

Upper Harbour Greenways

Report, November 2015



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Figure 1. View of Rosedale Park North, looking south. Auckland Council Stock Photo, 2012.

1.0 Introduction and Background

Upper Harbour Greenways Plan



Figure 2. View of the Upper Harbour Motorway and Herald Island, looking north. Auckland Council Stock Photo, 2012.

1.1 Purpose of the document

Purpose

The draft Upper Harbour Greenways Plan outlines the long-term 'Greenways plan' (often termed 'Greenways network') for the Upper Harbour Local Board area. This is a visionary and guiding document intended for use by elected members, Council officers, community groups, private developers and other interested parties.

Visionary document

Greenways plans similar to this have been developed throughout the world, with Portland, Oregon being one of the most successful. Auckland's greenways plans are a series of linked, visionary plans being driven from the 'ground up' by local boards with the long-term aim of greatly improving walking, cycling and ecological connections across the region.

Guiding document

Following from the local board's adoption of their greenways plan, Council's Community Policy and Planning unit will develop an Open Space Network Plan for each of the local board areas. The Greenways plan will ultimately become one 'chapter' of the Open Space Network Plans. The Network Plans will sit under the Open Space Strategy, providing high level direction for improvements to the open space network, specific to each local board area.

1.2 Strategic fit

Links to the Auckland Plan

The Auckland Plan sets Council's long-term strategic direction, and sets out a vision to create the world's most liveable city. It provides an opportunity for integrated planning to significantly improve transport, environmental protection, land uses, housing growth and economic development, with the benefits of one authority responsible for all coordination.

The Draft Upper Harbour Greenways Plan implements priorities and directives in a number of chapters in the Auckland Plan, including:

Section C: The Journey to 2040

C.3: Transformational shifts to achieve the vision

2. Strongly commit to environmental action and green growth
3. Move to outstanding public transport within one network

4. Radically improve the quality of urban living

Chapter 5: Auckland's Recreation & Sport

Priority 1: Encourage all Aucklanders, particularly children and young people to participate in recreation and sport

Chapter 7: Auckland's Environment

Priority 1: Value our natural heritage

Priority 2: Sustainably manage natural resources

Priority 3: Treasure our coastlines, harbours, islands and marine areas

Chapter 12: Auckland's Physical & Social Infrastructure

Priority 2: Protect, enable, align, integrate and provide social and community infrastructure for present and future generations.

Directive 12.8: Maintain and extend the public open space network, sporting facilities, swimming pools, walkways and trails and recreational boating facilities in line with growth needs.

Chapter 13: Auckland's Transport

Priority 3: Prioritise and optimise investment across transport modes

Links to other initiatives

In developing this Greenways plan, a number of related Council and non-Council initiatives have been investigated and - where possible - included in the network:

- former North Shore City Council plans and initiatives;
- the Upper Harbour Local Board plan;
- Auckland Council documents such as the Auckland Plan,
- local stormwater improvement/stream restoration projects;
- the Auckland Cycleway Network (ACN), prepared by Auckland Transport (AT);
- AT projects such as the Albany Highway upgrade;
- individual reserve management plans;
- walking school bus routes;
- initiatives currently underway or proposed by community and ecological restoration groups;
- New Zealand Transport Authority (NZTA) proposals, such as the Northern Corridor Improvement (NCI) project;
- Hobsonville Land Company plans and development;
- ATEED proposals; and
- Watercare proposals.



Figure 3. Westpark Marina, Jay Farnworth, 2011



Figure 4. Gills Scenic Reserve, Adele Krantz, 2013

Local Board aspirations

Each Local Board plan is a reflection of what elected members have heard from their community. Feedback gained both formally and informally has been instrumental in shaping these plans, and they provide a touchstone for the aspirations of each area's community.

Development of a 'Green networks' plan is referenced within the vision of the Draft 2014 Upper Harbour Local Board plan;

"We love our access to parks and reserves, and a Green Networks Plan will help us to use as much of our green space as possible."

"We want you to be able to move around and between your neighbourhoods, so we are drawing up a Greenways Network Plan to guide us on how to make walking and cycling between our parks and reserves easier."

The Upper Harbour Local Board Plan works towards creating the world's most livable city at a local level, and sets priorities to deliver this vision. The following priorities are supported by this Greenways Plan:

High quality sport and recreation facilities

"Our facilities provide us with opportunities to participate in a range of activities to keep us active and healthy."

A protected natural environment

"We have easy access to safe and beautiful reserves, parks and beaches, where we can relax and enjoy ourselves. "

"We want you to be able to move around and between your neighbourhoods, so we are drawing up a Greenways Network Plan to guide us on how to make walking and cycling between our parks and reserves easier."

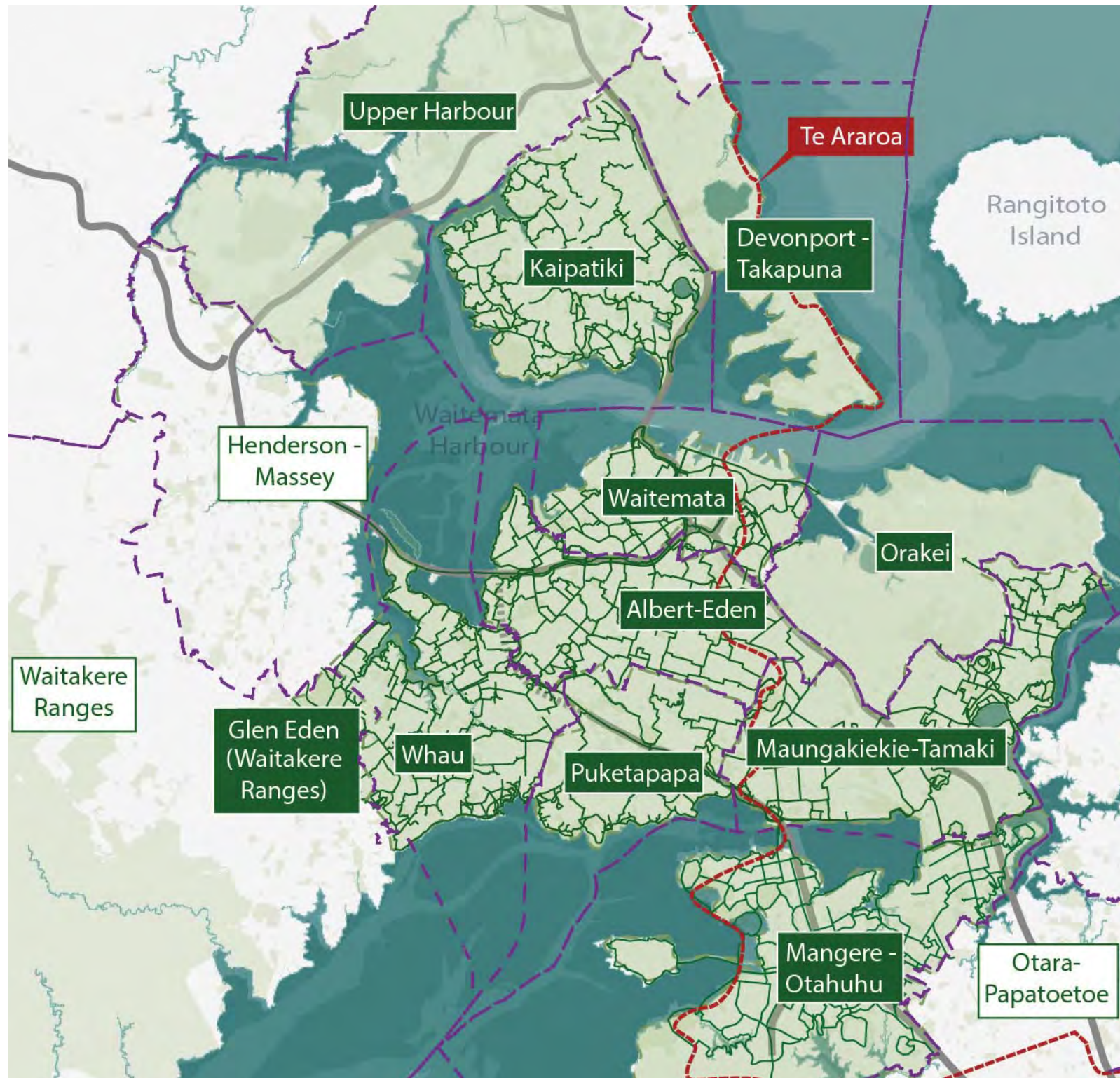
"We will investigate connecting pathways in Lucas Creek Reserve in Paremoremo, Luckens Reserve in West Harbour and Oratau Reserve in Greenhithe, and creating bush walks in Albany's Burnside Escarpment."

Our expanding communities need more open space, so we are investigating what can be done in Hoskins Reserve in Albany and what we need to do to develop the former Rosedale Landfill."

A well-connected and accessible Upper Harbour

"We have a well-designed road network with connected bus services, walkways and cycleways across the North Shore. We are well connected to Westgate in the west and our central city, giving us choices as to where we work, study and play."

High-performing Greenways have potential to fulfil a number of the aspirations set out in the 2014 Upper Harbour Local Board Plan.



LEGEND:

- Local Boards with a 'Greenways Plan'
- Local Boards - currently no 'Greenways Plan'
- Te Araroa Walkway (national walkway)
- Local Board Boundaries



Not to scale

1.3 What is a 'Greenways Plan'

General Definition

Generally, Greenways Plans aim to provide cycling and walking connections which are safe and enjoyable, while also improving local ecology and access to recreational opportunities. To achieve this, Greenways may cross existing areas of parkland, and follow street connections between parks. The network typically follows natural landforms such as streams and coasts as well as man made features such as streets and motorways. Greenways can take many forms, and the images on page 11 show what a greenway could look like in a variety of settings.

The adjoining map shows other Greenways Plans either under development or adopted by participating local boards. Each board sets their own Greenways definition for their respective areas, based around the common aim above.

Upper Harbour Local Board Greenway definition

The Upper Harbour Greenways Plan seeks to create a network of greenways that responds to Upper Harbour's unique environment. Providing and linking circulation networks that are on land and water.

The Upper Harbour Greenways Plan will connect Upper Harbour to wider Auckland, by linking into regional transport networks, and neighbouring local board greenways / green network plans.

This greenways network will include information and educational material that will provide opportunities for communities to get engaged with their community and environment.

Parts of Upper Harbour Local board area are being developed, and this plan will provide practical direction for the development of Greenways in these areas.

The network of greenways will:

- improve walking connections
- improve cycle connections
- improve recreation opportunities
- improve ecological opportunities
- improve community connections
- improve access to streams, rivers and the coast



Figure 5. Sanders Reserve, Jay Farnworth, 2011



Figure 6. Greenhilthe, Luke Harvey, 2014

Network benefits

There are many benefits from developing a network of neighbourhood greenways, including:

Recreation

Improving people's access to outdoor recreation and enjoyment close to their home;

Environmental

Reducing our reliance on fossil fuels by providing attractive and safe alternative transport choices, improving water quality and reducing flooding events through low impact design (LID) measures, and by enhancing ecosystems, habitat sources and ecological niches;

Social

Providing improved opportunities for people to get out of their cars and meet their neighbours, to be engaged with a diverse range of communities and to be connected with local community facilities;

Health

Providing improved opportunities for activity and fitness;

Education

Providing opportunities to learn about the vegetation, wildlife, ecology, history and people of the landscapes that they pass through; and

Economic

High-performing greenways can create improved local employment opportunities as areas become more desirable for businesses and shoppers. Greenways can also provide a tourist destination for international and national visitors.

Transport

Greenways can be used to link schools, workplaces and communities with shops, and public transport routes.

What the greenways might look like

The appearance of the network will vary dependent on its location, for instance, a connection that runs through parkland may look and function quite differently to a connection adjacent to a road or in a built-up urban environment. The adjacent images show what the network could look like in a variety of settings, including:

- parks and reserves and connecting to bush tracks
- coastal areas or alongside streams / estuaries
- adjacent industrial land or residential properties
- connecting to busy urban town centres and/or the Auckland Cycle Networks (ACN) 'cycle highways' or 'connectors'
- adjacent to a minor road and/or the ACN's 'feeder' routes

The surface treatment will vary depending on site specific aspects such as the location of the path, slope gradient and the existing character of an area.

The illustrations on pages 12-13 show a range of potential retrofits which could be carried out to create the 'on road' portions of the greenways network.



7	8	9
10	11	12
13	14	15

FIGURE LEGEND:

Figure 7. Albany lakes, Luke Harvey, 2013.

Figure 8. Paremoremo raft race, Luke Harvey, 2014

Figure 9. Hobsonville Point, Jay Farnworth, 2013

Figure 10. Gills Scenic Reserve, Adele Krantz, 2013.

Figure 11. Greenhilthe, Luke Harvey, 2014

Figure 12. Hobsonville point, Luke Harvey, 2013

Figure 13. Wainoni Park, Jay Farnworth, 2011

Figure 14. Hobsonville point, Luke Harvey, 2013

Figure 15. Rosedale Park, Adele Krantz, 2013

Conceptual imagery for 'arterial' roads

The attached diagrams are draft scenarios for how the greenways **may** look in the road corridor of arterial roads (main roads).

Attributes:

- footpath next to property boundary
- designated off road 'one way' cycle lanes next to each side of the road
- planter beds and street trees between parking bays
- planting or swales/rain gardens separating cyclists and pedestrians (swale crossings / bridges required)
- separation of cyclists and opening car doors (1m 'safety strip')
- rain gardens/swales to filter and detain stormwater runoff from hard surfaces
- 'greenways' signage to highlight the network.



footpath / swale / one way cycle / 1m safety strip median / parking and planting / carriageway



footpath / swale / one way cycle / 1m raised safety strip / parking and planting / carriageway

These are visionary diagrams developed for discussion purposes only. Any specific project would be carefully planned with cost, parking, traffic flows and affected parties' needs taken into consideration - ideally these works would be phased with other planned upgrade works, and be delivered by Auckland Transport (AT). Refer to individual road 'Corridor Management plans' by AT.

Conceptual imagery for 'collector' roads

The attached diagrams are draft scenarios for how the greenways may look in the road corridor on collector roads (secondary roads).

Attributes:

- designated 2.5-3m of footpath as shared path or;
- designated 2.5-3m of footpath with marked division for the pedestrian and cyclist or;
- designated off road 'one way' cyclelanes next to footpath, separated by kerb
- planter beds and street trees between parking bays
- separation of cyclists and opening car doors (1m 'safety strip' or planting bed)
- rain gardens/swales to filter and detain stormwater runoff from hard surfaces
- 'greenways' signage to highlight the network.



footpath and cycleway (kerb as division) / 1m raised safety strip / parking and planting / carriageway



2.5-3m shared walkway/cycleway / 1m flush safety strip / parking and planting / carriageway / footpath



2.5-3m walkway/cycleway with marked division / planted safety strip / parking and planting / carriageway

These are visionary diagrams developed for discussion purposes only. Any specific project would be carefully planned with cost, parking, traffic flows and affected parties' needs taken into consideration - ideally these works would be phased with other planned upgrade works, and be delivered by Auckland Transport (A.T). Refer to individual road 'Corridor Management plans' by A.T.



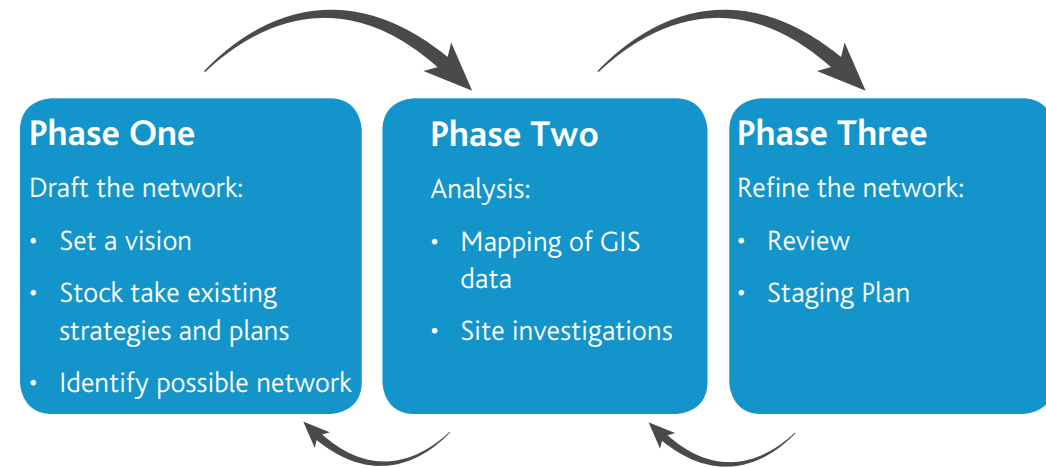
Figure 16. View over Hobsonville Point. Auckland Council Stock Photo, 2012.

2.0 Methodology

Upper Harbour Greenways

2.0 The process

The Upper Harbour Greenways Plan was developed via an iterative three-stage process, with feedback loops, as outlined below:



Phase one - draft network

As a first step, previous studies and planning documents relevant to the area were collected and reviewed. The Upper Harbour Local Board Plan was reviewed to gain an understanding of both the strategic vision of the community, and also their planned projects. After this, a definition for the Upper Harbour Greenways was discussed and agreed with the Board, and a 'working party' set up, which met regularly to review the Plan as it developed.

Next, a desktop study was carried out to map a draft 'high-level' network to provide walking and cycling connections between existing parks, open spaces, reserves and streets. Potential ecological improvements were also considered looking at linking areas of existing vegetation, existing significant vegetation, and streams/rivers. These desktop studies gave an understanding of the broad landscape patterns within the Upper Harbour area, and were used to guide phase two of the process, where the network was 'ground-truthed'.

This 'desktop' network plan was taken to the working party for review prior to undertaking site investigations, to ensure that it was aligned with the Board's aspirations and objectives for the project.

During this phase, discussions were held with Auckland Transport and other Council officers to inform them of the project, and to understand linked policies or projects that would affect the Greenways Plan.

Phase two - analysis

The draft network plan was next assessed on site to be 'ground truthed'. This process involved an analysis of the existing site conditions - including topography, vegetation cover, existing asset condition, CPTED (Crime Prevention through Environmental Design) principles, utility service locations and the layout of roading corridors.

All connections were sighted and evaluated, and a photo-record taken. Some connections were found to be inappropriate (where there wasn't enough space for a connection, the connection was unsafe, the terrain was too steep, or a higher amenity alternative was found) and the draft network was updated accordingly.

Following this ground-truthing the route was overlaid with other GIS data to ensure that the network made appropriate connections to all existing facilities, such as schools, community facilities and transport nodes.

Phase three - refine the network

Following the analysis phase, the Upper Harbour Local Board and Council officers from Parks Sports and Recreation, as well as Auckland Transport reviewed the proposed Greenways routes in detail. From this review the Draft Upper Harbour Greenways Plan was finalised and issued to a wider audience of stakeholders, including:

- Various Council officers from the Stormwater, Area Spatial Planning Biodiversity and City Transformation Projects teams
- Watercare
- Auckland Transport
- Transport organisations; New Zealand Transport Authority
- Kaipatiki, Devonport Takapuna, Hibiscus and Bays, Rodney, Henderson - Massey Local Boards
- Iwi
- Recreational groups; Walk Auckland, Cycle Action Auckland, Auckland Mountain Bike Club and local skaters
- Local Business Associations
- Local Residents Associations
- Schools and Universities
- Local Sports Clubs
- Committees and 'Friends of' and advisory groups;
- Auckland Tourism, Events and Economic Development
- Regional Facilities Auckland and associations;

As the Upper Harbour Greenways is a long-term project, to be developed over the next ten years, the Board has identified priority sections. These priority sections are based on their costs, benefits, constraints and opportunities, often driven by other local projects - including those by Auckland Council, Council Controlled Organisations and external stakeholders, such as NZTA.

The Priority sections can be viewed in Appendix Section C of this document.



Figure 17. Hobsonville point park, Jay Farnworth, 2011



Figure 16. View over Hobsonsille looking West. Auckland Council Stock Photo, 2012.

3.0 Greenways Mapping

Upper Harbour Greenways

3.1 Network Plans

Proposed Upper Harbour Greenway Plan

This map shows the long term network plan including both existing and proposed routes. As outlined in Section 1.1 of this document, this is a visionary document similar to those developed elsewhere in the world that puts the planning in place to be delivered as funding allows.

The 'existing' network includes tracks/paths and cycle routes through park and reserve land. It also includes footpaths and formed carriageways within Council's roading network. The existing network, particularly in the road environment, may require upgrading to allow for a greater number of users, a safer environment for users, and/or to provide better environmental outcomes.

The 'proposed' routes occur where there is no current formed connection, and may occur on public or private land. Where proposed connections occur on private land, easements or land acquisitions would need to be negotiated with the relevant landowner or an alternative route found.

The map identifies priority routes to focus on in the short to medium term. Most of these routes align with projects that are already in the planning stages. The five priority routes shown on the adjacent plan are:

- P1 - Gills Road Reserve - Gills Road to Oteha Valley Road
- P2 - Rosedale Park - Rosedale Road to the central carpark
- P3 - Saunders Reserve
- P4 - Kauri Road
- P5 - Gills Road Reserve - Gills Road to Oteha Valley Road



LEGEND:


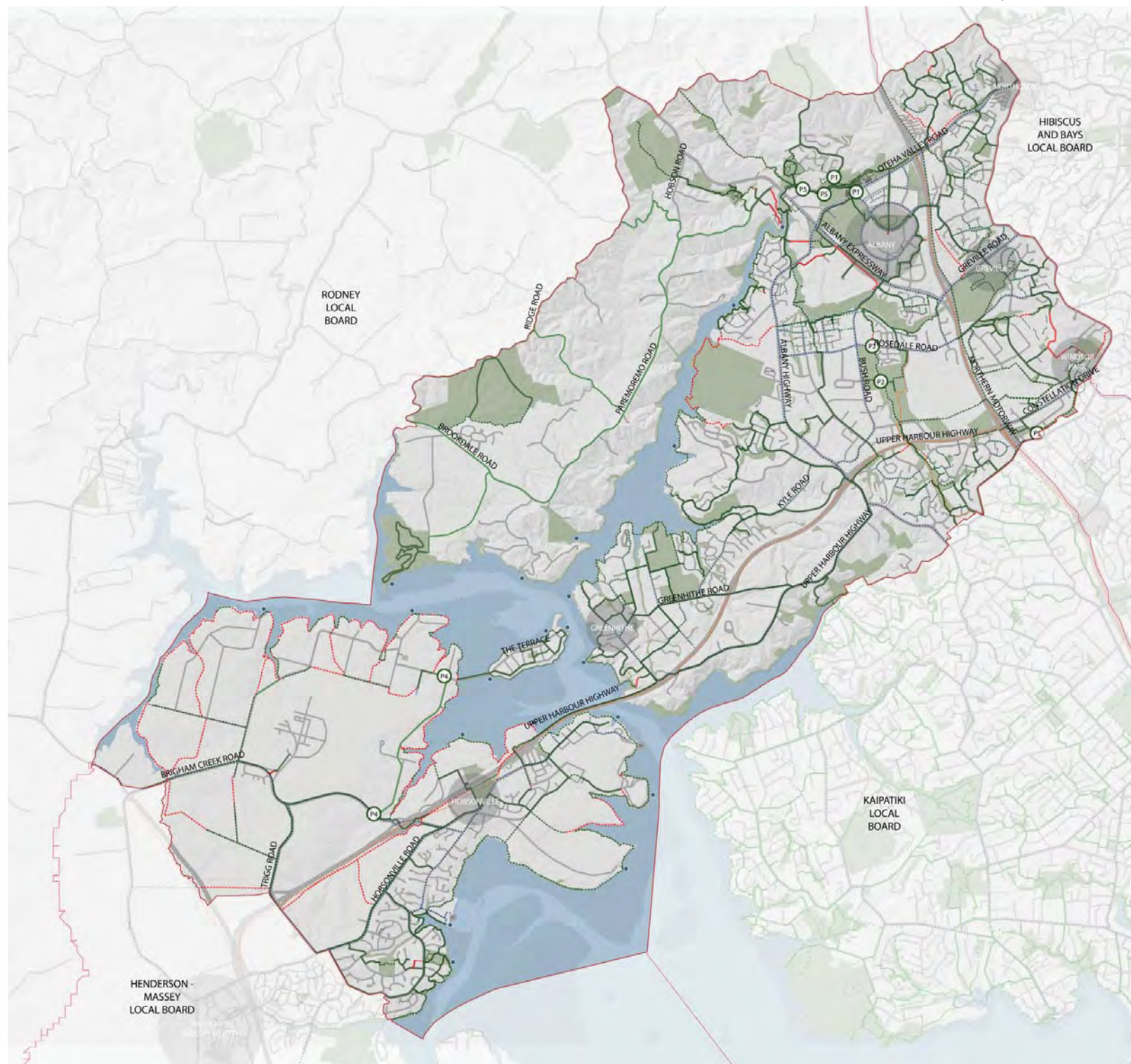
Base information

- Parks, reserves and open spaces
- Schools inc. public and private
- Local board boundary

Greenway connections

- Route utilising existing path / road network
- Route for cyclists utilising existing roads
- Proposed new route
- Route providing low tide access
- Route on private land utilising existing path / road network
- Proposed new route on private land

Scale 1:40,000 @ A3

Upper Harbour Greenway Plan with ACN

This map shows the Upper Harbour Greenways network overlaid with the draft Auckland Cycle Network (ACN).

It is worth noting that the Greenways do not often overlap with the ACN's 'highway' or 'connector' routes, as these are predominantly on busy roads, where opportunities for the amenity, recreational and ecological improvements envisaged as part of the greenways vision are very difficult to achieve.

Greenways overlap with the ACN's 'feeder' routes much more closely, and are included in AT's definition of a feeder route. These routes are usually on low traffic volume, 'minor' streets.

It is also of note that the ACN is currently in draft form, and as mentioned earlier a process to better align the 'feeder' routes with the various Local Board Greenways plans is currently underway. It is intended that both the ACN and the Greenways plans are 'live' documents, which will be updated at regular intervals.

The ACN draft shown opposite was current as of May 2013.

LEGEND:












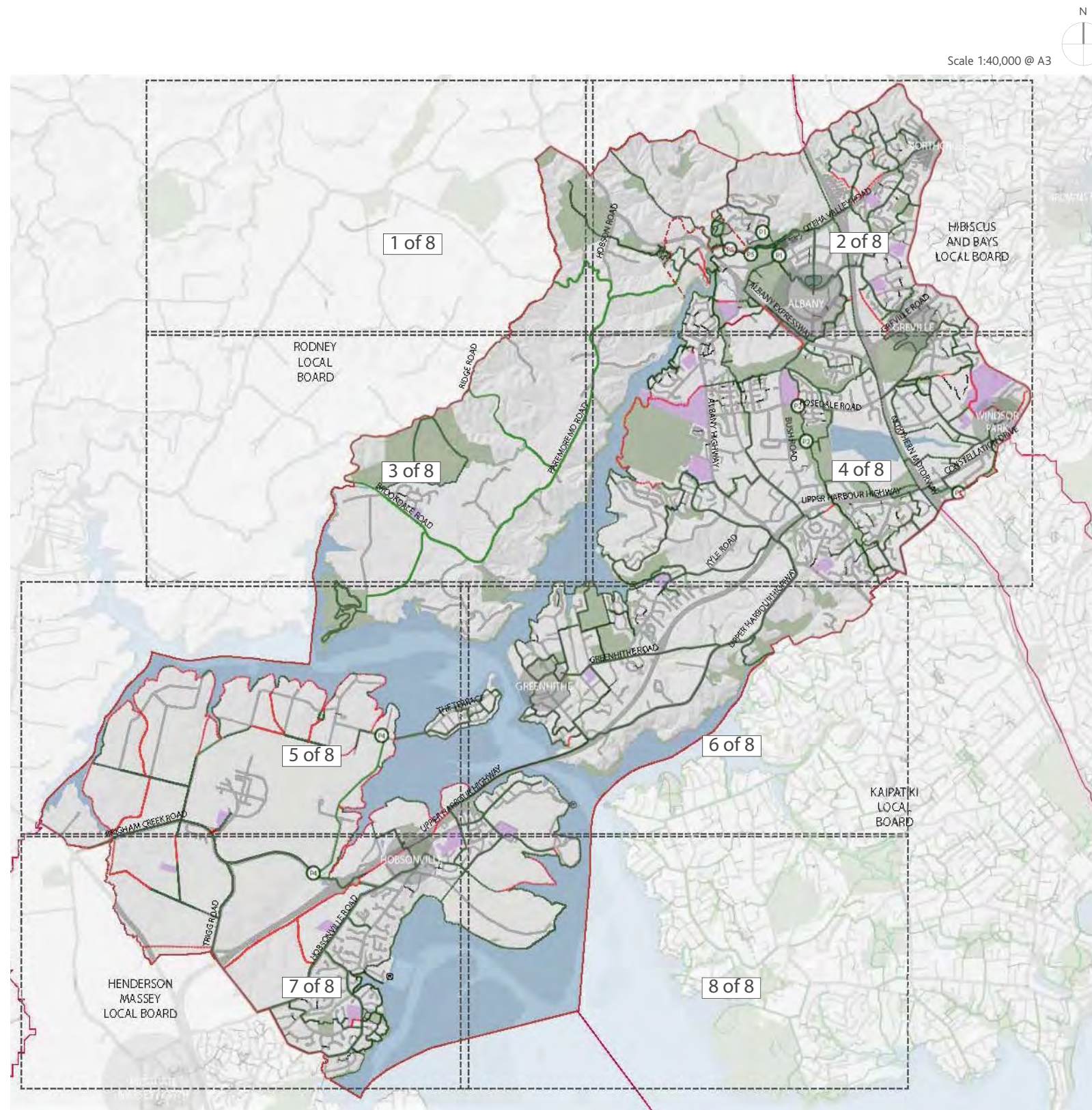
Base information		Draft ACN		Greenway connections	
	Parks, reserves and open spaces		Feeder routes		Route utilising existing path / road network
	Schools inc. public and private		Connector routes		Proposed new route
	Local board boundary		Highway routes		Route providing low tide access
					Route on private land utilising existing path / road network
					Proposed new route on private land

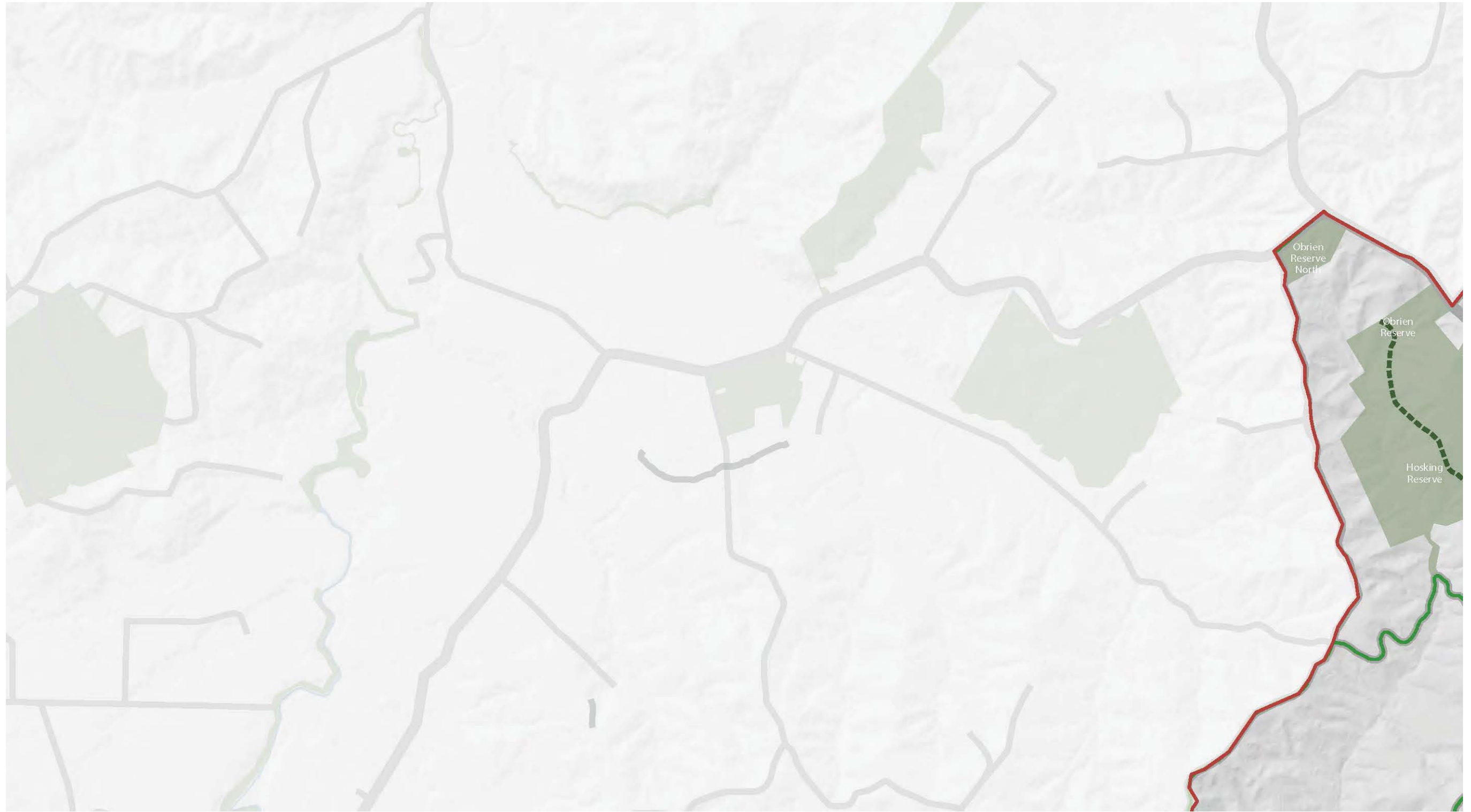


Figure 18. View over RNZAF Base Auckland - Whenuapai Airport looking South-East. Auckland Council Stock Photo, 2012.

3.2 Detailed network plans

Network key map





LEGEND:

Base information

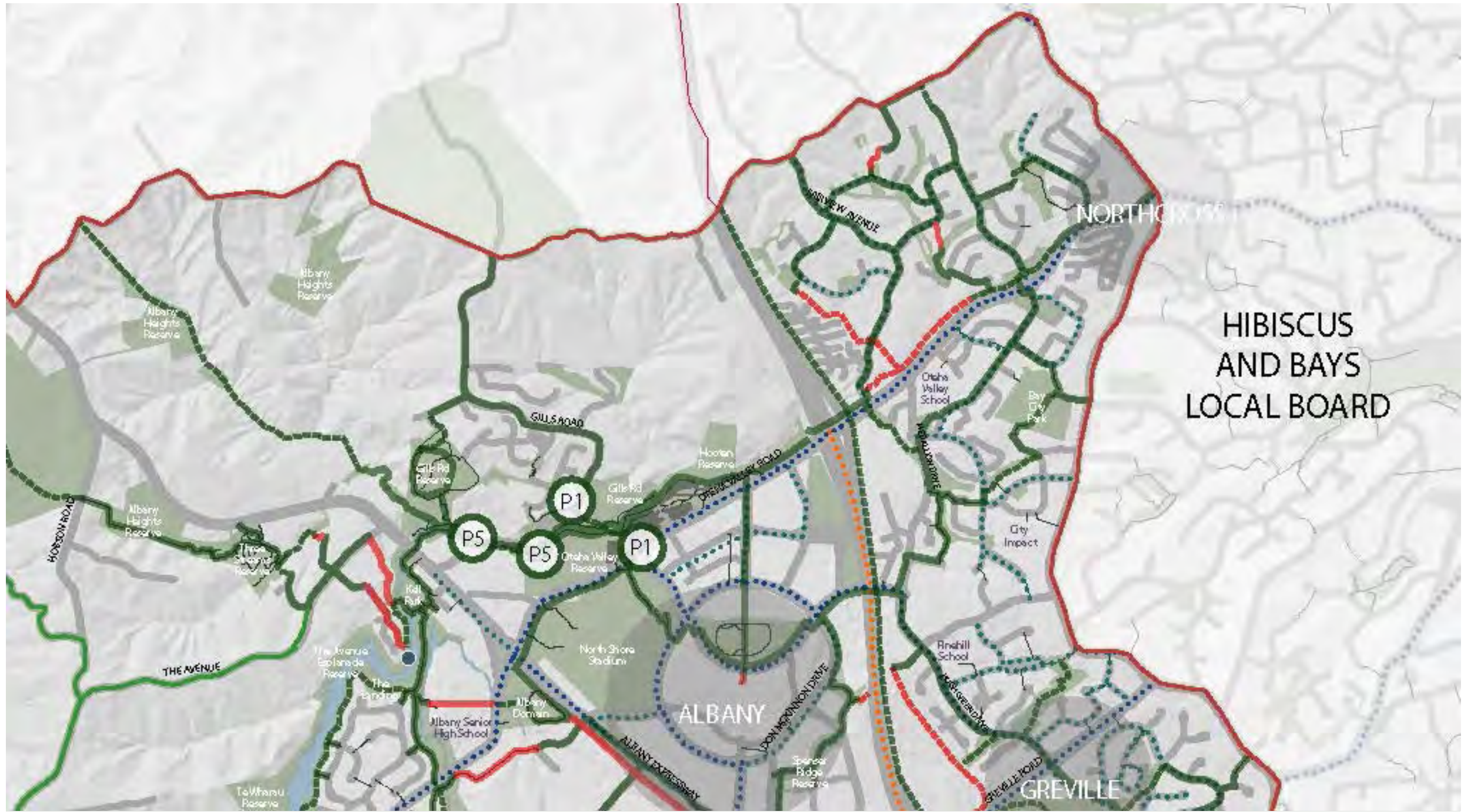
- Parks, reserves and open spaces
- Existing pathways
- Kayak trail stop off points
- Schools inc. public and private
- FT Ferry terminals
- Local board boundary
- Roads
- Streams and rivers
- Other Greenways Networks

Draft ACN

- Feeder routes
- Connector routes
- Highway routes

Greenway connections

- Route utilising existing path / road network
- Proposed new route
- Route providing low tide access
- Route on private land utilising existing path / road network
- Proposed new route on private land



LEGEND:

Base information

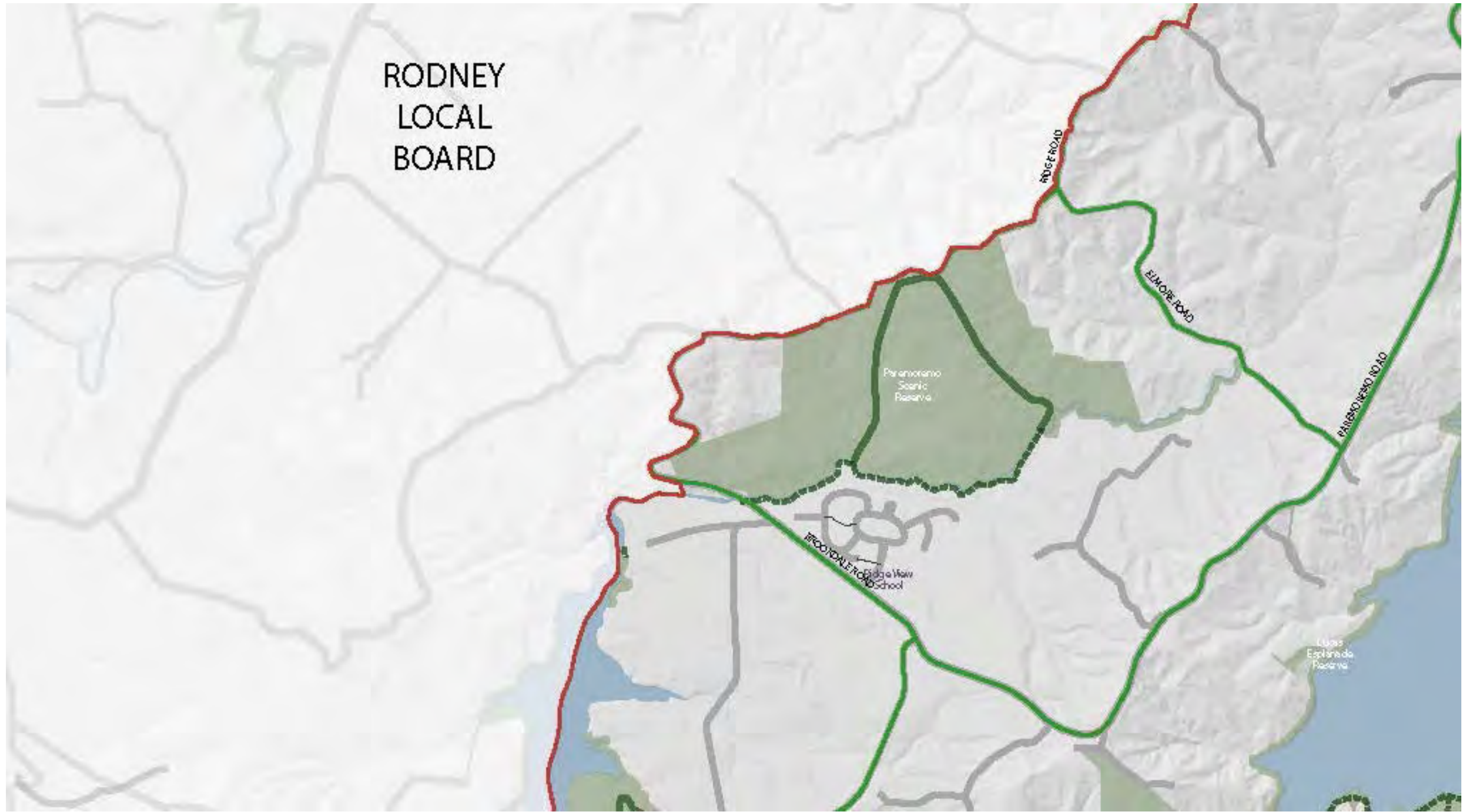
- Parks, reserves and open spaces
- Schools inc. public and private
- Local board boundary
- Existing pathways
- Roads
- Streams and rivers
- Kayak trail stop off points
- FT Ferry terminals
- Other Greenways Networks

Draft ACN

- Feeders routes
- Connector routes
- Highway routes










Greenway connections

- Route utilising existing path / road network
- Route for cyclists utilising existing roads
- Proposed new route
- Route providing low tide access
- Route on private land utilising existing path / road network
- Proposed new route on private land






LEGEND:







Base information

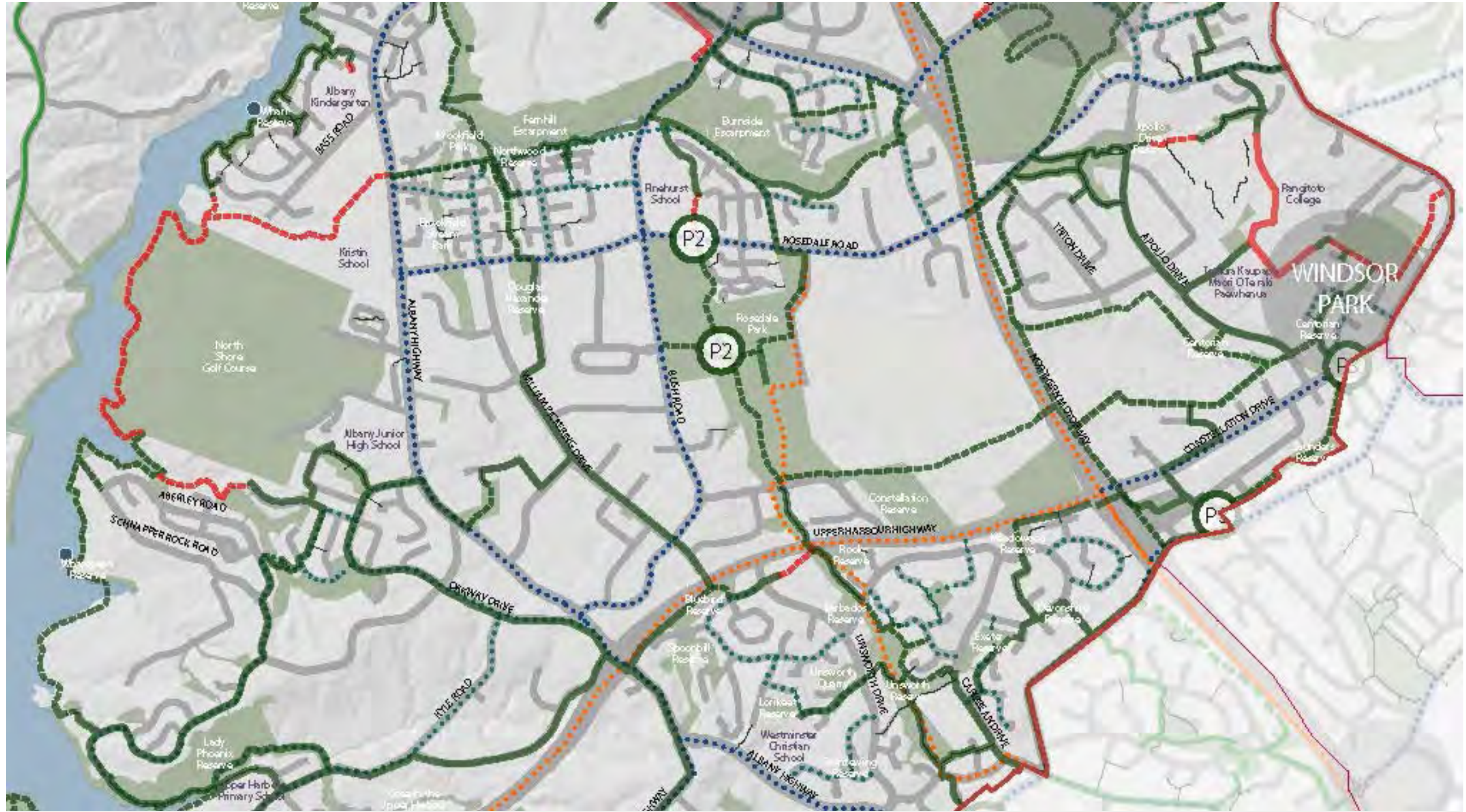
-  Parks, reserves and open spaces
-  Schools inc. public and private
-  Local board boundary
-  Existing pathways
-  Roads
-  Streams and rivers
-  Kayak trail stop off points
-  Ferry terminals
-  Other Greenways Networks

Draft ACN

-  Feeders routes
-  Connector routes
-  Highway routes










Greenway connections

-  Route utilising existing path / road network
-  Route for cyclists utilising existing roads
-  Proposed new route
-  Route providing low tide access
-  Route on private land utilising existing path / road network
-  Proposed new route on private land






LEGEND:







Base information

-  Parks, reserves and open spaces
-  Schools inc. public and private
-  Local board boundary
-  Existing pathways
-  Roads
-  Streams and rivers
-  Kayak trail stop off points
-  Ferry terminals
-  Other Greenways Networks

Draft ACN

-  Feeders routes
-  Connector routes
-  Highway routes

Greenway connections

-  Route utilising existing path / road network
-  Route for cyclists utilising existing roads
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-  Route on private land utilising existing path / road network
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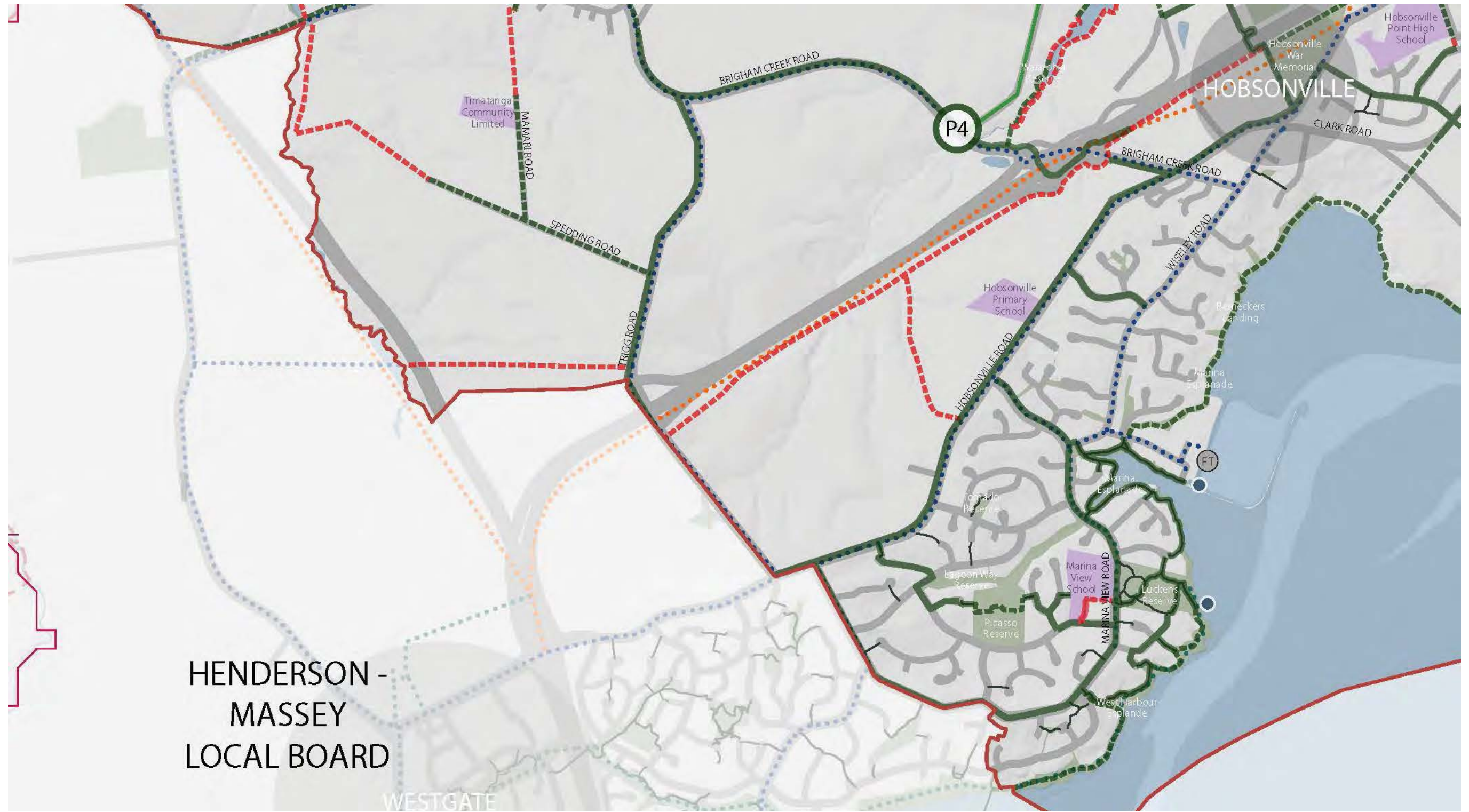
LEGEND:

Base information			Draft ACN			Greenway connections		
Parks, reserves and open spaces	Existing pathways	Kayak trail stop off points	Feeder routes	Route utilising existing path / road network	Proposed new route	Route on private land utilising existing path / road network	Route providing low tide access	Proposed new route on private land
Schools inc. public and private	Roads	Ferry terminals	Connector routes	Route for cyclists utilising existing roads				
Local board boundary	Streams and rivers	Other Greenways Networks	Highway routes					



LEGEND:

Base information			Draft ACN		Greenway connections		
Parks, reserves and open spaces	Existing pathways	Kayak trail stop off points	Feeder routes	Route utilising existing path / road network	Proposed new route	Route on private land utilising existing path / road network	
Schools inc. public and private	Roads	Ferry terminals	Connector routes	Route for cyclists utilising existing roads	Route providing low tide access	Proposed new route on private land	
Local board boundary	Streams and rivers	Other Greenways Networks	Highway routes				



LEGEND:

Base information

- Parks, reserves and open spaces
- Schools inc. public and private
- Local board boundary

- Existing pathways
- Roads
- Streams and rivers

- Kayak trail stop off points
- FT Ferry terminals
- Other Greenways Networks

Draft ACN

- Feeders routes
- Connector routes
- Highway routes

Greenway connections

- Route utilising existing path / road network
- Route for cyclists utilising existing roads










- Proposed new route
- Route providing low tide access

- Route on private land utilising existing path / road network
- Proposed new route on private land






LEGEND:

Base information

-  Parks, reserves and open spaces
-  Schools inc. public and private
-  Local board boundary
-  Existing pathways
-  Roads
-  Streams and rivers
-  Kayak trail stop off points
-  Ferry terminals
-  Other Greenways Networks

Draft ACN

-  Feeders routes
-  Connector routes
-  Highway routes

Greenway connections







-  Route utilising existing path / road network
-  Route for cyclists utilising existing roads
-  Proposed new route
-  Route providing low tide access
-  Route on private land utilising existing path / road network
-  Proposed new route on private land



Figure 19. View over Auckland Council, Watercare ponds looking north-west. Auckland Council Stock Photo, 2012.

4.0 Future development

Upper Harbour Greenways

4.1 Future development



Figure 20. Sanders Reserve. Auckland Council Stock Photo, 2011.



Figure 21. Albany Lakes. Auckland Council Stock Photo, 2013.

The Upper Harbour Greenways Plan will be implemented overtime to achieve (in part) the outcomes envisaged in the Local Board Plan. Implementation of this plan will include the upgrade of existing walking and cycling connections (both on and off-road), as well as the creation of new connections within open space land, through designation areas, and/or via property easements.

Successful implementation of the plan requires co-ordination and commitment from the Whau Local Board, Auckland Council, Auckland Transport, as well as key related public/utility organisations such as the NZTA, Watercare, Transpower and Vector.

The following section gives an overview over the future development and implementation of the Upper Harbour Greenways Plan over the next 10 years, including best practice for implementation, stakeholder involvement and funding availability, related case studies and the 10-year prioritisation strategy.

Best practice for implementation

Successful implementation of the Network Plan relies on a co-ordinated approach between Auckland Council's Parks Sports and Recreation, Stormwater and Community and Cultural Policy departments, as well as Auckland Transport. Future detailed planning shall take into consideration best practice guidelines, which include:

- Walking and Cycling Code of Practice (Auckland Transport, Draft)
- Stormwater Code of Practice (Stormwater Team, Draft)
- Parkland Design Guidelines (Community and Cultural Policy/PSR, Draft)

Related 'best practice' documents such as NZTA's 'Bridging the Gap – Urban Design Guidelines (Draft)', DoC's 'Caring for Archaeological Sites' report, and the Ministry of Justice's 'National Guidelines for Crime Prevention through Environmental Design (CPTED) in New Zealand' shall also be taken into account as designs develop, in addition to all relevant Unitary Plan controls and area-specific policies.



Figure 22. Sanders Reserve race and blessing. Auckland Council Stock Photo, 2014.



Figure 23. Albany Village. Auckland Council Stock Photo, 2011.

Stakeholder involvement and funding

Ongoing community engagement, stakeholder collaboration and partnerships are key to the successful implementation of the Upper Harbour Greenways. Likely stakeholders, other than those previously mentioned include:

- Neighbouring Local Board areas
- Iwi
- Auckland Tourism, Events and Economic Development (ATEED)
- Cycle Action Auckland
- YES Disability
- Operators of community facilities, including schools
- Ministry of Education
- Department of Conservation
- Housing New Zealand
- Local residents and business associations
- Forest and Bird

Grass-roots community involvement is very important to ensure the ongoing success of the Greenways plan. Local knowledge-sharing and volunteering are needed to provide community ownership, care and responsibility. Community involvement could take the form of planting/weed clearance days, 'adopt a stream/street' groups, fundraising, lobbying and artistic input.

Funding has been allocated for roading improvements in the Board area in Auckland Council's Long Term Plan (LTP) for the next 10 years, and some of this will be used to implement the Greenways. Other funding avenues include Auckland Transport and the NZTA's regional cycleways fund. In addition the Local Board has planned open space projects to assist with implementation of the priority sections of this Plan.

The maps contained in Appendix - Section C, break down the prioritised projects in more detail, to setup for future planning and programming.

4.2 Priority Projects

4.2.1 Priority Greenway P1



LEGEND:

Base information

- Schools
- Park and reserve land

Greenway connections

- Priority route
- Route utilising existing path / road network
- Route for cyclists utilising existing roads

- Proposed new route
- Route providing low tide access

- Route on private land utilising existing path / road network
- Proposed new route on private land

Draft ACN

- Feeders routes
- Connector routes
- Highway routes

Description of Priority Section P1

Location	Gills Road Reserve - Gills Road to Oteha Valley Road
Description	Auckland Transport are planning a road connection between Gills Road and Oteha Valley Road, and it is proposed that this greenway connection is developed as part of these works. This connection could be an 'on road' or 'off road', developed adjacent to the road, or at a lower level through the park. This connection will, in future, provide access to Albany and the busway from Albany Heights.
Ecology of the area	This connection crosses Lucas Creek. Within the Proposed Unitary plan portions of Lucas Creek (and the surrounding vegetation) are identified as a Significant Ecological Area. Lucas Creek has had significant restoration works undertaken.
Constraints	<ul style="list-style-type: none"> preservation of the stream habitat steep topography in parts issues around passive surveillance
Opportunities	<ul style="list-style-type: none"> further restoration works on Lucas Creek walking and cycling connection between Albany Heights and Albany and the northern busway
Budget Requirements (Capex)	This connection will be funded and delivered by AT.













NOTE: These plans are indicative only, for the purposes of identifying opportunities, constraints. They are subject to feasibility, consultation and detailed design, which may alter the routes shown.

4.2.2 Priority Greenway P2

scale 1:5,000 @ A3 



LEGEND:

Base information	Greenway connections			Draft ACN
 Schools	 Priority route	 Proposed new route	 Route on private land utilising existing path / road network	 Feeders routes
 Park and reserve land	 Route utilising existing path / road network	 Route providing low tide access	 Proposed new route on private land	 Connector routes
	 Route for cyclists utilising existing roads			 Highway routes

Description of Priority Section P2

Location	Rosedale Park - Rosedale Road to the central carpark
Description	This connection is 'off road'. This connection in parts informally exists, with the land in public ownership, and open grass between Rosedale Road and the main carpark within Rosedale park. This connection will, in future, connect north to Massey University and south to Unsworth Reserve where there the is an existing path and reserve network.
Ecology of the area	This connection is adjacent to Alexandra Stream. Within the Proposed Unitary plan portions of Alexandra Stream (and the surrounding vegetation) are identified as a Significant Ecological Area. Portions of Alexandra stream have already been restored in improve water and habitat quality, and this connection would further support the enhancement of this stream and the wider catchment. The site is mix of native and exotic weed species.
Constraints	<ul style="list-style-type: none"> • preservation of stream habitat • steep topography in parts • issues around passive surveillance • budget
Opportunities	<ul style="list-style-type: none"> • education and interpretation of the restoration of Alexandra stream • revegetation and habitat creation to restoration works already undertaken along Alexandra Stream • future link and extend existing walking and cycling connections to Massey University and Albany
Budget Requirements (Capex)	It is anticipated that this will be largely a community led and funded project, there may be some funding available from Watercare.













NOTE: These plans are indicative only, for the purposes of identifying opportunities, constraints. They are subject to feasibility, consultation and detailed design, which may alter the routes shown.

4.2.3 Priority Greenway P3

scale 1:5,000 @ A3 



LEGEND:

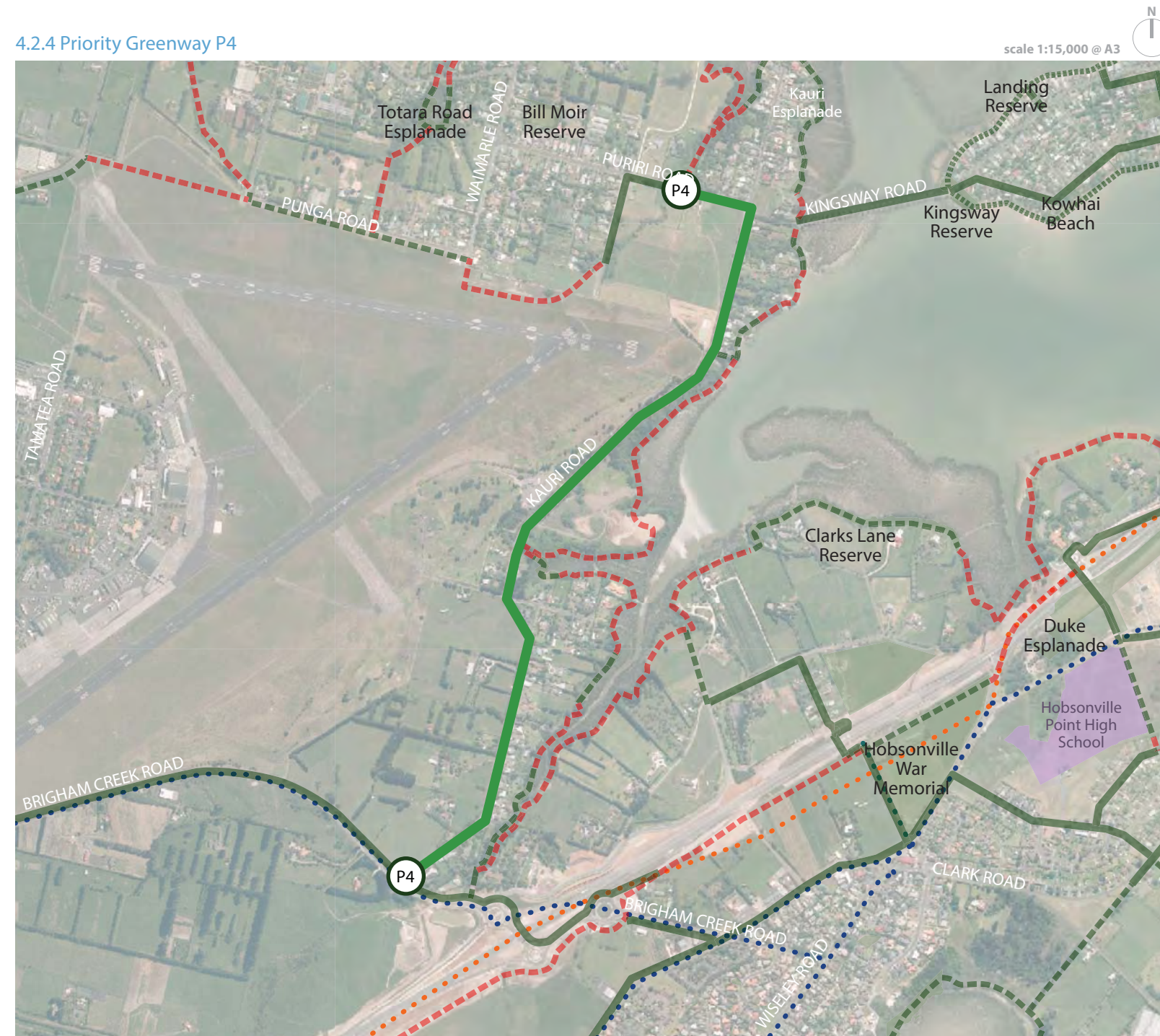
Base information	Greenway connections			Draft ACN
 Schools	 Priority route	 Proposed new route	 Route on private land utilising existing path / road network	 Feeders routes
 Park and reserve land	 Route utilising existing path / road network	 Route providing low tide access	 Proposed new route on private land	 Connector routes
	 Route for cyclists utilising existing roads			 Highway routes

Description of Priority Section P3

Location	Saunders Reserve
Description	This connection is 'off road'. This connection informally exists with the land already in public ownership, and a grass track runs between Constellation Drive and Parkway Drive.
Ecology of the area	Saunders Reserve offers little in the way of ecology other than the existing trees. Additional planting could add ecological value to the park.
Constraints	<ul style="list-style-type: none"> steep topography in parts mature specimen trees budget passive surveillance
Opportunities	<ul style="list-style-type: none"> activation of Saunders reserve implementation of planting for birds and insects safe walking and cycling connection to the northern busway
Budget Requirements (Capex)	This connection is currently unfunded.

NOTE: These plans are indicative only, for the purposes of identifying opportunities, constraints. They are subject to feasibility, consultation and detailed design, which may alter the routes shown.

4.2.4 Priority Greenway P4



LEGEND:

Base information	Greenway connections			Draft ACN
Schools	Priority route	Proposed new route	Route on private land utilising existing path / road network	Feeder routes
Park and reserve land	Route utilising existing path / road network	Route providing low tide access	Proposed new route on private land	Connector routes
	Route for cyclists utilising existing roads			Highway routes

Description of Priority Section P4

Location	Kauri Road
Description	This connection is 'on road'. Whenuapai is popular cycle route for cyclists with a very gentle terrain. This connection would provide a safe connection for cyclists and extend the existing cycleway along Brigham Creek Road.
Ecology of the area	The road corridor offers little in the way of ecology. Swales, raingardens and additional planting would add ecological value.
Constraints	<ul style="list-style-type: none"> safety of cyclists at intersections and driveways high vehicle speeds budget
Opportunities	<ul style="list-style-type: none"> implementation of swales and raingardens to improve water quality implementation of planting for birds and insects implementation of a walkway /cycleway adjacent to the road
Budget Requirements (Capex)	This project is currently unfunded.











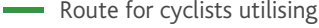

NOTE: These plans are indicative only, for the purposes of identifying opportunities, constraints. They are subject to feasibility, consultation and detailed design, which may alter the routes shown.

4.2.5 Priority Greenway P5

scale 1:5,000 @ A3 



LEGEND:

Base information	Greenway connections			Draft ACN
 Schools	 Priority route	 Proposed new route	 Route on private land utilising existing path / road network	 Feeder routes
 Park and reserve land	 Route utilising existing path / road network	 Route providing low tide access	 Proposed new route on private land	 Connector routes
	 Route for cyclists utilising existing roads			 Highway routes

Description of Priority Section P5

Location	Gills Road Reserve - Gills Road to Oteha Valley Reserve
Description	This connection is 'off road'. This parcel of land was recently acquired by council and this development of this connection will complete the cycleway/walkway connection from Gills Road to Oteha Valley Road and the northern busway.
Ecology of the area	This connection is adjacent to Lucas Creek which has already undergone significant restoration works. Within the Proposed Unitary plan portions of Lucas Creek (and the surrounding vegetation) are identified as a Significant Ecological Area. The site is predominately grass with some native vegetation (closer to the stream) and exotic weed species.
Constraints	<ul style="list-style-type: none"> • preservation of stream habitat • steep topography in parts • issues around passive surveillance
Opportunities	<ul style="list-style-type: none"> • education and interpretation of Lucas Creek • revegetation and habitat creation to support Lucas Creek • safe walking and cycling connections
Budget Requirements (Capex)	This connection will be funded and delivered by Auckland Council Stormwater Department.

NOTE: These plans are indicative only, for the purposes of identifying opportunities, constraints. They are subject to feasibility, consultation and detailed design, which may alter the routes shown.

References

Upper Harbour Greenways

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Auckland Regional Policy Statement (Appendix b, 100)

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Auckland Council. (1995). Cultural Heritage Inventory.

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Upper Harbour Draft Local Board Plan (2014).

Image References

Cover page

View over Gills Road, looking east, Auckland Council Stock Photo, 2012

Page 4

Figure 1. View of Rosedale Park North, looking south. Auckland Council Stock Photo, 2012.

Page 6

Figure 2. View of the Upper Harbour Motorway and Herald Island, looking north. Auckland Council Stock Photo, 2012.

Page 8

Figure 3. Westpark Marina, Jay Farnworth, 2011

Figure 4. Gills Scenic Reserve, Adele Krantz, 2013

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Figure 5. Sanders Reserve, Jay Farnworth, 2011

Figure 6. Greenhilthe, Luke Harvey, 2014

Page 11

Figure 7. Albany lakes, Luke Harvey, 2013.

Figure 8. Paremoremo raft race, Luke Harvey, 2014

Figure 9. Hobsonville Point, Jay Farnworth, 2013

Figure 10. Gills Scenic Reserve, Adele Krantz, 2013.

Figure 11. Greenhilthe, Luke Harvey, 2014

Figure 12. Hobsonville point, Luke Harvey, 2013

Figure 13. Wainoni Park, Jay Farnworth, 2011

Figure 14. Hobsonville point, Luke Harvey, 2013

Figure 15. Rosedale Park, Adele Krantz, 2013

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Figure 16. View over Hobsonville Point. Auckland Council Stock Photo, 2012

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Figure 17. Hobsonville Point Park, Jay Farnworth, 2011

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Figure 18. View over Hobsonsille looking West. Auckland Council Stock Photo, 2012.

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Figure 19. View over RNZAF Base Auckland - Whenuapai Airport looking South-East. Auckland Council Stock Photo, 2012

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Figure 20. View over Auckland Council, Watercare ponds looking north-west. Auckland Council Stock Photo, 2012

Page 34

Figure 21. Sanders Reserve. Auckland Council Stock Photo, 2011

Figure 22. Albany Lakes. Auckland Council Stock Photo, 2013

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Figure 23. Sanders Reserve race and blessing. Auckland Council Stock Photo, 2014.

Figure 24. Albany Village. Auckland Council Stock Photo, 2011

Appendices

Upper Harbour Greenways



Figure 25. Looking south west down Lucus Creek, Auckland Council Stock Photo, 2012.

A. Analysis maps

Upper Harbour Greenways



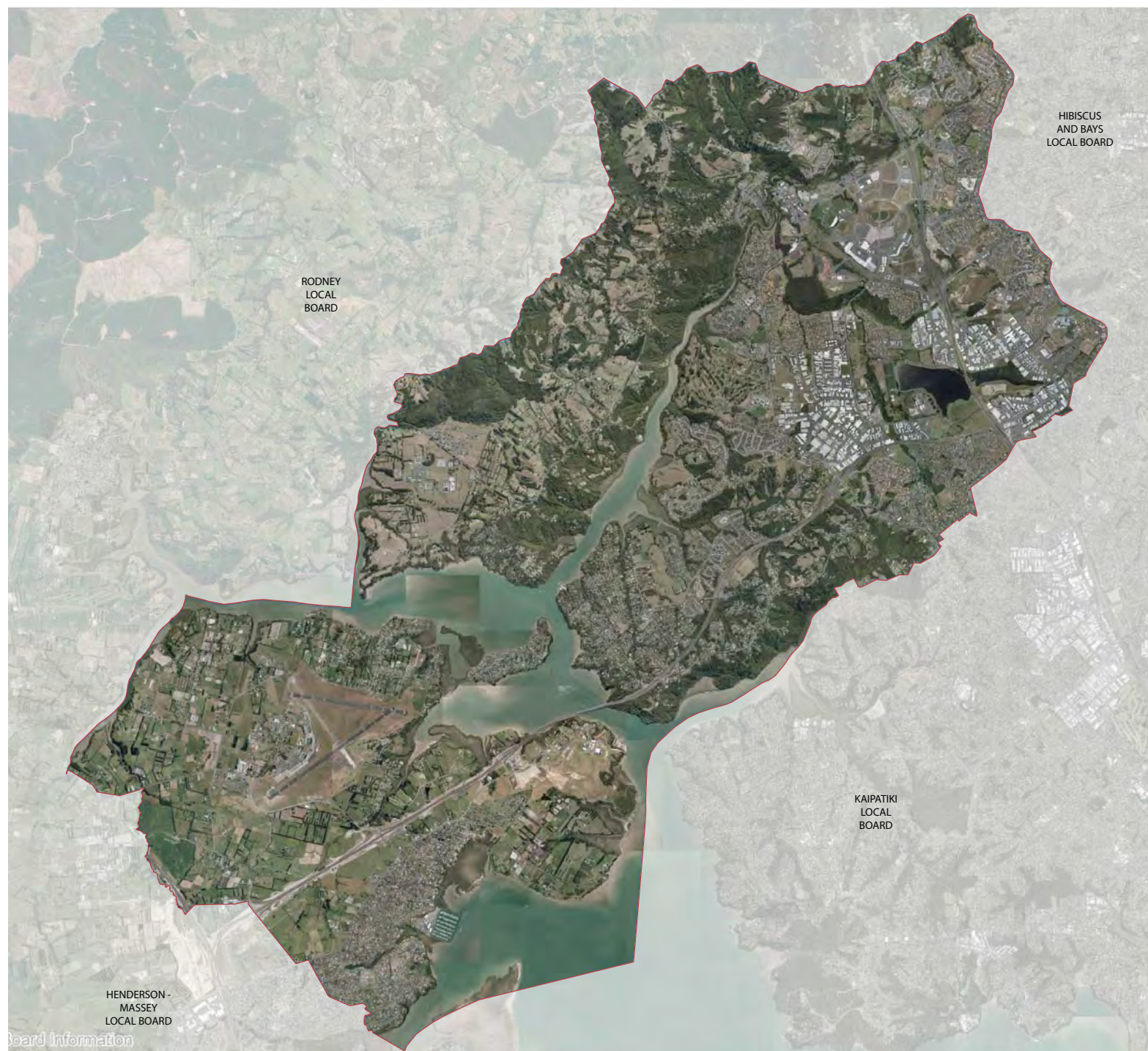
Auckland context

This map shows Upper Harbour Local Board area in its wider context within the Auckland Isthmus, located at the northern terminus of the inner Waitemata Harbour. The area is bordered by Henderson - Massey, Rodney, Hibiscus and Bays, Devonport - Takapuna and Kaipatiki Local Board areas. The Upper Harbour Local Board area is home to the centres of Albany, Greville, Windsor Park, Greenhithe and Hobsonville.

LEGEND:

- Upper Harbour Local Board Area
 - Park and reserve land
 - State highway network
 - Te Araroa Walkway (national walkway)
 - Railway
 - Network of walking and cycling trails (as shown in the Auckland Plan)
- N

Not to scale



LEGEND:

- Local Board Boundary



Scale: 1:40,000 @ A3

Aerial

This aerial photograph shows the broad landscape patterns of the Upper Harbour Local Board area within its surrounding context.

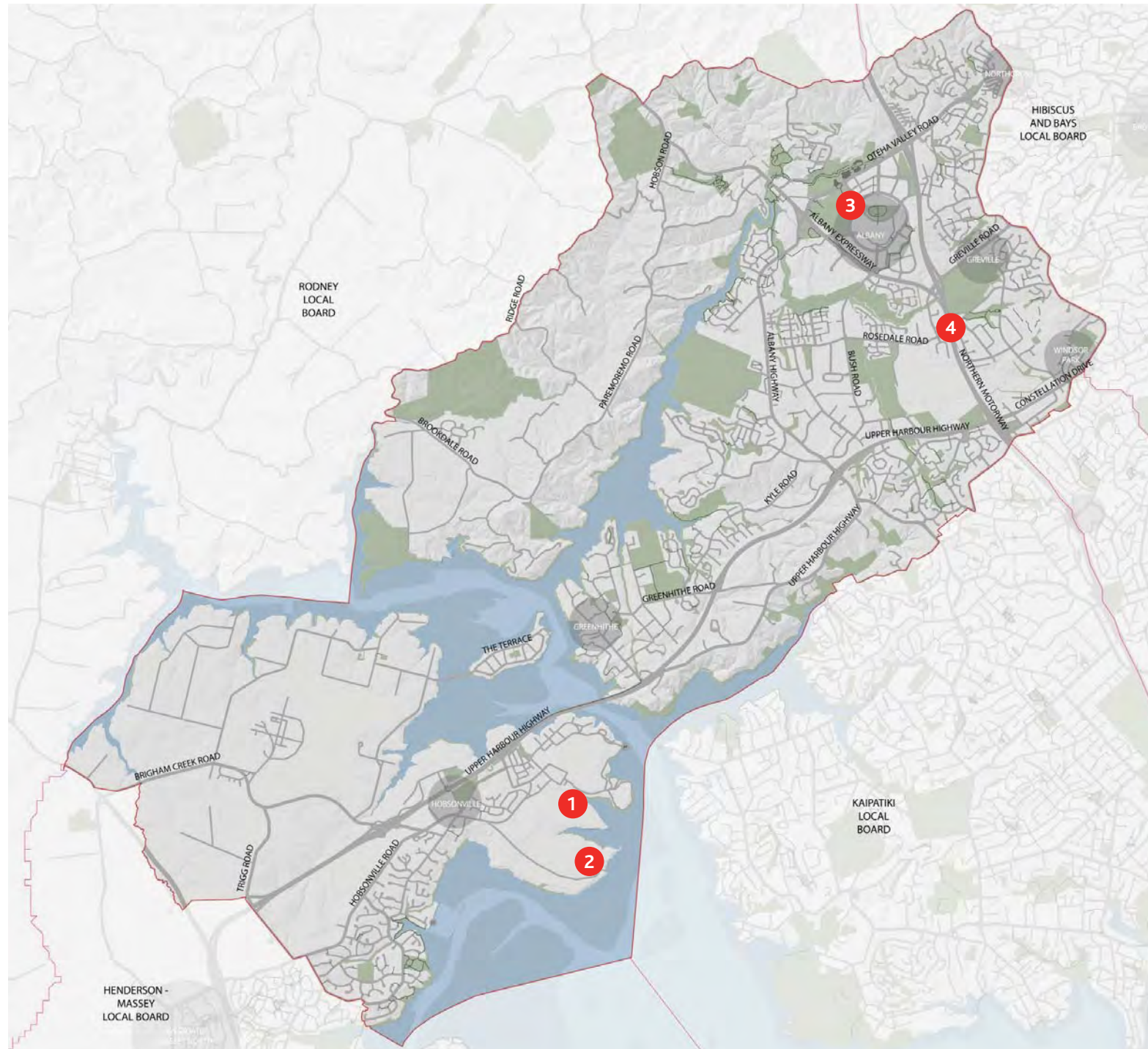
The area is dissected by the upper reaches of the Waitemata Harbour, with the SH18 bridge between Hobsonville and Greenhite being the only connection between the eastern and western land areas. Both the SH1 and SH18 motorways further dissect the Local Board area.

The area is bounded:

- to the north-east, by predominately residential land sloping down towards the east coast
- to the south-east, by the Waitemata Harbour, with Hellyers Creek to the north and Limeburners bay to the south
- to the south-west, by residential and pastoral areas
- and to the north-west, by countryside living with a small area of general rural land.

The mixed landuse types of Upper Harbour Local Board area can be clearly seen in this aerial photograph - featuring swathes of residential land, vegetated areas, countryside living, and pockets of industrial land.

- Residential Land
 - Large areas of residential land exist throughout Upper Harbour. These areas are somewhat disjointed - being dissected by the Waitemata Harbour, motorway system, rural land and vegetated escarpments.
- Vegetation
 - Significant areas of vegetation exist within Upper Harbour Local Board area, including the southern escarpments leading down to both Lucas Creek and Hellyers Creek, as well as the Scenic Reserves at Paremoremo and Fernhill Escarpment.
- Countryside living
 - Countryside living largely exists on north-western portion of local board area, on the northern side of Upper Harbour Motorway and Lucas Creek.
- Industrial land
 - Industrial land is generally located adjacent to motorways, at Rosedale, Schnapper Rock and Albany, and heightens their severance aspect, from a greenways perspective.



LEGEND:

- Local Board Boundary
- Streams / Rivers
- Road network
- Parks and Reserve land
- 1 Hobsonville Point
- 2 Scott Point
- 3 Albany Stadium Pool
- 4 Albany Highway / Upper Harbour



Scale: 1:40,000 @ A3

Future projects

There are a number of projects underway or in the planning in and around the Upper Harbour Local Board area. The following projects offer opportunities to incorporate the development of the Greenway network

Hobsonville Point is being developed by Hobsonville Land Company, a subsidiary of Housing New Zealand. This development is a master planned community that will take at least 10 years to develop. Development is well underway and works already completed include schools, a ferry terminal, housing, parks, reserves, open space, and community halls and gardens. Works in the pipeline include a commercial hub, apartments and housing, retirement living and a coastal walkway.

Scott Point has been identified as a Special Housing Area (SHA). SHA's are being identified across the city where fast-track development of affordable housing can take place. Scott Point is proposed to have 2500 house built.

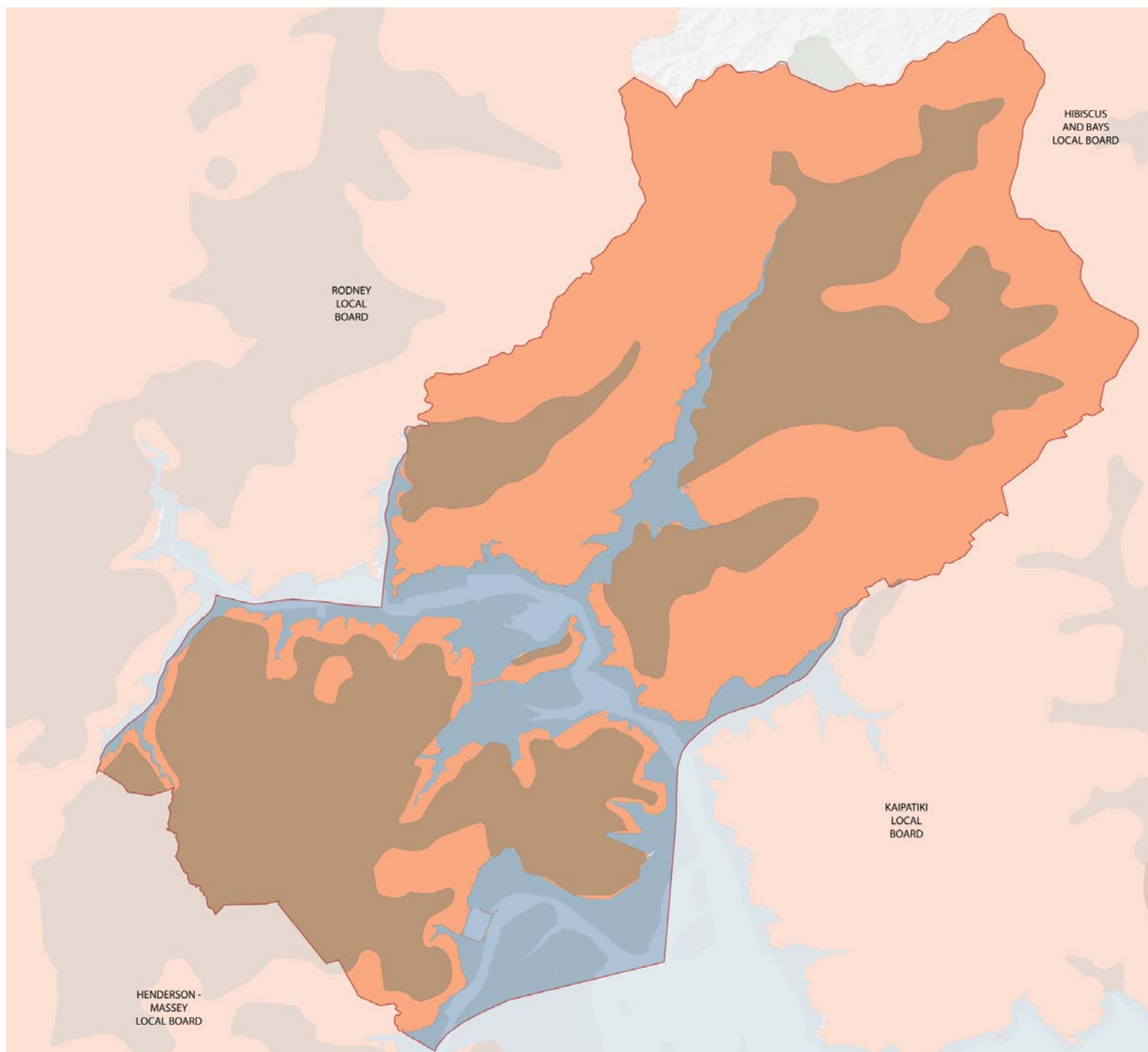
The Albany Stadium Pool a new recreational swimming pool facility near QBE Stadium. Albany Stadium Pool is a different offering to other pools in Auckland Council's leisure network, focusing on fun and recreation.

Auckland Transport is upgrading Albany Highway, including the provision of on and off road cycle facilities and a wider footpath in both directions. Segregated pedestrian footpaths and cycle paths will be constructed where practical with a shared provision elsewhere. This will be completed by June 2016, with the final landscaping being finished by December 2016.

The Northern Interceptor project is a Watercare project, proposing to build new wastewater pipelines and associated infrastructure to convey wastewater from north-western parts of Auckland to the Rosedale Wastewater Treatment Plant in Albany. Construction of the Northern Interceptor is intended to be staged, with the timing of various stages depending on the rate of population growth.

Phase One of the Northern Interceptor is a new pipeline planned to transfer flows from the existing Hobsonville Pump Station to the Rosedale Wastewater Treatment Plant, via a crossing of the Upper Waitemata Harbour and through Greenhithe.

A number Stormwater Projects are in currently being planned. A number of these projects could include improved walking and cycling connections and ecological benefits.



LEGEND:

- Waitemata residual soils
- Alluvial soils



Scale: 1:40,000 @ A3

Geomorphology

Upper Harbour is situated within what is referred to as the Waitemata Basin. The underlying geomorphology of the Waitemata is heavily influenced by the volcanic history of Auckland.

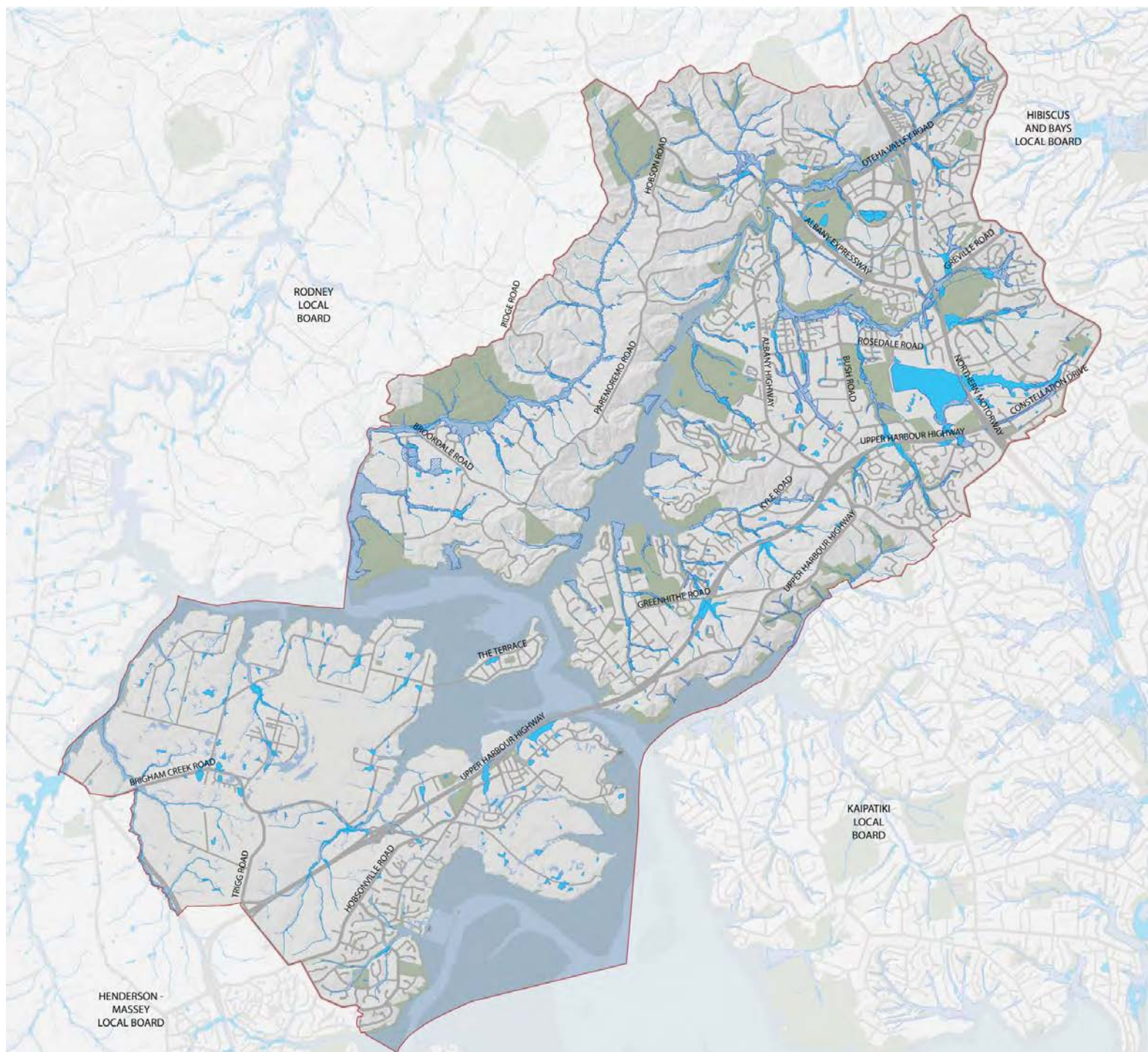
The Waitemata Basin, was formed between 24 and 18 million years ago, it extended from North Waikato to Whangarei (*Isaac et al, 1994*). During this time the Waitemata Basin was a shallow marine sinking basin that received sediments from eroding landforms to the west, including the Manukau volcanoes. 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 understood to have subsided to depths of between 1000 and 3000 metres (*Isaac et al, 1994*). The sediments infilling the basin were consolidating and in places cemented to form a thick sequence of inter-bedded weak siltstone and muddy sandstones, with inter-fingering deposits of volcanoclastic sandstone units (Parnell Grit Member). This geological sequence is now collectively referred to as the Waitemata Group.

Upper Harbour area has a very simple geomorphology, consisting only of only two soil types, Waitemata residual soils and alluvial soils.

The residual soils of the Waitematā Group are predominantly made up of mudstone and lithic 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
- Flood sensitive areas
- Flood plains
- Flood prone areas



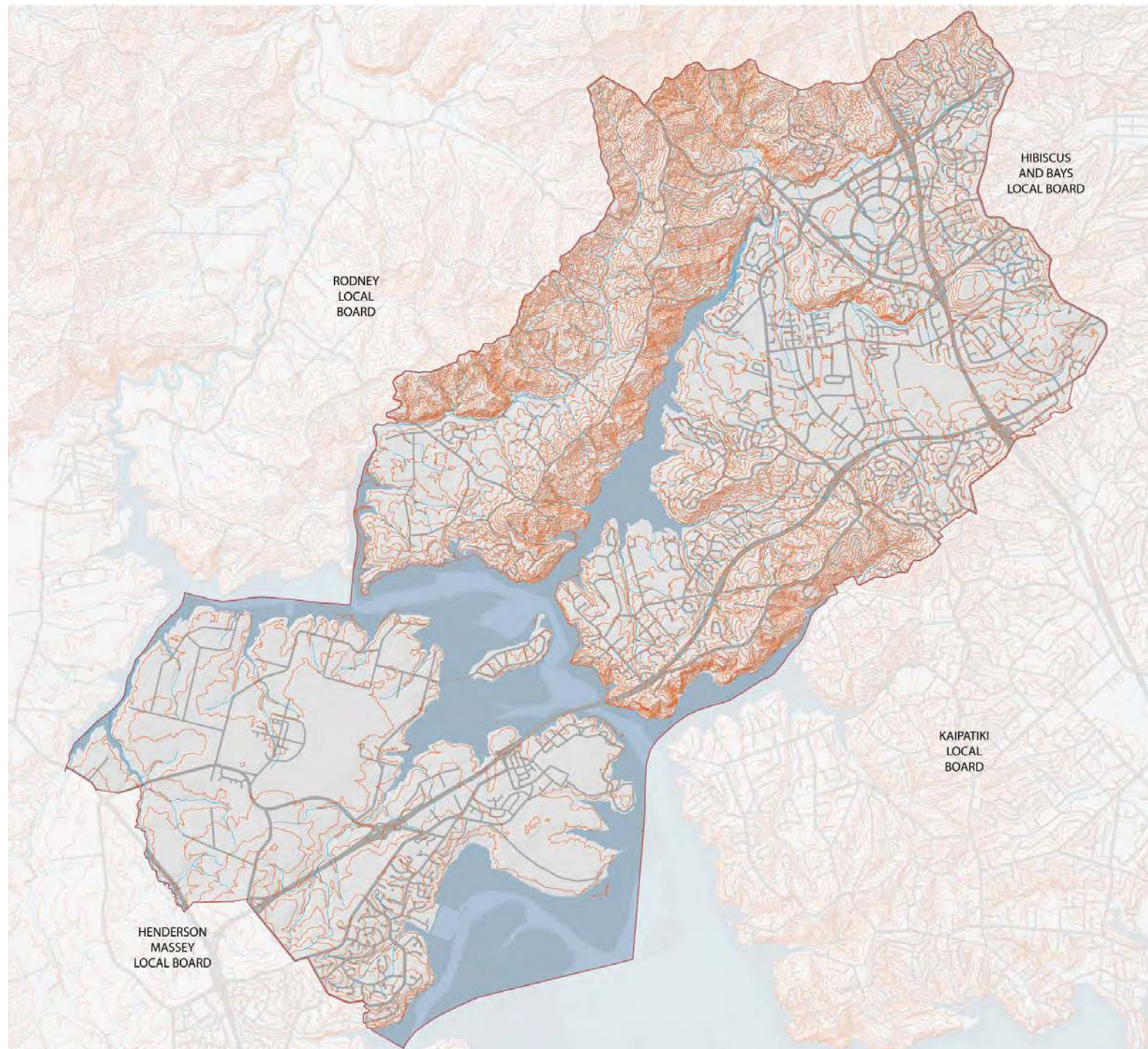
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Catchments / Hydrology

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.

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 any greenways projects involving aspects of waterway restoration.



LEGEND:

- Local Board Boundary
- Contours at 10m
- Streams / Rivers
- Road network



Scale: 1:40,000 @ A3

Topography

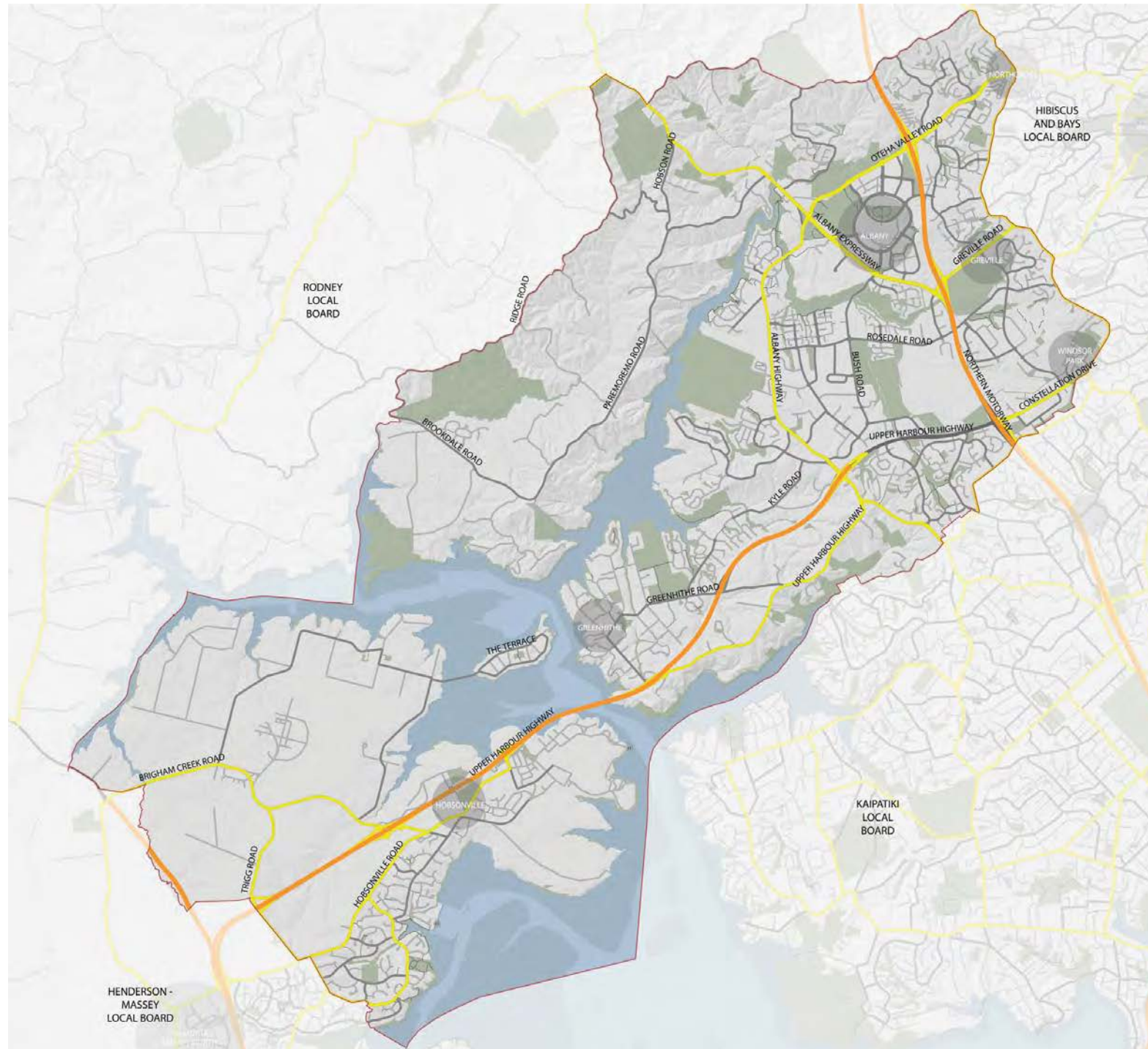
The adjacent map shows the topography of the Upper Harbour Local Board area. Upper Harbour is relatively steep compared to other parts of Auckland, with contours running from sea level along the coast to ridgelines along Paremoremo Road, Upper Harbour Drive and East Coast Road. Paremoremo Road and Upper Harbour Drive are the highest points within the study area.

Whenuapai, Hobsonville and Rosedale are areas that have a relatively gentle contour.







From a Greenways perspective, the street topography of Upper Harbour presents challenges, as some gradients may not be suitable for all ages and physical abilities. The steep ridges present a physical challenge to beginner cyclists, wheelchair users and some walkers. Wherever possible, routes have been selected to minimise vertical climb, and are oriented along cross slopes.

The main roads that run along the ridgelines themselves at Paremoremo Road, Upper Harbour Drive and East Coast Road present a challenge in greenway route planning as they offer ideal connections with flatter gradients, and therefore provide a physically 'easier' route, however they conflict with the Greenways criteria of selecting quieter streets for safety and amenity reasons.

In terms of the proposed greenway routes, further investigation is required in places at a detailed stage to determine the feasibility of providing cycle access. There will be walking-only tracks where cycling is deemed to be unachievable.



LEGEND:

- | | |
|--|---|
|  Local Board Boundary |  Motorway |
|  Parks and reserve land |  Arterial |
| |  Major roads |
| |  Minor roads |



Scale: 1:40,000 @ A3

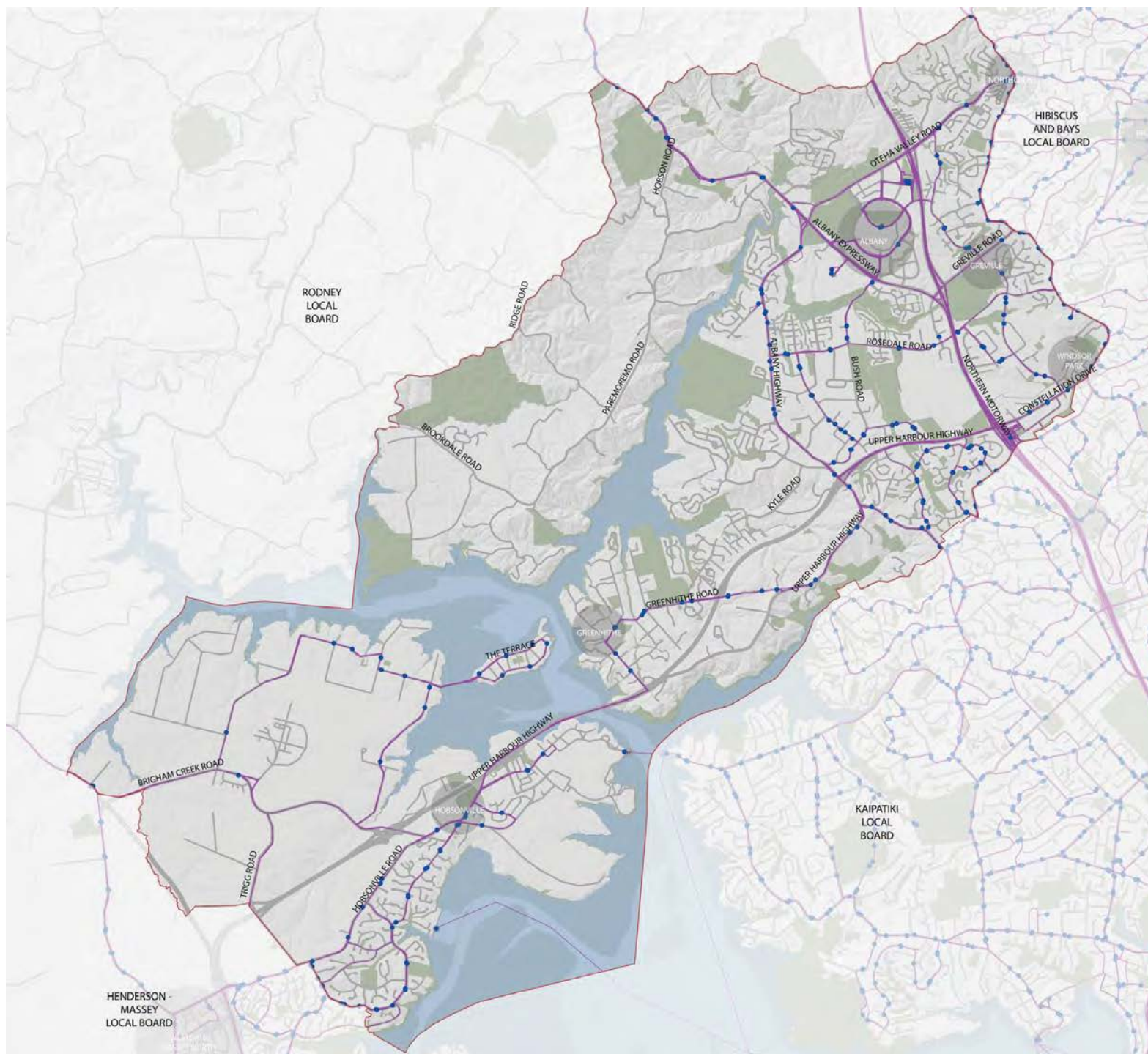
Road hierarchy

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 Aucklanders as possible.

Major and arterial 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.

Minor or local roads 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
- Road network
- Bus routes / Ferry Routes
- Bus stops

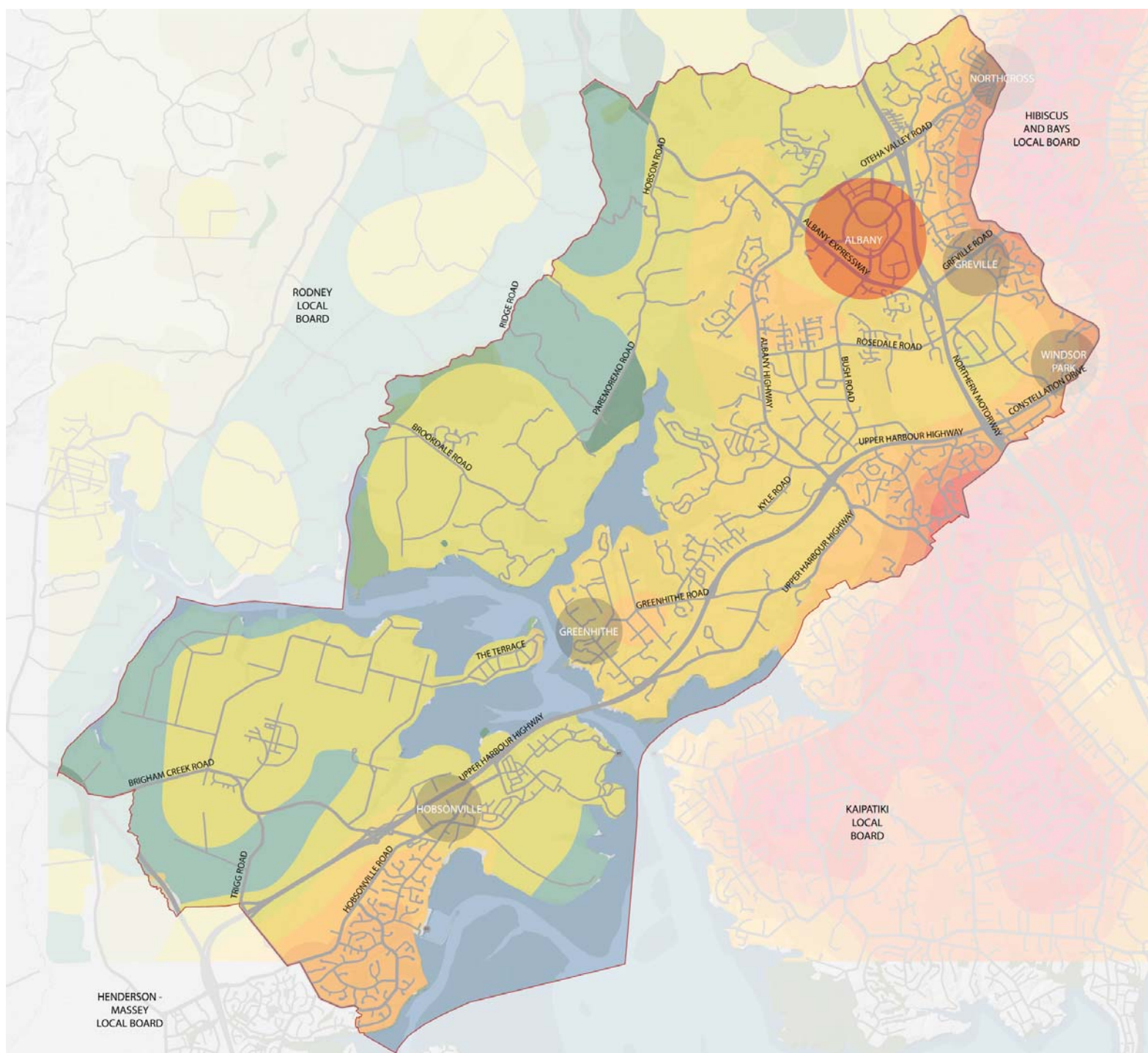


Scale: 1:40,000 @ A3

Public transport

Existing public transport routes are illustrated on the adjacent map, showing that residential and commercial areas within Upper Harbour are relatively well served by ferry and bus services. There are, however, areas with very limited public transport including Whenuapai, Wainoni and Schnapper Rock. There are no public transport routes that service the area between Albany and Sanders Reserve.

In planning the greenways routes, bus and ferry routes were taken into account as they provide good connections as these are less regularly distributed than bus stops, and have potential to bring visitors into the area on 'day trips', to walk the greenways network - particularly the more scenic coastal routes. Bus routes were also taken into consideration, as these offer less potential for creating 'slow speed' Greenways street environments, and offer more risk to cyclists. Bus routes were therefore avoided wherever possible, although links to bus stops have been considered.



Population density and growth centres

This map, sourced from the Auckland Plan 2012, shows the classification of town centres in the area, along with population densities based on the 2006 Census meshblock data.

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.

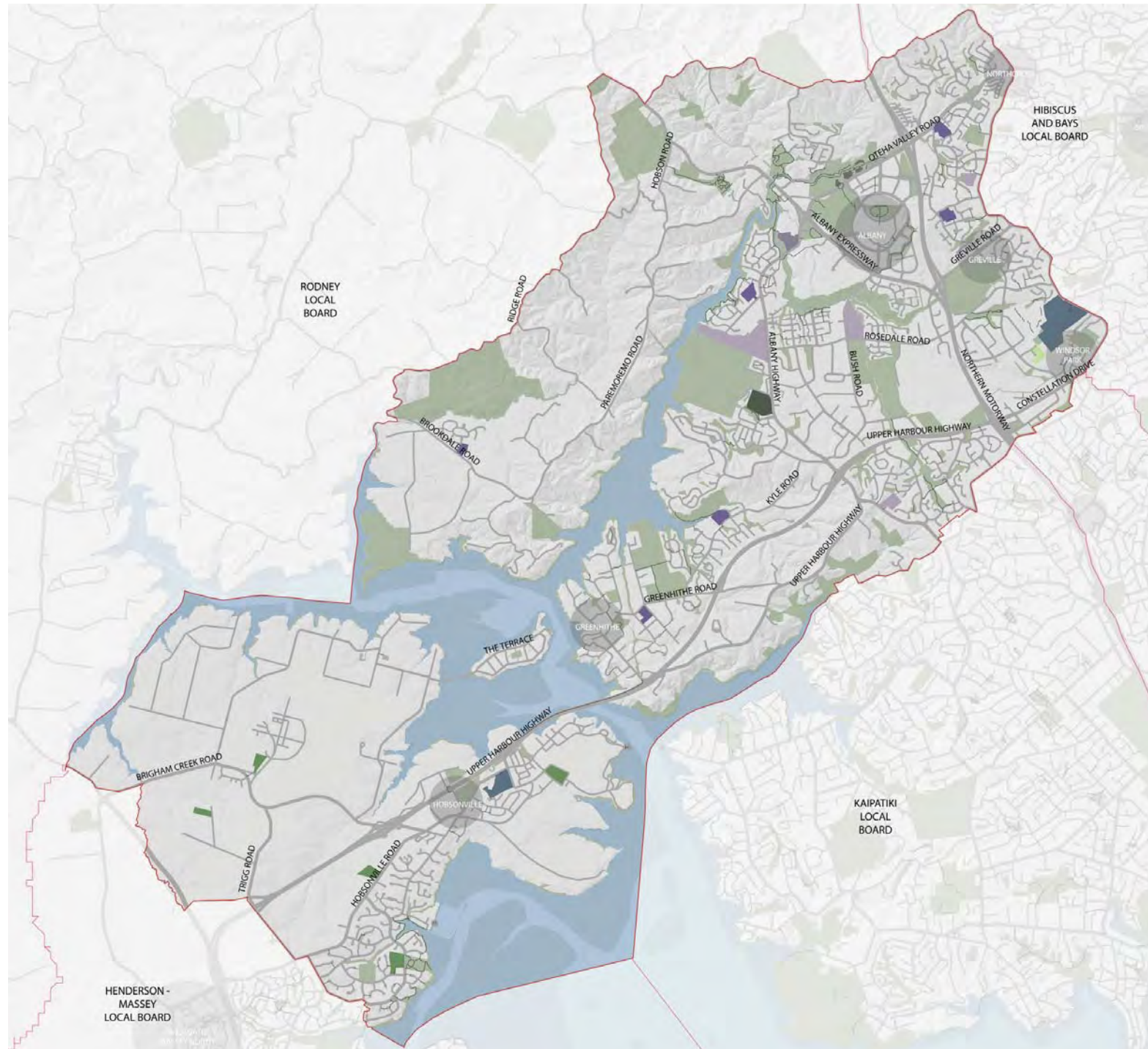
This map also illustrates the relative significance of the various town centres within the Upper Harbour area.

LEGEND:

- Local Board Boundary
- Streams / Rivers
- Railway and railways stations
- Parks and reserve land
- Road network
- Population density (indicative only)
- Metropolitan centre
- Local centre



Scale: 1:40,000 @ A3



LEGEND:

- Local Board Boundary
- Road network
- Private schools
- Full primary (years 1-8)
- Primary (years 1-6)
- Contributing (years 1-15)
- Secondary (years 7-15)
- Secondary (years 9-15)



Scale: 1:40,000 @ A3

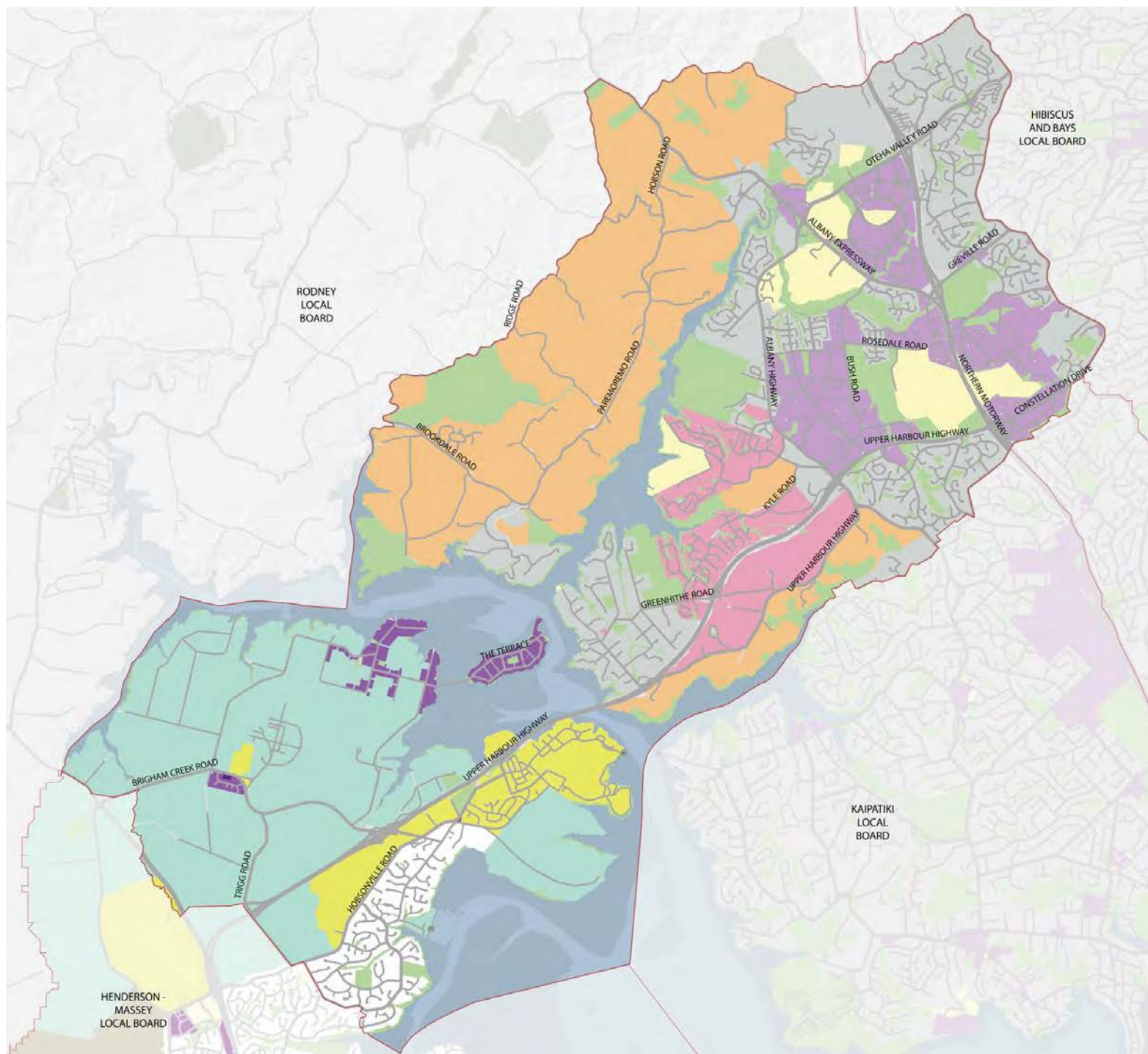
Schools

This map provides more detail on educational facilities in the Upper Harbour Local Board 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.

Proposed connections to schools may be influenced by existing 'walking school bus' routes or may influence the development of 'walking school bus' routes. 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 an 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.



LEGEND:

Local Board Boundary	Rural	Living
Road network	Special Purpose	Countryside
<u>NSCC District Plan Zoning</u>	Structure Plan Area	Special Area
Business	<u>WCC District Plan Zoning</u>	Community
Recreation	Rural Village	
Residential	Open Space	



Scale: 1:40,000 @ A3

Zoning

This map shows Auckland Council District Plan Zoning, which will be superseded by the Unitary Plan in the future.

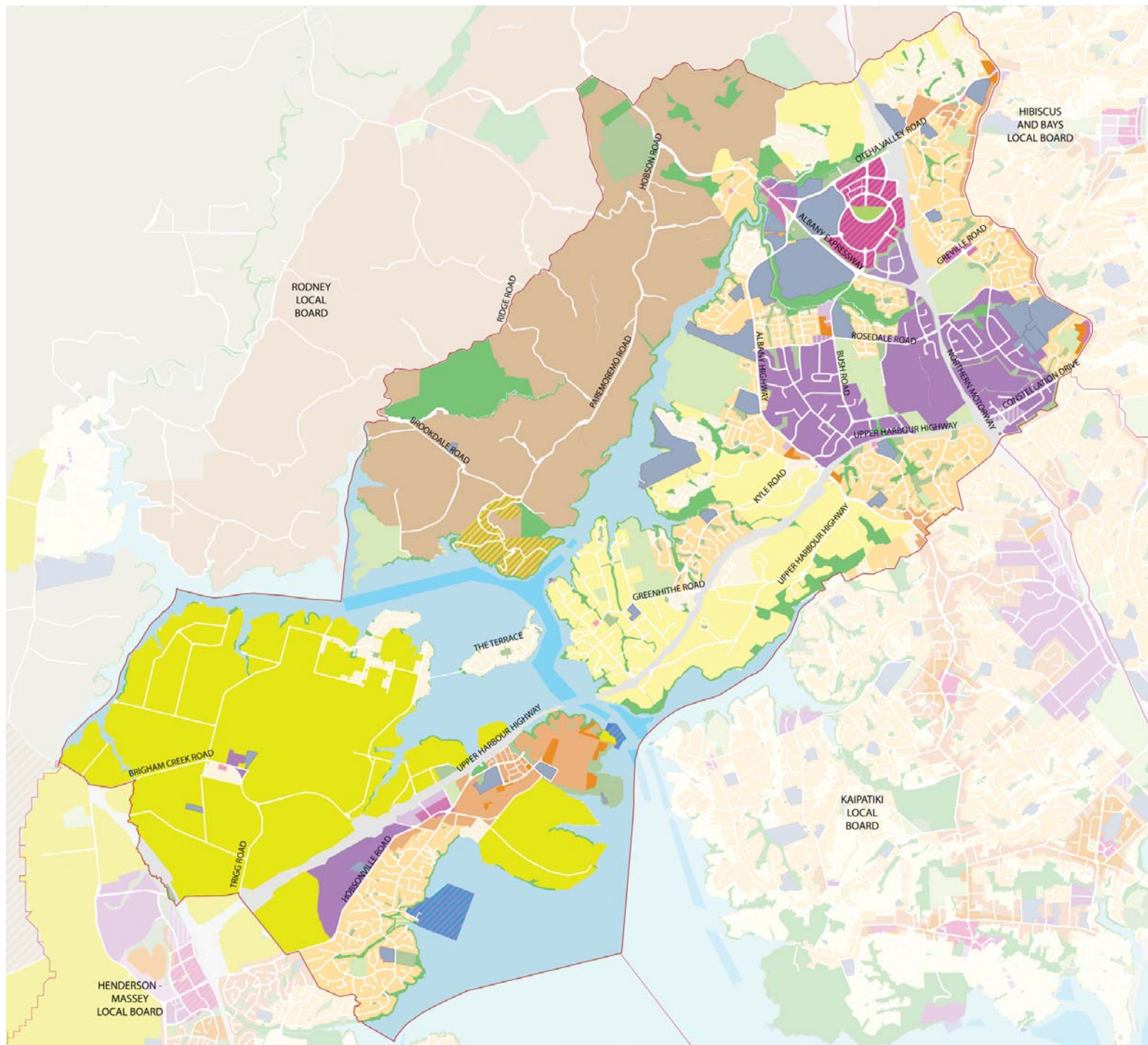
Upper Harbour Local Board area sits across two legacy council areas; North Shore City Council (NSCC) and Waitakere City Council (WCC). This map shows the zoning of both of these legacy councils.

Auckland Council District Plan (North Shore Section) Zoning:

- Business Zone - Relates to commercial and industrial activities, including retailing, servicing, offices, warehousing, manufacturing and research orientated activities.
- Residential Zone - Relates to areas that are predominately but not exclusively used for residential activity.
- Rural Zone - Relates to rural areas which are not intended for future urban development and which contribute to a physical and visual buffer indentifying the limits of urban expansion.
- Recreation Zone - Relates to a range of open space used for recreation activities, and conservation and visual purposes, whether or not the land is publicly owned or classified under the Reserve Act 1977.
- Structure Plan Area - Relates to specific areas where it has been determined how development can take place.
- Residential Expansion Area - Relates to areas which have been identified for future expansion.
- Special Purpose Zone - Relates to sites or areas that require special treatment and are of particular consequence to the communities well-being, health and safety but do not conform to the provisions of the standard zones.

Auckland Council District Plan (Waitakere Section) Zoning:

- Rural Village Zone - Relates to small settlements found within the Countryside environment.
- Open Space Zone - Relates to publically owned open space.
- Living Zone - Relates to all areas within the intensively settled urban area that are primarily residential in character.
- Community Zone - Includes town centres and other smaller areas which are the focus of shopping, service, recreationa and communal activities.
- Special Area - Includes areas that contain a unique grouping of activities differing markedly from the surrounding area - including Hobsonville Industrial Area and Hobsonville residential area.



LEGEND:

Local Board Boundary	Terrace Housing and Apartments	General Business	Public Open Space	New Growth
Road network	Rural and Coastal Settlement	Business Park	Conservation	Future Urban
Residential	Business	Light Industry	Informal Recreation	Special Purpose
Special Purpose	Neighbourhood Centre	Heavy Industry	Sport and Active Recreation	Special Purpose
Large Lot	Local Centre	Rural	Community	
Single Lot	Town Centre	Rural Conservation	Marine	
Mixed Housing Suburban	Metropolitan Centre	Countryside Living	Marina	
Mixed Housing Urban	Mixed Use		Mooring	



Scale: 1:40,000 @ A3

Proposed Auckland Unitary Plan - Zoning

This map shows the proposed zoning for Upper Harbour within the Draft Auckland Unitary Plan. The Auckland Unitary Plan will supersede the legacy council District Plans.

The Rural Urban Boundary (RUB), defines the extent of urban development to 2041 and areas to be kept rural. The RUB runs through Upper Harbour Local Board area with Paremoremo and Lucas Heights siting outside the extent of urban development.

The Future Urban zone applies to land that will be urbanised within the next 30 years. Whenuapai is zoned Future Urban, and sits on the boundary of the RUB. While this area is currently predominately rural, it is anticipated this area will change significantly in the coming years. Hobsonville is also zoned Future Urban and is currently undergoing significant change.

The zoning of Upper Harbour does not change significantly from zoning within the legacy council district plans.

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

Residential Zones - Upper harbour includes a diverse range of housing choices for households and communities to meet varied needs and lifestyles.

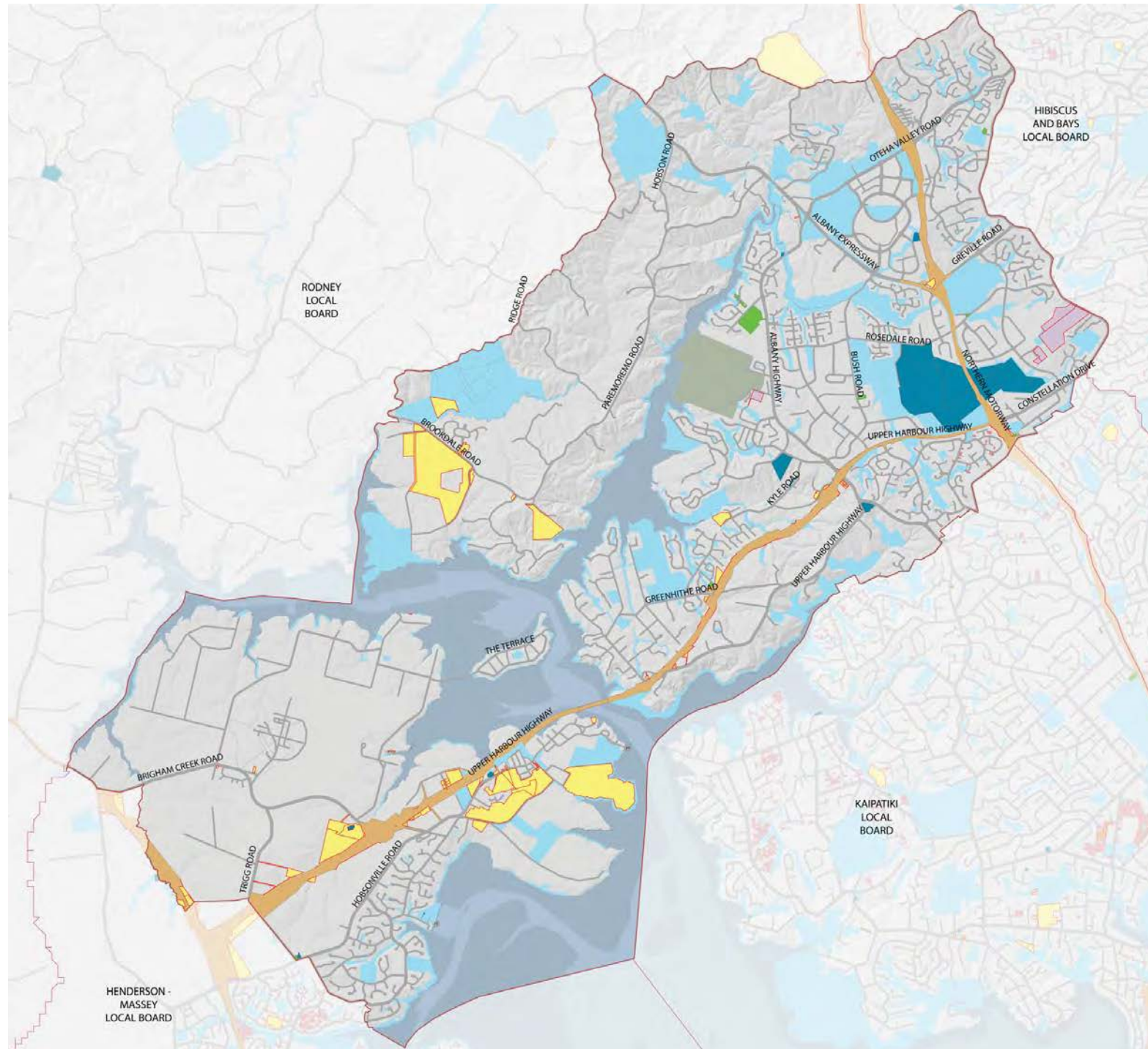
Business zones - relate to development strengthening Auckland's network of centres as attractive environments with a mix of uses that provide employment, housing and goods and services at a variety of scales.

Rural zones - protect the productive potential of rural land in the region and its contribution to landscape, natural character and biodiversity values. Rural zones within Upper Harbour include Rural Conservation and Countryside Living.

Open Space zones - There are 5 broad zones are used to facilitate the management of activities on public open space, four of which are within the Upper Harbour local board area including conservation, informal recreation, sports and active recreation and community.

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

Marina - The Marina zone provides for the development and operation of various established marinas including Westpark West Harbour and Hobsonville Point within Upper Harbour.



LEGEND:

Local Board Boundary	Auckland Council (inc. parks and reserves)	Her Majesty the Queen (other designation)
Road network	Auckland Council Watercare	Energy Company
	Housing New Zealand Land (HNZ)	
	Ministry of Education land	
	New Zealand Transport Authority (NZTA)	



Scale: 1:40,000 @ A3

Land ownership

This map provides details of land within the Upper Harbour Local Board area that is in some form in public ownership or in private ownership and used by the public (eg Private Schools and which is owned by Windsor Park Board). This information is of key importance, as connections on publicly-owned land are more readily achieved than those on privately-owned property.

The following public ownership types exist within the study area:

Auckland Council Land, Zoned Open Space: No access arrangements required to improve connections, although resource consent may be required, dependent on the proposal.

Auckland Council (or AT) land, not zoned 'Open Space': This land may be available for Greenway connections, dependent on the current or proposed usage of the site.

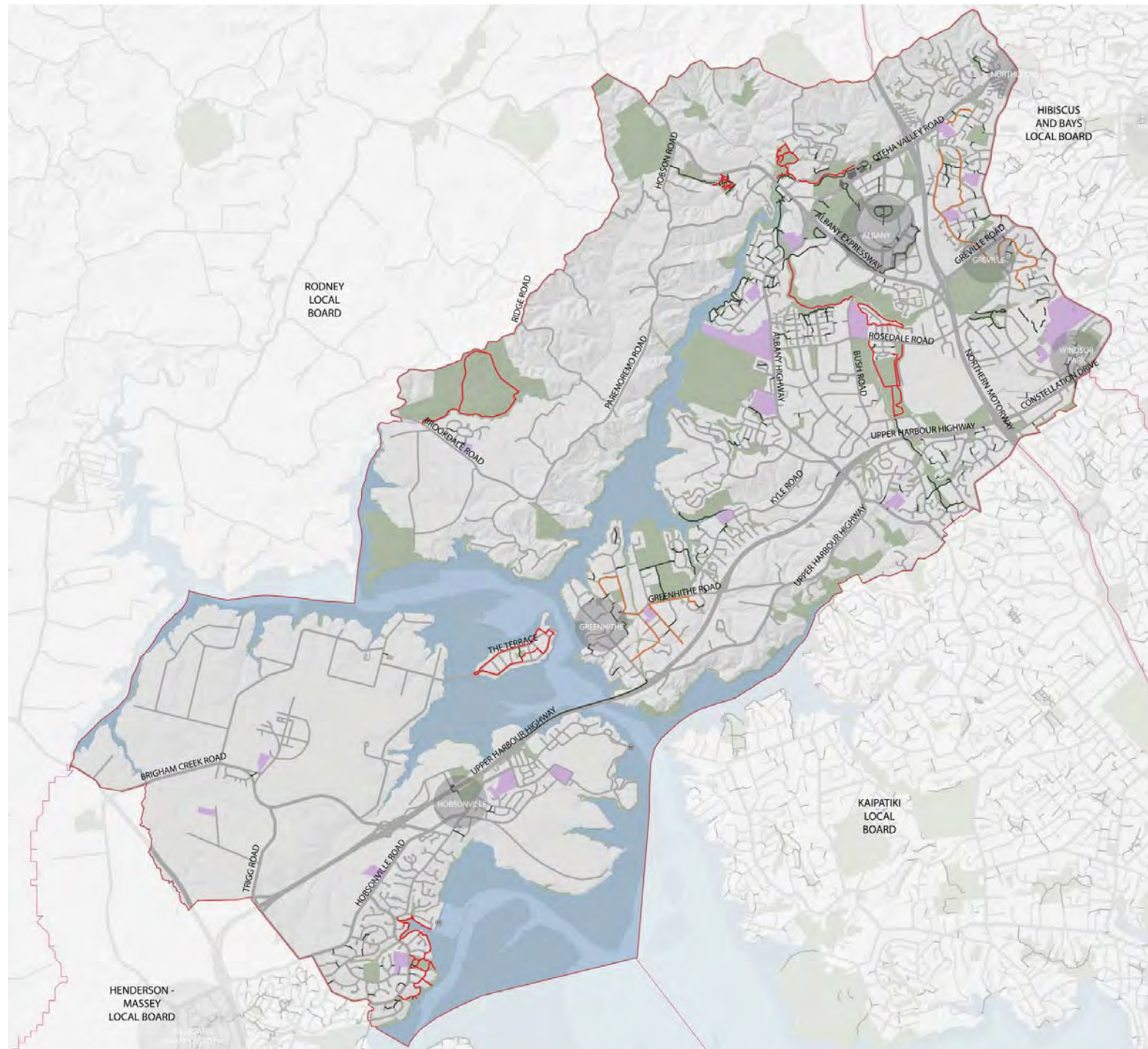
Ministry of Education land: Educational institutions generally feature large areas of open space, and discussions may be held regarding public use and/or connection easements over this land.

New Zealand Transport Authority land (NZTA): NZTA holds land adjacent the motorways. Connection such as the Upper Harbour Motorway Cycleway have come from NZTA land designations and there is potential for further connections along other motorway corridors.

Housing New Zealand (HNZ) land: In areas where there is a cluster of HNZ properties, discussions may be held regarding redevelopment of housing stock, and the redistribution of public open space to a layout which suits both housing and recreational purposes better.

Her Majesty the Queen land: Is typically land that is owned by the Crown where land is used for a specific purpose and a government agency is responsible for it, eg Housing New Zealand and Ministry of Education.

Energy Company land: Is land that is owned by Transpower or Vector. In Upper Harbour, these properties are small secure sites, that offer little to the creation of the greenway network.



LEGEND:

- Local Board Boundary
- Road network
- Open space
- Schools
- Walking School Bus routes
- Upper harbour walking routes
- Existing pathways / impervious surfaces



Scale: 1:40,000 @ A3

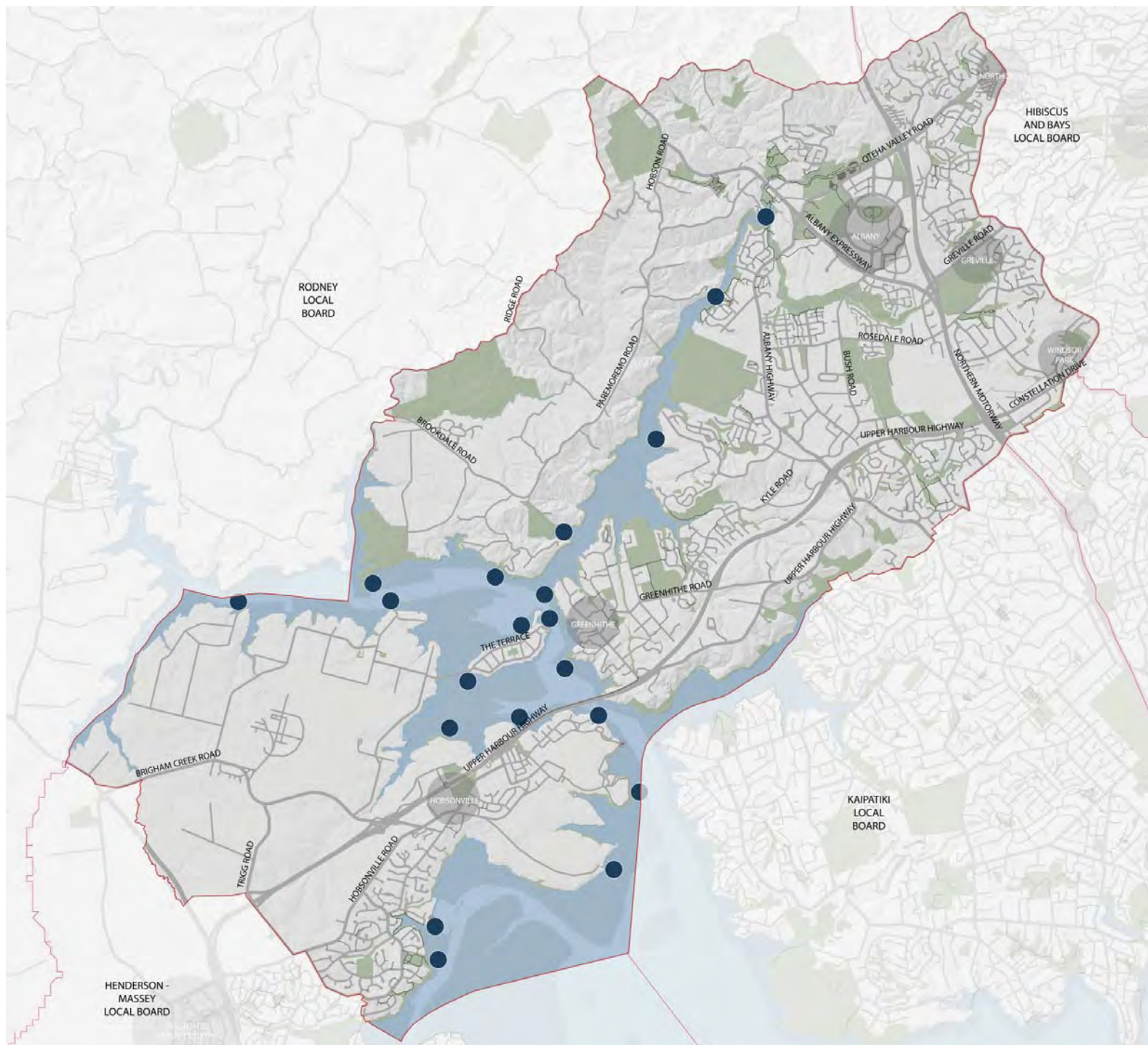
Walking routes

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

Walking School Bus (WSB) routes have been developed by Auckland Transport, to provide a safe and healthy environment for children to walk to and from school along quiet streets, under the supervision of an adult. Upper Harbour only has two WSB routes, relating to Pinehill and Greenhithe schools. Opportunities exist to work with AT to align the greenway routes with any new WSB routes.

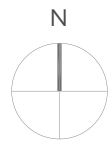
Upper Harbour walking routes have been transcribed from Upper Harbour walking guide, are existing walks within the area's coastal and bush reserves.

The existing paths shown on the map have been compiled from Auckland Council and Auckland Transport GIS systems.



LEGEND:

- Local Board Boundary
- Road network
- Open space
- Open space
- Proposed Kayak access point



Scale: 1:40,000 @ A3

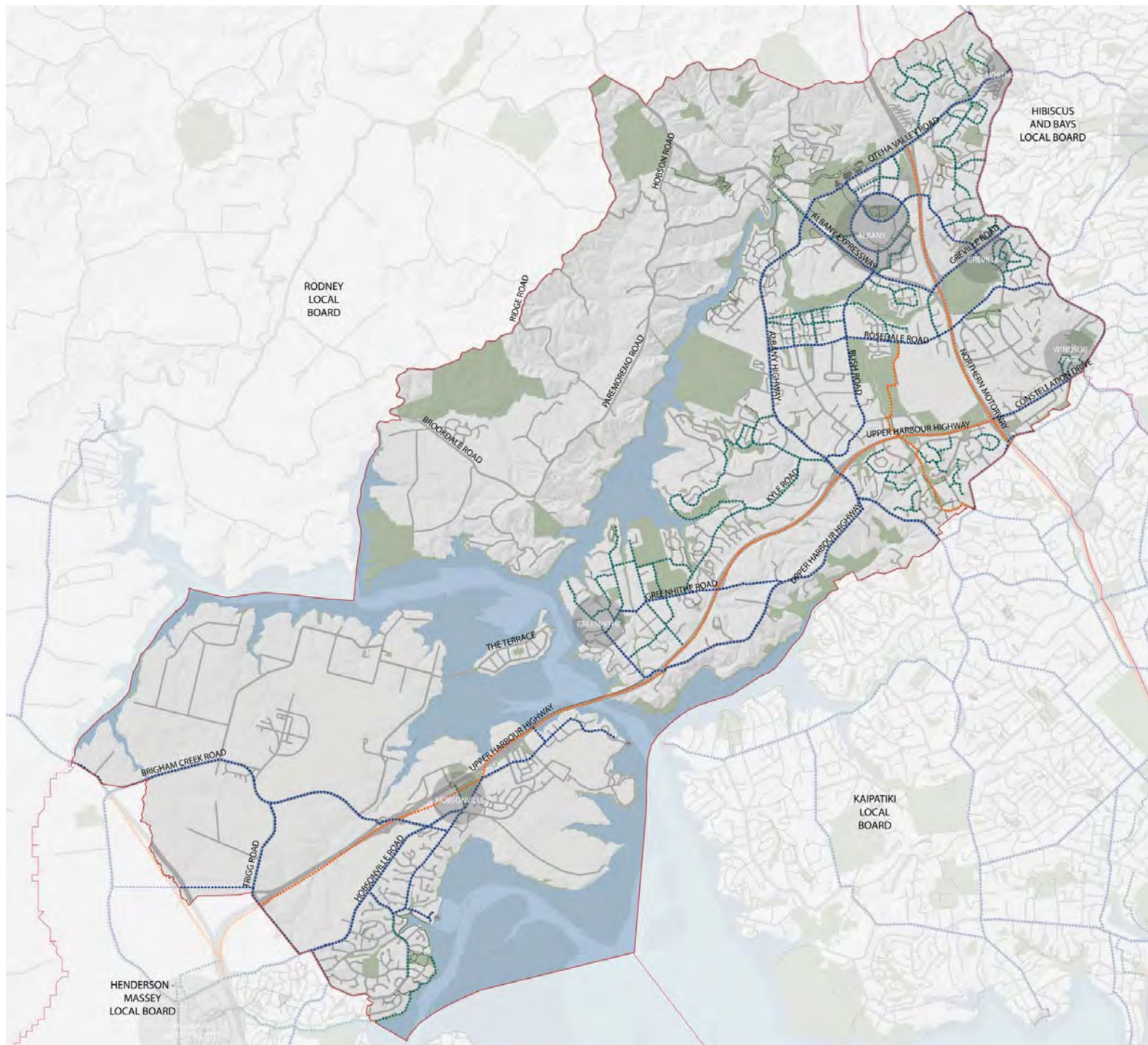
Kayak Trail

This map outlines existing and potential entry/exit and stop off points for kayak access along the Upper Harbour coastline. These points have been identified as the first step in developing a Kayak trail or a 'blue-way' for the Upper Harbour Local Board Area.




This kayak trail was developed concurrently with the Upper Harbour Greenways Plan, to link both land and water recreational opportunities in the area.

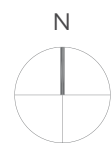
These routes are recommended for and by novice paddlers, with journeys that return with tides, for example, Wharf Reserve to Sanders Reserve.

Recreational kayakers have been considered in the development of this Greenways plan, as the kayak trail has a recreational focus which is consistent with the aspirations of the Upper Harbour Greenways Plan.



LEGEND:

- | | |
|--|--|
|  Local Board Boundary |  Feeder routes |
|  Parks and reserve land |  Connector routes |
|  Road network |  Highway routes |



Scale: 1:40,000 @ A3

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.

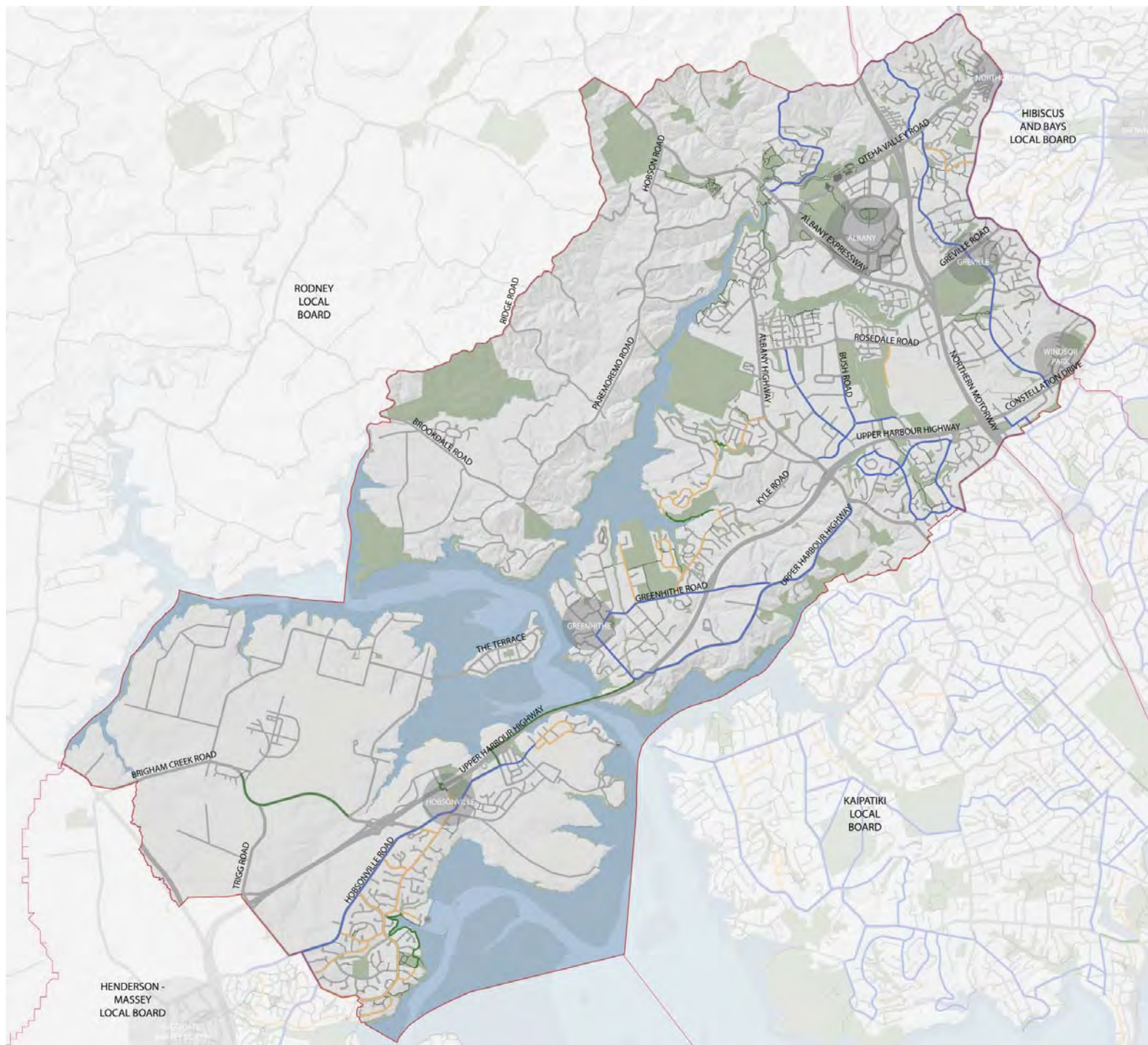
The draft ACN (shown on the adjoining map) is broken into three types of cycleways:

- Cycle highways
- Connectors
- Feeders

'Cycle highways' offer the highest level of service to the cyclist, in that they are dedicated connections, continuous, direct and traffic free. They would exist along motorway or railway corridors. 'Connectors' follow arterial routes, and are designed to connect people quickly and directly to key destinations and public transport nodes. They are 'on road' connections. A number of these exist already, many in shared bus lanes, such as those along Great North Road.

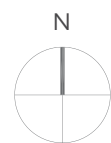
'Feeders' are local neighbourhood connections. These may include and/or double up with Greenways routes. 'Feeder routes' are intended to connect open spaces /parks, and like Greenways, are likely to follow quieter streets.

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



LEGEND:

- Local Board Boundary
- Road network
- Open space
- Shared path or pedestrian link
- Route on quieter roads recommended by cyclists
- Route with space for cyclists, may be on busy roads



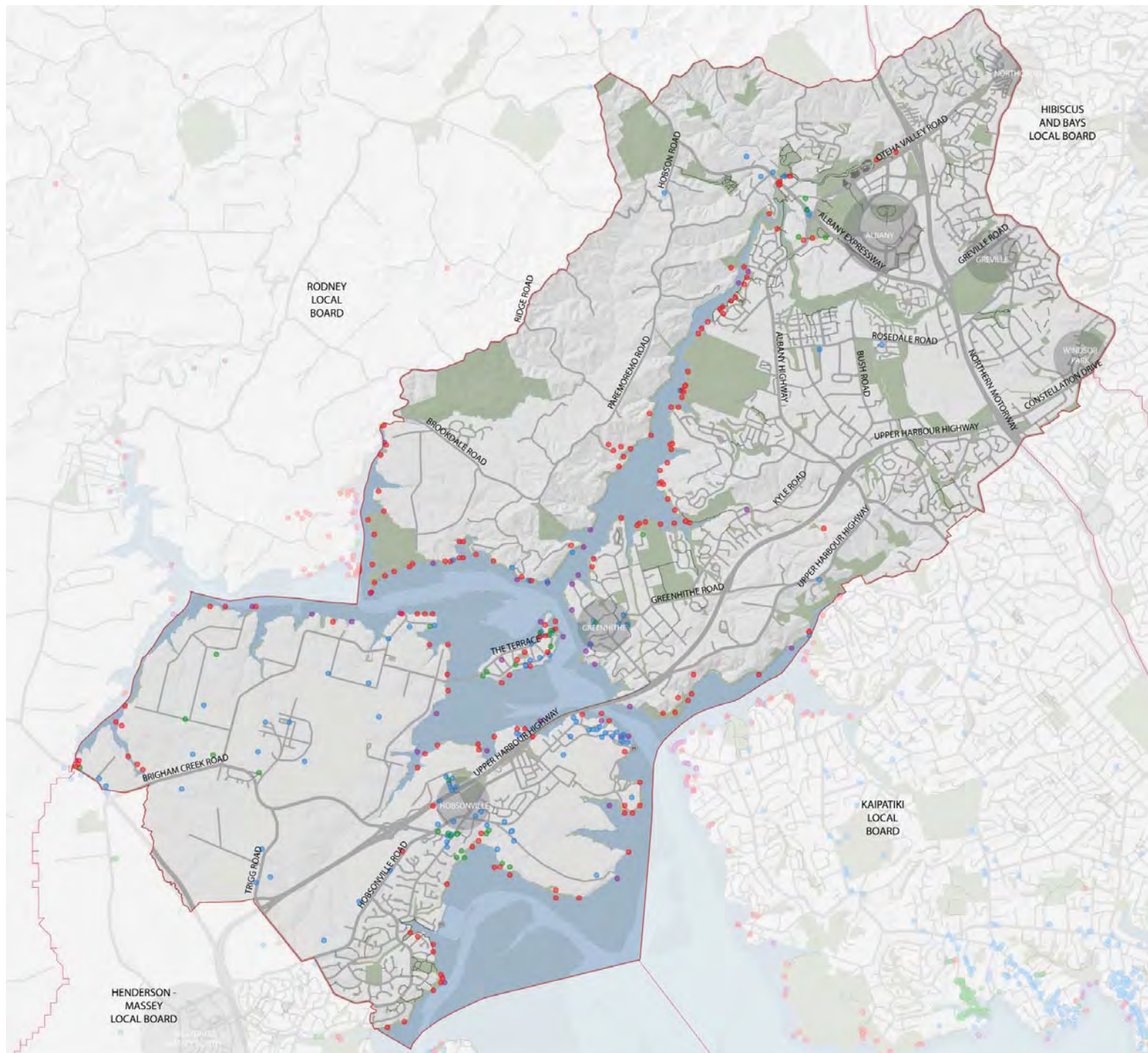
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Cycle routes - Northern Cycle Map

This map is derived from the Northern Cycle Map which shows recreational cycling routes identified by Auckland Transport.

The Northern Cycle Map provides recreational routes recommended by novice cyclists and may or may not have designated cycle lanes. A team of cyclists have ridden these routes and graded them in terms of their safety and whether is on quiet or busy route.

Recreational cycle routes have been considered in forming the Upper Harbour Greenway network, particularly the shared paths, routes on quieter roads and routes with space for cyclists. These routes in particular have a recreational focus to them which is consistent with the aspiration of the Upper Harbour Greenways network.



LEGEND:

- Local Board Boundary
- Road network
- Archaeological site
- Historical botanical site
- Historical structure
- Maritime site



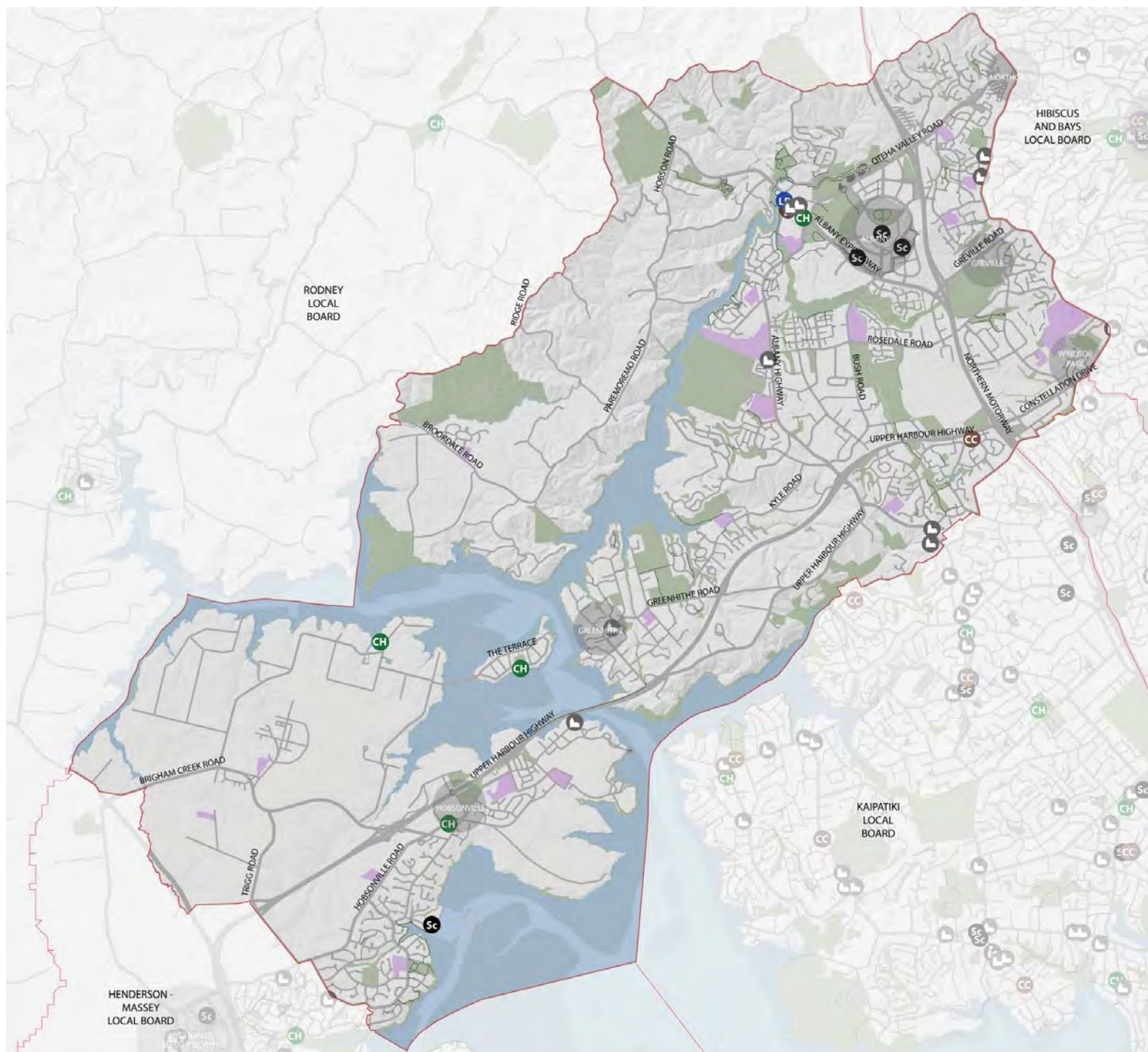
Scale: 1:40,000 @ A3

Cultural heritage inventory

This map shows sites that have been identified for their cultural heritage value. The Auckland Council 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)



LEGEND:

- Local Board Boundary
- Parks and reserve land
- Road network
- LB Local board office
- CC Community centre
- Sc Shopping centre
- ⛪ Place of worship
- 📖 Library
- CH Community hall
- Schools



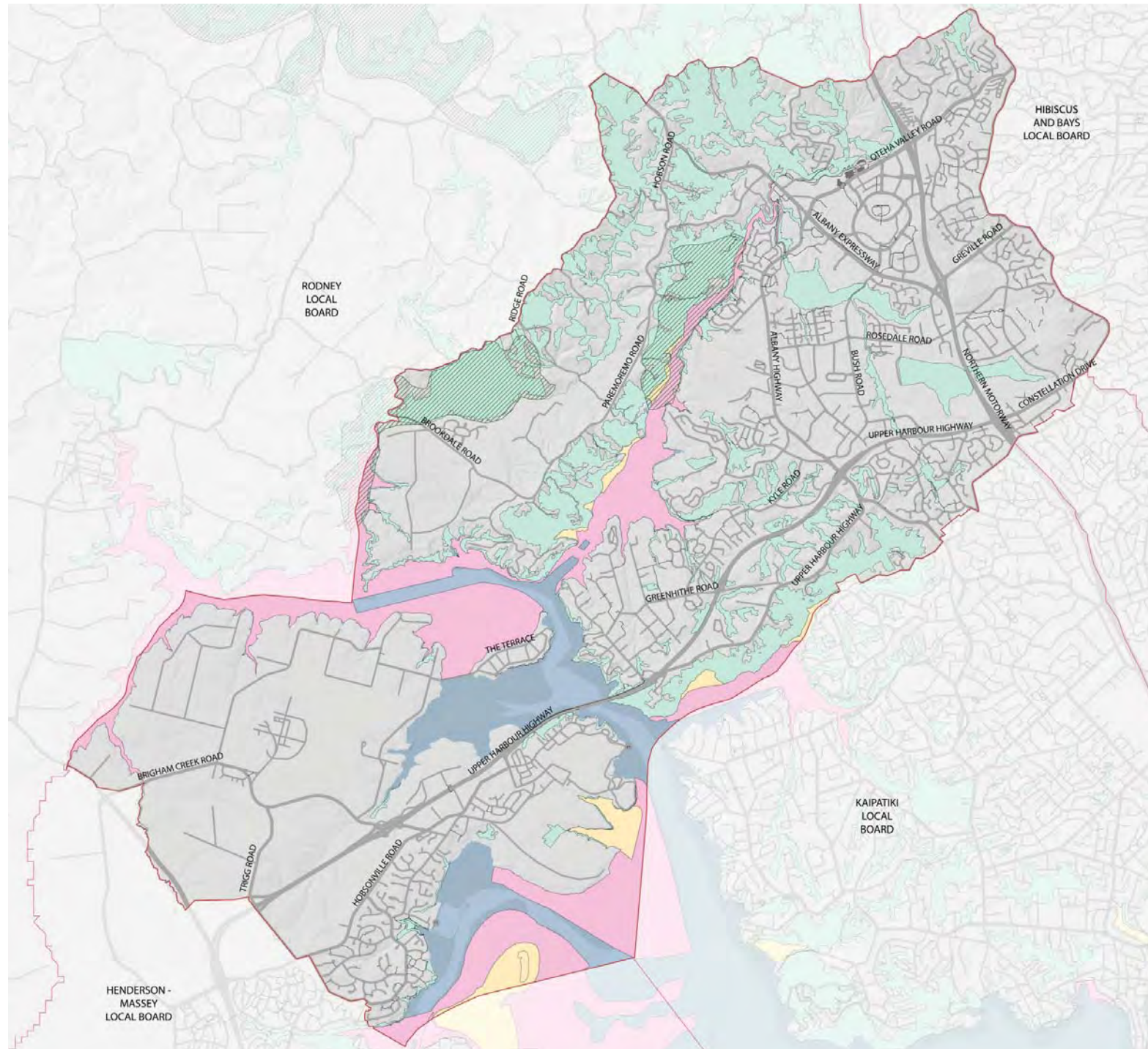
Scale: 1:40,000 @ A3

Community facilities and Schools

This map shows community facilities in the Upper Harbour Local Board area, including community halls, places of worship, community centres, libraries, shopping centres recreation facilities schools and the Local Board office.

Schools and community facilities 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.

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



LEGEND:

- Local Board Boundary
- Road network
- Land
- Marine 1
- Marine 2
- ▨ Outstanding natural landscape



Scale: 1:40,000 @ A3

Significant Ecological Areas

This map shows Significant Ecological Areas (SEA's) as identified within the Draft Unitary Plan.

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.

In developing the Upper Harbour Greenway network further protection improvement or extension of existing SEA will be considered. In addition all works will need to be consistent with the objectives and policies of the Unitary Plan in the future. The greenway network should provide opportunities for education and engagement within the natural environment to ensure its long term protection and preservation.

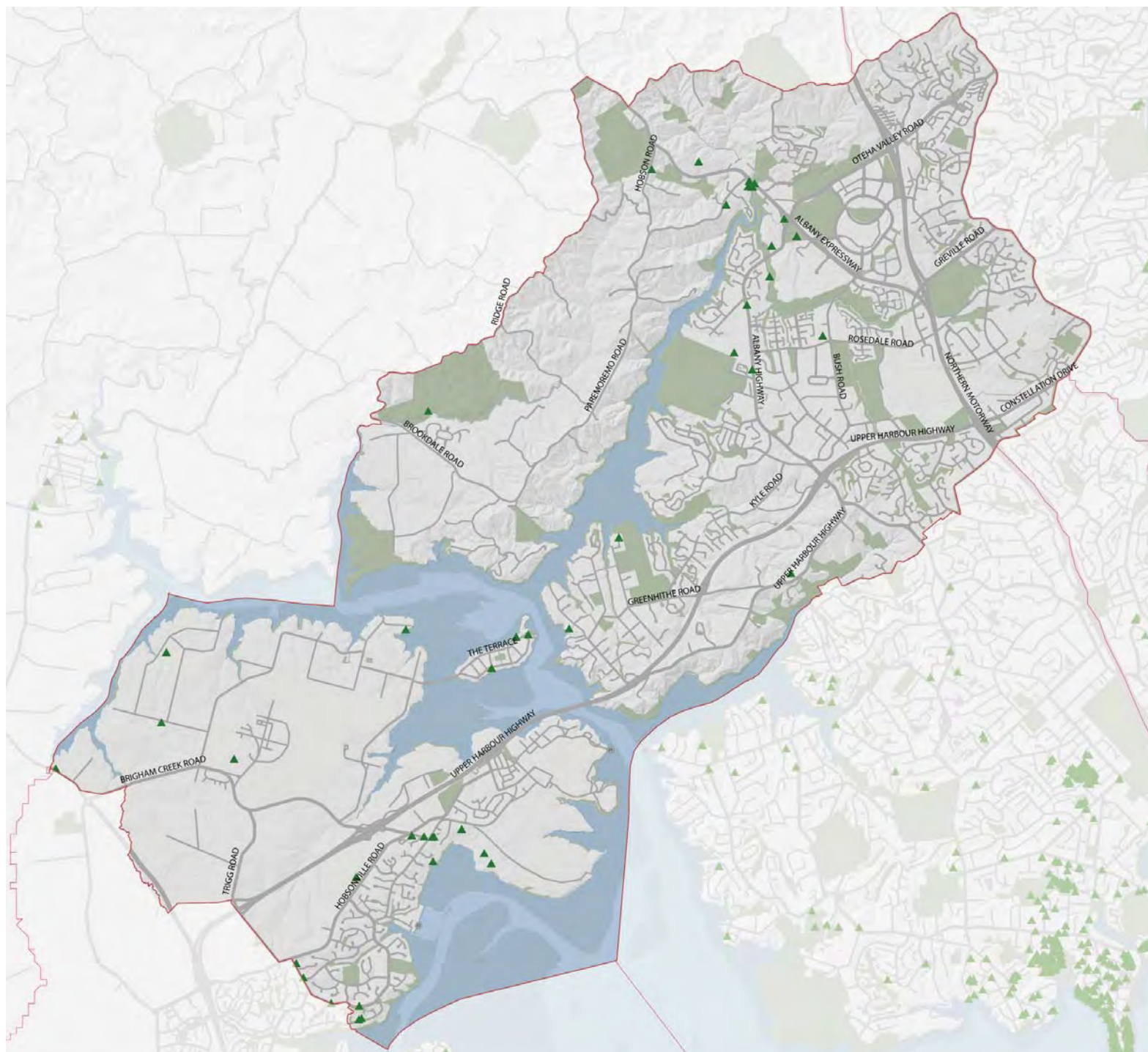
North West Wildlink

The Upper Harbour Local Board area sits within the North-West Wildlink. The North-West Wildlink (NWW) is a corridor of ecosystems linking regional biodiversity hotspots across Auckland's east and west coasts. The NWW project is a collaborative effort between Forest & Bird, Auckland Council and DoC, which aims to connect and enhance natural areas.

Native wildlife needs relatively connected native vegetation cover to move from place to place seasonally. The NWW is expected to provide improved migration routes from Tiritiri Matangi Island to Shakespear Park and the Waitakere Ranges.

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.

The development of the greenways network will contribute positively to the success of the NWW project, as their aims are inter-linked.



LEGEND:

- Local Board Boundary
- Parks and reserve land
- Road network
- ▲ Notable trees



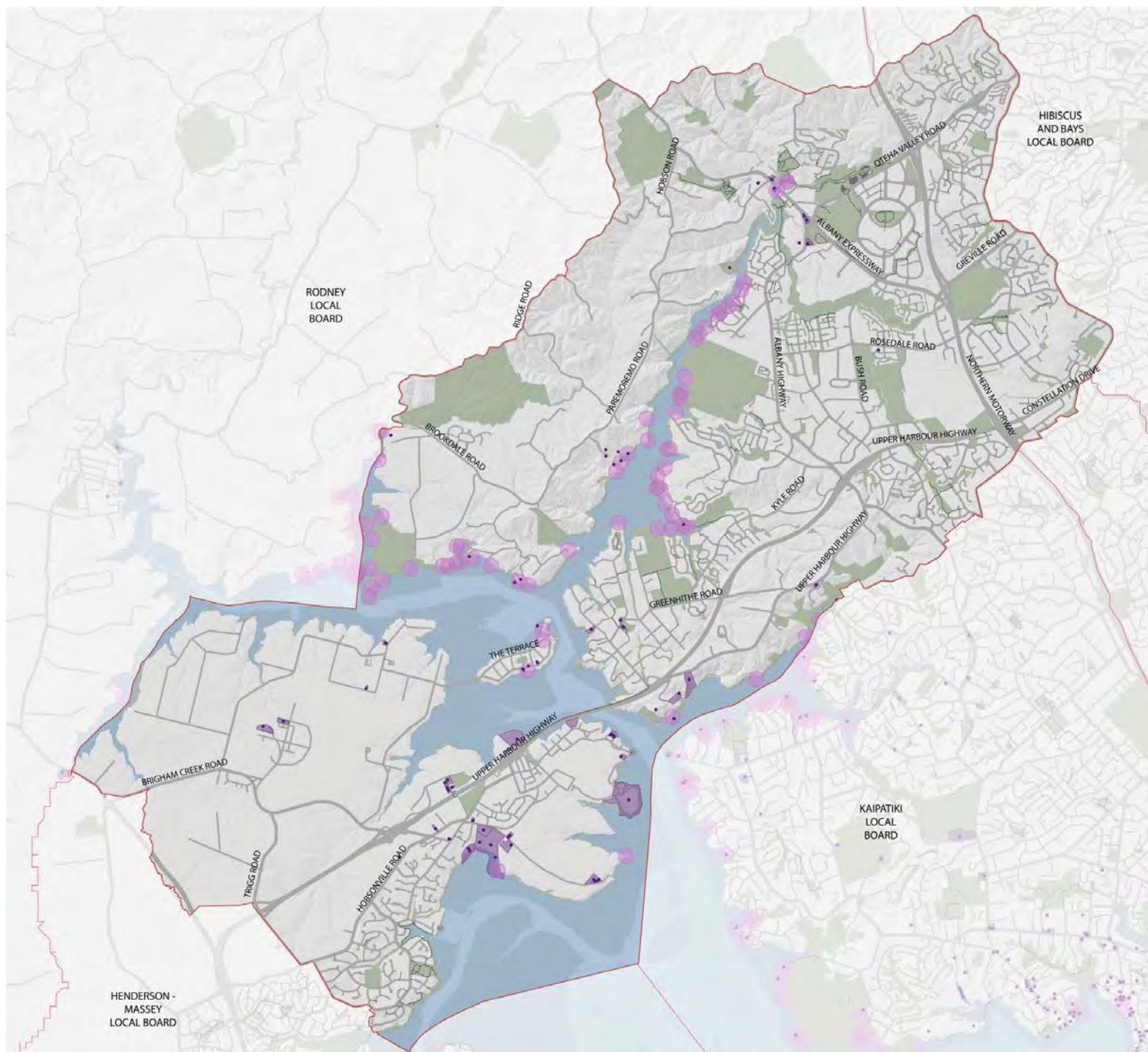
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Proposed Auckland Unitary Plan: notable trees

Trees shown on this map that have been considered to be notable and identified for protection by provisions in the Auckland Unitary Plan to ensure it is not damaged or destroyed.

Trees contribute to the unique natural character of many of our neighbourhoods, riparian and coastal areas. Trees provide an important role in the functioning of our environment as they support bird life and provide shelter and privacy, assimilate carbon and improve air quality. Trees and native vegetation, particularly pohutukawa, are an integral part of the coastal landscape of Auckland. They make a significant contribution to the visual amenity and natural character of the coast while also providing important ecological and site stability benefits.

When developing the Greenway network it should be ensured that notable trees are protected.



LEGEND:

- Local Board Boundary
- Parks and reserve land
- Road network
- Historic place
- Sites and places of value to manu whenua
- Historic heritage extent of place



Scale: 1:40,000 @ A3

Proposed Auckland Unitary Plan: Heritage

This map shows the historic heritage overlays from the Auckland Unitary Plan. These historic heritage overlays and the rules that protect them all now have legal effect and must be considered in the development of Greenways networks.

Within the Auckland Plan, historic heritage is defined as:

“Our heritage is a legacy to pass on to future generations. Heritage reinforces our sense of history and place, is central to our well being, and helps define what is unique and distinctive about Auckland. It is more than a social or environmental asset; it is also an important driver for economic development”

In developing greenways the preservation and protection of historic heritage should be ensured. In addition, when implementing greenways this will flag the need for understanding of the planning implications of working within a heritage site.

