Wellington Region currently requires the identification and protection of Significant Natural Areas in District Plans. Significant Natural Areas are identified in Schedule G of the Horizons One Plan for the Horowhenua Region.

The National Policy Statement for Indigenous Biodiversity (NPS-IB) was gazetted in August 2023. The NPS-IB provides direction to councils on how to identify significant natural areas and manage the adverse effects of new activities on them. Mapping of Significant Nature Areas was not able to completed in time for this Future Development Strategy. Where SNA mapping is incomplete, existing published information for example "Significant Natural Resource" sites on public land from the operative Hutt City District Plan, are being used until more detailed mapping required by NPS-IB is completed.

- **SITES WITH SIGNIFICANT LANDSCAPE VALUES**

Some landscapes and natural features within the region are protected and highly valued for their outstanding natural and character values. This includes outstanding water bodies, outstanding landscapes, outstanding natural features, regionally significant geological features, areas of high natural coastal character and regionally significant features.

These landscapes are exceptional or iconic and dominated by natural elements and processes.

These are areas that lie outside of the conservation estate, but still possess outstanding value at a district, regional or national level. These areas should continue to be protected from new housing and business development.

Recreation land

Recreation land provides important spaces for sport, recreation and leisure activities. It contributes to the amenity and identity of places within the region, as well as to the wellbeing and health of our communities. Recreation land includes local open spaces, parks and gardens which is currently identified in operative district plans[6].

[6] If an area of land is no longer required for reserve purposes and is re-zoned, then it is not intended to be captured in future updates of this document.

Known well defined earthquake fault rupture and deformation zones[7]

The region lies over the meeting point of two tectonic plates; with the subduction interface between the Pacific and Australian plates located approximately 25km below Wellington.

There are 14 active faults in and around the region which could produce destructive earthquakes; including the Wellington, Ōhāriu and Wairarapa faults. In the Horowhenua District there are 4 active faults: Ōhāriu, Otaki Forks, Poroutawhao, Tokomaru

All regional urban centres are subject to earthquake hazards. Parts of the Wellington, Lower Hutt, Upper Hutt and Porirua cities, and the Waikanae centre, are built directly over active fault rupture zones, whilst Levin lies between two active faults. Some key pieces of regional infrastructure, including bulk water supply pipelines and main transport routes, also cross over active fault rupture zones.

Where there is certainty around the location of a fault rupture and deformation zone, councils have begun to introduce rules to restrict new development (typically within 20m either side of an active fault). Due to the significant risk to human life and property, known earthquake fault rupture and deformation zones should be protected from new housing and urban development.

Areas at risk from significant coastal hazards due to sea level rise

Anthropogenic greenhouse gas emissions are changing the climate system. One effect of this is sea level rise, due to thermal expansion of ocean waters and the melting of land-based ice. In addition, the region is experiencing tectonic subsidence at rates similar to the locally measured rise in sea level.

Together, this ongoing relative rise in sea level will exacerbate regional coastal hazards that already occur in the region; such as shoreline erosion, storm-tide flooding, impeded drainage (at river mouths and stormwater outfalls) and raised water tables leading to extended pluvial (surface), stormwater and alluvial flooding.

Many parts of our town and cities are situated in low-lying coastal areas, vulnerable to these effects and the impacts of sea level rise. Planning and hazard mapping related to these areas is developing; including community based adaptation and planning approaches.

The Wellington Regional Leadership Committee work programme includes a project to encourage and progress local adaptation to coastal hazards and sea level rise planning programmes. This projects is currently underway. The Wellington and Horizons Regional Policy Statement sets out a mandate to avoid inappropriate development in high hazard areas[8] and, in light of the expected climate change and sea level rise impacts in the region, this should influence the patterns and locations of future housing and business development represented in updates of this report.

Drinking water protection areas

Te Mana o te Wai encompasses integrated and holistic health and wellbeing of a freshwater body. When Te Mana o te Wai is upheld, the water body will sustain the full range of environmental, social, cultural and economic values held by iwi and the community.

Safe and reliable drinking water is also important for regional health and prosperity. Over 144 million litres of water is supplied to towns and cities in the region every day[9].

[7] Mapping was unavailable for the whole region, so instead known active faults are represented in Figure 5. Further detailed site investigations are required to improve mapping.

[8] The region is prone to many natural hazards. In this report, most are under Wāhi Toiora. High hazard areas associated with any natural hazards may be represented within Wāhi Toitū in future updates of this report.

[9] https://www.wellingtonwater.co.nz/your-water/drinking-water/where-does-it-come-from/

Areas of the region where freshwater is sufficiently unpolluted (therefore suitable for use as drinking water) are limited. Our drinking water comes from catchments which are located upstream of development and protected to reduce pollution.

These include current and future potable water collection management areas and surface water protection areas. These areas will continue to be protected from new housing and business development.

Highly productive land and high-quality soils

Food production is important for regional health and prosperity; providing economic and employment benefits, and resilience against supply chain disruptions. Some of the region's most productive land is already part of the urban footprint. Through development, the productive potential of this land has been lost. Some remaining areas of highly productive areas are at risk from urban expansion and lifestyle block development.

High quality soils, suitable for food production are limited geographically. Some of the regions highest quality soils have already been built upon. Soil with a land use classification (LUC) of 1, 2 or 3 comprises our best and most versatile soils. Remaining areas of LUC 1-3 are important for our region's future; both for primary production employment and food security reasons. Undeveloped areas of LUC 1-3 are found mostly in the Wairarapa, Horowhenua and Kāpiti Coast areas.

This report notes the distinction between high class soils and highly productive land. Not all high class soils will be highly productive; areas of the region where primary production is possible is limited by a number of factors; including climate, soil type, drainage, erodibility, topography, the availability of water, water and transport infrastructure, access to labour and markets and the size of land parcels.

Careful management of housing and business development on LUC 1-3 soils will safeguard the region's food producing capacity for future generations.

The National Policy Statement or Highly Productive Land 2022 (NPS -HPL) requires councils to protect highly productive land for use in land-based primary production. This includes avoiding subdivision of highly productive land and re-zoning from rural to urban or rural lifestyle, and managing reverse sensitivity and cumulative effects of subdivision, use or development on the availability and productive capacity of highly productive land.

Mapping of highly productive land as required by the NPS-HPL has not been completed in time for this Future Development Strategy. In the interim, land that is LUC Class 1, 2 or 3 rural land not already identified for housing and business development, must be treated as highly productive land.

Significant Infrastructure

The successful functioning of the region depends on significant infrastructure; including the national electricity transmission network. There are already protections in place restricting new development within the National Grid Yard (the area immediately beneath and next to national grid lines and support structures).

The roading network, airports, port, rail network, telecommunications facilities, the stormwater systems and other utilities form part of national and regional networks that enable communities to provide for their wellbeing and safety. The Wellington and Horizons Regional Policy Statements set out a mandate to avoid inappropriate development alongside regionally significant infrastructure.

Future versions of the constraints report may identify additional national and regional infrastructure of significance requiring protection from housing and business development in the Future Development Strategy for the purposes of spatial planning.

Wāhi Toitū Mapping

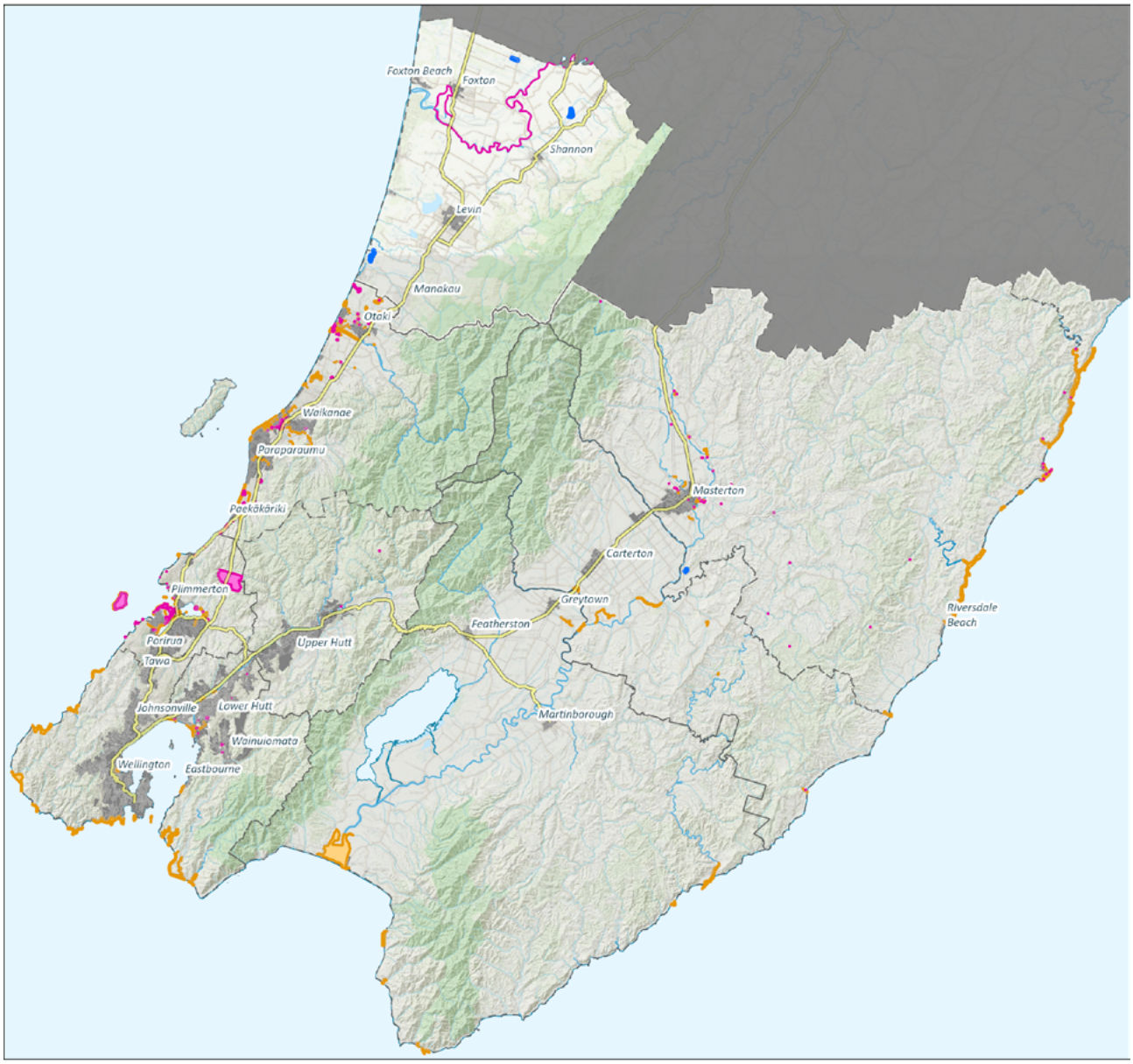
The following maps show the Wāhi Toitū areas spatially across the region.

Wāhi Toitū

Culture & heritage

Ngā Whenua Rāhui, Sites with significant mana whenua values (Natural Resources Plan), & sites and areas of significance to Māori (District plans)

- Sites and areas of significance to Māori (District plans)
- Ngā Whenua Rāhui Mana Whenua Sites of Significance (Natural Resources Plan, Schedule C)
- Urban zones
- State Highways
- Place_names



Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

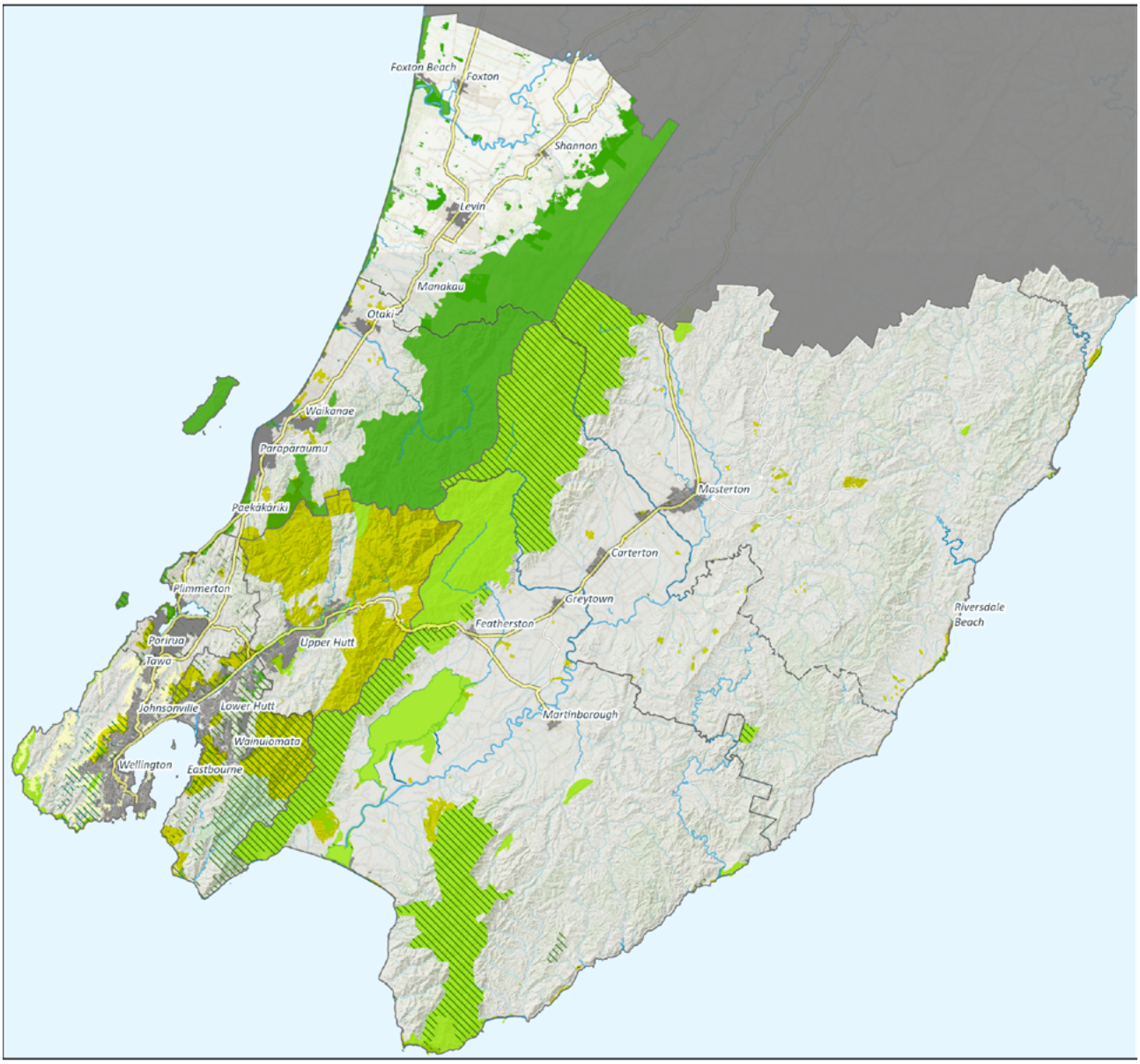
Data: Ngā Whenua Rāhui protected areas, Mana Whenua sites of significance in the Natural Resources Plan (Schedule C1-C5), Sites and areas of significance to Māori in district plans

Wāhi Toitū

Environmental protections

Outstanding natural features and landscapes, significant natural areas, key native ecosystems and protected ridgelines

Outstanding Natural Features and Landscapes
Significant Natural Areas
Key native ecosystems (GWRC)
Protected ridgelines
Urban zones
State Highways



Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

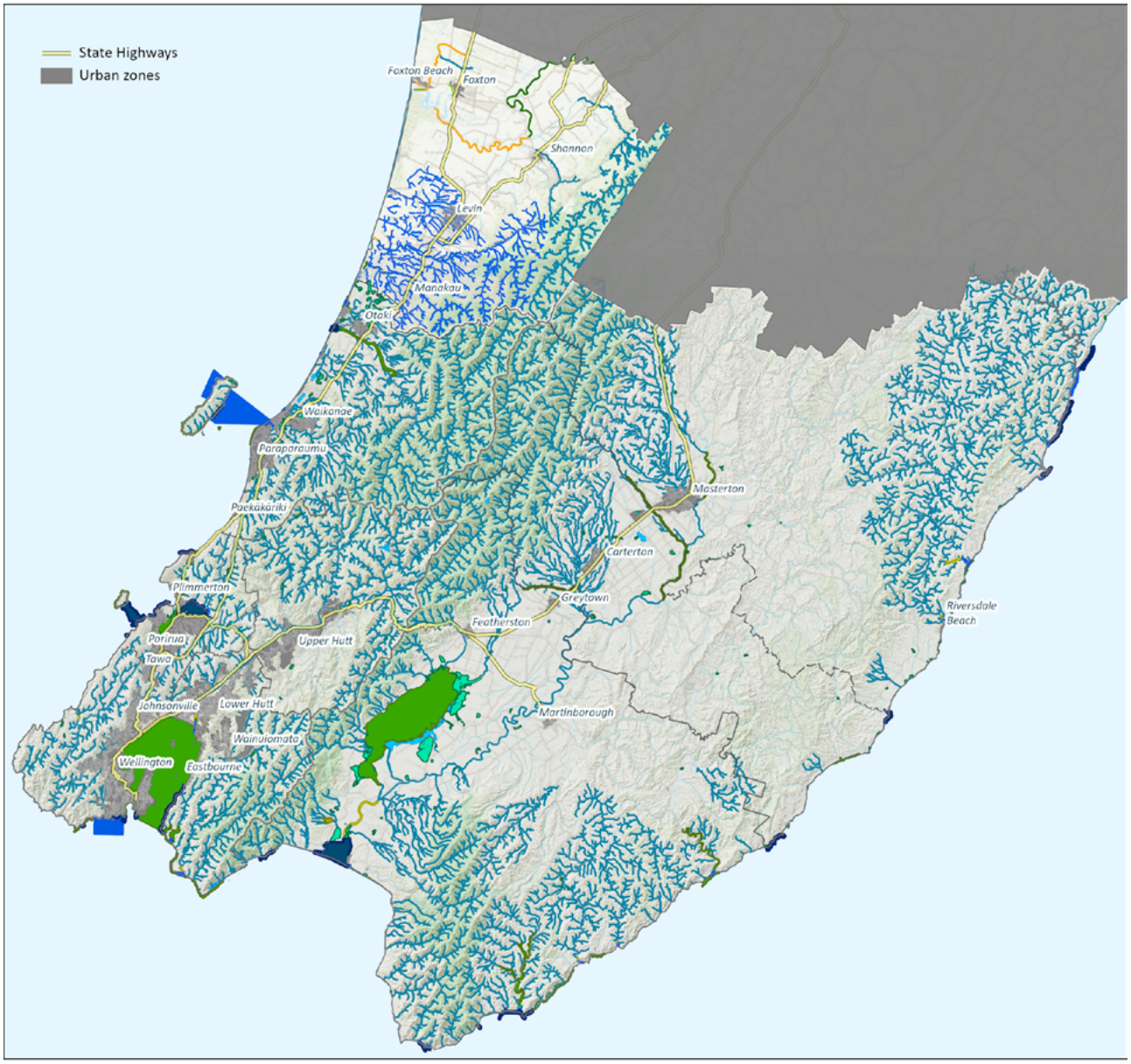
Data: Key Native Ecosystems (GWRC), Outstanding Natural Features and Landscapes, Protected ridgelines, Significant Natural Areas (TLA open data sites)

Wāhi Toitū

Environmental protections

Schedules within the GWRC operative Natural Resources Plan and Horizons OnePlan

- Schedule J: Significant geological features in the coastal marine area
- Schedule F4: Sites with significant indigenous biodiversity values in the coastal marine area
- Significant Natural Wetlands (Schedule F3)
- Indigenous Bird Habitat (Schedule F2)
- Lakes with significant aquatic plant communities (Schedule F1c)
- Inanga spawning habitat (Schedule F1b)
- Rivers and lakes with significant indigenous ecosystems (Schedule F1 high MCI health)
- Lakes, rivers and wetlands with outstanding indigenous ecosystems values (Schedule A)
- Sites of significance Riparian (Schedule B, OnePlan)
- Sites of significance Aquatic (Schedule B, OnePlan)
- Inanga Spawning areas (Schedule B, OnePlan)
- Natural State (Schedule B, One Plan)
- Whitebait Migration rivers (Schedule B, One Plan)
- Amenity (Schedule B, One Plan)
- Domestic food supply (Schedule B, One Plan)



Wairarapa-Wellington-Horowhenua
Future Development Strategy constraints mapping

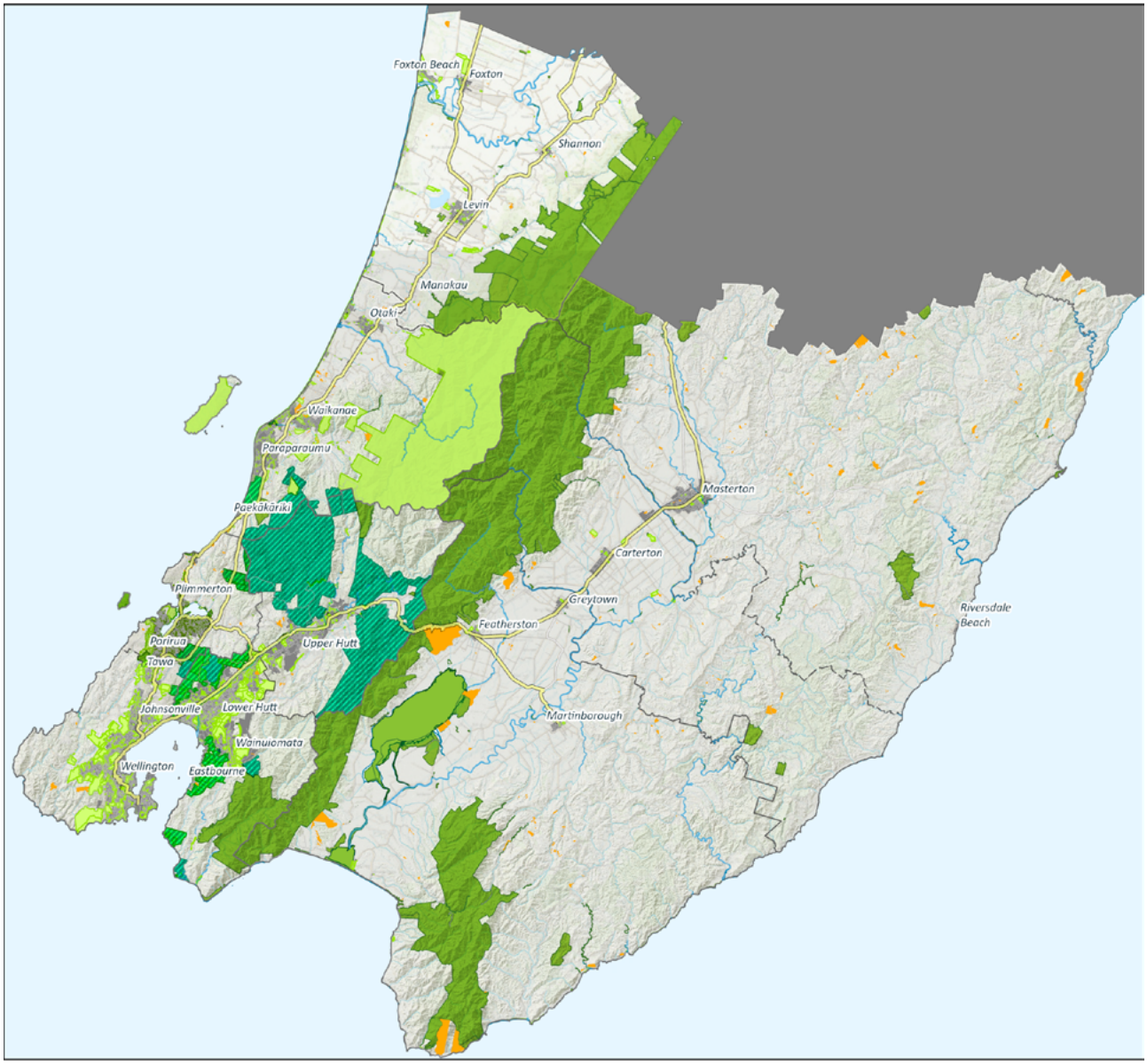
Data: Natural Resources Plan schedule A, Schedule F and Schedule J, OnePlan Schedule B

Wāhi Toitū

Environmental protections

Including Conservation land, regional parks, territorial authority parks and reserves and QEII Trust covenants

- DOC Conservation Land
- QEII Covenants
- Regional Parks
- Parks and reserves
- Urban zones
- State Highways

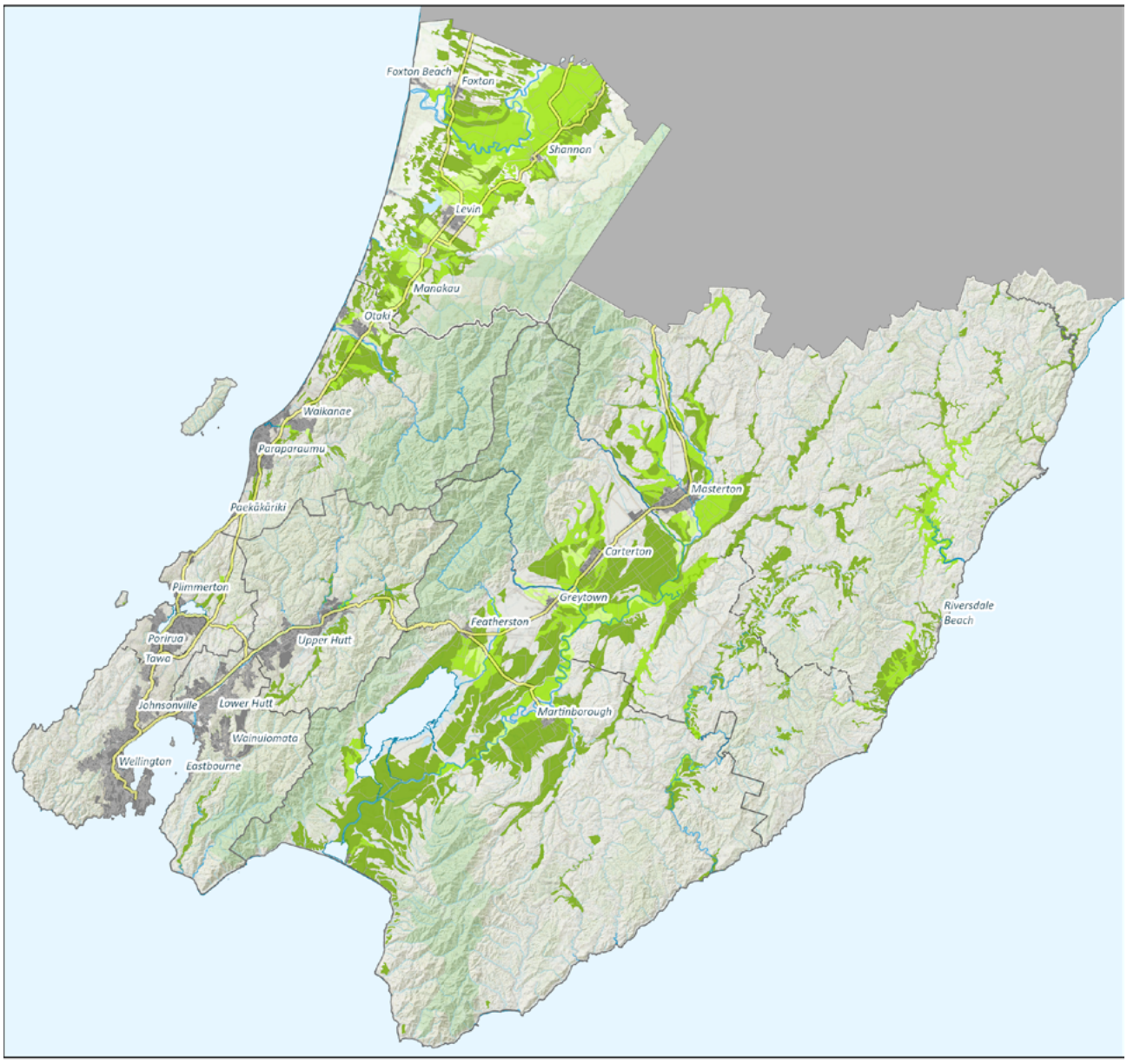


Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

Data: parks and Reserves in territorial authorities (see TLA open data sites), QEII covenants (Queen Elizabeth II Trust), Regional Parks (GWRC), DoC Conservation Land (DOC)

High class soils

Land use capability (LUC) class 1, 2 and 3 soils outside areas in District Plans designated as urban/ development zones



Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

NZL Land Resource Inventory (LRI) Land Use Capability 2021. Manaaki Whenua Landcare Research. This map shows highly productive land (land use classes 1, 2, 3) outside existing or future defined urban areas - as per the National Policy Statement for Highly Productive Land 2022.

Wahi Toitu

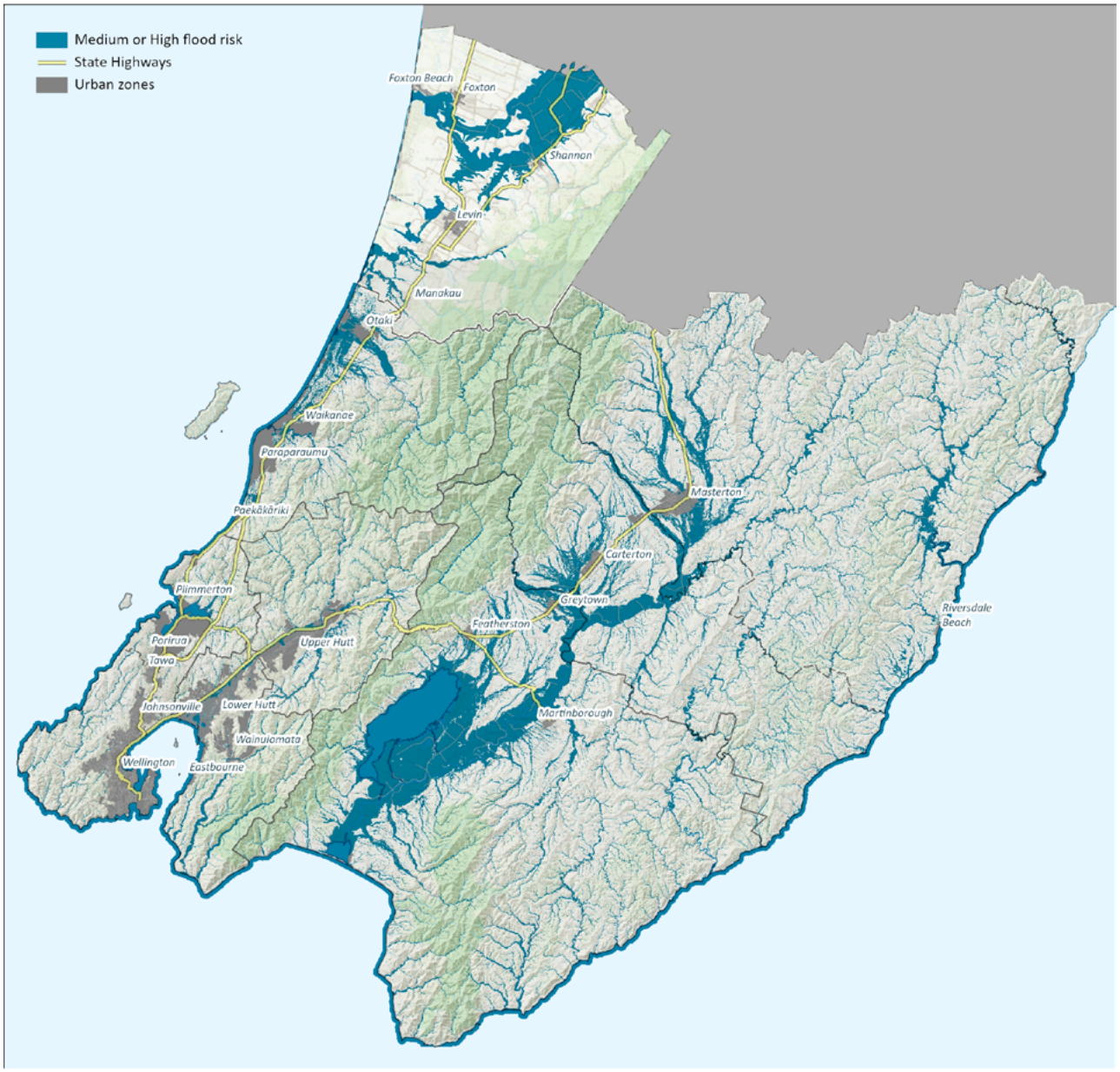
Moderate & high flood hazard

Moderate and high hazard flooding, defined within the Regional Flood Exposure Model, for a 1% AEP storm in an RCP 8.5 pathway (projected to 2101-2120) for an undefended scenario

The shaded area for the Wellington Region corresponds to areas where depth >0.5m and velocity >1m/s.

Flood depth is the difference between the maximum flood level and ground elevation at a particular location, during a particular scenario. Flood depth also does not include freeboard.

Velocity is the maximum velocity of flood waters at a particular location during a particular scenario. Velocity may be used to differentiate flow paths from ponding areas.



Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

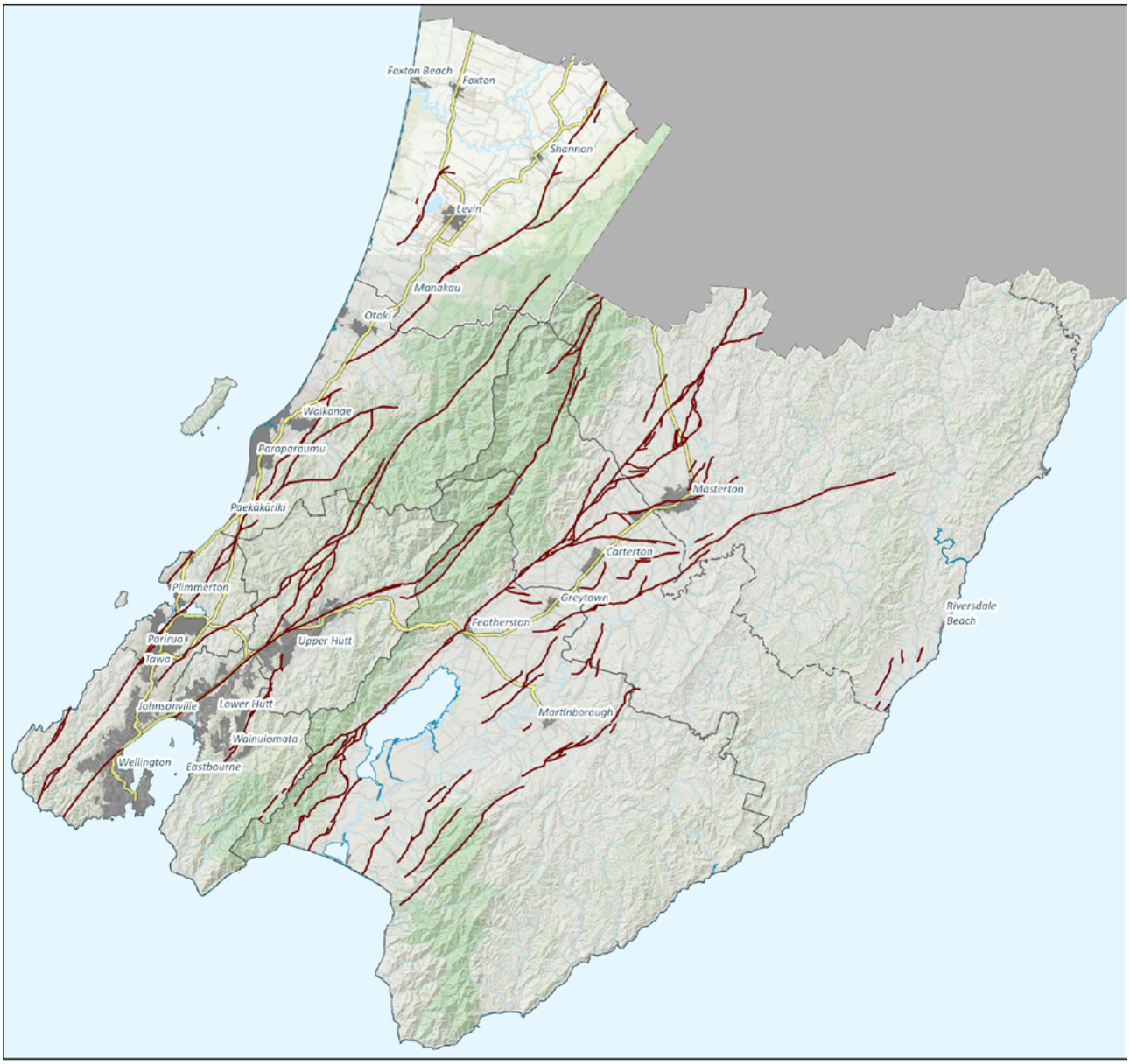
Data: Wellington Regional Flood Exposure Model. Based on RCP8.5 pathway projected to 2101-2120, 1% AEP storm, undefended scenario, 20% AEP tidal boundary; Horowhenua flood data is based on flood extents as per district plan.

Wāhi Toitū

Known Active Faults (GNS)

Active faults from GNS active faults database (updated October 2022)

- Known active faults (GNS)
- State Highways
- Urban zones



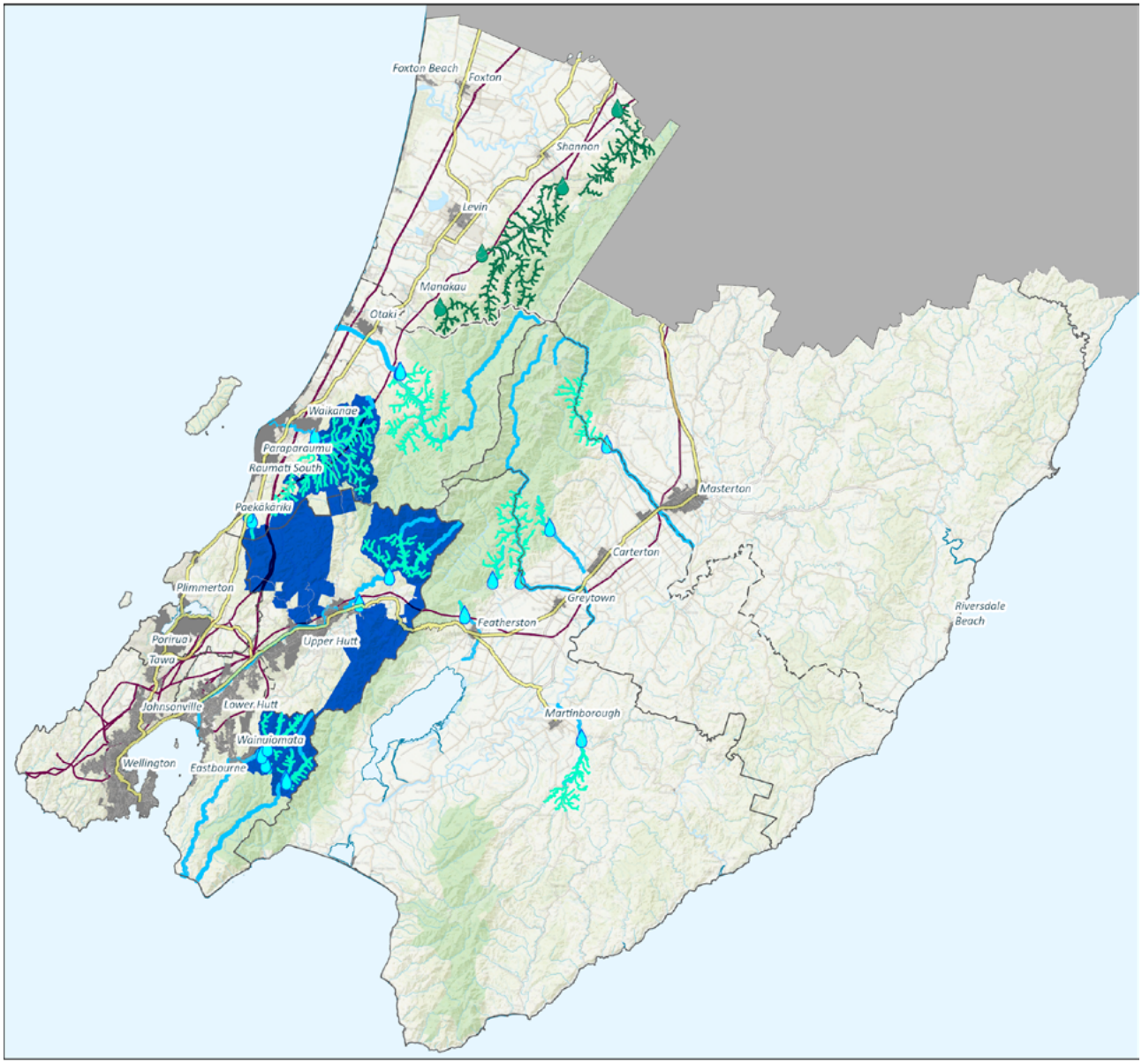
Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

This dataset contains onshore active faults data for New Zealand. Active faults in New Zealand are defined as those that have ruptured and/or caused ground deformation during the last 125,000 years. The dataset is produced by GNS Science and represents the most current mapping of active faults for New Zealand in a single dataset, at 1:250,000.

Social

National grid and Drinking Water Collection Areas

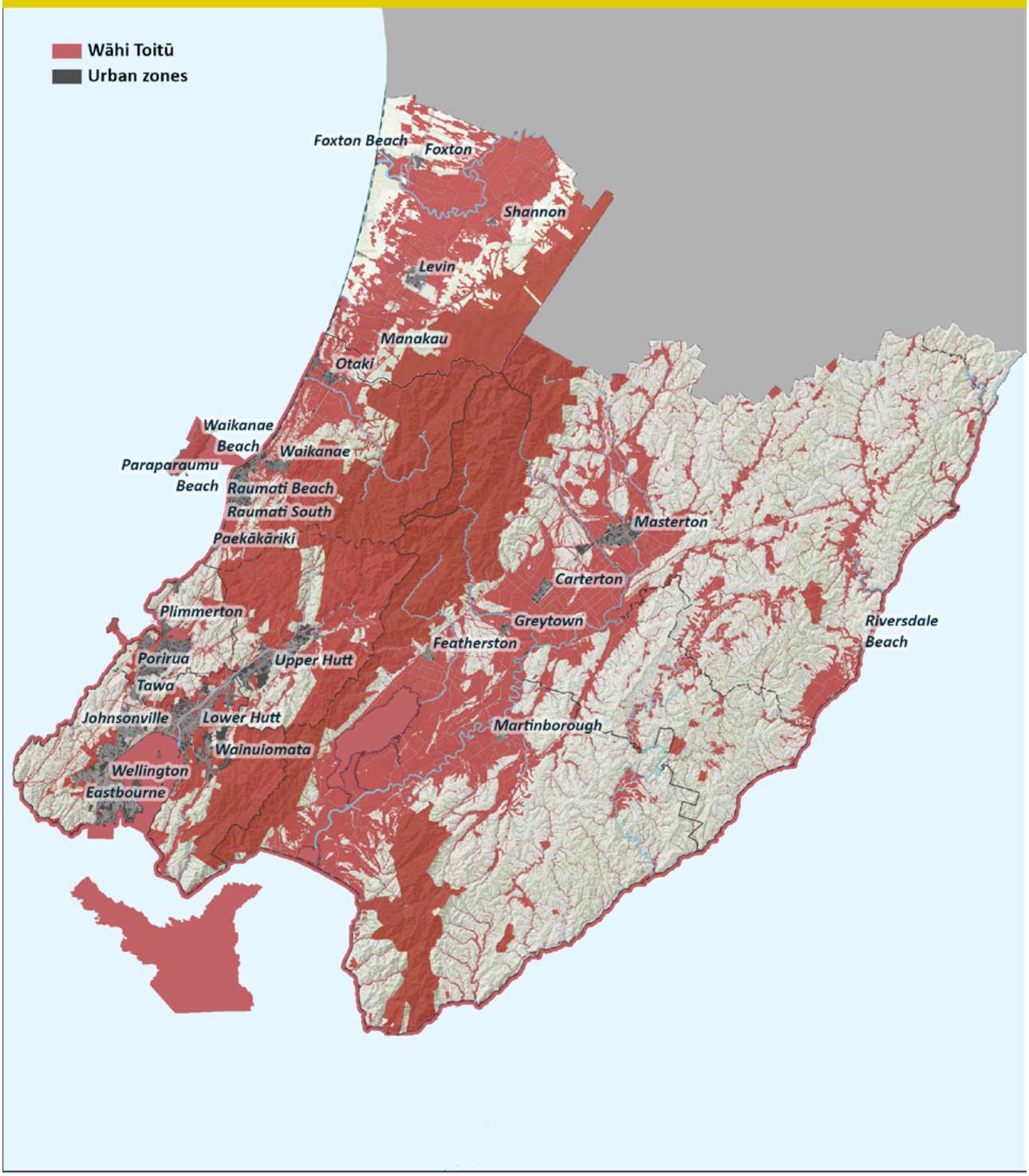
- Surface Drinking Water abstraction sites (Schedule M1)
- Community Drinking Water supply rivers (Schedule M1)
- Community Drinking Water Supply Protection Areas (Schedule M1)
- Water Collection Areas (GWRC)
- Transpower lines - subdivision corridor
- Water Supply Rivers (Schedule B, One Plan)
- Water Supply Take (Schedule B, One Plan)
- Urban zones
- State Highways



Wairarapa-Wellington-Horowhenua
Future Development Strategy constraints mapping

Data: Natural Resources Plan schedule M1, Transpower (subdivision corridor), OnePlan Schedule B

Combined Wāhi Toitū areas



Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

Data: Includes sites with significant mana whenua values, Ngā Whenua Rāhui, existing environmental protections, recreation land, drinking water protection areas, significant infrastructure, flood hazards and known earthquake fault rupture and deformation zones

Wāhi Toiora

This category identifies constraints and values which can significantly constrain housing and business development.

Careful management of development is required in these areas; with appropriate consideration and mitigation of risks.

Wāhi Toiora

- Statutory acknowledgement areas
- Historical and cultural heritage
- Water quality limits and stream health
- Ecological sites
- Special amenity landscapes
- Environmental buffer areas
- Coastal marine areas and riparian margins
- Natural hazards
- Climate change risks
- Potable groundwater supply protection areas
- Contaminated land
- Erosion prone land
- Electricity transmission corridor buffers
- Renewable energy generation infrastructure and mineral resources

The Wāhi Toiora category relates to both areas of existing and potential additional housing and business development.

Kaitiakitanga, and the recognition that we all have a part to play as guardians to maintain and enhance our natural and physical resources for current and future generations, is a key value informing the identification of values and constraints within this category.

Ki uta ki tai (interconnectedness), wairuatanga (identity), tō mātou whakapono (judgement based on knowledge), mahitahi (partnership) and whenua tūhono (connecting whānau and whenua) are also important concepts for determining areas of the region as Wāhi Toiora.

Statutory acknowledgement areas

Statutory Acknowledgement Areas are areas of crown land (or water bodies) over which iwi have a special spiritual, historical or traditional relationship that has been recognised by the Crown in Treaty of Waitangi settlement processes. Statutory acknowledgment areas can include land, geographical features, lakes, wetlands and coastal marine areas.

The purpose of each acknowledgement area is set out in each specific Claim Settlement Act. They aim to improve decision making processes under the Resource Management Act. Appropriate regard for statutory acknowledgements must be given for any housing and business development within these areas.

Historic and cultural heritage

Historic and cultural heritage includes places with significant historical, physical and cultural values that contribute to the character and identity of places within our region. These include a range of archaeological sites, buildings, structures, historic sites, cultural sites, coastal sites, historic areas, notable trees and Māori heritage. The intent of heritage protections is to protect these places for future generations.

Historic sites are varied; it may be appropriate to use or develop some, but not others. Careful management of housing and business development is therefore required in any of these places.

Mana whenua may not wish all cultural heritage sites to be included in the Wāhi Toitū category. Some areas with significant cultural heritage value may therefore be Wāhi Toiora. The WRGF included a project to progress conversations with mana whenua to identify any additional Wāhi Toiora areas where urban development must be carefully managed to protect cultural values.

Water quality limits and stream health

Te Mana o te Wai encompasses integrated and holistic health and wellbeing of a freshwater body. When Te Mana o te Wai is upheld, the water body will sustain the full range of environmental, social, cultural and economic values held by iwi and the community.

Freshwater supports life, and is treasured for a range of reasons; including its inherent values as natural habitat, for recreation purposes, Māori customary uses, cultural identity and mahinga kai, for economic and commercial uses, for public health and wellbeing, and for drinking water, waste removal and transportation purposes.

A warming climate will change rainfall patterns and increase the intensity of droughts in some areas where there is already a high demand for water. Most of our rivers and streams are fully allocated in terms of water take; with public water supply the largest user, followed by irrigation.

New housing and business development can provide an opportunity to retain and enhance freshwater stream habitats. In the past, however, regional housing and business development has frequently resulted in stream reclamation.

The NPS-FM requires that freshwater quality be maintained or improved and contaminant discharge limits set; including those contaminants that run off housing and buisness developments.

The Wellington Region is in the process of setting limits and objectives for improving water quality in the Region through the whaitua process. The whaitua process is Greater Wellington Regional Council's response to implementing the NPS-FM in partnership with mana whenua and with communities. Te Whaitua Te Whanganui-a-Tara was most recently completed in late 2021, and the Kāpiti Whaitua and Wairarapa Eastern Hills processes are commencing in 2023. The processes for the Ruamāhanga and Te Awarua-o-Porirua whaitua are completed, with implementation underway.

Regional plan changes to implement the NPS-FM will occur over the next few years, and territorial authorities are also required to promote positive effects, and avoid, remedy or mitigate adverse effects of housing and business development on the health and well-being of freshwater using an integrated approach.

All greenfield development adds to the contaminant load, while reductions in contaminant loads can be achieved through well-planned infill development. Contaminant discharges will be required to be minimised from housing and business development through the application of water sensitive urban design principles, among other measures. This will necessitate new approaches to greenfield and brownfield development for the region, with greenfield development being limited within some catchments.

Horizons are implementing a freshwater protection and enhancement programme called 'Our Freshwater Future', which will result in some changes to the RPS that will further give effect to the National Policy Statement for Freshwater in 2024.

Implementation of the NPS-FM and Te Mana o Te Wai is likely to require a reduction in contaminant load from most existing catchments. New development within the existing urban footprint provides an opportunity to reduce contaminant loads through the implementation of water sensitive urban design.

A range of new direction around housing and business development and freshwater is provided by Proposed Change 1 to the Wellington Regional Policy Statement and Plan Changes 2 and 3 of the Horizons One Plan. Catchment-specific direction on freshwater will emerge as the outcomes of the Whaitua processes are implemented in the Natural Resources Plan, the One Plan and through non-regulatory actions.

Environmental buffer areas

Housing and business development impacts not only the land it is built upon, but also surrounding areas; by generating pollution and discharges (to air, noise, water, rubbish), as well as changing the landform and water catchment characteristics. Housing and business development on land adjacent to environmental protection areas may therefore require careful management to control 'edge effects'.

Ecological sites

While significant indigenous biodiversity is captured as Wāhi Toitū, some ecological sites have lower levels of protection and will fall under the Wāhi Toiora category. Levels of protection depends on the ecological values present. For example, modified ecosystems typically possess a lower ecological and biodiversity value than pristine environments. However, these ecological sites still have value to the region and have potential to be restored over time. There are a range of ecological sites within the region which are identified, managed and protected by different regulations.

Special amenity landscapes

Special amenity landscapes are distinctive, widely recognised and valued by the community. These areas may be modified by human activity, but contribute to local amenity and the quality of the environment. Some development within special amenity landscapes will be appropriate, so long as landscape values are appropriately considered and harm mitigated.

Coastal marine areas and riparian margins

The coastal marine area and riparian margins are valued for public access, recreation and Māori customary uses. There are a number of existing controls that restrict housing and business development within these areas. Any housing and business development within these areas needs to be carefully considered, with appropriate consideration and mitigation of the value of these areas for public and cultural use.

[10] https://www.wellingtonwater.co.nz/your-water/drinking-water/where-does-it-come-from/wellington-region-water-supply/

Natural hazards

The region is prone to a wide range of natural hazards, including; seismic hazards (earthquakes, liquefaction, subsidence, ground shaking, fault rupture, tsunami), mass movement hazards (landslides, rockfall, mud and debris flows), weather hazards (severe wind, drought, intense rainfall, wildfires) flood hazards (river, surface and stormwater flooding), coastal hazards (storm surge, inundation and sea level rise) and erosion hazards (river, soil and coastal erosion).

A number of our town and cities are subject to these natural hazards due to their location on flood plains, steep hillsides, reclaimed land, faults and low-lying coastal areas.

Regional, city, district plans are increasingly turning their attention to managing the impacts from natural hazards and are developing risk and community based decision making approaches to managing current and future effects of natural disasters. These approaches acknowledge that there will be a mix of planning responses and mitigation measures necessary to manage the effects from natural hazards and this will be influenced by local environmental and development needs. However, careful management of housing and business development in hazard prone areas is required.

Climate change risks

Long term changes in the climate will exacerbate most of the natural hazards already present in the region; including drought, wildfire, coastal flooding, fluvial/pluvial flooding and severe wind.

Housing and business development in areas subject to increasing risks from natural hazards will need to be carefully managed; with due consideration given to longer term (i.e. 100 year) planning horizons, that take into consideration how changes in the climate may in turn lead to evolving changes in natural hazard impacts and how current and future social, environmental and economic risks might be avoided, mitigated or managed. there is a separate project, Wellington Regional Climate Change Impact Assessment which assesses the risk of climate change hazards and has not been completed in time to inform this Future Development Strategy. Once this report is released it will supersede this part of the report.

Potable groundwater supply protection areas

Safe and reliable drinking water is important for regional health and prosperity. Many areas of the region are dependent on groundwater for drinking water supplies. This includes town water supplies; with ground water bores and aquifers in the Wairarapa, Kāpiti Coast, Hutt Valley and Horowhenua. The Waiwhetu Aquifer in the Hutt Valley provides 40% of the annual water supply for the Wellington region[10].

Some development activities can affect groundwater quality, while others have no effect. Housing and business development within groundwater protection areas and aquifer recharge zones are therefore carefully managed to protect the quality of community drinking groundwater supplies.

Contaminated land

Regional councils hold records of sites where hazardous substances have been used, stored or disposed of in the past. Not all of these sites are known.

Where there is risk of land contamination, existing regulations require an assessment of the land prior to any housing and/or business development to ensure it is safe for human use.

Erosion prone land

The topography of the region has meant that housing development has unavoidably been necessary on steep and hilly terrain. Underlying geology and slope geomorphology strongly influences slope stability and the susceptibility of soils to erosion.

Slopes over 20 degrees are in general more prone to erosion and failure, and the region has many developed areas on slopes which exceed 20 degrees. Careful management of large scale earthworks, vegetation removal and development is required in these areas.

Renewable energy generation infrastructure

Electricity provision is a vital for our health and wellbeing. It powers and heats our homes and workplaces, runs our appliances and powers some of our transport. Electricity consumption is responsible for a third of our regional greenhouse gas emissions, and demand is anticipated to increase significantly[11].

Electrification of our economy will be essential to meeting our climate change commitments. To meet rising electricity demand, a 68% increase in renewable electricity generation will be required nationally by 2050[12].

The region is largely dependent on external generation sources for electricity. Regional renewable electricity generation (over 10MW) includes the ‘Mill Creek’ and ‘West Wind’ wind farms and the Mangahao hydro power station. Careful management of housing and buisness development around renewable electricity plants can ensure their continued operation. We anticipate that future updates of this Constraints Report may identify regional renewable energy resources that should be protected from housing and business development to ensure the availability for future renewable electricity generation and improve our regional energy resilience.

Electricity transmission corridor buffers

Activities and subdivision close to high voltage national grid transmission lines needs to be carefully managed in consultation with Transpower to ensure safety and prevent reverse sensitivity effects on the national grid.’

Wāhi Toiora Mapping

The following maps show the Wāhi Toiora areas spatially across the region.

[11] https://www.gw.govt.nz/assets/Climate-change/GHG-Summary-Report-Wellington2019WRFinal.pdf

[12] Whakamana i te Mauri Hiko

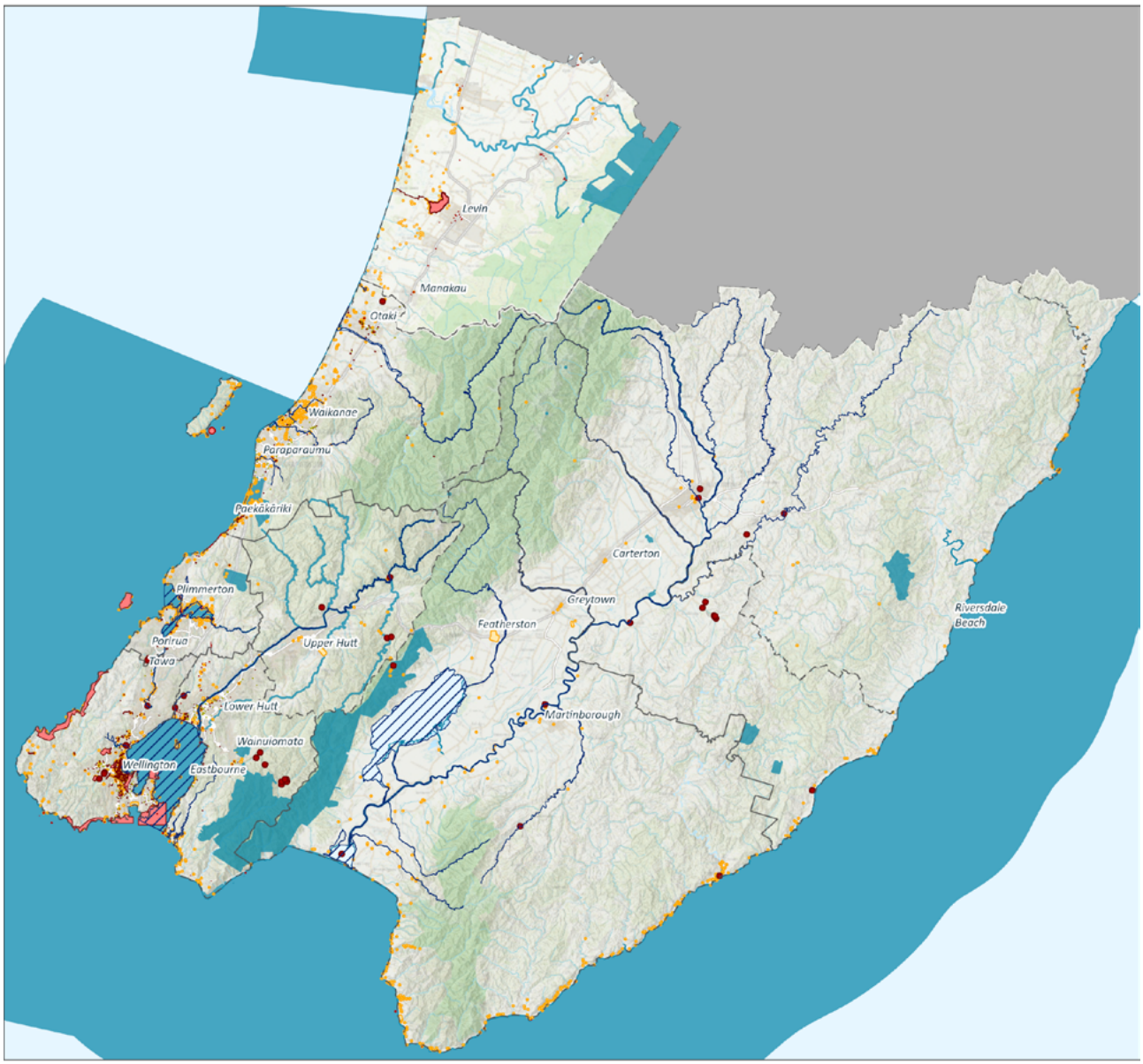
Wāhi Toiora

Culture and heritage

Includes archaeological sites (NZAA), heritage sites, structures, buildings and areas in district plans, notable trees, and Natural Resources Plan - Schedule B - Ngā Taonga Nui a Kiwa, and Statutory Acknowledgement Areas

TLA boundaries
Heritage areas/ sites
Heritage buildings/ structures
Notable trees
Archaeological sites (NZAA)
Ngā Taonga Nui a Kiwa (Natural Resources Plan, Schedule B)*
Statutory Acknowledgement Areas

** Ngā Taonga Nui a Kiwa areas are clipped to terrestrial areas, and Wellington and Porirua Harbours*



Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

Data: Natural Resources Plan (GWRC), Statutory Acknowledgement Areas, territorial authority open data sites (notable trees, heritage buildings/ structures, sites, areas)

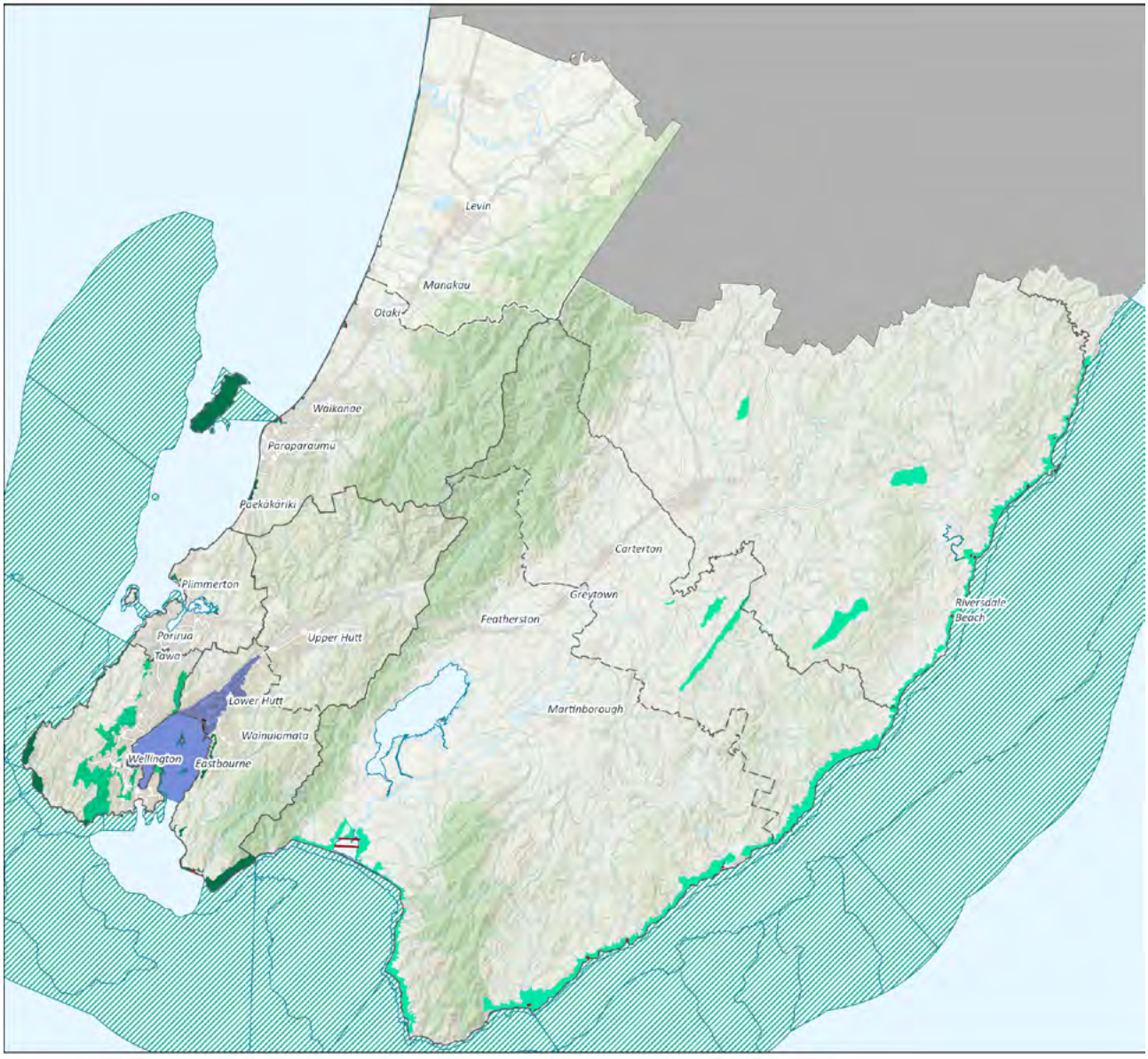
Wāhi Toiora

Environmental values

Includes special amenity landscapes, significant natural areas, coastal natural character areas (high and very high) and Hutt aquifer zone

Coastal natural character areas (with high or very high values)
Marine
Terrestrial

Hutt Aquifer Protection Zones
Coastal Marine Area and river mouths
Special Amenity Landscapes



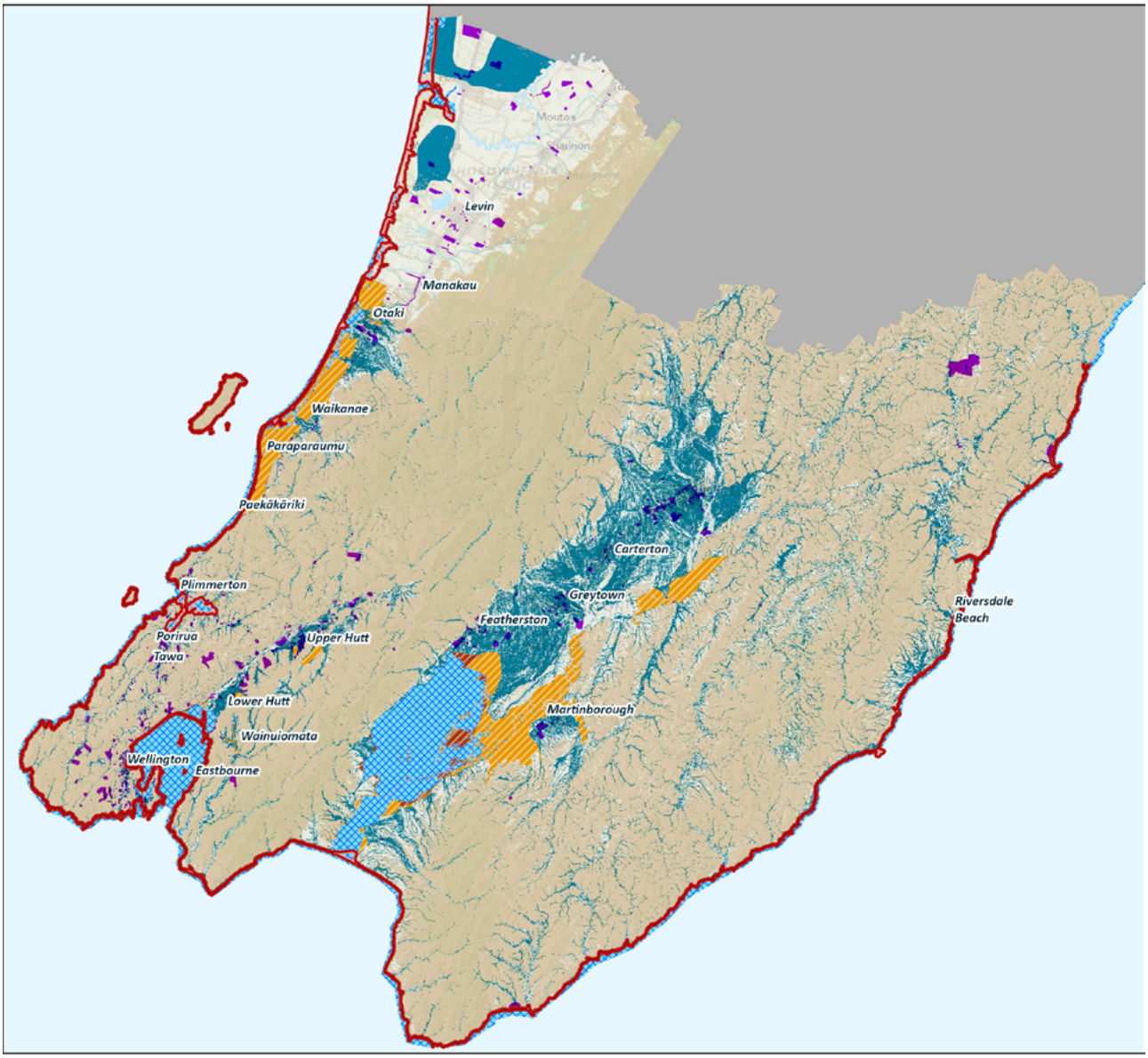
Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

Special amenity landscapes (from District Plans), Coastal natural character areas (GWRC), Coastal Marine area & Hutt Aquifer Protection Zone (Natural Resources Plan) , Significant Natural Areas (District Plans)

Hazards

Natural hazards and contaminated land

- Tsunami evacuation (red) zone
- Liquefaction susceptibility (GNS, 2017)
  - High
  - Very High
- Coastal hazard area
- Low hazard risk of flooding
- Slopes over 20 degrees
- Hail sites (Selected Land Use Register)



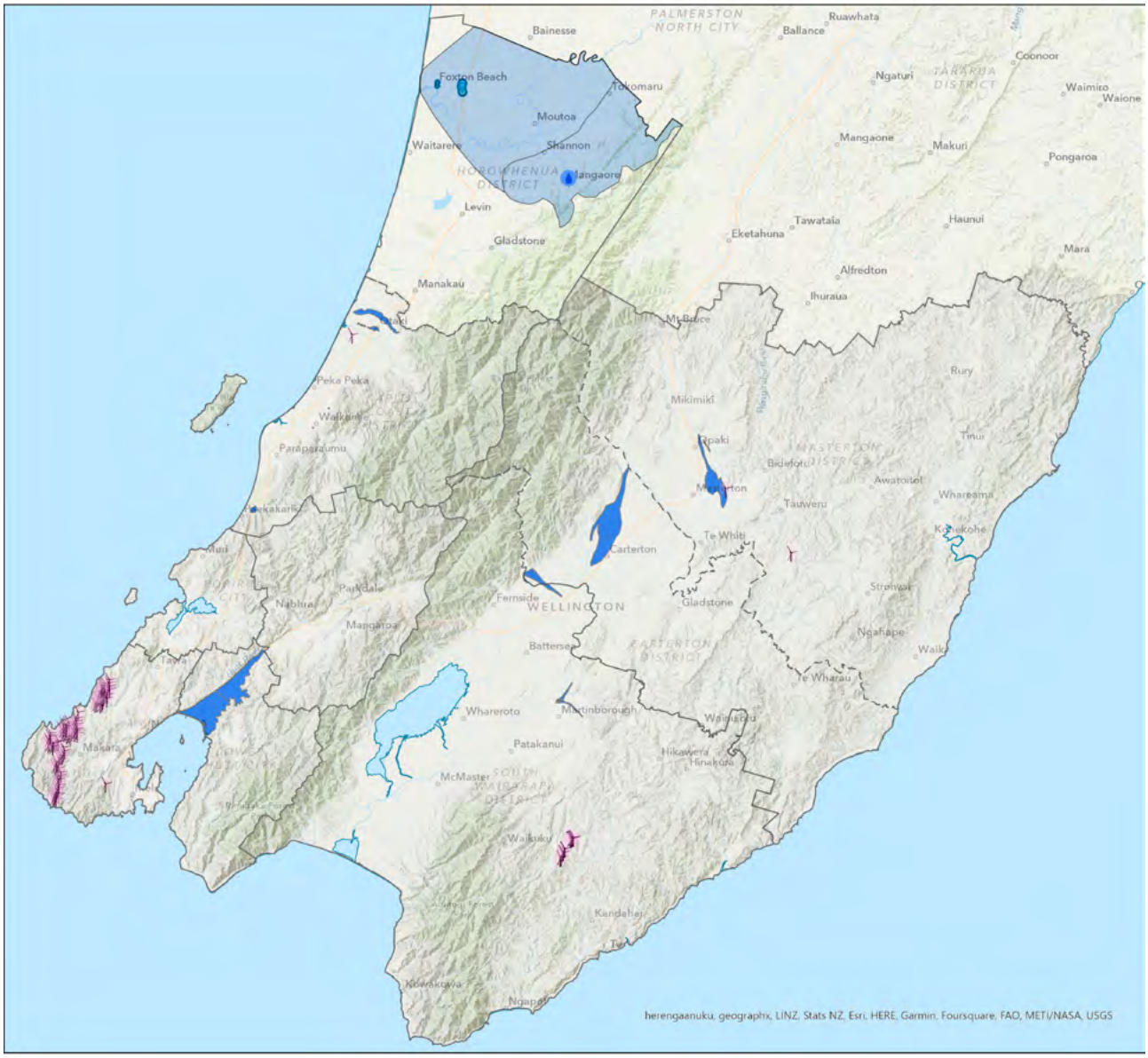
Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

Data: Includes natural hazards data from earthquakes (liquefaction, subsidence, tsunami), coastal hazards (storm surge, inundation and sea level rise) erosion, and contaminated land

Social

Groundwater protection and electricity generation

- Hydro power sites
- Wind power sites
- Groundwater Protection Areas (Schedule M2)
- Groundwater protection zone

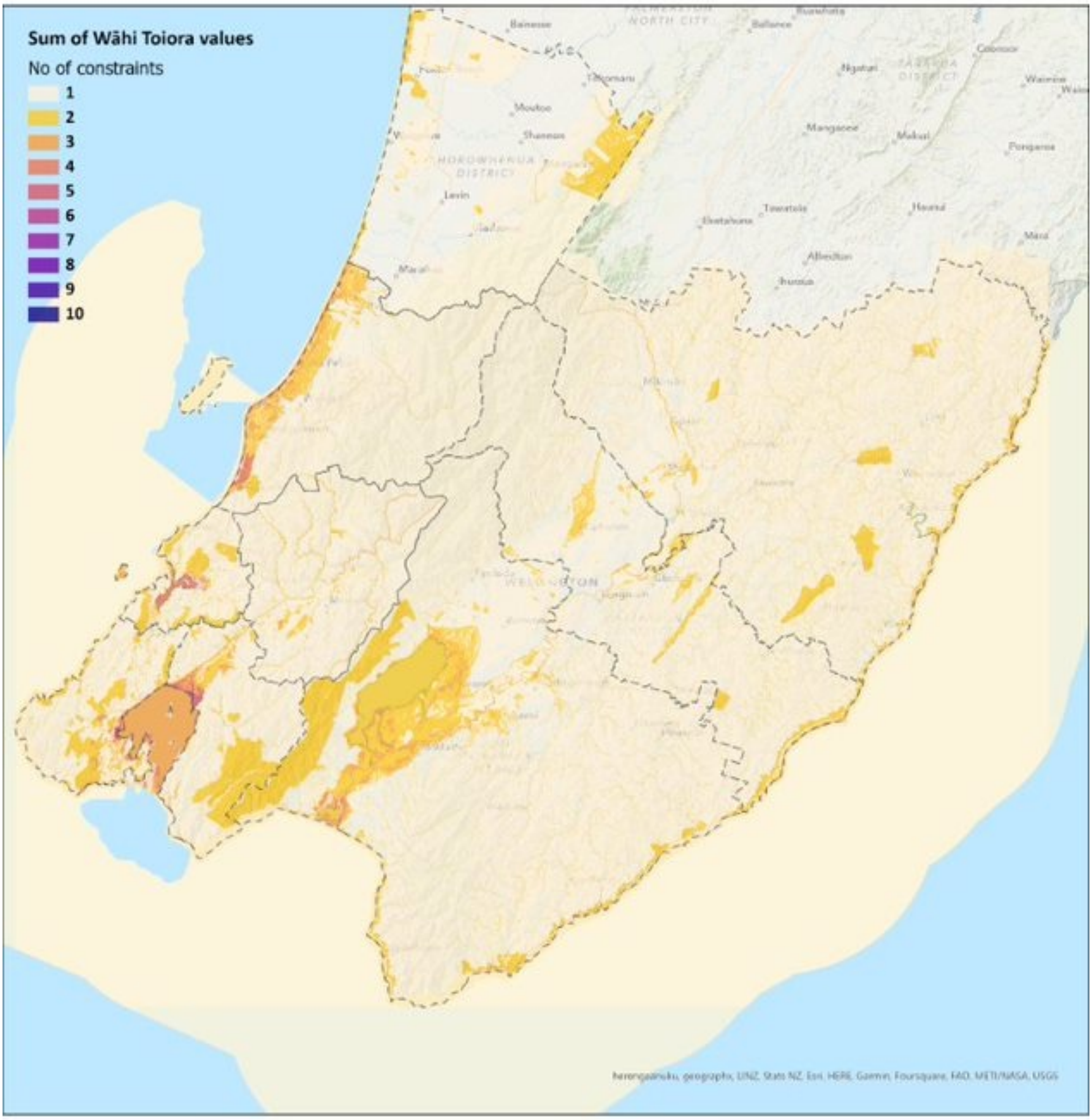


Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

Data: Includes Groundwater protection areas (Natural Resources Plan Schedule M) and renewable energy infrastructure. Horizons drinking water source protection zone

Combined Wāhi Toiora mapping

Includes groundwater, electricity generation, hazards, culture and heritage and environmental values



Wairarapa-Wellington-Horowhenua
Future Development Strategy constraints mapping

Data: Includes heritage sites, structures and areas, notable trees, groundwater protection areas, renewable energy sites areas, natural hazards, environmental values (special amenity landscapes, areas with high coastal natural character) areas.

Spatial implications for Housing and Business Development

Identified Wāhi Toitū areas provide clear boundaries to housing and business expansion along the central mountain corridor between the Wairarapa and the rest of the region.

There are a large number of constraints and values which require appropriate consideration and mitigation; most land within the region falls under the Wāhi Toiora category. Future development will therefore necessarily be located within areas subject to some degree of risk. *Note: The mapping above does not indicate the level or severity of risk, but the number (more or fewer) constraints present within each area.*

Key spatial elements: Wāhi Toitū[13]

- A significant central part of the region comprises Wāhi Toitū; land with enduring presence which should be protected from new housing and business development for the purposes of the Future Development Strategy.
- Key environmental protections (regional park, Indigenous biodiversity and forest etc) are centred along this mountainous central spine.
- Surface drinking water supply protections are also largely centred within this central area.
- While the entire region is interconnected with cultural histories, culture and identity, the sites of significance to mana whenua that are protected from housing and business development are limited to small areas of the region; particularly along the coast, lakes and rivers.
- Almost all towns and cities contain existing development above active fault lines.
- Freshwater sites with significant indigenous biodiversity value are located throughout most of the region.
- Most national grid transmission assets are located on the western side of the region.

[13] Mapping of some elements (HPL, SNAs, SLR, Significant infrastructure) will become more available in the future as policy develops and regional approaches develop.

[14] No mapping available.

Key spatial elements: Wahi Toiora

- Most of the region is subject to constraints and values which could constrain housing and business development. Management of development in these areas, with appropriate consideration and mitigation of risks, is required.
- While not all mana whenua have reached settlement with the Crown, there are many areas subject to statutory acknowledgement.
- The region's highest quality soils are located in Horowhenua and the Wairarapa.
- Most electricity generation assets are located in the southwest of the region.
- Potable groundwater supplies with protection are located in the Wairarapa, the Hutt Valley and Kāpiti Coast. Potable groundwater is also important in Horowhenua[14].
- The region is subject to a wide range of hazards[15]. Ground shaking earthquake hazards affect the entire region[16]. Significant portions of the region also have steep topography.
- River flooding is a significant hazard for Wairarapa and Horowhenua. The Hutt River has the potential to cause significant flooding, this is currently proposed to be mitigate with Riverlink.
- There are hazards affecting the entire regional coastline.
- There are pockets of potential land contamination throughout the region.
- Heritage and archaeological sites are particularly concentrated within the existing urban footprint and along the coast and rivers.
- There are a large number of ecological sites and significant natural areas throughout the region. While some are located within regional parks and forest parks, others surround exiting towns and cities areas.

[15] Note: The mapping above does not show all areas which are subject to natural hazards. Weather hazards have not been mapped, and there are some hazards where we don't have a regional dataset for (i.e. ground shaking).

[16] Regional scale mapping not available.

Appendix 1 – what do these constraints mean at a local level?

Most of the region is subject to constraints and values which could restrict housing and business development. The areas identified for development have undergone initial high-level assessment for natural hazard constraints, including sea level rise and flood hazards. Management of development in these areas, with appropriate consideration and mitigation of risks, is required. The 2023 Housing and Business Assessment noted that the region has sufficient capacity for housing and business land except for Industrial type activity. A separate project is underway to investigate opportunities for industrial land in our region. Many councils have plan changes underway to address and update constraints, which could reduce development capacity, however, given the significant capacity enabled (more than 3x what we need in the next 30 years for housing) any updated constraints are unlikely to significantly reduce development opportunities. More detail on what this means at a subregional level is provided below.

West

Kapiti

The Kapiti District is made up of several townships, all with their own unique character, infrastructure needs, and development constraints.

Due to our predominantly low-lying coastal location, climate change and sea level rise present particular challenges for development in our district. Our community-led process to inform our approach to managing the effects of climate change, Takutai Kapiti, is currently underway. This process will result in recommendations to Council on how we will adapt to our changing coastal environment over the coming decades. The outcomes of this process may result in increased development constraints in some areas of our District in the future.

The current overall approach to development set out in Te Tupu Pai (the District's Growth Strategy) is to emphasise intensification within existing urban areas and around transport nodes, while also providing for some greenfields development. This limits the number of new growth areas and reinforces an overall hierarchy of centres and the effective and efficient use of infrastructure.

The District Plan is the key implementation tool for Te Tupu Pai. It also manages a range of planning constraints through zoning overlays. These constraints include natural hazards, particularly flood hazard, sites of historical and cultural significance, and natural environmental values.

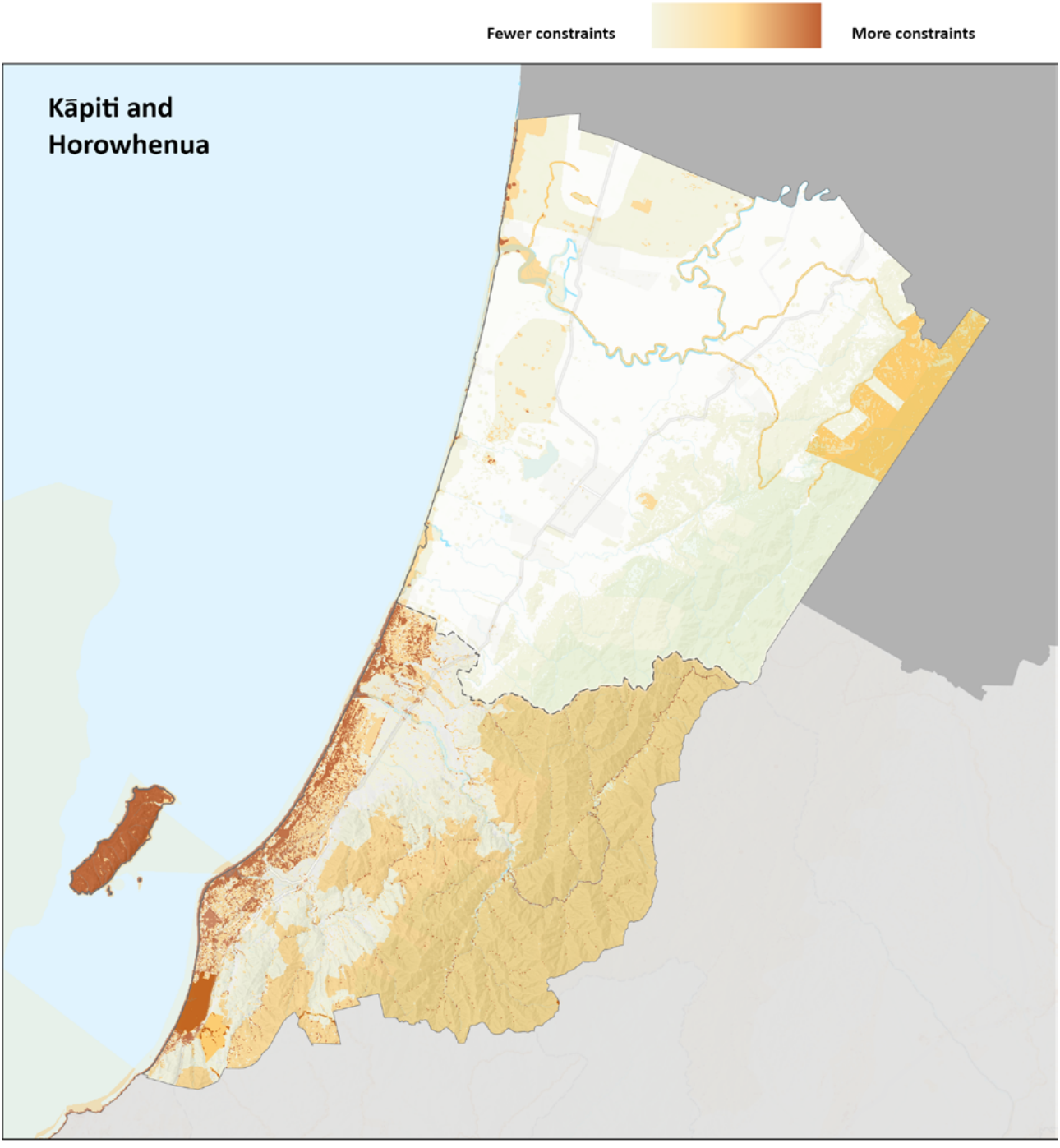
Horowhenua

The main constraint for Horowhenua is Highly Productive land. The District Plan contains rules to restrict subdivision on Class I and II soils, which pre-date the NPS-HPL. Approximately 1/3 of the Horowhenua District contains Class I and II soils, most of the settlements in the District are surrounded by Class I, II and III soils. All growth areas in the Growth Strategy 2040 have been categorised as being for development either within ten years or ten years plus horizon. Growth areas identified for rezoning within ten years are not subject to the NPS-HPL.

District-wide liquefaction mapping has been undertaken to a Level A standard, which has confirmed that Tara-Ika is low risk. Other identified growth areas will need to be further assessed to a Level B standard to comply with MFE guidance.

Combined Wāhi Toiora mapping

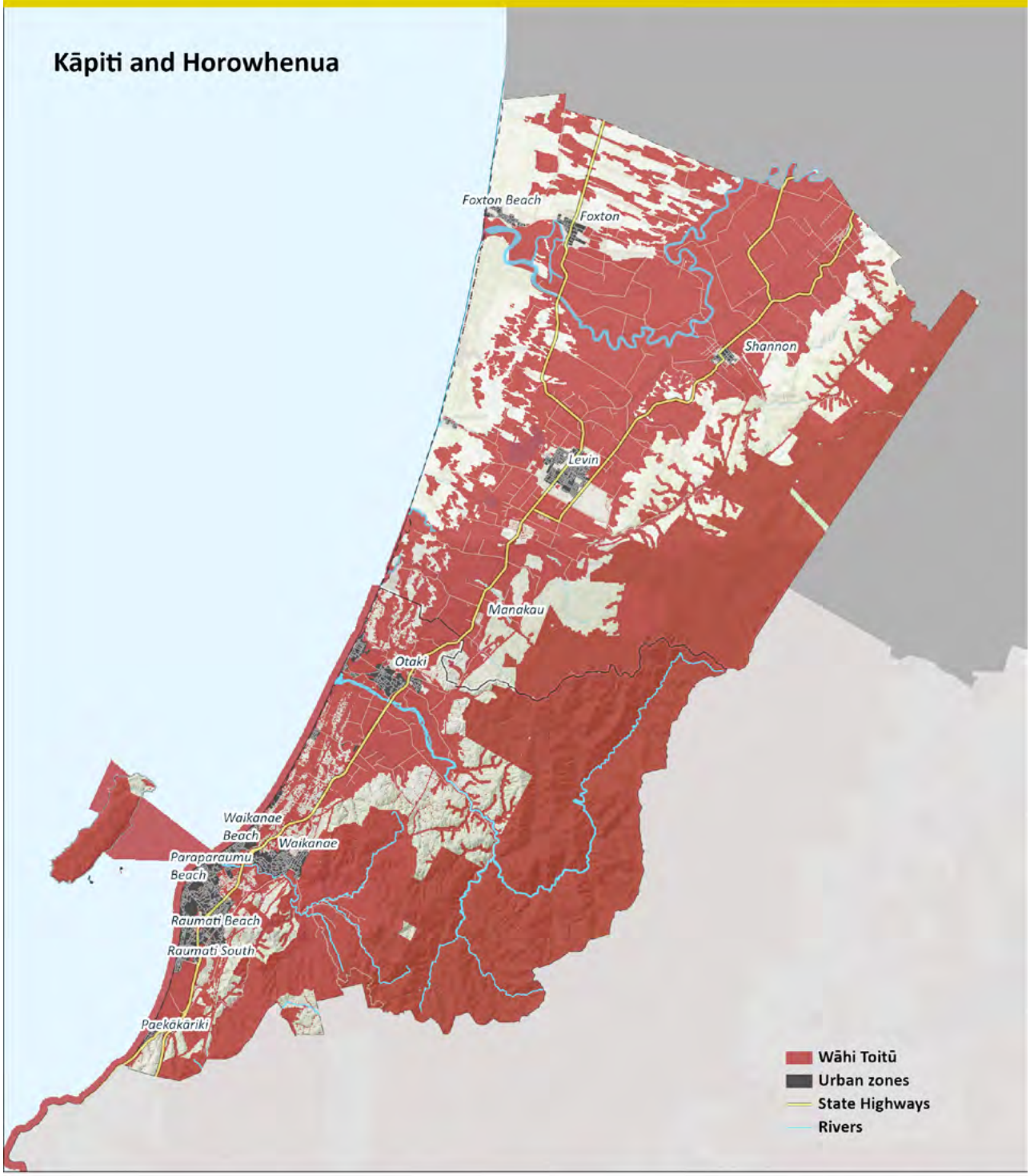
Includes groundwater, electricity generation, hazards, culture and heritage and environmental values



Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

Data: Includes heritage sites, structures and areas, notable trees, groundwater protection areas, renewable energy sites areas, natural hazards, environmental values (special amenity landscapes, areas with high coastal natural character) areas.

Combined Wāhi Toitū areas



Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

Data: Includes sites with significant mana whenua values, Ngā Whenua Rāhui, existing environmental protections, recreation land, drinking water protection areas, significant infrastructure, flood hazards and known earthquake fault rupture and deformation zones

Central

Wellington

Wellington City is physically constrained – hemmed between the harbour and the hills and lacking flat land for expansion. While this makes for a compact and highly livable city, the city's inability to grow outward raises unique challenges and increases the stakes when readily developable land becomes available. Redevelopment in existing urban areas of Wellington currently represents most of the development activity in the city but is also often complicated by legacy issues such as land fragmentation and lack of infrastructure capacity, and development opportunities are diminishing. This is particularly the case in established suburbs and "brownfield" areas. With Wellington's steep topography readily developable "greenfield" land has also always been in short supply and current estimates are that the last remaining greenfield land which is zoned for development (in the Churton Park and Grenada area) will be fully developed in about 20 years based on historic growth rates. Considering our population growth has accelerated in recent years – if this continues – available "greenfield" land may only last as little as ten years with the bulk of our development coming through in-fill and brownfield developments.

Wellington City Council is also currently part way through hearings on its draft District Plan (DDP). There are several chapters which deal with constraints and how they are managed. Decisions on the plan are not anticipated until the first quarter of 2024, so please refer to the Operative and Proposed Plans. Specific natural hazards which have been covered through the DDP include flooding, fault rupture, liquefaction, coastal inundation, including from sea level rise, and tsunami.

Porirua

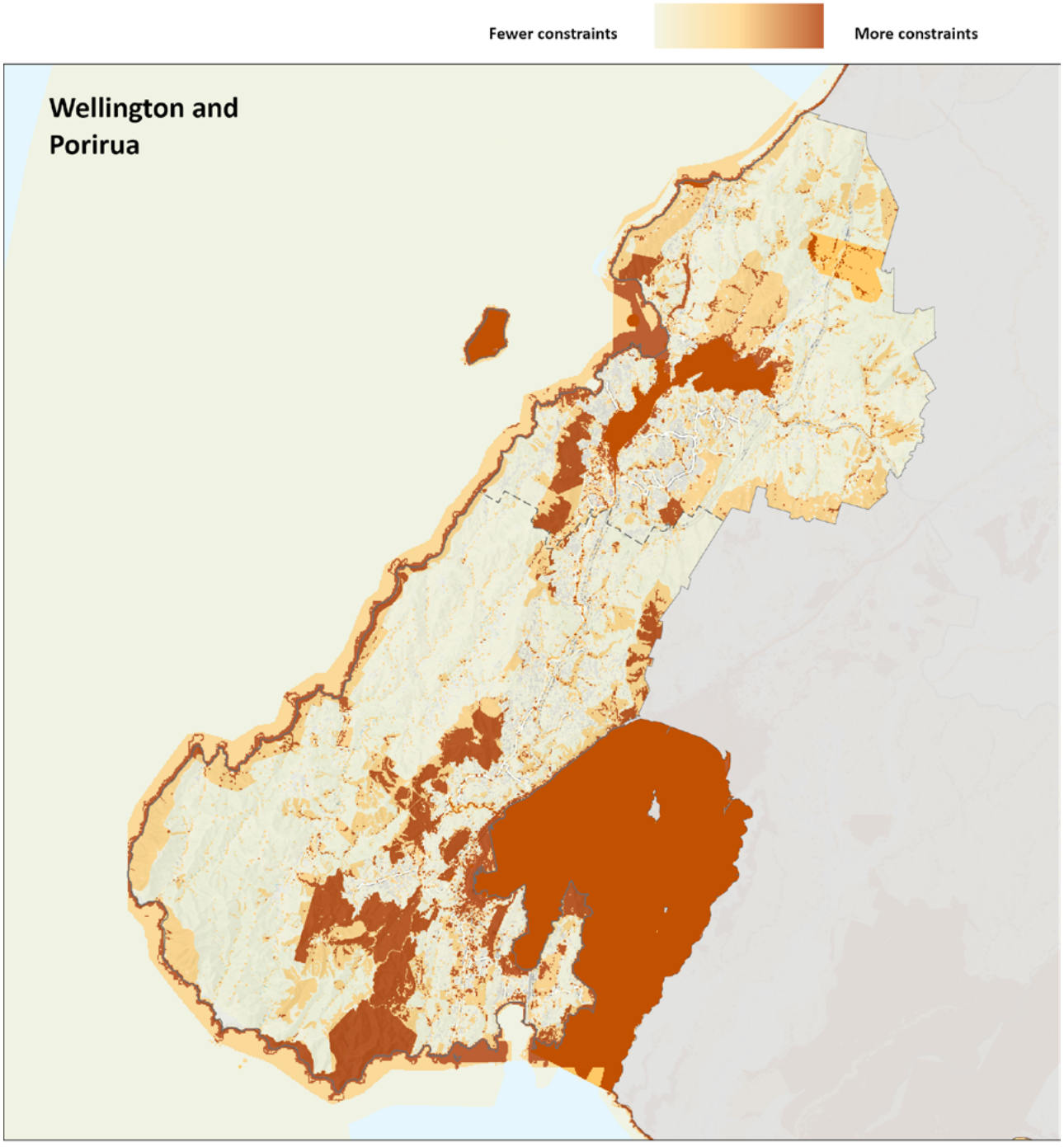
The Proposed Porirua District Plan (PDP) identifies constraints at a property level through overlays on the planning maps. The PDP maps include several overlays grouped under historical and cultural values, natural environment, and hazards and risks. The location and extent of the overlays has been informed by specialist technical experts and represents the most detailed information held by Porirua City Council.

Porirua's coastline, water bodies and location in relation to active faults pose risks to existing and future development. The PDP identifies flood hazards (stream corridors, overland flow paths and ponding areas), coastal hazards (erosion, inundation, and tsunami hazards) and fault rupture zones. The Natural Hazards chapter of the PDP manages development within these areas through a risk-based approach. That approach considers the sensitivity of proposed developments to natural hazard risk and the level of risk from the relevant hazards.

Similarly, the sites and areas identified as having cultural or historical values and significant natural areas are managed through provisions in the relevant chapters. Where a proposed land use, subdivision or development is within a site or area identified by the overlay, the relevant rules and standards include limits to ensure the effects are acceptable or provide a pathway through a resource consent process. Additionally, the PDP also maps Ngāti Toa Rangatira statutory acknowledgement areas. As such, the PDP provides the most up-to-date and detailed mapping of constraints across Porirua, with an associated comprehensive resource management framework to manage development within the identified areas set out in the relevant provisions. While hearings have been completed, decisions on the PDP are yet to be made.

Combined Wāhi Toiora mapping

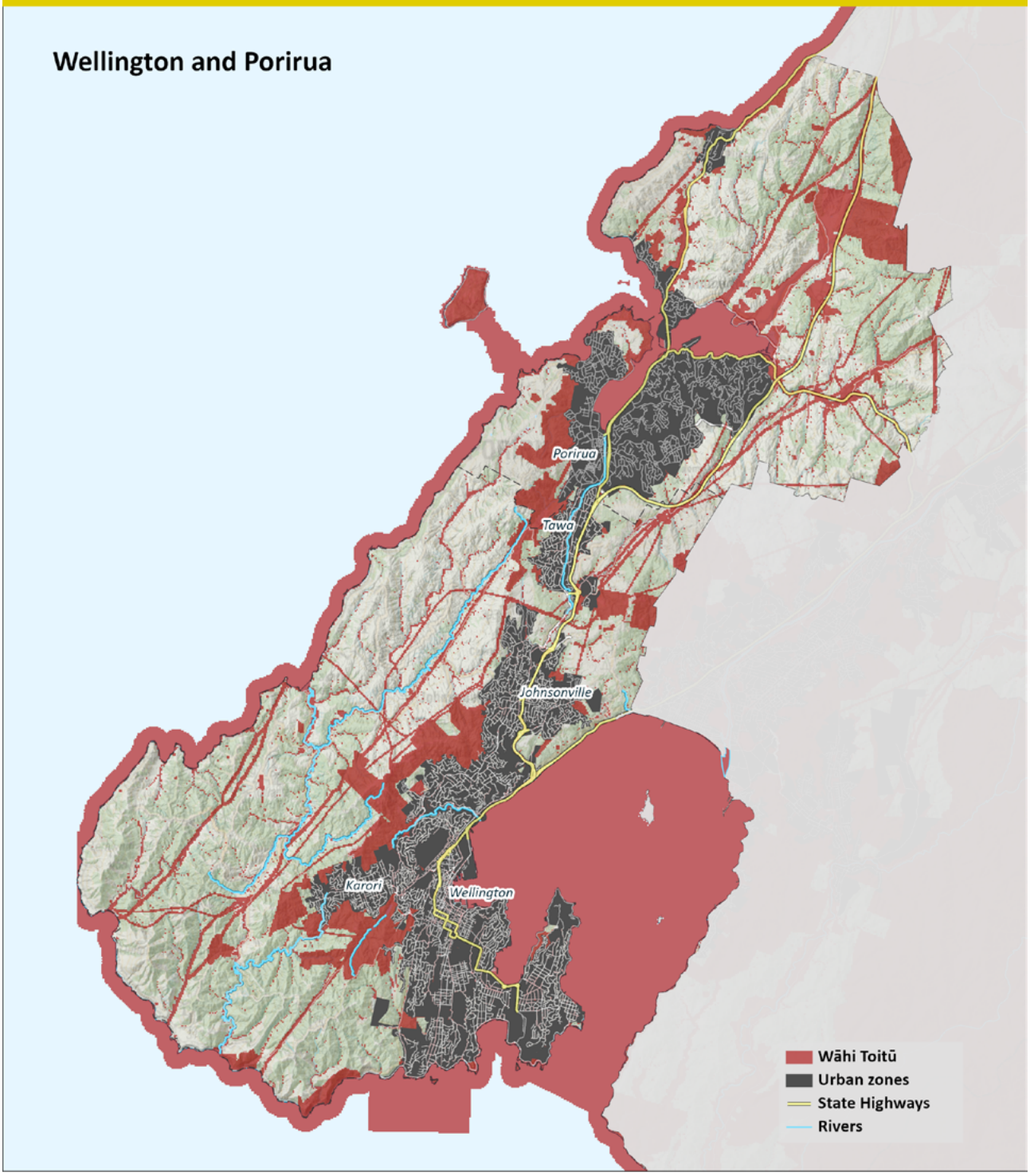
Includes groundwater, electricity generation, hazards, culture and heritage and environmental values



Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

Data: Includes heritage sites, structures and areas, notable trees, groundwater protection areas, renewable energy sites areas, natural hazards, environmental values (special amenity landscapes, areas with high coastal natural character) areas.

Combined Wāhi Toitū areas



Wairarapa-Wellington-Horowhenua
Future Development Strategy constraints mapping

Data: Includes sites with significant mana whenua values, Ngā Whenua Rāhui, existing environmental protections, recreation land, drinking water protection areas, significant infrastructure, flood hazards and known earthquake fault rupture and deformation zones

East

Upper Hutt

Whilst Upper Hutt City Council is currently progressing a hazards plan change, there is generally a very constrained hazard profile that has limited impact on residential development. The Wellington fault identified in the District Plan, whilst subject to some change as part of the hazards plan change, is primarily located along the river and there is little to no risk of liquefaction across the urban extent. Similarly flood risk is limited to along the river and urban streams has very little impact on residential areas.

As one of the only Wellington Region territorial authorities not located along a coastline, Upper Hutt is not constrained by coastal hazards resulting from sea level rise and climate change. There are some areas of contaminated land, related to previous agricultural and industrial activity, and these areas have been identified by Greater Wellington Regional Council.

Currently the Sites of Significance to Māori are undefined but are also largely focused along the river. Upper Hutt City Council has been working to identify Significant Natural Areas and indigenous vegetation. This concentrated in the hill areas and other significant features such as the Remutaka, Akatarawa and Pakuratahi forests

Lower Hutt

Lower Hutt includes a wide range of development constraints identified in this report as Wāhi Toitū and Wāhi Toiora.

Most of these constraints are addressed through the City of Lower Hutt District Plan through a combination of zones and overlays that identify the area for the constraint, with policy and rule frameworks that limit development in the identified area to manage potential impacts of development on the value being protected.

Hutt City Council is reviewing how the District Plan should address these constraints through its Intensification Planning Instrument (Proposed District Plan Change 56) and a full review of the District Plan.

Regarding drinking water protection areas, these are managed through the Natural Resources Plan for the Wellington Region. This Plan provides protection for surface water bodies as well as the Waiwhetū Aquifer, which is close to the surface in the vicinity of the Lower Hutt city centre and is a source of drinking water. This poses a challenge to building tall buildings that need deep foundations and may impact the type of development that is feasible.

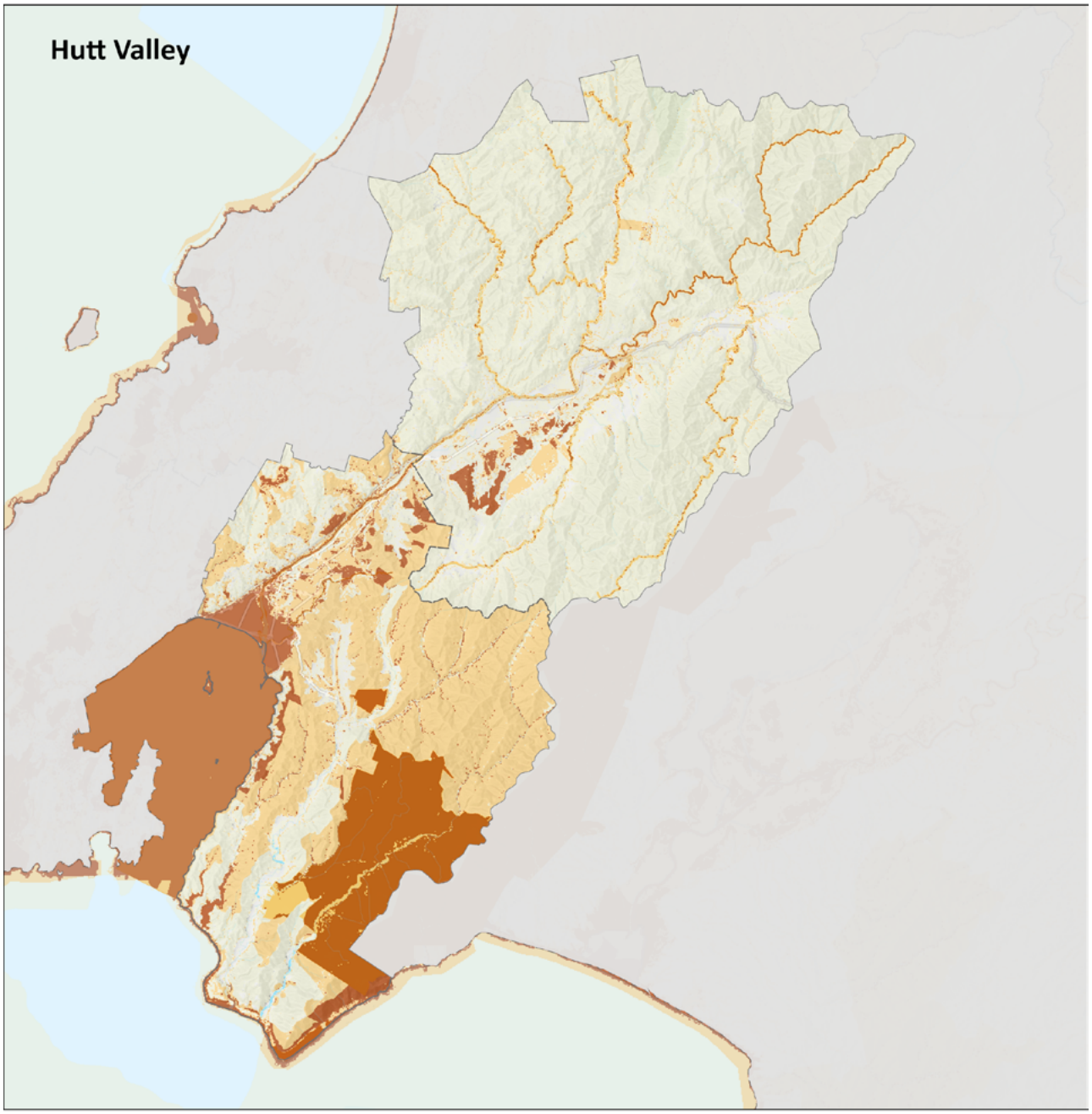
Regarding highly productive land, the District Plan does not currently constrain development for the purpose of protecting highly productive land. However, the full review of the District Plan includes a review of how the District Plan should protect highly productive land, in line with the direction set by the National Policy Statement on High Productive Land.

Regarding landscape areas, rules in the District Plan regulate development in these areas on public land only. Hutt City Council is reviewing the approach of the District Plan on landscape areas through the full review of the District Plan. Regarding ecological areas, rules in the District Plan regulate development in these areas on public land and in residential zones. In addition, wetland areas are protected through the Natural Resources Plan for the Wellington Region. While the approach of the District Plan for ecological areas will also be reviewed through the full review of the District Plan, Hutt City Council's approach will depend on the direction of the National Policy Statement for Indigenous Biodiversity.

Combined Wāhi Toiora mapping

Includes groundwater, electricity generation, hazards, culture and heritage and environmental values

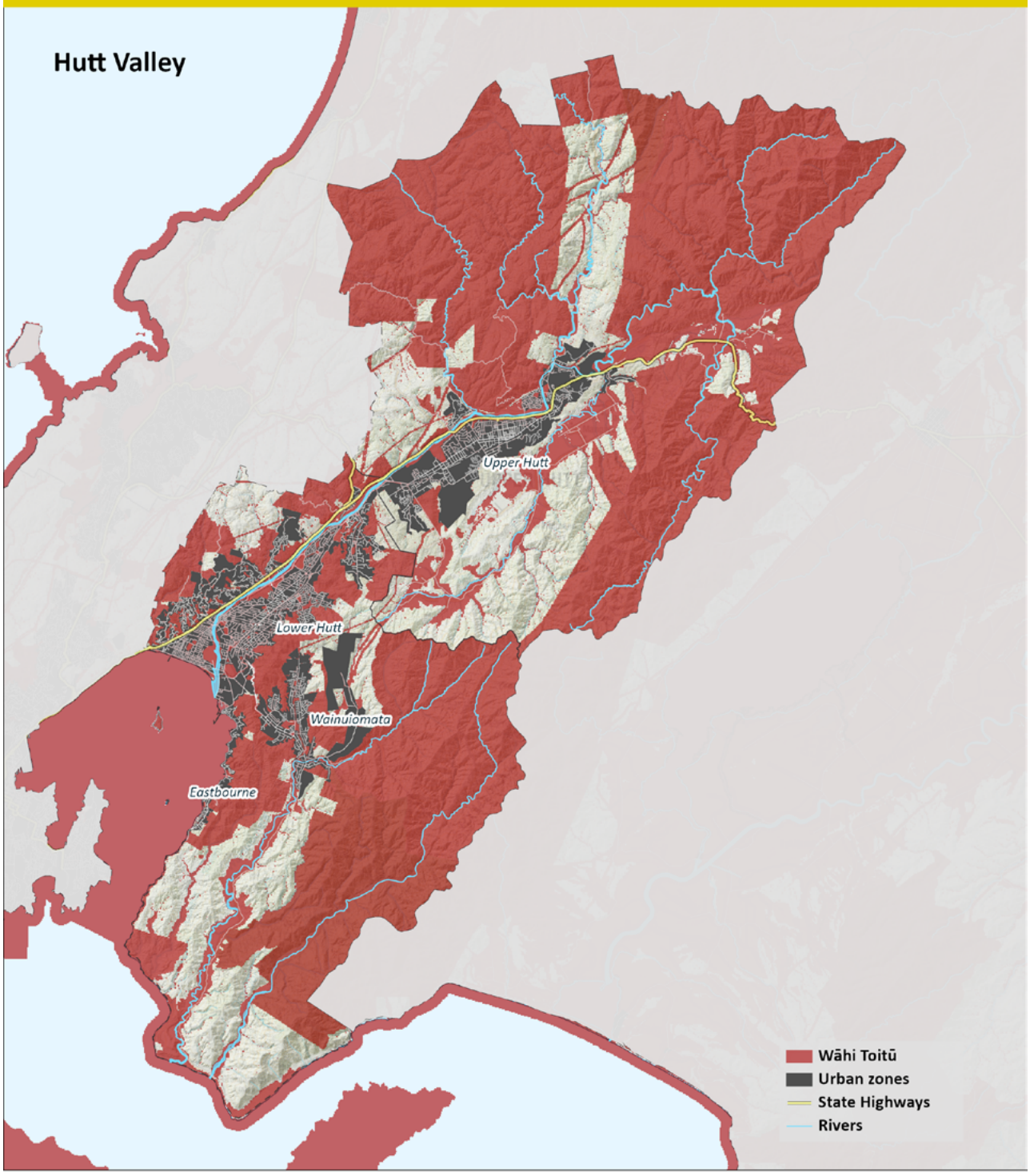
Fewer constraints — More constraints



Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

Data: Includes heritage sites, structures and areas, notable trees, groundwater protection areas, renewable energy sites areas, natural hazards, environmental values (special amenity landscapes, areas with high coastal natural character) areas.

Combined Wāhi Toitū areas



Wairarapa-Wellington-Horowhenua
Future Development Strategy constraints mapping

Data: Includes sites with significant mana whenua values, Ngā Whenua Rāhui, existing environmental protections, recreation land, drinking water protection areas, significant infrastructure, flood hazards and known earthquake fault rupture and deformation zones

East

Wairarapa

The Wairarapa is subject to a range of development constraints as identified in the earlier chapters of this report. These constraints include areas with significant mana whenua values (including statutory acknowledgement areas), natural hazard areas (including areas at risk to flooding hazard fault rupture, liquefaction, coastal inundation, coastal erosion, and tsunami), historic heritage, contaminated land, and significant natural areas and areas of outstanding natural character.

The Wairarapa Councils are currently undertaking a review of the Wairarapa Combined District Plan. Each of these constraints are addressed through the Draft Plan, using a combination of zones and overlays that identify the area of constraint. To support this, policy and rule frameworks that manage development to limit the potential impacts on the values being protected and the development from natural hazards are included in the Plan.

Natural hazard areas are present throughout the Wairarapa and pose risks to existing and future development. The Draft Plan identifies flood hazards (river corridors, stream corridors, significant waterbodies), the coastal environment, fault lines (active fault lines, fault hazard areas, liquefaction prone areas). These are addressed through the Natural Hazards chapter in the Operative Wairarapa Combined District Plan and the Draft Wairarapa Combined District Plan. The rules provide an activity status, requiring a resource consent for development which could be at risk from relevant hazards in the district.

Sites and areas of cultural or historical significance are addressed in the Historic Heritage chapter of the Operative Wairarapa Combined District Plan, and the Historic Heritage, Notable Trees, and Sites and Areas of Significance to Māori chapters of the Draft Wairarapa Combined District Plan. These are mapped, showing the specific areas of significance throughout Masterton, Carterton, and South Wairarapa.

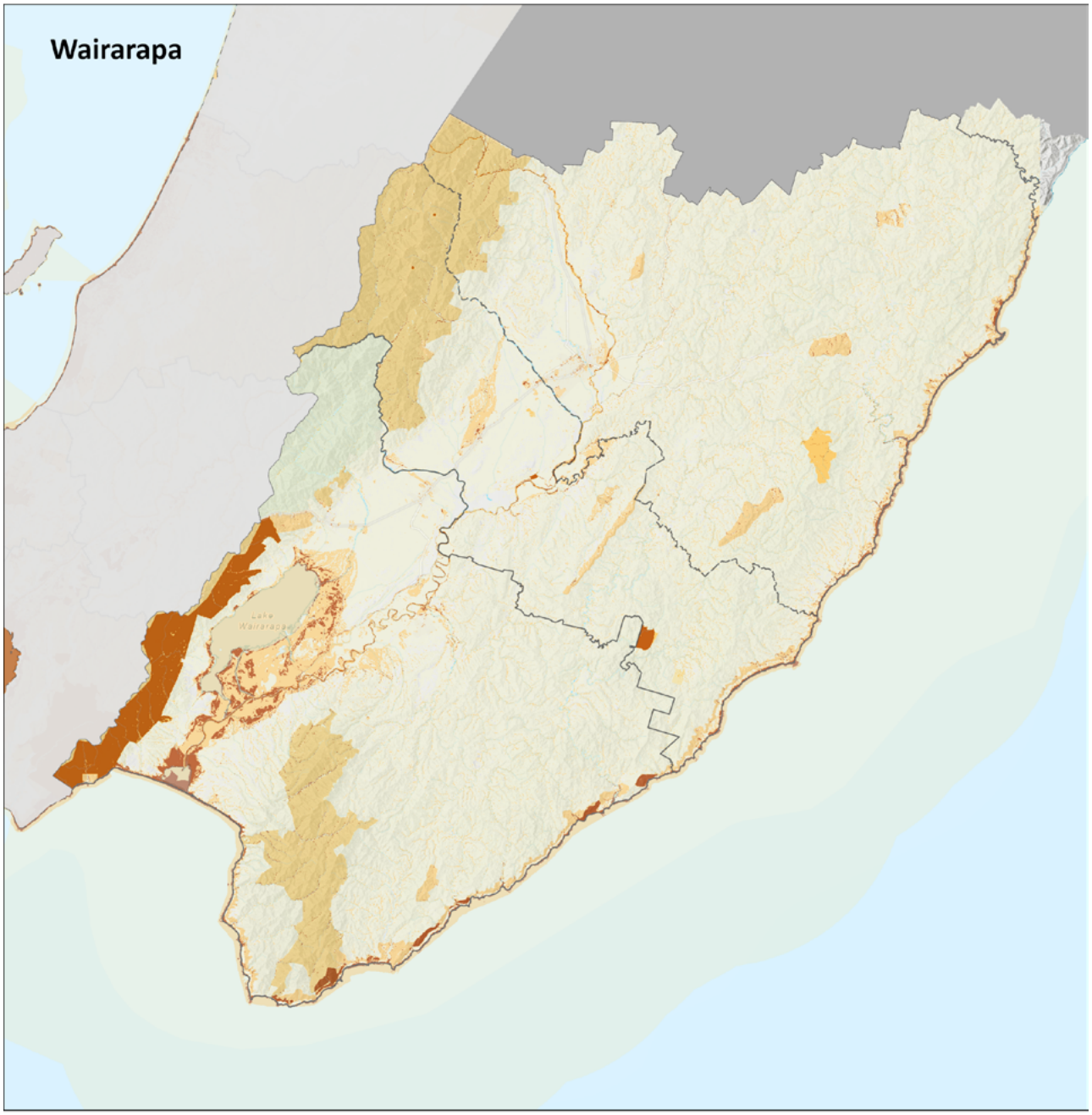
The Draft Wairarapa Combined District Plan also maps areas of High and Very High Natural Character, Outstanding Natural Character, Outstanding Natural Features and Landscapes, and Significant Amenity Landscapes. These areas are supported by the policies and rules in the Ecosystems and Indigenous Biodiversity, Natural Character, and Natural Features and Landscapes chapters, which manage the impact of earthworks, subdivision, and development.

There are some areas of contaminated land, related to previous agricultural and industrial land uses. A few of these areas are mapped on the Operative Wairarapa Combined District Plan, with the rest identified by the Greater Wellington Regional Council in the Selected Land Use Register.

Combined Wāhi Toiora mapping

Includes groundwater, electricity generation, hazards, culture and heritage and environmental values

Fewer constraints — More constraints



Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

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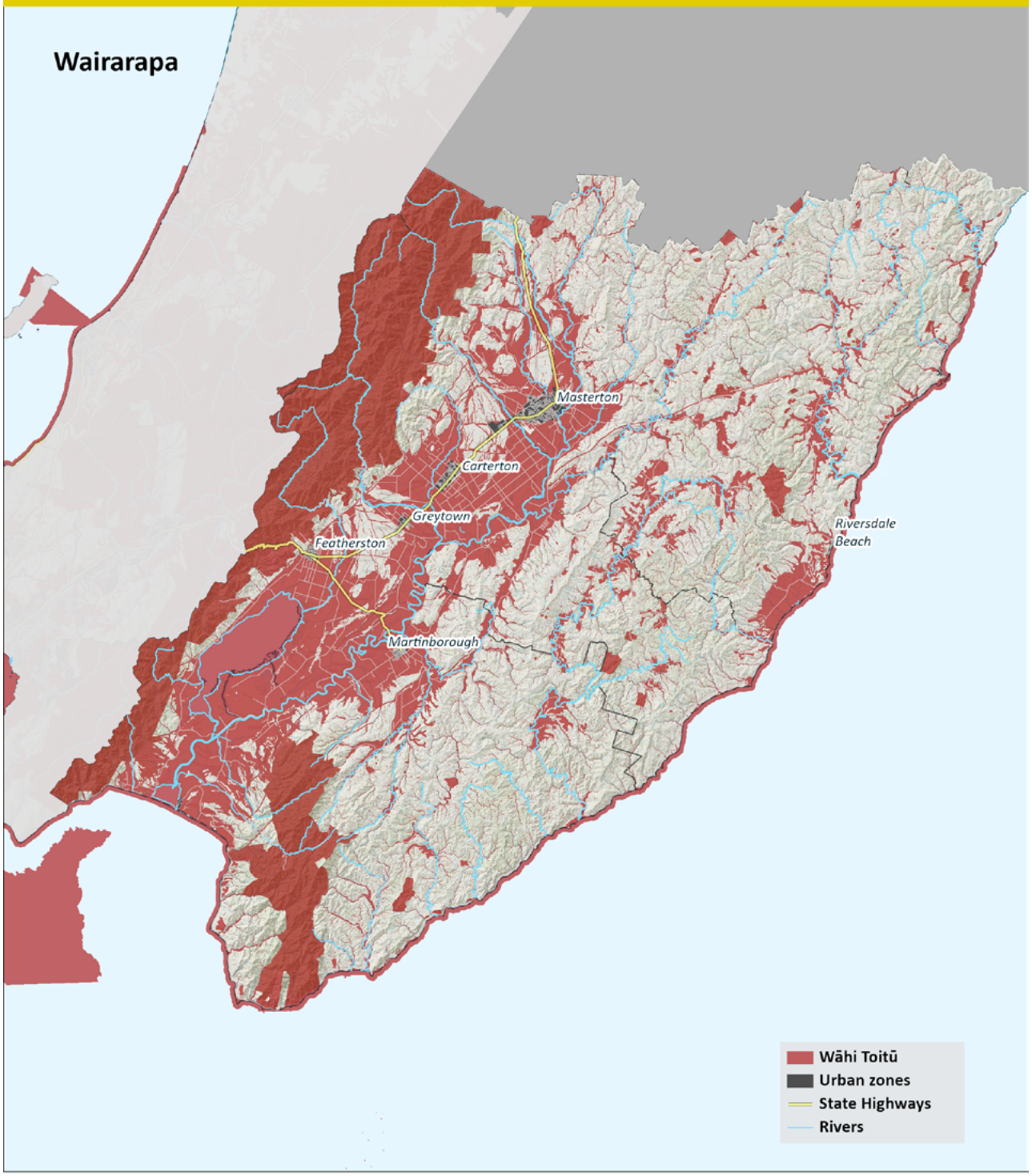
Combined Wāhi Toitū areas



Wairarapa-Wellington-Horowhenua Future Development Strategy constraints mapping

Data: Includes sites with significant mana whenua values, Ngā Whenua Rāhui, existing environmental protections, recreation land, drinking water protection areas, significant infrastructure, flood hazards and known earthquake fault rupture and deformation zones

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