

MOUNT VICTORIA-MATAIRANGI MASTER PLAN  
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Wraight + Associates Limited

*in collaboration with People + Places & Rob Greenaway + Associates*

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## EXECUTIVE SUMMARY

The Master Plan is a visual plan for tree management and replanting, and for the management of the track network. It will help guide the Council's existing programmes and resources for Mt Victoria over the next 10 years. The Master Plan looks at landscape, future plantings, and management of pines, as well as recreation development and ways to reduce user conflict.

### KEY RECOMMENDATIONS

- It is important to consider the landscape values and character of Mt Victoria/Matairangi within the context of the whole Wellington Town Belt, local parks, and the Outer Green Belt. Ecologically, it provides valuable connections for native flora and fauna across the wider city.
- This Master Plan proposes to create an ecological identity for the gullies through the vegetation and by establishing a hierarchy of paths to assist with overall wayfinding. Signage will then support this place-making system, rather than drive wayfinding.

#### Track Strategy

- Developing a track hierarchy – A three-tier track structure is proposed, with all tracks to be considered shared walking and cycling tracks, with the exception of downhill “black diamond” standard mountain bike tracks.
- First tier – Commuter and tourist routes to be developed (where practically achievable) to NZ Standard Walking Track and Short Walk Standards, and have easy wayfinding via the track quality, construction and signage.
- Second tier – Park walks at a variety of standards, but leading to key areas of open space and views. These will largely be differentiated by signs.
- Third tier – All other tracks in the park. These would have no signage for walking, but have low-profile mountain bike grade signs where required (as currently used), and be for use by those seeking a walking adventure as well as orienteering, mountain biking and running.

#### Minimising Potential User Conflict

The principle of shared track use will continue, but the design and behavior modification interventions will be applied to reduce conflicts between different user groups where necessary. To reduce the risk of collisions between different user groups, the Mt Victoria/Matairangi Master Plan proposes to create intersections with oblique angles and to use “slow-down” formations before intersections. “Black diamond” standard mountain bike tracks will not intersect with the main commuter and tourist tracks within the park.

#### Signage Strategy

A renewed signage system is proposed to align with the three-tier track strategy, and to include te reo Māori and English where practical.

#### Open Space Development

Open spaces are generally lawn areas. These are highly valued as places to interact socially or to stop and take in the view. There is scope to develop these to include more diverse activities, such as play and – where close to residential areas – community gardening.

#### Vegetation Strategy

Mt Victoria/Matairangi plays an important role in linking ecosystems through the Town Belt, and is part of a critical ecological path that links the planted ridges across Wellington. The exotic vegetation on Mount Victoria/Matairangi requires a long-term succession plan. There is significant support in the community to re-establish native vegetation but it is also recognised that careful management is necessary in the meantime to maintain the existing exotic vegetation through to the end of its useful life.

It is proposed that the exotic vegetation is managed and retained on the ridge areas of Mt Victoria, with replanting of natives occurring in areas of wind fall, weed control, and in the gullies. This approach of retaining the exotic vegetation while the native gullies establish will provide much-needed shelter, and the ability to phase out the exotics over a long period of time (0–50 years) with the exception of the managed forest area.

#### Gullies “Tracing the Streams”

- The streams associated with Mt Victoria/Matairangi now flow in the piped stormwater network in the residential area. These were once renowned by Māori for their good quality water, and supported the growing of kumara on terraces across the west-facing slopes of Mt Victoria/Matairangi that now hold houses. Tracing these streams up the valleys to their catchments reveals moisture-rich gullies.
- The Mt Victoria/Matairangi Master Plan proposes to replant these using plant mixes that include a dominant tree species. The gullies will provide a positive on-going focus for revegetation groups and, once established, will assist wayfinding through identity and narrative within Mt Victoria/Matairangi.

#### Pine/Exotic Tree Management

The revegetation management strategy proposes to:

- use risk management to guide the priorities for removal of exotic vegetation
- manage existing vegetation to maintain key views.

### DOCUMENT DISCLOSURE

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### ISSUE STATUS

Final Issue      17-06-15

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## INTRODUCTION

This Master Plan for Mt Victoria/Matairangi provides a 10 year direction for redevelopment or upgrade of this important city open space that is consistent with user need and open space values. This project is in response to policy 8.9.3.1 of the Wellington Town Belt Management Plan-June 2013 (WTBMP 13); 'Develop a master plan for Mt Victoria/Matairangi that looks at landscape, future plantings and rate of removal of pines, as well as recreation development and ways to reduce user conflict.'

The master plan will help guide the Council's existing programmes and resources over the next 10 years. This will include existing operational and capital work budgets for track renewals and upgrades, hazardous tree management, pest control and restoration planting. Some new developments and ideas are also proposed which are currently unfunded, Council could consider these as future projects subject to funding decisions through future Long Term Plan and Annual Planning processes.

### PROJECT SCOPE AREA

Mount Victoria/Matairangi comprises sector 9 of the Wellington Town Belt (Town Belt), and extends from Mt Alfred north to Oriental Bay. (Refer to map on page 179 in the Wellington Town Belt Management Plan 2013). It forms the eastern arm of the Town Belt and is characterised by the ridge and north-western facing slopes above the suburbs of Mt Victoria and Oriental Bay.

Mount Victoria/ Matairangi (Mt Vic.) is the most popular forested area of the Town Belt. Informal recreation activities on Mt Vic. are dramatically increasing with the most popular activities being mountain biking (both cross country and downhill), walking, dog walking, jogging, orienteering and sightseeing. As these activities become more popular, the likelihood of conflicts increase, user/visitor experiences change and greater demand is placed on the track network and other infrastructure.

Alongside the increase in recreation activity is the need to manage the vegetation and long term landscape change, particularly with the aging conifer and pine plantations. Given Mt Vic's landscape significance, vegetation management needs to be well planned and gradual in order to protect and enhance visual unity and ecological connections.

A copy of the Wellington Town Belt Management Plan 2013 can be found on Wellington City Council's website: [www.wellington.govt.nz](http://www.wellington.govt.nz)

### PROJECT PURPOSE

A Master Plan for Mount Victoria that:

- Complements existing legislative and management structures including the Wellington Town Belt Management Plan 2013 and Draft Wellington Town Belt Bill 2015), supports the aspirations and inspirations of various stakeholders and guides future management and development in a consistent and affordable manner.
- Provides a visual plan for hazardous tree management, and replanting, taking into account landscape, heritage and ecological values.
- Provides guidance for visitor use, and management of the track network, including identifying areas where recreation conflict occurs (or potentially could occur) and recommend options for managing these conflicts, and identify options for improving/enhancing user experience.
- Identifies any opportunities/areas for site specific redevelopment or upgrade that is consistent with user needs and open space values. Identifies appropriate management of key cultural sites which are identified in the WTBMP 13.
- Provides a detailed 10 year implementation plan including, identifying and prioritising projects and resourcing requirements and methods. Meets the aspirations of Mana Whenua who have an on-going partnership role in the management of the Town Belt.

### PROJECT PROCESS

The project follows four main stages including; Information collection, research and site analysis (including engagement with stakeholders and user groups), concept design and master planning, public consultation, and preparation of final plans.

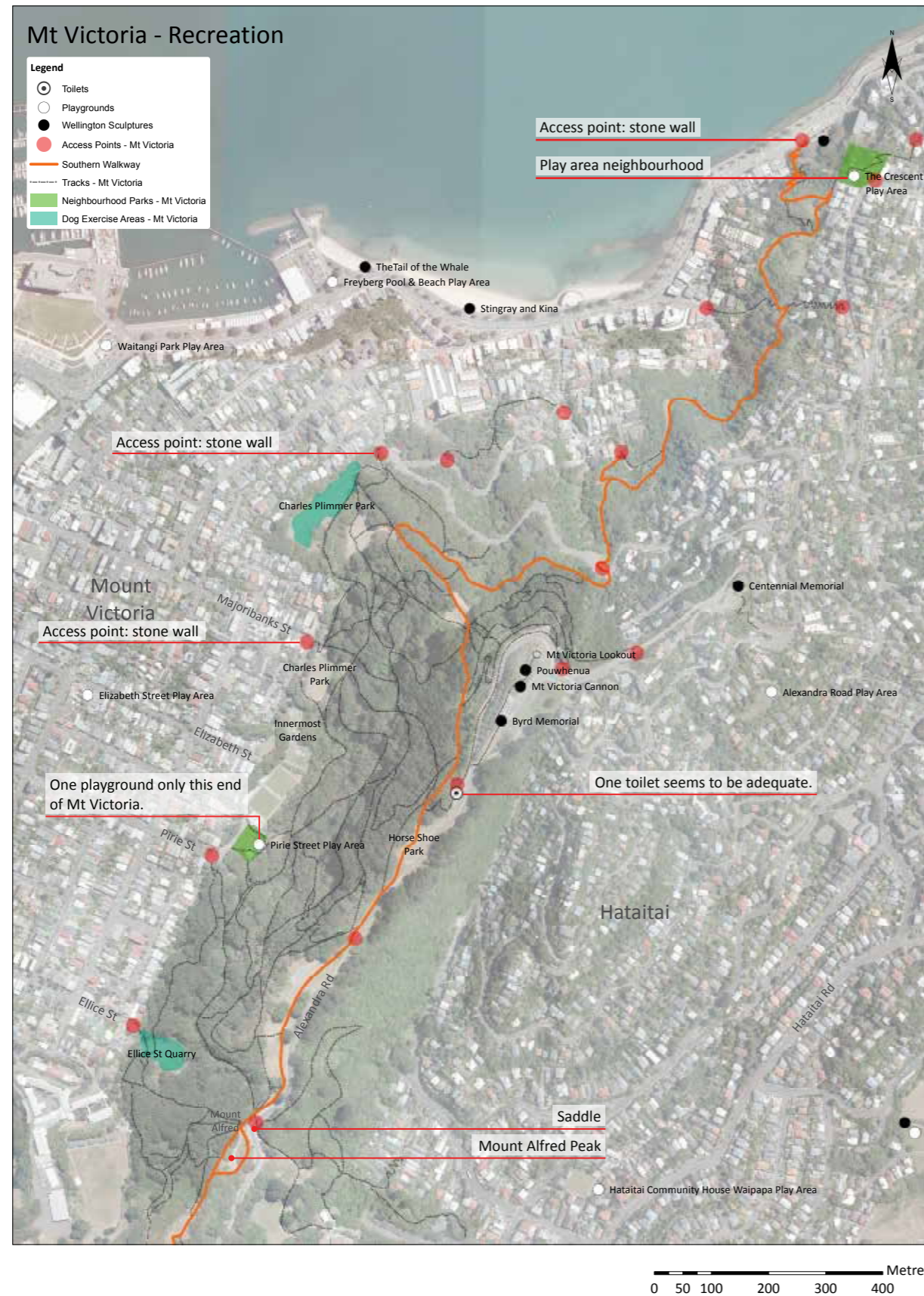
Stakeholder consultation has provided a picture of how Mt Victoria/Matairangi is used and valued. The feedback from consultation has informed the direction for vegetation and landscape management to achieve positive ecological, recreation and visitor experience proposals.

### SITE PLAN



# SECTION 1: EXISTING SITE - KEY ISSUES OPPORTUNITIES

## 1.01 RECREATION



### RECREATION

Mt Victoria/Matairangi is a premier city parkland. It is heavily used by both locals and visitors and by many different user groups. The main recreational activities that occur are: walking; mountain biking, dog walking, jogging, orienteering, visitor tours guided and unguided (to lookouts and Hobbit trail), community gardening and ecological restoration; picnicking; viewing the city; and exercising. Car race events such as the Alexandra Road Seal Hillclimb also occur as do organised mountain bike, orienteering and harriers events.

Feedback from consultation indicates – in the main – a high level of satisfaction with the recreation values of the park, particularly amongst regular users who know it well. The variety of vegetation types, tracks, vistas and open spaces provide for a sense of adventure and discovery, even for the most frequent of walkers and mountain bikers, while supporting a wide range of mostly complementary activities. Open areas under mature exotic trees provide for off-track orienteering and adventure cycling, as well as shelter and interesting scenery. More dense areas of native vegetation support native wildlife (as does many of the exotics) and is of special interest to many park users. Open spaces are popular hang-out spots, provide world-class views of the city and its surrounds, and are popular with families, other social groups and relaxing individuals. There is a high level of volunteer commitment to the park and this will help secure its future as a relevant city-central recreation space.

### KEY THEMES FROM CONSULTATION

Key themes from consultation on recreational use were the relationship between walkers (with or without dogs) and mountain bikers through track management and the value of various spaces. These are summarized below.

#### Track Management

- Conflict between mountain bikers and walkers.
- Signage is inadequate and confusing.
- Routes need to be better defined.
- Tracks need to be better maintained.

#### Spaces

- High level of satisfaction with the recreation value of the park.
- Views need to be maintained.
- Provision for rubbish disposal is poor.
- Activities for children need to be better provided for.
- Interpretation of the history of the area and events would add value.
- A clear main entrance is required.

### ISSUES AND OPPORTUNITIES

#### Issues

- Track development has progressed in an organic manner over the decades, and while the result is an unstructured network with many different standards of grade, width and condition, the current network has many advantages, as well as some limitations.
- It is important to maintain a sense of adventure and discovery in the park. A too high level of development has the potential to limit the value of Mt Victoria for its most regular users who like to wander at will via many interesting and varied route options.

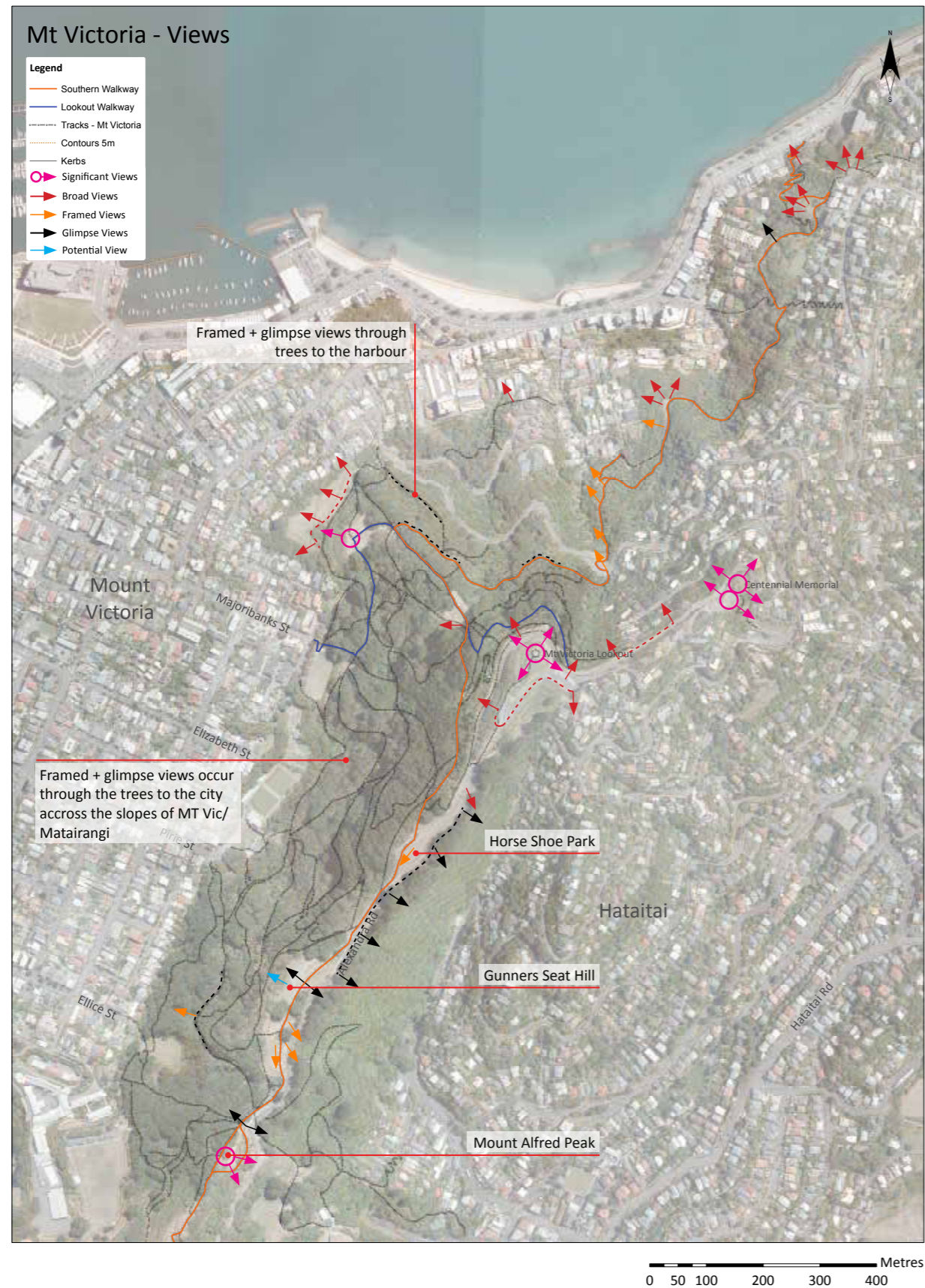
- Wayfinding is an issue for many visitors, and especially first-timers who have trouble finding a direct path to the Mt Victoria Lookout.
- There are some real and perceived conflicts between cyclists and walkers and cyclists and dog walkers, but there is also a very high level of courtesy and cooperation shown by the vast majority of mountain bikers.
- There is a high level of satisfaction with the availability of open space in the park, although these areas retain some development potential to make them more attractive and individually memorable.
- The park provides several important commuter routes between Hataitai and the CBD, but their design could be improved for this purpose, and more track development could increase the use of the park by commuters.
- There are some safety issues associated with aging park infrastructure and signage (all minor) and senescent and mature exotic vegetation (potentially serious).

#### Opportunities

- Developing a wayfinding system which retains the potential for adventure and discovery, while clearly directing infrequent visitors and commuters to their intended destinations. This could involve four levels of signage: a high level of legibility via signs and track formation for main tourist and commuter routes which lead to key destinations (between the main park entries and the summit); a low level of signage for other popular tracks which provide longer and defined walks within the park, no signs on adventure routes used by frequent park users; and standard mountain bike grade signs for shared and dedicated cycle tracks.
- Applying track standards more tightly for the main tourist and commuter routes, considering gradient, surface and drainage.
- Investigate developing a main tourist route from Majoribanks Street to the summit at a recognised track standard, including a relatively even grade, width and surface.
- Investigate developing a low level contour track from the south west of the park to Majoribanks Street, linking schools and commuters with the main park tracks and the CBD.
- Reduce the risk of collisions between different user groups by creating intersections at oblique angles, as well as “slow-down” formations before the intersections. “Black diamond” standard mountain bike tracks should not intersect with the main commuter and tourist tracks within the park.
- Developing a main park entrance, although this would be of most benefit to visitors to Wellington. The preferred location is Majoribanks Street.
- Consider developing some open space areas to make them more of a destination, particularly those along Alexandra Road.
- Managing the Lord of the Rings visitor setting to maximise the lifespan of this attraction (essentially the lifespan of the key trees) and to support both commercial and casual visitors.
- Managing senescent and aging exotic trees to control the risk to recreational visitors from limb and tree-fall, considering that many visitors enjoy the shelter in the park during high winds. This process of tree management for visitor safety will be a main driver for considering revegetation plans for Mt Victoria/Matairangi.

Other issues are summarised in the Stakeholder Feedback summary (Appendix 3.03). However, those identified above will drive the main development proposals for recreation on Mt Victoria/Matairangi.

## 1.02 VIEWS



### SUMMARY NOTES

Mt Victoria/Matairangi provides excellent views of the city and surrounding environs. These can be categorised as:

#### 1. Significant Views

- These views have open direct visual links to areas of the surrounding environments and are expansive.
- Mount Victoria Lookout - Significant 360 Views.
- Mount Alfred Peak - Good views to Evans Bay and to the Orongorongos.
- Centennial Memorial - The lookout provides an expansive view of Wellington with overhead shade and rain shelter. This is one of the few accessible lookouts (on top of the reservoir) within the precinct.

#### 2. Broad Views (of the surrounding environment)

- Horse Shoe Park - Engaging views to Cook Strait and is open with a sense of sheltered informal amphitheatre in the foreground.
- Ridgeline Views - Alexandra Road's openness and ridgeline location affords many broad, framed and glimpse views of the city and harbour, Evans Bay to the Orongorongos and out to Cook Strait.
- Views west to the city are obscured by existing vegetation in many places from the open spaces.

#### 3. Framed Views

- Gunners Seat is a memorial seat placed to provide views of the city commemorating those who looked over the city in times of war. The view to the city is obscured by eucalyptus trees.
- The next seat to the south of Gunners Seat has good framed view of Evans Bay.
- Paddy Darrock memorial seat has a good framed view to Evans Bay.

#### 4. Glimpse Views

- Views through or framed by vegetation provide glimpses of the surrounding environments.
- Saddle - Glimpses of the city through the trees and views to Evans Bay framed by trees.
- Gunners Seat Hill on the Southern Walkway looking south has good glimpse views East through trees to Evans Bay and Hataitai and west to city backgrounded by the greenbelt and ridges.

### ISSUES AND OPPORTUNITIES

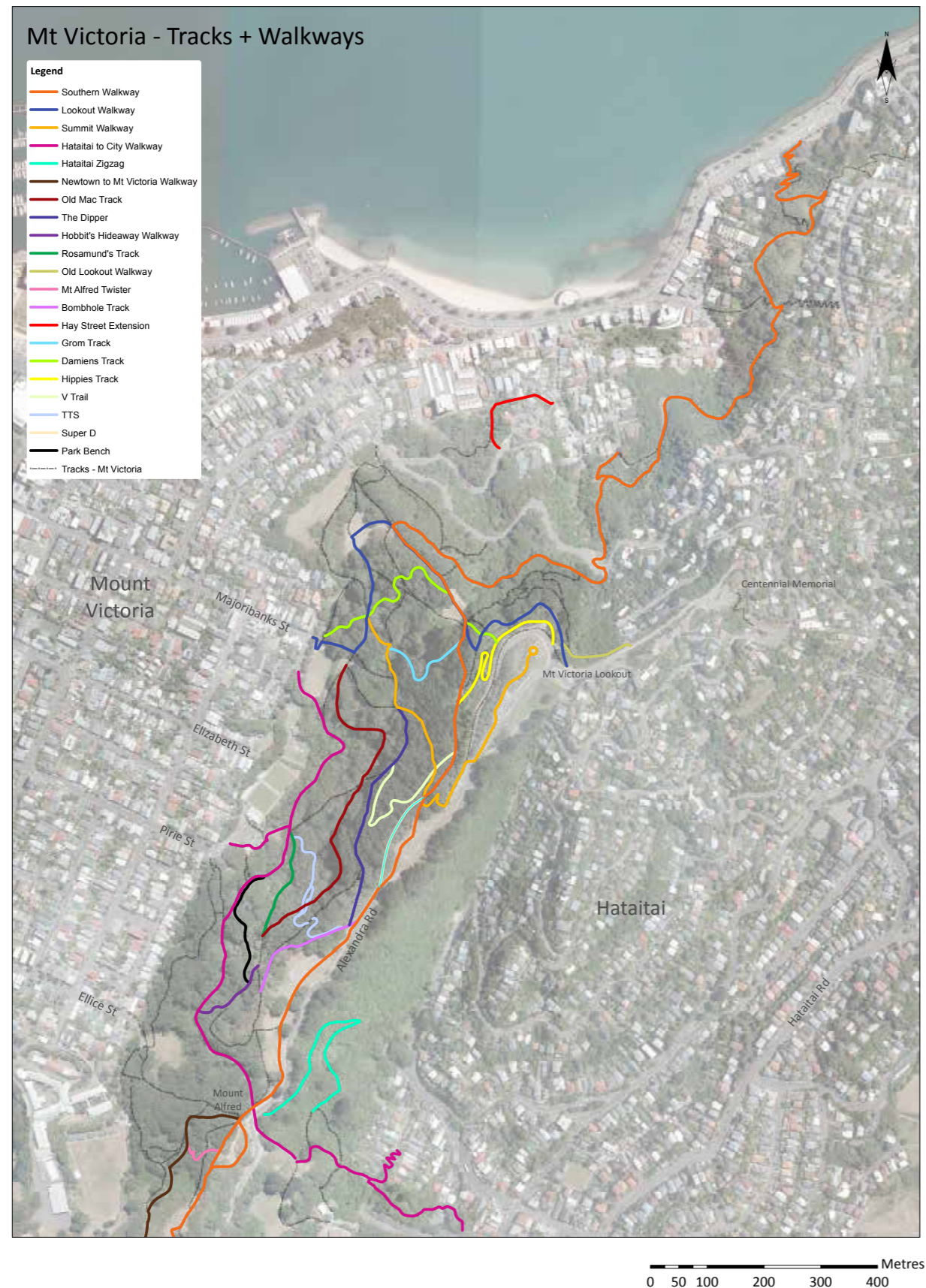
#### Issues

- Mt Alfred Peak views to Lyall Bay and Cook Strait are obscured by vegetation.
- Poor pedestrian interface at Centennial Memorial entry point, lack of signage.
- Many existing views are effectively framed by existing vegetation. As this vegetation matures and grows it will be important to manage vegetation with regard to obstructing Significant, Broad and Framed views.
- Views from Gunners Seat are obscured by existing eucalypts
- Views from Gunners seat Hill on the Southern Walkway to the city are obscured by planting.
- Existing Glimpse Views will evolve and change over time in line with vegetation growth, this evolution is considered to positively contribute to visitor's engagement with the park and the views it affords.
- Views from the Byrd Memorial and adjacent areas are becoming obscured by existing pines and pohutukawas.

#### Opportunities

- Consider selective pruning of vegetation to afford better views from Mt Alfred Peak
- Consider improvements to the Centennial Memorial pedestrian interfaces and signage.
- Open up views from Gunners Seat by removal of 3no. eucalypts and 1no.pine
- Explore the opportunity to put 1-2no. more seats along from Gunners Seat with slightly better orientation to see the city.
- Open views from Gunners Seat Hill to the city by judicious pruning of existing planting
- Allow Glimpse Views to change over time as the park's vegetation evolves, to add variety of visitor experience and engagement.

## 1.03 TRACKS + WALKWAYS



### SUMMARY NOTES

Tracks are well mapped and marked on plans but are often difficult to differentiate on the ground. There is currently no co-ordination between the colored maps and wayfinding signage.

### ISSUES AND OPPORTUNITIES: TRACKS AND CONFLICT

#### Issues

- Tracks are not easily legible and there is some conflict between users.
- Track surfaces are generally good, but some work is required to contain creep and widening. Steps are problematic as they get filled with gravel and the edges get eroded by runners and bikers.
- There is no hard data to indicate the scale of conflict. The conflicts are potentially the result of only a few poorly designed track intersections, although shared use will always create some perceptions of general conflict. We are not able to rely on any metric or to create a baseline from which to measure change.
- Some basic safety issues need addressing – hazards other than trees include: Steepness of tracks, poor surfacing and lack of footpaths adjacent to Lookout Road.

#### Opportunities

- Investigate a hierarchy of tracks and use of a range of techniques to signal the status of tracks. Tracks could be colour themed to be legible for wayfinding, and the use of different surface standards could also indicate main routes.
- There are three main tracks that should be treated as key routes – the commuter route (Hataitai to City), the route to the Mt Victoria Lookout from (most likely) Majoribanks Street, and the Southern Walkway.
- Create a loop walk (meeting NZ Track Standards) from Courtenay Place via Majoribanks Street up to Mt Victoria Lookout then down to Oriental Bay and back into town. This will require the creation of an obvious gateway to the park and signage from the city (as below).
- Decide on one or more of a range of options for management of conflict between mountain biking (primarily downhill biking). Many are available, ranging from full separation to management and design of track intersections.
- Consider the closure of the upper steep portion of the Lookout Walkway or re-design this portion.
- Review design of all timber steps as they wear and fill up with gravel and dirt (many are at this stage now). Test alternative methods to hold the slope of the track.
- Check water management on key routes.
- Investigate potential to improve main tracks to meet New Zealand Track Standards.
- Retain the number of tracks as this provides variety.
- Investigate a grade 3 cycle and commuter track on the western boundary linking schools and residences to the south.
- Develop the pedestrian journey to the Mt Victoria Lookout, as well as connections across Alexandra Road from the car park to the path that connects you to the Mt Victoria Lookout.

### ISSUES AND OPPORTUNITIES: DRIVING TO THE SUMMIT

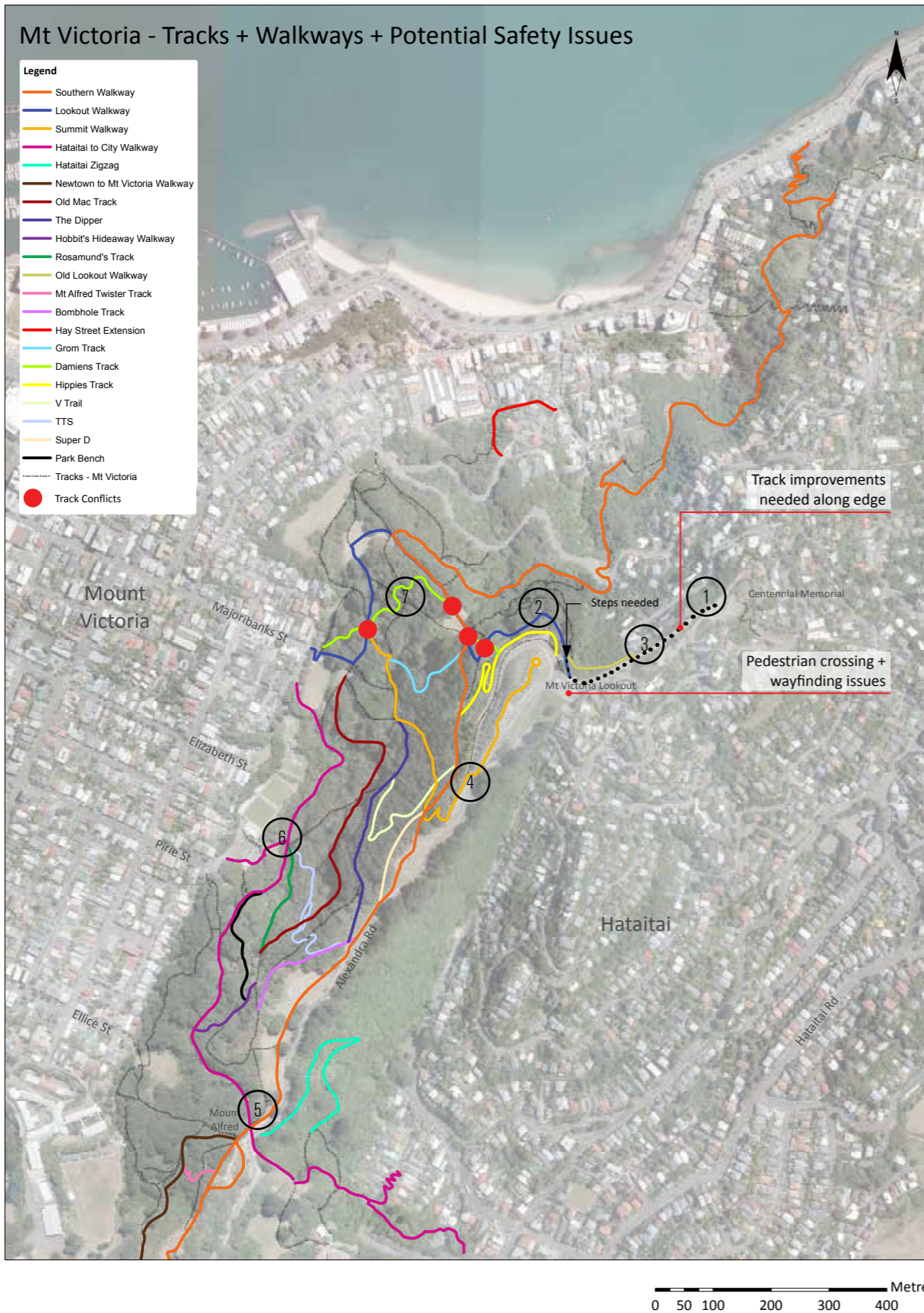
#### Issues

- While directional signs are in place on the main roads leading to the summit, they are of low visibility and do not create the sense of driving within a park. Rather, the road formation and signage creates a sense of driving through a park.
- There are areas where pedestrians wander across the road with no indication of crossings to traffic, such as around the Summit and at the Lookout. Joggers also use Alexandra Road as a running track.
- The current form of Alexandra Road is important to support the Alexandra Road Seal Hill Climb event and to allow for buses.

#### Opportunities

- Consider new large-scale park entry signs or other entry structures on Alexandra and Lookout Roads to welcome drivers to the park and to encourage greater recognition of the open space and recreation values of the setting.
- Investigate road markings and signage at important pedestrian crossing areas (but not pedestrian crossings).
- Review the ability to slow traffic along Alexandra Road in places, while allowing for buses and the Alexandra Road Seal Hill Climb.
- Develop a running track parallel to Alexandra Road and develop the roadside track from the Summit to the Lookout.

# 1.04 TRACK + WALKWAY + MINOR SAFETY ISSUES



1. Centennial Memorial Road Crossing



There is no road crossing at the Centennial Memorial and no footpath along the road. There is also no clear signage.

2. Track Grade



Lookout Walkway: The upper portion of this track (installed for an international running event) is a slip/skid hazard and its slope/grade does not meet NZ Track Standards, therefore it is not suitable for a main access route.

3. No Walkway



Narrow route very close to the road – forces walkers in groups onto the road, and especially anyone with a buggy or running. Many runners use the roads due to a lack of appropriate surfacing or space.

4. Alexandra Road



Lack of pedestrian warning signs on Alexandra Road - Entire road needs to be managed better for recreational park use.

5. Trip and Fall Hazards



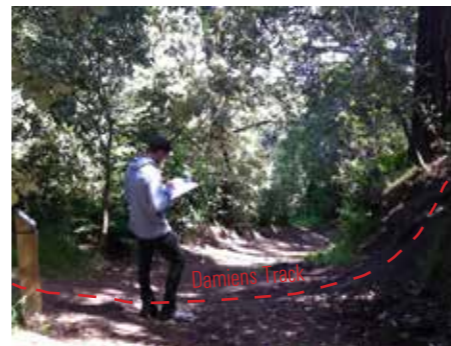
South of the lookout – uncovered stormwater service and unprotected/unmarked edge presents potential fall from height (over 1.0m) hazard.

6. Track Design



Hataitai zig zag – minor but indicates a need to review track design. The tracks timber edge restraints are rotting, posing a potential trip/fall hazard for walkers and riders.

7. Damiens Track Intersections [● marked on map]



Potential conflict between speeding mountain bikers on steep slopes and pedestrian users on gently graded paths.





## 1.05 ACCESSIBILITY



### SUMMARY NOTES

#### Issue

There is no footpath or safe pedestrian crossing along Lookout Road to the Centennial Memorial from the main car park.

The upper (highest) portion of the Lookout Walkway is too steep and the gravel surface is unsafe to walk down.

Signage and maps do not indicate accessibility of paths or otherwise.

The pathway from the Horse Shoe Park is a steep grass bank and becomes slippery when wet.

Access and signage to the summit is not clear.

Road crossing at the Centennial Memorial – not marked on the road or on the walking paths – encourages jay- walking with no warning for traffic.

Potential conflict between speeding mountain bikers on steep slopes and pedestrian users on gently graded paths.

Lack of pedestrian warning signs and pedestrian pathways along Alexandra Road - Entire road needs to be managed better for recreational park use.

#### Opportunity

Develop at least two of the main tracks to be at a New Zealand Track Standards standard for tracks.

Identify a main walking park entrance to Mt Victoria for visitors from the city - possibly Majoribanks.

Improve directional signage from the city.

Access potential for lower elevation destinations that may provide a sense of achievement or enjoyable visitor experience whether or not the visitors reach the park's summit.

Consider roles of other open spaces within the park and consider design elements which assist wayfinding, provide a sense of place and build on visitor values.

Consider sealing Te Ranga a Hiwi track to provide an accessible route.

## 1.06 WAYFINDING + SIGNAGE



### SUMMARY NOTES

There is an existing suite of wayfinding elements located throughout Mt Victoria, which is mostly legible and consistent. However it needs reviewing to ensure the full site is coordinated. This will help people to reference wayfinding guidance throughout the site in a consistent manner.

### ISSUES AND OPPORTUNITIES

#### Issue

- Signage is unclear, this creates confusion. The terminology used for main destinations is confusing and is inconsistently applied (e.g. Summit, Lookout, Mt Vic, Town Belt etc).
- Centennial Memorial has poor signage.
- Signage to main tracks from the Mount Victoria Lookout car park is poor.
- Online mapping information for tracks, particularly mountain bike tracks, is provided via the WCC website, as well as on social media (such as Pink Bike and Facebook) and on club or private websites (such as bikewellington.org.nz and tracks.org.nz). Other relevant brochures are available online as PDFs from Greater Wellington (Journey Planner maps) and the WCC (for the Southern Walkway, for example); and the Walking Access Commission is also developing 'NZ Walking and Biking Tracks' map content on the WAMS system. Mapping 'apps' on hand-held devices are also available. This means that there is no single reliable data source for Mt Victoria, as track users will update information and advice via different forums (not necessarily the WCC website as this does not operate a user forum and has limited data about individual tracks) and there is no easy means of archiving or deleting inaccurate information online.

#### Opportunity

- Work with club and private online services to provide up-to-date online mapping and trail information, particularly for mountain biking.
- Many, if not most, existing signs need to be replaced due to wear and tear. This presents an opportunity to review the parks signage system cohesively.

#### Consider

- Including colour coding of at least the main tracks aligned to park maps.
- Identify a main walking park entrance to Mt Victoria for visitors from the city - possibly Majoribanks.
- Improve directional signage from the city.
- Use consistent theming and naming.
- Implementation of a vegetation plan to inform orientation and signage.
- Develop interpretation signage for areas such as heritage sites and revegetation sites.
- Redirecting online inquiries about mountain bike track information from the WCC website to recognised private or club websites.

### EXISTING SIGNAGE ELEMENTS

#### Issue

Route indicator signs can be difficult to read when wet; Map structure and colours are inconsistent with other signage; bollard system is good but requires maintenance and the directions are sometimes difficult to read; timber detailing at the top of posts are the only element that ties these signs together.

### EXISTING SIGNAGE ELEMENTS



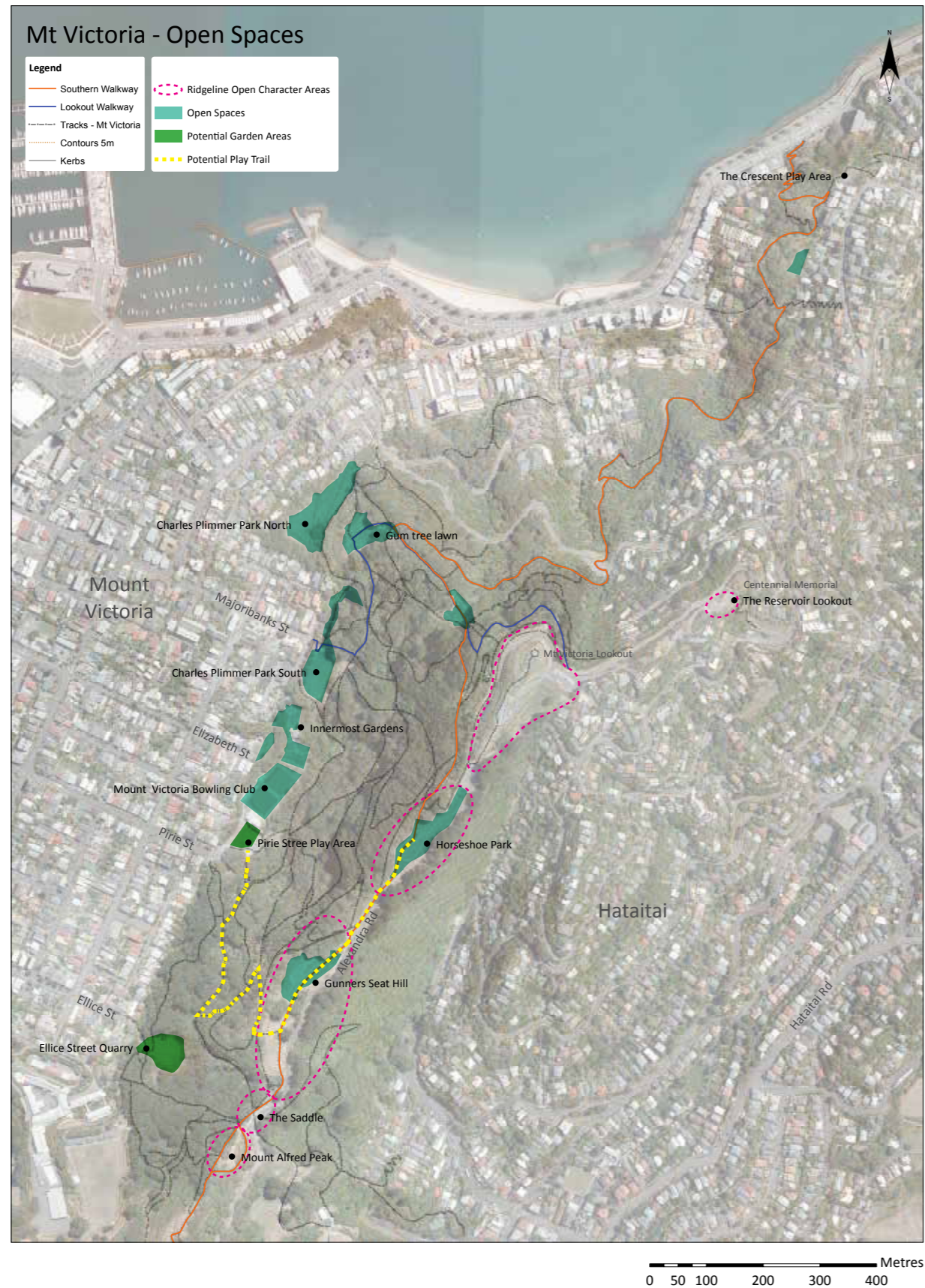
Route indicator signs can be difficult to read when wet; Map structure and colours are inconsistent with other signage; bollard system is good but requires maintenance and the directions are sometimes difficult to read; timber detailing at the top of posts are the only element that ties these signs together.

### EXISTING SCATTERED INCONSISTENT SIGNAGE

This includes public health signs which need to be located at entrances but should be integrated into the signage system.



## 1.07 OPEN SPACES



### SUMMARY NOTES

There are a number of open space areas that provide lookout opportunities, play areas, gardens and dog walking areas:

- Te Ranga a Hiwi Ridge - the Ridgeline is a distinct characteristic of Mt Victoria/Matairangi.
- Centennial Memorial - affording expansive views of the city and harbour, the reservoir lookout here provides one of the few 'accessible' significant viewing space.
- The Summit/Tangi te Keo - this is an important tourist and local destination.
- Horseshoe Park and Gunners Seat Hill - open grass areas.
- The Saddle - an important juncture where tracks come together, this is also the main access for tourists visiting the Hobbit filming location.
- The West Slope - the west slope of Mt Victoria/Matairangi is densely covered in tracks and trees with most open grassed spaces located along the city edge. A series of open spaces occur, some with specific uses attached.
- Ellice Street Quarry - this historical quarry site is an enclosed, sheltered grassed space. It is currently designated as a dog park.
- Charles Plimmer Park South - this is the largest flattest open space available on Mt Victoria/Matairangi.
- Charles Plimmer Park North - a large open space and dog walking area. It also contains commemorative planting and seating.
- Victoria Bowling Club - This is a popular recreation activity in this location and provides good active surveillance adjacent to the playground.
- Innermost Garden - This activity provides community interaction and an overseeing of activity along this city edge.
- Gum tree lawn - a popular open grass area.

### ISSUES AND OPPORTUNITIES

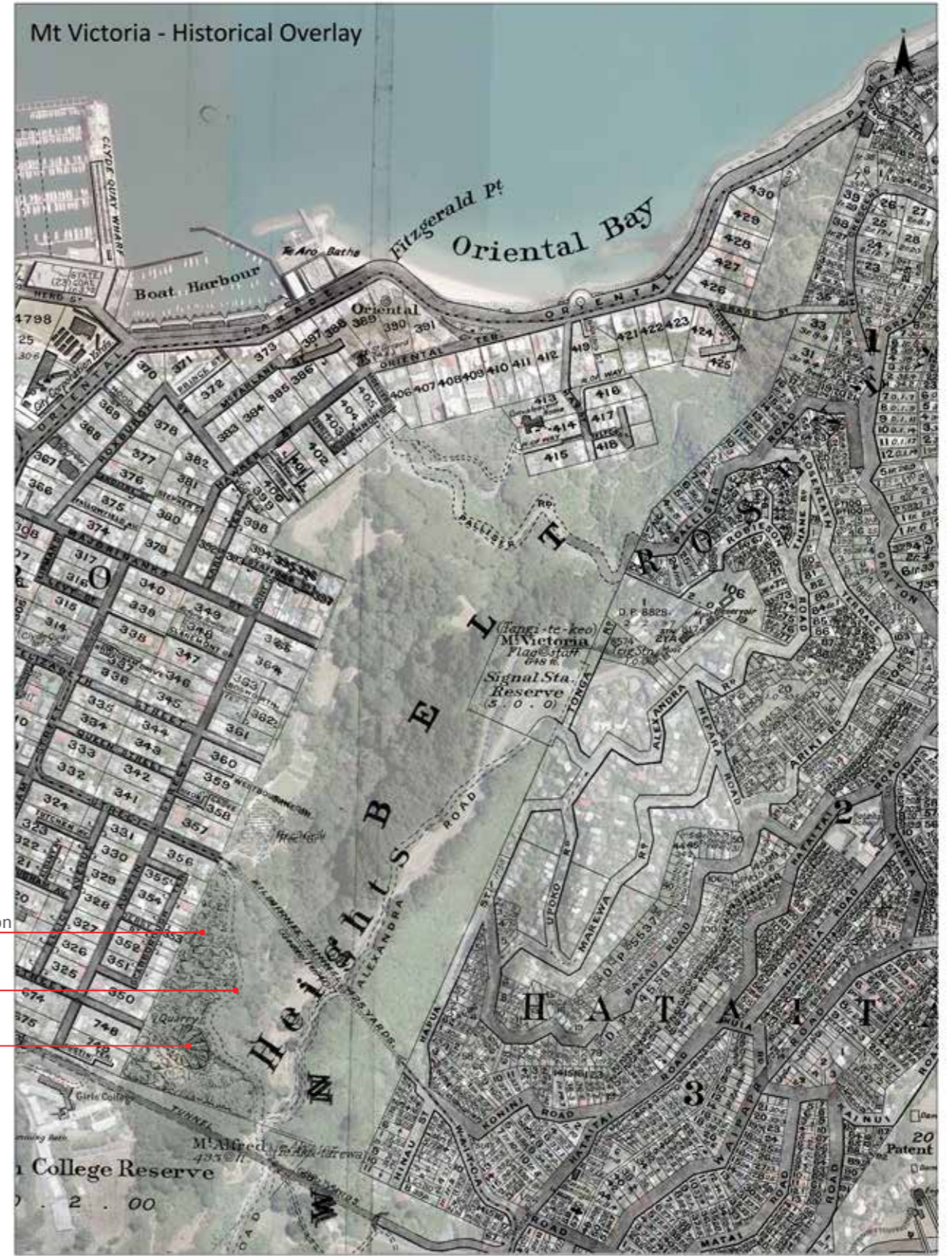
#### Issues

- Key open spaces and landscape features need maintenance and enhancement.
- Facilities at the saddle are inadequate for tourists, particularly those that arrive by bus in groups. There is a lack of flat space to accommodate gathering and passing of other park users. There is also a lack of seating.
- Residential properties encroach on the west slope.
- Many of the open spaces are not named and lack identifiable character.

#### Opportunities

- Develop a sense of place for each open space, including naming.
- Fruit tree planting could occur in the Ellice Street Quarry (due to its sheltered nature) if there is community demand, but it is important to retain as largely open space.
- There is potential to include more fruit and nut tree plantings along the city edge of the Innermost Garden, providing food, seasonal interest and increased biodiversity. There is also potential for the Manaaki te Keo nursery to be located here.
- Consider roles of other open spaces within the park and consider design elements which assist wayfinding, provide a sense of place and build on visitor values.
- Review roles and character of open spaces.
- Investigate the inclusion of natural landscape play within Mt Victoria/Matairangi, as well as linking open spaces to encourage children to engage in the park.

# 1.08 HISTORICAL MAP OVERLAYS



- Historical Pine Plantation
- Historical Track
- Quarry

## 1.09 CULTURAL SIGNIFICANCE



0 50 100 200 300 400 Metres

### SUMMARY NOTES

There are three inter-related cultural concepts associated with Mt Victoria/Matakairangi:

#### Te Upoko o te Ika a Maui

Means the head of the fish of Maui (associated with the legend of 'The Fish of Maui') and the pulling up of the North Island of New Zealand from the Pacific Ocean.

#### Tangi te Keo - Ngake/Whaitaitai

Maori tradition has it that Wellington Harbour was occupied by two taniwha, Ngake and Whaitaitai. In their time the harbour was a lake blocked from the ocean and Ngake wanted to escape to the open ocean. He crashed out to form the channel known as Te Au a Tane, the present channel into Wellington harbour. When Whaitaitai tried to follow suit through the area where Kilbirnie now is, he failed and became stranded and instead the area uplifted leaving Whaitaitai high and dry. He then transformed into a manuwairua called Te Keo or a spirit bird. Te Keo alighted on the lesser peak next to Matakairangi/Mt Victoria. The other peak became known Tangi Te Keo or the cry of Keo (WTBMP2013).

#### Te Ranga a Hiwi Ridge

Within the precinct are two outstanding sites - Tangi Te Keo (or Matakairangi) and Te Akatarewa Pa (MVRDC-2004).

#### Note:

Matakairangi means 'to examine the sky'

Te Akatarewa Pa - was formerly home of Ngai Tara.

### ISSUES AND OPPORTUNITIES

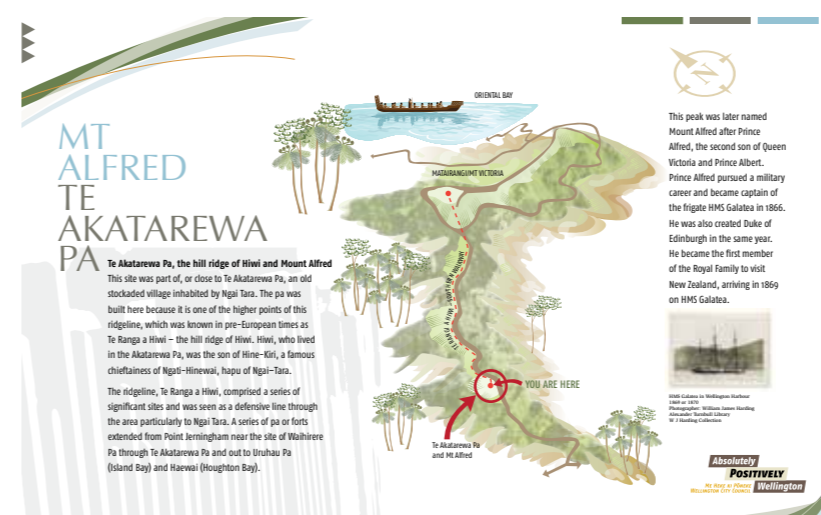
#### Issue

- Te Ranga a Hiwi pathway is not clearly identified for walkers.

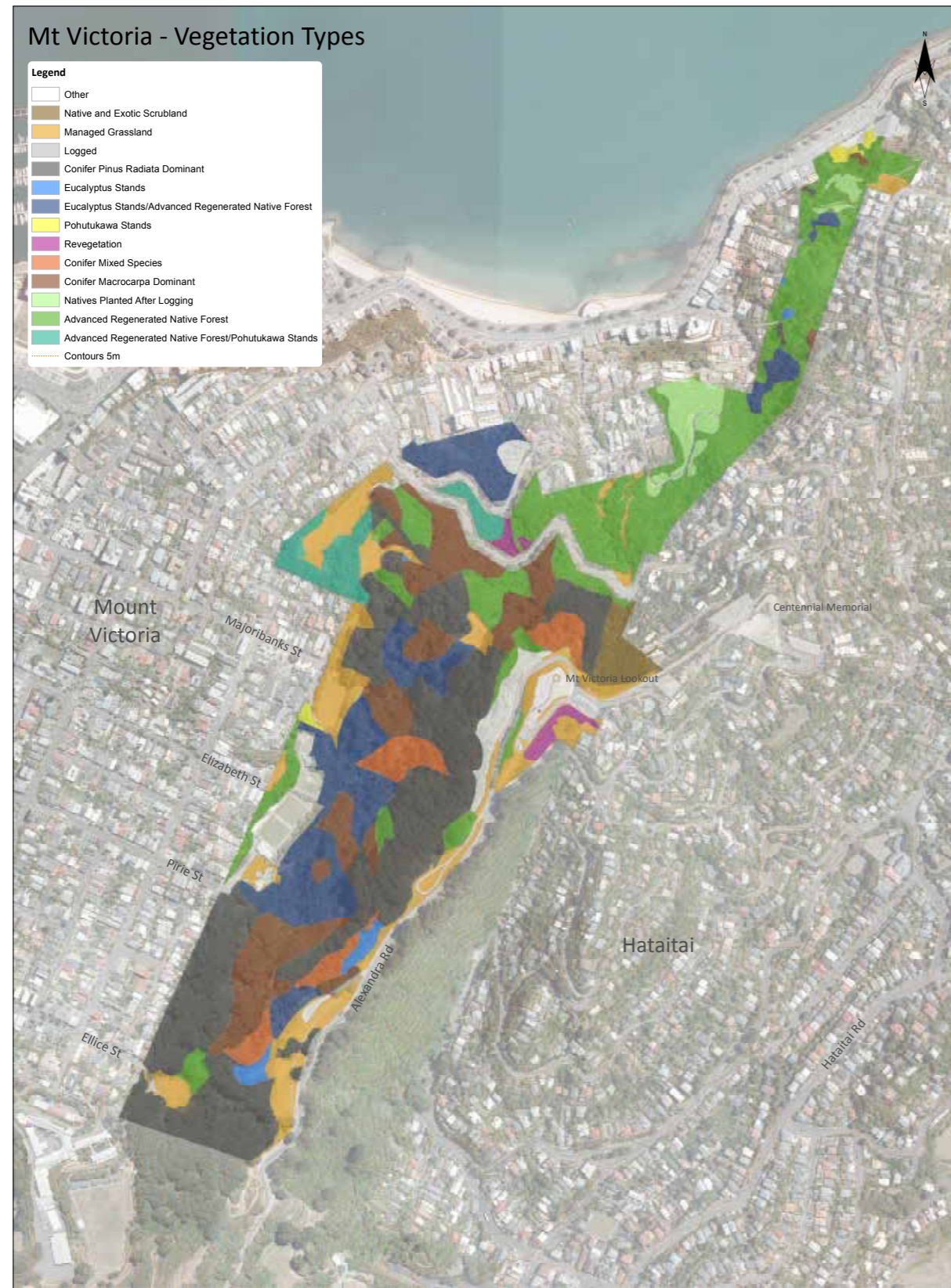
#### Opportunity

- Improve Mt Alfred to Mt Victoria Lookout journey to reflect the Te Ranga a Hiwi walkway.
- Retain infographic on Mt Alfred and incorporate one at the Mt Victoria Lookout (if there is not one already) in order to connect the two locations.
- Develop relevant sections of the Summit Walkway and the Southern Walkway to a higher standard recognising the value of Te Ranga a Hiwi.
- Incorporate Maori and European heritage interpretation on site where possible.

### EXISTING TE AKATAREWA PA - MT ALFRED TABLE INFOGRAPHIC



## 1.10 VEGETATION TYPES



0 50 100 200 300 400 Metres

### SUMMARY NOTES

The green hill of Mt Victoria/Matairangi is a significant landscape feature in Wellington. Looking east from the city, the tree covered hill forms an important backdrop to the residential neighbourhoods of Mt Victoria and Oriental Bay with Wellington's waterfront and/or city in the foreground. The hill provides context and character for the neighbourhoods and suburbs that surround it. Many local streets terminate at the park's edges, providing a visually captivating green focal point within a suburban context.



Figure 01. Mount Victoria

This view of Mt Victoria is highly valued, presenting a green backdrop to the city's built urban and suburban fabric. The current vegetation is dominated by pines and macrocarpa planted in the "plantation years" from late 1800s to early 1900s. The first stand of pines were planted between Ellice Street and Pirie street as shown in the historical map overlays on page 10 of this document.

### KEY THEMES FROM CONSULTATION

Themes relating to pine retention or removal and native regeneration.

- Pines enhance recreational opportunities such as orienteering, as they have clear spaces underneath allowing access and views.
- The pines should be removed and replaced with native regeneration.
- Better co-ordination between the various individuals and groups who undertake revegetation is required.
- Better weed control is required particularly removal of Tradescantia.
- Revegetation programmes should aim to make Mt Victoria part of the regional ecological corridor.
- Create small spaces of seating and tables protected from the wind using native planting.
- Gentle terracing and leaving broken branches to rot naturally improves soil system and encourages biodiversity.
- Create bee corridors.

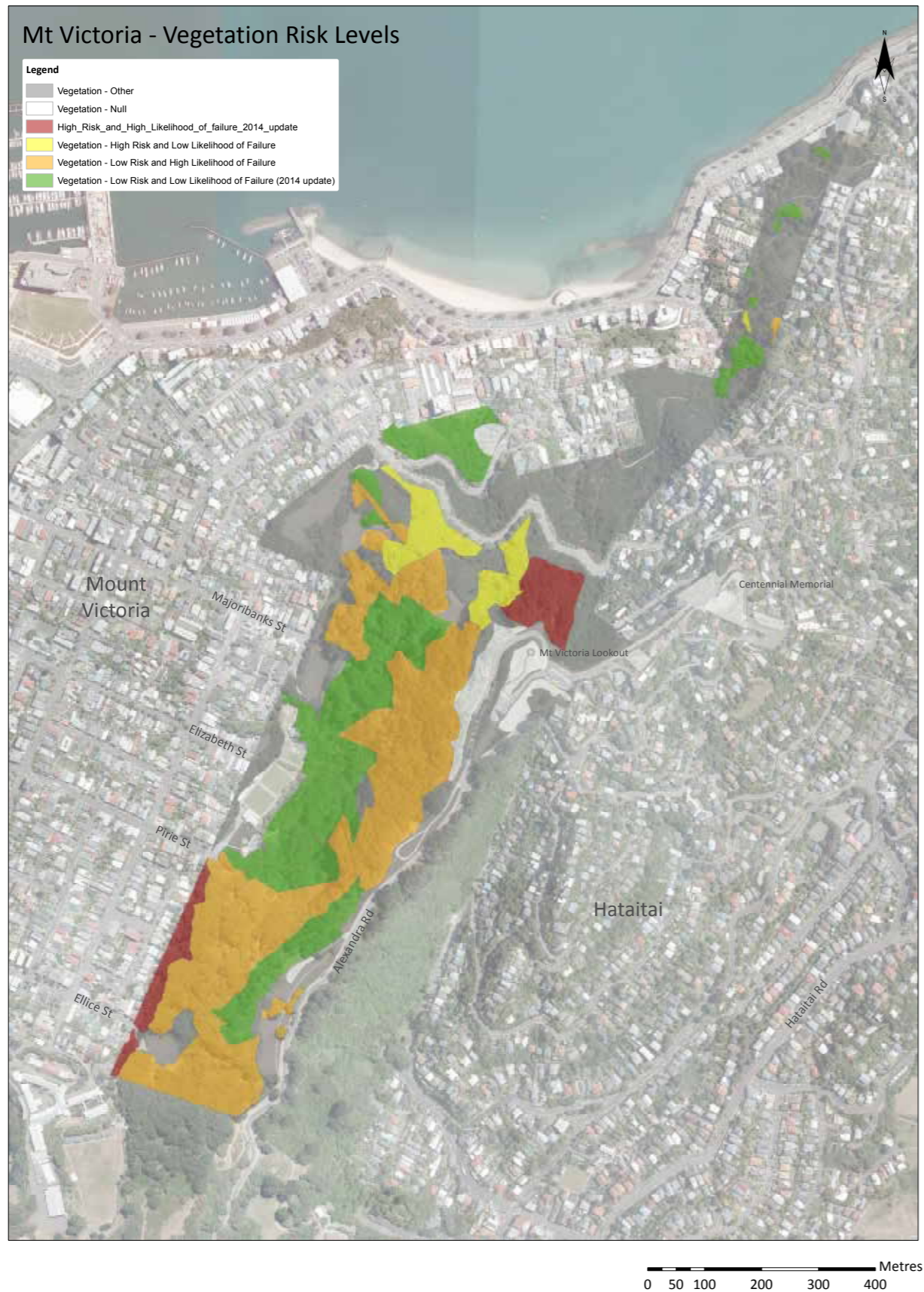


Figure 02. ca1843 Mount Victoria cleared of vegetation  
Sourced from Alexander Turnbull Library. Ref: PUBL-0020-17-1



Figure 03. 1880 Mount Victoria cleared of vegetation  
Sourced from Alexander Turnbull Library. Ref: PAColl-5671-16

## 1.11 VEGETATION RISK LEVELS



### SUMMARY NOTES

In 2005 a 'stand stability and risk assessment' was undertaken by Wellington City Council's urban forest manager. (Refer: Wellington Town Belt: Stand Stability and Risk Assessment 2005-2006 report). Probability and effect modelling was used to establish levels of likelihood of failure and risk associated with failure. Assessments were undertaken on the different compartments of exotic vegetation. Each compartment has been given a score which is intended to establish a management regime for care or priority of removal. Four categories have been assigned to each compartment: High Risk and High Likelihood of failure (HRHL), High Risk and Low Likelihood of failure (HRL), Low Risk and High Likelihood of failure (LRHL), Low Risk and Low Likelihood of failure (LRL).

### ISSUES AND OPPORTUNITIES: VEGETATION MANAGEMENT

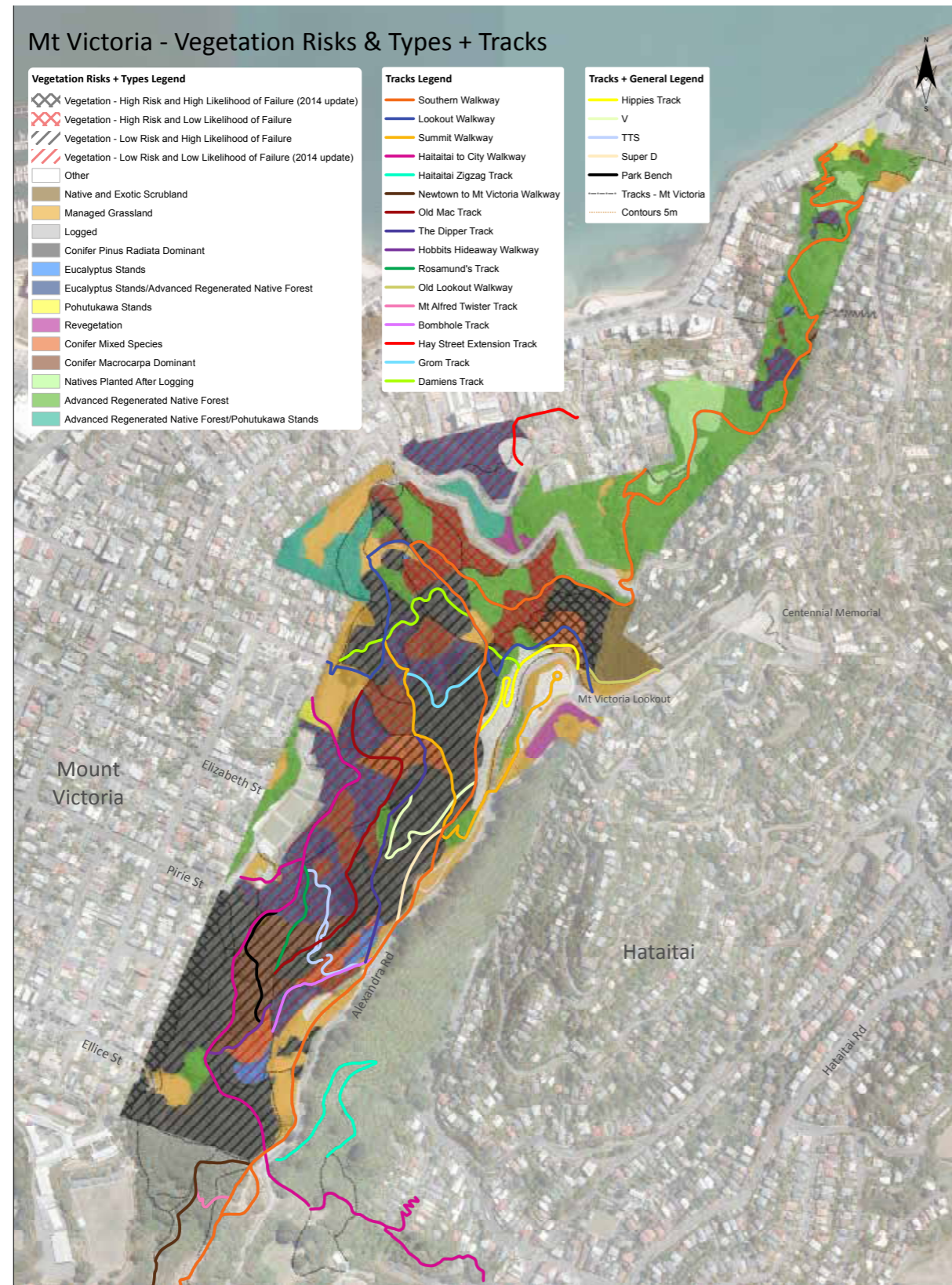
#### Issue

- Priority areas need to be identified and the relationship between recreation values and vegetation preferences needs to be managed (e.g. views, open space for freedom off-track running and bike events).

#### Opportunity

- Use risk management to guide the vegetation plan in the first instance.
- Create areas of dominant species to provide stronger identity of spaces within the park (keep a sense of variety and discovery and to assist wayfinding and interpretation).
- Use track edge development to indicate track hierarchy.
- Manage vegetation to maintain key views.
- Implement a vegetation management plan that provides guidance to, and co-ordination of, various volunteer revegetation groups.

## 1.12 VEGETATION TYPES, RISK LEVELS + TRACKS



### ISSUES AND OPPORTUNITIES

#### Issue

- There may be risk of injury from tree fall, unsafe branches and from dead limbs perched in trees overhanging some of the most well-used tracks. Consultation indicates some park visitors deliberately visit Mt Victoria during high winds for shelter amongst the trees.
- The current tree risk management plan does not identify hazards to visitors to Mt Victoria and therefore does not guide park managers well. For example, 'low risk and high likelihood of failure' zones have, in some instances not taken into account the presence of high use tracks (and therefore an increased level of risk to park users).
- Consultation does not indicate a clear preference for removing or retaining pines and macrocarpa – there are strong preferences both ways.
- The park trees adjacent to the houses between Pirie and Ellis St that are identified as high risk/high likelihood of failure, are to be treated in an arboricultural way. That is, they won't be removed as an entire stand, but will be inspected and maintained for as long as possible. This is as a result of their identification as having heritage importance.

#### Opportunity

- Significant dead wood and damaged branches over hanging tracks and near information signs should be removed. This work will drive the vegetation management plan. If trees are removed, a detailed vegetation replacement plan must be in place where appropriate.
- Programme regular visits by an arborist to identify risks and remedies, focusing on high use tracks.

#### Methodology for Physical Tree Removal

#### Issue

- Disposal of trimmed material should be considered (options to remove or leave in habitat piles).
- Temporary track closures and detours required.

#### Opportunity

- Use felled trees to create areas for revegetation and habitats for wildlife. The rotting trees will assist the soil system (need to be felled so they are safe from rolling or slipping onto people).
- Consider using an on-site wood chipper in order to create mulch for revegetation areas where access permits.
- Consider use of timber for other purposes (e.g. signage or furniture).

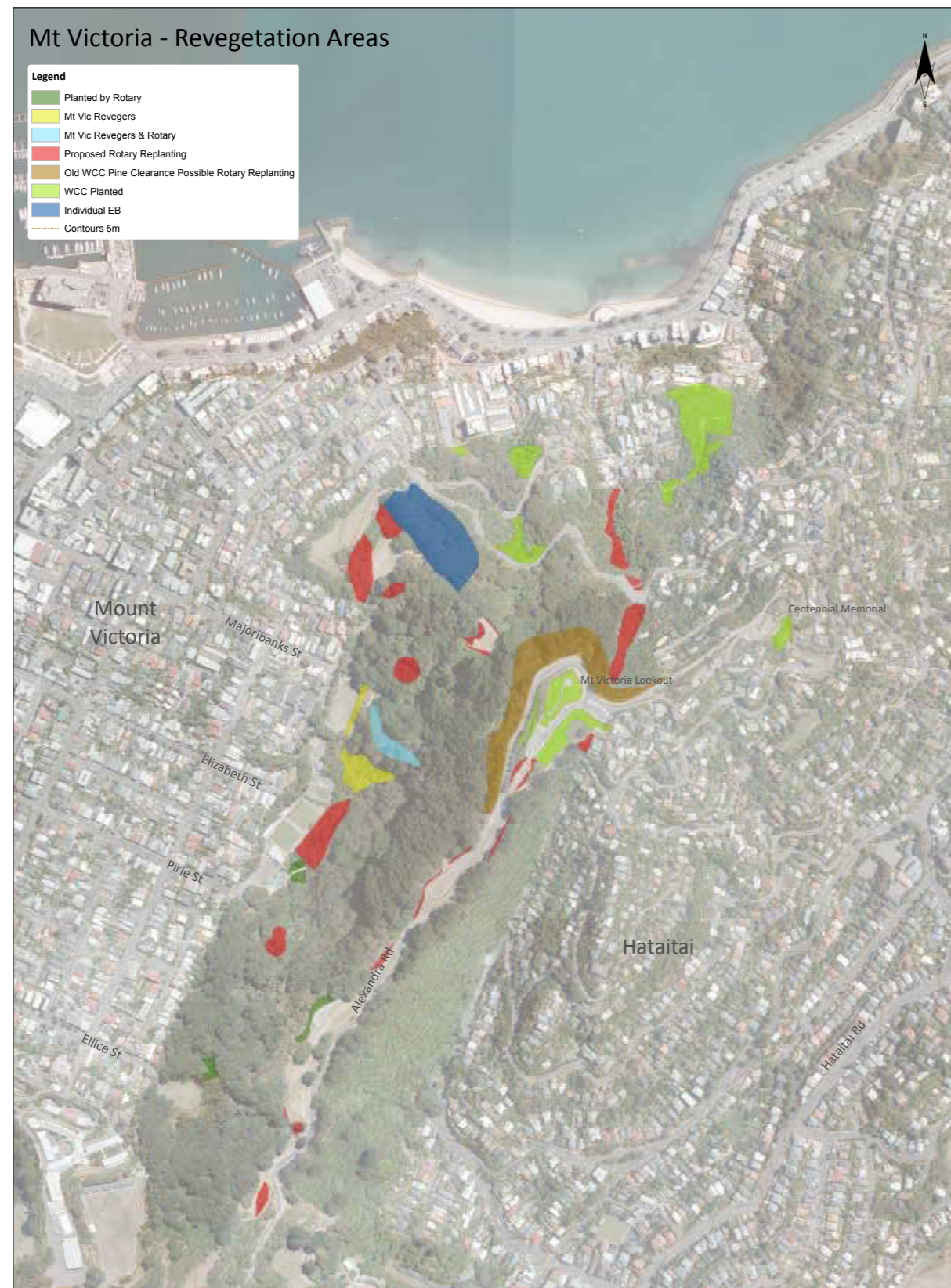
### SITE PHOTOS



0 50 100 200 300 400 Metres



## 1.13 REVEGETATION AREAS



### SUMMARY NOTES

Revegetation of areas in native species is currently occurring in a number of ways by a number of different groups. This includes: WCC planned revegetation of areas where weed or trees are being removed; community groups including the Rotary Club (City to Summit plan) and Manaaki Te Keo (a community based project to realise Wellington Rotary Club's 'City to Summit plan'); and individuals. These community groups and individuals have the shared objectives of improving ecological values and scenic quality whilst fostering a sense of community. WCC support these 'Re-veggers' through supply of plant material, weed clearance/control and co-ordination of planting days by the Park Rangers. This community resource is invaluable. The vegetation management plan will provide guidance to and co-ordination of various revegetation groups and individuals. The Wellington Town Belt Management Plan has established the following guiding principles for community participation:

"The Council will encourage and support community participation in the management of the Town Belt. This recognises that Wellingtonians will have an ongoing role in the management of the Town Belt. The Council values community input and acknowledges the work of individuals and groups to protect, enhance and use the Town Belt. The Council will support and encourage community participation, which underpins long-term sustainability."

After clearance of vegetation in the mid 1800s, hardy exotics such as North American conifers and Australian eucalypts were planted.



Figure 04. ca1884 Early Revegetation on Mt Victoria  
Sourced from Alexander Turnbull Library. Ref: BB-2237-1-1-G

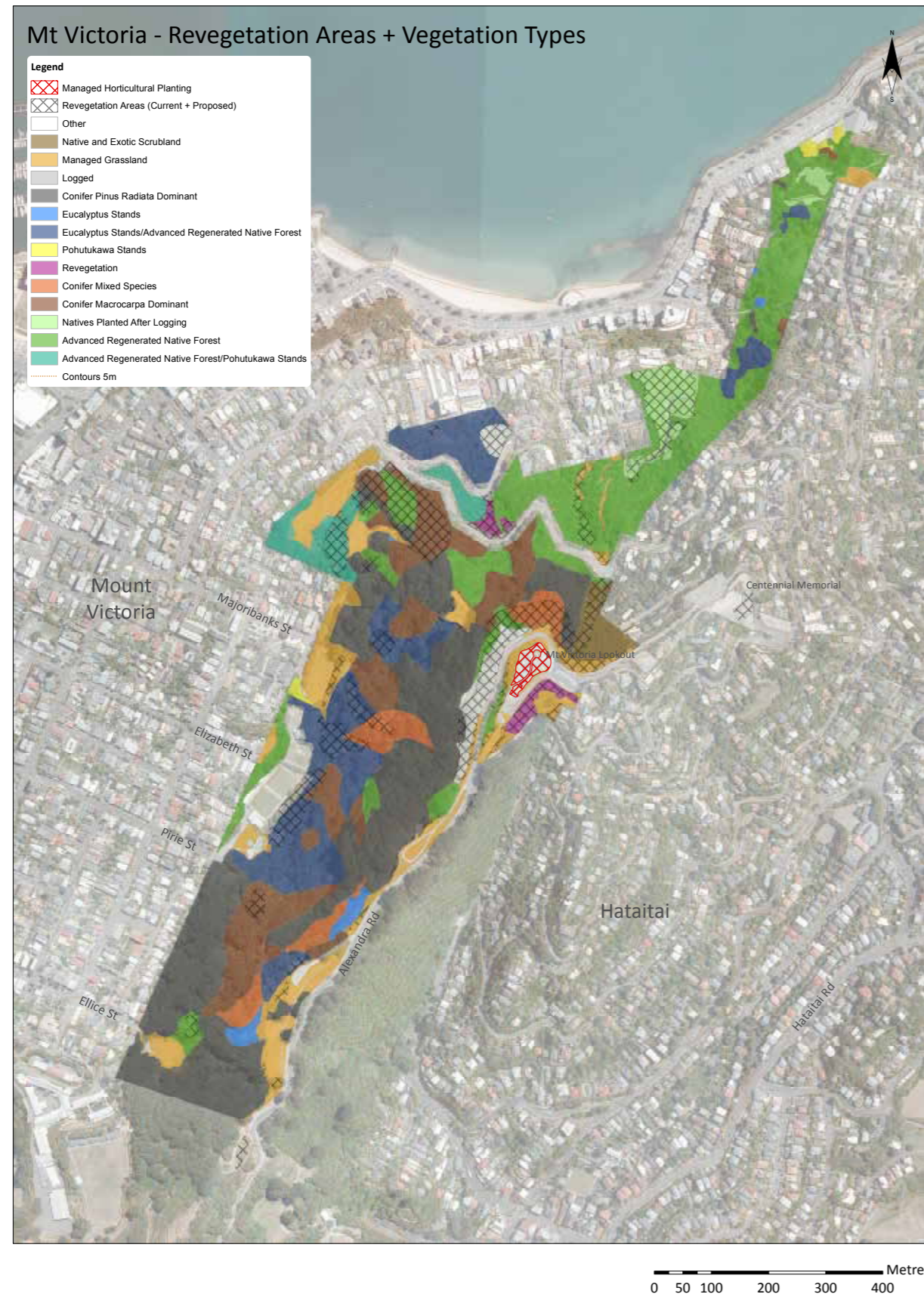
### HISTORICAL STREAMS (refer to map on the following page)

The streams associated with Mt Victoria/Mataitangi now flow in the stormwater piped network within the residential area. But these were once renowned by Maori for their good quality water, supplying water to the kumara growing terraces across the west-facing slopes of Mt Victoria/Mataitangi that now hold houses. Tracing these streams up the valleys reveals their catchments that are moisture-rich gullies. There is potential to mark these streams through a new revegetation pattern across Mt Victoria/Mataitangi.

### TOPOGRAPHY (refer to map on the following page)

Mt Victoria/Mataitangi is composed of steep terrain forming one long ridgeline with minor ridges and gullies along its slopes. The grassed open spaces are all located on gentler slopes or flat areas.

# 1.14 REVEGETATION AREAS + VEGETATION TYPES



# 1.15 TOPOGRAPHY + HISTORICAL STREAMS



## SECTION 2: CONCEPT DESIGN + MASTER PLAN

### 2.01 SITE CONTEXT + KEY CONNECTIONS

#### SUMMARY NOTES

Mt Victoria/Matairangi is an open space that is part of a much bigger system. It is important to consider the landscape values and character within the Wellington Town Belt, Wellington City Parks, and the Outer Green Belt context. Ecologically it provides valuable connections for native flora and fauna distribution across the wider city.

#### GUIDING PRINCIPALS, OBJECTIVES AND POLICIES

This Concept Design + Master Plan is focused on vegetation and recreation management and recognises the guiding principals, objectives and policies for landscape and recreation as set out in the Wellington Town Belt Management Plan 2013 (WTBMP13).

The Wellington Town Belt Management 2013 Objectives:

##### 4.1 Landscape Objectives

4.1.1 To protect the Town Belt as a predominantly natural environment in contrast to the built environment of the city.

4.1.2 To recognise and protect the unique landscape character of the Town Belt and, in particular, the:

- ridgeline and hilltop landscapes
- diversity of landscape aesthetic and experience
- patchwork of native and exotic vegetation
- maintenance of a tall/large-tree framework.

4.1.3 To manage long-term vegetation change to enhance its ecological function while protecting the variety of functions, activities and experiences the vegetation provides.

4.1.4 To recognise and protect the role of the Town Belt landscape in terms of:

- the contribution the reserves (together and as individual parts) make to the character and identity of Wellington City
- the value of the reserves as a natural setting for a variety of recreation and leisure activities
- providing an un-built visual backdrop and skyline to Wellington
- the significant area of land that provides environmental services, such as urban biodiversity, stormwater management and as a carbon sink.

##### 5.1 Ecological Objectives

5.1.1 To protect indigenous biodiversity and indigenous ecosystems on the Town Belt, including freshwater ecosystems.

5.1.2 To restore and connect indigenous ecosystems on the Town Belt.

5.1.3 To improve the city's ecological resilience by gradually increasing the indigenous vegetation cover on the Town Belt and its connectivity within a region-wide ecological network.

5.1.4 To gradually increase the indigenous proportion of the Town Belt's total vegetation cover to 65 percent by 2065.

5.1.5 To work in partnership with iwi, communities, researchers and businesses in restoring, learning about and celebrating the Town Belt's ecology.

##### 6.1 Recreational Objectives

6.1.1 The Town Belt is accessed and used by the community for a wide range of sporting and recreational activities.

6.1.2 Recreational and sporting activities are environmentally, financially and socially sustainable.

6.1.3 Participation in sport and recreation is encouraged and supported.

6.1.4 The Town Belt makes a significant contribution to the quality of life, health and well-being of Wellingtonians by increasing a range of physical activity and providing active transport routes and access to natural environments

6.1.5 The track (open-space access) network provides for a range of user interests, skills, abilities and fitness levels, and pedestrian and cycling commuter links.

6.1.6 Management and development of formal sporting facilities and associated infrastructure does not compromise the landscape and ecological values of the Town Belt.

6.1.7 To maximise use of existing formal indoor and outdoor recreation facilities by intensifying the use of sports surfaces and ensuring the multiple use of ancillary facilities, such as clubrooms, to reduce the demand for additional facilities on the Town Belt.

#### 7.1 Cultural and Historical Objectives

7.1.1 Significant historical and cultural features and values of the Town Belt are identified, managed and protected.

7.1.2 Appreciation of the cultural heritage of the Town Belt is enhanced through research and interpretation.

#### CONTEXTUAL MAPS

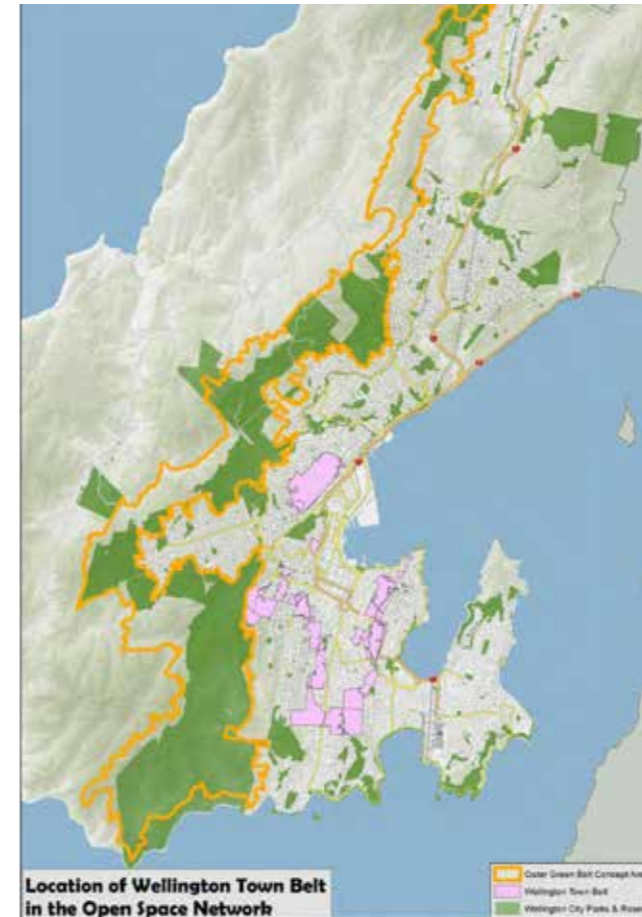


Figure 05. Wellington's open space network

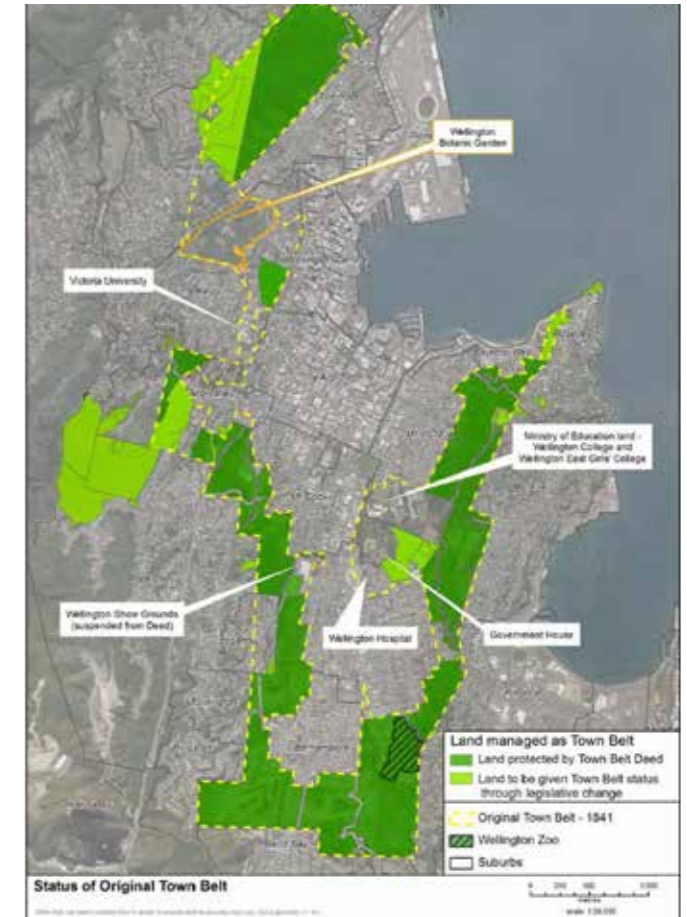
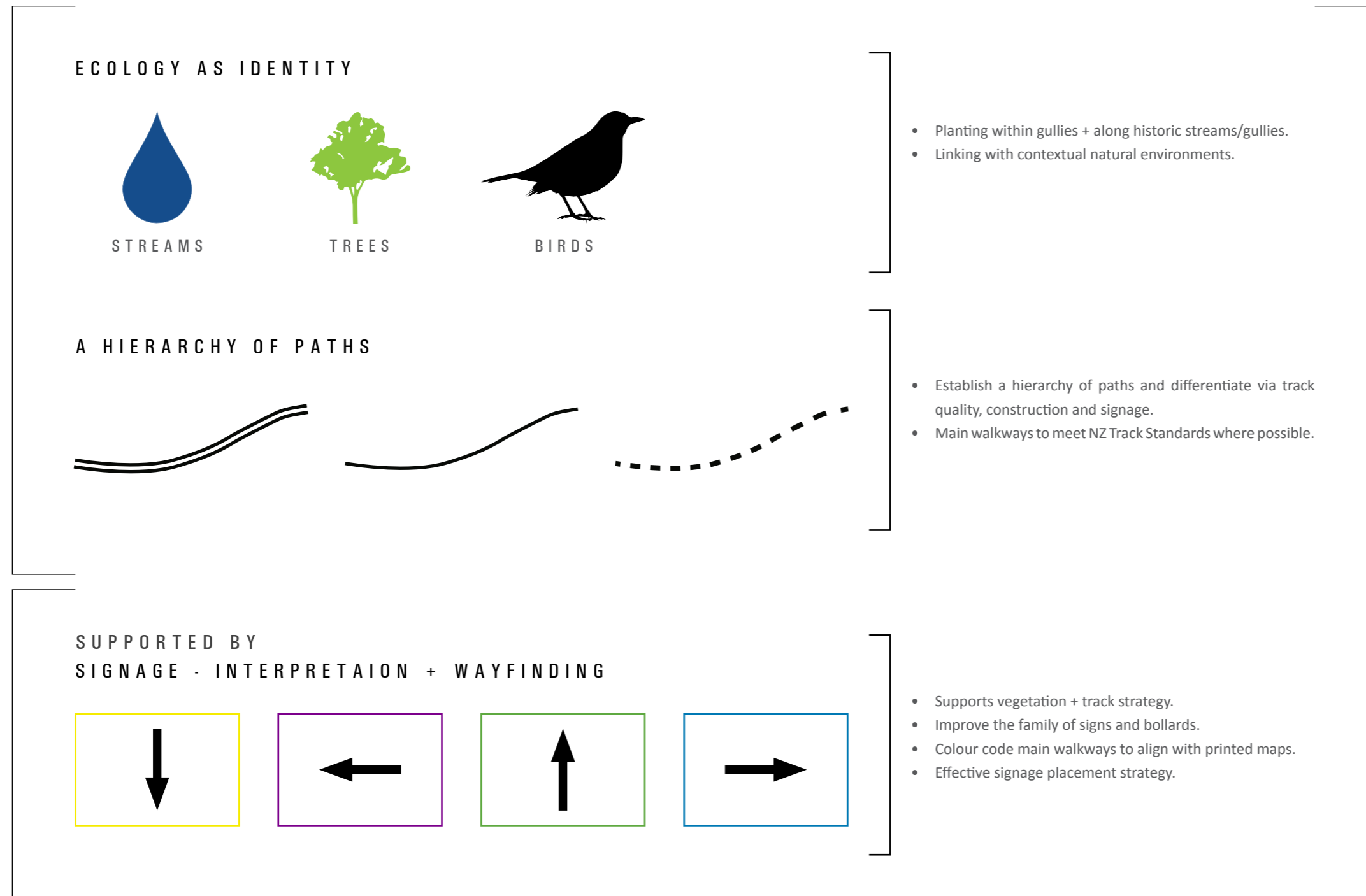


Figure 06. Wellington's status of the original town belt

## 2.02 COLLECTIVE IDENTITY + WAYFINDING STRATEGY

This Master Plan proposed to create an ecological identity to the gullies through the vegetation combined with establishing a hierarchy of paths to assist the overall wayfinding. Signage will then support this place making system, rather than drive wayfinding.



## 2.03 TRACK STRATEGY

### TRACK STRATEGY

A three-tier track structure is proposed, with all tracks to be considered shared walking and cycling tracks. Although downhill black diamond mountain bike tracks are clearly not walker-friendly, it is not possible to exclude walkers and runners from these.

#### First Tier

Commuter and tourist routes to be developed to NZ Standard Walking Track and Short Walk standards where possible, and have easy wayfinding via the track quality, construction and signage. While the 'Short Walk' and 'Walking Track' standards may not be completely achievable due to grade and cost, they will be a track development objective. Five such tracks are suggested within the park:

- The existing commuter route between Hataitai, Pirie Street and Majoribanks Street.
- The existing Southern Walkway
- A new route from Newtown linking the suburb with Wellington College, Wellington East Girls College and the existing Hataitai commuter route. Some exploration of this route has been undertaken and there are some challenges. It could pass above or below the Ellis Street Quarry.
- A direct access route from Majoribanks Street to the Mt Victoria Lookout, primarily for visitors to the city, providing a legible walk from the CBD to the park's main feature. Developing this track at 'Short Walk' standard would require careful design to limit earthworks and interruption of other existing tracks.
- A return tourist route from the Mt Victoria Lookout to Oriental Parade. This would be a lower 'Walking Track' standard, creating a complete loop walk for visitors but maintaining the option for less-adventurous walkers to return via the easier 'Short Walk' standard route to Majoribanks Street.

#### Second Tier

Park walks at a variety of standards, but leading to key areas of open space and views, and well-signed. Few of these tracks would need to be developed beyond current standards and would largely be differentiated by signs. These would include, for example, the Hataitai Zigzag, short commuter routes via Hay and Grass Streets, an off-road track beside Alexandra Road (particularly for runners), the route from the Mt Victoria Lookout to the Centennial Memorial, and a route from each of the Park's Access Points (see 'Mt Victoria Recreation' map on page 5 for access points) to a 'First tier' track (including one via Charles Plimmer Park).

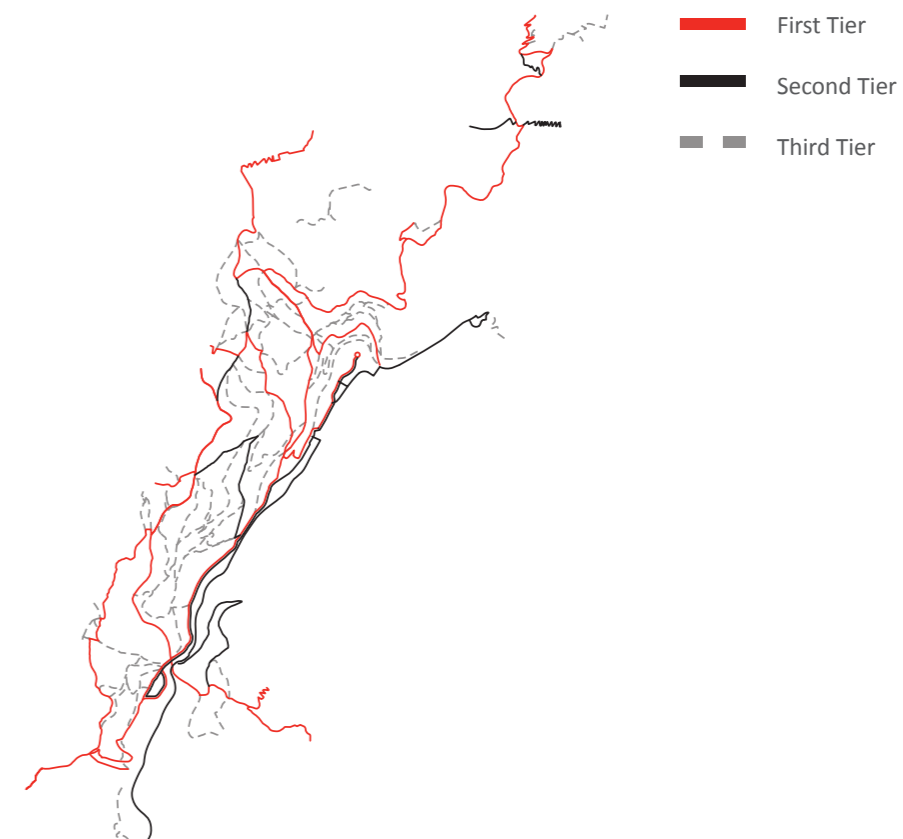
#### Third Tier

All other tracks in the park. These would have no signage for walking, but have low-profile mountain bike grade signs where required (as currently used) and be for use by those seeking a walking adventure as well as orienteering, mountain biking and running.

### RECOMMENDATIONS

- The principle of shared track use will continue, but the design and behaviour modification interventions will be applied to reduce conflicts between different user groups where necessary.
- Manage and redevelop track intersections to reduce the chances of conflict between mountain bikers and other park users, for example create oblique angle with 'slow-down' formation on tracks to reduce risk of high speed collision.
- Close tracks if safe intersections can not be delivered through design (including track user separation).
- Develop a main park entrance at Majoribanks Street primarily for walkers entering the park from the CBD.
- Develop Pirie Street as a secondary main entrance.
- Maintain and manage access to the Lord of the Rings filming area to limit adverse effects on the trees and to retain a sense of discovery and adventure in this setting (allowing visitors to 'work it out for themselves').
- Develop formed access from the Lookout to Alexandra Road as this is clearly a preferred walking and cycling route.
- Develop tracks beside Alexandra Road and Lookout Road to keep walkers and runners off the roads and away from traffic.
- Explore/test alternative track surfacing options for steep (high use) tracks to address water erosion and slip issues.
- Investigate the removal of steps where possible, stairs are currently resulting in track widening as they are avoided by riders and buggy users - creating a maintenance issue.

### TRACK TIER SYSTEM DIAGRAM

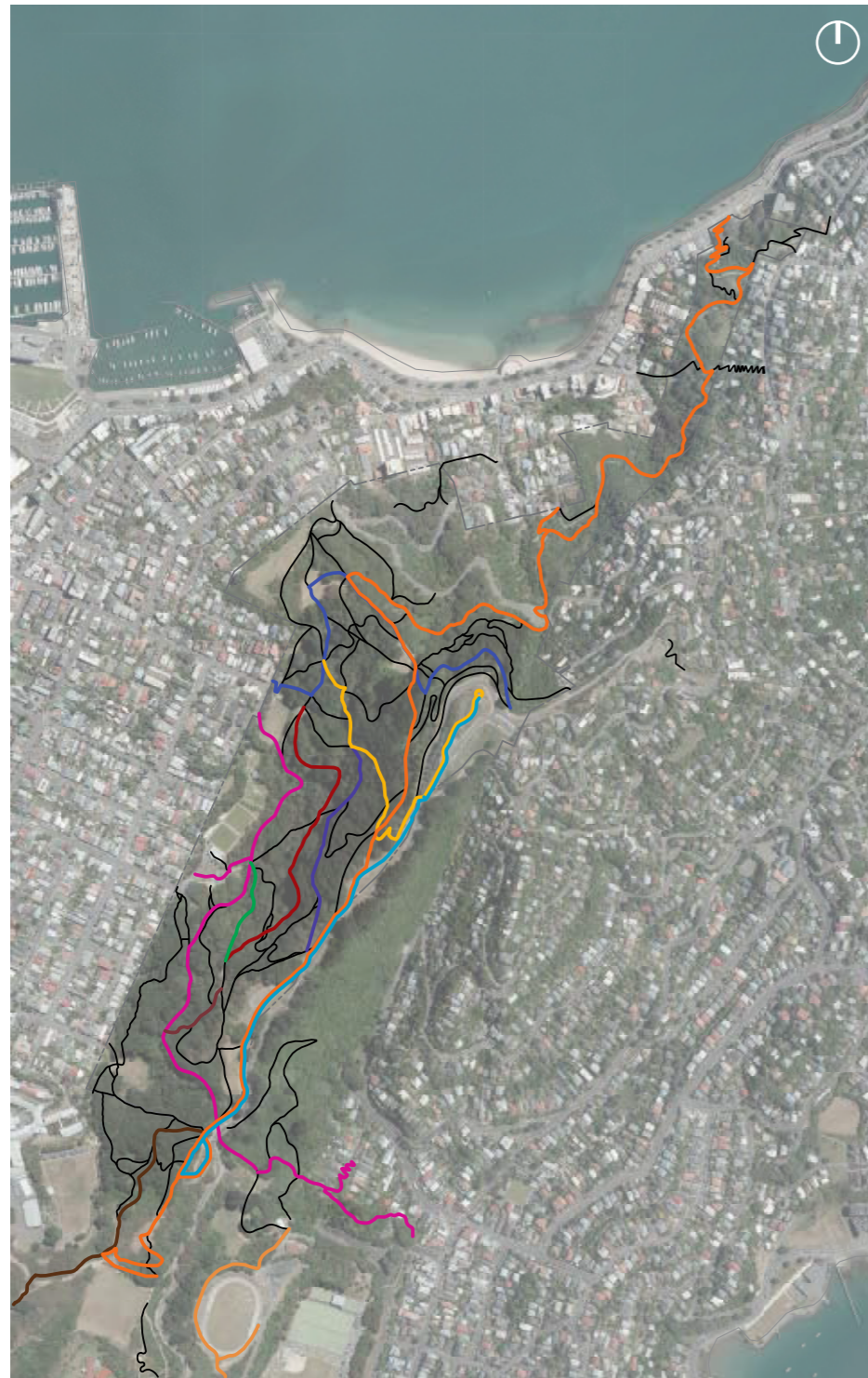


### OPPORTUNITY FOR LOOKOUT ACCESS IMPROVEMENTS (DIAGRAM)



## 2.03 TRACK STRATEGY

EXISTING TRACK HIERARCHY



0 62.5 125 250 375 500 Metres

NEW TRACK HIERARCHY



0 62.5 125 250 375 500 Metres

### EXISTING TRACK HIERARCHY

#### Short Walks

- █ Hataitai to City Walkway
- █ Newtown to Mt Victoria Walkway
- █ Te Ranga a Hiwi
- █ Old Mac Track
- █ The Dipper
- █ Rosamund's Track
- █ Newtown to Hataitai

#### Walking Tracks

- █ Southern Walkway
- █ Lookout Walkway
- █ Summit Walkway
- █ Other Tracks

### NEW TRACK HIERARCHY [further descriptions on pages 22-23]

#### First Tier [Main Tracks]

- █ Hataitai to City Walkway
- █ Southern Walkway
- █ New Return Tourist Route
- █ Lookout Walkway (main route)
- █ Te Ranga a Hiwi

#### Second Tier [Secondary Tracks]

- █ New Lookout Link
- █ Commuter Links
- █ New Alexandra Track
- █ Hataitai Zigzag
- █ Newtown to Hataitai
- █ New School / Southern Commuter Route / Newtown Route

#### Third Tier [Other Tracks]

- █ Explorer Tracks

## 2.03 TRACK STRATEGY

### FIRST TIER TRACKS



0 155 310 620 930 1,240 Metres

### SECOND TIER TRACKS



0 155 310 620 930 1,240 Metres

#### FIRST TIER [MAIN TRACKS]

##### Local Connection

- Hataitai to City Walkway [improve to meet NZ Walking Track standard]
- Southern Walkway [improve to meet NZ Walking Track standard]

##### Destination Track

- New Return Lookout Route - along existing tracks/pathways [improve to meet NZ Walking Track standard]
- Lookout Walkway - main tourist route [improve to meet NZ Short Walk standard if possible]
- Te Ranga a Hiwi - a section of the Lookout and Southern Walkway [improve to meet NZ Short Walk standard if possible]

#### SECOND TIER [SECONDARY TRACKS]

- New Lookout Link
- Commuter Links
- New Alexandra Track
- Hataitai Zigzag
- Newtown to Hataitai
- New School / Southern Commuter Route / Newtown Route - along existing tracks [improve to meet NZ Walking Track or Short Walk standard]

## 2.03 TRACK STRATEGY + DRIVING IN THE PARK

### THIRD TIER TRACKS



0 155 310 620 930 1,240 Metres

### DRIVING THROUGH MT VICTORIA / MATAIRANGI, ALEXANDRA ROAD



● Entrance Sign at Constable Street

0 155 310 620 930 1,240 Metres

### THIRD TIER [OTHER TRACKS]

— Explorer Tracks

These tracks connect into First and Second Tier tracks as well as each other to form a high level of park porosity and increased sense of adventure for park users. Generally of a lower standard, these tracks offer greater physical challenges for park users and are more likely to be frequented by regular users.

### RECOMMENDATIONS: DRIVING THROUGH THE PARK, ALEXANDRA ROAD

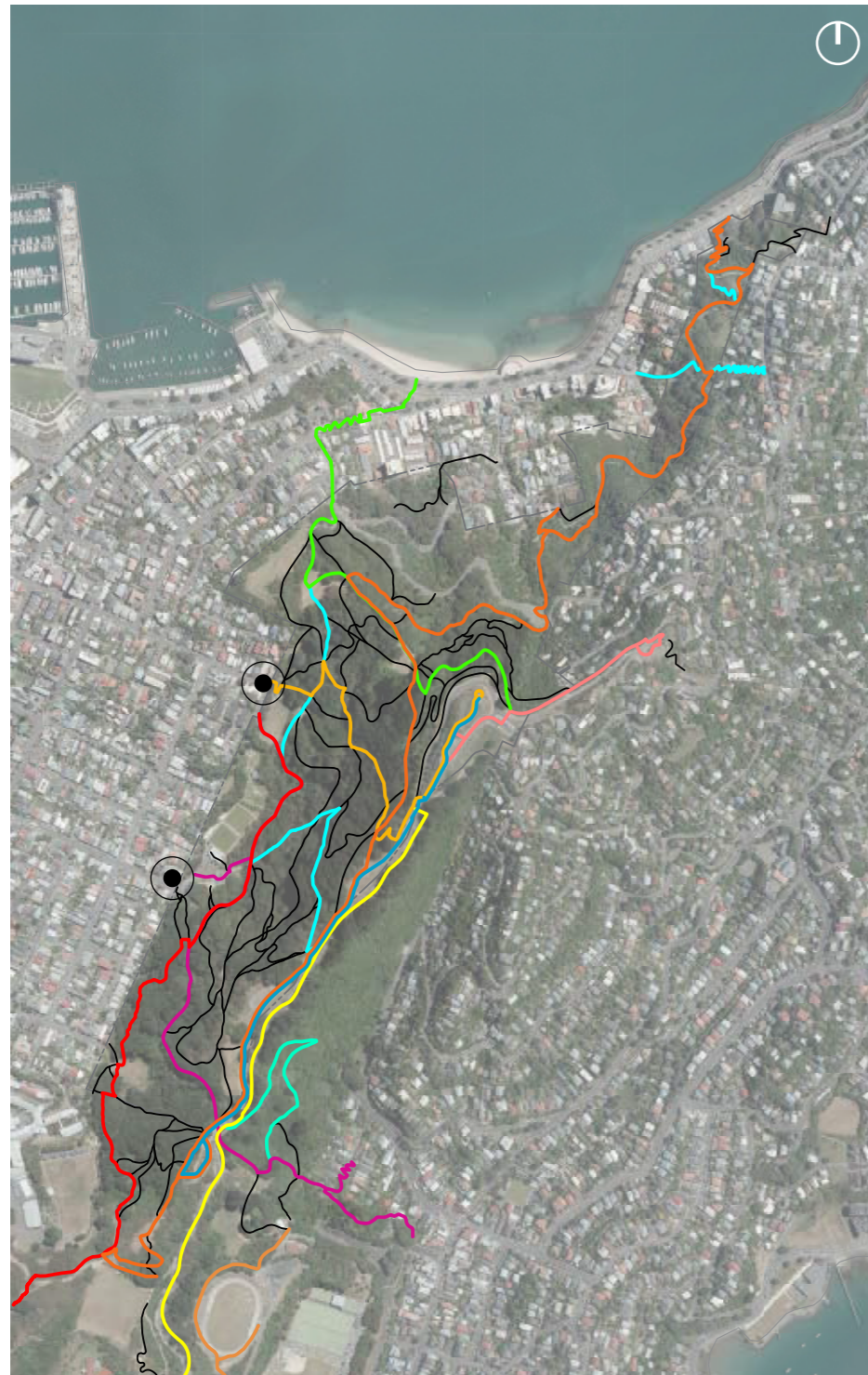
Drivers need to be aware that the road they are on is within a park, and to enjoy that experience. Several developments will improve the driving experience and the safety of other park users, these are described below:

- Design and install large-scale park entry signs or other entry structures on Alexandra and Lookout Roads to welcome drivers to the park and to encourage greater recognition of the open space and recreation values of the setting.
- Investigate road markings and signage to improve pedestrian crossing areas at the Lookout and Summit (to be developed in consultation with WCC transport engineers).
- Review the ability to slow traffic along Alexandra Road in places, while allowing for buses and the Alexandra Road Seal Hill Climb.
- Develop a running track parallel to Alexandra Road and redevelop the roadside track from the Summit to the Lookout.



## 2.04 SIGNAGE + INTERPRETATION STRATEGY

### NEW TRACK HIERARCHY



0 62.5 125 250 375 500 Metres






### SIGNAGE STRATEGY

There is a mix of responses to the current signage system within the park. Regular visitors are often surprised that anyone can get lost on the way to the summit (you just keep heading uphill!), while some less frequent visitors have a poor experience as they worry about whether they are taking the correct route. Much signage is worn and requires replacement, and there is a large number of signs to be maintained. The objective of this wayfinding proposal is to reduce the number of signs required and to ease navigation. We recommend that all place names and signage is bilingual Te Reo/English where practical.

A renewed signage system is proposed based on the three tiers of tracks already discussed. This system builds on and refines the existing bollard system rather than replacing it entirely.








#### First Tier

The main commuter and tourist routes will be signed via a colour system similar to that used at Otari-Wilton's Bush coupled with a leaf symbol associated with the proposed edge planting further described in this document. Only five colours and symbols would be required. This would be a multilingual solution, with destination names on signs at intersections with second tier tracks. Signage in conjunction with the level of finish achieved on these tracks will provide clearer routes for first time visitors.

	Hataitai to City Walkway - Commuter Route		Lookout Walkway - Main Route
	Southern Walkway		Te Ranga a Hiwi
	New Return Lookout Route		



#### Second Tier

The second tiered routes will be marked via a signage bollard with an icon, i.e. a different icon associated with each track. These will be placed away from intersections, but visible from intersections, thereby reducing the need for arrows. Track or destination names would be repeated at intersections with first tier tracks.

	New Lookout Link		New Alexandra Track		New School / Southern
	Commuter Links		Hataitai Zigzag		Commuter / Newtown Route
	Newtown-Hataitai				

#### Third Tier

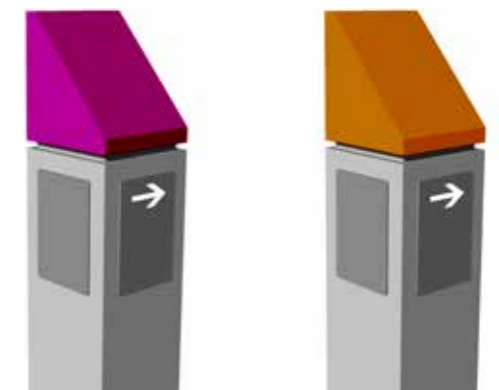
The third tier tracks would be unsigned unless they were a marked and graded mountain bike route. Mountain bike grade signs could also appear on other tier tracks.

	Explorer Tracks
	Main Entrances from the City - to be signed

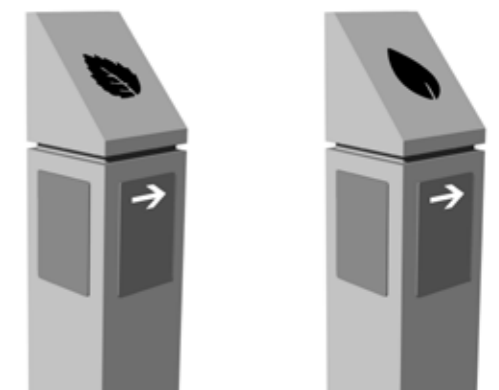
### RECOMMENDATIONS

- All park entries would have an orientation map. Third tier tracks might not be shown on these. All tracks would be indicated as shared between cyclists and walkers.
- Orienteering control points are attached to some signs and any changes will require redevelopment of orienteering maps.
- Develop printable A4 maps for first and second tier walking tracks on the WCC website (black and white and colour versions), also viewable on hand-held devices, using new on-site sign colours and symbols.
- Provide QR codes or web links on information panels on first and second tier track entrances linking to those maps.
- Redirect online inquiries for mountain bike tracks to, for example, bikewellington.org.nz and tracks.org.nz.
- Develop an email advisory service to relevant national online map providers for track updates.

### FIRST TIER SIGNAGE BOLLARDS



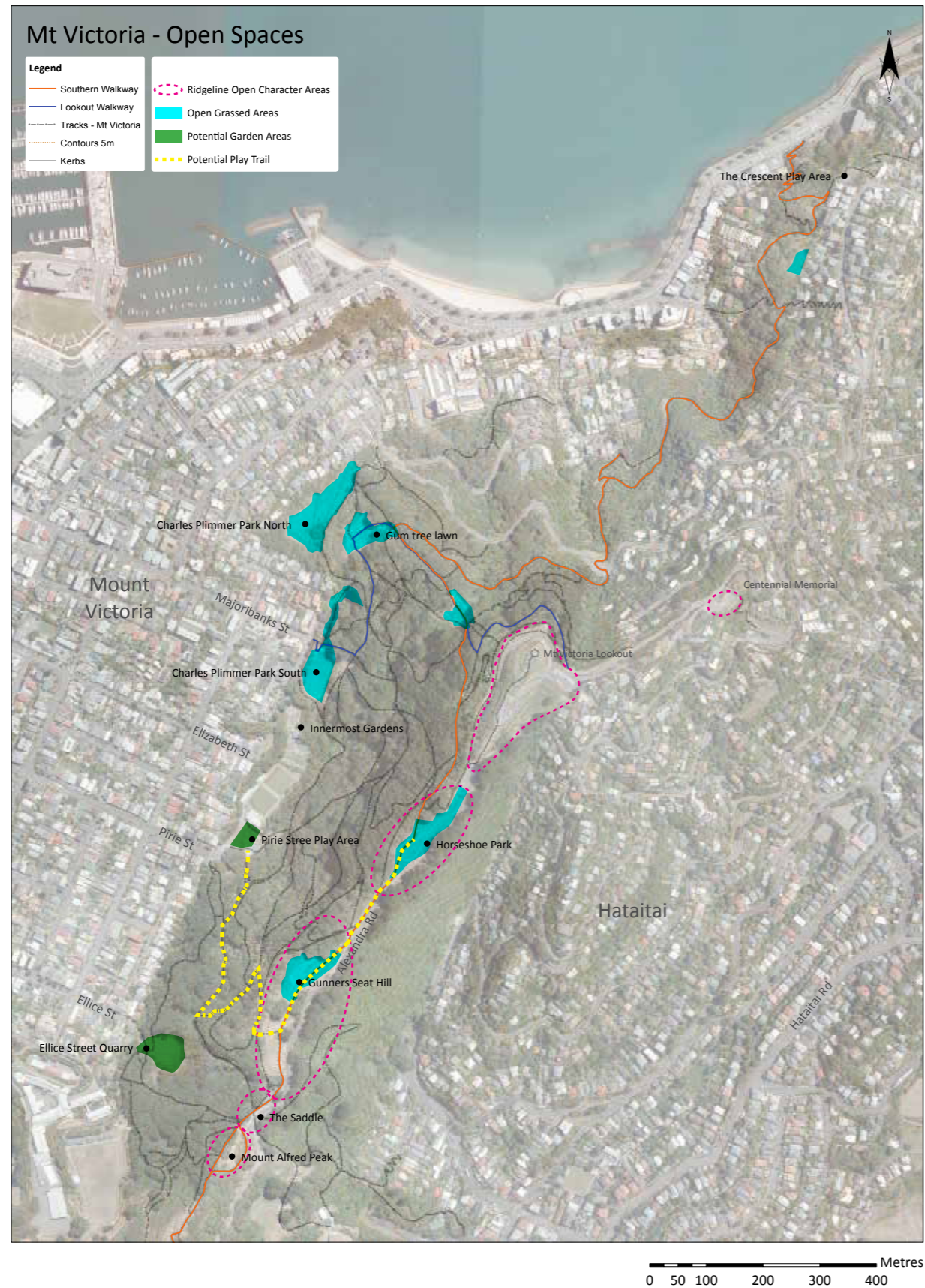
### SECOND TIER SIGNAGE BOLLARDS



### EXISTING PICTOGRAMS (on the sides of bollards)



## 2.05 OPEN SPACE DEVELOPMENT



Open space are generally exotic grassed lawn areas. These are highly valued as places to stop, view and are where people generally interact socially. There is scope to develop these to include more diverse activities such as play and community gardening.

### RECOMMENDATIONS

- Name open spaces to reflect history and location in consultation with Mana Whenua. Naming of open spaces assists identity, which in turn will assist wayfinding. Many of the open spaces are already named, however, two with the same name, 'Charles Plimmer Park', creates confusion in wayfinding and should be reassessed.
- Retain open character of grassed spaces.
- Retain open character of ridgeline areas (as per adjacent plan).
- Integrate play trails into the open spaces and tracks to encourage (natural) play and broaden children's interest in landscapes and Mt Victoria/Matairangi. The play trails could provide the link between the ridgeline open space and also link to the Pirie Street children's playground. Natural landscape play elements might include balancing, climbing, living huts, and tunnels.
- Incorporate elements of landscape play at Horseshoe Park and Gunners Seat Hill.
- Develop accessible picnic area at Horseshoe Park (near existing toilets).
- Improve parking around the Centennial Memorial.
- Enhance entrance at the Saddle with space for track users to pass, space to congregate and possible seating.
- Manage removal of encroachment of residential properties on the Western slope of Mt Victoria.
- Consider developing garden areas for children at the Pirie Street Play Area and incorporate in the Play Trail.
- Do not provide for any further commemorative planting.

### Landscape Play Precedents



Figure 07. Prospect Park



Figure 08. Prospect Park



Figure 09. Prospect Park



Figure 10. Prospect Park



Figure 11. The Donald And Barbara Zucker Natural Exploration Area



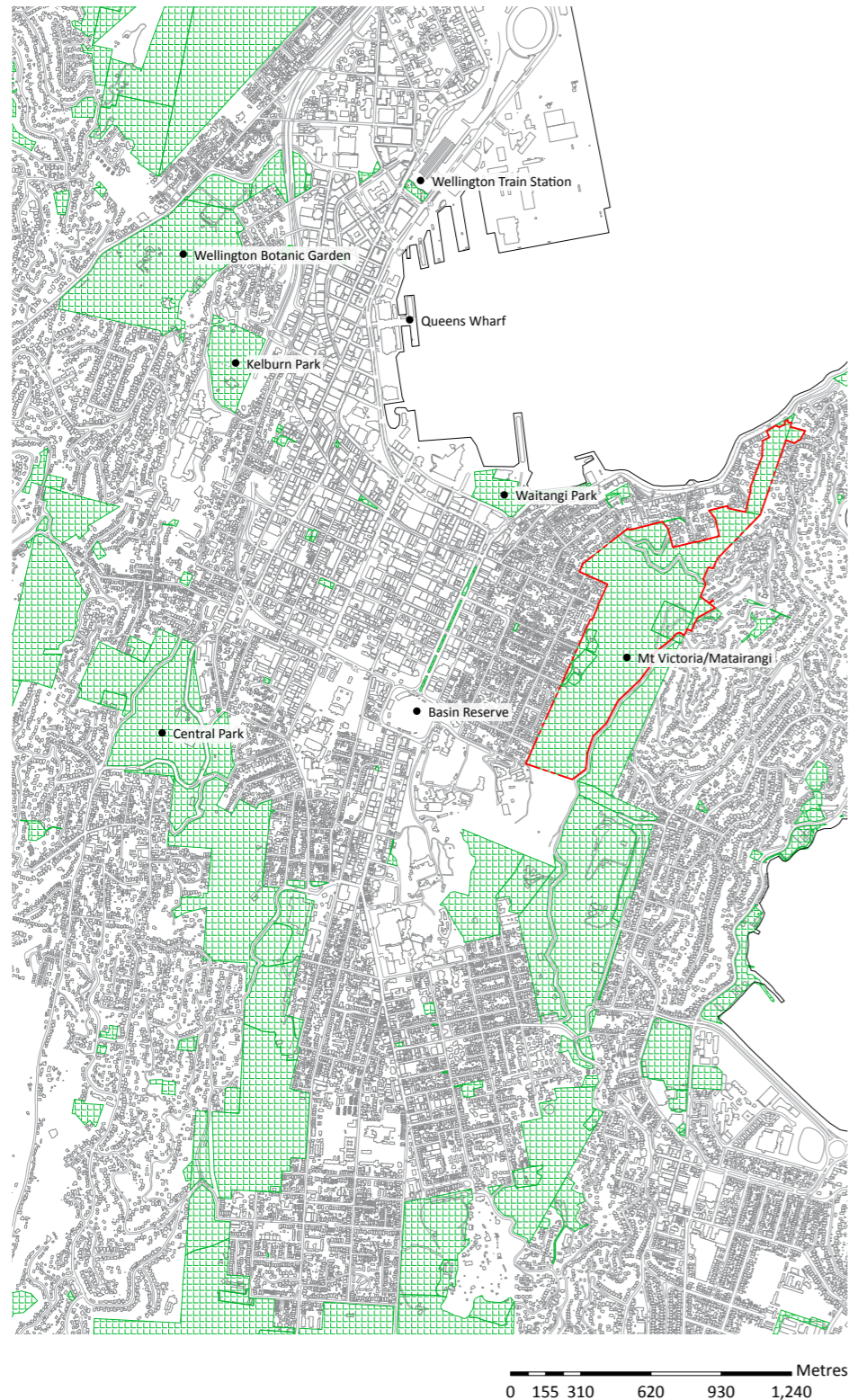
Figure 12. Richter Spielgerate Clibers



Figure 13. The Leonard Schine Preserve

## 2.06 BROAD SCALE CONTEXT OR VEGETATION STRATEGY

### MT VICTORIA CONTEXTUAL POSITION



Mt Victoria/Matairangi plays an important role in linking ecologies through the Town Belt and is a critical ecological patch linking the planted ridges across Wellington. The exotic vegetation on Mount Victoria/Matairangi requires a long term succession plan and there is significant support in the community to re-establish native vegetation on Mt Victoria/Matairangi. It is also recognised that this is a long term plan and careful management is required to maintain the existing exotic vegetation through to the end of its useful life.

The Vegetation Strategy will implement the following objectives from the Wellington Town Belt Management Plan 2013:

#### 5.1 Ecological Objectives

5.1.1 To protect indigenous biodiversity and indigenous ecosystems on the Town Belt, including freshwater ecosystems.

5.1.2 To restore and connect indigenous ecosystems on the Town Belt.

5.1.3 To improve the city's ecological resilience by gradually increasing the indigenous vegetation cover on the Town Belt and its connectivity within a region-wide ecological network.

5.1.4 To gradually increase the indigenous proportion of the Town Belt's total vegetation cover to 65 percent by 2065.

5.1.5 To work in partnership with iwi, communities, researchers and businesses in restoring, learning about and celebrating the Town Belt's ecology.

### RECOMMENDATIONS

#### Replacement of Exotic Trees

- Do not replace fallen or removed pine, macrocarpa and eucalypt trees with exotic species, with the exception of the managed forest area (Lord of the Rings and Hector's Pines).
- Use signature native trees to trace historical stream paths.
- Use the ridgeline species collection developed within this document to revegetate the park's ridges.

#### Tracing the Streams

Connecting the gullies to the streams provides historical interpretation and an opportunity for visitors to visually engage with the site.

- An emphasis on particular species as part of the overall planting will provide a distinct identity to each of the stream gullies, providing visibly different characters across the slopes of Mt Victoria/Matairangi.
- Align the species selection to the korero associated with the streams or gullies on Mt Victoria/Matairangi, providing a historic link to the cultural heritage of this landscape.
- The selection of species will be drawn from Wellington's indigenous collections.

## 2.07 VEGETATION DEVELOPMENT STRATEGY - GULLIES "TRACING THE STREAMS"

### GULLY PLANTING AREAS



### GULLY PLANTING STRATEGY [STREAMS - TREES - BIRDS]

Species selection is indicative only at this stage. We propose that species selection is aligned to the korero of this place - aligned to the correct whakapapa in consultation with Iwi as well as to the ecological context. It is proposed that each gully shall be planted with a 30% coverage of the selected identity tree species and the remainder with the species identified in the planting lists.

GULLIES	Hinau Gully	Mamaku Gully	Kowhai Gully	Kohekohe Gully	Nikau Gully	Wharangi Gully	Koromiko Gully	Ti Kouka Gully	Titoki Gully
	West Facing Gully						North Facing Gully		
GULLY SPECIES									
	Hinau	Mamaku	Kowhai	Kohekohe	Nikau	Wharangi	Koromiko	Ti Kouka	Titoki
	West Facing Gully					North Facing Gully			
	<b>First Succession</b>					<b>First Succession</b>			
	<b>Species Name</b>					<b>Species Name</b>			
	Aristotelia serrata					Aristotelia serrata			
	Carpodetus serratus					Carpodetus serratus			
	Coprosma grandifolia					Coprosma grandifolia			
	Coprosma robusta					Coprosma robusta			
	Cordyline australis					Cordyline australis			
	Melicope ternata					Melicope ternata			
	Pennantia corymbosa					Pennantia corymbosa			
	Piper excelsum					Piper excelsum			
	Pittosporum eugeniodes					Pittosporum eugeniodes			
	Pseudopanax arboreus					Pseudopanax arboreus			
	<b>Common Name</b>					<b>Common Name</b>			
	makomako					makomako			
	putaputaweta					putaputaweta			
	kanano					kanona			
	karamu					karamu			
	ti kouka					ti kouka			
	wharangi					wharangi			
	kaikomako					kaikomako			
	kawakawa					kawakawa			
	tarata					whauwhaupaku			
	whauwhaupaku								
	<b>Second Succession</b>					<b>Second Succession</b>			
	<b>Species Name</b>					<b>Species Name</b>			
	Alectryon excelsus					Beilschmiedia tawa			
	Beilschmiedia tawa					Dacrydium cupressinum			
	Dacrycarpus dacrydioides					Dysoxylum spectabile			
	Dysoxylum spectabile					Elaeocarpus dentatus			
	Elaeocarpus dentatus					Freycinetia banksii			
	Freycinetia banksii					Fuchsia exorticata			
	Fuchsia exorticata					Knightia excelsa			
	Knightia excelsa					Laurelia novae-zelandiae			
	Laurelia novae-zelandiae					Prumnopitys taxifolia			
	Prumnopitys taxifolia					Prumnopitys ferrugineus			
	Prumnopitys ferrugineus					Rhopalostylis sapida			
	Rhopalostylis sapida					Schefflera digitata			
	Schefflera digitata					Weinmannia racemosa			
	Weinmannia racemosa								
	<b>Common Name</b>					<b>Common Name</b>			
	titoki					tawa			
	tawa					kahikatea			
	kahikatea					kohekohe			
	kohekohe					hinau			
	hinau					kiekie			
	kiekie					kotukatuka			
	kotukatuka					rewarewa			
	rewarewa					pukatea			
	pukatea					matai			
	matai					miro			
	miro					nikau			
	nikau					pate			
	pate					kamahi			
	kamahi								

ALIGNED TO THE CORRECT WHAKAPAPA

## 2.07 VEGETATION DEVELOPMENT STRATEGY - RIDGES

### RIDGE PLANTING AREAS



0 62.5 125 250 375 500 Metres

### RIDGE PLANTING STRATEGY

We recommend dividing Mt Victoria/Matairangi into four different ridge zones in order to create a planting plan and list for these areas.

Ridge Types:

- █ 1a. Northern Alexandra Road/Te Ranaga a Hiwi Ridge
- █ 1b. Southern Alexandra Road
- █ 2. West Facing Ridges
- █ 3. North Facing Ridges (with some salt laden winds)

It is recommended that the exotic vegetation is managed and retained on the ridge areas, with replanting of natives occurring in areas of wind fall and weed control. This approach to retaining the exotic while the native gullies establish will provide much needed shelter, and the ability to phase out the exotics over a long period of time e.g. 0-50 years.

Below and on the following page are ridge planting lists associated with the zones highlighted above:

#### 1a. Northern Alexandra Road - First Succession

Species Name	Common Name
Austroderia fulvida	toetoe
Carmichaelia australis	common broom
Coprosma foetidissima	stinkwood
Coprosma propinqua	mingimingi
Coprosma repens	taupata
Coprosma robusta	karamu
Cordyline australis	ti kouka
Discaria toumatou	matagouri
Griselinia littoralis	kapuka
Hebe parviflora var. aborea	tree hebe
Hebe stricta	koromiko
Kunzea ericoides	kanuka
Leptospermum scoparium	manuka
Melicytus crassifolius	thick leaved mahoe
Myoporum laetum	ngaio
Myrsine australis	mapou
Olearia paniculata	akiraho
Olearia solandri	coastal dasiy
Ozothamnus leptophylla	tauhinau
Phormium cookianum	wharariki
Pittosporum tenuifolium	kohuhu
Pseudopanax arboreus	whauwhaupaku

#### 1a. Northern Alexandra Road - Second Succession

Species Name	Common Name
Knightia excelsa	rewarewa
Kunzea ericoides	kanuka
Lophomyrtus bullata	ramarama
Metrosideros robusta	northern rata
Podocarpus totara	totara
Sophora microphylla	kowhai

#### 1b. Southern Alexandra Road - First Succession

Species Name	Common Name
Austroderia fulvida	toetoe
Coprosma robusta	karamu
Cordyline australis	ti kouka
Hebe parviflora var. aborea	tree hebe
Hebe stricta	koromiko
Kunzea ericoides	kanuka
Leptospermum scoparium	manuka
Melicytus ramiflorus	mahoe
Myoporum laetum	ngaio
Myrsine australis	mapou
Olearia paniculata	akiraho
Olearia solandri	coastal daisy
Ozothamnus leptophylla	tauhinau
Phormium cookianum	wharariki
Pittosporum eugenoides	tarata
Pittosporum tenuifolium	kohuhu
Pseudopanax arboreus	whauwhaupaku

#### 1b. Southern Alexandra Road - Second Succession

Species Name	Common Name
Knightia excelsa	rewarewa
Metrosideros robusta	northern rata
Pennantia corymbosa	kaikomako
Podocarpus totara	totara
Prumnopitys ferrugineus	miro

## 2.07 VEGETATION DEVELOPMENT STRATEGY - RIDGES

### RIDGE PLANTING AREAS



#### Ridge Types

- █ 1a. Northern Alexandra Road/Te Ranaga a Hiwi Ridge
- █ 1b. Southern Alexandra Road
- █ 2. West Facing Ridges
- █ 3. North Facing Ridges (with some salt laden winds)

#### 2. West Facing Ridges - First Succession

Species Name	Common Name
Aristotelia serrata	makomako
Austroderia fulvida	toetoe
Coprosma robusta	karamu
Cordyline australis	ti kouka
Dysoxylum spectabile	kohekohe
Hebe stricta	koromiko
Hedycarya arborea	pigeonwood
Kunzea ericoides	kanuka
Leptospermum scoparium	manuka
Melicytus ramiflorus	mahoe
Myoporum laetum	ngaio
Myrsine australis	mapou
Olearia paniculata	akiraho
Pittosporum eugenioides	tarata
Pittosporum tenuifolium	kohuhu
Pseudopanax arboreus	whauwhaupaku
Sophora microphylla	kowhai

#### 2. West Facing Ridges - Second Succession

Species Name	Common Name
Knightia excelsa	rewarewa
Metrosideros robusta	northern rata
Podocarpus totara	totara
Prumnopitys taxifolia	matai

#### 3. North Facing Ridges - First Succession

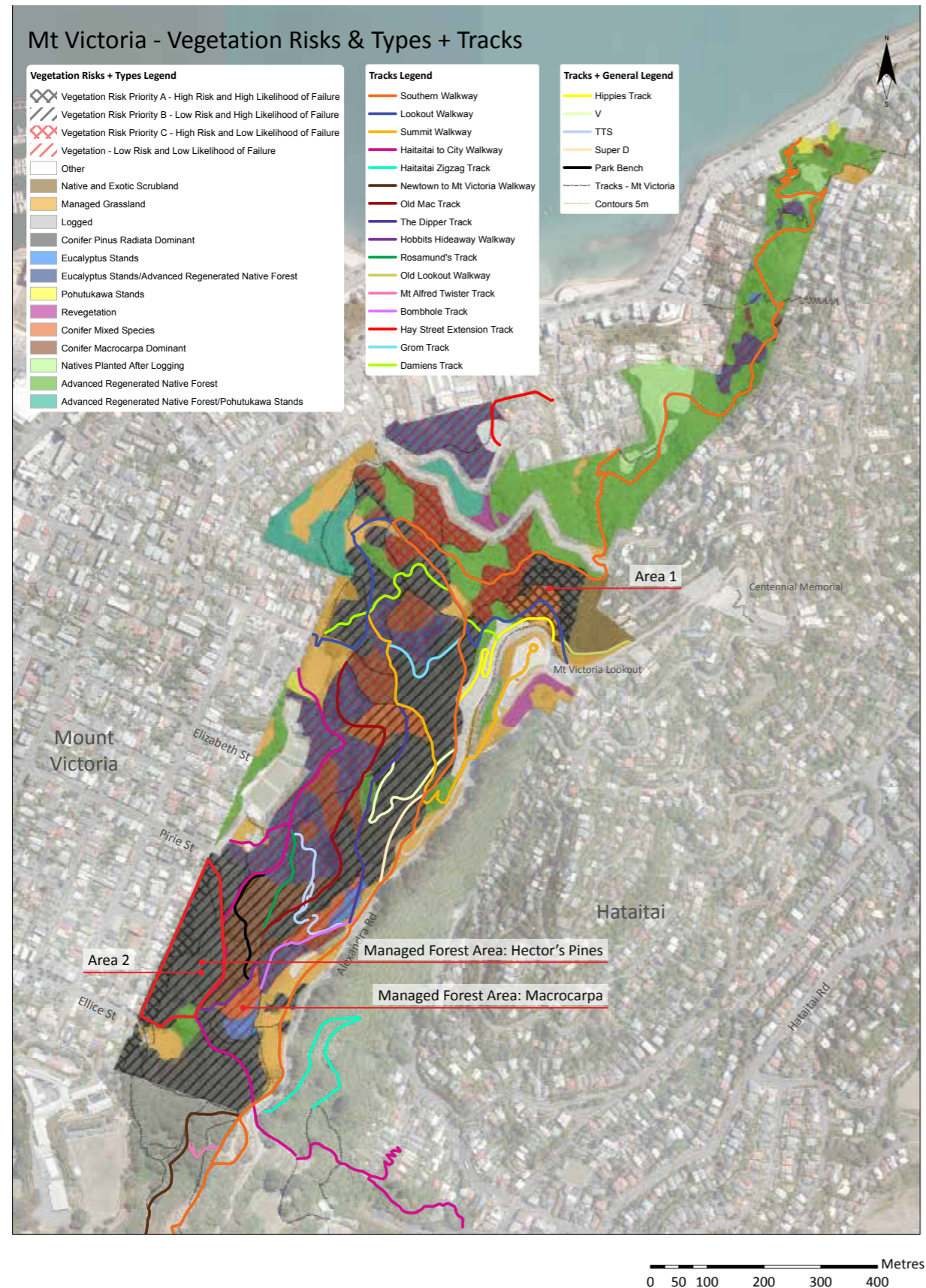
Species Name	Common Name
Austroderia fulvida	toetoe
Carmichaelia australis	common broom
Carpodetus serratus	putaputaweta
Coprosma lucida	shiny karamu
Coprosma propinqua	mingimingi
Coprosma repens	taupata
Coprosma robusta	karamu
Cordyline australis	ti kouka
Griselinia lucida	puka
Hebe stricta	koromiko
Kunzea ericoides	kanuka
Leptospermum scoparium	manuka
Lophomyrtus bullata	ramarama
Myoporum laetum	ngaio
Myrsine australis	mapou
Olearia paniculata	akiraho
Phormium cookianum	wharariki
Pittosporum eugenioides	tarata
Pittosporum tenuifolium	kohuhu
Pseudopanax arboreus	whauwhaupaku

#### 3. North Facing Ridges - Second Succession

Species Name	Common Name
Alectryon excelsus	titoki
Dysoxylum spectabile	kohekohe

0 62.5 125 250 375 500 Metres

## 2.08 VEGETATION MANAGEMENT STRATEGY - EXOTIC TREE MANAGEMENT



### VEGETATION MANAGEMENT STRATEGY

The revegetation management strategy proposes to:

- Use risk management to guide the priorities for removal of vegetation.
- Create gullies of dominant species to provide stronger identity of spaces within the park.
- Manage track edges to inform track hierarchy and identity.
- Manage vegetation to maintain key views.
- Provide guidance to and co-ordination of various revegetation groups.

The current Stand Stability Risk Assessment is largely still valid. Some changes have occurred such as the area immediately below the summit that has been updated to High Risk and High Likelihood of Failure following storm damage. These risk levels require a prioritised approach associated with clear time-frames.

#### Priority A - High Risk and High Likelihood of Failure

- Area 1 - Remove trees, replant with gully and ridge species following vegetation strategy.
- Area 2 - "Hector's Pines" should be annually assessed for stability by a qualified TRAQ/QTRA arborist and after storm events by a Ranger. Perpetuate for as long as possible.

#### Priority B - Low Risk and High Likelihood of Failure

- Light wells in exotic dominated gullies should be created for the gully species to be planted. It is recognised that these plants are likely to be damaged if trees fail or are removed, however plants will establish a good seed stock to facilitate revegetation.
- The tracks through these areas should be regularly monitored by a qualified arborist, and monitored after every significant storm event. Any significant damaged branches should be reported to an arborist for inspection and removal.

#### Priority C - High Risk and Low Likelihood of Failure

WCC is instigating a trial through this block. The trial will prune individual trees to open up an 8 metre light well. No planting or weed management will occur in these areas but they will be monitored.

#### Storm Damage and Weed Control Areas

Where trees are lost due to storm damage or where weed control clears areas of vegetation these should be replanted with the appropriate gully or ridge native species.

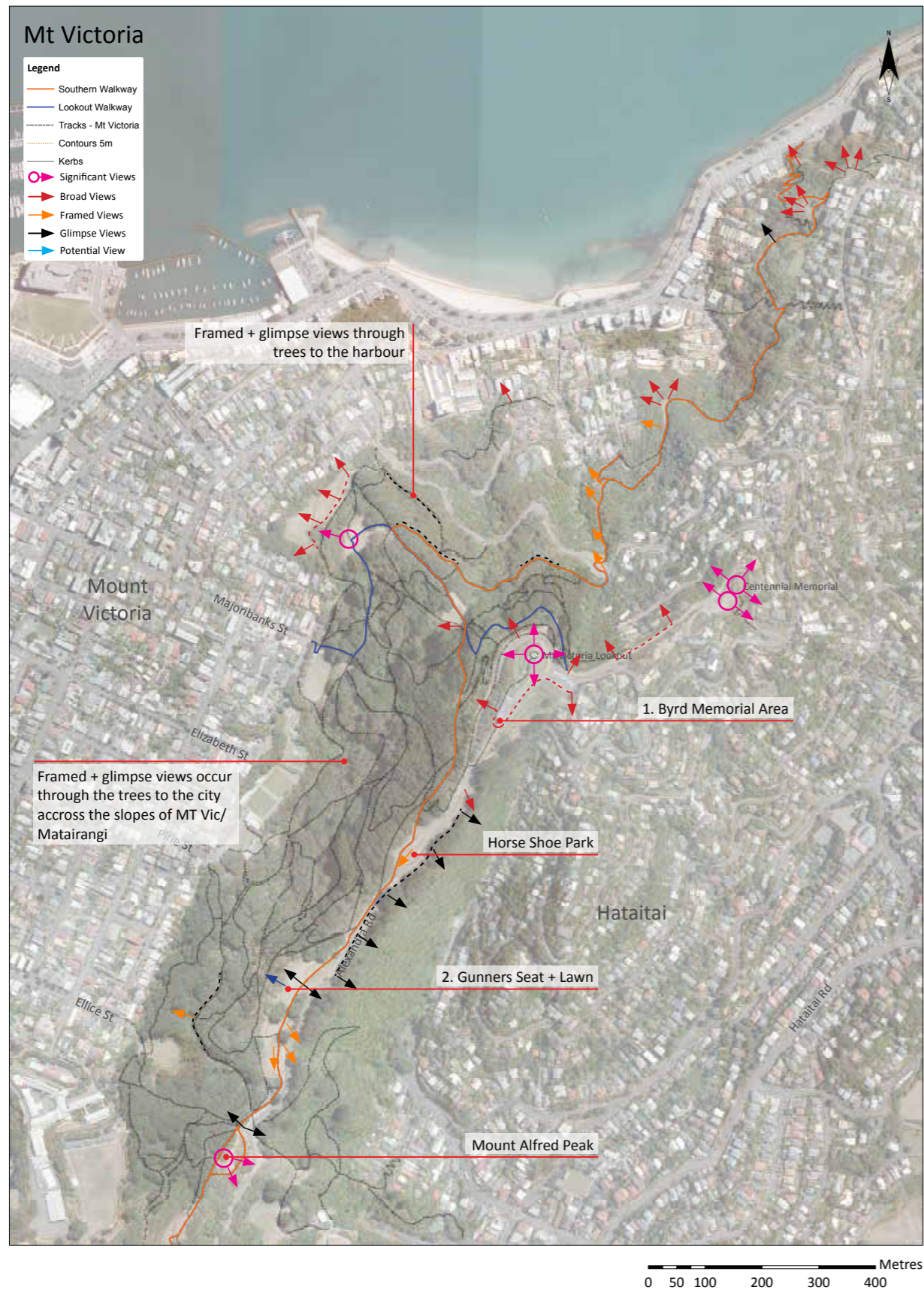
#### General Recommendations for Pines

In all pine areas, juvenile pines should be removed to stop regeneration of pines. These can be cut to ground and left to rot down.

#### Managed Forest Area

This area of pines [refer to adjacent map] and macrocarpas should be considered for retention as a managed forest. This area includes the first pine plantings "Hector's Pines" and the Lord of the Rings/Hobbit filming area.

## 2.08 VEGETATION MANAGEMENT STRATEGY - VIEWS



### VIEW MAINTENANCE

- All Significant Views are to be maintained with tree pruning and removal if necessary.
- Broad Views should be managed with pruning and planting of low growing species in the foreground.
- Framed Views should be maintained by pruning.
- Glimpse Views are more location and tree species specific. These should be allowed to change over time, but consideration given to revegetation species selection to allow views through tree trunks. This could occur where mass planting of one dominant species occurs, combined with pruning.

### REMOVAL OF VEGETATION TO CREATE VIEWS

- The lookout area below the steps of the Mt Victoria Lookout and around Byrd Memorial [see adjacent map - note 1] is fully accessible and significant views could be achieved with some tree removal between the lookout and the city, and thinning of *Metrosideros excelsa* (*pohutukawa*) trees.
- The views from Gunners Seat and adjacent lawn [see adjacent map - note 2] would benefit from being opened up with judicious tree pruning and removal. This has occurred to some extent, but further opening to frame views could be undertaken.

### RECOMMENDATIONS

- Manage the removal of private garden/vegetation encroachments occurring in the northern section of the park.



## 2.08 VEGETATION MANAGEMENT STRATEGY - COMMUNITY PLANTING

### WEED CONTROL UNDERTAKEN IN 2014-2015



0 50 100 200 300 400 Metres

### COMMUNITY PLANTING

- Planting by community groups should be focused on the gully planting - 'Tracing the Streams'. These gullies provide a positive on-going focus for revegetation.
- The naming of the plantings after their signature tree may assist in fundraising/ sponsorship of these sites - e.g. 'The Kowhai Grove' planting,
- The gullies provide moisture and therefore a greater likelihood of success. These are also easily defined, and could be labeled with interpretation to educate park users.

### WEED & PEST CONTROL

#### Pest Control

There is opportunity for more community involvement in pest animal control (e.g. trapping).

#### Weed Control

The community group 'Manaaki te Keo' provides a support group for guidance to the Rotary Clubs proposed planting of 100,000 trees by 2021. Weed control of revegetation areas is a vital task for managing successful planting. There are restrictions on the use of chemicals and machinery for weed control for health and safety reasons.

The number of plants will be driven by weed clearance and pine removal, and will be managed in terms of the ability to effectively maintain the plants. The exotic dominated vegetation of Mount Victoria/Matairangi and surrounding urban areas means that there are very high levels of pest plants throughout the site. However not all pest plants have the same level of risk to the goals outlined in the Master Plan for the vegetation development.

#### Existing Weed Control

The map shows area of weed control that was undertaken in 2014-15. The focus has been on maintaining levels of control on climbing asparagus and controlling climbing weeds in areas where significant previous control has been undertaken. Some work has also been undertaken to assist community group restoration efforts.

#### Guiding Principles, Objectives and Policies

- Species are prioritised in accordance with their ability to cause significant damage to ecological processes.
- Where pests are established and widespread, eradication is impractical or uneconomic, the focus needs to be on controlling them to minimise their adverse impacts on areas with the highest biodiversity values.
- Weed control is essential for restoration to be successful.
- Weed control priorities need to change through time with changes to the restored vegetation.
- Climbing weeds, such as climbing asparagus, old mans beard Japanese honeysuckle and banana passionfruit are the primary target species

#### Other Comments for Consideration

Tradescantia removal: Tradescantia is a threat to mature forest, as it limits the

amount of native regeneration that can occur, however it isn't necessarily a threat per se. Tradescantia is best managed on a site specific basis, which assesses the significance of the risk, potential for reinvasion, and likelihood of success. If a restoration site is cleared of tradescantia prior to planting, this should enable a window of opportunity for the native plants to establish, before the tradescantia reinvades.

Tree removal – rotting trees can create a 10-15 year temporary hazard for undertaking weed control in particular sites. Due to making these sites unsafe to work in. Often it is more ecologically effective to control as many weeds as possible before tree felling, otherwise there is a risk of severe infestations, before the site is accessible again.

### RECOMMENDATIONS

- Propagation of plants by the community for planting within the Mt Victoria/Matairangi area will be supported by WCC, this will ensure appropriate species and eco-sourcing of plant stock.
- High risk of loss of revegetation plantings remains in areas that contain exotic trees, it is recommended that these are removed eventually.
- Encourage community groups to get "weed-busting" and ensure that all plantings can be maintained.
- It is recommended that a focus is directed towards empowering and resourcing planting groups to undertake weed and pest control.
- Weed control needs to be closely linked to the areas being planted, with control taking place for at least two seasons prior to planting.
- Significant investment has occurred in controlling particular species, such as climbing asparagus. Continued control of these species is required for these gains to be solidified.
- Site preparation for planting is very important, and will usually predetermine the success of planting, and the level of maintenance required during plant establishment. Therefore site preparation including two years of weed control prior to planting is recommended.

## 2.09 TEN YEAR IMPLEMENTATION PLAN

Activity Area	Issue	Description	Priority (1-3 where 1 is the highest)
Driving through the park	Park entry signs	Large scale park entry signs/structures on Alexandra Road to welcome drivers to the park and encourage greater recognition of the open space and recreation values of the setting.	1
	Pedestrian crossing areas	Investigate improvements to pedestrian crossing areas at the Lookout and Centennial Memorial.	1
	Traffic slowing	Investigate ability to slow traffic along Alexandra Road in places.	2
	Conflict with pedestrians	Develop off-road walking and running track beside Alexander Road to entice foot traffic off the road. This may be the upgraded Te Ranga-a-Hiwi track.	3
Tracks: First tier tourist route	Easy park access	Develop a main park entrance at Majoribanks to connect with CBD.	1
	Easy park access	Develop Pirie Street as other main entrance.	2
	Lookout Walkway (existing Summit Walkway)	Investigate upgrading the route from Majoribanks St to the Mt Victoria lookout to short walk standard where possible (while ensuring sections not at this grade can be developed in the future).	2
	New return tourist route	Investigate upgrading the route from the lookout to Oriental Parade to walking track standard providing an optional loop walk for visitors.	3
	Lookout access improvements	Explore stair/path system (cycle, buggies, walking) up to the Byrd memorial, and pedestrian crossing points on the road at its base. Improve pedestrian pathway around the edge of road up to Lookout carpark area.	2
Tracks: First tier commuter route	Hataitai to City walkway	Consider geocells on the Hataitai commuter route to assist with water management and steep slopes.	2
	New school, southern commuter route	New route from Newtown linking suburb with Wellington College, Wellington East Girls an existing Hataitai commuter route.	2
Tracks: Te Ranga a Hiwi	Develop to first tier status	Develop relevant sections of the Summit Walkway and the Southern Walkway to a higher standard to recognise value of Te Ranga a Hiwi.	2
	Accessibility	Seal Te Ranga a Hiwi track to provide an accessible path.	2
Tracks: Second tier tracks	Shared use path	Develop tracks beside Alexandra Rd to keep walkers, runners and bikers away from traffic.	3
	Lookout to Centennial Memorial	Develop tracks (footpaths) beside Lookout Road to connect the upper lookout car park with the Centennial Memorial.	1
Tracks: User conflict	Track intersections	Realign intersections between mountain bike and walking tracks to create an oblique angle with a slow-down formation on the mountain bike track to reduce the risk of high speed collisions. Where this is not possible, ensure that 'black diamond' mountain bike tracks do not intersect with the main commuter and tourist track within the park.	1
Wayfinding and interpretation	Orientation maps at all park entries	Third tier tracks would not be shown. All tracks would be indicated as shared between cyclists and walkers with access to online mapping systems.	1
	Bi-lingual signs	Place names and signage in Te Reo/English where practical.	1
	Site naming and differentiation	Name open spaces to reflect history and location in consultation with Mana Whenua.	2
	First tier track signs	Colour way-finding systems with symbols.	1
	Second tier track signs	Icon way-finding system.	1
	Third tier track signs	Unsigned unless marked and graded mountain bike route.	1

## 2.09 TEN YEAR IMPLEMENTATION PLAN

Activity Area	Issue	Description	Priority (1-3 where 1 is the highest)
Open Spaces	Play	Integrate play trails into the open spaces and tracks to encourage (natural) play and broaden children's interest in landscapes in the park.	1
		Incorporate elements of landscape play at Horseshoe Park and Gunners Seat Hill.	2
		Investigate interest in garden areas for children at the Pirie Street Play Area and incorporate in the Play Trail.	3
	Parking	Improve parking around the Centennial Memorial.	3
	Seating	Provide seating at the Saddle with space for track users to pass.	3
	Encroachment	Manage the removal of encroachment of residential properties on the west slope of Mt Victoria.	2
	Memorials	Do not provide for any further commemorative planting.	1
Vegetation	Exotic trees	Do not replace fallen or removed pine, macrocarpa and eucalypt trees with exotic species.	1
		Manage vegetation removal according to risk and hazard profiles. Remove hazardous trees from priority A and replant with native species.	1
		Trim light gaps in priority C area.	2
		Tree by tree management, pruning or felling individual trees as required in priority B area.	2
	Native revegetation	Use signature native trees to trace historical stream paths.	1
		Use the native species collection to revegetate the park.	2
	Streams	Connect gullies to their stream and provide historical interpretation and an opportunity for visitors to visually engage with each site via planting different dominant indigenous species in each gully.	2
	Views	Manage vegetation to retain and frame views.	1
	Community planting	Planting by community groups is focused on the gully planting - 'Tracing the Streams'.	2
	Lord of the Rings filming area	Limit adverse effects on trees and retain sense of discovery and adventure in this setting. Retain exotic plantings and aim to extend lifespan as much as possible.	1
Historic trees "Hector's Pines"	Retain pine trees from first tree plantings to the south of the city to Hataitai track for as long as safely possible.	1	
Other assets	Safety	Review and address user safety issues identified.	1
	Rubbish bins	Retain status quo.	3

## SECTION 3: APPENDIX

### 3.01 APPENDIX 1 - BACKGROUND REPORT + FIGURE LIST

WA code	Document name	Date created	Created by	Source	Notes
A	Wellington Town Belt Management Plan	Aug-13	WCC	WCC	
B	Wellington Town Belt Vegetation - Implementation Plan 2000 - 2020	Dec-00	Boffa Miskell	WCC	
C	Mount Victoria Redevelopment - Design Concept	Sep-04	Boffa Miskell	WCC	
D	Wellington City Resident's Usage of & Attitudes Towards the Town Belt	Oct-04	A.Hastings & N.Newman	Online	
E	Manaaki Te Keo - Bringing birdsong back to Mt Vic	Aug-14	S.Farrant	WCC	
F	City to Summit - Mt Victoria Enhancement Planting Project	Jul-12	S.McCahon, Rotary Club, WCC	WCC	
G	The Mt Vic Revegers Memorandum of Understanding	none	WCC & Mt Vic Revegers	Email	
H	Wellington Mountain Bike Club MOCL	none	WCC & WMTNBC		
I	Makara Peak Way-Finding Signage	none	WCC & Massey University Students	Email	
J	Guidelines for Artwork for WCC Pictograms	none	WCC & Concept - Sign & Display	Email	
K	Wellington Town Belt Stand Stability & Risk Assessment	2005-2006	Kevin Reardon WCC	WCC	
L	Wellington Town Belt Management Plan - Background Report 1 Ecology	1992	WCC & Boffa Miskell		
M	Wellington Ecodomain Delineation	none	WCC & Boffa Miskell		
N	Wellington's Living Cloak - A Guide to the Natural Plant Communities	1993	Isobel Gabites	WA Library	
O	NZS 1170.5:2004 site subsoil classification of Wellington City	2011	AECOM & GNS Science	Email	
P	A Botanical Survey of the Indigenous Forest Remnants in Wellington Botanic Garden, Glenmore Street, Wellington	2005	B.J. Mitcalfe & J.C.Horne		
Q	Wellington Regional Native Plant Guide	2010	WRC	Online	
R	Green Toolbox - Wellington and Sounds Region Plant Species List	2014	Green Toolbox, LCR	Online	
S	Memorandum of Understanding between WCC and Wellington Orienteering Club		WCC & Wellington Orienteering Club	Email	
T	Memorandum of Understanding between WCC and the Rotary Club		WCC & ROTARY CLUB	Email	
U	Dry Creek Replacement Cleanfill, SH 58, Porirua - Assessment of Terrestrial Ecological Effects	Nov-12	Boffa Miskell	Email	

#### FIGURE LIST

Figure 1. Greenway, Robert. Mount Victoria Panorama. Digital image. N.p., n.d. Web. 13 Oct. 2014.

Figure 2. Brees, Samuel Charles, 1810?-1865. Brees, Samuel Charles 1810-1865 :Mount Victoria, Wellington [between 1843 and 1845] / Drawn by S C Brees. [Engraved by Henry Melville. London, 1847]. [No] 50, Plate 17.. Ref: PUBL-0020-17-1. Alexander Turnbull Library, Wellington, New Zealand. <http://natlib.govt.nz/records/23058518>

Figure 3. View of part of Wellington looking south east towards a trestle rail track, Courtenay Place, Majoribanks Street and Mt Victoria. Ref: PAColl-5671-16. Alexander Turnbull Library, Wellington, New Zealand.<http://natlib.govt.nz/records/23155072>

Figure 4. Wellington from Mount Victoria. Miller, C O :Burton Brothers negatives. Ref: BB-2240-1/1-G. Alexander Turnbull Library, Wellington, New Zealand. <http://natlib.govt.nz/records/23133186>

Figure 5. Wellington (N.Z.), and City Council. Wellington Town Belt Management Plan. N.p., 2013. Print.

Figure 6. Wellington (N.Z.), and City Council. Wellington Town Belt Management Plan. N.p., 2013. Print.

Figure 7. <http://origin.momypoppins.com/content/prospect-parks-new-natural-play-area-climb-trees-sit-on-trunks-commune-with-nature>

Figure 8-10. <http://redtri.com/new-york/zucker-natural-exploration-area/slide/1/#>

Figure 11. <https://achildgrows.com/blog/2013/10/into-the-woods-with-donald-barbara-zucker-natural-exploration-area/>

Figure 12. <http://www.play-scapes.com/play-design/natural-playgrounds/richter-spielgerate-climbers/>

Figure 13. <http://aspetucklandtrust.blogspot.co.nz/>

## 3.02 APPENDIX 2 - STAKEHOLDER ENGAGEMENT REPORT

### Introduction

The first stage of consultation was to establish how people use Mt Victoria, where they go and what they like. Key user groups were contacted and project team members met with individuals and groups. Appendix 2 Stakeholder Engagement Plan outlines the process and provides a record of engagement.

The open day on Saturday the 11 October was attended by approximately 25-40 people. Many completed a comment form (Appendix 3) or emailed comments following the open day.

Everyone who talked to the project team values Mt Victoria/Matairangi highly and regards it as the City's premier park. They have differing views on some aspects but all seek to improve this valuable asset.

### Key Themes

Comments were wide ranging and varied on both vegetation management and recreational use. There were recurring themes however that people had views on.

#### These were:

- Relationship between walkers (with or without dogs) and mountain bikers
- Pine retention or removal
- Native regeneration
- Dogs
- Signage

Comments on these topics are summarised below:

#### Vegetation management

- Pines provide recreational opportunities such as orienteering, as they have clear spaces underneath allowing openness and views
- The pines should be removed with native regeneration to replace
- Better co-ordination between the various individuals and groups who undertake revegetation is required
- Better weed control is required particularly removal of Tradescantia
- Revegetation should be aiming to make Mt Victoria part of the regional ecological corridor
- Create small spaces of seating and tables protected from the wind using native planting
- Use natural fertilisers rather than chemicals
- Gentle terracing and leaving broken branches to rot naturally assists the soil system and encourages biodiversity
- Create bee corridors

#### Recreation: Track management

- Mountain bikers are dangerous and conflict with walkers. The alternative view is that there are no conflicts and bike riders are considerate. Conflict occurs where walking tracks intersect with bike tracks
- Bikers conflict with dogs not under control
- Signage is inadequate, confusing and people get lost
- Better signage is needed at intersections
- Signage telling people how to get to Mt Victoria needs to be improved
- Signage should include information on the steepness of tracks
- Signage indicating that revegetation is being undertaken and perhaps roping off these areas would assist with replanting efforts
- Tracks are not well maintained, are boggy in winter and get eroded through steps and bikers
- A clearer route for tourists to the top is required
- The mountain bike tracks are world class
- Need more options for walking dogs off lead, routes that link dog exercise areas
- Need more easy grade tracks, commuting and for kids biking
- Mountain bikers have made own tracks which can be confusing
- Separated trails for different levels of competency for bikers would be good

- There is a dangerous bike track exit at SPCA where it crosses Alexandra Road
- There is no connection between the upper football pitch and the southern walkway but there is scope for this

#### Recreation: Spaces

- The wildness of the area is valued and should be maintained
- Views to city and sea need to be maintained
- Open areas are good for socialising
- Rubbish disposal is generally a problem but it is particularly bad at Charles Plimmer Park where people go to picnic and drink, they leave bottles and rubbish
- Charles Plimmer Park is well used but as it is a dog walking area this use conflicts with others not with dogs especially children
- The provision of seats is good but don't want too many
- Something for young people would be good such as a children's garden
- As there are dog specific areas dog free areas are necessary
- The rope swing/s are liked
- More activities are sought such as an adventure playground
- Interpretation would enhance the experience and quality of the area. This could include information on the history of the area and specific events, planting, planting groups
- A Disaster Recovery Plan for the area would guide Council in what action to take after an event
- A Civil Defence central location is required so people caught in an event know where to go
- There is no clear main entrance and this needs to be identified and signposted accordingly
- Pirie St play area is good and well used but there are problems with rubbish, boy racers, overnight campers in the carpark
- Mt Victoria provides a good range of opportunities for orienteering
- The Master Plan needs to manage and guide the different groups
- There shouldn't be any more structures
- The community garden brings the community together

### 3.03 APPENDIX 3 - VEGETATION RISK METHODOLOGY

#### VEGETATION RISK METHODOLOGY

Stand Stability and Risk Assessment model.

The model consists of 14 tree and site assessment criteria which when measured will reflect:

1. The likelihood of tree/stand failure and
2. The risk potential should tree/stand failure occur.

It is designed to compare the various exotic vegetation compartments that comprise each management area within the Town Belt against each other in terms of risk and likelihood of failure. From this assessment a priority list for tree removals can be formulated. In most instances the criteria are measurable and hard data produced to eliminate any bias or inconsistencies in determining priority tree removal areas. Tree measurements were conducted on a simple random sampling basis at a 2% sampling intensity.

#### Measuring Stand Stability

10 criteria have been used, which, when measured will reflect individual tree stability.

These are:

- Tree Species - Different species are prone to decay, toppling and/or breakage to different degrees. Radiata Pine and Macrocarpa are more prone to tree and stand failure (wind throw) whereas the more open canopy of Eucalypts results in more branch breakages.
- Age - Tree failure increases with a trees age, size and maturity. Tree age has been estimated using growth ring counts from an increment borer and historical records (Town Belt Management Plan background reports).
- Average Tree Size - Measured as diameter at breast height (DBH) Tree failure increases with a trees age, size and maturity. A larger diameter tree has the potential to cause more damage should failure occur.
- Average Tree Height - Measured in metres. Tree height will help determine the treefall distance and risk to nearby targets.
- Tree Lean - Number count. The number of trees toppled but not completely blown over will give an indication of stand stability. Calculated on a per hectare basis.
- Previous Failure - Number count. General assessments of any previous wind throw and snapped stems will reflect stand stability. Calculated on a per hectare basis.
- Structural faults - Number count. Generally assessing the numbers of trees that show physical faults indicative of tree/stand failure e.g. root plate lifting, branch tearing, dead standing trees. Calculated on a per hectare basis.
- Stocking - Measured as average Stems per Hectare (SPH) - In general, higher density stands are more prone to windthrow.
- Aspect - Trees on certain aspects are more prone to toppling from storm events. Easterly and southerly wind conditions usually bring rain and saturated soil conditions on slopes that face this direction. This combined with medium to high wind conditions increases the likelihood of windthrow on these slopes e.g. Tinakori Hill. These shaded and more sheltered slopes usually have larger and taller trees and are also most favourable for regeneration of native podocarp forests.
- Northerly and Westerly winds although more predominant are generally dry with less rainfall. Trees on these aspects are more conditioned from winds from these directions and with drier ground conditions, more stable in storm events.
- Wind Zones - have already been identified throughout the city and classified as very high, high, medium or low.
- As most of the small woodlots on the Town Belt are of an even age, individual tree stability indicators will reflect on the stand/compartment stability as a whole.

#### Assessing Risk

Four criteria have been assessed which will reflect the risk potential should tree failure occur.

These are:

- Target status - The consequences of Town Belt trees failing onto residential or commercial properties are greater than that of trees which fail onto open spaces or sports fields.
- Frequency - Each target has been assigned a high, medium or low frequency of use based on anecdotal evidence. Residential houses have been assessed as being high frequency, while sports fields and most walking tracks judged to have a low frequency of use.
- Relative elevation - The location of the trees in relation to the target. A tree above a potential target and within fall distance constitutes a greater risk than a tree below a potential target outside the fall distance. Where there is more than one target the relative elevation is taken in relation to the most significant target.
- Slope - Measured by slope angle of terrain. Trees on steeper slopes pose a greater risk to targets should they topple or break up than those on flat to easy sloping terrain. Steeper slopes are also characterised by a thinner soil layer.
- Because of the senescent nature of many of the tall exotic trees on the town belt, these factors affecting tree and stand stability will become more influential over time.

#### Ranking

Each criteria are ranked on a scale of 1 - 4. The parameters set for 1 reflect a low likelihood of stand/tree failure and a low level of risk. The parameters for 4 being those trees, stand and site indicators which reflect an increased likelihood of wind throw and constitute a greater level of risk to people property or infrastructure\*.

A compartment scoring 24 or above in the Stand Stability Assessment is deemed to have a High likelihood of failure as the trees are more likely to fail during storm events based on the criteria parameters. A compartment scoring 23 or less is deemed to have a Low likelihood of failure based on the criteria parameters.

A compartment scoring 14 or above in the Risk Assessment is deemed a High risk to people, property or infrastructure based on the criteria parameters. Because there may be more than one target in or around many of these compartments and to reflect the higher risk potential, the target status criteria carries a maximum score of 10 (4+3+2+1). Multiple, high frequency targets will generally warrant a high risk assessment.

\* based on anecdotal evidence, background investigation, previous Town Belt hazardous tree reports.

By adding the stand stability score and risk assessment score together a total score is attained

#### Stand Stability Assessment

Assessment Criteria	4 (high)	3	2	1 (low)
Tree species	Conifers/Macs	Eucalyptus	Pohutakawas	Broadleaf's
Age	>80	70-79	60-69	<59
Avg. Tree size (dbh)	> 60	50-59	40-49	<39
Avg. Tree height (m)	>30	25-29	20-24	<19
Tree lean (per ha)	>10	5-9	1-4	0
Previous failure (per ha)	>10	5-9	1-4	0
Structural faults (per ha)	>20	15-19	10-14	<9
Stocking (sph)	>800	700-799	600-699	<599
Aspect	East, South	West	North	Sheltered
Wind zone	V. High, High	Medium	Low	Sheltered
Score	24-40 / 10-23			
Likelihood of Failure	HIGH / LOW			

#### Risk Assessment

Criteria	4 (high)			3			2			1 (low)		
Target status	Property (houses, commercial)			Infrastructure (roads, reservoirs, powerlines)			Walk tracks			Open fields (sports fields, parks)		
Frequency	High -75	Medium -50	Low -25	High -75	Medium -50	Low -25	High -75	Medium -50	Low -25	High -75	Medium -50	Low -25
Relative elevation	Above & <30m			Parallel & <30m Above >30m			Below & <30m			Below & >30m		
Slope (°)	>20°			15°-19°			10°-14°			<9°		
Score	14-21 / 3.25-13											
Risk Level	HIGH / LOW											

Total Score	/ 61
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#### Priority Removal and Management plan

- At the completion of the assessments each compartment will fall into one of four categories depending on its individual score. Either;
- High Risk and High Likelihood of failure (HRHL), High Risk and Low Likelihood of failure (HRLL), Low Risk and High Likelihood of failure (LRHL), Low Risk and Low Likelihood of failure (LRLL)
- These Risk and Likelihood categories will formulate the basis of the Priority Removal