
6.0 Appendices

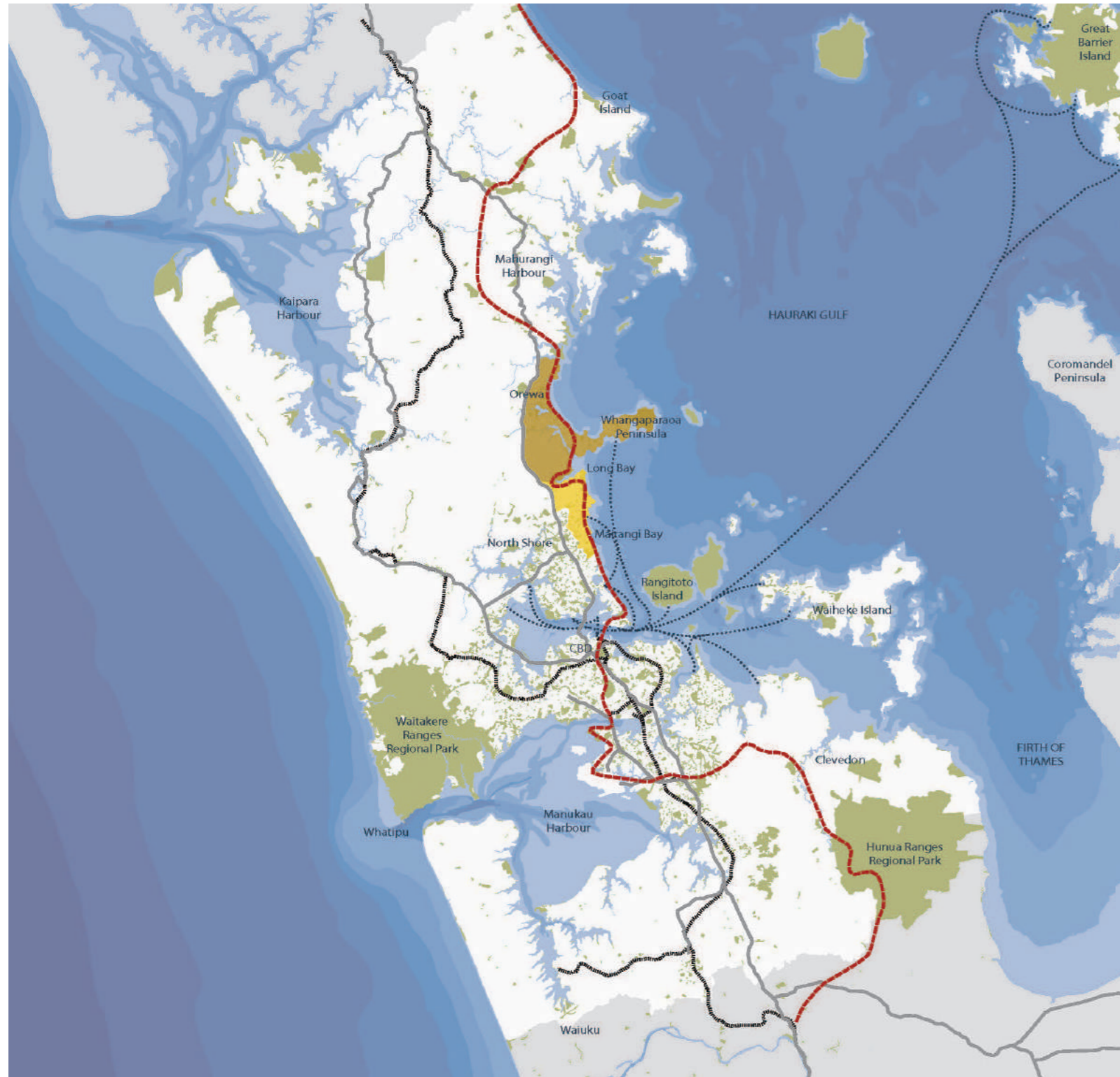
Hibiscus Coast Subdivision



Figure 24. Army Bay. Charlotte Grieve, 2016.

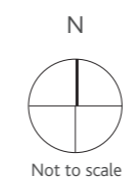
6.1 Analysis Maps

Hibiscus Coast Subdivision



LEGEND:

- | | | |
|--|---|---|
| Hibiscus Coast Subdivision | State Highway network | Te Araroa Walkway (national walkway) |
| East Coast Bays Subdivision | Railway | |
| Park and Reserve Land | Ferry Routes | |



Auckland Context

This map shows the Hibiscus and Bays Local Board area in its wider context within the Auckland Isthmus, located along the east coast of the North Shore. The Hibiscus and Bays Local Board area is split into two subdivisions; Hibiscus Coast Subdivision and East Coast Bays Subdivision. For the purposes of the analysis mapping that follows, each subdivision has been presented separately in order to allow the information to be read at a legible scale.

The area is bordered by Rodney, Upper Harbour, and Devonport - Takapuna Local Board areas. The Hibiscus and Bays Local Board area is home to a number of local town centres, including Orewa, Whangaparaoa, Silverdale, Northcross, Browns Bay, and Mairangi Bay.

At this scale there are a number of items of interest to be considered in the creation of a Greenways network:

- The Te Araroa national walkway runs along the coast of this area.
- There are no rail services to the area.
- SH1 runs along the western edge of the Hibiscus Coast subdivision.
- The board area has an extremely high ratio of coastline to land area.
- In terms of overall size, this is one of the largest non-rural board areas.

A more detailed analysis of the underlying factors that have shaped this Greenways plan is explained in this section, the Hibiscus Coast subdivision first, followed by East Coast Bays.



Aerial

This aerial photograph shows the broad landscape patterns of the Hibiscus Coast division of the Hibiscus and Bays Local Board area, within its surrounding context.

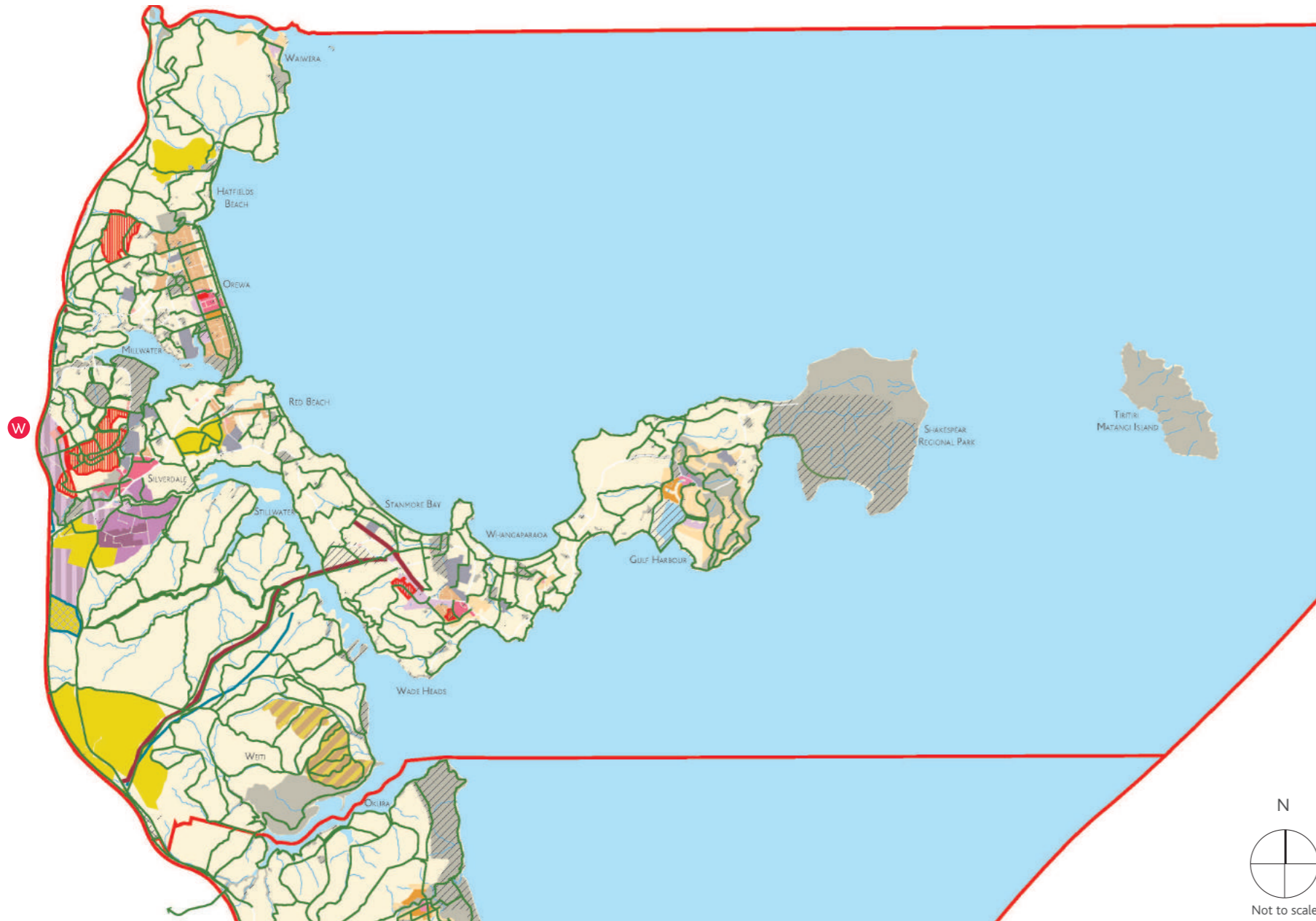
The land generally slopes eastward towards the Hauraki Gulf, with views out across the water to the Whangaparaoa Peninsula and Tiritiri Matangi. The coastline is made up of jagged, rocky headlands enclosing sweeping sandy beaches. Other than the beaches, the coastline is generally in steep sandstone cliffs, bisected by a sequence of estuaries. The other dominant landform is the Whangaparaoa Peninsula, which juts out into the gulf, terminating at Shakespear Regional Park.

Local development patterns can be clearly seen at this scale, with the township of Orewa occupying the flat coastal plain north of the Orewa River, and development continuing southeast across the inlet, and then eastward throughout the flatter areas of the Whangaparaoa Peninsula. More recent development can be seen pushing westward towards SH1. The remainder of the area is largely rural or semi-rural. Looking in more detail at the dominant land use types:

- **Residential Land**
As land values increase across Auckland, the opening up of more steeply contoured areas becomes viable, and this can be seen occurring here - with the flat land already developed, new areas are being developed in the hills around Orewa and Stanmore Bay - the contour poses some challenges for Greenways.
- **Rural land**
This subdivision is one of the more 'rural' remaining in the Auckland Region, with large tracts of rural and semi-rural land existing around the Waiwera, Stillwater and Okura regions.
- **Industrial land**
This subdivision does not have significant industrial areas, although there are some areas of light industrial/commercial located in Silverdale, along Whangaparaoa Road, and west of the Orewa shops. Industrial zoning tends to be less compatible with Greenways planning.
- **Commercial Town Centres**
There are a scattering of town centres along the coast, including; Waiwera, Orewa, Silverdale, Whangaparaoa, Manly, Gulf Harbour, and Stillwater. Town centres typically form nodes along the Greenways network.

LEGEND:

- Local Board Boundary
- Motorway
- Roads



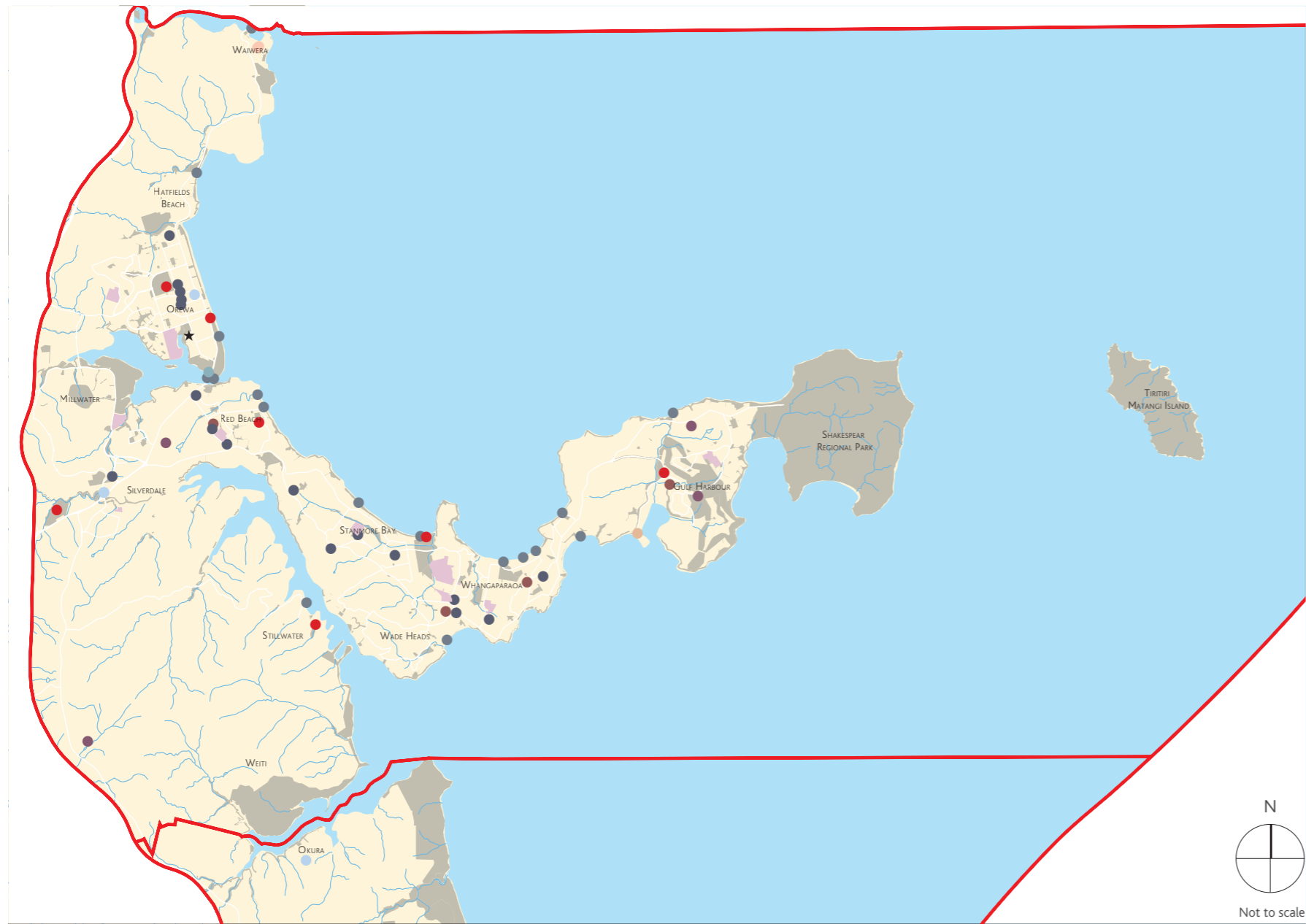
Future Projects and Growth Centres

The Hibiscus Coast subdivision of the Hibiscus and Bays Local Board, is one of the fastest changing and developing areas within the wider Auckland region. Until recently the land has been relatively undeveloped and rural. Development and planning projects in this area are at a variety of stages, with some recently completed, some under construction, and others still in the planning phase. Some of the larger/more significant projects happening locally are summarised below:

- **Special Housing Areas (SHA).**
 These are housing development areas set out with a housing accord, to provide quick development of affordable housing. The accord was developed by Auckland Council with the government. SHA's aim to combat Auckland's housing crisis.
- **Weiti Lands.**
 This is a mixed use development, which sits directly north of Okura Scenic Reserve and extends most of the way up to the township of Stillwater. Included in the development is a large component of open space, which includes the preservation of existing bush and significant natural areas, additional council and DOC reserves, enhancement planting, mountain biking tracks, new walkways, and public toilets. This open space is developed to complement and offset the impacts of three large proposed housing areas.
- **Highgate Business Park.**
- **Millwater, by WFH Properties.** A mixed density housing development.

LEGEND:

Local Board Boundary	Housing	Town Centre	Heavy Industry
Streams / Rivers	Watercare Services Limited	Mixed Housing Urban	Residential - Rural and Coastal Settlement Zone
Road network	Auckland Transport Projects	Single House	
Urban Centres Buffers	Strategic Framework Line	Mixed Housing Suburban	
NZTA	Strategic Framework	Terrace Housing and Apartment Buildings	
Auckland Council & former TAs	Special Housing Areas	General Business	
Auckland Council	Special Purpose	Neighbourhood Centre	
Energy Company	Future Urban	Mixed Use	
Her Majesty the Queen	Local Centre	Light Industry	



Schools and Community Facilities

This map provides more detail on educational and community facilities in the Hibiscus Coast subdivision area.

Schools are critical points in the Greenways plan, providing both an opportunity to create connections via easements, while also providing destinations in their own right. These facilities are visited on a frequent basis, and providing safer, higher amenity and more accessible connections has great potential to reduce reliance on private vehicles, while also getting kids exercising and experiencing the natural environment.

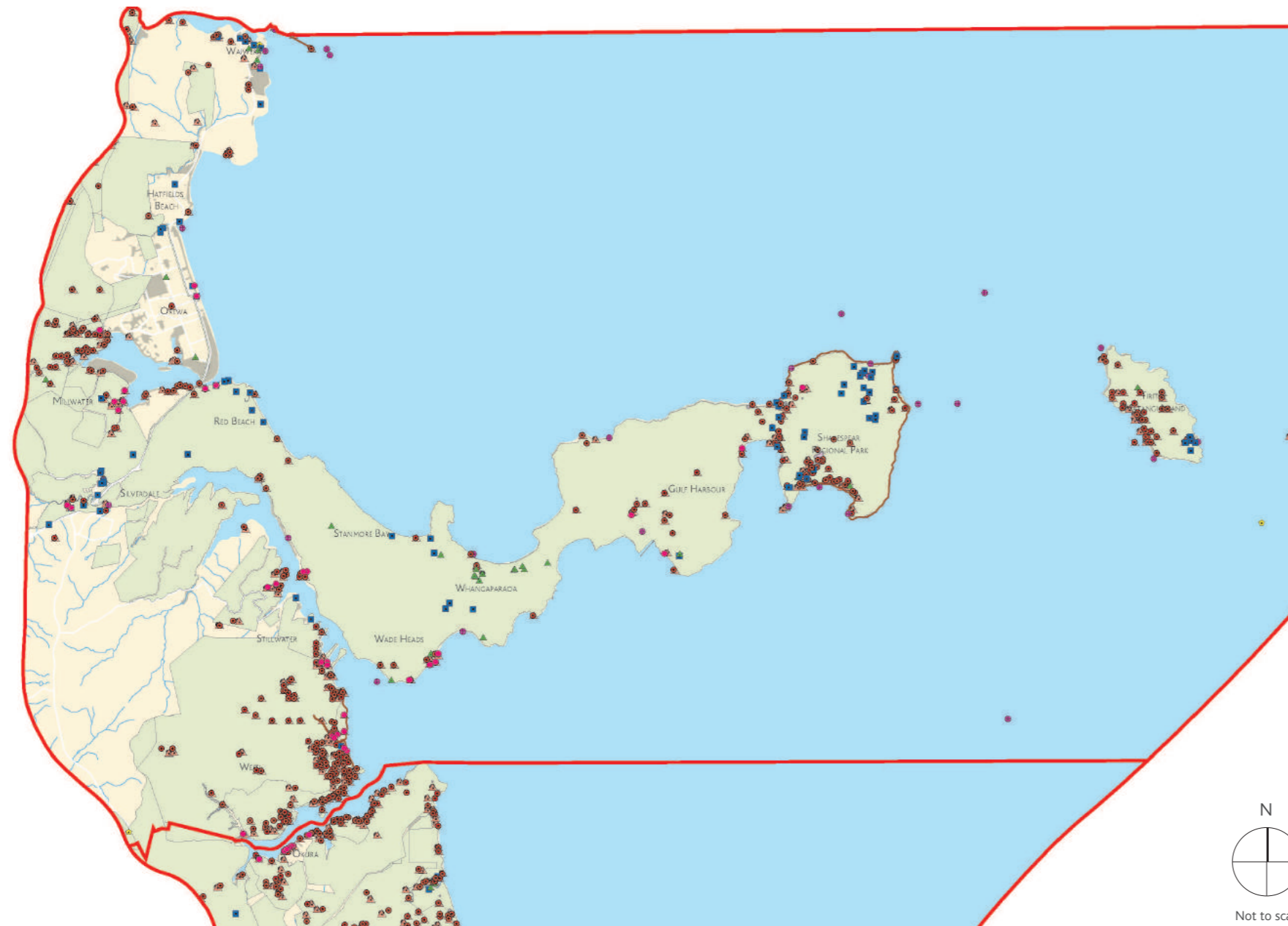
Proposed Greenways connections to schools may be influenced by existing 'walking school bus' routes or may influence the development of the same. Funding is available for walking school bus routes, and it is possible that some connections could be supplemented by this funding stream.

Any easement proposal within the boundaries of a educational facility would need to be firstly consulted with the landowner or leaseholder, and needs to be carefully considered to ensure the safety of students, and minimise any risk of property damage. Some accesses may need to be limited to certain times of day for these reasons.

This map shows 'high level locations of schools and community facilities and is useful for broad context, but this information is also shown on the detailed network plans, where the connections can be more clearly illustrated.

LEGEND:

- Local Board Boundary
- Streams / Rivers
- Road network
- Ministry of education
- Places of Worship, Church
- Recreational, Playground
- Recreational, Swimming Pools, Sports Complexes,
- Shopping Centres, Shopping Centre
- Sports Complexes, Golf Club
- Tourism, Information Centre
- Water Transport Services, Boat Ramp
- Water Transport Services, Ferry Terminal
- Community Hall
- ★ Council Local Board Office



Cultural Heritage Inventory

This map shows sites that have been identified for their cultural heritage value. Auckland Council's GIS database has a Cultural Heritage Inventory (CHI) layer, that was created by the former Auckland Regional Council. The CHI was established to promote sustainable management of cultural heritage by providing easy access to cultural heritage information and should be used as a resource when developing the network.

CHI sites are classified as follows:

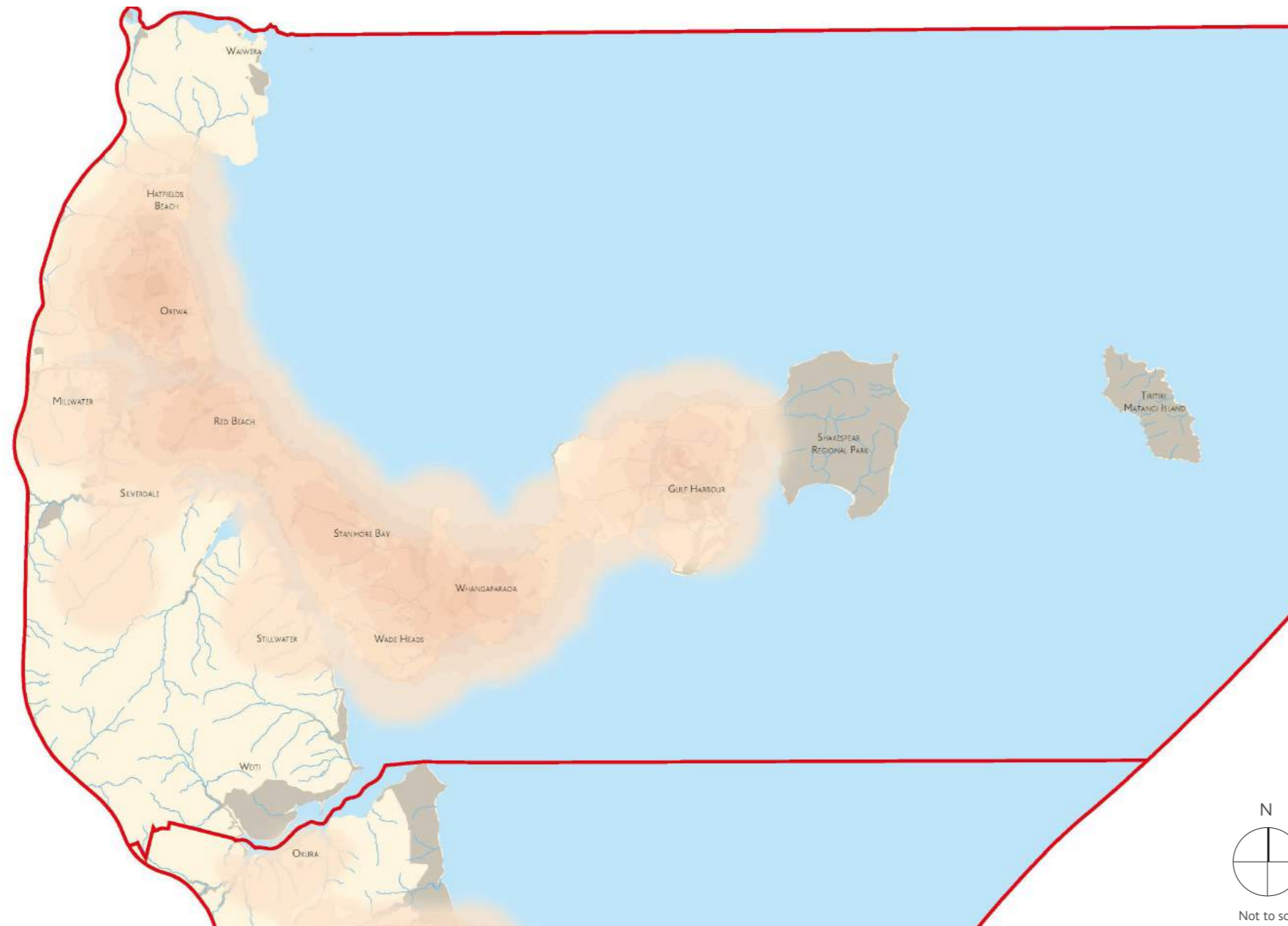
- Archaeological Sites recorded under the New Zealand Archaeological Site Recording Scheme (e.g. midden, pa sites).
- Historic Botanical Sites (e.g. specimen trees in parks).
- Built Heritage Sites (typically early European buildings).
- Maritime Sites (e.g. shipwrecks, wharfs, boatsheds).
- Reported Historic Sites (e.g. known locations of battles).

The adjacent map clearly shows a clustering of sites of historical interest - most notably around the Okura River mouth and at Shakespear Regional Park. Most of these are archaeological sites, highlighting the significance of these areas to Mana Whenua, although there is also a concentration of historical structures around Shakespear Regional Park.

The presence of these sites can influence the planning of Greenways routes, and the detailed delivery of projects. These sites will place local constraints on the project, but also offer the opportunity to tell stories of the place, making for a more interesting journey, and educating us about our past.

LEGEND:

- | | |
|--|-------------------------|
| Local Board Boundary | Archaeological Site |
| Streams / Rivers | Historic Botanical Site |
| Road network | Historic Structure |
| Priority Coastal And Waterway Areas For Survey | Maori Heritage Area |
| NZAA ArchSite Archaeological Sites | Maritime Site |
| NZ Archaeological Association | Reported Historic Site |
| Historic Heritage Sites | Archaeological Surveyed |
| Crown Owned CHI Sites | |



Population Density

This 'heat chart' map, sourced from the Auckland Plan 2012, shows population densities based on Census meshblock data. It is important to note that Census data is somewhat out of date, due to the delayed census caused by the Canterbury Earthquake. This map does however pick up the higher density in the established and 'flatter' areas of the subdivision, such as Orewa, Manly and Stanmore Bay.

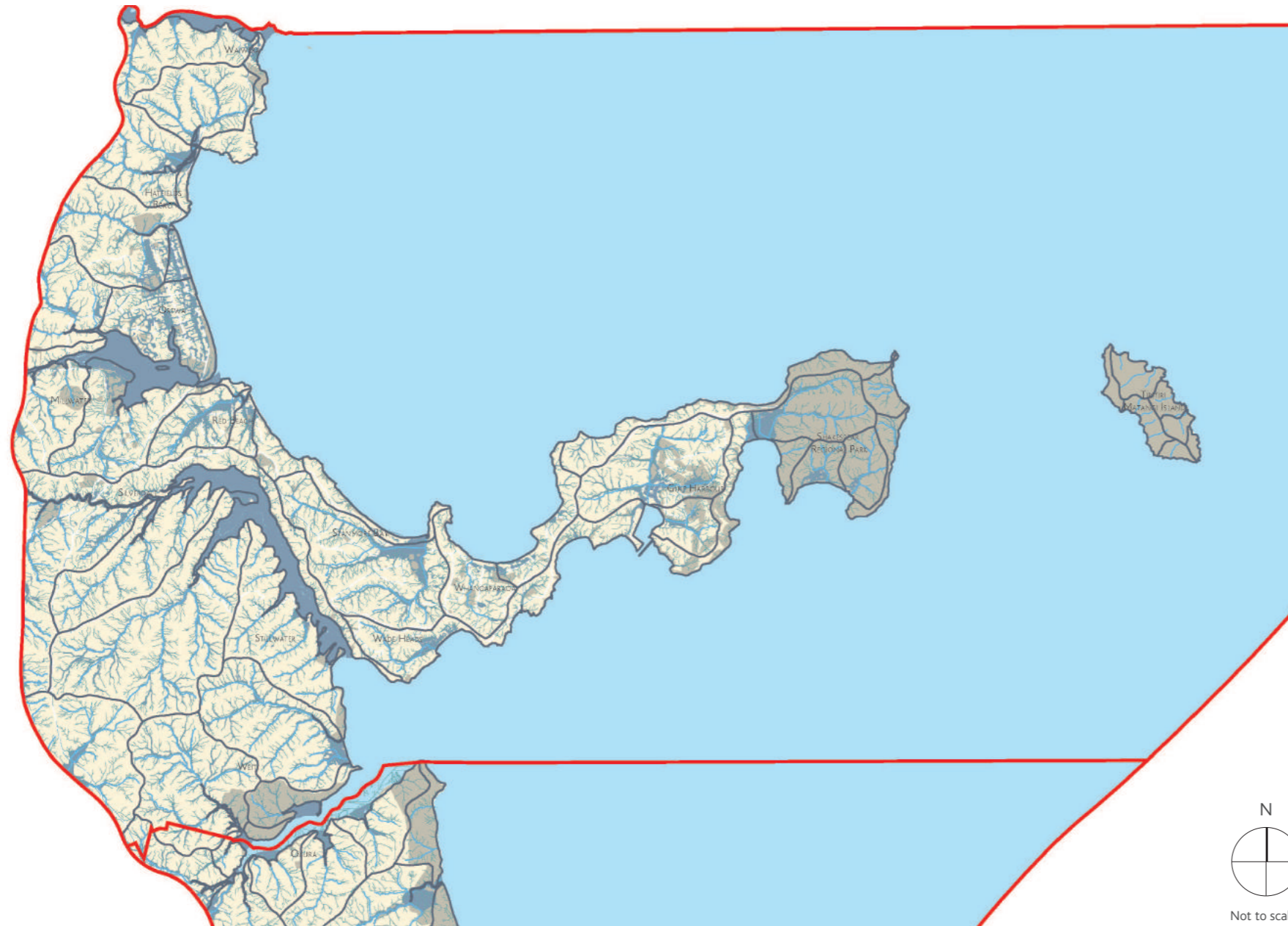
Population density is important in Greenways planning as it shows where potential users will be coming from, and it is logical to focus efforts in these areas (in addition to providing strategic regional connections, which are not as influenced by proximity to housing).

In general, as a city intensifies, residential section sizes become smaller, and residents require recreation facilities beyond their backyard. While this can be perceived as a negative impact of intensification, if well planned, these public open spaces can actually build communities by providing locations and facilities where people from different communities can come together and meet.

This map also illustrates the locations and types of the various urban centres in the subdivision, as described by the Auckland Plan. Three 'town centres' exist, at Orewa, Whangaparaoa and Silverdale, as well as a 'local centre' at Gulf Harbour. Greenways connections to these centres can reduce reliance on private motor vehicles, and in general become very well used.

LEGEND:

- Local Board Boundary
- Streams / Rivers
- Road network



Catchments / Hydrology

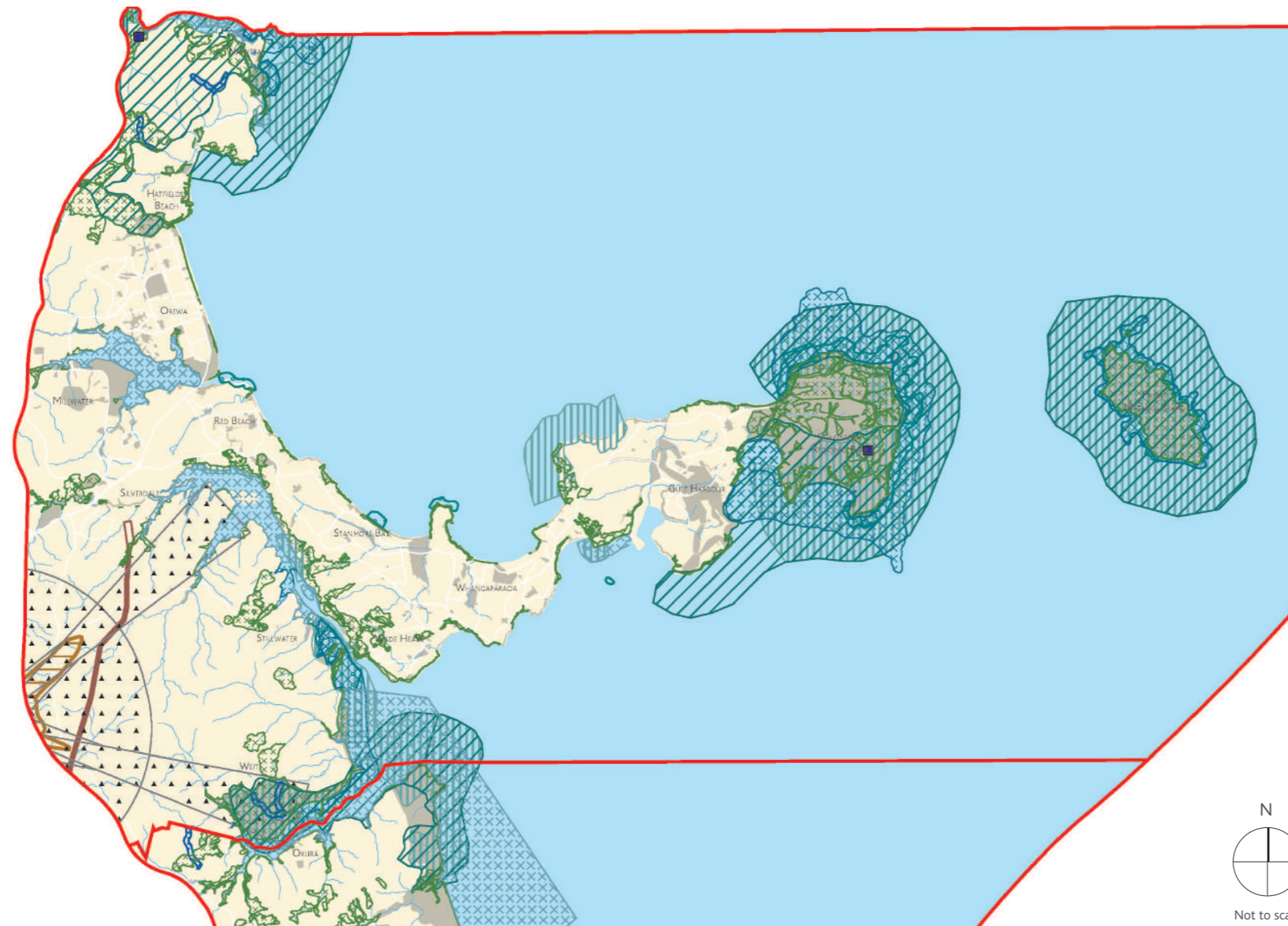
This map shows flood prone areas, flood plains, and flood sensitive areas as well as the existing permanent watercourses. The Greenways network typically aims to follow streams and their tributaries for a number of reasons, including:

- Greenways projects along waterways offer opportunities to enhance local ecology, including riparian planting, habitat restoration and daylighting/renaturalisation, all of which have great potential in strengthening Auckland's network of ecological corridors.
- Riparian planting provides more absorption of overland rainwater runoff, which reduces pressure on peak flows and therefore reduces flooding frequency downstream.
- Riparian planting also acts as a filtration system, improving water quality as pollutants from overland flows are removed.
- The relatively consistent slope of waterways means that they are good 'connectors', offering comfortable, high amenity pedestrian and cycle routes to travel between places.
- Well planned planting and pedestrian/cycle facilities will ensure that Greenways along waterways will be highly used, which will in turn provide increased stewardship by users alerting authorities of incidents of pollution, dumping etc.
- There are educational benefits of opening up and restoring our stream corridors, to tell the stories of local ecology to our communities and this in turn can further increase stewardship.
- These areas were highly valued by mana whenua, and restoring and telling the stories of these places helps connect us to our past, and honour/respect our heritage.

There are many volunteer organisations throughout Auckland who are committed to improving the natural environment along our waterways. It is highly recommended that the Council and Council Controlled Organisations (CCOs) continue to work together with these volunteer organisations for delivery and stewardship of any specific Greenways projects involving waterway restoration.

LEGEND:

- Local Board Boundary
- Streams / Rivers
- Road network
- Natural Drainage Sub-Catchments
- Streams
- Overland Flow Paths
- Flood Plains



Ecological Considerations

This map shows Significant Ecological Areas (SEA's) and other areas of ecological or landscape significance as identified within the Draft Unitary Plan. Within the Hibiscus Coast subdivision, there are a large number of important ecological areas, both terrestrial and coastal - clustered around the Okura River, Shakespear Regional Park and the Waiwera hills.

A SEA is an area of significant indigenous vegetation or a significant habitat of indigenous fauna, that is identified for protection within the Unitary Plan. Any vegetation removal or alteration within SEA would require a Resource Consent. More stringent provisions may also apply for earthworks and other activities, to ensure development is directed away from SEAs as much as possible.

Five criteria were used to assess whether or not a natural area was significant. Those criteria were: representativeness; threat status and rarity; diversity; stepping stones, migration pathways and buffers; and uniqueness or distinctiveness. An ecological assessment of a site against these criteria was used to determine a site's significance.

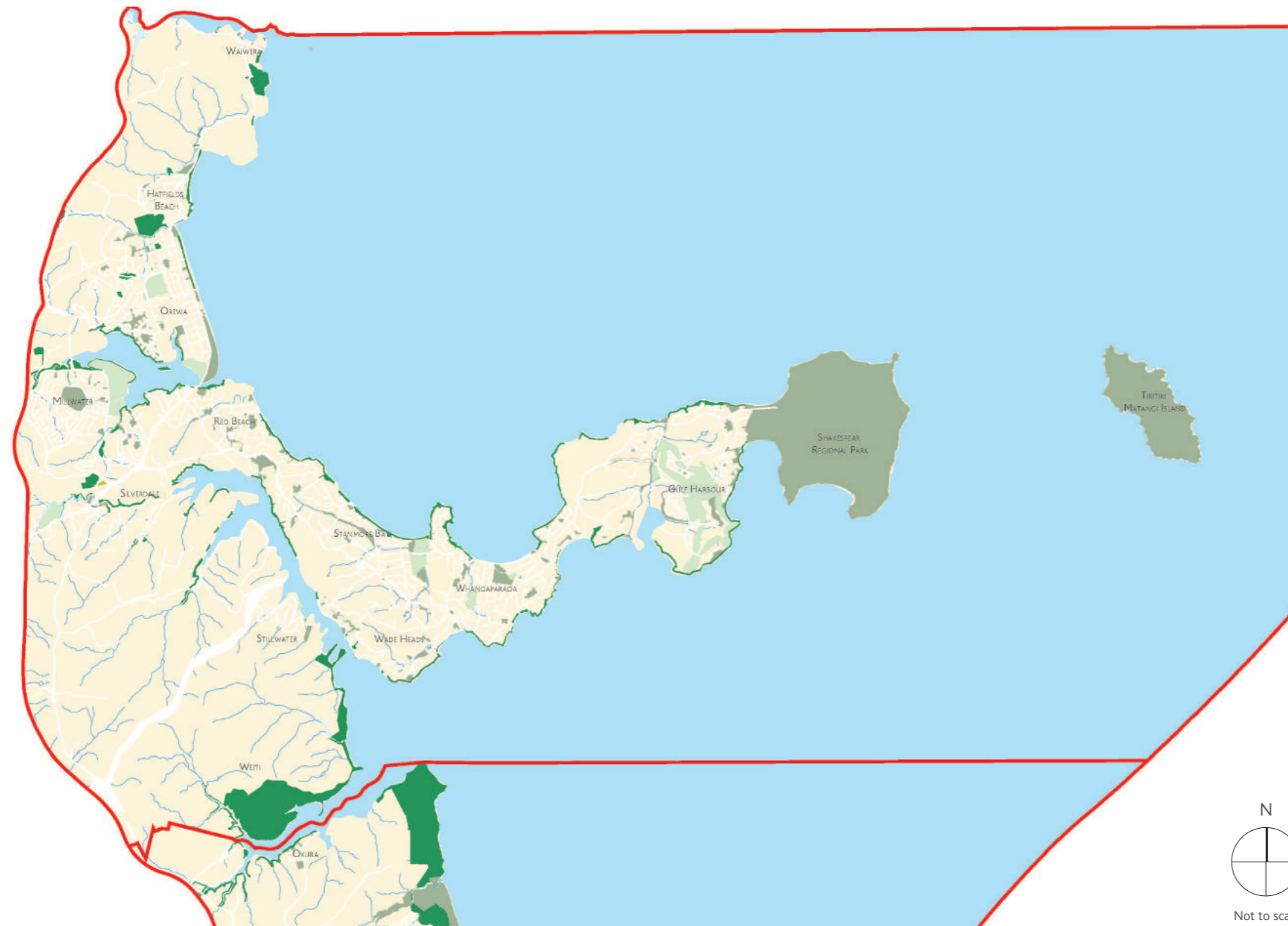
There is also a document called the 'Northwest Wildlink Prioritisation Project' which sets out the ecological areas of most importance in the area, and identifies them as ecological stepping stones. These 'stepping stones' are shown generally on the map to the left; Tiritiri Matangi, Shakespear Regional Park,, Weiti River, Waiwera region, and Okura region.

In developing the Hibiscus and Bays Greenway network, consideration to the impacts on areas of ecological importance was given, however due to the scale of this project, a detailed assessment of potential impacts of each possible connection has not been made. This would need to be done as initial 'feasibility planning' for any individual route when it comes to be delivered. At this time impacts on vegetation or wildlife, and any positive contributions that the project could make would be considered.

Ultimately there is a trade-off between ensuring the viability of these important spaces, but also allowing people to experience and enjoy them, and in turn increasing environmental awareness and custodianship within a broader section of the population.

LEGEND:

- | | | |
|---|---|--------------------------------|
| Local Board Boundary | High-Use Aquifer Management Areas Overlay | High Natural Character Overlay |
| Streams / Rivers | Airport Approach Surface Overlay | |
| Road network | Aircraft Noise Overlay | |
| Terrestrial | National Grid Corridor | |
| Marine 1 | National Grid Yard | |
| Marine 2 | Outstanding Natural Features Overlay | |
| Natural Stream Management Areas Overlay | Outstanding Natural Landscapes Overlay | |
| Wetland Management Areas Overlay | | |



Parks and Open Space

This map shows all land zoned open space within the Auckland Unitary Plan, and is an important map as Greenways generally link areas of open space together, via quiet slow speed streets. The zoning breakdown of the open space is important as it sets out the types of planning controls that each project would be delivered under.

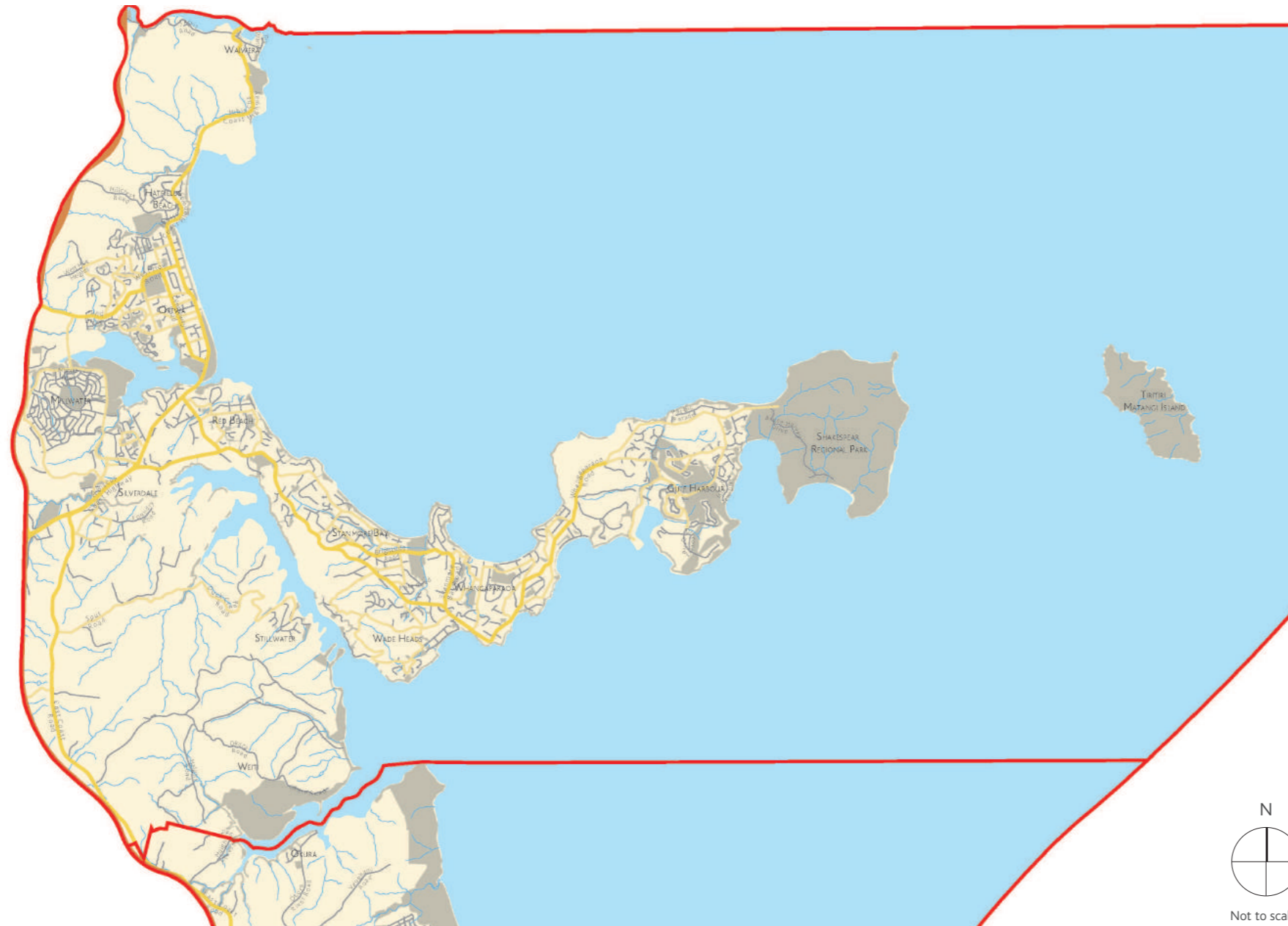
Compared to other areas of Auckland, open space provision in the 'built up' areas of Orewa and Whangaparaoa appears relatively high. Provision is skewed somewhat by several very large open space areas, notably Shakespear Regional Park and the Okura Estuary Scenic Reserve, but even without these, it is well distributed across the residential areas.

This map shows that open space is predominantly clustered around the area's natural features - watercourses and the coast. Open space and recreational destinations are quite well spread across the subdivision, other than in the relatively undeveloped northern section, where it can be argued there is not the need yet. Open space in this area will develop as population grows there over time.

This map also shows a relative lack of open space in the rural areas of the subdivision. As these areas develop into residential zones as envisaged (in some areas) by the Unitary Plan, there will be requirements for accompanying open space. Whether developed by Council or the developer, incorporation of Greenways networks at this stage of delivery is much more efficient than retrofitting an existing residential area, and is to be encouraged.

LEGEND:

- Local Board Boundary
- Streams / Rivers
- Road network
- Open Space - Conservation Zone
- Open Space - Informal Recreation Zone
- Open Space - Sport and Active Recreation Zone
- Open Space - Civic Spaces Zone
- Open Space - Community Zone
- Water



Road Hierarchy

Existing road hierarchy has been considered when determining the Greenways routes, in order to create safe, desirable and high-amenity environments, encouraging use by as many people as possible.

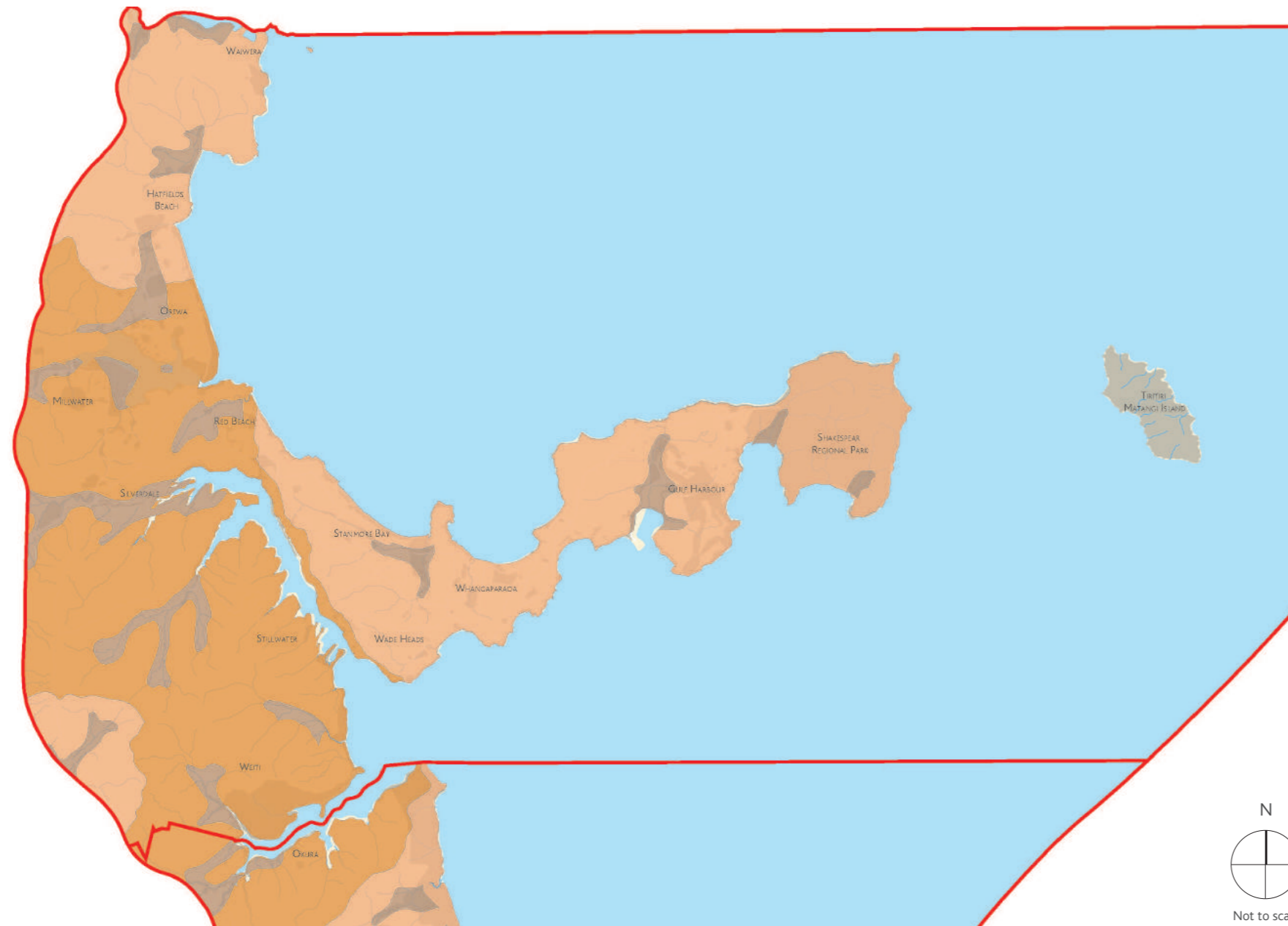
Arterial and Collector roads are typically busy roads that provide for a range of transport types, including cars, buses and trucks. Careful consideration needs to be taken where the green links network intersects or runs along these roads, to ensure desirable/safe routes are formed, and Greenways generally avoid these routes.

Local streets are slower speed environments with lower traffic flows and typically provide more desirable Greenway connections. While these tend to be prioritised when planning Greenway routes, careful consideration at the design stage will still be required in order to ensure adequate passive surveillance and motorist awareness of pedestrians, cyclists and recreational users.

The road hierarchy also affects potential for street 'greening' initiatives to support the green links network. Methods for providing safe crossing points will also be affected by the road hierarchy - for instance, un-signalised crossings are unlikely to be permitted on arterial roads.

LEGEND:

- Local Board Boundary
- Streams / Rivers
- Motorway
- Arterial Road
- Collector Road
- Local Street



Soil Types

The Hibiscus Coast subdivision is situated on the east coast of Auckland's North Shore. While the underlying geomorphology of the Auckland region is heavily influenced by its volcanic history, in this area the soils are generally from more sedimentary origins - with the 'Waitematā Basin' being the underlying process at play here.

The Waitematā Basin formed quite rapidly between 24 and 18 million years ago, and extended from the North Waikato to Whangarei. This underwater landform collected sand and mud from eroding landforms to the west, including the Manukau volcanoes, and the giant Waitakere Volcano further west. This sediment was dominated by interbedded silts and muddy sands with some coarser grained sediments.

As the basin sunk, the sediments were buried to greater depths. The basin is thought to have subsided to depths of between 1000 and 3000 metres. The sediments infilling the basin were compressed, consolidated and in places cemented to form a thick sequence of inter-bedded weak siltstone and muddy sandstones. Between 15-17 million years ago, this area was uplifted via tectonic activity, and this geological sequence is now collectively referred to as the Waitematā Group. Most of the East Coast Bays area comprises soils from this group.

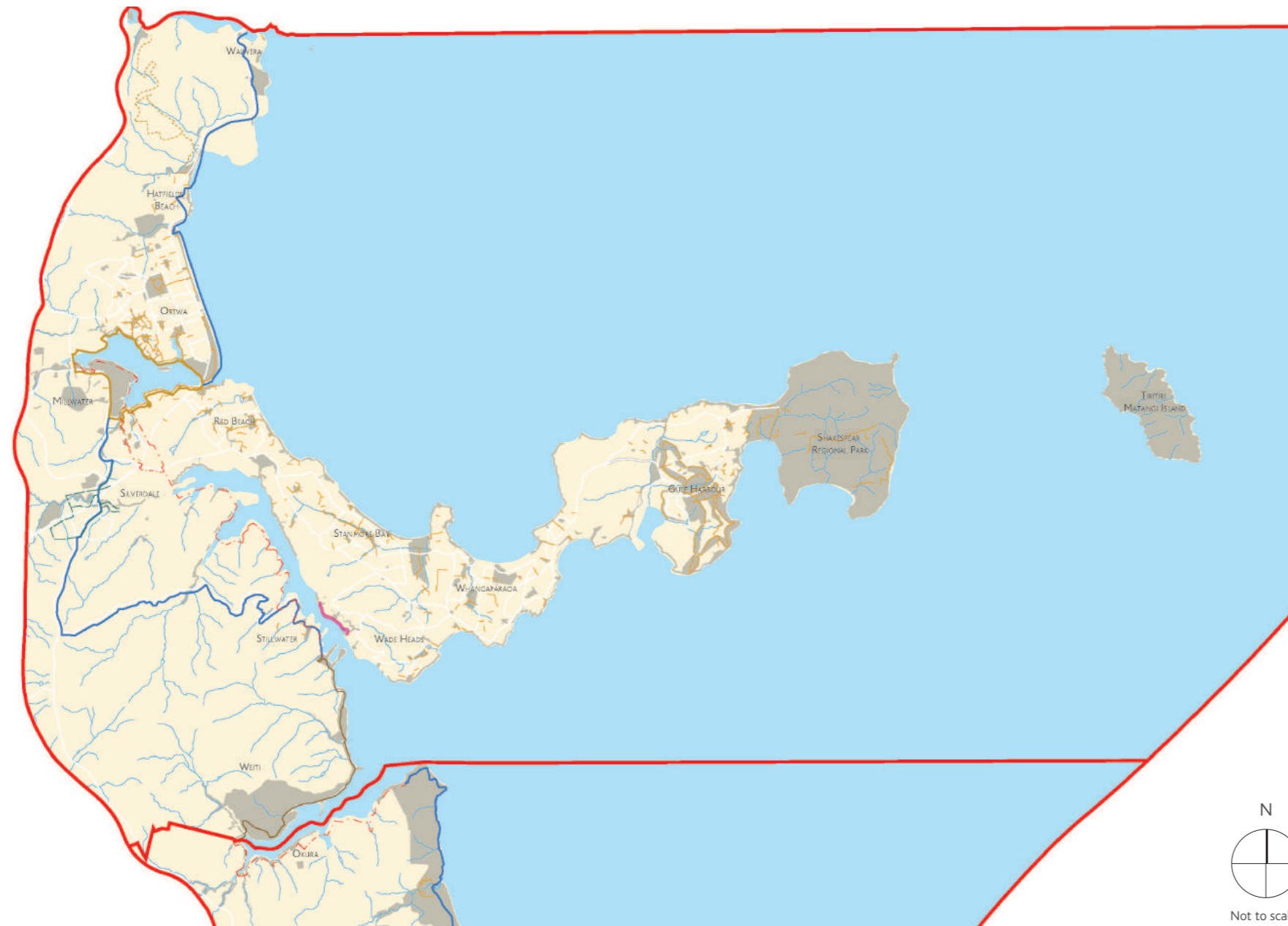
Three soil types are found here. The Whangaparaoa Peninsula and Waiwera Hills are made up of Waitematā residual soils, formed by the processes just described, and relatively fertile. The hills north of the Okura River are mostly greywacke and limestone soils, and there are also numerous pockets of low-lying alluvial soils, which have been formed via stream erosion/deposition processes more recently. These are found in the areas where the stream gradient flattens out, allowing the sediment load in the water to drop out.

The residual soils of the Waitematā Group are predominantly made up of mudstone and sandstone, and while relatively fertile, is readily eroded due to the soft nature of this subgrade.

The areas of alluvial soils are a mix of mud sand and gravel, often with organic matter, and provide the most fertile areas found locally. These would have typically been colonised by Kahikatea and other broadleaf species.

LEGEND:

- Local Board Boundary
- Streams / Rivers
- Road network
- Alluvial Soils
- Greywacke and Limestone Soils
- Waitemata Residual Soils














Walking Routes

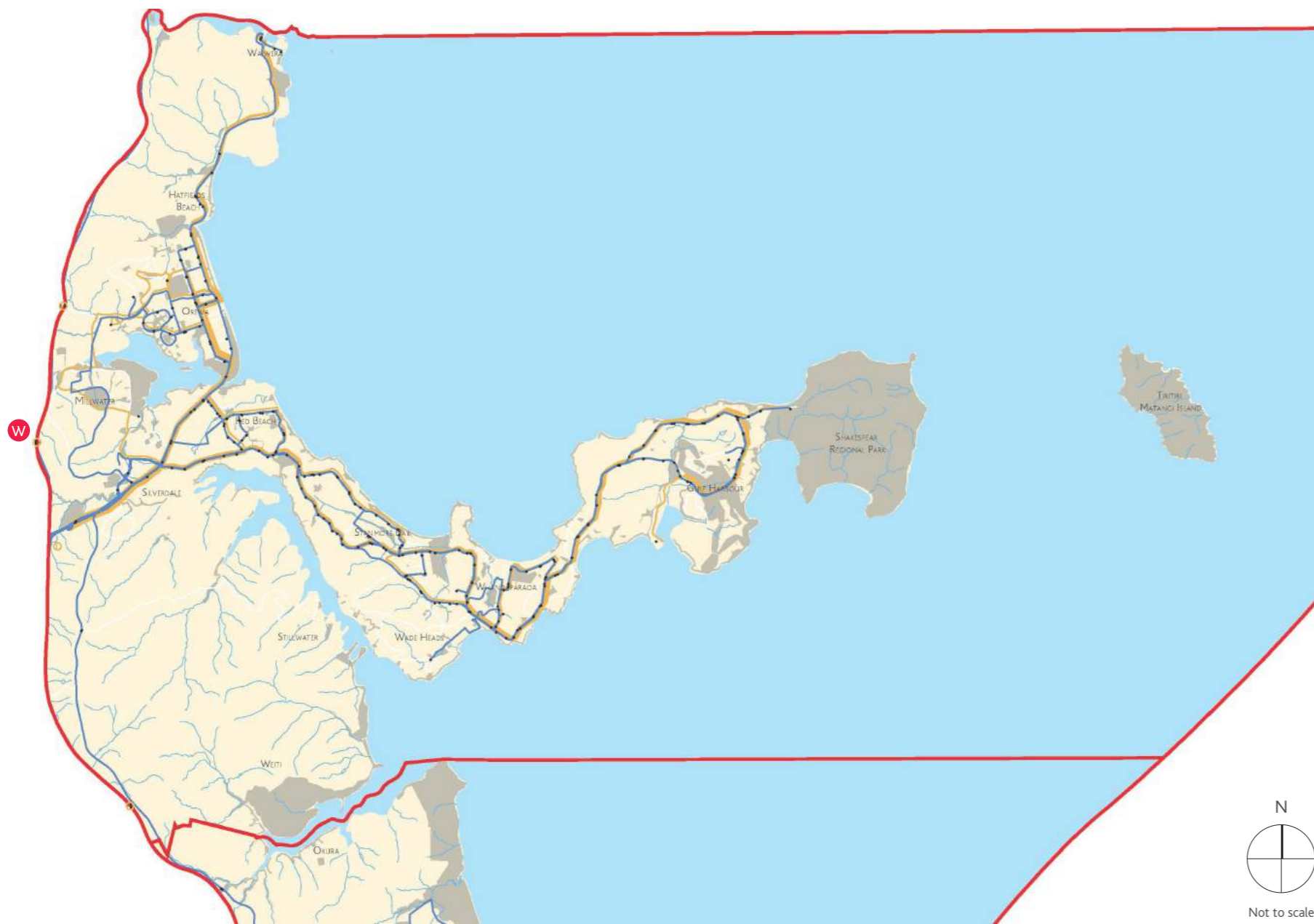
This map shows existing walking routes within the Hibiscus Coast subdivision. The intent of the Greenways plans in this area will be to overlap with (or connect to) these established walking routes wherever possible.

The Hibiscus Coast area is blessed with some of the region's finest scenic walks. The Te Araroa national trail runs down the eastern coastline here, and tying into this are a number of locally and regionally significant walks. These include; the Okura Scenic Reserve walkway, and Te Ara Tahuna walkway around the Orewa Estuary. At the end of the Whangaparaoa Peninsula, Shakespear Regional Park contains an excellent range of walkways suitable for all abilities. Further south, the Fairhaven Walkway runs part way along the Weiti River on the Whangaparaoa side. There are also many coastal cliff top and beach front walkways. The aim of the Greenways network is to strengthen and increase use of these areas, by making them easier to access without the need of a car.

The existing paths shown on the map have been compiled from Auckland Council and Auckland Transport databases with some additional information sourced from site visits and local knowledge overlaid on top of this.

LEGEND:

- | | |
|---|--|
|  Local Board Boundary |  Fairhaven Walkway |
|  Streams / Rivers |  Proposed Silverdale Cycleway |
|  Road network | |
|  Existing Walkway | |
|  Proposed Chin Hill Track | |
|  D.O.C. Okura Scenic Walkway | |
|  Te Araroa National Walkway | |
|  Crimson Walkway | |
|  Te Ara Tahuna Walkway | |



Existing and Proposed Public Transport

Existing and planned public transport routes are illustrated on the adjacent map, showing that the Hibiscus Coast subdivision is relatively well served by public bus services, although other modes of public transport found in Auckland, such as rail or ferry are not available here. The Northern Busway does not extend this far north, but due to its popularity and success, there is discussion around extending this facility to Silverdale or even Orewa. Currently, buses use the motorway corridor as far north as Silverdale, then take a slower route along the Hibiscus Coast Highway - the lack of a direct route likely limits the number of day visitors using public transport, but it is expected that this situation will improve over the coming years.

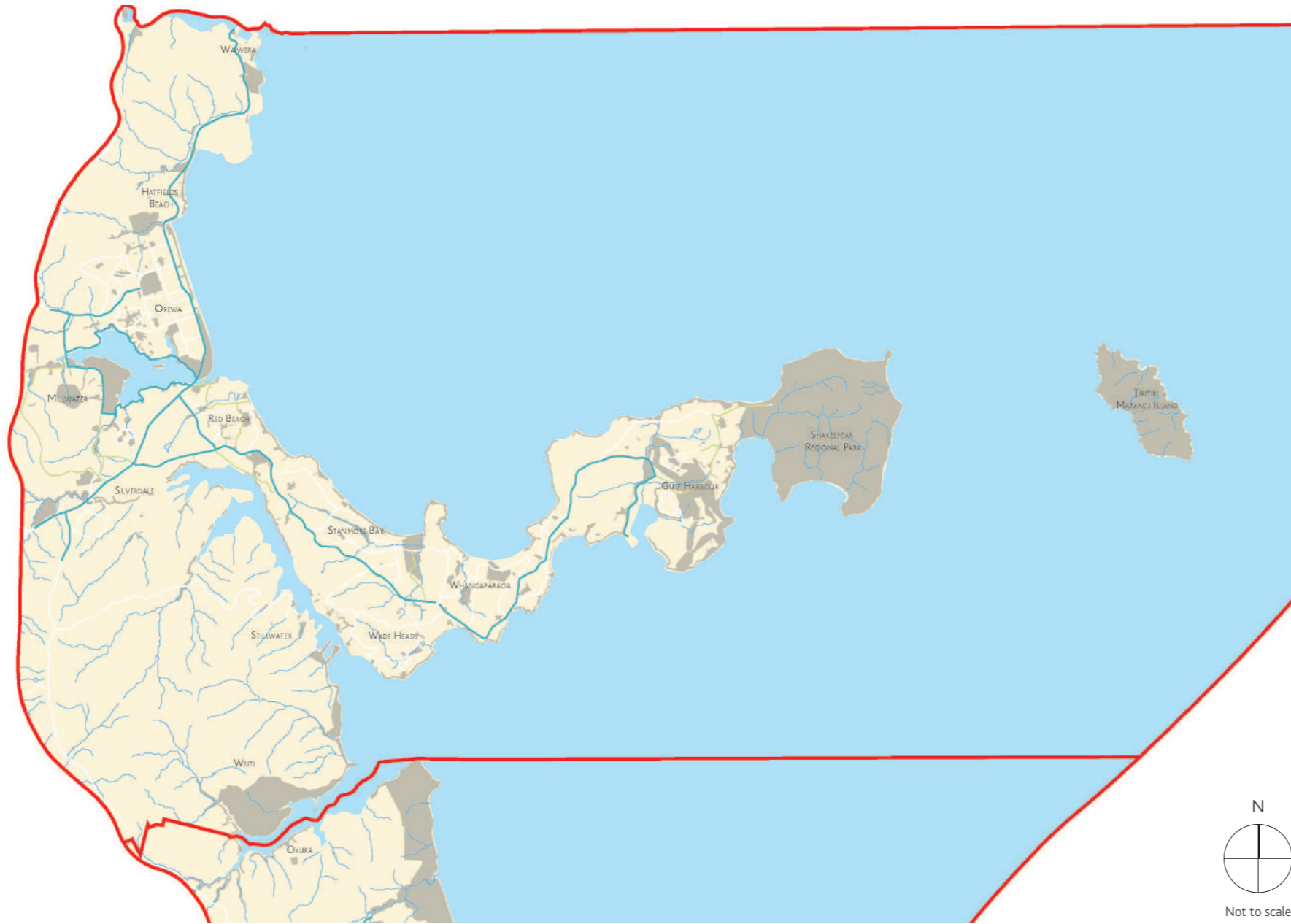
In planning the Greenways network, bus stops were taken into account, as without the presence of a rail or ferry network in this area these are the most likely 'entry points' for visitors into the area on 'day trips' and walk the Greenways network, without use of a private motor vehicle.

The bus routes themselves were also taken into consideration, as these typically offer the least potential for creating the types of 'slow speed/ high amenity' routes that Greenways seek to provide. Buses also present a physical risk to cyclists, both perceived and actual.

On-road Greenways therefore avoid bus routes wherever possible, although links to bus stops have been taken into account, where suitable.

LEGEND:

- Local Board Boundary
- Streams / Rivers
- Road network
- Bus Stops
- Existing Bus Routes
- Proposed Bus Routes
- Proposed Northern Busway Station



Cycle routes - Auckland Cycle Network

This map combines the draft Auckland Cycle Network (ACN). The draft ACN is based on the Regional Cycle Network (RCN), developed by the former Auckland Regional Transport Authority in conjunction with former legacy Auckland councils and the NZTA. The draft ACN is driven by the Auckland Plan growth projections and the Auckland Integrated Transport Plan 'One Network' approach, both of which share an estimated completion date of 2040.

The draft ACN (shown on the adjoining map) is broken into three types of cycleways:

- Metros
- Connectors
- Feeders

'Cycle Metros' offer the highest level of service to the cyclist, in that they are dedicated connections, continuous, direct and traffic free. They typically exist along motorway or railway corridors. There are currently no 'metros' in existence or proposed for this area.

'Connectors' follow arterial routes, and are designed to connect people quickly and directly to key destinations and public transport nodes. They are usually 'on road' connections, although in Orewa, the most well known of these exists in parkland - this being the Te Ara Tahuna Estuary cycle and walkway.

'Feeders' are local neighbourhood connections. These may include and/or double up with Greenways routes. 'Feeder routes' are intended to connect local attractions, such as open town centres and parks, and typically follow quieter streets.

Within internal officer workshops for the development of the Greenways, Auckland Transport has expressed an in interest adjusting their 'feeder' routes to align with those routes chosen in the Greenways plans.

LEGEND:

- Local Board Boundary
- Streams / Rivers
- Road network
- Connector
- Feeder

Auckland Unitary Plan - Zoning

This map shows the proposed zoning for the Hibiscus Coast within the Auckland Unitary Plan. The Auckland Unitary Plan - once operative - will supercede the legacy council District Plans.

A number of changes are proposed to the zoning of this area under the Unitary Plan, with the vast majority of the existing area moving to the 'mixed suburban' zone, along with an intensification to 'mixed urban' around the town centres and business zones. This is an important change, as it implies a likely reduction in 'private' open space over time, and a relative increase in the importance of Greenways in getting people active outdoors. More detail is given below around the three most common residential zones in the area, as well as some of the other common zoning found locally;

A summary of the key zones found in the area includes:

Residential, Single Housing - One house per section, with a two storey limit.

Residential, Mixed Suburban - Up to two dwellings per site, two storey height limit. Three or more dwellings require a non-notified restricted discretionary resource consent to ensure high quality outcomes through assessment against a suite of design criteria. Larger residential developments will be reviewed by the council's Urban Design Panel.

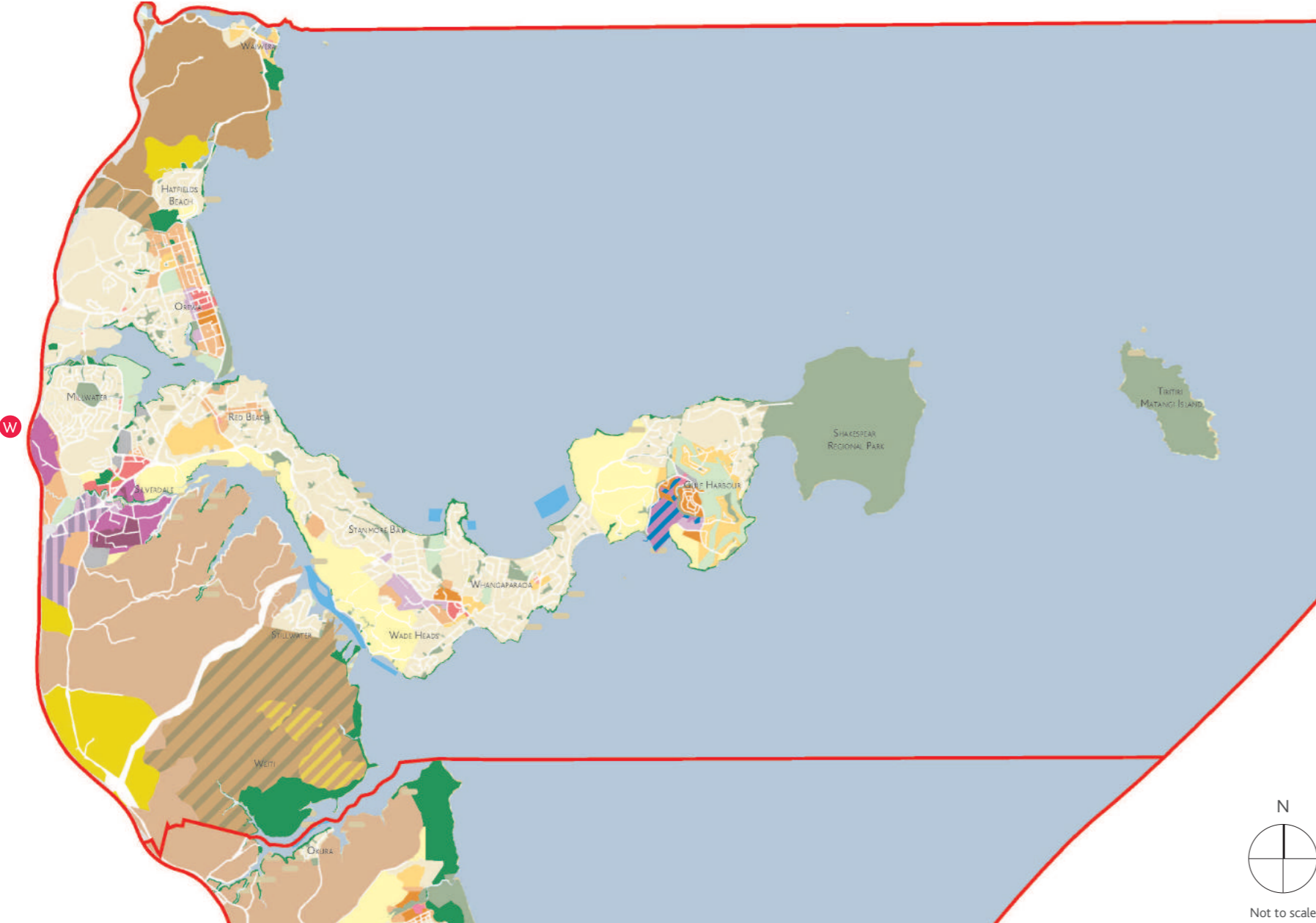
Residential, Mixed Urban - Up to two dwellings per site, three storey height limit. Three or more dwellings require a non-notified restricted discretionary resource consent to ensure high quality outcomes through assessment against a suite of design criteria. Larger residential developments will be reviewed by the council's Urban Design Panel.

Business zones - relate to development strengthening Auckland's network of centres as attractive environments with a mix of uses that provide employment, housing and goods and services at a variety of scales.

Rural zones - protect the productive potential of rural land in the region and its contribution to landscape, natural character and biodiversity values.

Open Space zones - There are five broad zones, used to plan and manage activities on public open space, and more detail is provided on these on a separate map.

Special Purpose zones - The special purpose zones within this area include school zones, cemetery zones and major recreation facilities.



LEGEND:

Local Board Boundary	Open Space - Civic Spaces Zone	Rural - Rural Conservation Zone
Streams / Rivers	Open Space - Community Zone	Rural - Countryside Living Zone
Road network	Business - Town Centre Zone	Strategic Transport Corridor Zone
Residential - Large Lot Zone	Business - Local Centre Zone	Special Purpose Zone
Residential - Rural and Coastal Settlement Zone	Business - Neighbourhood Centre Zone	Coastal - General Coastal Marine Zone
Residential - Single House Zone	Business - Mixed Use Zone	Coastal - Marina Zone
Residential - Mixed Housing Suburban Zone	Business - General Business Zone	Coastal - Mooring Zone
Residential - Mixed Housing Urban Zone	Business - Heavy Industry Zone	Coastal - Coastal Transition Zone
Residential - Terrace Housing and Apartment Buildings Zone	Business - Light Industry Zone	Water
Open Space - Conservation Zone	Future Urban Zone	
Open Space - Informal Recreation Zone	Rural - Rural Coastal Zone	
Open Space - Sport and Active Recreation Zone		

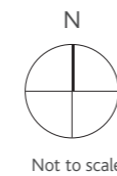
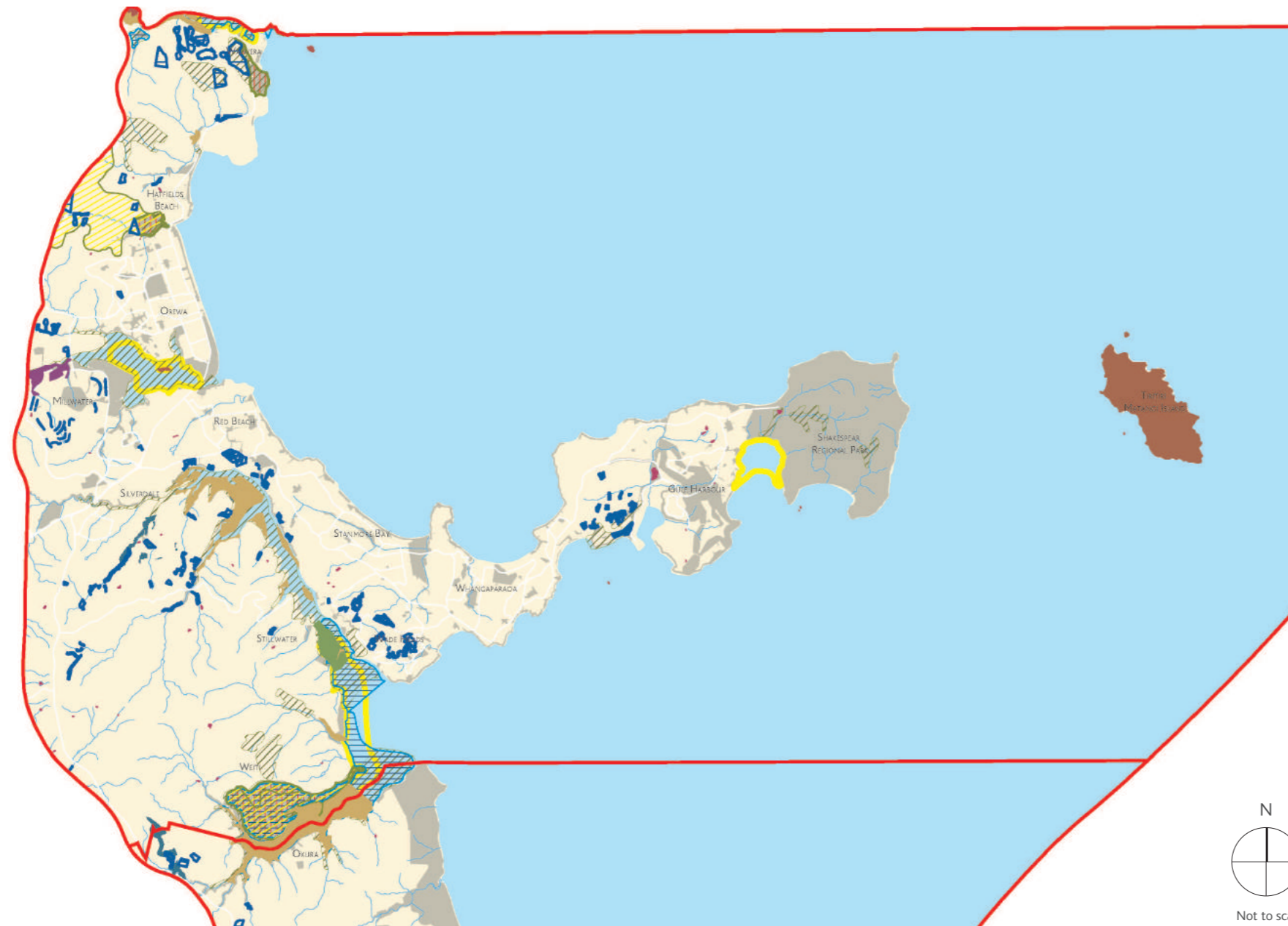
Wildlife and Landscape

North West Wildlink

The Hibiscus Coast subdivision forms the northeastern terminus of the North-West Wildlink (NWW) project - a collaborative effort between Auckland Council, Forest and Bird and Department of Conservation. The aim of the project is to create a corridor of ecosystems linking regional biodiversity hotspots between Auckland's east and west coasts.

Native wildlife needs relatively connected native vegetation cover to move from place to place seasonally. The NWW is expected to provide improved migration routes between Tiritiri Matangi Island (shown adjacent) and the Waitakere Ranges, via the North Shore and West Auckland. Locally, this link begins at Tiritiri Matangi, jumps across to Shakespear Regional Park, and then traverses the ecological areas around Karepiro Bay and Okura Creek, before heading south into the East Coast Bays.

NWW is based on a 'restoration approach' with the focus on enhancing natural capital across existing natural areas, open spaces, production landscapes, stream banks, esplanade reserves, and backyards to provide healthy and safe habitats, refuges and routes for native fauna. These aims are very complementary with the aims of the Greenways network, and the synergy may offer opportunities for joint delivery of some of the planned projects.



LEGEND:

Legend

- | | | |
|-----------------------------|--|--------------|
| Local Board Boundary | Lake margin | Wading Birds |
| Streams / Rivers | Recent lava flows | |
| Road network | Seabird burrowed soils and/or guano deposits | |
| Habitat Protection Location | Shell barrier beach | |
| Coastal rock stacks | PNA Priority Vegetation Sites | |
| Estuary | PNA Priority Wildlife Sites | |
| Gumland | Special Wildlife Interest | |
| | High Conservation Value | |

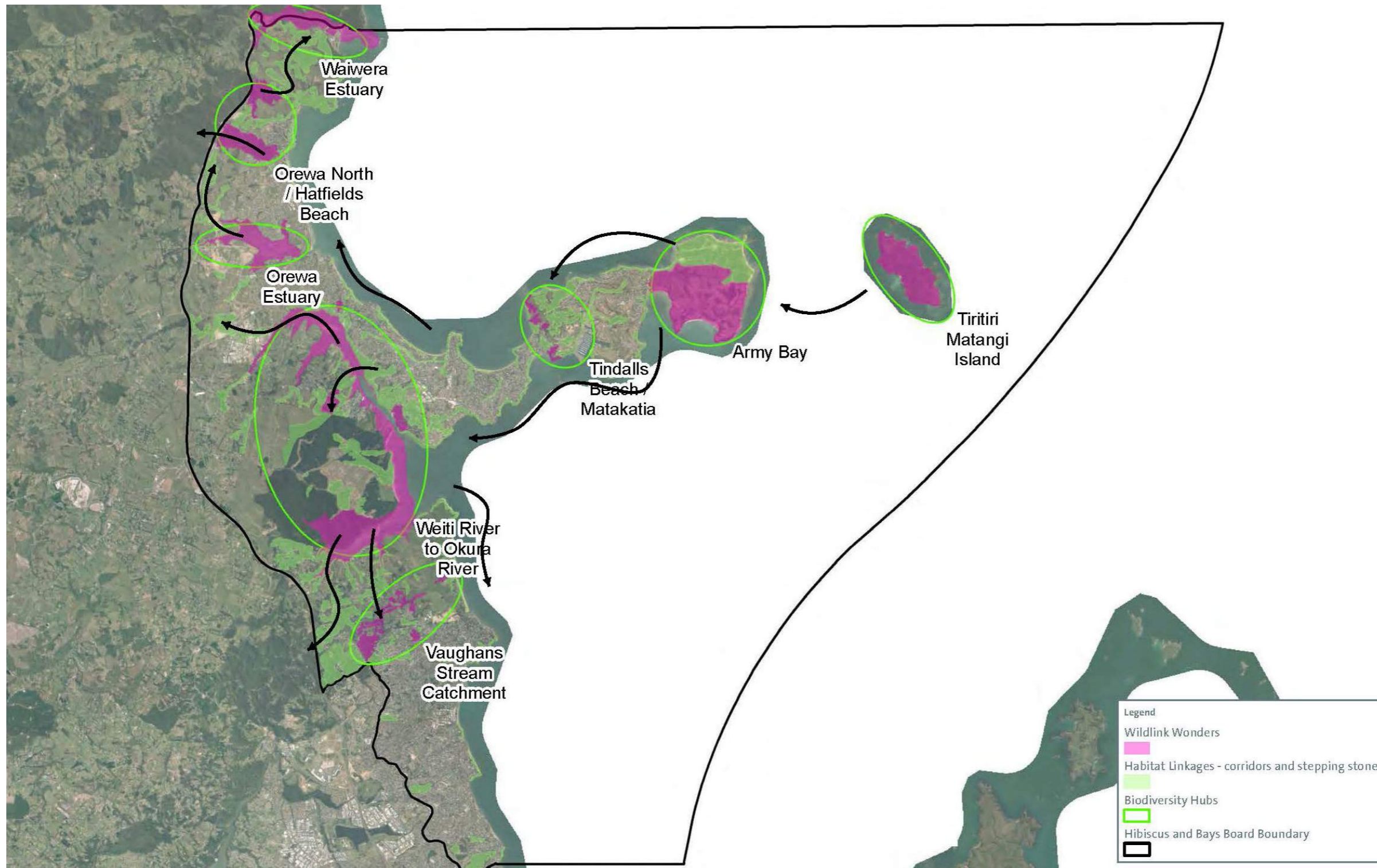


Figure 25. Overall NW wildlink diagram. Image taken from Boffa Miskell 'North West Wildlink Prioritisation' report.

North West Wildlink Prioritisation Maps

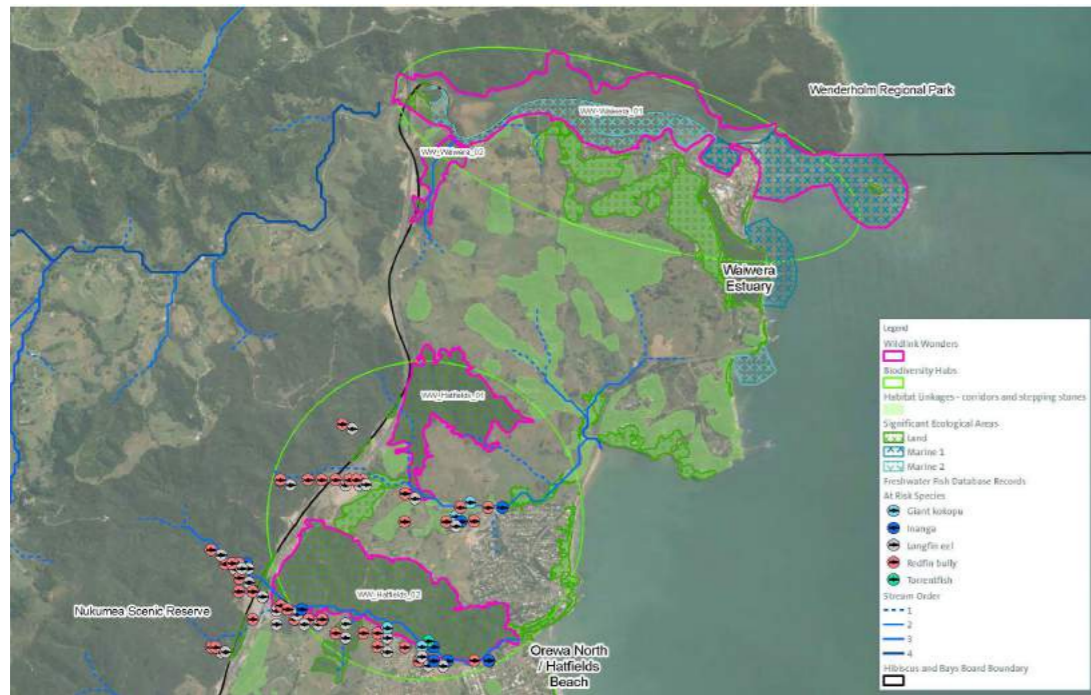


Figure 26. Waiwera ecological links. Image taken from Boffa Miskell 'North West Wildlink Prioritisation' report

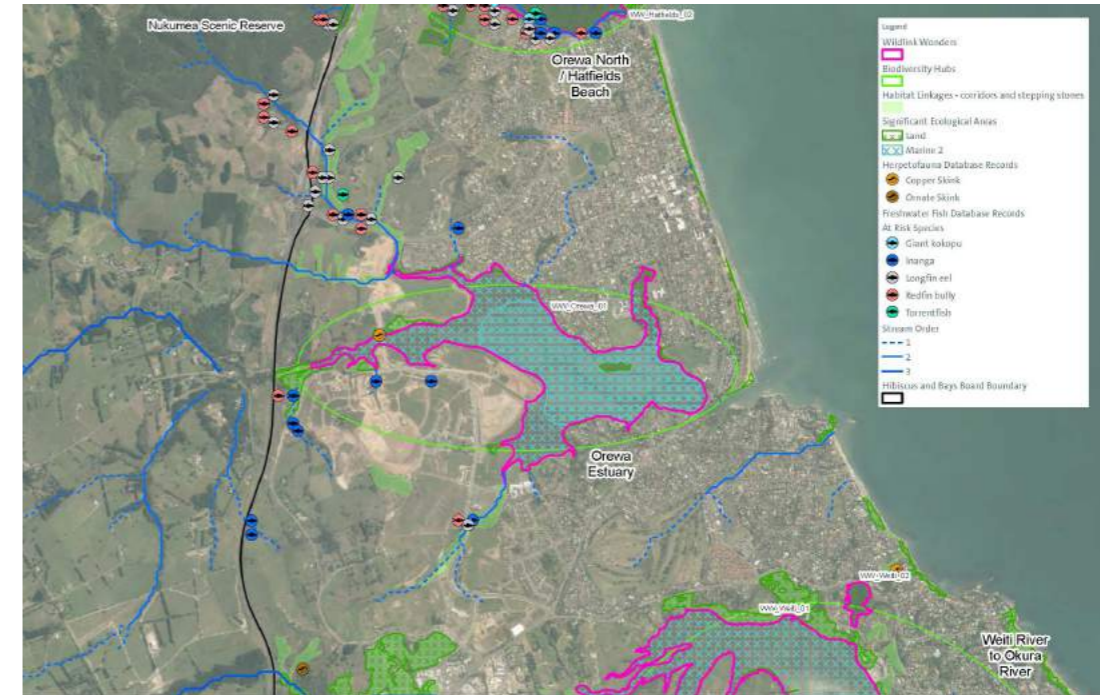


Figure 27. Orewa ecological links. Image taken from Boffa Miskell 'North West Wildlink Prioritisation' report

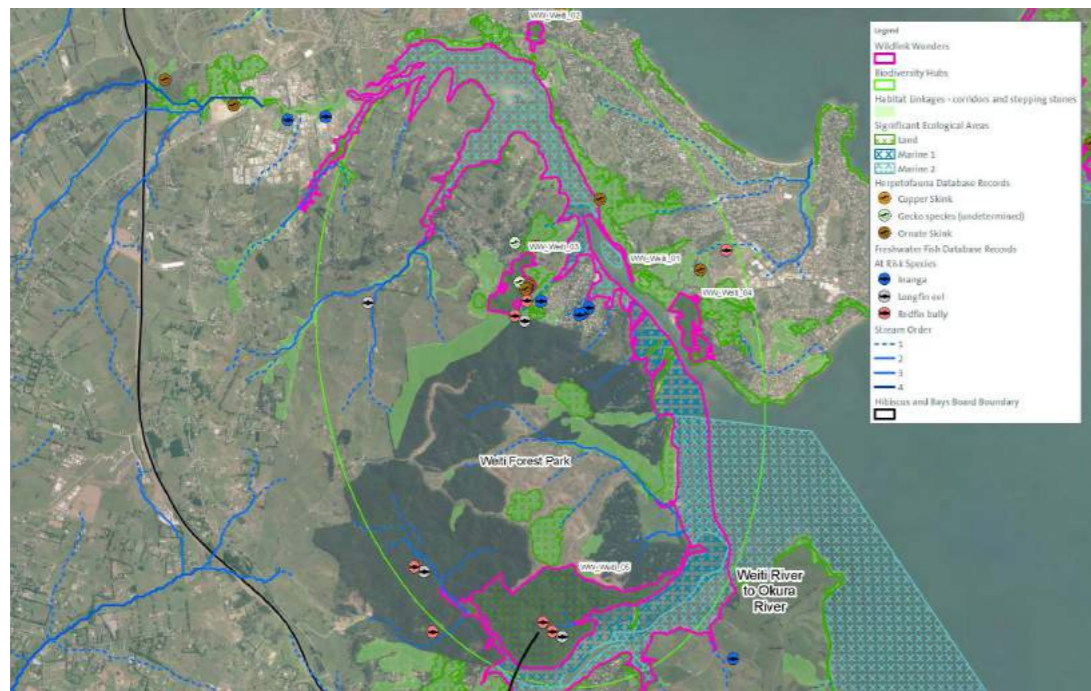


Figure 28. Weiti ecological links. Image taken from Boffa Miskell 'North West Wildlink Prioritisation' report

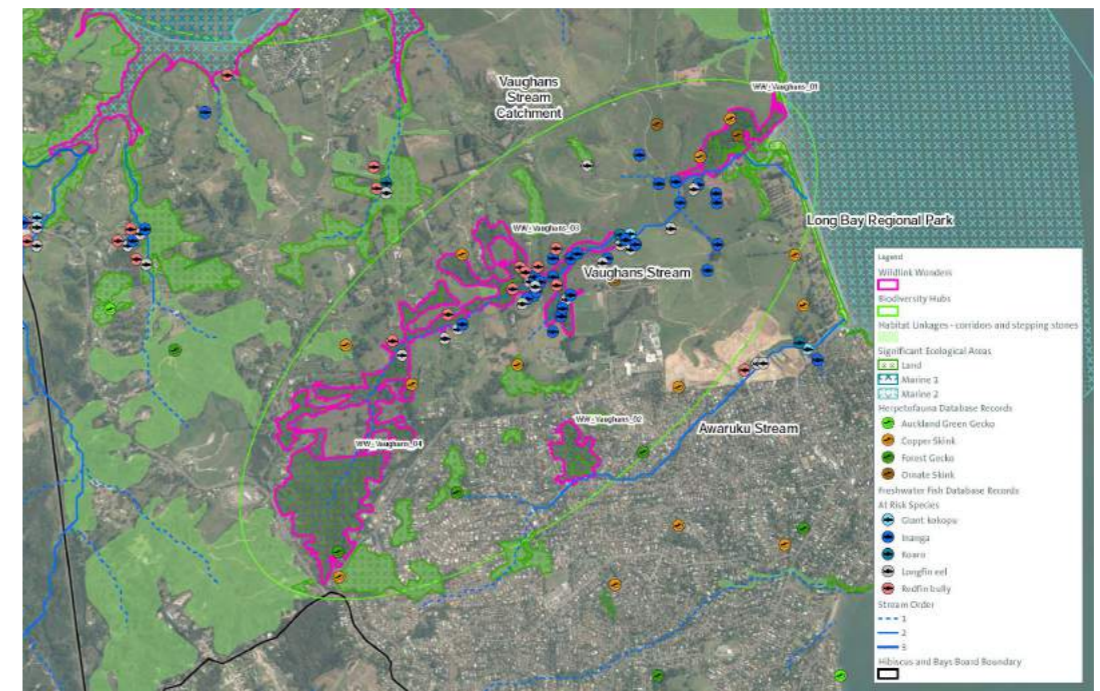


Figure 29. Whangaparaoa ecological links. Image taken from Boffa Miskell 'North West Wildlink Prioritisation' report