# Prince of Wales/Omāroro Reservoir

Assessment of effects on Recreation

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# **Executive Summary**

Wellington Water Limited (WWL) has a proposal to construct and bury a 35,000m³ concrete reservoir within the Town Belt in Prince of Wales Park in Mount Cook. The reservoir will increase water storage for local businesses and critical community facilities, provide resilient emergency water storage for residents and provide back-up water storage for operational reasons. A preliminary design for the reservoir has been developed and PAOS has been asked to assess the effects of the reservoir on recreation during the construction period and during operation.

The proposal is to excavate into the ridgeline above the southern edge of the No.2 or upper playing field, construct the reservoir and bury it. Heavy vehicle access to the reservoir site is proposed to be from Rolleston Street during and on completion of the project. This playing field will be used to temporarily store material excavated during reservoir construction which will be used to backfill and bury the reservoir once it is completed. The upper playing field is proposed to be raised by up to 1.5 metres using material excavated from the reservoir site. The No.1 or lower playing field is also currently expected to be raised by up to 1.5m using material excavated from the reservoir site. This playing field is also expected to be used for temporarily storing material excavated during reservoir construction, and will be used for equipment storage and parking for workers during the construction period.

Construction is anticipated to take place over two years. During this time, access and recreational use will be restricted in some parts of the park. The lookout area and paths on the ridgeline below Asquith Terrace/Dorking Road to the upper playing field and access to the playing fields will be closed. Other areas of the Prince of Wales Park will remain open for recreational use, including the clubrooms and carpark next to the lower playing field, the driveway to the clubrooms from Salisbury Terrace, and the path between Newtown and Brooklyn from Salisbury Terrace/Westland Road and Asquith Terrace/Dorking Street.

This report has two parts to it. The first part introduces the project and describes the existing environment and the two types of recreational activities that take place on Prince of Wales Park: organised recreation and casual recreation. The report describes the paths and tracks in the park and how they connect to the wider Town Belt network of trails and surrounding areas, key statutory provisions relevant to the proposal and recreation, and the approach this report takes to assessing effects of the proposal on recreation.

This part of the report also recommends mitigation measures in order to reduce the adverse effects of the proposal on recreation. Some of these mitigation measures will have long term beneficial effects on recreation at the park.

The second section reports on the assessment of effects of the proposal on recreation. The significance of the effects is assessed using a five-point scale. The assessment of adverse effects on recreation during the reservoir construction period range up to very high levels of significance. With mitigation, adverse effects are assessed to range up to high levels of significance. The reason for this level of significance is because the playing fields and the circular path network within the park via the playing fields, the ridge and the lookout area will be closed. Connectivity is also assessed to reduce during the construction period because the path between Asquith Terrace/Dorking Road in Brooklyn and Rolleston and Hargreaves Streets in Mt Cook will be closed.



The assessment did not find any adverse effects on recreation during operation of the reservoir. Beneficial effects on the playing fields were assessed to be high to very high. This is because the playing fields will be reinstated to their current size and their quality will improve. Paths and tracks closed during the construction period and the lookout area will be reopened and the seat and plaque reinstated. The quality of the path and track that passes through the lookout area between Brooklyn and Rolleston/Hargreaves Streets will improve.

# Part 1: Background

#### 1. Introduction

- 1.1 Wellington Water Limited (WWL) is seeking to construct a buried 35,000m3 concrete reservoir within the upper Prince of Wales Park in Mount Cook. A preliminary design for the proposed reservoir was developed in 2013. WWL is seeking an easement from Wellington City Council (WCC) for locating, constructing and operating the reservoir within the Wellington Town Belt under the Town Belt Act 2016. WWL are also seeking resource consents from WCC and the Greater Wellington Regional Council (GWRC) to develop and operate the reservoir, as required under the Wellington City District Plan and GWRC's regional plans and proposed Natural Resources Plan.
- 1.2 PAOS has been asked to prepare an assessment of effects on recreation of the proposed reservoir during the construction period and during operation. The report is based on information provided in the 'Hospital Prince of Wales Reservoir Preliminary Design Report' May 2013 and its supporting addendum documents. The assessment of effects on recreation includes recommendations for mitigation of recreation impacts during construction of the reservoir and during operation.
- 1.3 The report covers recreational use of Prince of Wales Park (the park) and the area of Wellington Town Belt (Town Belt) within which the park is located. It covers the following:
  - 1) Existing recreational activities that take place across the Prince of Wales Park, including the upper and lower playing fields and vegetation covered areas.
  - 2) Connectivity between surrounding residential areas and destinations during the construction period.
  - 3) Effects of closing the upper playing field and lower playing field for the duration of the construction period.
  - 4) Effects on organised recreation, casual recreation and connectivity with the surrounding residential areas and destinations during the construction period.
  - 5) Benefits of raising the level of the playing fields and improving their use for recreation.
- 1.4 The assessment process has sought to reduce adverse effects on recreation and identifies mitigation measures to address these effects during construction of the reservoir and during its operation.



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# 2 Project Description

- 2.1 A selection process led by WWL in 2013 identified Prince of Wales Park as the preferred site for a new water reservoir. The proposed reservoir is to hold 35 million-litres of water and is to be constructed of concrete and buried into the ridgeline above and on the southern side of the upper sportsfield (see Appendix 1, Figure 1).
- 2.2 The main access to the reservoir during and after construction is proposed to be from Rolleston Street via the existing service vehicle entrance and across the western end of the upper playing field. After construction, this main access will lead to an access door on the side of a tunnel located below the floor level of the reservoir facing Rolleston Street. This access to the door is to allow for delivery of heavy valves or other components during operation of the reservoir.
- 2.3 The inlet and outlet pipes from the reservoir cross the upper playing field and will connect with upgraded pipelines at the end of Hargreaves Street. The overflow/scour drain from the reservoir will connect to the Rolleston Street stormwater drain. In the case of the overflow exceeding capacity of the drain, the ground will be contoured to direct the overflow from a scruffy dome in the south west corner off the playing field to flow down Rolleston Street.
- 2.4 During construction, surplus excavated material will be removed for disposal off site. Material required for backfilling and covering the reservoir is proposed to be temporarily stored on the upper and lower playing fields. A sedimentation pond is also proposed to be located on each playing field. This means that the fields will be out of action for recreation throughout the construction period. A 5 metre clear zone will be left along the north, east and south sides of the upper playing field, a 15 metre clear zone in the north western corner of the field and a 10 metre clear zone along Rolleston Street to allow access.
- 2.5 The proposal is to raise the final level of the upper and lower playing fields by up to approximately1.5 metres above the current surface level using material obtained from the excavated reservoir site. The base layer will be de-compacted, the playing fields contoured and laser-graded to shed water for improved drainage and playing field capacity, particularly in winter months. Wellington City Council has signaled a level of service expectation for soil-based playing fields with natural grass. Turf used will be suitable for the conditions and level of service and help sustain high levels of wear and be drought tolerant. Wellington City Council has also signaled that irrigation and playing field lighting are not needed. De-compaction, fill material, top soil, recontouring and turf grass will be according to specifications and level of service required by Wellington City Council. These will be established during the design stage of the project.
- 2.6 The upper playing field is proposed to have retaining walls at the northern corner near Rolleston Street extending to the top of Hargreaves Street, and on the eastern end of the playing field. Side drains with drainage sumps are proposed for both sides of the playing field. These would be drained into collector drains. The 'Preliminary Design Report' 2013 has concrete rather than grass swales on the southern and northern sides of the playing fields. Overland flows from the playing field would be directed by contouring to Rolleston Street rather than the current overland flow over the playing field surface to the lower playing field. The current overland flow leads to scouring along the driveway between the two playing fields and contributes to water ponding



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next to the park pavilion. Detailed design would be needed in order to determine the edge treatment of a raised playing field surface on the Hargreaves Street side of the playing field, to determine height of the ball stop fence, access from Hargreaves Street and the impact on neighbouring properties at 46 Hargreaves Street and No 73 Rolleston Street, which share their southern boundaries with the park.

- 2.7 Papawai Stream runs along the western side of the lower playing field. This results in the field being subject to flooding at not infrequent intervals and during winter in particular. A bund separates the stream from the playing field, but water seeps under the bund. A permanent wet area lies near the south western corner of the lower playing field. The western and northern ends of the playing field are also frequently wet, especially during winter months. This means the lower playing field is often closed in winter and is underutilised. Raising the surface of the playing field and contouring to improve surface cross fall would improve playing field drainage and increase playing field use throughout the year. As with the upper playing field, detailed design would be needed to ensure adequate run off areas beyond marked boundaries, all ability access from the carpark and sports pavilion, edge treatment along the length of Papawai Stream and on the playing field's southern and northern boundaries, and retaining walls on the playing field's south-eastern corner, next to the sports pavilion and along the driveway to the carpark at the southern end of the playing field and the Wellington Scottish Athletics and Poneke Kyokushin Karate Dojo clubrooms.
- 2.8 The whole of the lower playing field is proposed to be used during the construction period for temporarily stockpiling material to be used for backfilling and burying the reservoir, a sedimentation pond and parking for construction workers.
- 2.9 An existing sewer line that currently runs under the lower playing field is proposed to be realigned to the southern end of the lower playing field.
- 2.10 Construction is anticipated to take place over 2 years and during this time site access and recreational use will be restricted. Access to the following will be closed during the construction period and will be reinstated once construction has finished and the reservoir is in operation (see Appendix 1, Figure 2):
  - Path from Asquith Terrace/Dorking Road to Rolleston Street that passes through the location of the reservoir
  - A secondary track that follows the gully on the western side of the proposed reservoir. It is steep and slippery after rain, but is the most direct route between Asquith Terrace/Dorking Road and Rolleston Street. Wellington High students in particular are reported to use this as a direct route to school via Rolleston Street
  - Access to the grassed lookout area at the top of the knoll
  - · Access to the upper playing field
  - Access to the lower playing field and the bund
  - · The driveway connecting the upper and lower playing fields.
- 2.11 The following are proposed to remain open during the construction period:



- Vehicle and pedestrian access to the carpark and Wellington Scottish Athletics and Poneke Dojo Kyokushin Karate clubrooms from Salisbury Terrace (access for vehicles may be closed for a period of one week during sewer realignment, but will be open for pedestrians) The pedestrian path with lighting for safe night use between Brooklyn and Mt Cook from Dorking Road/Asquith Terrace to John Street via Westland Road
- · The pedestrian path from Bell Road to the top of Rolleston Street
- Pedestrian access from Salisbury Terrace along Papawai Stream to Papawai Terrace.

## 3 Existing Environment

- 3.1 The area where Prince of Wales Park is located is a part of the original Town Belt. Two photos taken in the 1920s show the flat playing fields and a children's playground with play equipment (See Appendix 1, Figure 4). The upper playing field was formed by cutting into the ridgeline that runs along the side of Rolleston Street to above Asquith Terrace/Dorking Street. The lower playing field was cut into the east facing side of the ridgeline.
- 3.2 The park is made up of two distinct environments; the flat playing fields on the Mt Cook side of the park and steep vegetation-covered slopes including the ridgeline between the playing fields and Brooklyn See Appendix 1, Figures 5 19).
- 3.3 The No 2 or upper playing field is accessed from near the top of Rolleston Street via an entranceway that also allows access for park maintenance vehicles. The playing field also has pedestrian access from Hargreaves Street. Steps lead from the playing field to Bell Road. A formed and relatively steep path leads from the bottom of these steps up the ridgeline to a lookout area and on to Asquith Terrace/Dorking Road. A steep track in the gully on the western side of the ridgeline is the most direct connection from Rolleston Street and Asquith Terrace/Dorking Road. The ridge above the playing field is dominated by pohutukawa, eucalyptus and regenerating native species. The gully on the western side of the ridgeline above the upper playing field has a small stream and the east facing gully side is densely covered in well-established and diverse native forest. Trees on the eastern boundary of the upper playing field provide shelter for playing field users. At the top of the reservoir site is a grassy knoll and lookout with a seat that has expansive views over the harbour, city, Mt Cook, and Newtown.
- The No. 1 or lower playing field is accessed via a driveway from the upper playing field and a driveway from Salisbury Terrace along the eastern side of the playing field to a carpark and the Wellington Scottish Athletics and Poneke Kyokushin Karate Dojo clubrooms. The playing field can also be accessed from a steep driveway at the end of Salisbury Terrace to the sports pavilion at the northern end of the playing field, and from paths from John Street in Newtown via Westland Road and paths through the Town Belt from Asquith Terrace/Dorking Road and Connaught Terrace in Brooklyn. Papawai Stream runs along the western side of the lower playing field, separated from the playing surface by a low earth bund. The steep slope above is vegetated forming a pleasant green backdrop that shelters the lower playing field from the prevailing northerly wind. The hillside to the south is dominated by mature pine trees and other exotic trees, along with native trees and lower vegetation.



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- 3.5 Two types of recreation take place on the park (See Appendix 1, figures 20 24):
  - Organised recreation, typically clubs or other organisations that arrange, administer and supervise recreational activities. These activities usually take place at regular times and locations and often involve interclub activities and competitions. This type of recreation is sometimes defined as 'formal recreation'.
  - 2) Casual recreation that is self-directed and unstructured and takes place at any time. This type of recreation is sometimes defined as 'informal recreation'.

# Organised recreation

- 3.6 One of the advantages of organised recreation using the playing fields at Prince of Wales Park is walkability from neighbouring suburbs and the CBD, especially for the more social and mixed sporting organisations such as Gaelic Football and for secondary student sport. The second major advantage is the ability to store equipment in the changing rooms on the lower playing field. A number of sports people spoken to during the preparation of this report commented that the park is popular during the summer months, especially the lower playing field, because of the atmosphere, the attractive green backdrop and shelter from prevailing winds.
- 3.7 The playing fields are full-sized and soil-based. The marked area of the upper field is currently 100 x 65 metres, with a side run off from 1.5 to 3.5 metres and end run off from 4 to 15 metres. The lower field is 110 x 65 metres with a side run off from 3 metres (the exception is at the north western corner where the marked boundary is close to the Papawai Stream bund) and end run off from 4 to 15 metres. It is important for the delivery of sports to keep this capacity.<sup>1</sup> A typical rugby or rugby league field has a playing area of 100 x 70 metres with a goal area at each end from 10 metres and a 5 metre strip surrounding the playing area outside of the touch line to prevent injury when players run off the pitch.<sup>2</sup> FIFA minimum dimensions for an 11 aside football field is 90 x 45 metres.3 Both playing fields have an adequately sized goal area at each end. The run off strip along the southern side of the upper playing field is close to the toe of the ridgeline (a surface drain collects runoff from the toe of the slope). The western side of the lower playing field is often wet and boggy from seepage from Papawai Stream that runs along the edge of the playing field at the toe of the slope. An area on the south western side of the playing field next to the stream is almost permanently wet and marshy. Both playing fields have high ball-stop fences between the playing fields and neighbouring properties.
- 3.8 The main issues with the current playing fields is compaction of the playing surface and lack of drainage. Decompaction of the playing surfaces and improved drainage, particularly in the lower playing field, would improve the capacity of the playing fields for sports use.
- 3.9 The playing fields are used intensively during summer months and for pre-season training. Once daylight saving finishes, use in the evenings drops because the fields have no lighting. Current regular users during the summer are:

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<sup>&</sup>lt;sup>3</sup> https://www.sportscourtdimensions.com/soccer/



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<sup>&</sup>lt;sup>1</sup> Personal communication with Wellington City Council officer Parks and Gardens.

<sup>&</sup>lt;sup>2</sup> Retrieved from http://www.sportsknowhow.com/rugby/dimensions/rugby-field-dimensions.html

- Gaelic Football Use both playing fields and the carpark off Salisbury Terrace at the southern end of the lower playing field during the summer season. (November to the end of March)
- Victoria Hunters Rugby League Use both playing fields and the carpark off Salisbury Terrace for pre-season training (November to the end of March)
- Brooklyn Northern United AFC Use both playing fields for pre-season training starting in January
- Junior cricket (Wellington Cricket) Use for cricket is limited by the grass wicket. Saturday morning junior cricket is played at the park from time to time because 'dual-pitch' can be played on grass fields, has shorter pitches and smaller boundaries.
- 3.10 The playing fields are also used during the winter months. Drainage issues with the lower playing field means it has low levels of use during winter sports season. Neither field has lighting and this limits use. Current regular users of the playing fields during winter months are Wellington Rugby, who use both playing fields and the carpark off Salisbury Avenue from May to the end of August for:
  - Wellington High School rugby training one day every second week
  - Wellington Rugby competition
  - College Sport competition
  - · Wellington College rugby, who use the park from time to time.
- 3.11 A large two-storey building south of the lower playing field with an area for carparking is used every day of the week. Access to the carpark in front of the building from Salisbury Terrace is very important to clubroom users. The clubrooms are also accessed on foot or cycle from John Street via a path from Westland Road, from Hutchison Road and from Brooklyn via the path from Asquith Terrace/Dorking Road.
- 3.12 The clubrooms are leased to the Scottish Athletics Club. The club uses the building regularly on Saturday afternoons from March to October when 50 to 100 people attend. Packs run in different directions and according to the club president members would be adaptable, as long as the clubrooms and car park are accessible and the health and safety of members is ensured during the construction period.
- 3.13 The clubrooms are also a base for the Poneke Kyokushin Karate Dojo, who sublease the rooms. The club currently uses the building week days Monday to Thursday from 3.30 to 8pm, Saturday morning and Sunday afternoons. At these times the carpark attached to the clubrooms is often full. The club uses the lower playing field during the summer, and takes a circular path route across the lower and upper playing fields to the steps to Bell Road, along the path to Dorking Road and down the path from Asquith Terrace through the Town Belt back to the clubrooms.
- 3.14 Artrageous uses the building for holiday programmes. Use of the driveway from Salisbury Terrace and the carpark in front of the clubrooms is also important to them. They integrate the park into their programme, using the paths and tracks, the bush covered areas of the park and the lookout area. They walk between the clubrooms in



Prince of Wales Park and the scout hall and playground area in Hanson Street. This walking route is unaffected by the proposed reservoir in Prince of Wales Park.

- 3.15 As well as regular use of the park by organised sports, the park is used for events from time to time. Examples of uses and events held at the park are:
  - Mt Cook and Brooklyn Schools along with other schools use the park as part
    of Wellington Sport cross country events. Typically Mt Cook School uses
    Newtown Park for most of their sporting activities rather than Prince of Wales
    Park <sup>4</sup>
  - Wellington High School uses the park as part of their sustainability and science classes. They also fly drones as part of their programme. The main reasons for school use of the park are the streams, "nature in the city", easy access and that the park is near the school
  - Nature through arts collaboration 'Imagine my City'
  - Nordic walking
  - Outdoor Art Exhibition 'Extend Yourself'
  - Rugby Sevens visiting team uses the upper playing field for event preparation.
     Drainage issues to do with Papawai Stream excludes the lower playing field from Rugby Sevens use.

#### Casual recreation

- 3.16 The current trend in recreation is the growing popularity of casual recreation, most often in outdoor environments such as parks and in more natural settings. Walking is the most popular recreational activity among adults (16+ years). Casual recreational activities observed in the park during the development of this report are wide and varied. Information on casual recreation was also given to the author of this report by park neighbours and was among the feedback received at the two open days on the proposed reservoir held at Massey University in November and December 2016.
- 3.17 A common activity is walking and dog walking, with some people walking daily in the park. Having options of places to walk to within the park and circular walking routes is important for dog walkers in particular. The lookout is a popular destination during the day as well as in the evenings and even at night. People picnic there and people from the neighbourhood gather to watch fireworks displays. Casual recreational activities on the playing fields include picnicking (including large family or whanau groups), casual ball games, running, jogging and exercise for fitness, tai chi, meditation, kite flying, drone flying, play groups and young parents with small children.
- 3.18 Activities in the more natural areas include bird observation e.g. kaka were nesting in the park in the summer of 2015/16, volunteer restoration planting (in the gully west of the ridge above the upper playing field, on the east facing slope below Bell Road, and along Papawai Stream on the western side of the lower playing field and to the north

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<sup>&</sup>lt;sup>4</sup> Personal communication with Mt Cook School



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of the sports pavilion), adventure play among the trees, mountain bike track building and even encampments within the vegetation.

3.19 From 2013 to 2016, park neighbours<sup>5</sup> with an interest in connecting communities with their environments placed a number of installations on the ridge and lookout area with log books that invited members of the public to write comments. These log books contain many comments that show that people appreciate the 'wilder' parts of the park and value the activities that take place there. The following two entries in the log books capture many of the recorded sentiments and reveal the values people place on these kinds of environments:

An autumn evening
Bathing the city in sun
And the hills in shade
A moment of reading, reflection and quiet
Broken only by birdsong

Broken only by birdsong
And distant traffic noise
As we stop at PICNIC BOX

Rain spots and sun dots

The wind is ice.

But to be alive

Feels nice.

# Connectivity

- 3.20 Paths and tracks connect through Prince of Wales Park to a variety of destinations. In preparing this report, users of the different paths were observed and the paths they used recorded on 29 November to 2 December 2016 (Tuesday Friday) and on Friday 3 February 2017 between 7.00am and 8am to get an indication of use. People using the paths and tracks were either commuters passing through the area or people whose destination was the park itself.
- 3.21 The most popular route for commuters was between Asquith Terrace/Dorking Road and Johns Street via Westland Road. This path is paved in its steepest parts and is lit and used at night. Some people followed the driveway on the eastern side of the lower playing field to Salisbury Terrace or continued along Papawai Stream to The second most popular route was between Asquith Papawai Terrace. Terrace/Dorking Road and Rolleston Street. Most people used the formed path via the lookout and the upper playing field, even though this is a relatively steep and unpaved path. Some people, and in particular Wellington High School and Wellington College students, used the most direct route down the steep track on the western side of the ridgeline. A fewer number used the path and steps between Bell Road and Rolleston Street. A few people continued across the upper playing field and down the driveway to the sports pavilion and on to Salisbury Terrace, and others crossed the lower playing field to Johns Street via Westland Street.
- 3.22 The park would appear to be a well-used commuter route from people whose homes are in Brooklyn. Destinations include the hospitals and Te Whaia Performing Arts in Newtown, Massey University, Wellington High School, Wellington College and the Adelaide Road area. People make their way via the different paths and tracks according to their destination and conditions underfoot, although surprisingly people

<sup>&</sup>lt;sup>5</sup> Refer http://keminiko.com



**DS**\* 13 17 February 2017

crossed the playing fields even in wet weather. Anecdotally, people in Mt Cook going to the Penthouse Cinema in Brooklyn use paths and tracks through the park.

3.23 Paths and tracks through the park also form part of the wider track network of Wellington. The City to Sea walkway and the national Te Araroa Trail pass through the park via steps from Bell Road at the top of Rolleston Street, up the ridge to the lookout and south via the path in front of the Wellington Scottish Athletics and Poneke Kyokushin Karate Dojo clubrooms.

## 4 Statutory and policy framework

4.1 The key statutory provisions relevant to the proposed reservoir and recreation on Prince of Wales Park are the Resource Management Act, Wellington Town Belt Act, Wellington City Council District Plan and the Wellington Town Belt Management Plan. Two Wellington City policy documents are Capital Spaces and Open Space Access Plan. This assessment only considered objectives and policies that are directly relevant to this assessment of effects on recreation.

#### Resource Management Act

4.2 Section 7 sets out a range of 'Other Matters' that all persons exercising functions and powers under the RMA shall have particular regard to. These include:

section 7(c) the maintenance and enhancement of amenity values and;

The phrase 'Amenity values' is defined in the RMA as, "those natural or physical qualities and characteristics of an area that contribute to peoples' appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes". Recreation is a component of the overall amenity of a place.

#### Wellington Town Belt Act 2016

- 4.3 Wellington City Council is a trustee of the Town Belt on behalf of the inhabitants of the city of Wellington and has responsibilities, powers to protect, manage and enhance the Town Belt and to recognise the history of the original Town Belt and its significance to iwi and the inhabitants of Wellington<sup>6</sup>. When performing its role as Trustee, the Council must also have regard to a number of principles, two of which are particularly relevant to recreation on Prince of Wales Park:
  - (iv) the Wellington Town Belt should be accessible to all and for all to enjoy:
  - (v) the Wellington Town Belt should be available for a wide range of recreational activities.

#### Wellington City Council District Plan

4.4 Prince of Wales Park is zoned Open Space C. Lands that come within this zoning are located on Wellington's Town Belt and are valued for their historic, social and

<sup>&</sup>lt;sup>6</sup> Wellington Town Belt Act 2016 Purpose and Principles



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cultural importance. The objective of Open Space is "To maintain, protect and enhance the open spaces of Wellington City." (Objective 16.5.1). The District Plan recognises the special status of the Inner Town Belt as public recreation land (Policy 16.5.1.2) and the Council is to manage the impacts of activities in the Inner Town Belt "in order to protect and preserve its special qualities for the benefit of future generations" (Policy 16.5.1.3).

#### Wellington Town Belt Management Plan 2013

- 4.5 The Council manages the Town Belt under the Town Belt Management Plan 2013. Under the Wellington Town Belt Act the Council is required to comply with the management plan in exercising its powers with respect to the Town Belt Act. The site of the proposed reservoir falls within Sector 4 on the Brooklyn Hills between Mt Cook and Brooklyn. The Brooklyn Hills are the backdrop to Mt Cook and Newtown and the central city and is a diverse area used for a variety of organised and casual recreation. As well as the City to Sea Walkway and Te Araroa the national walkway, the sector contains a number of organised recreation facilities including playing fields at Tanera, Nairn Street and Prince of Wales Park. The management plan observes that these are important areas of open space and should be retained for outdoor recreation and sport. The management plan notes that walking tracks provide access through a variety of environments from open spurs with city views to enclosed forest and pedestrian routes along the hills and between Brooklyn and the city, including the City to Sea Walkway.
- 4.6 The management plan identifies Prince of Wales Park as the location for a new water reservoir, the ridge above the playing field adjacent to Rolleston Street as the site and states that the reservoir is to be buried to limit modification to the landscape.
- 4.7 The management plan has a process to assess applications for use of the Town Belt and criteria used by officers to assess applications. This includes assessing benefits of an application, beneficial and negative effects, impacts on Town Belt values, cumulative effects, proposed mitigation, consistency with policies of the management plan, resource consent issues and whether Council investment is required.

#### Capital Spaces 2013

4.8 This plan is a high level strategy document and combines an open space strategy with a recreation strategy. It aims to get everyone active and healthy, protect the environment, work in partnership with the community, and contribute to Wellington's outstanding quality of life.

#### Open Space Access Plan 2016

4.9 This plan guides the use and management of tracks and walkways in and between the city's open space network. It has no specific plans or policies on tracks in the area of Prince of Wales Park, but emphasises a strong track network that is accessible, connected and well designed.



## 5 Approach and assessment methodology

- 5.1 Assessment of the effects of the proposed reservoir on recreation involved a number of steps and tasks, research, visits to the location, and contact with relevant organisations and individuals who recreate at Prince of Wales Park or who use the paths and tracks that pass through the site:
  - 1) Attendance at an introductory multi-disciplinary meeting and site visit, review of the 'Preliminary Design Report' on the reservoir prepared in 2013.
  - 2) Review of legislation and Wellington City Council plans relevant to recreational considerations.
  - 3) Attendance at the first public open day held at Massey University and review of recreation-related feedback received at the two open days.
  - 4) Visits to the location of the proposed reservoir in Prince of Wales Park and the immediate environment on different days of the week and times of day.
  - 5) Informal contact with parks users and park neighbours to gain an understanding of recreational use and activities, users of the paths and tracks and their destinations and what people value about the site in terms of recreation.
  - 6) Receive information from Wellington City Council officers and staff on organised recreational use of the playing fields and desired levels of service for the playing fields.
  - 7) Contact, usually by telephone, with recreation and sports clubs, regional recreation and sports organisations, schools in the immediate area, and local resident organisations and individuals with particular knowledge and practical experience of the site. This contact helped to gain an understanding of use of the site and issues to do with recreation that may be addressed during the course of the project, and to identify potential adverse effects of the proposed reservoir during its construction and on operation and how these may be mitigated.
- 5.2 Statutory matters to do with the Wellington Town Belt Act and Resource Management Act are addressed in this assessment in two sections of this report:
  - The significance of effects on recreation during the construction period and on completion and operation of the reservoir. This covers effects on organised recreation, casual recreation and connectivity. Section 7 outlines the effects and their significance.
  - 2) Mitigation of potential adverse effects. Section 6 below outlines the proposed mitigation measures.



## 6 Mitigation Measures

- A number of mitigation measures are recommended in order to reduce the adverse effects of the proposal on organised recreation, casual recreation and connectivity both during and on operation of the reservoir. Some of these measures will have long term beneficial effects on recreational use of the park. Details of the following recommended mitigation measures are outlined below:
  - 1) Temporary relocation of organised recreation during the construction period.
  - 2) Temporary redirection of path connections.
  - 3) Reinstatement and improvement to playing fields.
  - 4) Reinstatement of connectivity and in some cases improvement to paths, tracks and trails (See Appendix 1 Figure 3)
  - 5) Reinstatement of the lookout and vegetated ridge after the construction period.

# Temporary relocation of organised recreational use of the playing fields during the construction period

- Wellington City Council staff are confident of finding alternative venues for the current playing field users during the two winter and two summer sports seasons when the playing fields are proposed to be closed. These alternative venues may be further from the Central Business District than some current playing field users prefer. However, the clubs, organisations and schools spoken to during the preparation of this report were philosophical about a temporary move, as long as they were able to return to Prince of Wales Park once the reservoir is in operation.
- 6.3 Minimum notice of the unavailability of the playing fields is the season before closure i.e. June for the following summer season and December for the following winter season. The Wellington City Council will be given at least this minimum period of notice, and will in turn work with regional sports organisations, resident clubs, schools and other organisations to find alternative venues during the construction period.

#### Temporary redirection of path connections during the construction period

- 6.4 The City to Sea Walkway and Te Araroa Trail will be redirected during the construction period to the existing path from Bell Road to Dorking Road and through the Town Belt to the Scottish Athletics Clubroom where it rejoins the existing City to Sea Walkway and Te Araroa Trail.
- 6.5 People wishing to walk between Dorking Road and Rolleston Street will be redirected to the existing paved path between Dorking Road and Rolleston Street, via the Bell Road reservoir and the steps at the top of Rolleston Street. Rather than using the steps to Rolleston Street, Wellington High School students are likely to continue on the path to Bidwell Street which joins Wakefield/Taranaki Streets opposite the school.

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<sup>&</sup>lt;sup>7</sup> Meeting with Wellington City Council Parks and Garden's staff 11 January 2017



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#### Reinstatement and improvement to playing fields

- The playing fields will be reinstated to their current size, including end and side run off areas that are the same size as those of the current playing fields.
- 6.7 The playing fields will be reinstated with improvements. The aim is to improve playing surface condition, drainage and the carrying capacity of both upper and lower fields. The fields will be de-compacted and if stockpiled top soil is not of sufficient quality, or has become compacted during the construction period and has lost condition, it will be replaced with new top soil obtained from off site.
- The proposal to raise the lower playing field by up to 1.5 metres will improve the condition of the playing surface. The aim is to raise the playing field using the material excavated from the reservoir site. Indications are that the excavated material is likely to be suitable for use for the playing field. The surface of the playing field will be above Papawai Stream and this, along with improved surface cross fall, will increase playing field use throughout the year. The height of the ball stop fence along the driveway side of the playing field will be raised, if necessary, to protect neighbouring residential properties from high balls. Access between the raised playing field and the park pavilion will be a ramp rather than steps in order to provide all ability access.
- 6.9 The proposal to raise the upper playing field by up to 1.5 metres is an opportunity to improve the condition of the playing surface. While the issue of playing field condition is not as critical as the lower playing field, users have commented on the compacted playing surface. Raising the level is an opportunity to improve the subsurface, surface crossfall, drainage and side drains. The height of the ball stop fence next to properties at 73 Hargreaves Street and 46 Rolleston Street will need to be adjusted to protect these properties. The effect of a raised playing field on these properties will need to be assessed and mitigated (assessing these effects is outside the scope of this report). Access to a raised playing field from Hargreaves Street will be addressed at the design stage of the project. It is important that all people are able to access the playing fields and a ramp rather than steps will provide this. Sheltering trees on the playing field's eastern boundary will be retained to the fullest extent possible during construction of the retaining wall and replaced if retention is not possible.
- 6.10 The side drains on the northern and southern sides of the upper playing field are proposed to be concrete rather than grass swales. This is not recommended because of possible injury to players.
- 6.11 After construction, the main access to the reservoir for maintenance is proposed to be from Rolleston Street via the existing service vehicle entrance and across the western end of the upper playing field. It is important for recreation that the goal area remains a soft turf surface, and that any hard paved surface for vehicles involved in the delivery of materials for reservoir maintenance is outside of the goal area. Dimensions of a goal area are a minimum of 10 metres from the goal line, although this is not always possible. The exact dimension of the goal area will be established at the design stage, but the recommended mitigation measure is to aim for a 10 metres goal area between the goal line and the dead-ball line at each end of both upper and lower playing fields.

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#### Reinstatement of connectivity and in some cases improvement to paths and tracks

- 6.12 The path from the lookout on the ridge below Asquith Terrace/Dorking Road to the upper playing field and the top of Rolleston Street will be reinstated and improved. The steep and rough track to the east of the reservoir site will be upgraded. Although it will still remain a steep grade, it will be improved to support all weather access.
- 6.13 Seating, including the bench with the plaque at the lookout, signage and potentially interpretive information boards to explain the function and presence of the reservoir will improve way-finding through the park and amenity for path users.

#### Reinstatement of the lookout and vegetated ridge

6.14 The 'wilder' steep vegetation-covered ridgeline, the turf lookout and access to them is to be reinstated on completion of the reservoir. This will allow for casual recreational activities including children's adventure play, and gathering at events on the lookout area such as watching public firework displays and activities such as picnicking.

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# Part 2: Assessment of Effects on Recreation

#### 7 Introduction

7.1 The assessment focuses on the effects on organised recreation, casual recreation and connectivity. The significance of adverse effects on each of these during the construction period and during operation of the reservoir is assessed using the 5-point scale below:

Significance	Description of scale of significance		
very high	The activity will no longer take place		
high	The activity will take place but at an alternative site		
moderate	The activity will take place on site but in a modified form or scale		
low	The activity will take place but with some minor modifications		
negligible or no effect	The activity will continue to take place unmodified and undisturbed		

#### 8 Assessment of Effects

#### Effects on Organised Recreation

- 8.1 The playing fields will be closed for the construction period of two years. Sufficient notice will be given to Wellington City Council, the regional sporting organisations and the resident clubs for alternative venues during the construction period. The alternative venues may mean some players, coaches and referees may have to change modes of transport to reach the temporary venues and travel further than they currently do. For this reason, the effect of playing field closure on organised recreation during the construction period is assessed to be a high adverse effect.
- 8.2 The playing fields will be reinstated to their current size, with end and side run off areas the same size as the current playing fields. They will be soil-based with natural grass. Turf used will be suitable for the conditions and level of service, help sustain high levels of wear and be drought tolerant. The playing fields will be reinstated according to specifications and the level of service required by Wellington City Council, and on advice from the Council's sportsfield consultants. This will be established at the design stage of the project.
- 8.3 Improving the surface of the playing fields will have a permanent and highly beneficial effect on organised recreation. The surfaces will be de-compacted, re-contoured and laser-graded so that water is shed and does not collect or pond on playing field surfaces. This will improve drainage, playing surfaces and playing field capacity, particularly in winter months, and mean a better experience for players and fewer times when the playing field is closed.
- 8.4 Raising the final levels of the playing fields by up to 1.5 metres above the current surface level using suitable fill obtained from the excavated reservoir site will also



have high beneficial effects as a result of improved drainage. Beneficial effects will be very high for the lower playing field because the playing surface will be raised above the level of Papawai Stream. This, in combination with the other improvements to the playing field, will increase playing field use throughout the year.

- 8.5 The effect of raising the level of the upper playing field will be beneficial, but the scale of the beneficial effect will be less than that for the lower playing field. More important for the upper field is de-compaction, re-contouring and grading to ensure water does not collect or pond on playing surfaces. Also important for the upper playing field is the drainage swale on the southern side of the playing field at the toe of the slope. Beneficial effects of changes to the upper playing field are assessed to be high.
- 8.6 Raising the levels of the playing fields may mean the current ball stop fences, may no longer be high enough to protect residential properties on the northern side of the upper playing field and the eastern side of the lower playing field. These fences will need to be raised so that they continue to protect adjacent residential properties.
- 8.7 During operation of the reservoir, overland flows from the upper playing field will be directed to Rolleston Street rather than the current overland flow over the playing field surface to the lower playing field. This will reduce scouring of the driveway between the two playing fields and result in a smoother and safer driveway surface. This will have a high beneficial effect on casual park users as well as sports people moving between the two fields.
- 8.8 The access from Rolleston Street to the reservoir maintenance tunnel for maintenance vehicles on operation of the reservoir is proposed to be paved to allow for delivery of heavy valves or other components as well as regular maintenance. Paving has potential to reduce the goal area at the Rolleston Street end of the upper playing field. A hard paving surface near a goal area could potentially injure players and the adverse effect is assessed to be high.
- 8.9 There will be no change for users of the clubrooms (leased by Scottish Athletics Club and sub-leased to Poneke Kyokushin Karate Dojo and Artrageous for their holiday programme) during operation of the reservoir. During construction there will be no access to the playing fields, or to the path and track from the lookout to the upper playing field. However, use of these areas of the park is not essential to the successful running of the clubs. They will still be able to access the driveway from Salisbury Terrace and the clubroom carpark. Retaining this access is the greatest concern of the clubs. In addition, the athletic club members, the members of the karate club and children attending the holiday programmes will still be able to access the paths, tracks and steep, vegetated areas south of the lower playing field. The adverse effect on clubroom users during the construction period will be low.

#### Effects on Casual Recreation

8.10 The playing fields will be closed for casual recreation during the construction period. The nearest playing fields that can be used for casual recreation are in Nairn Park, a 230 metre walking distance from the upper playing field of Prince of Wales Park via the steps and path from the Bell Road reservoir. The park has vehicle access from Bidwell Street, a car park and a sports pavilion. Rugby League Park is 600 metres to the south and is accessed from Hall Street by vehicle or on foot by the path from the



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Scottish Athletics clubrooms through the Town Belt and across Hutchison Road. Other playing fields available for casual recreation are at Macalister Park, 1.2 kilometres away, and Newtown Park which is 1.8 kilometres away.

- 8.11 Other green open space in the wider area and used by Mt Cook residents for casual recreation is the playground on John Street and Pukeahu Park further to the north on Buckle Street. Although alternative playing fields and play spaces are available in the neighbourhood for people who use the playing fields casually, they may not be as easily and safely accessed, particularly for young families who are park neighours. Therefore the adverse effect on casual use of the playing fields due to their closure during the construction period is assessed to be high. The effect of having to use a playing field elsewhere in the neighbourhood will have less of an adverse effect on older casual playing field users who can more easily access playing fields elsewhere.
- 8.12 The area of Prince of Wales Park that lies south of the lower playing field will be unaffected during the construction period. Adventure play among trees will still be able to take place in this area as well as along Papawai Stream and on the east-facing slope below Bell Road. For people who appreciate the unstructured 'wilder' parts of the park, an alternative is Central Park, 300 metres away from the upper playing field. Central Park has a similar topography and vegetation to the more natural areas of Prince of Wales Park and a network of paths and tracks, a playground, stream and garden areas. The adverse effect on people who enjoy activities in unstructured and natural areas during the construction period is assessed to be moderate.
- 8.13 A network of paths in Prince of Wales Park can be used throughout the construction period for dog walking, walking, jogging and accessing the more natural areas of the park, although taking a circular route through the park itself will not be possible. The steps at the top of Rolleston Street that link to Dorking Road via the Bell Road Reservoir and Asquith Terrace Community Gardens will be accessible. The path from Dorking Road/Asquith Terrace to the Scottish Athletics clubrooms will remain unaffected. Paths and tracks in the southern section of the park between the lower playing field and Connaught Terrace and Hutchison Road will also be unaffected during the construction period. The effect during construction on casual recreational use of paths and tracks is assessed to be moderate.
- 8.14 There will be no adverse effects on casual recreational use of the park once the reservoir is in operation. People will be able to access the playing fields and all tracks and paths will be reinstated, as well as the lookout area and its existing seat.

#### Effects on Connectivity

8.15 The main commuter route through the park will not be affected during the construction period. The path between Asquith Terrace/Dorking Road and Johns Street via Westland Road will remain unaffected. The route along Papawai Stream between Papawai and Salisbury Terraces will also be unaffected. The routes that will be closed during the construction period are between Brooklyn and Mt Cook via the lookout and upper playing field to Rolleston and Hargreaves Streets, and from Rolleston Street to Salisbury Terrace via the upper and lower playing fields. The adverse effect on connectivity during the construction period ranges from no effect to high, depending on the route used.



- 8.16 All paths and tracks will be reinstated to a better quality once construction has finished. The path between Brooklyn and Mt Cook from the lookout to the upper playing field and the top of Rolleston Street will be reinstated and improved. The steep and rough track to the east of the reservoir site will also be improved, although it will remain a steep grade. The beneficial effect of track reinstatement and improved quality will be high.
- 8.17 The City to Sea walkway and the Te Araroa Trail will be rerouted but connectivity with Brooklyn and Mt Cook via the lookout and upper playing field to Rolleston and Hargreaves Streets will remain. The adverse effect during the construction period will be low.
- 8.18 Connectivity between the top of Hargreaves Street and routes through the park to Brooklyn and to the lower playing field will be closed during the construction period because of closure of the upper playing field. The adverse effect on connectivity from Hargreaves Street will be very high during the construction period.



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# Summary of Effects Effects during construction

	Organised recreation	Casual recreation	Connectivity
Type of Effect	adverse	adverse	adverse
Significance of Effect	Before mitigation - very high for users of the playing fields and low for clubroom users. After mitigation - high for playing field users and low for clubroom users.	Before mitigation - very high for casual users of the playing fields.  After mitigation - high for casual users of the playing fields, particularly for young families who live close to the park and use the playing fields.  Before mitigation and after mitigation - moderate for people who use the more natural treed areas of the park and the lookout area, as well as for dog walkers etc.	Before mitigation - no effect to very high, depending on the route.  After mitigation - no effect to moderate, depending on the route, and very high for people near the top of Hargreaves St for whom connectivity through the park will remain closed during construction.
Comment	The playing fields will be closed for two years. No change to users of the clubrooms.	The playing fields will be closed for two years. The circular path network through the park via the playing fields will be closed. The lookout area will be closed.	The path between Asquith Terrace/Dorking Road in Brooklyn and Rolleston and Hargreaves Street in Mt Cook will be closed. The main route between Brooklyn and Newtown will remain open. The route next to the lower playing field and along Papawai Stream to Salisbury and Papawai, and paths in the southern area of the park to Connaught Terrace and Hutcheson Road will remain open. Access onto the playing fields from the top of Hargreaves Street will be closed.
Mitigation	Sufficient notice given so that alternative venues can be found.	The unstructured areas and tracks in the southern parts of the park, along Papawai Stream north of Salisbury Street and on the east-facing slope below Bell Road will remain open. Playing fields are available for casual use in the immediate neighbourhood at Nairn Park. Central Park is close by, as is the playground on John Street.	The main commuter path between The City to Sea pathway and Te Araroa Trail will be rerouted.  People using the path between Brooklyn and Mt Cook via the lookout will be redirected to the path from Dorking Road to Bell Road reservoir. The steps and path between Rolleston Street and Bell Road will remain open.



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#### **Effects during Operation**

	Organised recreation	Casual recreation	Connectivity
Type of Effect	beneficial	Neutral to beneficial	Neutral to beneficial
Significance of effect	high to very high	negligible	negligible
Comment	The playing fields will be reinstated.	All parts of the park and paths will be re-opened and accessible including the lookout area.	All access points, paths and tracks will be reinstated.
Mitigation/ Remediation	Playing fields will be reinstated to their current size, and their quality improved to the level of service identified by Wellington City Council.	The quality of the playing fields and some of the paths will improve. The lower playing field is likely to be available for more days in the year due to improved drainage.	The quality of reinstated tracks from the lookout will improve.

## 9 Conclusions

- 9.1 Overall, the effects on recreation of the proposal to construct and bury a reservoir within the Town Belt in Prince of Wales Park are acceptable, once the recommended mitigation measures have been put in place. Proposed remedies will bring benefits and improve levels of service and the provision of recreation.
- 9.2 The proposed mitigation measures and remediation of the playing fields are consistent with the objectives and policies of the Wellington City Council District Plan and the Wellington Town Belt Management Plan that are relevant to recreation in Prince of Wales Park. Part of the open space of the park will be closed to the public during construction of the reservoir, but any recreational use that cannot continue at the park during construction will be relocated to a similar facility. Once the reservoir is in operation, full access will be reinstated and the special qualities of this part of the Inner Town Belt will be protected and preserved "for the benefit of future generations". Proposed mitigation measures and reinstatement of playing fields, paths and tracks with improved quality are assessed to be beneficial for recreation, and will have no long term negative or cumulative effects on recreation or the recreational values of the Town Belt.

#### Effects on organised recreation

9.3 The significance of adverse effects on organised recreation during construction will be different for activities that take place on the playing fields and activities that take place in the clubrooms. Closure of the playing fields during construction will have a temporary high effect on users of the playing fields because although activities will continue they will be relocated elsewhere. The clubrooms will continue to be used

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<sup>&</sup>lt;sup>8</sup> Wellington City Council District Plan Policy 16.5.1.3.



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and adverse effects on clubroom users throughout the construction period are assessed to be low.

#### Effects on casual recreation

9.4 Adverse effects on casual recreation during construction will also be different for activities that take place within the construction area and for activities that take place elsewhere on the park. Casual users of the playing fields within the construction area will need to relocate to alternative sites such as nearby Nairn Park and the temporary effect will be high. All areas of the park that lie outside of the construction area will not be affected and will remain open for recreational use throughout the construction period. The adverse effects on casual recreation outside of the sportsfields will be negligible to moderate.

#### Effects on connectivity

9.5 Effects on connectivity will vary from no effect to moderate depending on the route. People using tracks that are proposed to be closed during the construction period will be redirected to alternative routes. The only connection that cannot be mitigated during the construction period is between the top of Hargreaves Street and Brooklyn via tracks through the park. This will inconvenience some users.

#### Effects during operation of the reservoir

9.6 Once the reservoir is in operation, the playing fields, all existing tracks and paths, access to the lookout area covering the reservoir, connectivity between the upper and lower playing fields and between the park and neighbouring streets and destinations will be reinstated. Reinstatement, improvements and recommended mitigation measures will have a high beneficial effect on organised recreation, casual recreation and on connectivity. The quality of the playing fields and the path connecting the upper and lower playing fields will improve. Reinstated paths and tracks will have better surfaces and all weather path access. Gathering, viewing the city and picnicking on the reinstated turf lookout will once again take place.

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# Appendix 1: Maps and Images



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Prince of Wales/Omāroro Reservoir

Assessment of Effects on Recreation



# Appendix 1: Maps and photographs

Figure 1 Aerial view showing Prince of Wales Park and the approximate location of the proposed reservoir



**KEY** 

## Streams

- 1 No 1 (lower) playing field
- No 2 (upper) playing field
- 3 sports pavilion
- 4 clubrooms
- 5 carpark
- 6 lookout
- Proposed reservoir (approximate location and size)



Figure 2 Aerial view showing tracks and areas closed and open during the construction period open open closed City to Sea Walkway and Te Araroa Trail

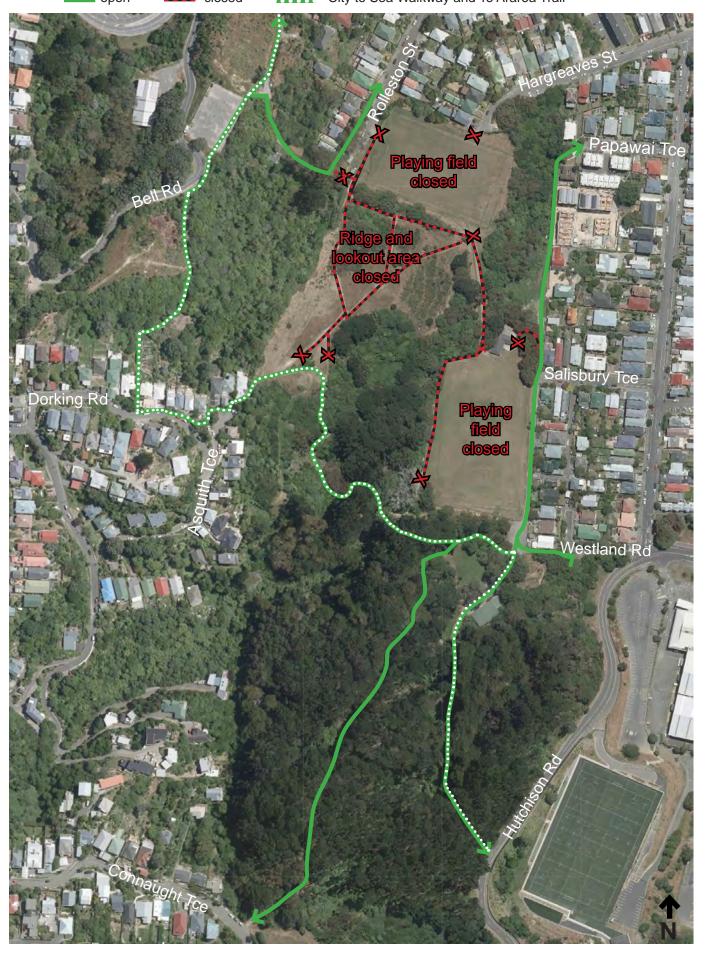




Figure 3 Aerial view showing location of tracks (approximate) and recreational facilities during operation

City to Sea Walkway and Te Araroa Trail





Figure 4 Historic photographs of Prince of Wales Park from Wellington City Archives with the park in the foreground of the first two images

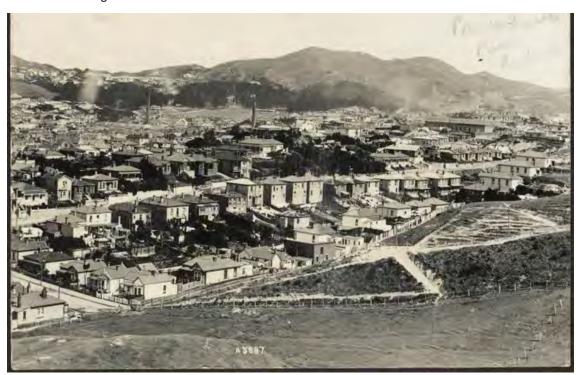










Figure 5 View of upper playing field



Figure 6 Entrance from Hargreaves St



Figure 8 Steps to Bell Rd on right, track to lookout on left



Figure 7 Entrance from Rolleston St



Figure 9 Path to lookout





Figure 10 View to the lookout from the Asquith Tce/Dorking Rd entrance



Figure 11 Sealed path with lighting between Asquith Tce/Dorking Rd & John St via Westland Rd



Figure 13 Clubrooms & carpark near lower playing field



Figure 12 Path & bridge over Papawai Stream



Figure 14 Carpark next to lower playing field & driveway to Salisbury Tce





Figure 14 Lower playing field and sports pavilion



Figure 16 Entrance from Westland Rd and John St



Figure 18 View to the more natural area on the south side of the lower playing field



Figure 17 Lower playing field and driveway from Salisbury Tce



Figure 19 The driveway between the two playing fields with scouring





Figure 20 Papawai Stream restoration group



Figure 21 Organised recreation on the lower playing field

Figure 22 Organised recreation on the upper playing field



Figure 23 Organised recreation on the upper playing field

Figure 24 Casual recreational use



