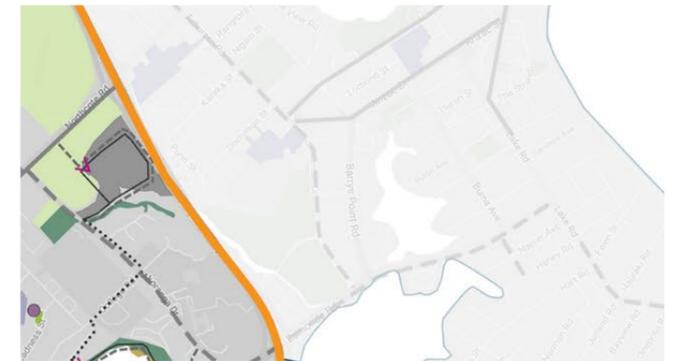
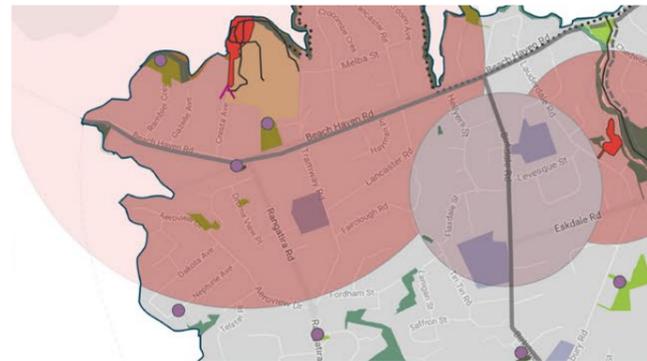


# NATURE SPACES AND TRAILS

KAIPĀTIKI LOCAL BOARD, AUCKLAND



FEASIBILITY ASSESSMENT

September 2018



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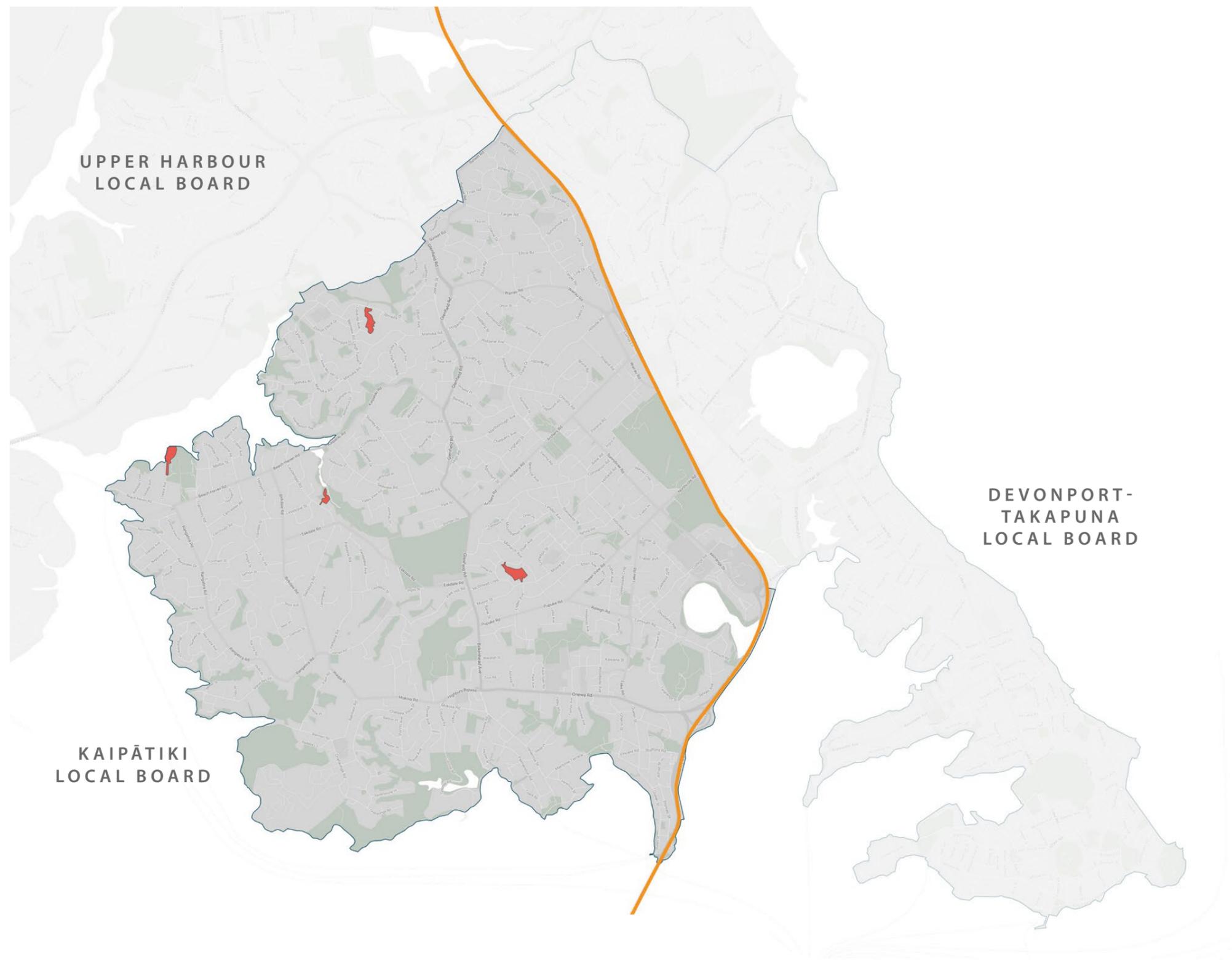
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# OVERALL STUDY AREA MAP



## LEGEND

-  Preferred Nature Play sites
-  Local Board extent
-  Northern Motorway

Base map data: Google



# EXECUTIVE SUMMARY

## INTRODUCTION

The following assessment summarises the evaluation of the feasibility of nature play interventions in the Kaipātiki Local Board Area.

### WHAT IS NATURE PLAY?

Nature play is typically defined as child-led, unstructured play outdoors, in natural and sensory-rich environments for children of all ages and abilities. Nature play nurtures cognitive, social and emotional development whilst developing creativity, problem-solving and resilience. Nature experiences in childhood are also thought to lead to greater environmental awareness and stewardship later in life.

The implementation of nature play spaces within wider urban and suburban settings provides opportunities to harness accessible natural environments for their intrinsic capacity to support and generate valuable play and education outcomes.

Nature play spaces typically comprise a blend of movement-focused, nature trail interventions with more unstructured, loose play and education-focused interventions.

This report has grouped nature play interventions into three broad typologies: movement play, education play and unstructured play. Interventions may overlap one or more typologies depending on individual use and level of engagement.

### UNSTRUCTURED PLAY

Most nature play activities, whether education or movement-focused, involve aspects of unstructured or child-led play. Freedom of expression, creativity, collaboration and exploration should be encouraged to enable hands-on manipulation and discovery, allowing children to shape their environment.

Some examples of unstructured play include:

- Manipulating loose parts e.g. building a den, making a mud pie, pouring sand from one container to another, building with loose elements (including pebbles, stumps, pine cones, branches, log rounds, straw bales)
- Playing with or around water, whether a natural stream or designed water play sequence
- Playing with sound or music instruments
- Interacting with landform, balance trails, vegetation or other physical elements to invent games and role play scenarios

### MOVEMENT PLAY

Nature play stimulates full-body engagement, increasing gross motor skills and encourages exploration; increasing opportunities for walking, running, jumping and climbing.

Some examples of movement play include:

- Nature trail elements like balance beams, sensory paths, boulders, stilts, rope trails and stepping stumps
- Pump tracks and other topographical changes allowing for running and rolling games, enclosure and exposure
- Tree houses, climbing nets and log scrambles

- Structured play elements like slides and swings

### EDUCATION PLAY

Nature play spaces are living systems, facilitating engagement with constantly changing environments and emphasising cumulative learning experiences across seasons.

Some examples of education play include:

- Collecting flowers, pine cones, foliage, shells and rocks for show and tell or loose parts play
- Observing animals and insects in their natural habitat
- Interacting with streams, coastlines and wetlands
- Learning plant and animal names
- Playing in different weather conditions and seasons
- Gathering in storytelling rings or outdoor classrooms as part of wider education initiatives
- Learning about Te Ao Māori (Māori world view) and history through story, interpretative signage and place-making
- Treasure hunts / informal orienteering

### TAKARO – INVESTING IN PLAY (2017)

Auckland Council's discussion document Takaro – Investing in Play identifies nature play as an opportunity to deliver a diverse range of play in a cost-effective, adaptive manner with lower capital and maintenance expenses.

The discussion document outlines several responses to the heightened sense of risk intrinsic to nature play interventions, suggesting that Council can support users' responsibility for managing their own safety through signage, briefings and promotional material that clearly warns of potential hazards.

The document also proposes that nature play spaces are initiated via well publicised pop-up programmes that introduce the general public to the space.

Feedback was sought from the wider community, including mana whenua, local boards and public submissions. The majority supported increased investment in nature play, to celebrate Auckland's natural environment and provide greater educational value and access to seasonal experiences.

Adventure play, nature play and pop-up play activations were particularly popular, with opportunities to be exposed to and learn to navigate risk emphasised in community feedback.

## PURPOSE

The purpose of this assessment is to provide the basis for appropriate authorities to make informed decisions on proposed locations and extents of nature play spaces and trails, understanding key opportunities and constraints and where further work is required to validate potential outcomes.

To achieve this purpose, this study uses network analysis mapping exploring overall patterns and synergies between existing nature reserves, ecosystems, Kaipātiki

Explorer routes and playspace provision to evaluate opportunities at a network level.

Preferred sites identified out of this process were then assessed for their intrinsic nature play opportunities, with schematic site plans prepared to spatially articulate recommendations for future implementation.

## POLICY AND LITERATURE CONTEXT

Several documents have informed the development of this report and relevant strategies, plans and policies considered to ensure alignment where applicable.

Refer Appendix D Bibliography for full list of documents consulted.

## KAIPĀTIKI STUDY AREA

Kaipātiki is particularly fortunate to possess one of the largest areas of continuous urban native vegetation within the Tāmaki (Auckland) Ecological District. Open space provision is well distributed with approximately 540ha of local parks and reserves. Many of these parks are formed out of remnant native forest associated with gullies and steep coastal transitions, particularly in southwestern and central Kaipātiki.

The Kaipātiki Connections Network Plan (2012) identified existing and proposed open space, ecological corridors, cycling and walking connections. The continuing implementation of proposed network connections is a key initiative of the Kaipātiki Local Board and will improve access and connectivity where associated with the open space network.

Various ecosystem typologies, from kauri forest through to raupō wetland, are easily accessible from town centres and residential neighbourhoods, with well-documented walkways and tracks like the Kaipātiki Explorer promoting pedestrian and cycle connectivity between bush reserves and parks.

In general, this ease of access to a wide range of ecosystem typologies presents significant opportunities to harness natural landscapes for unstructured, movement and education play interventions in close proximity to existing community facilities and schools.

Refer Existing Ecosystems Map in Appendix C for an overview of different ecosystems extents and their relationship with existing Kaipātiki Explorer routes.

## SCOPE AND LIMITATIONS

This assessment identifies suitable sites via network analysis mapping, then evaluates chosen sites for their suitability and inherent opportunity to facilitate nature play by identifying key attributes including natural features, access and wider relationships.

The following outlines scope and limitations associated with this assessment:

- Nature play locations have been identified within the Kaipātiki Local Board area only.
- This Nature Play Assessment evaluates future play interventions at a limited number of sites within the broader open space network, including existing

bush reserves, with individual schematic plans produced to spatially explore opportunities and constraints intrinsic to each site. Assessment of play network contribution and relationship with Kaipātiki Play and SunSmart Provision: Study and Strategic Advice (KPSSP) has been reviewed at a high level to ensure play experiences and provision are considered in a holistic manner.

- Network analysis mapping utilises high level radial catchment analysis in line with Auckland Council's Open Space Provision Policy to provide an acceptable level of information to support simple gap analysis. It is acknowledged that assessment of walking distances is indicative, with related topographical and physical constraints considered at a high level only.
- Individual site schematic plans were produced using Auckland Council Geomaps information including aerial imagery, overland flow paths, Unitary Plan zoning and contour information. No detailed topographical survey information was obtained. Locations of existing and proposed routes and features are indicative only.
- Schematic plans indicate proposed and existing circulation routes, nature play zones, open space relationships, route connections and amenities at a high-level only. Further design development and site checks will be required to refine intervention extents, form, materiality and construction methodology.
- Risk assessment addressing existing hazards present on site and / or potential hazards associated with proposed nature play interventions sits outside the scope of this report. This also applies to executing assessments with a high level understanding only of related behavioural issues outside of explicit safety or Crime Prevention Through Environmental Design (CPTED) issues. It is acknowledged that this report provides limited commentary on obvious safety hazards recorded on site visits, intended as a general guide only, and Council officers may wish to commission additional risk assessment as design concepts are developed for individual sites. Refer Appendix D Bibliography for recommended further readings addressing risk management for nature play sites.
- The development of maintenance protocols for nature play sites also sits outside the scope of this report. Refer Appendix D Bibliography for recommended further readings addressing maintenance for nature play sites.
- Community and mana whenua consultation was not conducted in the preparation of this assessment. Future investigation and consultation will be required to inform design, implementation and maintenance of nature play interventions. Despite this, it is noted that specific consultation with the Monarch Park Placemaking Group was conducted as part of the individual nature play assessment for Monarch Park.

## METHODOLOGY

Assessment was executed in several stages to identify specific nature play intervention sites and establish feasibility of future development. The assessment process in sequence was as follows:

01. Network analysis mapping to document overall patterns and assess synergies between existing nature reserves, ecosystems and playspace provision with a view to identifying possible locations for nature space / trail interventions. This included analysis of:
  - Auckland Unitary Plan Open Space zoning
  - Ecosystem typologies and extents (as defined in Auckland Council GeoMaps)
  - Cultural Heritage Inventory sites (as defined in Auckland Council GeoMaps)
  - Council-owned playspaces
  - Schools
  - Cycleway routes
  - Kaipātiki Explorer routes and reserves

It is noted that three sites (Lauderdale Reserve, Spinella Reserve and Monarch Park) were identified prior to the commencement of this assessment through community consultation (by others). These sites were also assessed from a network perspective. Refer Network Analysis Map on page 07 and supplementary maps in Appendix C.

02. Further desktop evaluation of potential sites identified in initial network analysis mapping and crosschecking of assumptions, with a view to discounting sites deemed unsuitable or hazardous and determining sites suitable for further assessment. This desktop evaluation process included use of Auckland Council GeoMaps to determine topography and vegetative cover, Google Street View to determine access and visibility, and review of the Kaipātiki Explorer booklet and route categorisations (from easy to hard). Sites identified within this phase were visited, with photos taken and key observations recorded.
03. Following desktop analysis and site verification, prepare Individual Site Assessment Sheets for selected sites collating key observations and site characteristics in a concise manner. Individual Site Assessment sheets assemble key assessment data collected from network analysis mapping and desktop evaluation, including access / connectivity, natural / cultural features, existing built features, safety and community involvement, folding in additional detail gleaned from site visits. Refer Appendix A.
04. Prepare schematic site plans articulating opportunities and constraints in diagrammatic format and provide recommendations for future implementation.
05. Prepare character imagery sheets to articulate the nature of potential intervention types.

## NATURE PLAY SITES ASSESSED

The following lists identify the extent of sites assessed in line with the sequence outlined above.

01. Initial locations identified via network analysis mapping:

- + Lauderdale Reserve
- + Spinella Reserve
- + Shepherds Park
- + Monarch Park
- + Kauri Point Centennial Park
- + Chatswood Reserve
- + Chelsea Heritage Park
- + Le Roys Bush
- + Kauri Glen Park
- + Lynn Reserve
- + Smiths Bush

02. Locations identified for site visits after further desktop evaluation:

- + Lauderdale Reserve
- + Spinella Reserve
- + Shepherds Park
- + Monarch Park
- + Le Roys Bush
- + Kauri Glen Park
- + Lynn Reserve
- + Smiths Bush

03. Final locations chosen post site visits:

- + Lauderdale Reserve
- + Spinella Reserve
- + Shepherds Park
- + Monarch Park

Note that Monarch Park schematic plans and associated commentary was originally prepared separately, in conjunction with community group consultation, with the view to proceed immediately to Local Board workshop and approval. As a result, the Monarch Park plans and commentary contain additional detail and priorities associated with the invaluable community knowledge gleaned from site visits with community group members.

## STUDY SYNOPSIS

This Nature Spaces and Trails Feasibility Assessment has identified preferred sites to be considered for future nature play investment within the Kaipātiki area by a combination of network mapping, desktop review and individual site verification.

Sites chosen at the network mapping and desktop review stages generally had several of the following attributes:

- Association with an existing Council-owned playspace
- Relationship with Kaipātiki Explorer reserves or walking routes
- Location within an identified gap in the playspace network (gaps originally assessed within the Kaipātiki Play and SunSmart Provision: Study and Strategic Advice)
- Proximity to school, kindergarten and / or wider community and recreation facilities
- Proximity to residential neighbourhoods
- Documented natural features and bush cover, whether as part of a well-established ecosystem or a more marginal, regenerating bush environment with potential for further improvement
- Appropriate topography and space to support intervention (keeping in mind broad CPTED requirements and visibility)
- Supporting amenity / built features such as toilet facilities, walkways, seating and the like
- Existing community group involvement

Sites deemed unsuitable for development were discounted due to specific site constraints, typically one or more of the following:

- Limited or poor-quality natural features or forest cover
- Poor access visibility from the road
- Difficult access for less able visitors, caregivers with prams and young children, including significant stairs or steep drops
- Potential kauri dieback restrictions and / or significant ecological constraints (e.g. 'keep to the track' signage)
- Unsuitable distance from community and school facilities (i.e. not within walking distance)
- Lack of space for interventions due to steep topography or significant wetland areas

Final locations proposed will provide additional unstructured play opportunities within the current playspace network and are located within a range of natural / ecosystem experiences. Predominantly comprised of movement and unstructured play activities, these nature play sites could also support valuable educational and community engagement initiatives.

Several sites are associated with or alongside existing playspaces, and it is proposed that future nature play implementation and playspace renewals are considered holistically to ensure a full provision of activities and excellent play value within each reserve or park.

## RECOMMENDED NEXT STEPS

The following next steps are recommended to inform future design and implementation of nature play proposals:

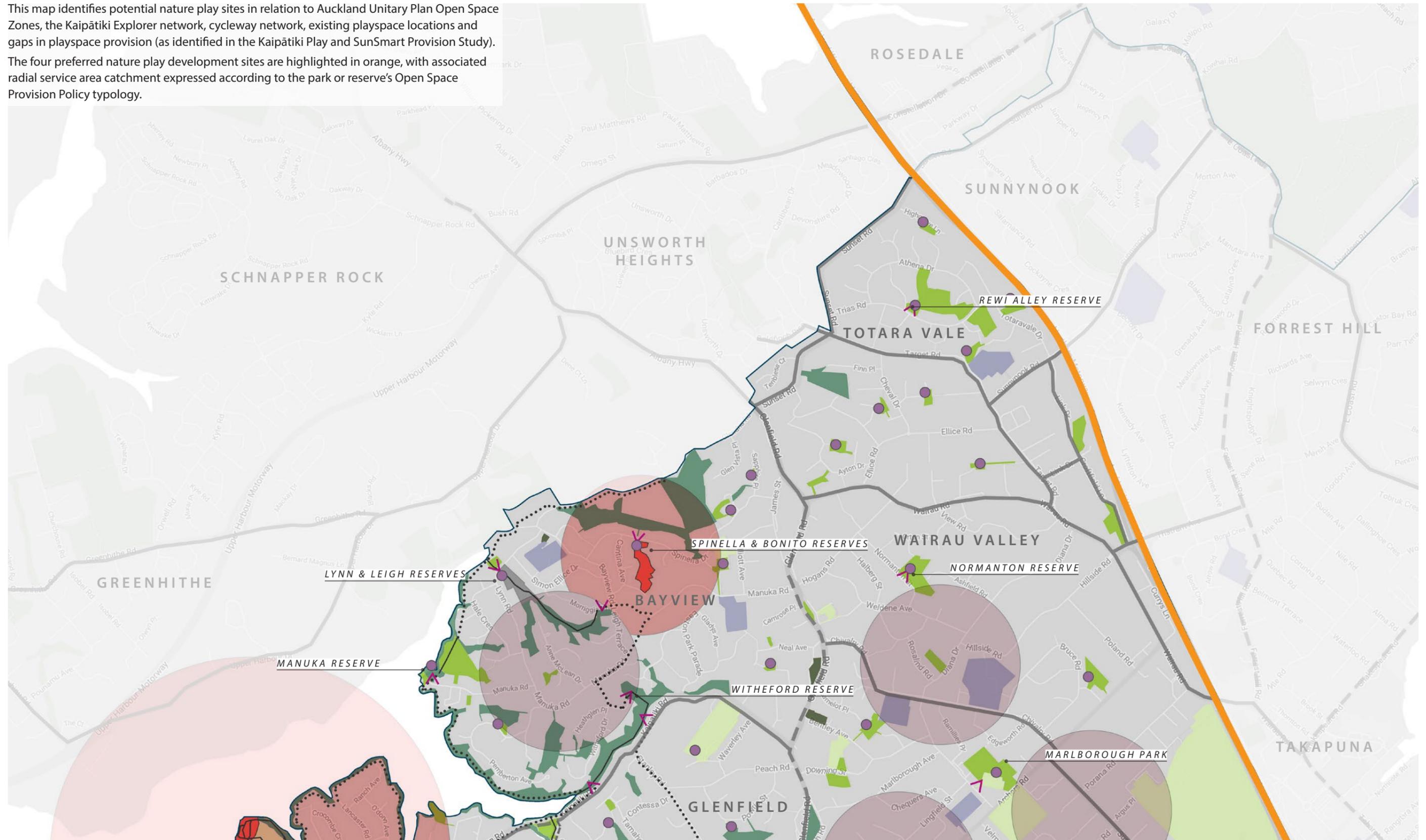
- Secure feedback from key stakeholders and / or service providers to establish potential development synergies and funding streams. Based on investigations to date, this should include consultation with:
  - Kaipātiki Local Board
  - Auckland Council Parks Officers
  - Auckland Council Maintenance Team
  - Auckland Council Healthy Waters
  - Relevant community groups including Kaipātiki Community Facilities Trust, Kaipātiki Project and wider community groups (particularly Monarch Park Placemaking Group and Friends of Shepherds Park)
  - Local residents
  - Mana whenua
  - Local youth groups including: Scouts, Sea Scouts, Girl Guides and Conscious Kids
- Identify potential funding streams and agree on potential phasing, considering synergies with playspace renewal priority identified within Play and SunSmart Study.
- Prepare briefs as required to engage appropriate design consultants to prepare concept designs, construction drawings, specifications and cost estimates. This may include the engagement of:
  - Landscape architect
  - Artist
  - Planning specialist
  - Consultation specialist
  - Archaeologist
  - Arborist
  - Ecologist
- Apply for any required resource and / or building consents.
- Agree procurement and implementation process.
- Agree ongoing maintenance requirements with relevant community groups and / or service providers.



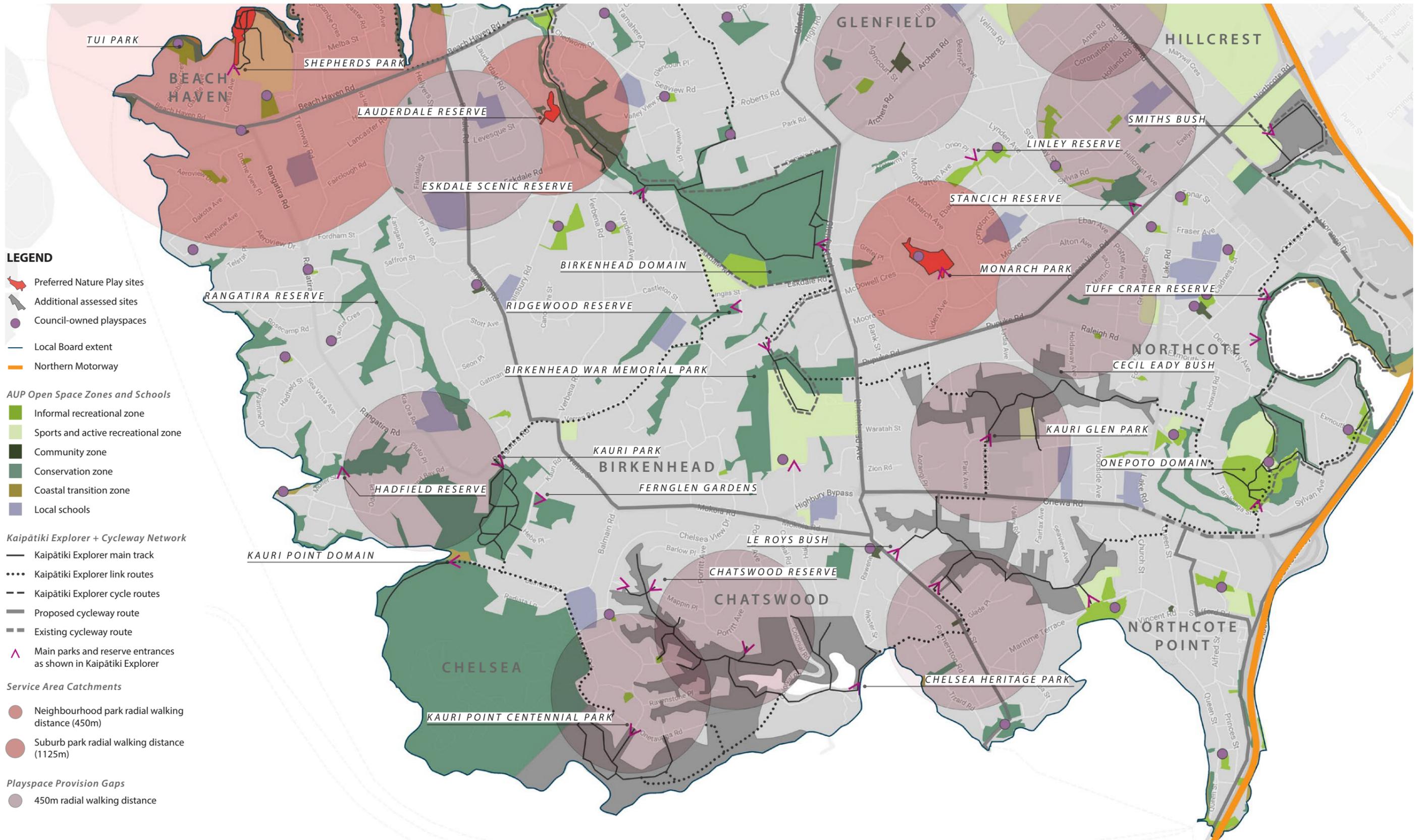
# **NETWORK ANALYSIS**

# NETWORK ANALYSIS MAP

This map identifies potential nature play sites in relation to Auckland Unitary Plan Open Space Zones, the Kaipātiki Explorer network, cycleway network, existing playspace locations and gaps in playspace provision (as identified in the Kaipātiki Play and SunSmart Provision Study). The four preferred nature play development sites are highlighted in orange, with associated radial service area catchment expressed according to the park or reserve's Open Space Provision Policy typology.



Base map data: Google



Base map data: Google





**INDIVIDUAL SITES**

# MONARCH PARK



## KEY

01. Existing concrete path access
02. Existing playground and embankment slide
03. Existing 'Enchanted Garden' natural play area
04. Proposed timber or recycled tyre stair
05. Proposed Monarch and native butterfly meadow
06. Indicative location of 'den' shelter. Den to include educational and interpretive signage about Monarch Park's flora and fauna, as well as wider ecological information. Den should also include a map of routes and activities for children and caregivers to orient themselves
07. Approximate location of proposed log crossing over small stream. Suggest an adjacent willow tree is felled, branches removed and trunk manoeuvred into place. Will require council / contractor involvement
08. Proposed timber stilts
09. Proposed raised timber trail to low-lying areas
10. Proposed rope trail
11. Proposed fallen tree trunk with branches for climbing
12. Proposed storytelling ring / gathering node
13. Proposed stepping stone entry into nature trail as informal wayfinding device. Wayfinding signage could also be incorporated for caregivers / older children
14. Proposed location of bark mulch and / or gravel stockpile for community working bees. Process and location to be confirmed with Council Maintenance Team and Parks Officers
15. Proposed 'teepee' frames for children to build dens with found branches and foliage
16. Proposed location of tree branch stockpile (for children's use in den building). Process and location to be confirmed with Council Maintenance Team and Parks Officers
17. Key interpretive / plant nomenclature signage identifying significant trees (e.g. tanekaha)
18. Proposed additional seating and picnic tables to be incorporated in and around playspace

## LEGEND

- Location of key gathering or play node
- Existing Enchanted Forest extent
- Potential Insect Hotel location
- ★ Potential wayfinding signage location
- ★ Potential interpretive signage location
- Indicative extent of vegetation clearance
- Overland Flow Path (AC GeoMaps)

## OPPORTUNITIES AND CONSTRAINTS

### 1 Opportunities

- Range of native trees (juvenile and mature specimens) provide opportunities for educational engagement
- Forest cover provides shade, yet the route feels airy and open with a higher canopy than other routes
- Mostly even, easy grade for a large portion of the route
- Route takes kids to / from playground

#### Constraints

- Variable ground condition – very wet in winter
- Will require consultation with Healthy Waters team due to overland flow and stormwater culvert asset near proposed route
- Stream crossing requires careful consideration
- Invasive weeds dominate forest floor and will require continued maintenance
- Steep section at end of route (by playground) requires stair intervention
- Wayfinding required
- Unsuitable for young children without caregiver assistance

### 2 Opportunities

- Gentle topography suitable for younger children
- Easily accessible from existing concrete path with clear sightlines for caregivers
- Close proximity to existing Enchanted Garden play elements

#### Constraints

- Evidence of poor drainage in winter months

### 3 Opportunities

- Connects playground to existing Enchanted Forest area
- Route already clearly defined
- Route takes kids to slide / playground
- Shares same access from existing concrete path as Trail 4
- Suitable for younger children (with stair intervention installed)

#### Constraints

- Steep section at end of route will require stair intervention
- Evidence of poor drainage in winter months
- Wayfinding required

### 4 Opportunities

- Shares same access from existing concrete path as Trail 3

#### Constraints

- Route currently inaccessible due to emerging forest tree species and weeds
- Wet in places (even in Spring / Summer)
- Very dense weed and emerging forest tree species make it difficult to orient oneself. Continued maintenance would be required to ensure the route is not lost
- Steep transition back up to playground
- Wayfinding required

## TRAIL PRIORITY



## RECOMMENDATIONS

We recommend future design proposals should focus on:

- The staged development of Trails 1 – 3 with trail and play interventions outlined on the previous page.
- Leaving Trail 4 undeveloped and ambiguous for children to explore in an undirected manner. Some minimal clearance of weeds species and / or revegetation planting of the stream could be considered as part of a park-wide maintenance and / or revegetation strategy.

# LAUDERDALE RESERVE



## LEGEND



Potential unstructured loose play zone with integrated seating, planting and playable edge



Potential Junior (10 - 12 yrs) play zone with feature pendulum swing



Possible locations of den building zones



Potential balance trail linking den building zones



Potential raised mounds area with revegetation planting and unstructured balance play OR informal pump track feature



Potential locations of insect hotels or similar interactive artwork elements



Existing walkway route



Existing informal track



Existing picnic tables to be retained



Potential wayfinding signage



Potential interpretative / educational signage



Open space



Overland flow path



Indicative tree planting



Revegetation planting and potential fence to restrict access to steep drop off area. Extent indicative only

## OPPORTUNITIES AND CONSTRAINTS

### Opportunities

- Good connectivity to wider Kaipātiki Explorer network, particularly Eskdale Reserve and Birkenhead Domain opens up the reserve to a wider catchment.
- Nature play elements will provide additional play opportunities within a suburb generally lacking council-owned playspaces (refer Network Analysis Map and Kaipātiki Play and SunSmart Provision: Study and Strategic Advice).
- Significant open space and connectivity merits the consideration of feature play piece to provide additional play equipment in an area with limited playspace provision.
- The recent gravel path and bridge crossing addition provide improved accessibility and activation of wider reserve.
- Wide open grass spaces provide opportunities for informal games / sports.
- Existing picnic tables are well positioned in partial shade, providing opportunity to locate nature play features in sympathetic locations and reducing need for additional seating.
- Regenerating / low quality kānuka scrub provides opportunities for educational engagement (bug hotels, planting days) and a source of loose materials for activities like den building. It is anticipated that children can be encouraged to go off trail with less repercussions than in higher quality ecological areas.

### Constraints

- Steep drops to stream present potential fall risks, impacting potential intervention extent. Existing rope swing with significant drop over cloudy, brackish water (of unknown depth) may require risk assessment / management to address H&S and maintenance issues.
- Limited visibility from street, however clear signage is provided at Lauderdale Road entrance and residential boundary provides passive surveillance into the reserve.
- Single entrance to informal track, and limited visibility, presents CPTED issues requiring further assessment.
- Residential boundary may limit perceived public ownership, potentially impacting the nature of events or activities that could be facilitated and / or requiring comprehensive consultation with neighbours.

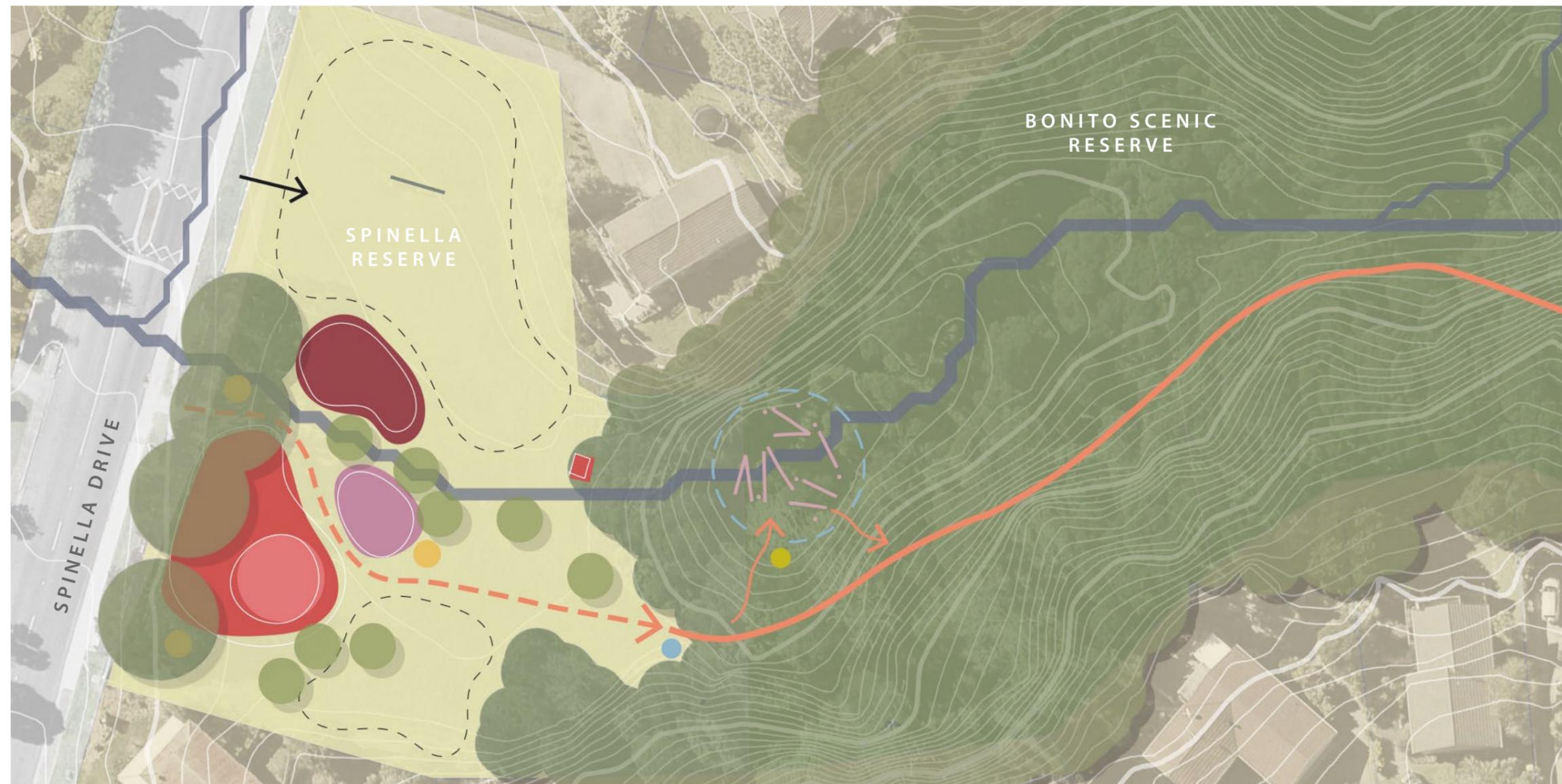
## RECOMMENDATIONS

We recommend future design proposals should focus on:

- Including a timber pendulum tyre swing or similar to provide an exciting swinging experience in a visible section of the reserve. There are also no pendulum swings currently installed within council-owned playspaces in Kaipātiki.
- Integrating a feature unstructured loose play zone focusing on natural and recycled materials. Refer 'What is Nature Play' in Executive Summary for list of potential activities. Community involvement and / or ongoing maintenance would be required to ensure continued provision of loose parts. The unstructured loose play zone should be located close to the existing track and away from steep drops.
- Including an area of manipulated topography for unstructured, movement play. This could take the form of a log scramble with planting or informal pump track.
- Incorporating unstructured play activities such as den building, informal balance trails and insect hotels under bush cover to take advantage of shade protection, natural setting and opportunities for exploration and free play.
- Commissioning additional CPTED / risk assessment of proposed trail routes and interventions as part of investigation and design process.
- Working with Kaipātiki Project and Pest Free Kaipātiki to assess potential connections with proposed wayfinding and interpretative signage within wider Eskdale Reserve.



# SPINELLA RESERVE



**LEGEND**

-  Expansion of ex. Early Childhood – Childhood (1-10 yrs) play zone, retaining feature snake swing
-  Potential Junior (10 - 12 yrs) play zone
-  Potential feature loose play zone with integrated seating, planting and playable edge
-  Potential revegetation planting and unstructured balance play zone (currently dominated by weeds requiring management)
-  Potential tree house structure
-  Open space
-  Existing walkway track
-  Potential path connection
-  Potential secondary connections
-  Potential seating / picnic tables
-  Potential wayfinding signage
-  Potential educational signage elements
-  Current maintenance vehicle access to be retained
-  Existing football target goal to be retained
-  Overland flow path
-  Indicative tree planting

## OPPORTUNITIES AND CONSTRAINTS

### Opportunities

- Existing playspace and grass open space provides activation and presents opportunities for wider integration of traditional play elements and proposed nature play zones, with increased emphasis on bush track connectivity.
- Proximity to residential properties, Bonito Place and main road provides good visibility of open space and playspace areas and opportunities for residential engagement.
- Kānuka scrub forest contains a variety of native trees, and includes interesting supplejack vines, but is not as ecologically significant as other sites assessed in early stages of this report (with no kauri trees present). This could support additional 'off-track' intervention opportunities.
- Wide open grass spaces provide opportunities for informal games / sports.
- Existing fence along road interface gives opportunity to develop younger children activities, including unstructured loose play, in a safe environment.

- The Play and SunSmart Provision Study identified Spinella Reserve as requiring additional Junior age group provision (10-12 yrs). This age group would benefit from challenging, movement-focused nature play opportunities.

### Constraints

- Poor bush track entrance visibility from playspace and street currently constrains legibility but could provide opportunity for interesting / sculptural wayfinding signage improvements.
- Overland flow path area is currently dominated by *Tradescantia* / wandering willie weeds. A significant weed removal and revegetation programme would need to be actioned prior to nature play implementation.
- Works within overland flow path may require consultation with and / or approval from Council Healthy Waters team, particularly in the proposed unstructured balance play zone. However, providing informal access to this location (within a relatively flat area) would enhance the site and assist with ongoing weed management.

## RECOMMENDATIONS

We recommend future design proposals should focus on:

- Integrating a feature unstructured loose play zone focusing on natural and recycled materials. Refer 'What is Nature Play' in Executive Summary for list of potential elements.
- Incorporating challenging climbing / balance play elements for the Junior age group, including a potential tree house structure in a visible location against the bush backdrop.
- Revegetation planting / weed control for the lower bush area, with potential community planting days an option to get nearby residents invested in nature play interventions.
- The installation of a path connection to link playspace and bush track.
- The potential inclusion of wayfinding signage / sculptural markers to highlight bush entry.
- Incorporating an overland flow / dry riverbed feature and tree planting to the edge of loose play zone.
- General improvements to the Bonito Scenic Reserve track, including track edge repair.



# SHEPHERDS PARK



- LEGEND**
-  Potential gathering / story telling node with seating / signage
  -  Potential feature loose play zone
  -  Possible locations of den building zones / tree houses
  -  Potential balance trail linking nature play spaces
  -  Potential tertiary trails / connections
  -  Potential balance and climbing play transition up slope
  -  Potential locations of insect hotels or similar interactive artwork elements
  -  Potential or existing seating / picnic tables
  -  Potential wayfinding signage
  -  Potential interpretative / educational signage
  -  Existing walkway track
  -  Existing fenceline
  -  Open space
  -  Consider weed removal / revegetation in this location
  -  Consider visibility improvements in these locations
  -  Indicative archaeological heritage locations (midden / jetty)

## OPPORTUNITIES AND CONSTRAINTS

### Opportunities

- The Kaipātiki Connections Network Plan (2012) proposed a link from Shepherds to Tui Park. If implemented, this would connect the existing playspaces via the proposed nature play site, increasing play opportunities.
- Māori and Pākehā archaeological heritage present on site generates opportunities for interpretation, education and engagement.
- Interplay between coastal, forest and open space provides a variety of natural experiences and opportunities for break out spaces for informal games and gatherings.
- Wider park amenities include a playspace, sports facilities and toilet facilities.
- Coastal edge and boardwalk access provide opportunities for exploration of a continuously changing environment at low tide.
- Opportunity for volunteer group involvement (Friends of Shepherds Park).
- Opportunity to encourage older youth and local Scouts group engagement and placemaking involvement, building on existing fale structure / outdoor classroom set up and relationships with wider sports fields and cultural / coastal environment.

### Constraints

- Archaeological heritage present on site may require Heritage NZ Authority.
- Existing fale structure in poor condition may require structural condition assessment.
- Potential CPTED / visibility issues, particularly around main gathering space present opportunity for additional activation and visibility improvement.
- Drainage issues this winter have resulted in some scouring to gravel tracks. Improvements could be timed to coincide with play interventions.
- An existing fence runs under bush cover (location indicated with a yellow dashed line above). The provenance or necessity of this fence is not known.
- Ongoing restoration project run by Friends of Shepherds Park may impact intervention extent if revegetation planting conflicts with proposed interventions.

## RECOMMENDATIONS

We recommend future design proposals should focus on:

- Refining coastal / heritage theming opportunities through community and mana whenua engagement.
- Integrating a balance / discovery trail designed to intersect with existing looped tracks and promote exploration of the upper regenerating bush area.
- Including a loose parts play zone for unstructured play value and creative manipulation of natural elements, incorporating seating, planting and playable edge, with additional den building zones considered.
- Considering the implementation of a balance and / or climbing transition to the existing open slope transition, to encourage play connectivity towards the coast.
- Improvements to existing gathering area, making use of fale structure and reviewing options for educational play.
- Improvements to CPTED / visibility and legibility at key track intersections (e.g. signage and uplimbing or removal of vegetation).
- Incorporating opportunities for older youth / Scouts group engagement.



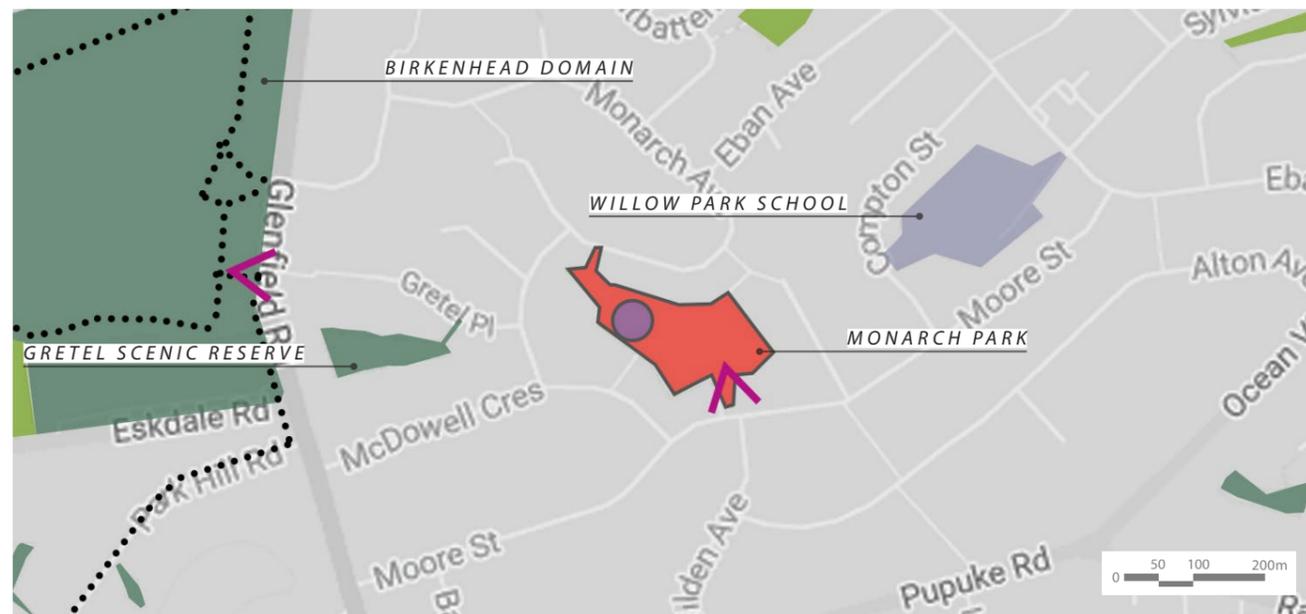




# **APPENDIX A**

INDIVIDUAL SITE ASSESSMENT SHEETS

# MONARCH PARK



**KEY**

Informal recreational zone	Community zone	Local schools	Main park entrances
Sports / active recreation zone	Conservation zone	Council-owned playspaces	Kaipātiki Explorer route

## LOCATION MAP



## SITE PHOTOS

## ACCESS AND CONNECTIVITY

### Unitary Plan zoning (reserve and bordering lots)

- |   |  |   |                                       |
|---|--|---|---------------------------------------|
| <input checked="" type="checkbox"/> Residential | <input checked="" type="checkbox"/> Neighbourhood Centre | <input checked="" type="checkbox"/> Informal Recreation | <input type="checkbox"/> Conservation |
|---|--|---|---------------------------------------|

### Nearby amenities

- |   |  |  |  |
|---|--|--|--|
| <input checked="" type="checkbox"/> Playspace | <input checked="" type="checkbox"/> School | <input checked="" type="checkbox"/> Café / shops | <input type="checkbox"/> Toilet facilities |
|---|--|--|--|

### Entrance visibility and access

- |  |                                   |   |                                   |
|--|-----------------------------------|---|-----------------------------------|
| <input type="checkbox"/> 1 (Excellent) | <input type="checkbox"/> 2 (Good) | <input checked="" type="checkbox"/> 3 (Average) | <input type="checkbox"/> 4 (Poor) |
|--|-----------------------------------|---|-----------------------------------|

### Included in Kaipātiki explorer?

- |   |                             |
|---|-----------------------------|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
|---|-----------------------------|

### COMMENTS

Site is fully enclosed by residential properties with multiple access points. The Moore St entrance was recently upgraded to create a plaza threshold with monarch butterfly stencils, planting and seating. Visibility and legibility is generally average. The site is included within the broader Kaipātiki Explorer location map despite being separate from identified link routes.

## NATURAL / CULTURAL FEATURES

- |  |  |  |  |
|--|--|--|--|
| <input checked="" type="checkbox"/> Lower quality forest*    | <input type="checkbox"/> WF11 kauri forest                 | <input type="checkbox"/> WF9 taraire forest          | <input type="checkbox"/> SA1.2 mangrove forest |
| <input checked="" type="checkbox"/> Exotic / weed vegetation | <input checked="" type="checkbox"/> Stream / overland flow | <input checked="" type="checkbox"/> Grass open space | <input type="checkbox"/> CHI place             |

### COMMENTS

There are two main areas of forest cover following two overland flow paths. Forest cover is comprised of mixed native forest species and exotic weeds and trees, with willow trees dominant along the main stream / stormwater overland flow path. There are grass open spaces between the two areas of forest. Some mature tanekaha trees present adjacent main stream (identification not confirmed). \*No ecosystems recorded for Monarch Park on Auckland Council Geomaps Ecosystems Extent map. WF11 kauri forest is shown as the potential (or 'natural') ecosystem.

## EXISTING BUILT FEATURES

- |  |  |   |   |
|--|--|---|---|
| <input checked="" type="checkbox"/> Walking trails | <input checked="" type="checkbox"/> Boardwalk / bridge | <input type="checkbox"/> Wayfinding signage     | <input type="checkbox"/> Cycle trail      |
| <input type="checkbox"/> Stairs                    | <input checked="" type="checkbox"/> Seating            | <input type="checkbox"/> Interpretative signage | <input checked="" type="checkbox"/> Other |

### COMMENTS

Concrete footpaths connect each park entrance with the playspace. One of the concrete footpaths leads down under the cover of the smaller bush area. Two timber bridges cross the stormwater ponds at the lowest point of each forested area. Seating and some community-led placemaking elements, including a library and monarch butterfly artworks, are installed around the playspace.

Existing timber and rope nature play elements are installed within an 'Enchanted Garden', located off the main path connecting the playspace with the Moore St entrance. These predominantly cater to movement play, with some elements of unstructured / make believe play like a fairy door and a toadstool-themed picnic table and stools.

## SAFETY

- |  |  |                                      |                                   |
|--|--|--------------------------------------|-----------------------------------|
| <input type="checkbox"/> 1 (Excellent) | <input checked="" type="checkbox"/> 2 (Good) | <input type="checkbox"/> 3 (Average) | <input type="checkbox"/> 4 (Poor) |
|--|--|--------------------------------------|-----------------------------------|

### COMMENTS

Wayfinding signage required to improve legibility. Hazards include water (stream / pond), level changes, pest bait / traps and dense weed vegetation. Main playspace has passive surveillance from adjacent residential properties.

## NATURE PLAY TYPOLOGY OPPORTUNITIES

- |  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> Educational Play | <input checked="" type="checkbox"/> Movement Play | <input checked="" type="checkbox"/> Unstructured Play |
|--|---|---|

### COMMENTS

Potential to build on existing informal routes through forest areas and connect to main playspace. Interventions could be predominantly movement-focused; with potential insect hotels, butterfly meadow, planting days and story telling nodes for educational play, and opportunities to facilitate loose play / hut building for unstructured play.

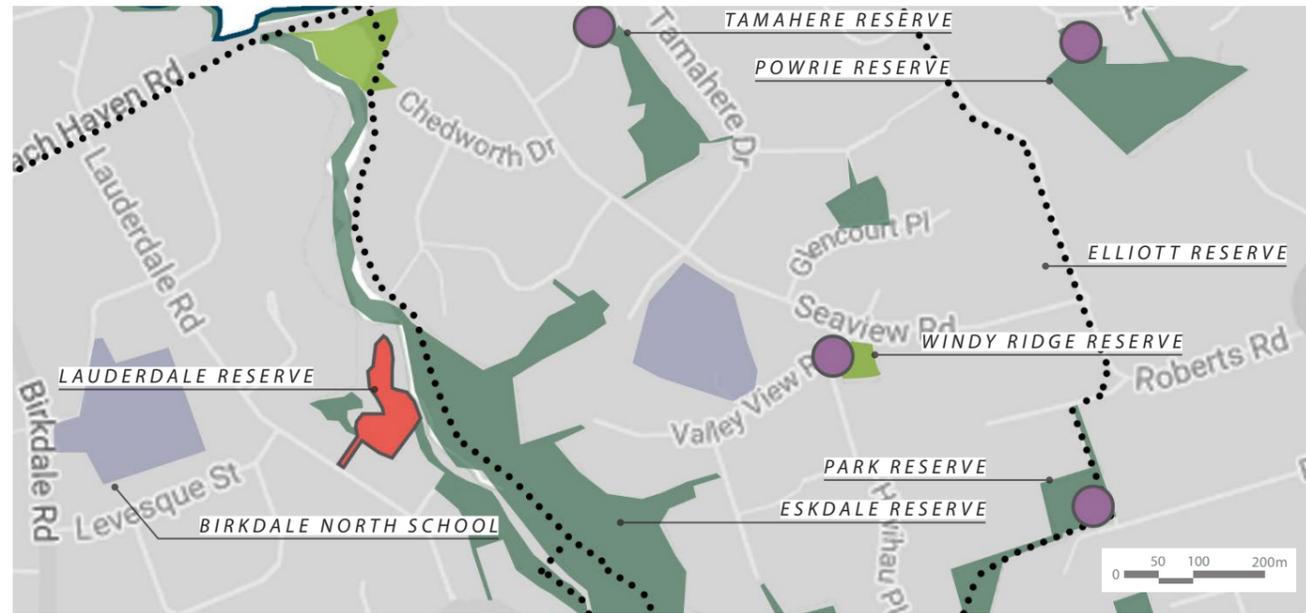
## COMMUNITY GROUP INVOLVEMENT

- |   |                             |                                 |
|---|-----------------------------|---------------------------------|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unsure |
|---|-----------------------------|---------------------------------|

### COMMENTS

The Monarch Park Placemaking Project is actively involved with placemaking improvements, community events, working bees / maintenance days and pest management (with Pest Free Kaipātiki).

# LAUDERDALE RESERVE



**KEY**

Informal recreational zone	Community zone	Local schools	Main park entrances
Sports / active recreation zone	Conservation zone	Council-owned playspaces	Kaipātiki Explorer route

## LOCATION MAP



## SITE PHOTOS

## ACCESS AND CONNECTIVITY

### Unitary Plan zoning (reserve and bordering lots)

- |   |   |  |  |
|---|---|--|--|
| <input checked="" type="checkbox"/> Residential | <input type="checkbox"/> Neighbourhood Centre | <input type="checkbox"/> Informal Recreation | <input checked="" type="checkbox"/> Conservation |
|---|---|--|--|

### Nearby amenities

- |                                    |  |                                       |  |
|------------------------------------|--|---------------------------------------|--|
| <input type="checkbox"/> Playspace | <input checked="" type="checkbox"/> School | <input type="checkbox"/> Café / shops | <input type="checkbox"/> Toilet facilities |
|------------------------------------|--|---------------------------------------|--|

### Entrance visibility and access

- |  |  |                                      |                                   |
|--|--|--------------------------------------|-----------------------------------|
| <input type="checkbox"/> 1 (Excellent) | <input checked="" type="checkbox"/> 2 (Good) | <input type="checkbox"/> 3 (Average) | <input type="checkbox"/> 4 (Poor) |
|--|--|--------------------------------------|-----------------------------------|

### Included in Kaipātiki explorer?

- |   |                             |
|---|-----------------------------|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
|---|-----------------------------|

### COMMENTS

The reserve is featured in Kaipātiki Explorer as part of the wider Eskdale Reserve catchment (also including Birkenhead Domain and Hiwihau Scenic Reserve). Lauderdale Reserve proper is accessed via a narrow connection between residential properties. There is limited visibility into the reserve from the street, with AC Parks blade signage provided to emphasise the entrance.

## NATURAL / CULTURAL FEATURES

- |  |  |  |   |
|--|--|--|---|
| <input checked="" type="checkbox"/> Kānuka scrub*            | <input checked="" type="checkbox"/> WF11 kauri forest**    | <input checked="" type="checkbox"/> WF9 taraire forest** | <input checked="" type="checkbox"/> SA1.2 mangrove forest |
| <input checked="" type="checkbox"/> Exotic / weed vegetation | <input checked="" type="checkbox"/> Stream / overland flow | <input checked="" type="checkbox"/> Grass open space     | <input type="checkbox"/> CHI place                        |

### COMMENTS

The site is characterised by an open space bound by residential properties on two sides. Elsewhere, kānuka scrub with limited understory planting is dominant, adjacent Kaipātiki Creek pool and mangroves. Gorse is visible in areas.

\* Not recorded in Auckland Council Geomaps Ecosystems Extent map but observed on site. \*\* Recorded in neighbouring Eskdale Reserve.

## EXISTING BUILT FEATURES

- |  |  |   |   |
|--|--|---|---|
| <input checked="" type="checkbox"/> Walking trails | <input checked="" type="checkbox"/> Boardwalk / bridge | <input type="checkbox"/> Wayfinding signage     | <input checked="" type="checkbox"/> Cycle trail |
| <input type="checkbox"/> Stairs                    | <input checked="" type="checkbox"/> Seating            | <input type="checkbox"/> Interpretative signage | <input type="checkbox"/> Other                  |

### COMMENTS

Access to Eskdale Reserve was previously provided by stairs and a bridge crossing. This had been removed at the time of our site visit, however the connection has since been renewed with a new gravel path and level bridge transition. An informal track through the kānuka scrub leads to a promontory above the creek / mangroves. 3no. picnic tables are provided at the interface of forest / open space.

## SAFETY

- |  |                                   |   |                                   |
|--|-----------------------------------|---|-----------------------------------|
| <input type="checkbox"/> 1 (Excellent) | <input type="checkbox"/> 2 (Good) | <input checked="" type="checkbox"/> 3 (Average) | <input type="checkbox"/> 4 (Poor) |
|--|-----------------------------------|---|-----------------------------------|

### COMMENTS

Hazards include: steep slopes with significant falls to water, swing over water (third photo) and general depth of water and potential poor water quality.

## NATURE PLAY TYPOLOGY OPPORTUNITIES

- |  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> Educational Play | <input checked="" type="checkbox"/> Movement Play | <input checked="" type="checkbox"/> Unstructured Play |
|--|---|---|

### COMMENTS

Good connectivity to wider Kaipātiki Explorer routes via bridge to Eskdale Reserve means that Lauderdale Reserve could be presented as a destination / play node for families using the walkway network. Wide open space provides ample room for unstructured and movement play typologies like balance or loose parts play, whilst open nature of forest and range of regenerating native plants could be used to generate opportunities for educational engagement.

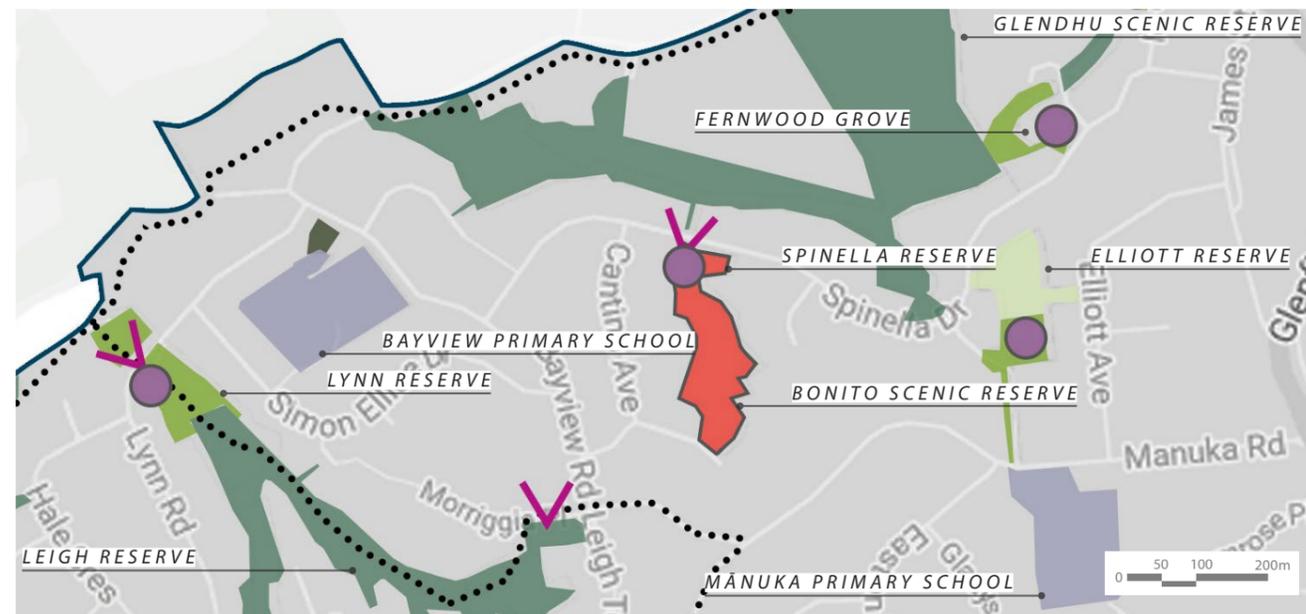
## COMMUNITY GROUP INVOLVEMENT

- |                              |                             |  |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> Unsure |
|------------------------------|-----------------------------|--|

### COMMENTS

Potential Eskdale Reserve community involvement / overlap into Lauderdale Reserve. Kaipātiki Project Environment Centre is located a few doors down off Lauderdale Road.

# SPINELLA RESERVE



**KEY**

Informal recreational zone	Community zone	Local schools	Main park entrances
Sports / active recreation zone	Conservation zone	Council-owned playspaces	Kaipātiki Explorer route

## LOCATION MAP



SITE PHOTOS

## ACCESS AND CONNECTIVITY

### Unitary Plan zoning (reserve and bordering lots)

- |   |   |   |  |
|---|---|---|--|
| <input checked="" type="checkbox"/> Residential | <input type="checkbox"/> Neighbourhood Centre | <input checked="" type="checkbox"/> Informal Recreation | <input checked="" type="checkbox"/> Conservation |
|---|---|---|--|

### Nearby amenities

- |   |                                 |                                       |  |
|---|---------------------------------|---------------------------------------|--|
| <input checked="" type="checkbox"/> Playspace | <input type="checkbox"/> School | <input type="checkbox"/> Café / shops | <input type="checkbox"/> Toilet facilities |
|---|---------------------------------|---------------------------------------|--|

### Entrance visibility and access

- |  |                                   |   |                                   |
|--|-----------------------------------|---|-----------------------------------|
| <input type="checkbox"/> 1 (Excellent) | <input type="checkbox"/> 2 (Good) | <input checked="" type="checkbox"/> 3 (Average) | <input type="checkbox"/> 4 (Poor) |
|--|-----------------------------------|---|-----------------------------------|

### Included in Kaipātiki explorer?

- |   |                             |
|---|-----------------------------|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
|---|-----------------------------|

### COMMENTS

Site is characterised by a wide grass open space with playspace with bush (Bonito Scenic Reserve) to the rear of the site. The entrance to the bush track is not legible from playspace / road, with no signage provided. The site is included within the broader Kaipātiki Explorer location map despite being separate from identified link routes.

## NATURAL / CULTURAL FEATURES

- |  |  |  |  |
|--|--|--|--|
| <input checked="" type="checkbox"/> VS2 Kānuka scrub         | <input type="checkbox"/> WF11 kauri forest                 | <input type="checkbox"/> WF9 taraire forest          | <input type="checkbox"/> SA1.2 mangrove forest |
| <input checked="" type="checkbox"/> Exotic / weed vegetation | <input checked="" type="checkbox"/> Stream / overland flow | <input checked="" type="checkbox"/> Grass open space | <input type="checkbox"/> CHI place             |

### COMMENTS

Kānuka trees are dominant, with supplejack vines present in understory. Some weeds visible, particularly concentrated along lower portion of overland flow path where *Tradescantia* / wandering willie is dominant. Grass open space provides informal kick-around space for children playing in the playspace.

## EXISTING BUILT FEATURES

- |  |  |   |                                      |
|--|--|---|--------------------------------------|
| <input checked="" type="checkbox"/> Walking trails | <input checked="" type="checkbox"/> Boardwalk / bridge | <input type="checkbox"/> Wayfinding signage     | <input type="checkbox"/> Cycle trail |
| <input checked="" type="checkbox"/> Stairs         | <input type="checkbox"/> Seating                       | <input type="checkbox"/> Interpretative signage | <input type="checkbox"/> Other       |

### COMMENTS

Track is predominantly comprised of compacted dirt. Timber track edge in poor condition in places. Stairs and a bridge are also provided.

## SAFETY

- |  |                                   |   |                                   |
|--|-----------------------------------|---|-----------------------------------|
| <input type="checkbox"/> 1 (Excellent) | <input type="checkbox"/> 2 (Good) | <input checked="" type="checkbox"/> 3 (Average) | <input type="checkbox"/> 4 (Poor) |
|--|-----------------------------------|---|-----------------------------------|

### COMMENTS

Potential hazards include: bromadiolone bait laid and traps set, fallen trees, broken / damaged track edge, overland flow path / flood prone area and topographical hazards / falls alongside track edge. However, most hazards are located some distance from proposed nature play intervention zones / within wider Bonito Reserve.

## NATURE PLAY TYPOLOGY OPPORTUNITIES

- |  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> Educational Play | <input checked="" type="checkbox"/> Movement Play | <input checked="" type="checkbox"/> Unstructured Play |
|--|---|---|

### COMMENTS

Limited opportunities for intervention along narrow bush track. Potential for community involvement to develop overland flow / flood prone area with revegetation planting, unstructured balance play elements and educational / interpretative signage. Key movement and unstructured play elements could be integrated within playspace and / or concentrated along open space – bush interface.

## COMMUNITY GROUP INVOLVEMENT

- |                              |  |                                 |
|------------------------------|--|---------------------------------|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> Unsure |
|------------------------------|--|---------------------------------|

# SHEPHERDS PARK



**KEY**

Informal recreational zone	Community zone	Coastal transition zone	Main park entrances
Sports / active recreation zone	Conservation zone	Council-owned playspaces	Kaipātiki Explorer route



SITE PHOTOS

## ACCESS AND CONNECTIVITY

### Unitary Plan zoning (reserve and bordering lots)

- |   |   |  |  |
|---|---|--|--|
| <input checked="" type="checkbox"/> Residential | <input checked="" type="checkbox"/> Sport / Active Recreation | <input checked="" type="checkbox"/> Coastal Transition | <input checked="" type="checkbox"/> Conservation |
|---|---|--|--|

### Nearby amenities

- |   |                                 |   |   |
|---|---------------------------------|---|---|
| <input checked="" type="checkbox"/> Playspace | <input type="checkbox"/> School | <input checked="" type="checkbox"/> Sports fields | <input checked="" type="checkbox"/> Toilet facilities |
|---|---------------------------------|---|---|

### Entrance visibility and access

- |  |                                   |   |                                   |
|--|-----------------------------------|---|-----------------------------------|
| <input type="checkbox"/> 1 (Excellent) | <input type="checkbox"/> 2 (Good) | <input checked="" type="checkbox"/> 3 (Average) | <input type="checkbox"/> 4 (Poor) |
|--|-----------------------------------|---|-----------------------------------|

### Included in Kaipātiki explorer?

- |   |                             |
|---|-----------------------------|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
|---|-----------------------------|

### COMMENTS

The park is featured in Kaipātiki Explorer with coastal connections provided to Manuka and Lynn Reserves, and to be explored to Tui Park (as part of the Kaipātiki Connections Network Plan). Entry into the bush reserve area is provided from the sports fields, sport fields' car park and Cresta Avenue. Entrances generally lack legibility with no obvious signage currently installed.

## NATURAL / CULTURAL FEATURES

- |  |   |  |   |
|--|---|--|---|
| <input checked="" type="checkbox"/> VS2 Kānuka scrub         | <input type="checkbox"/> WF11 kauri forest      | <input type="checkbox"/> WF9 taraire forest          | <input checked="" type="checkbox"/> SA1.2 mangrove forest |
| <input checked="" type="checkbox"/> Exotic / weed vegetation | <input type="checkbox"/> Stream / overland flow | <input checked="" type="checkbox"/> Grass open space | <input checked="" type="checkbox"/> CHI place             |

### COMMENTS

The forest is dominated by kānuka with kahikatea, kowhai, pohutukawa, tanekaha, mahoe, mapou trees also observed. Large sections of site are impacted by weeds like blackberry. Several open grass spaces provide clearings between forest areas. The Hellyers (Oruamo) Creek edge is accessible at low tide from the boardwalk and reveals interesting erosion patterns in the sandstone / shell banks. There is evidence of archaeological sites including shell midden(s) and a basalt wall / jetty structure (potentially the CHI maritime heritage site shown on the Auckland Geomaps CHI inventory layer).

Tui, fantail, wax eye, eastern rosella parrot, kingfisher and pied shag were sighted when visiting site.

## EXISTING BUILT FEATURES

- |  |  |   |   |
|--|--|---|---|
| <input checked="" type="checkbox"/> Walking trails | <input checked="" type="checkbox"/> Boardwalk / bridge | <input type="checkbox"/> Wayfinding signage     | <input type="checkbox"/> Cycle trail      |
| <input checked="" type="checkbox"/> Stairs         | <input checked="" type="checkbox"/> Seating            | <input type="checkbox"/> Interpretative signage | <input checked="" type="checkbox"/> Other |

### COMMENTS

Timber gazebo structures with seating provide shelter and gathering space at the playing field entry point. Walking trails consist of compacted aggregate with timber edges. Stair transitions are provided. A narrow boardwalk provides access along the creek edge. No wayfinding or interpretative signage was observed on site.

## SAFETY

- |  |  |                                      |                                   |
|--|--|--------------------------------------|-----------------------------------|
| <input type="checkbox"/> 1 (Excellent) | <input checked="" type="checkbox"/> 2 (Good) | <input type="checkbox"/> 3 (Average) | <input type="checkbox"/> 4 (Poor) |
|--|--|--------------------------------------|-----------------------------------|

### COMMENTS

Hazards include: bait and traps, falls, open water / tide and potential visibility and wayfinding issues.

## NATURE PLAY TYPOLOGY OPPORTUNITIES

- |  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> Educational Play | <input checked="" type="checkbox"/> Movement Play | <input checked="" type="checkbox"/> Unstructured Play |
|--|---|---|

### COMMENTS

The range of open space to forest transitions, archaeological significance and access to a constantly changing estuarine environment provide opportunities for educational engagement and could inspire overall theming of interventions. Wide open spaces provide ample room for unstructured and movement play typologies like loose parts or balance / climbing play, whilst native plants and trees could be used to generate opportunities for learning. An existing gathering space could be revitalised to form an outdoor classroom or gathering node within a larger nature trail network.

## COMMUNITY GROUP INVOLVEMENT

- |   |                             |                                 |
|---|-----------------------------|---------------------------------|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unsure |
|---|-----------------------------|---------------------------------|

### COMMENTS

The park is subject to an ongoing restoration project by Friends of Shepherds Park and Kaipātiki Local Board.



**APPENDIX B**  
CHARACTER IMAGERY

# CHARACTER IMAGERY

TREE HOUSE PLATFORM



SOUND / MUSIC PLAY



INTERACTIVE SIGNAGE



DEN BUILDING



WATER PLAY



TREASURE HUNT



LOOSE PARTS



STORYTELLING NODES



PLANT NOMENCLATURE

LANDFORM

## NATURE PLAY TYPOLOGIES

- Unstructured play
- Education play
- Movement play



BALANCE TRAILS



ROPE WALK



PENDULUM SWING



CLIMBING



INSECT HOTEL



BUTTERFLY MEADOW



BUG HUNTING



**NATURE PLAY TYPOLOGIES**

-  Unstructured play
-  Education play
-  Movement play



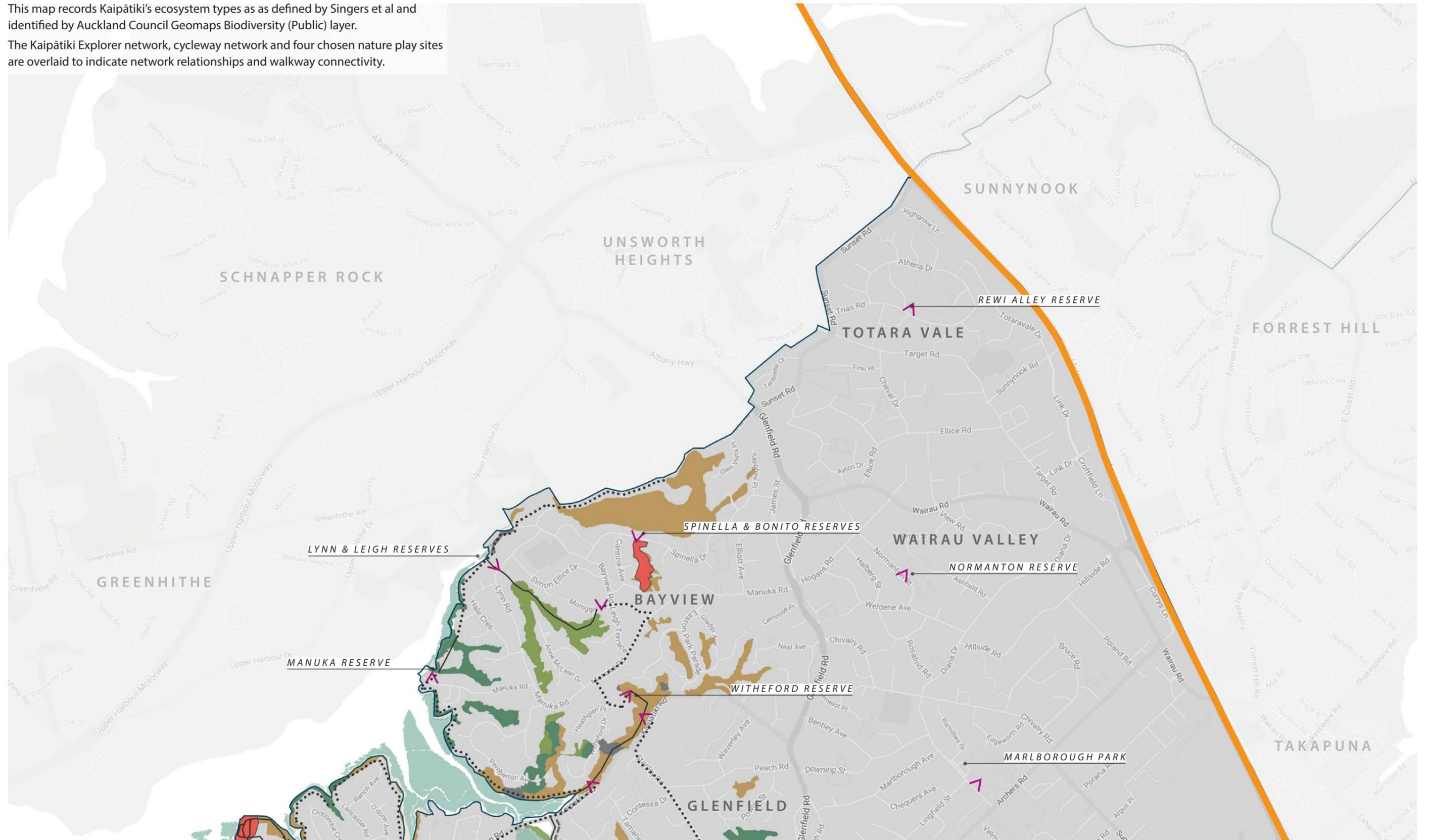
# **APPENDIX C**

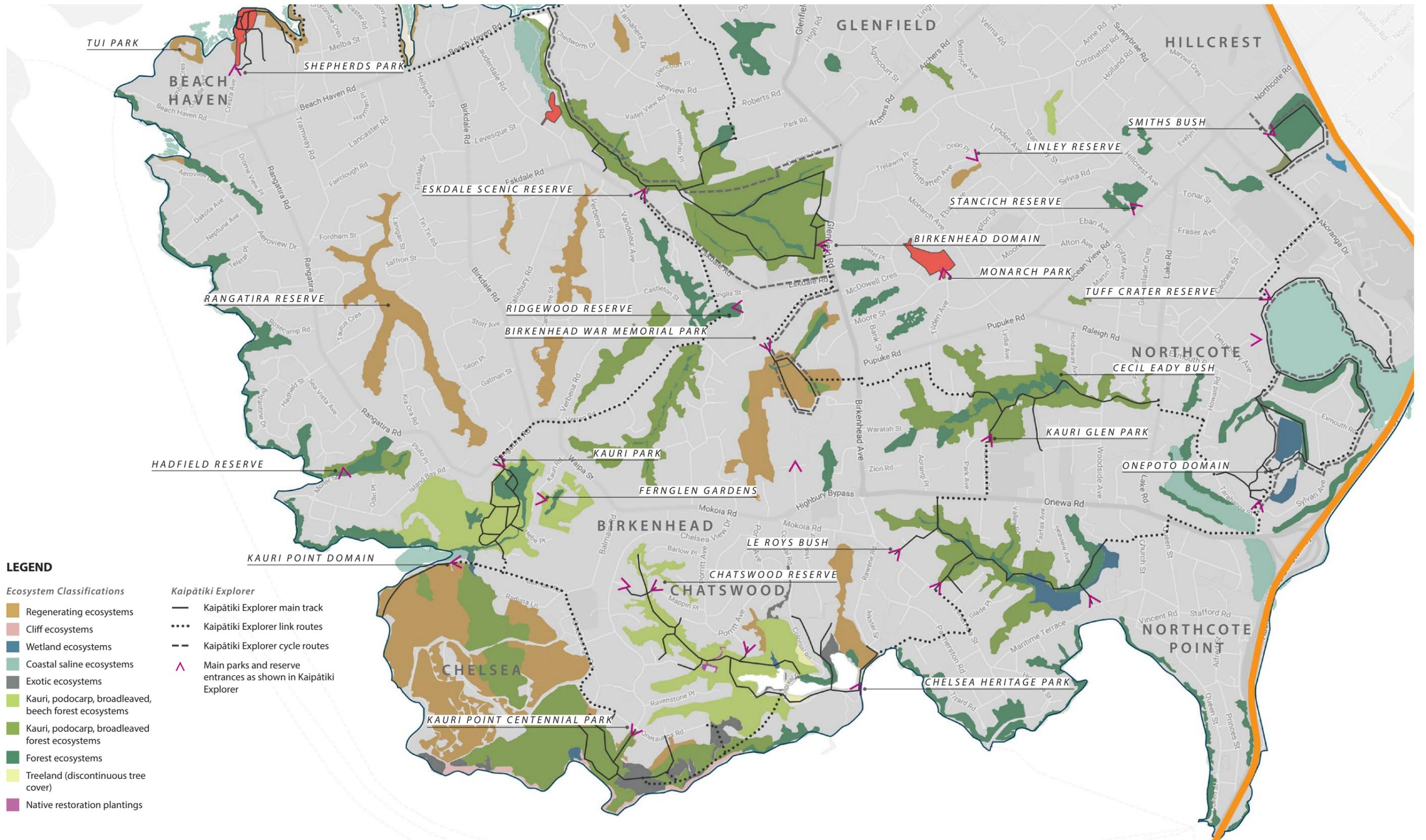
SUPPLEMENTARY MAPS

# EXISTING ECOSYSTEMS MAP

This map records Kaipātiki's ecosystem types as defined by Singers et al and identified by Auckland Council Geomaps Biodiversity (Public) layer.

The Kaipātiki Explorer network, cycleway network and four chosen nature play sites are overlaid to indicate network relationships and walkway connectivity.





**LEGEND**

*Ecosystem Classifications*

- Regenerating ecosystems
- Cliff ecosystems
- Wetland ecosystems
- Coastal saline ecosystems
- Exotic ecosystems
- Kauri, podocarp, broadleaved, beech forest ecosystems
- Kauri, podocarp, broadleaved forest ecosystems
- Forest ecosystems
- Treeland (discontinuous tree cover)
- Native restoration plantings

*Kaipātiki Explorer*

- Kaipātiki Explorer main track
- Kaipātiki Explorer link routes
- Kaipātiki Explorer cycle routes
- Main parks and reserve entrances as shown in Kaipātiki Explorer

Base map data: Google

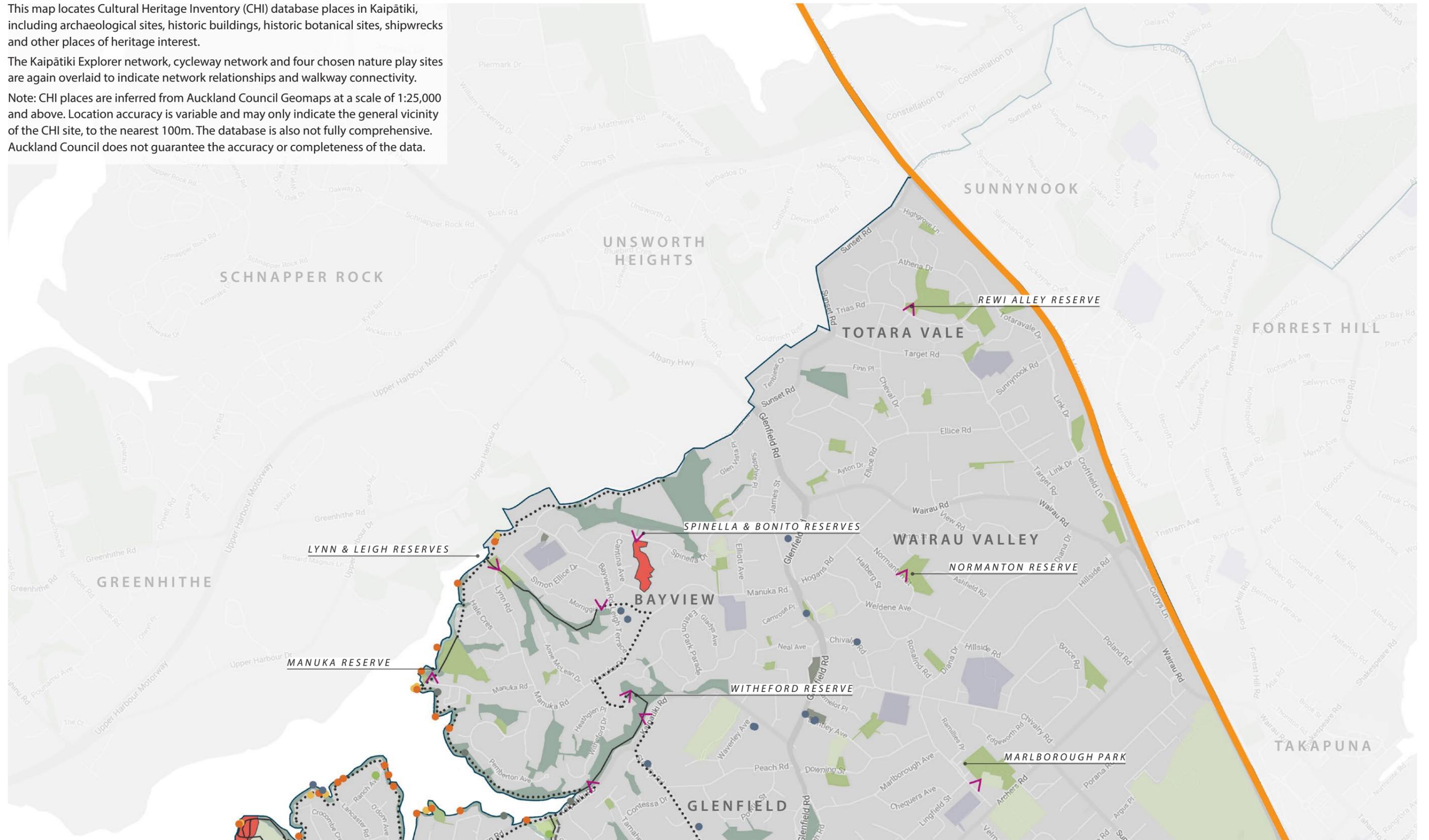


# KEY CULTURAL, HISTORICAL AND NATURAL FEATURES MAP

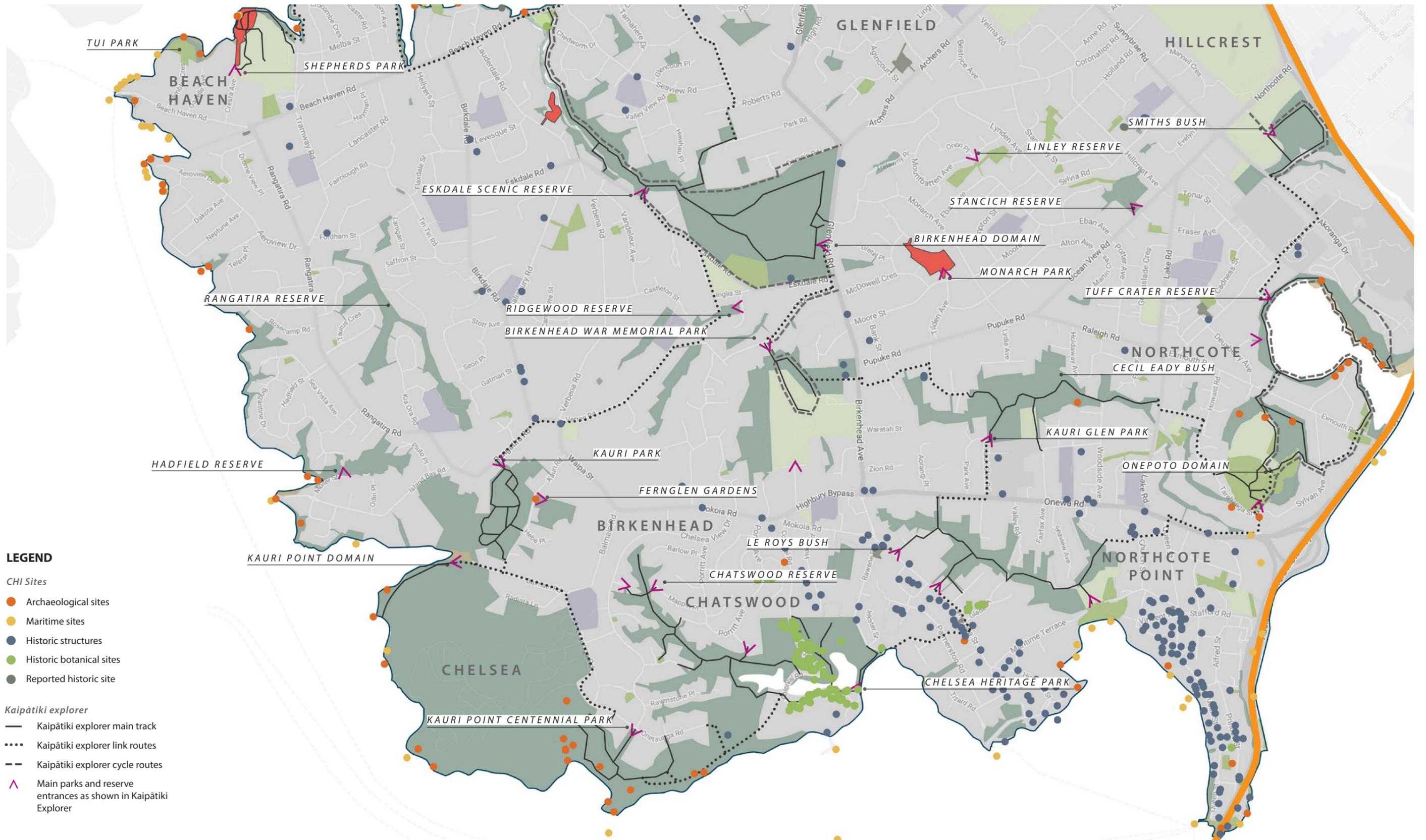
This map locates Cultural Heritage Inventory (CHI) database places in Kaipātiki, including archaeological sites, historic buildings, historic botanical sites, shipwrecks and other places of heritage interest.

The Kaipātiki Explorer network, cycleway network and four chosen nature play sites are again overlaid to indicate network relationships and walkway connectivity.

Note: CHI places are inferred from Auckland Council Geomaps at a scale of 1:25,000 and above. Location accuracy is variable and may only indicate the general vicinity of the CHI site, to the nearest 100m. The database is also not fully comprehensive. Auckland Council does not guarantee the accuracy or completeness of the data.



Base map data: Google



Base map data: Google





**APPENDIX D**  
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