

CHRISTCHURCH BOTANIC GARDENS Te Māra Huaota o Waipapa

SPATIAL PLAN

A visual representation of the Christchurch Botanic Gardens Masterplan

April 2017

FINAL REVISED



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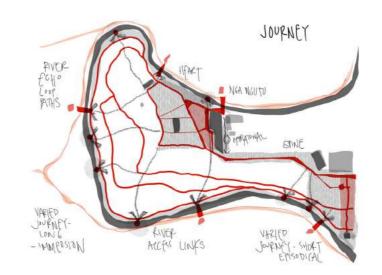
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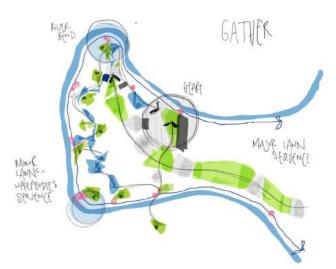


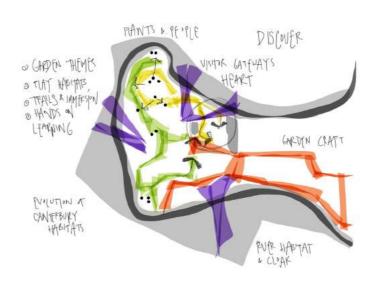
Christchurch Botanic Gardens, Rose Garden, Image: Lisa Rimmer

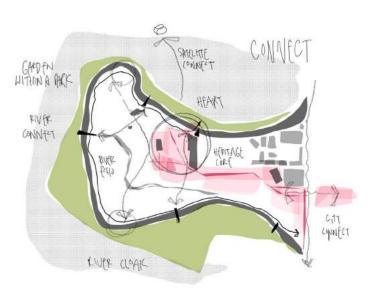
SECTION ONE - INTRODUCTION

- 1.1 Introduction
- 1.2 Informing Documents
- 1.3 Spatial Plan Purpose
- 1.4 Consultation and Design Development











1.1 Introduction

The Christchurch Botanic Gardens (Botanic Gardens/Gardens) of 21 hectares is located on the edge of the city's central business district and is bounded by Hagley Park, the Ōtākaro-Avon River, the Museum, Christ College, Riccarton Avenue, Christchurch **Hospital and Hereford Avenue Arts Centre.**

The Botanic Gardens has a national and regionally important role as a visitor destination for visitors and is well used by the Christchurch community. It is recognised by the Royal New Zealand Institute of Horticulture and has a five star rating with the NZ Gardens Trust. Officially founded in 1863 as a Government Domain, it is one of the oldest Gardens in the country, and is now owned and managed by Christchurch City Council (CCC). The Friends of the Botanic Gardens volunteer group established in 1989 have supported the Gardens through a range of activities and events; organising special interest groups, tours as well as fundraising through plant sales. In 2015, The Christchurch Botanic Gardens Charitable Trust (Botanic Gardens Trust) was formed as a legal entity with the sole purpose of raising funds for major capital works.

The traditional role of a Botanic Gardens for conservation, scientific research and the collection and display of plants is recognised worldwide. However, contemporary Botanic Gardens have a much more diverse role; one which balances goals for conservation and scientific research with visitor experience, education, engagement and enjoyment, and a relevance to local and regional issues. Recent earthquake events in Christchurch have also brought a focus on the contribution of open space networks (including the Botanic Gardens) in the cultural, social and environmental health and wellbeing of a resilient City.

The **Vision** for Christchurch Botanic Gardens developed through the Master Plan and Management Plans adopted

"Is foremost in celebrating and presenting plant diversity through collections and programmes, including promoting the relationships that people have with plants."

The preparation of the Conservation Management Plan for the Gardens in 2013 and the opening of new Visitor Centre in 2014, including nursery and staff facilities, are two significant projects completed following the earthquakes and demonstrate the Council's continued commitment to this vision. To date, however, there has not been an overall spatial structure and framework plan for the Master Plan and Management Plan objectives and projects to be realised. These issues are addressed through the Spatial Plan, which establishes the landscape framework for new projects whilst balancing the modern functions of experience, education and enjoyment alongside research and conservation and the continuing relevance of this important and well loved Botanic Garden.





Christchurch Botanic Gardens, Google Maps

1.2 Informing Documents

A Master Plan and Management Plan for the Botanic Gardens were adopted by Council in 2007 following extensive consultation with key stakeholders and the wider community, and form the key background documents for the development of the Spatial Plan.

The **Master Plan** sets out an overall strategy for Hagley Park and the Botanic Gardens, and a series of priority projects. As a priority the Spatial Plan is to consider:

- Landscape and circulation (Project 6) including the potential for new vehicle and pedestrian connections across the Avon River.
- Botanic Gardens/Hagley Park Visitor Information Centre (Project 31) to be considered in terms of the bridge to the new visitors centre.
- Children's Garden (Project 33) where children and their families can connect with and discover the world of plants. To be located alongside, and in addition to, the Children's Playground (to be revitalised with funds approved through the Long Term Council Community Plan - LTCCP).
- Gondwana Garden (Project 37) including a number of new and existing collections identified in the Management Plan to feature the evolution of Southern Hemisphere flora from ancient, subcontinent and New Zealand endemic species.

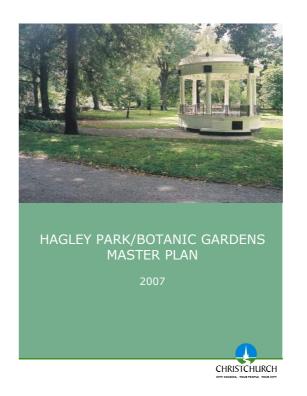
Additional spatial projects for consideration to support the core brief include:

• New Conservatory Complex (Project 39) to replace a number of the small existing houses with poor growing conditions and circulation flows and to provide specialised microclimate for new collections e.g. sub antarctic. Cuningham House is to be retained.

- Redevelopment of the Botanic Gardens/Museum Interface (Project 40) to be considered in general terms only- as plans for the Museum redevelopment are yet to be confirmed- with a focus on the Gardens' interface with the Robert McDougall Gallery and possible alternative future main entrance gate to Rolleston Ave.
- Restoration and Conservation of the Magnetic Observatory Workshop (Project 42) to be considered in terms of improved connections and landscape context only with restoration works for the building to be considered as a separate project.

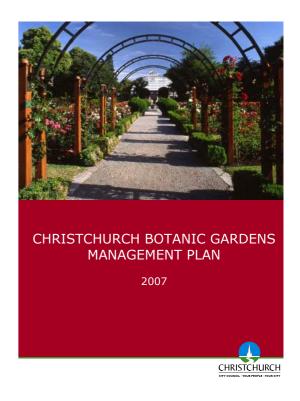
Consideration of how existing and new plant collections and educational programmes might influence the spatial plan, including:

- Botanic Gardens operational facilities (Project 30) to support research, conservation, education and everyday management requirements including volunteer groups. Noting that buildings like the former Visitors Centre may provide interim accommodation in the short and medium term for a science and research facility until a long term solution can be provided in new buildings such as the Conservatory Complex, allowing the former visitors centre to be removed.
- Collection revitalisation (Project 34) as further detailed in the objectives and policies of the Management Plan and supported by the concurrent audit of Gardens assets (see 1.2 below).
- Enhancement of An Education Programme for the Botanic Gardens (Project 36) through both formal programmes and learning facilities and greater visitor engagement and opportunities for inquiry and investigation.
- New Collections for the Botanic Gardens (Project 38) as detailed in the Management Plan and supported by the concurrent audit of the Gardens assets and review of collections in satellite gardens (Project 46).



A Conservation Plan for Hagley Park and the Christchurch Botanic Gardens Volume One: History







ROBERT MCDOUGALL GALLERY CHRISTCHURCH

A CONSERVATION PLAN

The **Management Plan**, as required under the Reserves Management Act 1977, describes the existing context and operations of the Gardens, and sets out specific goals, policies and objectives for administration, functions, operations, circulation, layout and character, and those for identified issues and initiatives such as tree collections and heritage conservation. In particular, the Management Plan sets out named open space areas to be conserved and a draft list of existing and proposed garden collections that are identified to be of particular importance to the Gardens. Working together with the Management Plan, the Master Plan describes further detail as to the appropriate location and spatial configuration for new projects to be integrated within the existing valued natural and cultural features of the Gardens.

The **Conservation Plan** for the Christchurch Botanic Gardens (2013) prepared by Louise Beaumont, Dave Pearson Architects Ltd and Bridget Mosley provides further specific guidance as to the existing natural and cultural fabric and their heritage significance. An earlier Conservation Plan for the Robert McDougall Art Gallery prepared by Dave Pearsons Architects Ltd (2010) provides specific recommendations to enhance the Gallery -Garden interface.

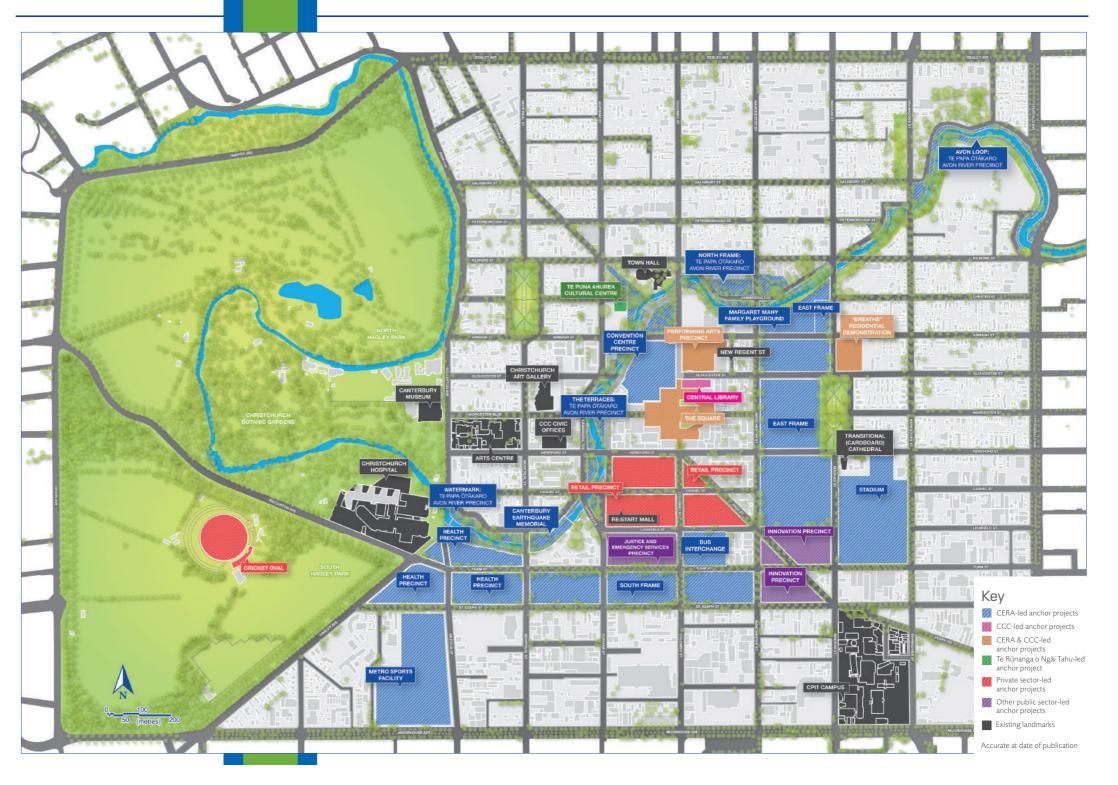
Resources provided by mana whenua Ngāi Tūāhuriri Matapopore Charitable Trust ¹, in their partnership role for the project, were used to help inform the development of the Spatial Plan. In particular:

- Urban Design Guide: Kia Atawhai Ki Te Iwi Caring for the People
- Te Pāpā Ōtākaro: Mahinga Kai
- Cultural Narrative for the Christchurch Botanical Gardens Spatial Plan (2016), as appended to this booklet

Other referenced digital and printed material included details of key anchor projects in the earthquake rebuild and the recent development of the acute services building (ASB) at the Christchurch City Hospital. These projects were reviewed to provide a greater understanding of the existing and proposed context for the Gardens, and to help provide the opportunity for the Spatial Plan to complement wider initiatives in the city while at the same time ensuring a unique point of difference.

Central: Anch jects and Precincts

JULY 2015











New Zealand Government

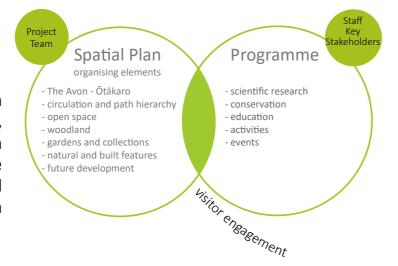
¹ The Matapopore Charitable Trust has been established by mana whenua Te Ngāi Tūāhuriri Rūnanga for the provision of cultural advice on Ngāi Tūāhuriri / Ngāi Tahu values, narratives and aspirations for anchor and other projects associated with the regeneration of Ōtautahi / Christchurch.

1.3 Spatial Plan Purpose

The Spatial Plan will guide the long term future development of the Botanic Gardens, and shows what the Gardens will look like in 10 to 50 years in a way that emphasises the overall vision for the Gardens, its continued enjoyment by visitors and relevance in a dynamic and changing city.

The Spatial Plan is a 'top down' or high level tool that 'gives effect' and positions the projects and objectives of the Master Plan and Management Plan, but does not delve into specific layout and detail. The Spatial Plan needs to be flexible enough to accommodate evolving ideas and manage living collections, while providing a fixed spatial framework for comprehensive development. The purpose of the Spatial Plan is to visually portray how the various complex components of the Botanic Gardens can be woven together to enrich visitor experience and engagement, and improve operation and management. This is supported by imagery and documentation that can assist with fundraising initiatives.

At the same time the Council is carrying out a 'bottom up' Audit of the Botanic Garden assets – including all hard (paving, buildings, services etc) and soft (gardens, collections and trees) landscape features. This Audit is likely to be completed in parallel with the Spatial Plan and will provide important detail around the condition of existing features that will feed into the detailed programme and process to implement the Spatial Plan.



Typically, a Development Plan would follow the Spatial Plan process, identifying distinct projects, priorities and a programme that can be used to cost and approve budgets over the next 10+ years. Individual projects can encompass site wide initiatives, such as new and revitalised collections, or discrete development such as a new bridge connection. Projects are further detailed through concept, developed and detailed design; including further consultation and consent processes.

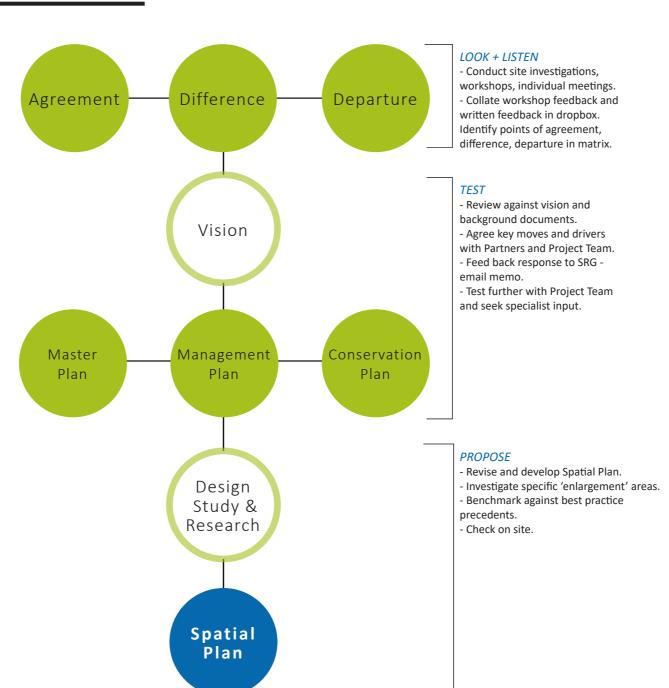
These 'next steps' will work through the detail of implementation, planning and process, and provide an important opportunity to integrate the findings of the Botanic Garden Audit, while ensuring that staff and key stakeholders have a continuing role in helping to bring the Spatial Plan to life.

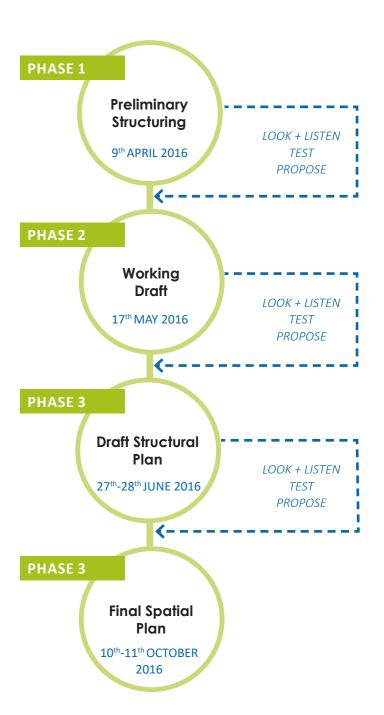


1.4 Consultation & Design Development

The Spatial Plan for the Christchurch Botanic Gardens has been developed through a consultative process including the core project team, partners, specialist staff and key stakeholders. Through individual meetings, workshops, presentations and site walkovers the collective understanding and feedback of the following groups have been integrated to develop guiding principles, the component Structuring Layers and the overall Spatial Plan for the Gardens.

- Project Team (Botanic Gardens and CCC staff and consultant specialists Mene Solutions and Isthmus)
- Project Partners (Christchurch Botanic Gardens Trust and Ngāi Tūāhuriri Matapopore Charitable Trust)
- **Botanic Garden Curatorial Staff**
- Key Stakeholder Reference Group SRG- (CCC Heritage Advisors, Heritage NZ Advisor, Canterbury District Health Board, Canterbury Museum, Christs College, Friends of the Botanic Gardens, Hagley Ferrymead Community Board, Inner City West Neighbourhood Association and Victoria Neighbourhood Association
- Input from interested parties was also sought from the Christchurch Youth Council and Cycling/ Active Transport groups (ViaStrada), CCC Recreation Planners, CCC visitor experience, Crime Prevention Through Environmental Design (CPTED) advisors.





The role of the **Project Team and Partners** was to:

- Assist in identifying and prioritising the major issues which require consideration across the Gardens
- Provide advice and direction to enable the development of various conceptual options for the future development of the Gardens
- Highlight potential opportunities for consideration within the design process
- Act as a source of expertise, information and advice to the wider project team including engagement plans
- Provide feedback on Structuring Layers, Working Draft, Draft and Final Spatial Plan, developed by the Project Landscape Architects
- Ensure that the Spatial Plan is aligned with the vision for the Botanic Gardens and the Master Plan and Management Plan
- For the **Project Sponsor**, to endorse the final Spatial Plan and recommend it for approval by Christchurch City Council.

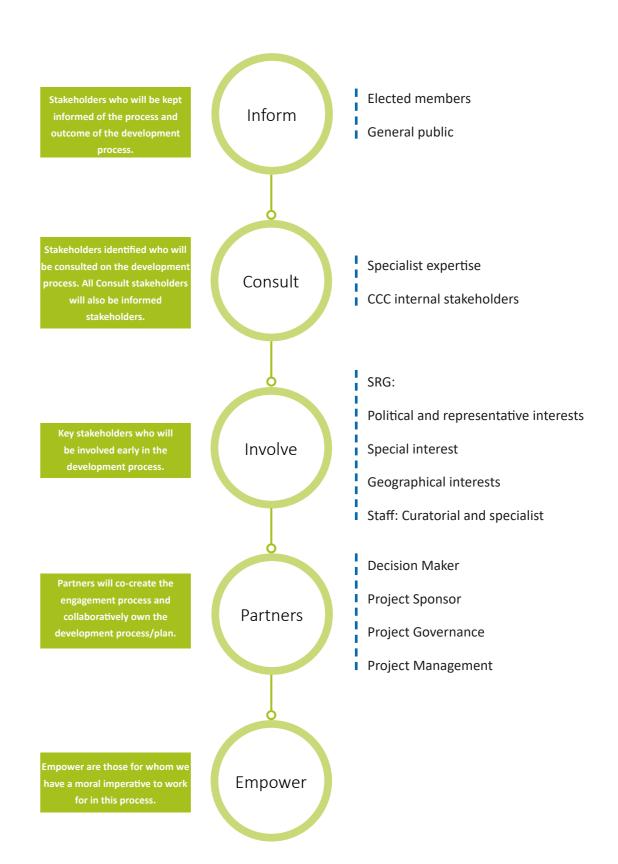
The role of the Curatorial Staff and SRG was to provide:

- Advice and feedback to enable the development of various stages of the Spatial Plan development including review of the Structuring Layers, Working Draft and Draft Spatial Plan
- Input to the development of key considerations for Detailed Areas to guide future concept development for the Play Landscape (including the revitalised playground and Children's Garden), Conservatory Complex and Visitor Centre Bridge connection
- Support the final Spatial Plan to be endorsed for presentation to Council.

Note: Refer to IAP2 spectrum and Stakeholder Framework for a detailed explanation of the level of engagement and stakeholder/ project team commitment. Website reference: www.iap2.org - practitioner tools.

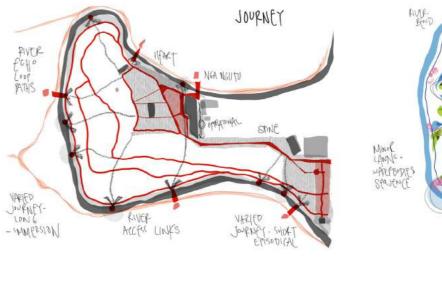


Spatial Plan Stakeholder Workshop 2016

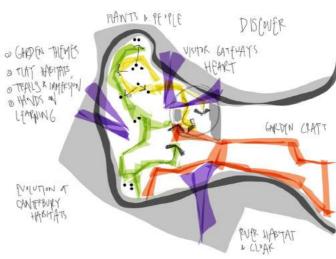


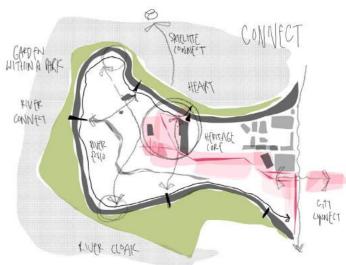
SECTION TWO - CONTEXT AND POSITIONING

- **Role and Relevance**
- **Context and Significance**
- **Themes and Challenges**









2.1 Role and Relevance

Botanic Gardens are well known for their traditional roles as places of beauty and relaxation. They are part of the informal recreation and play network, cater for a range of community events, and are popular with both residents and visitors. Botanic Gardens are a key destination and attraction in most cities.

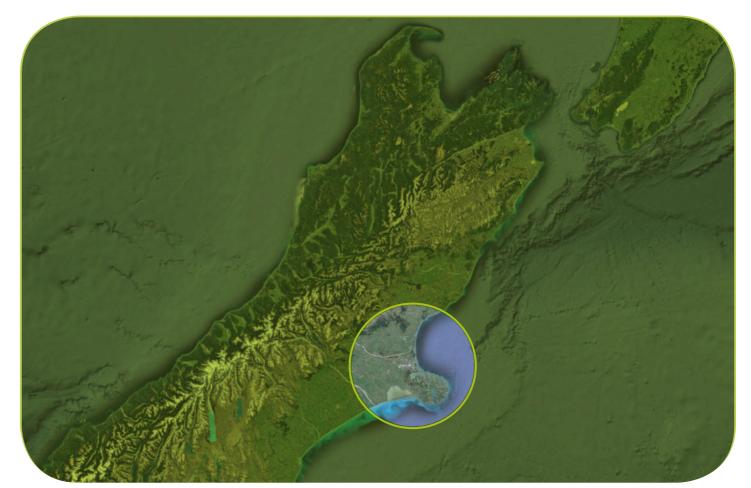
The traditions of horticultural display and plant collection, contributing to scientific inquiry, research, conservation and education initiatives are what set Botanic Gardens apart from 'other gardens'. While protecting these traditions, global trends are toward a redefinition and repackaging of the public face of Botanic Gardens to encourage greater visitor engagement and relevance to a broader range of environmental, social and cultural initiatives at a regional, national or global scale.

This public role is about reviving the human connection with the natural environment - people and plants - and is well aligned with the overall vision of the Christchurch Botanic Gardens. Central themes in this 're-vision' bring a focus and greater emphasis on:

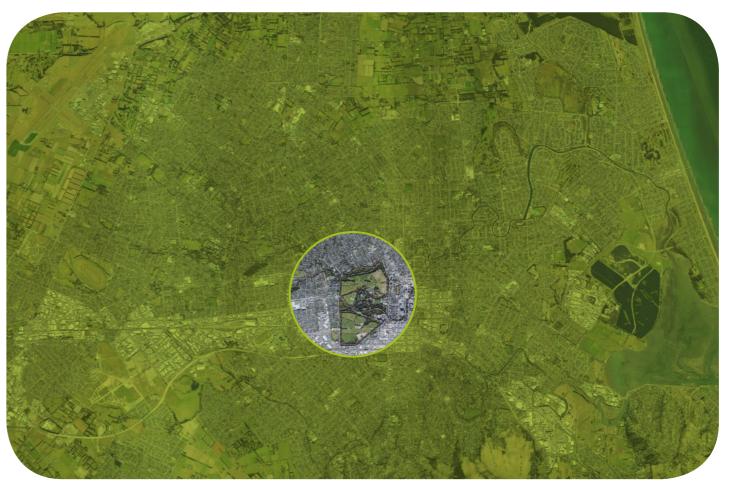
- Place positioning Christchurch Botanic Gardens within the Southern Hemisphere, South Pacific, New Zealand, Canterbury and Christchurch and the unique environment of Canterbury
- Relevance to both local and global environmental and social issues - bringing greater prominence and understanding of contemporary issues such as loss of habitat and diversity in New Zealand flora and fauna and the benefits of a enhanced connections with nature in health and well being
- The natural world and local habitats of which Canterbury Plains and the Ōtākaro provide a diverse and unique point of difference.



South Pacific, New Zealand, South Island Globe, Mark Jowan



Canterbury Region, Google Maps



Christchurch City, Google Maps



Childrens Garden, New York Botanical Garden, Brooklyn Image: Nada Stanish



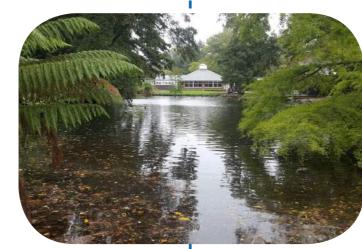
INNOVATIONS

Royal Botanic Gardens Edinburgh, Image: Helen Kerr



PLACE

Royal Botanic Gardens Edinburgh, Image: Helen Kerr



Christchurch Botanic Gardens Image: Lisa Rimmer



Childrens Garden, New York Botanical Garden, Brooklyn Image: Nada Stanish



Royal Botanic Gardens, Melbourne, Childrens' Garden Image: Helen Kerr



Auckland Botanic Gardens Image: Jack Hobbs



Copenhagen, Denmark - 'Nature School' Image: Helen Kerr

2.2 Context and Significance

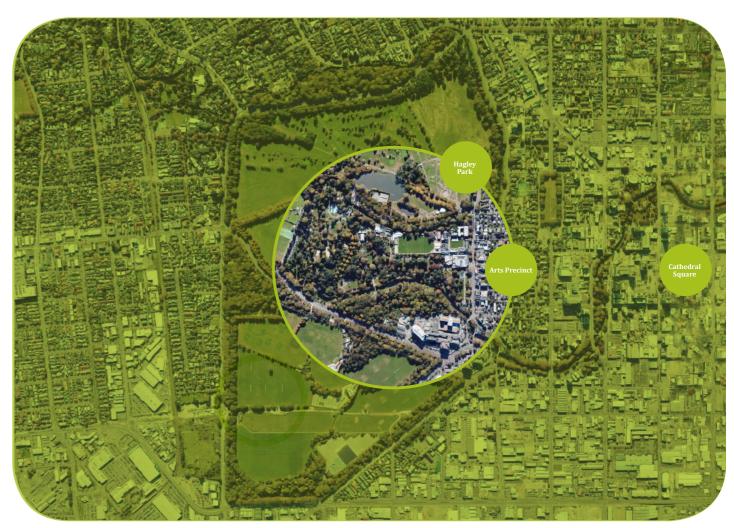
In developing the Spatial Plan, the Gardens' unique context and point of difference is acknowledged as both a 'baseline assessment' of values to be protected, and platform for further opportunities; to achieve the overall vision for the Gardens and the Master Plan and Management Plan projects and objectives. As a summary statement of the Gardens' unique and well loved characteristics, the Spatial Plan has considered:

- Christchurch has one of the earlier Gardens established in the southern hemisphere and has an impressive variety of collections including mature trees and heritage landmarks
- The Botanic Gardens is the most visited public facility in Christchurch with visitor numbers recorded pre earthquake as over 1.2 million visitors per year - (high by world standards) and is a key contributor to the identity of 'The Garden City'
- The size and variety of the plants that can be grown in the Gardens, based on the climate, is the largest in New Zealand. The 'ultimate NZ' growing conditions; from sub-antarctic to alpine to sub-tropical and results in impressive seasonal colour and variety
- The historical and ongoing connection to Antarctic expeditions and equipment calibration is unique to the Christchurch Botanic Gardens, including the Magnetic Observatory and weather station
- The distinctiveness of the regional landscape- from the Alps to the Canterbury Plains and the coastline, provide unique landform, soils and vegetation patterns

- The Gardens are highly valued by the community as a peaceful nature retreat and a place of play, informal recreation, events and treasured memories for local residents across generations
- The Botanic Gardens are valued by horticultural and scientific institutions such as Lincoln University and University of Canterbury
- The Gardens are very close and accessible from the city centre, in contrast to other Gardens in New Zealand, and is linked to other important public places by Worcester Boulevard and the Arts Centre
- The Gardens form part of the Christchurch Cultural precinct and make a significant contribution to the cultural and historic fabric of the city
- The Gardens are within a park (Hagley Park), and further defined by an enclave of the Avon River (Ōtākaro)
- The Ōtākaro Avon River and the central area of Christchurch has particular historical significance to Ngāi Tūāhuriri/Ngāi Tahu for navigation and mahinga
- In comparison to other Botanic Gardens in New Zealand, the landform is predominantly flat and accessible, with unique undulations formed by sandhills, shingle pits and the river terrace.

General issues for the Gardens, as identified in the Management Plan have also been considered, as they underpin the initiatives for change set in the objectives and Master Plan projects and complement global trends for greater visitor engagement and relevance.

"If the Gardens is to achieve the local, national and international status that many believe is appropriate, then it needs to be transformed from the existing civic and colonial model to being a more comprehensive multi - functional botanical garden. In this process of doing so, it will be important not to lose those distinctive features that make the Gardens uniquely 'Christchurch". (p6 Management Plan)



Hagley Park, Botanic Gardens and Christchurch City Centre, Google Maps

2.3 Themes and Challenges

The principles of renewal and revitalisation, bringing innovation through the traditions of collection and display, scientific inquiry, conservation and education, are well aligned with the Christchurch Botanic Gardens vision and the projects and objectives in the Master Plan and Management Plan. In particular this brings a focus on design for:

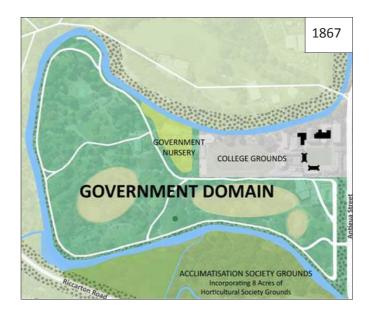
- Peoples real lives, communities and lifestyles including hands on activities, demonstration and take home skills, often building on cultural traditions and understanding of resource management
- Engagement for a wider audience Gardens for all abilities and generations
- Connection with, and greater recognition of the underlying cultural landscape - the Gardens as part of Ōtautahi and its cultural relationship with mana whenua, Ngāi Tūāhuriri
- Contribution to regeneration and resilience initiatives - recognising the Gardens proximity to the Avon River precinct, the Christchurch City Hospital and rebuild anchor projects
- Immersive experience through a sequence of journeys often set along a landscape feature (such as the Ōtākaro - Avon River) or through a themed areas rather than as a spectator or observer in a traditional 'pleasure garden' moving from room to room
- Learning through enjoyment and engagement through playful interpretation, building on the concept of play for all ages. 'Play landscapes' are integrated with and relate to other parts of the Gardens, including areas for structured play and free or nature play. Typical components include areas for bespoke or themed play equipment, children's gardens and education activity areas, and play trails as well as site-wide playful interpretation and features to promote inquiry and discovery.

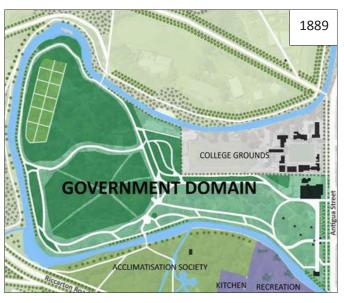
Recent earthquake events in Christchurch bring a further focus to the importance of open space areas and Botanic Gardens in resilient cities; as a resource that can help ensure economic, environmental, social and cultural health and well being. In addition, key rebuild and publicly funded anchor projects are located in close proximity, and will have an impact on the Gardens immediate environment over the next 5-10 years.

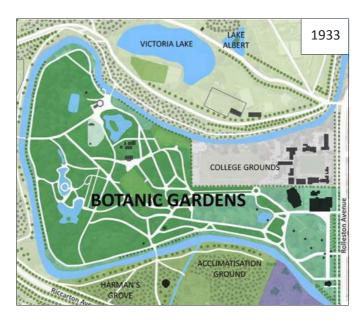
This emerging context presents both an important integration challenge, to make sure the Gardens 'work' with and do not replicate other initiatives, and an opportunity to complement and help support aligned projects; particularly along the Avon River.

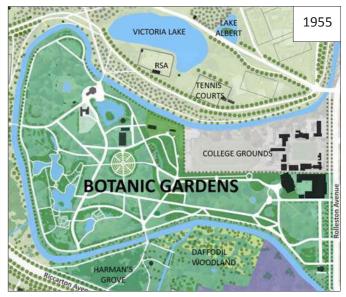
Integration also means that the Spatial Plan needs to make the most of emerging design thinking for a resilient city. An important aspect of this is the way in which the Spatial Plan has been developed through an inclusive consultative process with the project team, partners, staff and the stakeholder reference group. It is also clear that Ngāi Tūāhuriri have a key role to play in the rebuild, contributing both practical strategies for design to enhance health and well being as well as ensuring a greater understanding of cultural relationships.

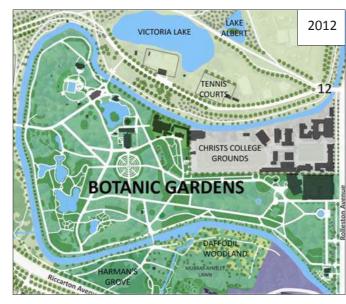
This work has been greatly assisted by Matapopore Trust's programme to develop site specific narratives, design guidance and through their hands on role, working as part of project design team. Recognising their status as mana whenua and design understanding to assist the Spatial Plan, Matapopore are partners in the project and have had an important role in helping to shape the overall principles and key aspects of the framework and structure.











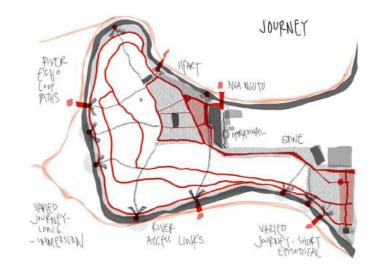


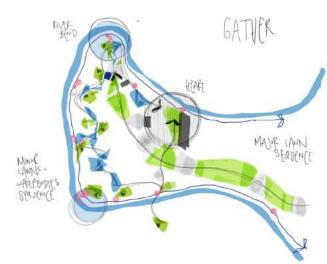


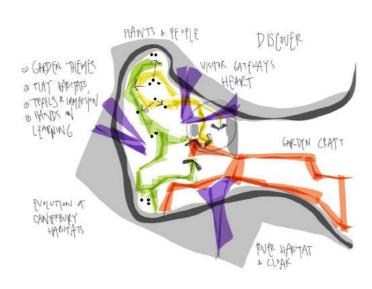
Final Spatial Plan 2016

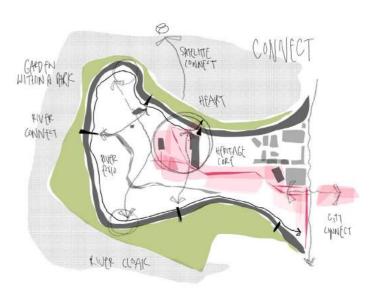
SECTION THREE - SPATIAL PLAN OVERVIEW

- **Vision and Principles**
- 3.2 Spatial Plan
- **Structuring Layers**
 - Journey Haerenga
 - Gather Kohikohi
 - Discover Rapu ora
 - Connect Hononga wāhi, Hononga tāngata











3.1 Vision and Principles

The overall vision for the Botanic Gardens: "Is foremost in celebrating and presenting plant diversity through collections and programmes, including promoting the relationships that people have with plants."

Bringing together this vision with the projects and objectives of the Master Plan and Management Plan, the overall concept for the Spatial Plan is to realise a Shared Landscape and Garden Heart centred around the new Visitor Centre and Cuningham House.

A **Shared Landscape** positions the Gardens as a place for all ages and abilities and it acknowledges the opportunities for greater visitor engagement and relevance by innovating through traditions. Pivotal to this concept is a strengthened relationship with Ngāi Tūāhuriri.

The *Garden Heart* builds on the projects already completed in the Master Plan; to establish the new Visitor Centre and restore public access to Cuningham House. Where 'old meets new,' these features provide the beginnings of a central hub that future Master Plan projects can help strengthen and be linked through sequenced journeys and improved circulation.

There are four main Structuring Layers and principles of the Spatial Plan that have been developed to help realise this concept with input from the project team, partners, staff and key stakeholders. These Structuring Layers bring together the requirements of the Master Plan and Management Plan, cultural narrative assistance from Matapopore, and 'best practice' design strategies that fit with the unique context of the Christchurch Botanic Gardens.

The completed Spatial Plan has been tested back against these principles and more detailed objectives for each Structuring Layer to ensure that it delivers the desired outcomes. The design principles will continue to be a key reference point in the future, particularly when developing concepts and detailed design for implementation.

Journey - Haerenga

Improve the arrival experience for visitors and ability for intuitive, self-quided navigation through the Gardens, as well as safe and efficient management and operation.

Gather - Kohikohi

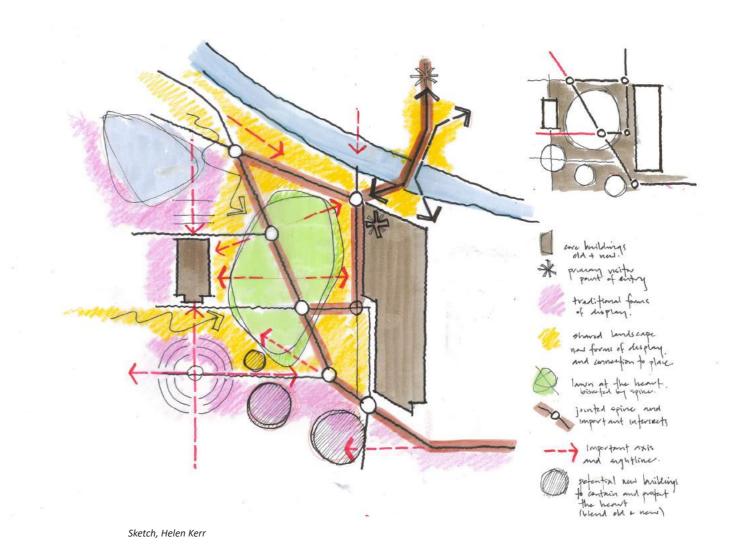
Build on traditions of resource gathering places for mahinga kai, and people gathering places for manaakitangawelcoming and hospitality

Discover - Rapu ora

Enrich visitor experience and engagement through garden themes that tell a story about the innovative traditions of the Garden, its place in the Southern Hemisphere and how this creates unique connections between people and plants

Connect - Hononga wāhi, Hononga tāngata

Bring prominence to the Gardens distinctive and well-loved features, and embed in the landscape framework greater relevance to local, regional, national and international initiatives





Christchurch Botanic Gardens Visitor Centre Image: Christchurch City Council

3.2 Spatial Plan

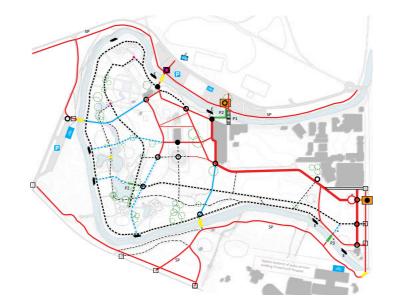
The Structuring Layers are developed through the Spatial Plan, as described below, with objectives for each layer helping to realise the overall concept. A key focus in this process has been the way in which Existing Landscape and Built Fabric (as illustrated on pg 21) has been considered and values retained, whilst at the same time providing for the projects and objectives of the Master Plan and Management Plan and the overall vision for the Botanic Garden. Looking back - to the history of the Gardens - to move forward, has been an important kaupapa or underlying principle for the Spatial Plan development process with new and reinterpreted features used to strengthen and celebrate existing values. At the same time as recognising the Botanic Gardens' dynamic history, the role of the Spatial Plan is to help shape and manage change to ensure future relevance and visitor enjoyment.

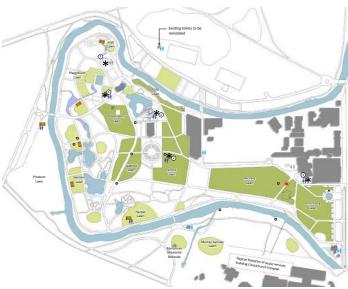
The Spatial Plan provides an overall view and vision for the Botanic Garden to be realised over the next 10-50 years. Further detail as to the important components that underpin this plan are illustrated within the Structuring Layers and the Mahinga Kai overlay, with a focus on the visitor experience: to journey, gather, discover, and connect.

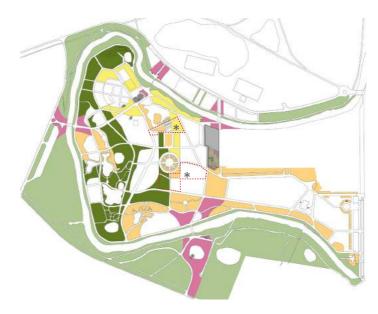
In summary, the **Spatial Plan** proposes:

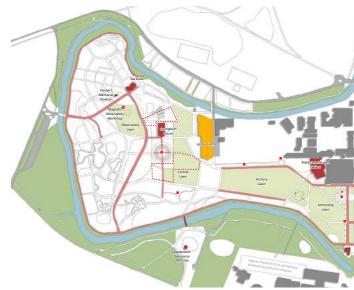
- A sequence of **journeys** through a clear hierarchy of paths and visitor gateways with heritage elements retained to reinforce the traditions of the promenade, social gathering and logical 'loops' for more intuitive way finding. New bridge and path connections are designed to provide improved safety and accessibility, and to bring greater prominence to the heart of the Gardens, the main entrances, the Avon River, Ōtākaro and lesser known collections.
- Places to gather with the valued network of open space areas retained in a sequence of minor and major lawns including improved facilities (small scale shelters, toilets and operational storage) to encourage diverse and more inclusive use of the Gardens with a range of spaces for varying scaled events. New water features add to the memorable sequence of ponds and add to the play landscape of the revitalised playground and Children's Garden.

- Garden themes or narratives to discover with existing and new collections identified under the themes of Garden Craft, the Evolution of Canterbury Plants, Plants and People, The River Habitat/Cloak and River Gateways. Themes help to tell the story of our plant connections, for example, through the continuing craft of formal and informal plant display or the evolution of Ōtautahi plant origins, and plants originating from Gondwana. The plant collections identified in the Master Plan can be grouped and rationalised through guiding narratives. Garden narratives are also a useful tool to support journey and experience; as they provide natural cues for wayfinding. For example, the *River Habitat/Cloak* narrative helps to emphasise the path of the Avon River and People and Plants, Garden Craft and the Evolution of Canterbury Plants all lead visitors to the emerging heart of the Gardens.
- To **connect** people with place, celebrating the Garden as a continuing cultural landscape with a unique point of difference, recognising the importance of both built and landscape heritage and the Gardens' distinct setting within a Park close to the city. Merging 'old and new', the Spatial Plan retains and brings greater prominence to the Avon River, Robert McDougall Art Gallery and the Magnetic Observatory, whilst at the same time providing a framework for new traditions of visitor experience and enhanced relevance, as intended by the objectives and projects of the Management and Master Plan.
- The mahinga kai overlay works across all of the Structuring Layers, recognises the cultural relationship of Ngāi Tūāhuriri in the Gardens and is an important design principle to help implement the Master Plan projects. Mahinga kai, translated simply as the knowledge and values associated with customary food gathering places and practices, is used to enhance wayfinding cues through the concept of journeying and trail signs. Mahinga kai envisages a more immersive experience, centred around the Children's Garden, and the ongoing connections of people to plants and the habitats of Canterbury and the Ōtākaro River.











Approach to visitors centre from existing footbridge, Christchurch Botanic Gardens, Image: Lisa Rimmer



Herbaceous Border Garden Walk, Christchurch Botanic Gardens, Image: Lisa Rimmer



GATHER

Visitors Centre and Lawn, Christchurch Botanic Gardens, Image: Emma Smales



Nature play trials near playground, Christchurch Botanic Gardens, Image: Lisa Rimmer



Cuningham House, Christchurch Botanic Gardens, Image: Lisa Rimmer



DISCOVER

Existing waterbody, Christchurch Botanic Gardens, Image: Helen Kerr



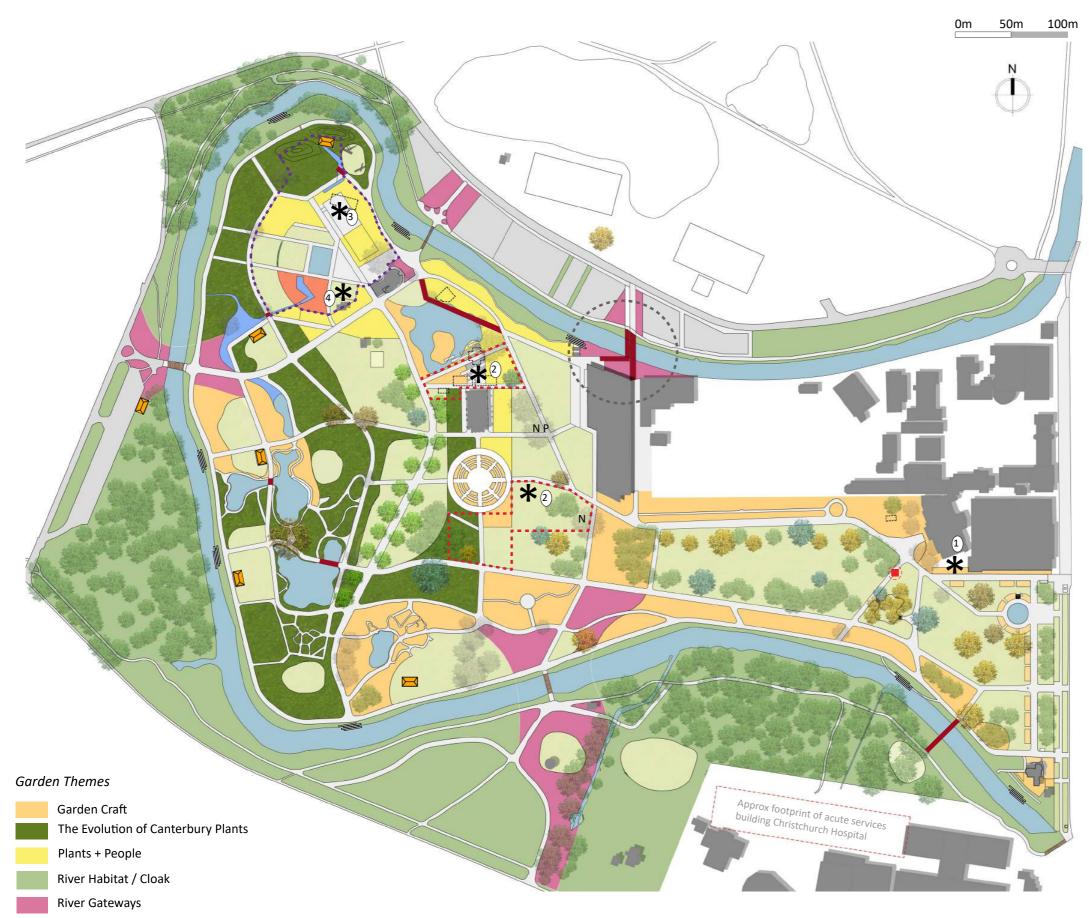
Cuningham House, Christchurch Botanic Gardens, Image: Lisa Rimmer



Magnetic Observatory, Christchurch Botanic Gardens Image: Lisa Rimmer

JOURNEY

Spatial Plan



Note: garden theme areas may include treed lawns

KEY

Existing buildings to be retained

Buildings + Structures for staged removal and possible interim re-

Proposed Conservatory Complex indicative envelopes - Central Lawn Setting + Lakelet setting

Proposed Buildings - foot print tbc 1. Possible shared toilet facilities as part of Robert McDougall/Museum redevelopment

2. New conservatory complex building/sindicative location.

- 3. Pavilion / Outdoor classroom
- 4. Changing Rooms/Toilets- Play Habitat

Proposed shelter - footprint tbc

Existing Structure for staged removal -**Evelyn Couzins Memorial Gateway**

Existing Bridges

Proposed Visitor Centre Bridge envelope and indicative footprint

> Proposed bridges /board walk over waterbody and as woodland/ DHB connection

Commemorative Trees

Notable Trees

Play Trees

Lime Avenue Trees

Structural tree groupings

Trees for staged removal /no succession tree planting for improved circulation / sightlines N, P = macrocarpa

N = atlas cedar

Lawn areas

Existing Water Bodies

Proposed Water Bodies

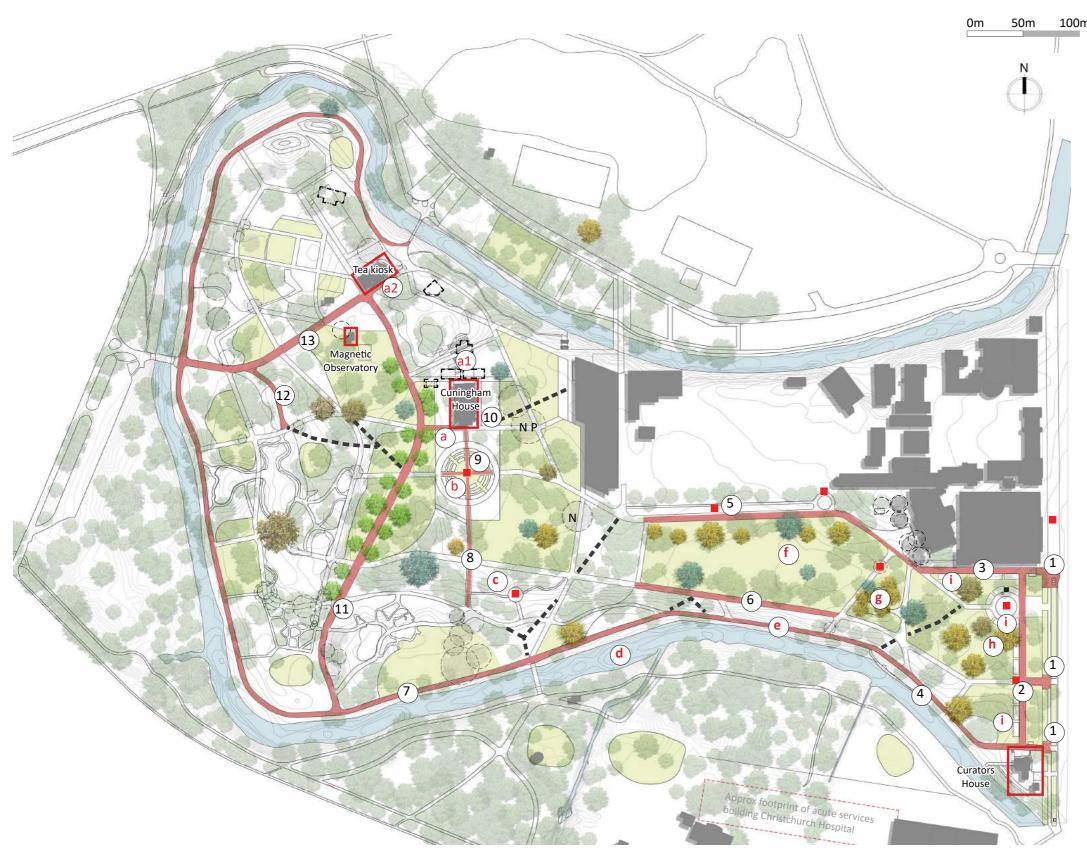
Imagination Gardens- structured play + sculptural + water play

Indicative envelope for Play Landscape-Children's Garden and Playground

Note:

- Staged removal of buildings to be coordinated with development of new replacement facilities + further consultation to include associated community groups/ families
- Heritage values as identified in Conservation Plan for Christchurch Botanic Garden (2013)

Existing Landscape and Built Fabric



- (a) Rosary, Cuningham House
- a1 Show Houses and setting*
- (a2) Tea Kiosk and lakelet*
- **b** Rosary

(e) River Walk

- Cherry Mound **8** Pine Mound
- d Avon/Ōtākaro
 - (h) Armstrong Lawn Bedding display practice

(f) Archery Lawn

Commemorative Trees



Notable Trees - internal classification





Lime Avenue

Trees staged removal/ no succession planting N (notable) - atlas cedar N P (notable/play) - macrocarpa

KEY

- Paths high/mod/some* heritage value
 - 1. Footwalks from Rolleston Ave
 - 2. South Walk
 - 3. Museum Walk
 - 4. River Walk
 - 5. Hebaceous Border Garden Walk
 - 6. Perimeter Archery Lawn Walk
 - 7. Walk from South Bridge to Harper Lawn
 - 8. Axial Path
 - 9. Rosary Path
 - 10. Portion of Central Walk*
 - 11. Beswicks Walk
 - 12. Walk leading to Water Garden*
 - 13. Dividing Path
- ■ Paths Staged for removal
- Buildings- of high/mod heritage value Tea Kiosk (high) - original 1910, current 1999 Magnetic Observatory (moderate) - original 1901, workshop remaining 1941 Cuningham House (high) - 1924 Curators House (high) - current 1918. Site 1872.
- **E = 3** Buildings staged removal following provision of replacement facilities. Fern House - 1981 (1956) Townend - 1956 (1914) Garrick - 1957 Gilpin - 1964 Foweraker - 1967
- Statues or sculptures of high/mod heritage

Peacock Fountain - 1911

Moorhouse Statue - 1885 Rolleston Statue - 1905

Hunter Sundial - 1913

Rose Garden Central Sundial - 1954

Jamieson Tazze - 1916 Brick Wall + Gate - 1915 Rolleston Ave Wall - 1963 Rolleston Ave Gate - 1912

- Statues or sculptures- For staged removal. Evelyn Couzins Memorial Gateway. 1950. Some/Local value. To improve sightlines/ path alignment to Robert McDougall
- River, lawn, identified garden areas and designed landscape/spatial organisation of high/mod/some* heritage value

- Staged removal of buildings to be coordinated with development of new replacement facilities
- + further consultation to include associated community groups/ families
- Heritage values as identified in Conservation Plan for Christchurch Botanic Garden (2013)

3.3 Structuring Layers

The Structuring Layers underpin the overall Spatial Plan and provide further detail relevant to the implementation of particular projects and objectives in the Master Plan and Management Plan. For each layer there is a guiding objective and a series of more detailed principles used to test and refine the design response through the working draft, draft and final Spatial Plan.

Journey - Haerenga

Improve the arrival experience for visitors and ability for intuitive, self-guided navigation through the Gardens, as well as safe and efficient management and operation.

Journey Principles

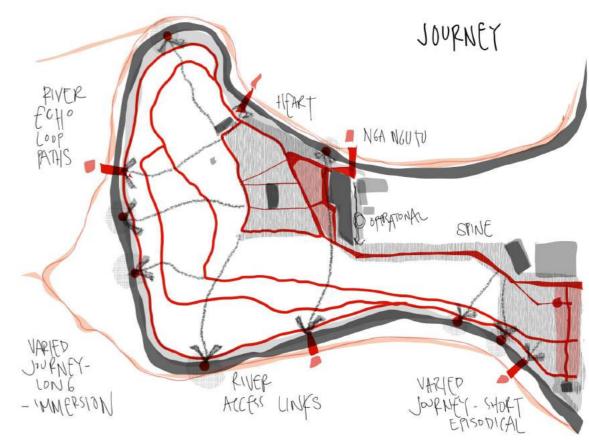
- Evolve Christchurch Botanic Garden (CBG) into the most accessible and inclusive Botanic Gardens in NZ, benefiting the health and wellbeing of all ages and abilities
- Position the *nga ngutu (gateways)* where they can be obvious, exciting and welcoming, and build on the uniqueness of the river crossings
- Provide direct pedestrian entry to the heart of the **Botanic Gardens**
- Improve operations access and circulation, and remove heavy vehicle conflicts while retaining the feel of a 'working garden'
- Build on the fragmented heritage path framework by retaining an *obvious spine* that anchors the heart to city connection, and legible loop paths that echo the river 'circumferential promenade' and engage with collections
- Support cycle initiatives in the city by catering for cycling routes and bike facilities in the outer gardens and at primary entry points

- Create physical and visual connections to Ōtākaro (Avon River), with recognisable river linkage paths that provide access over or down to the water
- Assist wayfinding with a hierarchy of consistent path widths and materials that support pedestrian volumes and mobility distances from the heart and gateways
- Provide varied journeys for different users that engage with the Gardens and ensure that wandering and discovery along offshoot 'episodical walks' and minor trails is encouraged for immersion in the plant world, fun and learning
- Tie path framework to wayfinding cues and landmarks, and locate signage hubs at key nodes to assist with re-orientation and journey planning between destinations
- Adopt Ngāi Tūāhuriri traditional methods of marking passage and navigation such as naming, landscape features, taonga native tree and plant markers (tohu).

- Extend visitor 'roaming range' and engagement by providing basic comfort (toilets, shade, shelter, rubbish, drinking water)
- Extend the night experience with safe journeys to destination hubs.

Key Projects

- Landscape and circulation (6)
- Support/enabling strategy for all other projects e.g. collection revitalization and new collections.



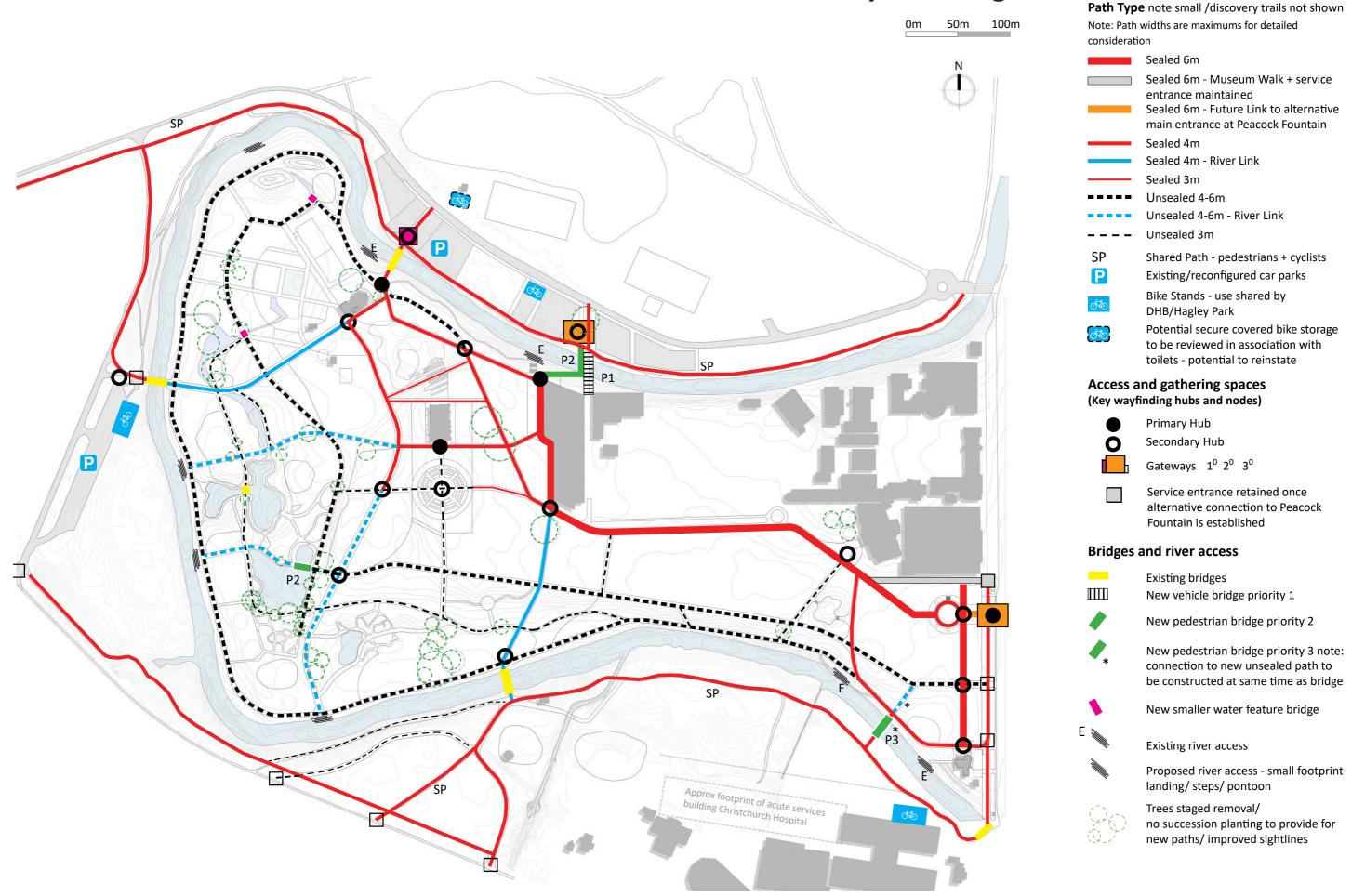
Sketch, Helen Kerr

Implementation notes

- New path connections may be logically packaged with other Spatial Plan projects, as enabling or consequential works
- The new gateway connection proposed in line with the Peacock Fountain will require further investigation and consultation including coordination with proposed Museum redevelopment
- Trees shown for staged removal are to achieve new path alignments and improved sightlines e.g. to open up views of Cuningham House. Specific projects e.g. the Children's Garden will assess and confirm any requirements for tree removal
- Design considerations for the Visitor Centre Bridge and improved interface with the Robert McDougall Art Gallery is further illustrated in Section 5 with proposed vehicle circulation post bridge construction shown on the Vehicle Circulation Plan - pg 24.

Journey - Haerenga

KEY



Imagery portraying potential river access solutions that are sensitive to landscape values and amenity and have a light footprint.



Rochetaillée Banks of The Saone, Image: In Situ

Shanghai Houtan Park,

Image: Turenscape



Water Edge Interaction Kopupaka Reserve, Auckland Image: David St George



River Walk Seating, Rochetaillée Banks of The Saone, Image: In Situ



Existing landing with steps adjacent to the visitors centre, Christchurch Botanic Gardens Image: Lisa Rimmer



Integrated observation platforms and functional solutions, Renaturation of the River Aire Image: Superpositions

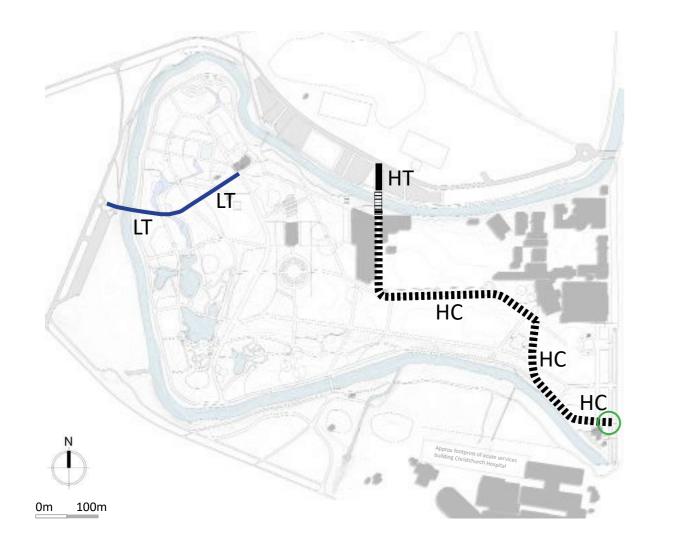


Steps integrated with river bank Rochetaillée Banks of The Saone, Image: In Situ



Ōtākaro - Avon River, typical river bank profile Christchurch Botanical Gardens, Image: Botanical Garden Photography

Journey - vehicle circulation plan - enabled by bridge construction





Routes:

HT Heavy vehicle traffic - everyday

HC ■■■ Heavy vehicle - construction projects and external maintenance

Light traffic - external deliveries to Tea Kiosk

New vehicle bridge priority 1



-Crane access for tree maintenance/felling - entry point nominated

> -Crane movement through Botanic Gardens to be managed through works health and safety plan



HC - Entry from Rolleston Avenue, Christchurch Botanic Gardens Image: Lisa Rimmer



LT - Entry from Riccarton Avenue through Carpark, Christchurch Botanic Gardens, Image: Lisa Rimmer

Gather - Kohikohi

Build on traditions of resource gathering places for mahinga kai, and people gathering places for manaakitanga - welcoming and hospitality



- Retain and extend sequence of major lawns (Armstrong, Archery, Central, Observatory) into the heart of the Gardens as a welcoming space for visitors
- Retain the open and compositional character of lawns, framed by 'interesting edges' that encourage interaction with plant collections (trees, paths, plant collections, play trails, buildings, interactive art, information)
- Establish a *necklace of minor lawns* as resting, playful and social places for family and small groups, and as landscape navigational devices for wandering and exploration
- Encourage inhabitation and a balance of intergenerational activities in gathering and destination spaces by making them inviting, safe and comfortable (provision of consumerables and collateral-toilets, shade, shelter, rubbish, food, water)

- Adopt Ngāi Tūāhuriri traditional methods of marking passage and navigation, and embed whakapapa in the landscape - such as naming, landscape features, taonga native tree and seasonal plant markers, (e.g. flowering kowhai, ti kouka, harakeke), and mahinga kai- food resources
- Reveal and restore the water sources and waterway connections that discharge into Ōtākaro (Avon River), and connect 'bend to bend' water bodies that signal wakawaka, nohoanga and mata kai traditional food gathering and harvesting.

Master Plan Projects

• Landscape and circulation (6)

Sketch, Helen Kerr

- Children's Garden (33)
- Enhancement of an Education Programme for the Botanic Garden (36)
- Redevelopment of the Botanic Garden/Museum Interface (40)
- Support/enabling strategy for all other projects e.g. collection revitalisation and new collections.

Implementation notes

- The Spatial Plan has prioritised the retention of open space areas. The process to confirm any changes to named lawns will occur through specific project consents including consultation
- Concept design for additional shelters will include consideration of context, appropriate look and feel/ design quality and options to provide for appropriate storage facilities with further input from staff. All new toilet facilities are required to provide accessible units.

- the importance of the river bends for seasonal kainga-

Gather - Kohikohi 50m 100m **Existing Water Bodies Proposed Water Bodies** Major Lawns Minor Lawns including treed lawns. Notes: Existing toilets to be - indicative size, shape and reinstated location -smaller treed lawns are not Hall Lawn shown Existing buildings - toilet facilities * Existing building staged for Playground removal - toilet facilities **Existing Structure for staged** removal - Evelyn Couzins Memorial Gateway Proposed buildings Observatory - toilet facilities 1. Possible shared facilities as part of future redevelopment of Robert McDougall/Museum complex *2 2. New conservatory complex - indicative location in central lawn setting or north of Cuningham House, footprint tbc 1 Lawn Pinetum Archery 3. Pavilion / Outdoor Lawn classroom to replace existing Changing rooms 4. Changing rooms/ toilets alongside Herbert Memorial Armstrong Pavilion Lawn Harper Proposed shelter - footprint tbc. To include operational facilities/ small scale storage where appropriate Murray Aynsley Proposed shelter toilet facilities - footprint tbc Memorial Rotunda Approx footprint of acute services **Existing Sculptures** building Christchurch Hospital

KEY

Discover - Rapu ora

Enrich visitor experience and engagement through garden themes or narratives that tell a story about the evolving landscape and garden traditions of Canterbury (Waitaha) and Ōtautahi (Christchurch).

To provide for Management and Master Plan collections these themes are logically grouped under: Garden Craft, the Evolution of Canterbury Habitats, People and Plants, the River Habitat/Cloak and River Gateways

Principles

- Create spatial opportunities to embrace international standards of collection and display, and elevate and evolve the local, social and environmental relevance of collections over time
- Provide clarity and coherence in the way that plant displays are organised and woven together as *learning environments*, so that new / rejuvenated/ reorganised plantings contribute to a bigger picture and understanding
- Create a *flexible framework* that allows for plant collections to be grouped or distributed by theme, and to respond to localised growing conditions, landform and tactical opportunities
- Strengthen opportunities for visitors to engage in inquiry, discovery, hands-on interaction and learning through play for all ages and abilities
- Tell the story of the *origins, habitats and natural* resources of the region -Waitaha, building on traditions of whakapapa and tikanga and the varied use of plants as a resource for survival

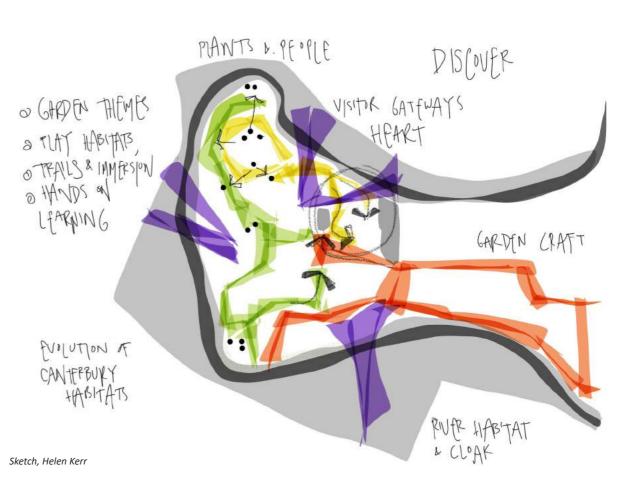
- Create 'play habitats' and play trails that immerse children in the natural world reflect wider garden narratives, and encourage kitiakitanga (care of resources)
- Build on existing core collections that represent Garden City traditions of colour and seasonal display attributed to diverse climatic and growing traditions, and innovate through unifying themes
- Relate garden narratives to **Ōtākaro (Avon River)**, by stitching across the river at arrival points and gateways, and weaving together as kaupapa in the heart of the Botanic Gardens.

Master Plan Projects

- Landscape and Circulation (6)
- Children's Garden and revitalised play area (33) the Play Landscape
- Collection Revitalisation (34)
- Enhancement of an Education Programme for the Botanic Gardens (36)
- Gondwana Garden (37)
- New Collections (38)
- New Conservatory Complex (39)

Implementation Notes

- The Spatial Plan details an overall objective and landscape character notes for each narrative along with a list of the possible range of existing and proposed gardens/collections that fit in each area. Specific collection projects will establish a process for implementation of these themes and will work through the details; to further refine the boundaries and the schedule of collections which may rationalise and de-accession some collections. This will combine information from the 2016 Review of Operations (asset audit review) as well as planning for collections to be located in satellite gardens
- All garden themes/narratives provide for exotic and indigenous species
- Named and unnamed treed lawns may be included in a garden narrative/theme area
- Key design considerations for the Children's Play Landscape (Children's Garden and Playground) are included in Section 5.



Discover - Rapu ora

KEY



Garden Craft

Celebrating the continuing traditions of display, 'colour craft' and heritage and geographical collections

From colourful bedding and herbaceous perennial displays to heritage and 'other' world habitats

The Evolution of Canterbury Plants

Origins to ecology. Mapping the evolution of southern hemisphere and Canterbury plant habitats

From giant trees in lawn and 'island' plantings to immersive layered bush experience and forest understorey

Plants + People

A continuing whakapapa. Plants for people - survival, early cultivation and new traditions/innovation for sustainability, and conservation

Includes raised and 'worked' beds, defined garden plots and demonstration/ experimental areas

River Habitat / Cloak

Bringing prominence to the riparian environment, the traditions of wakawaka and nohoanga protected by a woodland

Open mature woodland trees, seasonal bulbs, understorey planting and riparian restoration for habitat

River Gateways

Plants to welcome, enhance wellbeing to engage the senses

Colourful, seasonal plantings of mixed height and scale

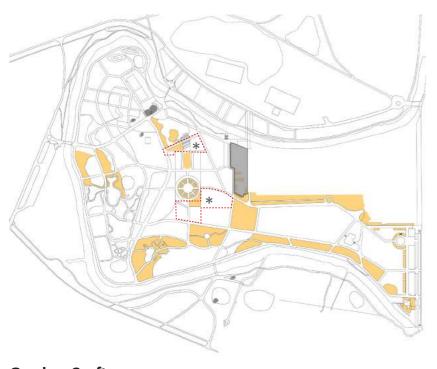
New Conservatory Complex - indicative location, Central Lawn setting or north of Cuningham Housewill extend garden themes including new back of house growing areas

Note:

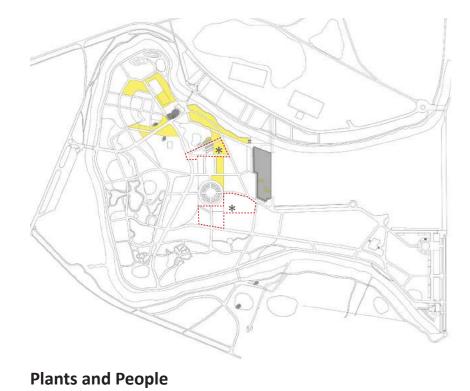
- all garden themes provide for exotic and indigenous species. Existing + proposed collections included in each area are TBC through more detailed evaluation + design - Named + unnamed treed lawn areas may be included within garden themes



Discover - Rapu ora



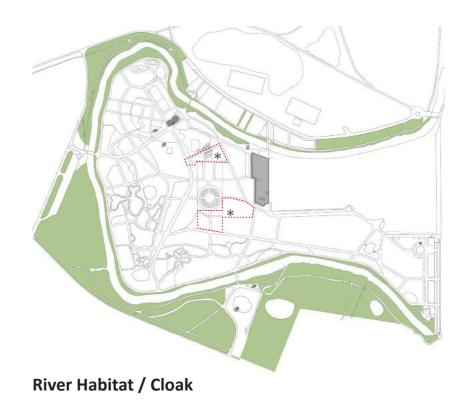
Garden Craft

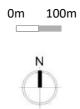


Evolution of Canterbury Plants



River Gateways

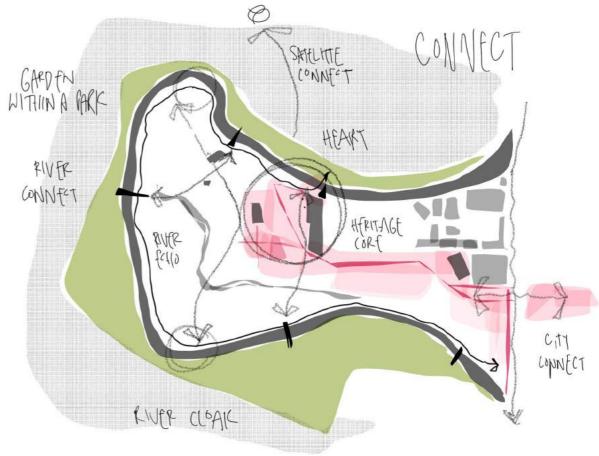




	GARDEN CRAFT	EVOLUTION OF CANTERBURY PLANTS	PLANTS AND PEOPLE	RIVER GATEWAYS	RIVER HABITAT / CLOAK	
GARDEN THEME OBJECTIVE	Celebrating the continuing traditions of display, 'colour craft' and heritage and geographical collections.	Origins to ecology. Mapping the evolution of southern hemisphere and Canterbury plant habitats.	A continuing whakapapa. Plants for people- survival, early cultivation, mahinga kai and new traditions/innovation for sustainability and conservation.	Plants for wellbeing, welcome; to engage the senses; to celebrate the river crossings as a gateway unique to the Christchurch Gardens	Bringing prominence to the riparian environment, the traditions of wakawaka and nohoanga protected by a woodland cloak	
	From colourful bedding and herbaceous perennial displays to heritage and 'other' world habitats.	From giant trees in lawn and 'island' plantings to immersive layered bush experience and forest understorey.	Includes raised and 'worked' beds, defined garden plots and demonstration/ experimental areas.	Colourful, seasonal plantings of mixed height and scale.	Open mature woodland trees, seasonal bulbs, understorey planting and riparian restoration for habitat.	
LANDSCAPE CHARACTER NOTES	Annuals, herbaceous perennials and perennials, show case of colour, formal plant groupings e.g to emphasise views, experimental /uncoventional display through to layered exhibition of exotic forest habitats	Herbaceous perennials and perennials of varying scale and habit, combining the intensely colourful with more muted tones and play of light and shadow. Naturalised groupings for habitat types contrasted with 'clipped' and formal use of indigenous plants	Annuals, herbaceous perennials and perennials of varying scale and habit, for food, fibre, medicine and construction. Demonstrating take home techniques for small to large gardens and resources to gather; displayed in an 'orderly yet playful frame'	Plantings of varying scale including specimen trees, single or simple colour palette and seasonal and /or scent emphasis - as clear markers along the river and to complement other elements in the river gateway	Herbaceous perennial and perennial, river bank habitat species and broadscale woodland species including tree and bulb collections. Naturalised groupings and coherent palette to emphasise the path of the river with tree and shrub species creating sense of scale and enclosure for private celebrations and transition to parkland experience	
POSSIBLE COLLECTIONS/ GROUPINGS as identified in the Management Plan (and/or Master Plan)	EXISTING COLLECTIONS/GROUPINGS - Perennial/ Herbaceous Border - Peace Garden - Bonsai Trees - Rosaceae - Cacti and Succulents - Bulbs - Azalea and Magnolia Garden - Alpine Collection - Heritage Rose Collection - Temperate Asian Collection - Exotic Rock Garden - Erica and Calluna Border - Modern Cultivar Rose Garden - Heritage Roses - Temperate Asian Collection - Ilex Border - Scarlet Oak Border (removed?) - Rhododendron Border - Cherry Mound - Plants of Southern Africa - Museum Border - College Border - Dahlia Collection - Herbert Memorial/ Arbor Border? - Carnivorous Plants - Cuningham House Conservatory - Tuberous Begonia Conservatory (new) - Maple Border - Nursery (back of house)	EXISTING COLLECTIONS/GROUPINGS - Water Gardens - Ancient Plants of NZ - Ferns (depleted) - Alpine and Sub Alpine plants of eastern	EXISTING COLLECTIONS/GROUPINGS - North American Collection - Hardy monocot trees (?) - Heritage collections - Maori crops, vegetables and fruit trees (started) - Conservatory Complex surrounds - Nursery (back of house) - Temperate Trees - Curators House Restaurant Garden - Herb Garden - New Zealand Native Cultivars PROPOSED NEW COLLECTIONS/GROUPINGS - Survival Plants - Children's Garden - Australian Collection - Alpine and sub-alpine plants - A showcase collection of Canterbury new cultivars	EXISTING COLLECTIONS/GROUPINGS - Heritage Rose Collection - Azalea and Magnolia Garden - Riccarton Avenue (Cherry Trees) - Nursery (back of house) - Temperate Trees - Seasonal Colour - Riccarton Avenue (Cherry Trees) - Nursery (back of house) - Temperate Trees - Seasonal Colour - Nursery (back of house) - Temperate trees - Seasonal Colour - Nursery (back of house) - Temperate trees - NZ sedges and grasses - NZ sedges and landscape character notes for each narrative along with a list of the possible range of existing and proposed gardens/collections, as identified in the Management Plan, that would fit with and complement the garden theme. Specific collection projects will establish a process for implementation of these themes and will work through the details; to further refine the boundaries and the schedule of collections. This will combine information from the 2016 Review of Operations (asset audit review) as well as planning for appropriate collections to be located in satellite garden sites. Detailed review of collections will take into account and bring together the objectives and policies of the Management Plan and Master Plan, localised site conditions such as microclimate and soils, plant performance and display, and the potential for collections to support and strengthen Spatial Plan principles. This information will inform a refined list of collections and plant groupings for each thematic area, and priorities for potential removal (de-accessioning) or relocation to a more suitable site.		

Connect - Hononga wāhi, Hononga tāngata

Bring prominence to the Gardens' distinctive and well-loved features, and embed in the landscape framework greater relevance to local, regional, and national initiatives to reach international recognition and acclaim.



Sketch, Helen Kerr

Principles

- Celebrate the uniqueness of a 'Garden within a Park', enclosed by the river enclave and protected by the 'woodland cloak'
- Strengthen connections to and along the Avon River (Ōtākaro)
- Retain and strengthen the heritage core of the gardens as an extension of the cultural heritage linkage into the city
- Embed the historic fabric of the Garden within new connections and narratives, and highlight the significance of change over time as a 'working garden'
- Bring *prominence to heritage buildings* through visual connections and spatial relationships
- Connect with the cultural, social and educational activities of the city through programmes, interpretation, events, technology and innovation, and the relevance of BG experiences to peoples everyday lives

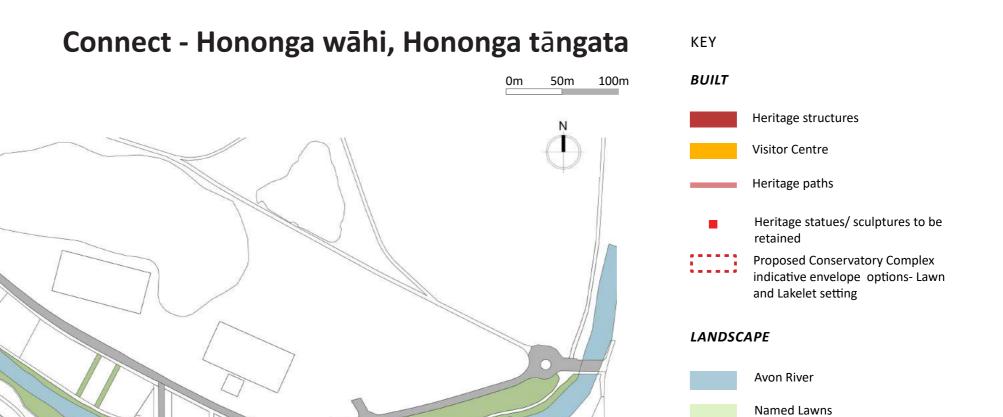
- Connect to national and global learning, research and conservation initiatives, and provide visible interpretation of linkages to satellite gardens and research facilities that support the CBG
- Bring prominence to the Gardens' role as a shared landscape, make explicit the role of Ngāi Tūāhuriri/ Ngāi Tahu, and reinstate Turangawaewae
- Rationalise the existing framework of exotic trees to ensure that open spaces are retained as 'white space', and allow for gardens that require non-shaded growing conditions
- Rationalise existing non-heritage buildings and allow for new buildings that are clustered to reinforce the heart, spine and primary entry points to the Gardens
- Allow for contemporary interventions that express identity, and meld together old and new structures, landscapes and plant collections.

Key Projects

- Children's Garden and revitalised play area (33) the Play Landscape
- Collection revitalisation for the Botanic Gardens (34)
- Gondwana Garden (37)
- New collections for the Botanic Gardens (38)
- Restoration and Conservation of the Magnetic Observatory Workshop (42)
- New Conservatory Complex (39).

Implementation Notes

Key considerations for the design of the New Conservatory Complex, Children's Play Landscape and a more detailed plan of the Observatory Lawn area are included in Section 5.



Tea Kiosk

Observatory

Central

Bandsmens' Memorial

Rotunda

Archery

Approx footprint of acute services

building Christchurch Hospital

Herbert Memorial 🗯

Pavilion

Magnetic Observatory Workshop

- Heritage features and values as identified in Conservation Plan for Christchurch Botanic Garden (2013)

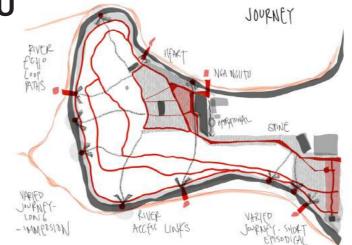
Woodland Cloak

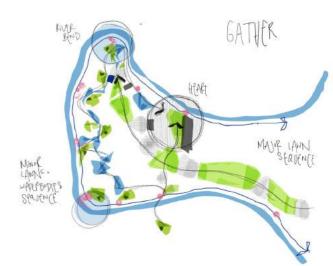
SECTION FOUR - NGĀI TŪĀHURIRI/NGĀI TAHU

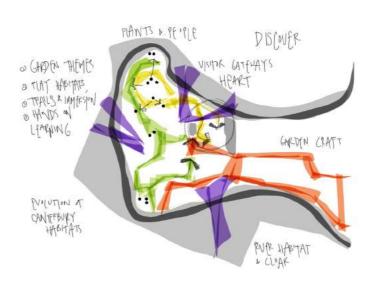
- CULTURAL NARRATIVE

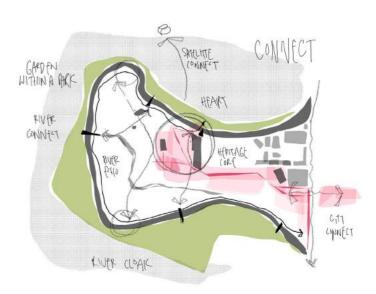
4.1 Ngāi Tūāhuriri mana whenua

4.2 Mahinga Kai











4.1 Ngāi Tūāhuriri mana whenua

The Christchurch Botanical Gardens are located within an area which was once rich in natural resources. Although this area has been long since modified, during pre-European times, Māori would have utilised the abundance of natural resources available, as this area formed part of a wider system of trails, rivers and streams which connected to the Ōtākaro, a source mahinga kai to Ngāi Tūāhuriri/Ngāi Tahu and travel route between the Māori settlements on Te Pātaka o Rākaihautū (Banks Peninsula) and Kaiapoi Рā.

Ngāi Tūāhuriri /Ngāi Tahu traditionally lived a highly mobile existence and traversed nearly the entire island hunting and gathering the diversity of resources this landscape provided. The takiwā (district) of Ngāi Tūāhuriri Rūnanga centres on Tuahiwi and extends from the Hurunui River to the Hakatere River and inland to the Main Divide, establishing the hapu as mana whenua for Christchurch City and the Botanic Gardens.

To guide and inform the design of anchor projects, Ngāi Tūāhuriri / Ngāi Tahu historical narratives have been written by Matapopore to provide project teams with understanding of the areas history and cultural values. The main thread through this narrative focuses on the natural resources of this area and significance of these resources to the traditional way of life of Ngāi Tūāhuriri. The 'Cultural Narrative for the Christchurch Botanic Gardens Spatial Plan 2016' (included in the appendices of this document) tells the story of ongoing relationship through settlement, nohoanga (temporary camp sites) and journeying for trade and to mahinga kai (food gathering sites).

The Ōtākaro provided sustenance for this way of life with the two main kāinga nohoanga (settlements), Puāri and Tautahi. Foods gathered from the Ōtākaro included tuna (eel), īnaka (whitebait), kōkopu (native trout), kanakana (lamprey), waikōura (freshwater crayfish), waikākahi (freshwater mussel), tuere (blind eel) and pātiki (flounder). A variety of birds were also gathered including

pūtakitaki (paradise ducks), pārera (grey duck), raipo (black teal), tatā (brown duck) and pāteke (teal). On the banks of the rivers, plants such as aruhe (fernroot) and kāuru (a section of trunk of the tī kōuka/cabbage tree) were also gathered.

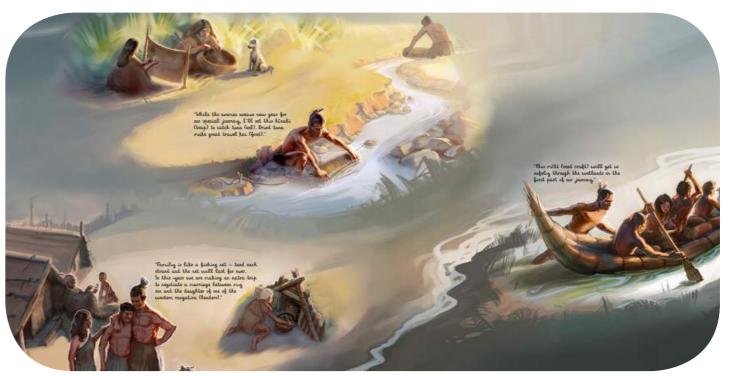
The natural resources of this area provided everything that was required to survive during long journeys such as food, materials for shelter, medicine, materials to catch or harvest food, water, and materials to build temporary rafts and replenish clothing and footwear. The natural resources of this area also provided what was required for permanent settlements such as building materials, tools, weapons, waka and fishing apparatus.

The depth of knowledge of the environment and natural resources that was needed to survive in this harsh landscape was extensive. Knowledge of natural resources came from detailed observation of the plants of the forest and the handing down of knowledge through the generations - through whakapapa.

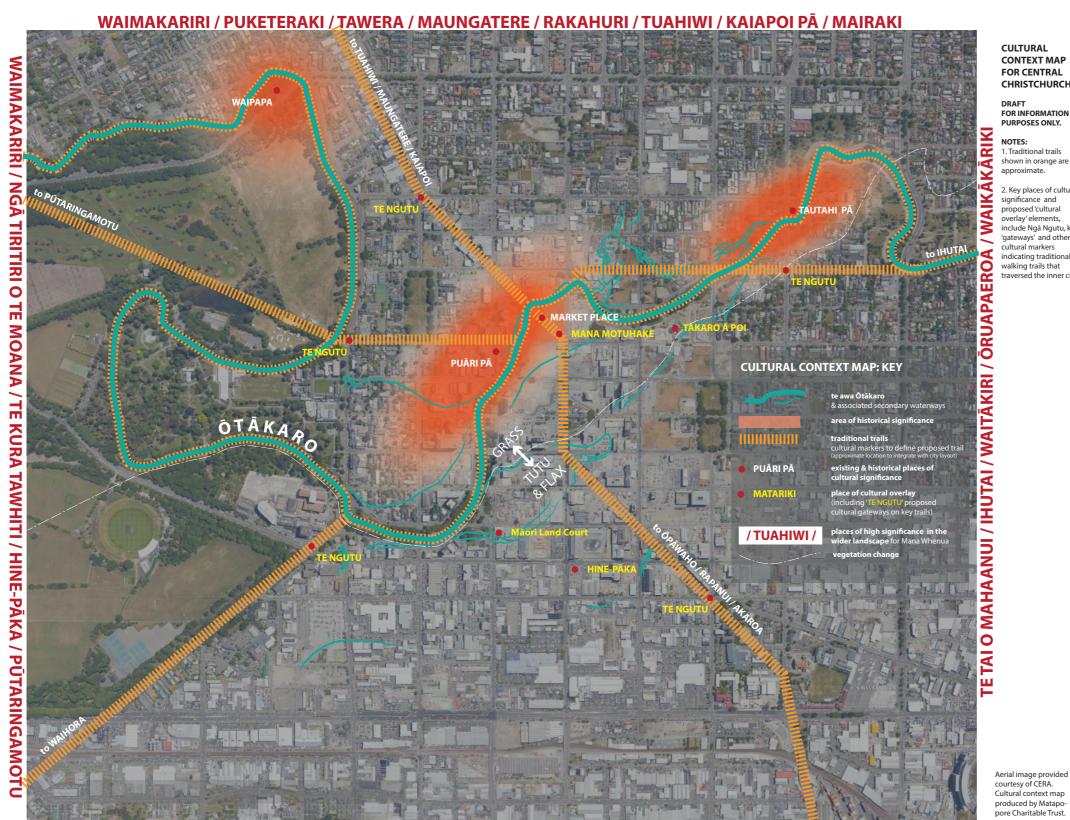
To help bring this knowledge and understanding to life within projects such as the Spatial Plan, Matapopore Urban Design Guidelines and Te Papaa Ōtākaro: Mahinga Kai have been developed to guide the design process and to form a bridge between the historical narratives and design outcomes.



Existing raupo plantings in Christchurch Botanic Gardens Image: Lisa Rimmer



Commissioned mural inside CBG Visitors centre depicting mana whenua Ngāi Tūāhuriri/Ngāi Tahu cultural narratives Imaae: Lisa Rimmer



TE HERU O KAHUKURA / TE IRINGA Ō KAHUKURA / TE TIHI Ō KAHUKURA / AKAROA / ŌPĀWAĤO / RAPANUI

Matapopore

CULTURAL CONTEXT MAP FOR CENTRAL CHRISTCHURCH

FOR INFORMATION PURPOSES ONLY.

proposed 'cultural include Ngā Ngutu, key 'gateways' and other indicating traditiona

walking trails that traversed the inner city.

Mana Whenua / Te Ngāi Tūāhuriri

Mana whenua refers to the mana or 'authority' held by an iwi, hapū or whanau over the land or territory of a particular area. This authority is passed down through whakapapa (genealogy) and is based on the settlement and occupation of, and continued use and control of natural resources within an area.

The term Mana whenua, is also used to describe the people who hold this authority, who considered themselves as 'kaitiaki' (guardian/ caregiver, steward etc.) of their particular area or takiwā.

4.2 Mahinga Kai

Matapopore have represented the interests of mana whenua Ngāi Tūāhuriri in a partnership role for the Spatial Plan, and provided cultural narrative context for the Mahinga Kai overlay through several hui with the design team, followed up by written documentation. The 'Cultural Narrative for the Christchurch Botanic Gardens Spatial Plan, 2016' (included in the appendices of this document), contains more detailed explanation of the concepts referred to in the overlay.

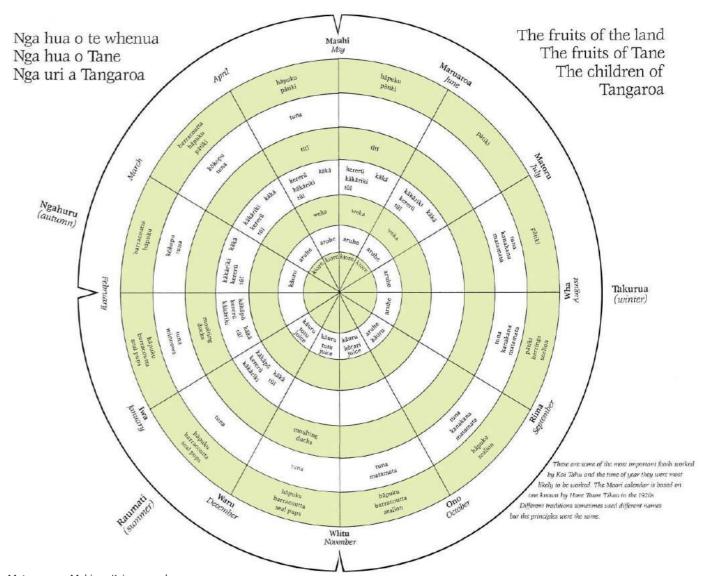
The mahinga kai trail explores some of the possibilities for a cultural narrative woven into the Botanic Gardens experience. It is a story told through a journey that engages with the natural world, but is not necessarily a fixed route or pathway. The experience could be selfguided (by printed map), guided (by staff or in partnership with Ngāi Tūāhuriri), integrated interpretation, or simply an unexpected encounter in the Gardens. The trail is 'marked' by architectural, sculptural or planted interventions that encourage visitors to interact with the Ōtākaro landscape, and make associations between plant resources and their use for survival: food, medicine, materials to catch or harvest food, and materials to build rafts and replenish clothing and footwear on long journeys.

The mahinga kai trail specifically seeks to make a connection between the terrestrial and aquatic habitats of Ōtautahi - Christchurch, and the traditional use of these resources for journey and settlement through the Canterbury landscape from mountains to wetlands and low lying plains. This overlaps with the garden narratives or themes which tell the story of the Canterbury landscape from Southern hemisphere origins to ecological habitats, and the associations between plants and people from traditional to modern day innovations and cultivation.

The founding kaupapa for the Spatial Plan is a 'shared landscape with a central garden heart', that embraces the following core principles consistent with Ngāi Tūāhuriri/ Ngāi Tahu historical narratives and the Matapopore Urban Design Guidelines:

- Whakapapa: Identity and connection to place
- Mahinga kai: The knowledge and values associated with customary food-gathering places and practices
- Mana motuhake: Being able to act with independence and autonomy-being ourselves in our places.
- Manaakitanga: The extension of charity, hospitality, reciprocity and respect to others
- Ture Wairua: Being able to exercise faith and spirituality.

The way in which these values and concepts are articulated through design and contemporary expression will require further conceptual exploration as a project in its own right. However, the mahinga kai overlay could be implemented incrementally, with individual interventions building and contributing to the experience over time. The mahinga kai narrative may also influence and inform the brief for future projects such as the new visitor centre bridge.



Matapopore - Mahinga Kai, seasonal resources Ideas and considerations for detailed design and naming for Ōtautahi North Western Cluster of Schools - A Ngãi Tūāhuriri Perspective (2015)



Image Source 1-5 Matapopore, Mahinga Kai

The mahinga kai overlay incorporates the following key features:

- River bends and banks as important locations for seasonal harvest of fish, water fowl and tuna (eels). Structural or sculptural interventions may be associated with frames on the river banks for whata (food storage structures), pātaka (eel drying racks), access to the water, and hinaki (eel traps) in the river. Other constructed water bodies provide an opportunity for expressing narratives associated with traversing the plains or gathering mahinga kai from swamps, rivers and wetlands, and the plants or trees needed to make watercraft to transport people, plants and animals- such as mokihi or waka. Concentrations of species for sustainable harvesting may also be included, to educate how both conservation and use are possible.
- Nohoanga or wakawaka (family gathering sites) for temporary settlement and seasonal harvest, food preparation and working with materials (weaving, construction etc) are represented by the minor and major lawns and playspaces. Structures that may be associated with these activities include whare rau or wharau - temporary shelters. These concepts may inform the conceptual brief and materiality for shelters explained on the "Gather" structuring layer of the Spatial Plan, and provide shelter for group events and gatherings. They may also conceptually inform free play opportunities in 'the wilderness', such as loose materials to clad whare rau frames and make huts.
- Manaakitanga and mātauranga māori (welcoming places and places of learning): The mahinga kai experience is anchored by the whare wananga indoor and outdoor learning spaces in the children's garden (tea kiosk and outdoor pavilion) and the Visitors Centre at the heart of the Gardens, along with hospitality for visitors (manaakitanga), places of learning and exchange of food (kai). The connection between plant resources and clothing, footwear, tools, kai, may be expressed visually through the conceptual themes, materials and textures used for the design of these spaces, as well as the space they provide for programming and exchange of knowledge systems, stories, values and skills. Emphasis is placed on 'educational environments' with plant association cues and clues, rather than display and sculpture for effect.

- Nga ngutu (entry thresholds): Entrances may be marked by horizontal features (such as Ngā Whāriki Manaaki - welcoming mats), and/or vertical features, providing places to pause and welcome visitors transitioning across the bridge into the heart of the Gardens. Other wayfinding or entry markers may be incorporated at transition and arrival points between garden narratives and display areas, and may include concentrations of single spaces with strong seasonal display, cultural significance, and taonga species with iconic form, such as ti kouka or totara. Repetition and recognition will support wayfinding initiatives.
- Health and wellbeing: The Botanic Gardens as a whole plays a fundamental role in supporting the health and wellbeing of people in Christchurch, emphasised by the neighbouring relationship with Christchurch Hospital and the reference to puna wai - springs which feed the Ōtākaro- Avon River. The inclusion of species with medicinal value would complete a rongoā trail linking the curators house kitchen garden and the hospital grounds.
- The place of a game: Ōtākaro has in the past been referred to as a place where children played games on the river banks as food gathering work was carried out by adults. Interactive play should be interwoven with the mahinga kai experience, providing opportunity for hands-on learning and fun, and telling the story of resource use and navigation through play: building shelters, trapping and damming water in the proposed new water features, traversing wetlands, exploratory play trails, playful river bank encounters, platforms for measuring and monitoring water quality, huts for bird counts, and so on.



Image: Priscilla Cowie



Image: Rewi Couch

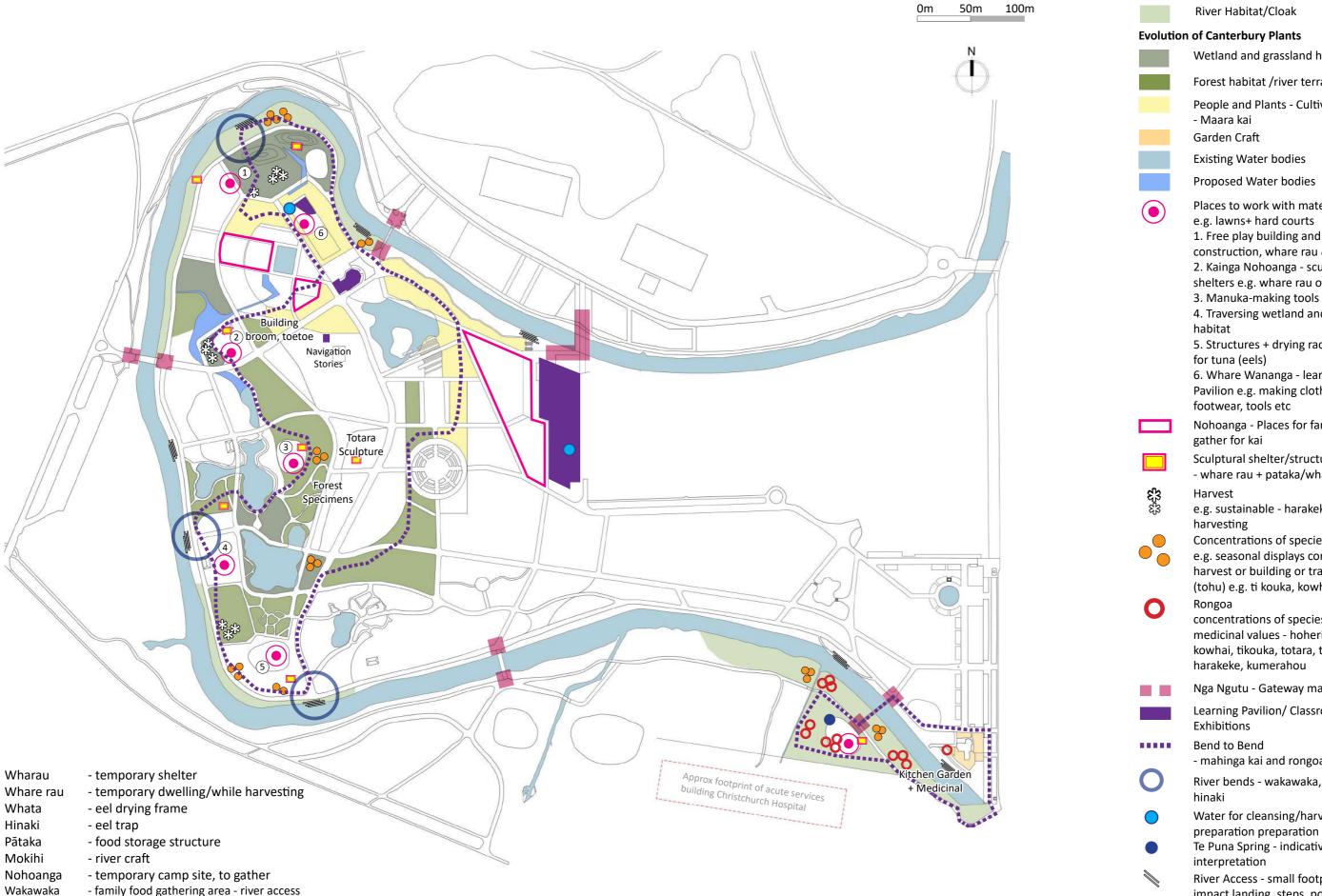


Mokihi Image: Ngai Tahu



Loon Nesting Raft, Image: The Loon Preservation Committee

Mahinga Kai



KEY

Garden Themes - Plant Habitats

River Habitat/Cloak

Evolution of Canterbury Plants

Wetland and grassland habitat

Forest habitat /river terrace

People and Plants - Cultivated beds

- Maara kai

Existing Water bodies

Proposed Water bodies

Places to work with materials

e.g. lawns+ hard courts 1. Free play building and

construction, whare rau & wharau

2. Kainga Nohoanga - sculptural shelters e.g. whare rau or wharau

3. Manuka-making tools

4. Traversing wetland and forest

5. Structures + drying racks (whata) for tuna (eels)

6. Whare Wananga - learning Pavilion e.g. making clothes, footwear, tools etc

Nohoanga - Places for families to gather for kai

Sculptural shelter/structure - whare rau + pataka/wharau/whata

e.g. sustainable - harakeke & toetoe harvesting

Concentrations of species e.g. seasonal displays connected to

harvest or building or trail markers (tohu) e.g. ti kouka, kowhai

concentrations of species with medicinal values - hoheria, kanuka, kowhai, tikouka, totara, toetoe, harakeke, kumerahou

Nga Ngutu - Gateway markers

Learning Pavilion/ Classroom/

Bend to Bend

- mahinga kai and rongoa trail

River bends - wakawaka, mokihi,

Water for cleansing/harvest

Te Puna Spring - indicative location, interpretation

River Access - small footprint /low impact landing, steps, pontoon

SECTION FIVE - DETAILED AREAS

5.1 Detailed Areas - Key Considerations

- Children's Play Landscape
- Visitor Centre Bridge
- New Conservatory Complex
- Observatory Lawn
- Robert McDougall Art Gallery



5.1 Detailed Areas - Key Considerations

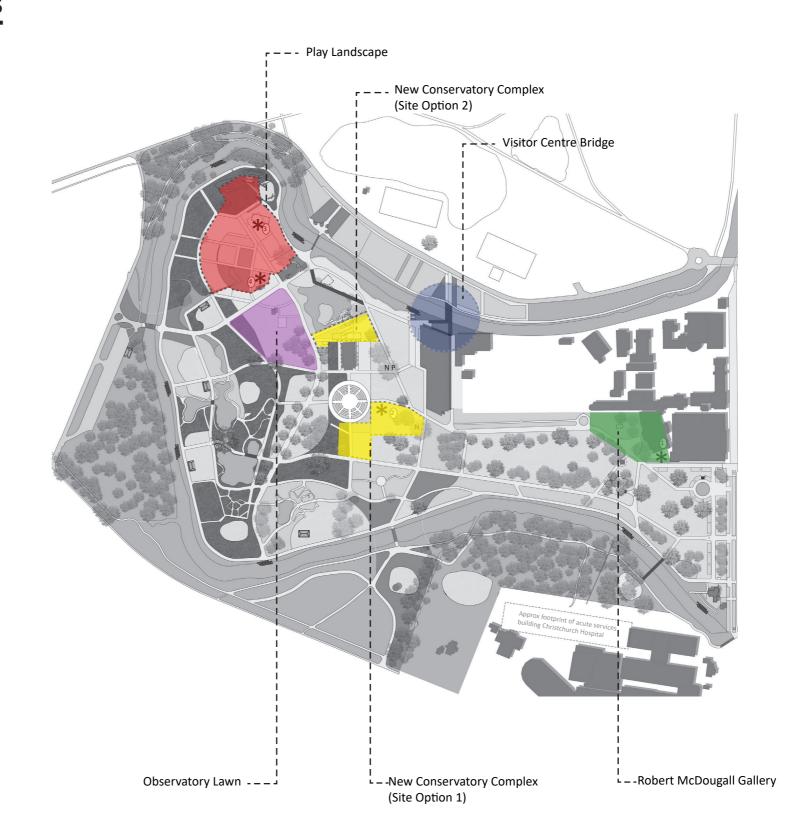
During the course of developing the Spatial Plan there were a number of areas identified where a more detailed plans, illustrations and key considerations for concept design were documented to assist future stages of concept design and the implementation of specific Master Plan projects:

- Play Landscape (Project 33) integrating the revitalised playground and Children's Garden
- **New Conservatory Complex (Project 39)**
- Visitor Centre Bridge (part of Project 31 Landscape and Circulation).

Further guidance is provided under the following headings to assist concept design. These notes aim to capture the more detailed comments and understanding provided by the Project Team, Partners, SRG and Staff.

- **Envelope and footprint** to help determine the preferred location and scale of structures etc.
- Theme, look and feel covering general experience objectives and material palette appearance and performance
- **Design considerations** concerned with process for future design stages including further consultation sequence of enabling works and overall objectives for accessibility, energy efficiency, hours and type of use etc.
- Consenting considerations likely requirements and broad scoping of potential effects to be addressed.
- **Operations** matters to ensure safe and efficient use by staff and to avoid unnecessary maintenance costs.

More detailed plans were also developed for the Observatory Lawn and the Gardens' interface with the Robert McDougall Gallery - as part of planned Master Plan projects. These plans are to help clarify the overall high level spatial objectives for these areas and the key matters to be resolved through further design development.



Play Landscape

The Spatial Plan provides for an integrated Play Landscape in the north west corner of the Garden including different play habitats.

This Play Landscape includes provision for a revitalised children's playground and Children's Garden as included in the Master Plan (project No. 33). The Children's Garden broadens the play experience, and integrates the structured play of a 'refurbished children's play space' with nature based free play and learning within a Garden setting.

With the tea kiosk and paddling pool to remain as anchors within the play landscape, the spatial arrangement depicts a separation between programmed (teaching and working garden space) and unprogrammed (paddling pool and play space) activities. Observational space for caregivers at the centre allows for socializing and monitoring children with ease, while ample lawn space provides for informal play and picnics in the sun. Some parts of the site may be fenced, for teaching or freedom to roam safely in wild play areas in amongst the mature

The 'envelope' depicted in the Spatial Plan provides sufficient space for a world class children's garden, that playfully explores the unique local, regional and New Zealand landscape. This includes opportunities to embed sensory discovery, interactive learning about plant diversity and adaptation, and places to safely roam and fall in love with nature.

The play habitats or 'zones' identified in the spatial plan include the:

Children's Garden

- Approx. total area excluding picnic lawns = 5000m²
- Discovery Garden (approx. 2000m2) Themed and cultivated gardens for exploration and sensory experiences, building on the overlapping garden narrative of 'plants and people', and plants for survival, cultivation, innovation and conservation e.g. plants and pollination and natures kitchen. Includes play trails, prompts and opportunities for playful learning and discovery.
- Wilderness (approx. 2000m2)- A 'secret' enclosed space where children can safely and independently play out of the view of caregivers, to develop skills and a connection with plants and nature. An unstructured and natural free play area with hills and hollows, water, tree logs, rocks, tunnels, and the opportunity for children to learn through manipulating their environment. Includes loose parts for constructing shelters, forts and nests, and testing cause and effect by damming shallow water features and building bridges. A space that feels wild but is actually enclosed and safe.
- Outdoor Classroom(approx. 1000m2) A place for hands on learning through educational and holiday programmes with hands on activities and projects (such as bird houses, green roofs, bug hotels, kitchen experiments, planters, making clothing from plant fibre etc) that teach traditional skills and techniques and innovation with plants. Includes a potential learning pavilion and deck or hardspace, working gardens and workbenches, storage and tools.



Encouraging exploration and discovery of plants through playful engagement and interactive learning Image: Christchurch City Council

Play space

- Total area approx. 4000m² including lawns (excluding pool and gathering space)
- Imagination Garden (approx. 1000-1500m²)- A bespoke and themed play environment as part of the playground renewal project centred on the existing paddling pool. Includes sculptural play elements, accessible play equipment, water and other inclusive and sensory play features integrated with surrounding lawns and gardens.
- Gathering Space (approx 1500-2000m²)- Tea Kiosk gathering space, learning centre and smaller cafe alongside paddling pool, observation and circulation
- Free play Lawn (min 2500m²)- Open lawns for picnics and family fun, observation and temporary play events.

The play habitat zones are shown indicatively, as appropriate to a Spatial Plan and required to assist future concept development and consultation. Areas provided for each type of play area have been benchmarked against other successful Children's Garden and playground projects and best practice thinking around integrated play - from structured, equipment based, to free play with 'found objects' - and the importance of nature play; to encourage learning through enjoyment for all ages. Open space areas equivalent to the existing playground lawn have been retained and new water features added to the existing paddling pool for an immersive and engaging experience.

This Play Landscape will support the development of wider play trails/playful interventions and interpretation throughout the Garden to enrich visitor experience. The Mahinga Kai narrative and play trail concepts provide abundant opportunity for integrated learning and discovery. During concept design there will be a process to refine and confirm an appropriate theme, dimensions and configuration of particular areas, required structures (including a possible learning pavilion) and the most beneficial spatial relationships.

- Image Sources p43:
- 1 Auckland Botanic Gardens, Helen Kerr
- 2 Melbourne Botanic Gardens, Helen Kerr
- 3 Auckland Botanic Gardens, Helen Kerr
- 4 High Line, New York. Paige Johnson
- 5 Internet Sourced
- 6 Giant Seed Pod Sculptures, Richard Tadman
- 7 Internet Sourced
- 8 Montreal, Sarah Lacome
- 9 Hobsonville playground, Isthmus

- 10 Whare Rau, Jennifer Rendall
- 11 Lowry Nature Center Victoria, Family Fun Twin Cities
- 12 Royal Botanic Gardens, Melbourne, Childrens' Garden
- 13 Royal Botanic Gardens, Melbourne, Childrens' Garden
- 14 Boston Childrens' Garden
- 15 Auckland Botanic Gardens, Helen Kerr
- 16 Royal Botanic Gardens, Melbourne, Childrens' Garden
- 17 Dallas Arboretum and Botanical Garden
- 18 Royal Botanic Gardens, Melbourne, Childrens' Garden
- 19 Nestrest, Boyno

Play Habitats

Discovery Garden - approx 2000m² core garden areas, cultivated, child safe garden







Free Play Lawn - approx 3500m² picnic and family hub observation and temporary play events







Imagination Garden - approx 1000m² bespoke and themed playspace renewal including waterplay and paddling pool















The Wilderness approx 2000m² unstructured free play area - hills and hollows, water, tree logs, wharerau

The Outdoor Classroom- approx 1000m² focused playful learning, hands on, construction, gardening, workbenches, outdoor learning pavilion







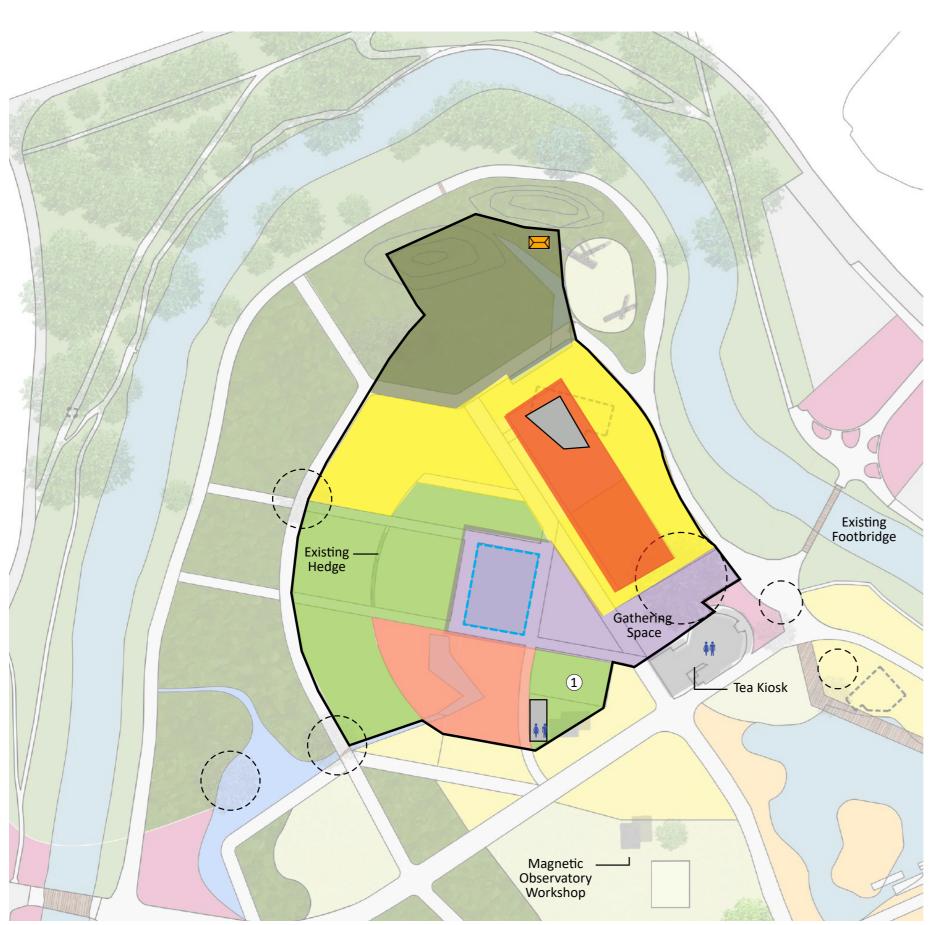
The Gathering Space - approx 1800m² Tea Kiosk gathering space, learning centre and smaller cafe alongside







Play Landscape







Existing buildings to be retained



Buildings for staged removal



Proposed outdoor classroom/ learning pavilion with timber decking indicative foot print only. Breakout Space for building/craft



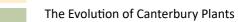
Proposed new changing rooms/toilet facilities 🛊 alongside Hebert Memorial Pavilion, footprint

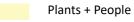


Proposed shelter - indicative location. Whare rau - sculptural shelter

Garden Themes









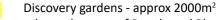
River Gateways



Play Landscape

Wilderness - approx 2000m²

- themed as part of Evolution of Canterbury



- themed as part of People and Plants

Outdoor classroom and beds - approx 1100m² - Storage, work benches, raised beds mahinga

kai / food focus

Imagination gardens-- approx 1000m² structured play + sculptural + water play

Lawn areas- min 2500m² Play Lawn - free play and 'popup' events younger children, parental supervision

Gathering Space - approx 1500-2000m²

Existing Water Bodies

Proposed Water Bodies

Paddling pool - existing footprint retained

Commemorative Trees

Play Trees

Notable Trees

Lime Avenue Trees

Trees for staged removal /no succession tree planting for improved circulation / sightlines

> N, P = macrocarpa N = atlas cedar

Outdoor Classroom - Mauakai





Image: Helen Kerr



Childrens Garden, New York Botanical Garden, Brooklyn Image: Nada Stanish



outdoor classroom activities, Childrens Garden, New York Botanical Garden, Brooklyn Image: Nada Stanish

Wilderness - Te Taiao



Indicative Illustration of Wilderness area, Nada Stanish







Adelaide Zoo, WAX Designe with Phillips Pilkington Architects



Copenhagen, Denmark, Nature Play, Image: Helen Kerr

Key Considerations for Concept Brief

Envelopment and Footprint

- Ensure good circulation, access to the playground, as this will be a continued major attraction
- Ensure adequate lawn areas for free play/family gathering
- The paddling pool shall be retained with upgrading as necessary so it sits well with surrounding developments
- To be located in the north west corner, expanding on existing playground footprint
- Includes children's playground, children's garden and wider play trails
- To be located generally within the envelope and zones shown
- To be reconfigured around the existing paddling pool
- Organised play / play prescribed by purpose built features to be reduced in footprint
- Existing trees may be incorporated into the play area for shade, amenity and play value
- Existing toilet block removed and replaced with a new accessible toilet/ change area.

Theme, look and feel

- To be refined during the concept design process with garden areas providing for both indigenous and exotic plant species
- Wilderness areas give scope for free unstructured play but also need to be safe - protection from the
- Unique to the Christchurch Botanic Gardens, its values and its features
- Culturally expressive, exciting, enticing, engaging and connected to the wider play habitat throughout the
- Integrated with garden narratives/themes wrapped around play area and promoted through focused playful learning
- Emphasis on child initiated play, playful experiences and developing a love for nature
- Possible theme of play habitats based on natural + geological history of Waitaha Canterbury, including the traditional passage and navigation of Ngāi Tahu through these landscapes
- Explorative play elements should promote an understanding of the natural resources of the area and traditional knowledge and innovation associated with these resources.

Design Considerations

- Staged removal of buildings associated with this development include the Changing Rooms and Toilets near the existing Playground. Staged removal will require communication and consultation with any organisations or community members that may have been involved in gifting or development of these buildings
- Ensure safe play areas for young children - particularly considering proximity to riverwith good line of sight between each zone for supervision
- Ensure clear definition of play areas where 'hands on' constructive activities are appropriate but not carried through to the rest of the Garden placing collections/gardens at risk of greater damage
- Ensure universal design as a basis; play features able to be adapted for disabled use rather than disabled only
- Consider appropriate proximity of playground space to outdoor classroom and aligned 'break out' lawn areas for more formal education programmes (needing less distraction)
- Provide for appropriate levels of shade in summer and consider location of play features/sunny spots in winter
- Opportunity for an 'all abilities' play space, for all disabilities (psychological to physical)
- A place where everyone can play something for everyone, but specific focus for < 12
- Design for intergenerational play opportunity for adults and children to play together.

- Cater for local and frequent use and experience as well as international visitors
- Consider potential night time use and the need for lighting, signage and safety/ security
- Include social spaces with seating/shelter/shade/ drinking fountain, observation areas
- Outdoor classroom/pavilion for hands on activities, handwashing/toilet facilities in close proximity
- Clearly defined gateway or entrance, and some of the play habitats may be fenced
- Design play habitats as special places for independent roaming and exploring
- Encourage exploration beyond the playspace into the wider play habitat of the Botanic Garden
- Flexible spaces for workshops, programmes and activities, constructing and creating
- Include materials that can be manipulated- e.g. sand and water
- Unique and imaginative naming of play habitats to engage the imagination
- Paddling pool upgraded to be safe and accessible, and meet appropriate standards
- Engaging the five senses with potential for water play, music and lighting where this does not aggravate intellectual or psychological disabilities.

Visitor Centre Bridge

An envelope and indicative footprint for the new Visitor Centre Bridge connection is shown in the Spatial Plan including a vehicle and pedestrian connection.

A vehicle connection was identified as a clear priority by the Staff and SRG, as an important part of the landscape and circulation Master Plan project (No. 6). A pedestrian connection was recommended by many key stakeholders; to help improve accessibility, strengthen the heart of the Garden and increase the range and times of Visitor Centre use. Others raised questions about the need for another bridge near the Armagh connection and had concerns about additional effects on views and natural character. Overall, it was the Project Team's view, and that endorsed by the sponsor, that a pedestrian and vehicle bridge connection should be recommended and further tested and refined through concept development.

Key Considerations for Concept Brief

Envelope + footprint

- Envelope allow for a range of options to be further investigated through conceptual design and feasibility study (i.e. separate bridges vs split or conjoined bridge structure)
- Indicative footprint indicates possible desired outcome
- Pedestrian bridge function to visually align/land directly at entrance to ILEX

Vehicle bridge function to be aligned with operational yard to minimize turning/ maneuvering

Look and Feel

- To integrate with the architectural concept, features and materials of the Visitor Centre – as a seamless addition.
- Bridge as integrated nga ngutu feature (main arrival point/ gateway/ threshold)
- Visible and welcoming appearance from outer gardens/ North Hagley Park entrance
- Pedestrian bridge to be 'stunningly elegant' in design and detail
- Vehicle component to not dominate pedestrian experience and views, be 'elegantly utilitarian' in appearance, and be conceptually relevant to pedestrian component
- Represent cultural narratives about place, people, crossing, journey and arrival
- Materials to convey narrative about traditional use of natural resources and new innovations with these resources.
- Views from the pedestrian bridge up and down the river to be enhanced/framed, not obstructed or compromised by vehicle bridge component
- Integrated design of carpark layout, path connections, lighting, trees and planting



Beachlands - Maraetai Walkway- Bridge, Isthmus

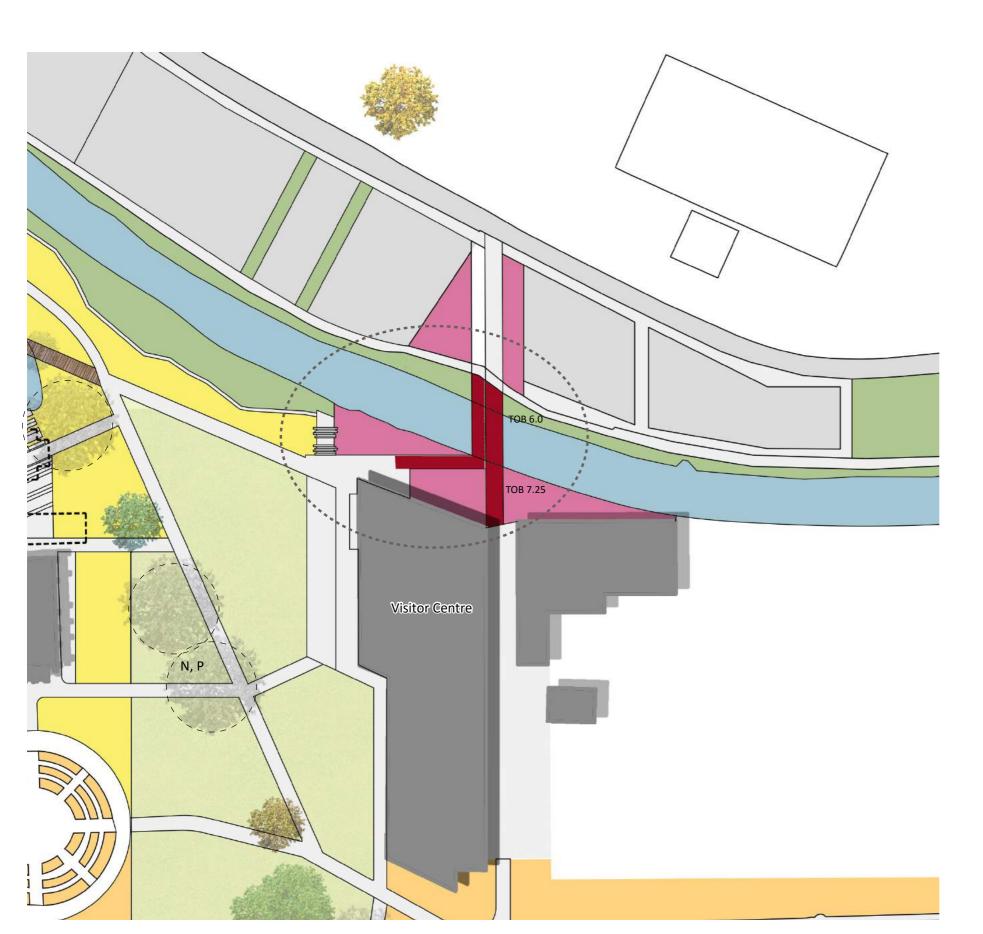


Wooden Footbridge, Slovenia, DANS Architects



Taumanu Reserve Bridge, Onehunga, Auckland, Isthmus

Visitor Centre Bridge



KEY

Existing buildings to be retained

Buildings for staged removal

Conservatory Envelope Options 1. Central Lawn Setting

2. Lakelet Setting

Proposed Visitor Centre Bridge envelope and indicative footprint

Garden Themes

Garden Craft

The Evolution of Canterbury Plants

Plants + People

River Habitat / Cloak

River Gateways Lawn areas

Water Bodies

Commemorative Trees

Play Trees

Notable Trees

Lime Avenue Trees

Trees for staged for removal /no succession tree planting for improved circulation / sightlines N, P = macrocarpa N = atlas cedar

Note:

- Staged removal of buildings to be coordinated with development of new replacement facilities + further consultation to include associated community groups/ families

- Heritage values as identified in Conservation Plan for Christchurch Botanic Garden (2013)

Visitor Centre Bridge





Taumanu Bridge, Onehunga, Isthmus



Raupo and Mokihi, Image: Simon Leslie



Taumanu Bridge, Onehunga, Isthmus

Key Considerations for Concept Brief cont'd

Scope and Design considerations

- Ensure design is integrated with reconfiguration of carpark, particularly to improve accessibility and wayfinding with high quality mobility parks close to the bridge and wayfinding signage and possible message system for mobility scooters
- Sensitivity to high amenity and cultural values (European and Ngai Tahu) of the river
- Safety and separation between recreational and operational functions (e.g. barrier)
- Accessible and inclusive design- bridge approach, landings, gradient, width, surface
- Minimum width 2.5m to 3.0m for pedestrian bridge to allow pause, passing and viewing
- Supporting infrastructure- e.g. bike park to support multi-modal access
- Wayfinding and CPTED- sightlines, lighting, consistent materiality of paths, signage
- Integration and improvement of existing river access terraces and landing structures
- Loading- size and type of operational vehicles that will use the bridge
- Topography and surveyed levels- differential in height of river bank at either side- accessible gradient a priority for pedestrians
- River water levels and freeboard to underside of bridge structure for watercraft
- Surveyed location and integration of existing trees on northern river bank
- Cost benefit analysis of construction and consenting costs- separation of bridge functions or shared base structure, span of bridge for accessible grades vs ramps etc

- Timing and staging- could the vehicle bridge be built first with a pedestrian 'bolt on'
- May be level change separation between finished RL of pedestrian vs vehicle functions **Consenting Considerations**
- Landscape and visual mitigation of bridge, e.g. visual permeability / separation
- This part of the river is a significant natural landscape feature (Ch9, Proposed Replacement Christchurch District Plan)
- Ōtākaro high cultural heritage values and sites of significance
- Ecology, water quality and opportunity to address stormwater discharge into Ōtākaro
- Bridge pier location and deck span (minimize earthworks and obstruction of water flow)
- Minimise footprint to reduce visual clutter and altering the river bank and margins
- Works within dripline of existing river bank trees
- Potential for extended consent period to allow for staged construction

Operation

- Vehicle bridge may be gated to prevent general vehicle traffic entry to operational yard
- Traffic and pedestrian/ cycle safety slowing traffic at carpark entrance and crossings
- · Minimise or avoid heavy vehicle maneuvering and backing



Christchurch Botanic Gardens Visitors Centre and Landing, Image: John Clemens



Christchurch Botanic Gardens Steps and Landing, Image: John Clemens

New Conservatory Complex

The New Conservatory Complex is a Master Plan project (No. 39) adopted by Council. The Management Plan and Master Plan signal the need and intention for a New Conservatory Complex, highlighting the requirement for public accessibility, better growing conditions, and better interpretation/display opportunities for public appreciation and understanding the importance of plants.

The Spatial Plan shows two possible envelopes for the New Conservatory Complex; a Lakelet or Central Lawn setting following consultation with key stakeholders, partners, staff and input from the project team. These envelopes are intended to act as a starting point to be further tested and refined through concept development.

Key Considerations for Concept Brief

Envelopment and Footprint Refinement

- New footprint and building design (height, shape, materiality) to consider proximity to plantings and shading/air flow around the rose garden
- Important to have line of sight from Café' to other buildings
- Potential use of axial path beyond the rose garden as a strong setting for new conservatory complex
- Needs to address both the relationship with/ proximity to gardens narratives (themes) (bringing them together in the heart) and other buildings in the central area
- Envelope allows for building footprint options to be further investigated
- Overall combined footprint should allow for around 3 to 4 x Cuningham total footprint in one or more buildings

- Includes equal proportion of space for display and 'back of house' operations
- Potential additional space allocated for toilets and facilities for after-hours use
- Likely to be a collection of smaller buildings that are subservient in scale to Cuningham but have a unique and prominent form
- Removal of the existing conservatories proposed to restore prominence of Cuningham
- Maintain visual connections from primary path routes, arrival and gathering areas
- Frame the new lawn/ heart of the Gardens, allowing for connections to the central lawn
- The new complex footprint(s) should minimize encroachment on the central lawn
- The spatial relationship to the Rose Garden/ Cuningham axis is to be further considered
- The shady south side of the buildings could be used for Evolution of Canterbury Habitat Theme

Light and ephemeral qualities of buildings integrated with landscape setting



Serpentine Gallery Pavilion, Julia Peyton Jones



Grüningen Botanical Garden, Buehrer Wuest Architekten



Glass House, Harumi Yukutake



Serpentine Gallery

Conservatory Complex



KEY



Existing buildings to be retained



Buildings for staged removal



Conservatory Envelope Options

- 1. Central Lawn Setting
 - 2. Lakelet Setting



Proposed Visitor Centre Bridge envelope and indicative footprint

Garden Themes



Garden Craft



The Evolution of Canterbury Plants



Plants + People



River Habitat / Cloak



River Gateways Lawn areas



Water Bodies



Commemorative Trees



Play Trees



Notable Trees



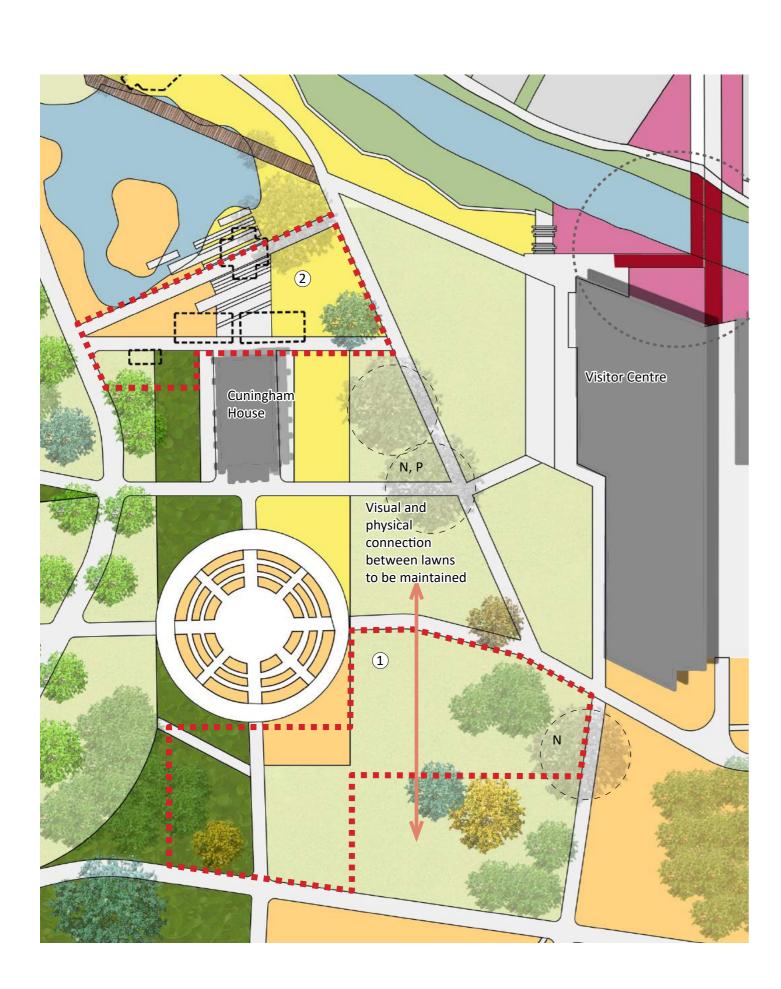
Lime Avenue Trees



Trees for staged for removal /no succession tree planting for improved circulation / sightlines N, P = macrocarpa N = atlas cedar

Note:

- Staged removal of buildings to be coordinated with development of new replacement facilities + further consultation to include associated community groups/ families
- Heritage values as identified in Conservation Plan for Christchurch Botanic Garden (2013)



Key Considerations for Concept Brief-cont'd

Look and Feel

- Contemporary aesthetic that references the unique identity of the Gardens
- Responsive to growing conditions and need for internal light/ sun/ shade
- Blurring of indoor/ outdoor space with glass and light on the inside of path 'slice'
- Interesting vertical scale, shape and proportion, external cladding materials
- Unifying theme with variation belonging to each structure in the 'collection'

Scope and Design considerations

- Staged removal of buildings associated with this development include the Former Visitor Centre, the Gilprin, Townend, Forewaker and Fern House conservatories; Staged removal will require communication and consultation with any organisations or community members that may have been involved in gifting or development of these buildings
- Need to develop a robust process for considering collections to be included in new conservatory complex including existing collections housed Forewaker House, Gilprin House, Garrick House, Townend House, Fern House and plants from the Garden Narratives (themes) including plants from our everyday lives that are not able to be grown outside e.g. sugarcane, bananas
- Consider benefits and costs of possible use for sub Antarctic species including back of house requirements and temperature control
- Accessible design is paramount including door widths, operation and toilet facilities and include review by Barrier Free NZ Trust (all developments)

- Required improvements to the lakelet end of Cuningham House can be staged following the removal of other conservatories e.g. new atrium entrance/gathering point and seating
- Provision for interpretation elements along with plant
- Use for all weather after hours' events, as commercial
- Energy conservation/Greenstar rating opportunities
- Accessible and inclusive design for all ages and abilities is paramount
- Better pedestrian circulation to remove bottlenecks, and cater for larger groups
- Improved visitor experience- conservation, ecology and connections with plants
- · Potential 'after hours' events necessitate toilets, storage, lighting etc
- Potential to accommodate consolidate meeting and interpretation/ display space in the heart of the Gardens.
- Much needed space, and desirable growing conditions for new collections
- Opportunity to see and experience world biomes desert, temperate, tropical
- Opportunity for ultimate NZ plants alpines, subantarctic island flora, NZ subtropical
- Detailed needs, costs and benefits, and future staging/timing to be considered



Cuningham House, Christchurch Botanic Gardens, Lisa Rimmer

Consenting considerations

- Timing for removal of smaller existing conservatories and their potential heritage status
- Structural condition of the smaller conservatories for relocation and re-purposing
- · Not detract from open space and landscape setting of new Visitors Centre
- Avoid intrusion on vistas to and from Cuningham house and the Rose Garden.
- Avoid disruption to existing heritage fabric- network of paths and features.
- Avoid intrusion on Central Lawn physical and visual connections
- Impact on existing trees- removal or works within the dripline

Operations

- Consider need for access for maintenance clear zone around the base of the building
- Provide scope/rooms for other functions community meetings, Friends of Garden activities, not currently housed in Visitor Centre /temporarily accommodated in Former Visitor Centre.
- Best located near new nursery for growing on plants, 'back of house' operational access and proximity to heating and cooling / other services.
- Consider 'after hours' use, safe access and security, lighting

Observatory Lawn

The Spatial Plan addresses improved connections and landscape context of the Observatory Lawn as part of the Restoration and Conservation of the Magnetic Observatory Workshop (Project 42). Restoration works for the building are to be addressed as a separate project.

Spatial Objectives

- Open lawn areas to be retained for informal gatherings and events
- Improved accessible connections to the Magnetic Observatory Workshop and Weather Station. The arrangement of paths, lawns and garden beds could acknowledge the axial alignment of the former Magnetic Observatory building footprint. The existing cherry tree with its low branching canopy is to be considered when determining the appropriate path alignment.
- Path connections and junctions should logically align with those suggested in the 'Journey' layer of the Spatial Plan, to strengthen the 'discovery trail' concept.
- Garden areas Plants and People Garden Theme/ Narrative to provide connections with Children's Garden and education programme - science and investigation - complementing heritage values/past use. Evolution of Canterbury Plants theme to edge of lawn needs to ensure open character and picturesque amenity values are maintained. For example, this area could showcase proposed asteraceae collection.
- Incorporation of sub-antarctic plants if possible near Observatory to reflect its importance in Antarctic heritage narrative.
- All works to be coordinated with Botanic Gardens Trust restoration project - in concept phase November 2016



Magnetic Observatory Workshop and Cherry Tree, Christchurch Botanic Gardens Image: Lisa Rimmer





Historic remnants of former Magnetic Observatory Complex, Christchurch Botanic Gardens, Images: Lisa Rimmer

Observatory Lawn







Existing buildings to be retained



Buildings for staged removal



Conservatory Envelope Options



2. Lakelet Setting



Observatory Lawn - Detailed Spatial configuration to be confirmed through concept design and to consider restoration project (Master Plan Project 42)



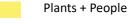
Approximate footprint of historic Magnetic Observatory Buildings - to be considered in concept design for the area and to consider restoration project (Master Plan Project 42)

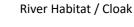
Garden Themes

Garden Craft



The Evolution of Canterbury Plants







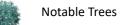
Lawn areas

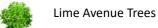
Water Bodies

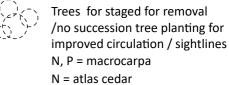


Commemorative Trees









- Staged removal of buildings to be coordinated with development of new replacement facilities + further consultation to include associated community groups/ families
- Heritage values as identified in Conservation Plan for Christchurch Botanic Garden (2013)
- Path alignment to workshop and weather station to be determined by Trust Restoration Project commencing 2016.

Robert McDougall Art Gallery

Redevelopment of the Botanic Gardens/ Museum Interface is signaled in the Master Plan (Project 40) with additional guidance provided in the Robert McDougall Gallery Conservation Plan, 2010.

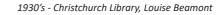
Spatial Objectives

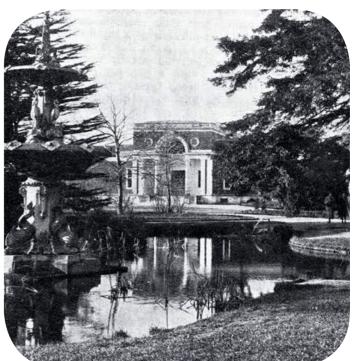
- Improved physical connections through amended path alignment to the west of the pine mound and removal/relocation of the Evelyn Couzins Memorial consultation with community and family required
- Improved visual connections through staged removal of selected trees (recommended in Robert McDougall Conservation Plan 2010)
- Improved visual and physical connections from the Herbaceous Border walk following staged removal of existing toilet block with replacement facility to be investigated and potentially part of the Museum redevelopment
- Planting to Garden Craft areas in front of the Gallery to ensure improved sight lines, for example with a simple formal palette of low growing annuals and perennials - to bring more prominence to the building facade



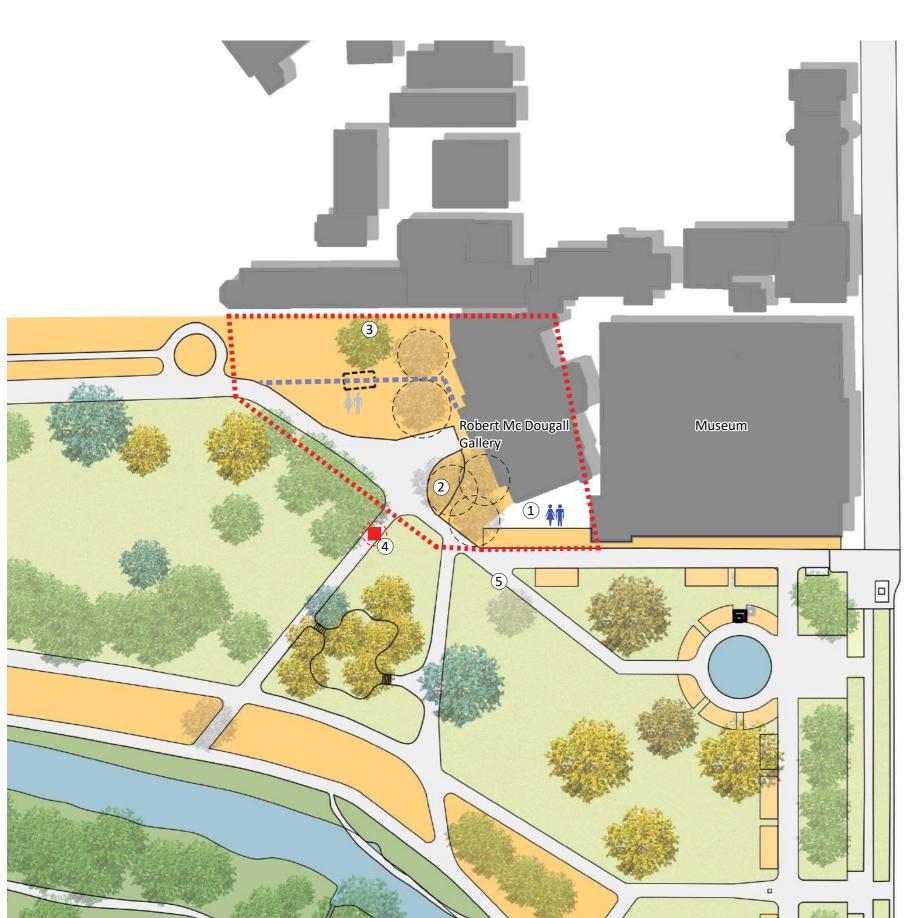
Robert McDougall Art Gallery - Entry facade from Christchurch Botanic Gardens, Image: Lisa Rin







Robert McDougall Art Gallery





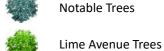
KEY Existing buildings to be retained Buildings for staged removal - existing Possible future path -3m - including accessible ramp Envelope for future concept design to confirm detailed spatial configuration

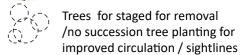
- planting and paving, toilet facilities

Garden Themes

	Garden Craft The Evolution of Canterbury Plants
	Plants + People
	River Habitat / Cloak
	River Gateways
	Lawn areas
	Water Bodies
423	Commemorative Trees







Possible shared toilet facilities as part of future redevelopment of Robert McDougall/Museum complex

Staged removal of tree species. Garden Craft planting to ensure clear sightlines to building frontage

Tree species to be retained as identified in the Gallery Conservation Plan - horse chestnut, northern red oak and lawson cypress

Statue - For staged removal. Evelyn Couzins Memorial Gateway. 1950. Some/Local value. Path extension to emphasise connection/ views to gathering space in front of

Path alignment improved to building frontage as hub/gathering space Note:

> - Staged removal of buildings to be coordinated with development of new replacement facilities + further consultation to include associated community groups/ families

SECTION SIX - APPENDICES

6.1 Christchurch Botanic Gardens - Ngāi Tūāhuriri/Ngāi Tahu - Cultural Narrative - Matapopore

6.1 Christchurch Botanic Gardens -Ngāi Tūāhuriri/Ngāi Tahu - Cultural Narrative

- Matapopore



Nature NZ Collection - Christchurch Botanic Gardens, Image: Lisa Rimmer



Ōtākaro - Avon River Christchurch Botanic Gardens, Image: Lisa Rimmer



Cultural Narrative for the

Christchurch Botanical Gardens Spatial Plan

2016

This narrative has been prepared by Debbie Tikao, Nigel Harris and Tui Falwasser from Matapopore.

Introduction

The Christchurch Botanical Gardens are located within an area which was once rich in natural resources. Although this area has been long since modified, during pre-European times, Māori would have utilised the abundance of natural resources available as this area formed part of a wider system of trails, rivers and streams which connected to the Ōtākaro, a source mahinga kai to Ngāi Tūāhuriri /Ngāi Tahu and travel route between the Māori settlements on Te Pātaka o Rākaihautū (Banks Peninsula) and Kaiapoi Pā.

This cultural narrative has been written to guide outcomes which embed cultural values and stories within the Botanical gardens Spatial Plan. The main thread through this narrative focuses on the natural resources of this area and significance of these resources to the traditional way of life of Ngāi Tahu. Ngāi Tahu traditionally lived a highly mobile existence and traversed nearly the entire island hunting and gathering the diversity of resources this landscape provided.¹

The Ōtākaro provided sustenence for this way of life and situated on its banks were two kāinga nohoanga (settlements), Puāri and Tautahi. Both these kāinga nohoanga had ceased to act as permanent settlements from at some point between 1700 and 1800, but continued to be used as temporary accommodation by Ngāi Tahu travelling through or to this area to gather food and other resources.

¹ Tau, T.M., Tau, R., Goodall, A., Palmer, D. 1990. *Te Whakatau Kaupapa*, Aoraki Press, Wellington. P4.

Background

Mana Whenua / Te Ngāi Tūāhuriri

Mana whenua refers to the mana or 'authority' held by an iwi, hapū or whanau over the land or territory of a particular area. This authority is passed down through whakapapa (genealogy) and is based on the settlement and occupation of, and continued use and control of natural resources within an area.

The term Mana whenua, is also used to describe the people who hold this authority, who considered themselves as 'kaitiaki '(guardian/ caregiver, steward etc.) of their particular area or takiwā.

Ngāi Tūāhuriri/ Mana Whenua

Ngāi Tūāhuriri is one of the primary hapū of Ngāi Tahu whose tribal boundaries (takiwā) centre on Tuahiwi. Tūāhuriri is our ancestor, from whom we all descend and we take our identity from him. The following is a traditional Ngāi Tūāhuriri pepehā, or tribal statement of identity.

Ko Maungatere te maunga

Our mountain, Maungatere (Mount Grey) stands above us;

Ko Waimakariri, ko Rakahuri ngā awa

Our rivers – the Waimakariri and Rakahuri (the Ashley) – flow below;

Ko Tūāhuriri te tangata

Tūāhuriri is our ancestor.

Tuahiwi is the home of Ngāi Tūāhuriri and has played a vital role in Ngāi Tahu history. The takiwā (district) of Ngāi Tūāhuriri Rūnanga centres on Tuahiwi and extends from the Hurunui River to the Hakatere River and inland to the Main Divide. Kaiapoi Pā was established by the first Ngāi Tahu ancestors when they settled Te Waipounamu. It became the major capital trading centre and from which further penetration of the South Island occurred making the area a genealogical centre for all Ngāi Tahu Whānui.

Kaiapoi Pā was established by Moki's elder brother Turākautahi who was the second son of Tūāhuriri hence "Ngāi Tūāhuriri" is the name of the hapū of this area.

Ngāi Tahu Whānui and Te Rūnanga o Ngāi Tahu

Ngāi Tahu whānui (descendants of Tahu Pōtiki) hold mana whenua status over the majority of land in Te Waipounamu – the South Island. Today's Ngāi Tahu whānui originates from three main tribal strands; Waitaha, Ngāti Māmoe and Ngāi Tahu. Through intermarriage, warfare and alliances, these tribal groups migrated, settled, occupied and amalgamated and established mana whenua over their tribal area prior to European arrival.

Specific hapū or sub-tribes established control over distinct areas of the island and have maintained their mana over these territories to this day.

Te Rūnanga o Ngāi Tahu is the mandated iwi authority established by Ngāi Tahu Whānui under Section 6 of the Te Rūnanga o Ngai Tahu Act 1996 to protect the beneficial interests of all tribal members of Ngāi Tahu Whānui, including the beneficial interests of the Papatipu Rūnanga of those members. Te Rūnanga o Ngāi Tahu is governed by elected representatives from each of the 18 Papatipu Rūnanga and has an administrative office as well as a number of commercial companies.

Papatipu Rūnanga are the administrative councils of traditional Ngāi Tahu hapū (sub-tribes) based around their respective kāinga / marae based communities and associated Māori reserves, pā, urupā and mahinga kai areas.

Matapopore Charitable Trust

The Matapopore Charitable Trust has been established by Ngāi Tūāhuriri Rūnanga to work with Ōtākaro Ltd, Regenerate Christchurch and the Christchurch City Council under the Christchurch Central Recovery Plan 2012.

The Trust's primary objective is to weave Ngāi Tūāhuriri / Ngāi Tahu values, narratives and aspirations into the fabric of anchor projects and other projects within Christchurch City.

Embedded values, stories and realising aspirations

The principal Ngāi Tūāhuriri aspiration for the Christchurch anchor projects are:

Kia atawhai ki te iwi – Be kind to your people.

This founding kaupapa, proclaimed by Pita Te Hori, first Upoko Rūnanga of Ngāi Tūāhuriri in 1861, reiterates the foundations laid by Tūāhuriri, the ancestor after which the hapū of Ngāi Tūāhuriri takes its name. Ngāi Tūāhuriri today believes the anchor projects must demonstrate care for the citizens of the city and encourage warmth and a sense of welcome to all.

To guide and inform the design of anchor projects, Ngāi Tūāhuriri / Ngāi Tahu historical narratives have been written by Dr Te Maire Tau and others. The narratives provide project teams with our histories and values associated with the area.

Matapopore Urban Design Guidelines have also been developed to guide the design process and to form a bridge between the historical narratives and design outcomes. The purpose of the Matapopore Urban Design Guidelines is to support the narratives by developing a greater depth of understanding of Ngāi Tūāhuriri / Ngai Tahu values, traditions and concepts, why these are important, and how they might be expressed and embedded within a contemporary urban environment. Bringing visual indicators of Ngāi Tūāhuriri / Ngāi Tahu identity and stories to life will help to ensure our new city is easily recognisable on the world stage.

For Ngāi Tūāhuriri, this means ensuring design embraces the following kaupapa consistent with Ngāi Tūāhuriri / Ngāi Tahu historical narratives and the Matapopore Urban Design Guidelines.

- Whakapapa: Identity and connection to place
- Manaakitanga: The extension of charity, hospitality, reciprocity and respect to others.
- Mahinga Kai: The knowledge and values associated with customary food gathering places
- Mana Motuhake: Being able to act with independence and autonomy-being ourselves in our places.
- **Ture Wairua**: Being able to exercise faith and spirituality

Cultural Context

The Ōtākaro originates from a spring source in Avonhead and meanders through the city out to sea via the eastern estuary known to Ngãi Tahu whānui, as Te Ihutai. The Ōtākaro and Te Ihutai were once highly regarded as a mahinga kai by Waitaha, Ngāti Māmoe and Ngāi Tahu.

Due to ongoing environmental impacts to Ōtākaro and Te Ihutai, the activities of sourcing food for consumption are no longer practiced by Ngāi Tahu whānui today.

Puāri pa, established by Waitaha, once nestled on the banks of the Ōtākaro. In later years, Tautahi (the chief after whom our city takes its name) made kai gathering forays down Ōtākaro from Koukourarata on Te Pātaka o Rākaihautū (Banks Peninsula). They camped on the river banks as they caught eels and snared birds in the foliage. Tautahi died during one of these visits and is buried in the urupā on the site of what was St Luke's Church vicarage on the corner of Kilmore and Manchester Streets (demolished following the 2010 and 2011 earthquakes).

Later during the Ngāi Tahu period a large variety of food was gathered in the Puari pā area including tuna (eels), inaka (whitebait), kokopū (native trout), koukoupara (cockabullies), pārera (grey ducks) and pūtakitaki (paradise shelducks). Unlike Waitaha before them, Ngāi Tahu did not make their homes in the area but rather travelled there from other settlements in order to gather kai. Mill Island, near the corner of Hereford Street and Oxford Terrace, was a well-known place for gathering inaka (whitebait). Nearby Market Square (today known as Victoria Square), became an important market and meeting place for Ngāi Tahu from all over the region ². This was the designated economic stronghold for Ngāi Tahu whānui.

Ōtākaro, has in past been referred to as a place where gaming activities were undertaken by the children who played on the river's banks as food gathering work was carried out by adults. In The Grand Narratives, Dr Te Maire Tau notes that the name Ōtākaro is most likely an ancestral name.3 In the time of Tautahi few Māori would have lived through out Ōtākaro area itself. Those that did were known to the Māori living outside the region as O Roto Repo (swamp dwellers). Most people

² Ihid

³ Tau, T.R., 2016. The Grand Narratives.

were seasonal visitors to Ōtākaro and the abundance of fish and birds harvested were preserved for use over the winter months when fresh kai was in short supply.

Springs feeding into the river were used by tohunga for healing purposes. These were cited in the Ōrakipaoa (Fendalton) area in the Wairarapa and Waiwhetū streams. The Canterbury Museum holds some important Māori taonga (treasured possessions) that have been recovered from Ōtākaro, including a canoe paddle made of mānuka. ⁴

Waipapa (Little Hagley Park) was set aside in 1862 by Carlton Mill Bridge for Māori to use as a meeting or resting place when visiting Christchurch. In 1868 150 Māori camped in the area while they argued their claims in the Native Land Court for the Avon river banks between Barbadoes Street and Madras Street, the (now) Supreme Court site, Horseshoe Lake, Taitapu and Green Park. Their claims were unsuccessful. In 1872 the Provincial Government suggested that the Māori should give over the Hagley Reserve in exchange for land elsewhere. There is no record of land being given in compensation.⁵

Wāhi Tapu/sacred sites

Puari was the name of an early Waitaha settlement. It stretched from the banks of Ōtākaro (Avon River) at Victoria Square out to Bealey Avenue in the years between 1000 and 1500. The loop in the river that encompassed the site was an important mahinga kai. Little is known about this settlement or its occupants. However, many taonga (treasured possessions) have been found in this region. At its height the pā would have been home to about 800 Waitaha people.

The burial place or urupā for the Puari Pā was situated where the old Public Library and police station now stand at the intersection of Cambridge Terrace and Hereford Street. This site is currently under development by Ngāi Tahu Properties, a commercial arm of Te Rūnanga o Ngāi Tahu.

The Relationship between Maori and the Natural World

The natural resources of this area provided everything that was required to survive during long journeys such as food, materials for shelter, medicine, materials to catch or harvest food, water, and materials to build temporary rafts and replenish clothing and footwear. The natural resources of this area also provided what was required for permanent settlements such as building materials, tools, weapons, waka and fishing apparatus.

The depth of knowledge of the environment and natural resources that was needed to survive in this harsh landscape was extensive. Knowledge of natural resources came from detailed observation of

⁴ Excerpts from Harris, N.K. (2016) Ideas and considerations for detailed design and naming for Ōtautahi NorthEastern Cluster of Schools A Ngãi Tūāhuriri Perspective, An Example of Modern Mãori Learning Environments and associated Cultural Identifiers, Internal report to the Ngãi Tūāhuriri Education Committee

⁵ Excerpt from http://my.christchurchcitylibraries.com/hagley-park/

the plants of the forest and the handing down of knowledge through the generations - through whakapapa.

The smallest details of seasonal changes, growth habits, survival mechanisms and relationship to the manu (birds) and insects taught the careful observer much about the potential qualities of plants and the ability to cater for customary rituals.

For Māori, physical and mental wellbeing are directly related to cultural identity; cultural identity is founded on whakapapa; whakapapa is embedded in the landscape and is inherent in understanding the relationship between Māori and the natural world. For Māori, humanity arises from the natural environment and remains linked through whakapapa (genealogical ties).

Understanding the significance of whakapapa and the interconnected relationship between Māori and the environment is important because within this relationship there is much traditional knowledge that can be shared, and from this understanding there lies the possibility of creating an environment which integrates and connects with traditional landscapes, resources and ways of knowing to create spaces which not only reflect the cultures of the place but also respect and restore the environment and the traditional values systems embedded within it.

Traditional uses of Native Plants of this area

Prior to human contact and environmental change over centuries, most of the central area of Christchurch would have been forested with kahikatea and totara forests on the wet plains and houhere forest on the dry plains which lined the $\bar{O}t\bar{a}karo$. Deans Bush is a surviving example of this long lost forest. ⁶

During Ngai Tahu times, the central area of Christchurch was predominantly wiwi and patiti/ grasses, tutu and fern with wetland areas to the north, east and south. To harvest forest resources such as timber, manu and kiore (native rat) Ngai Tahu would have had to visit the nearby forest remnants. The central area however supported numerous mahinga kai, as did the various swampy areas nearby. Foods gathered from the Ōtākaro included tuna (eel), īnaka (whitebait), kōkopu (native trout), kanakana (lamprey), waikōura (freshwater crayfish), waikākahi (freshwater mussel), tuere (blind eel) and pātiki (flounder). A variety of birds were also gathered including pūtakitaki (paradise ducks), pārera (grey duck), raipo (black teal), tatā (brown duck) and pāteke (teal). On the banks of the rivers, plants such as aruhe (fernroot) and kāuru (a section of trunk of the tī kōuka/cabbage tree) were also gathered.⁷

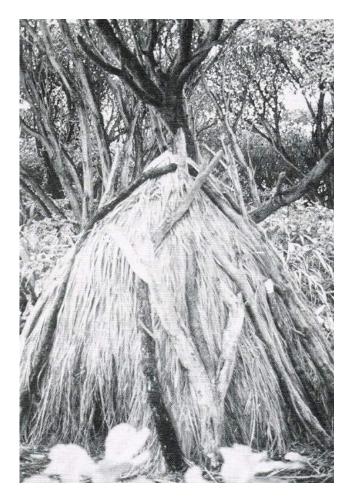
Following are some examples of how natural resources of this area were used for sustenance and survival:

⁶ http://www.lucas-associates.co.nz/christchurch-banks-peninsula/framing-the-central-city-again-2/

⁷ Goodall, A., Palmer, G., Tau, T., Tau, R., *Te Whakatau Kaupapa: KāiTahu Resource Management Strategy for the Canterbury Region,* Aoraki Press, Wellington, 1990, p.22.

Whare rau: Temporary structures were made from natural resources found in the area. A suitable site to erect a whare rau would be cleared, and where possible the structure would be nestled in a thicket of rau aruhe which provided insulation and comfort to sit or sleep on the ground floor.

Structural frames were shaped by carefully selecting the main poles and interlocking them at the centre highest point of the structure. Additional branches were then fixed on with lashing and would form the frame. The rau/fernery would then be attached and woven through the frame to insulate and keep the occupiers dry. The structure would be abandoned and often left for the next person or group to use who may be traversing through the area as well.



Example of a temporary shelter (whare rau) constructed of surrounding vegetation. "The branches are laid across the fern until they are melded together".8

Another temporary structure made from similar natural resources was referred to as a wharau. It was shaped like a lean too and was open on one side. The roof sloped down at the rear and it was much quicker to erect. Although considered as a temporary structure, and like the whare rau, it would often be abandoned and left for the next person or group.⁹

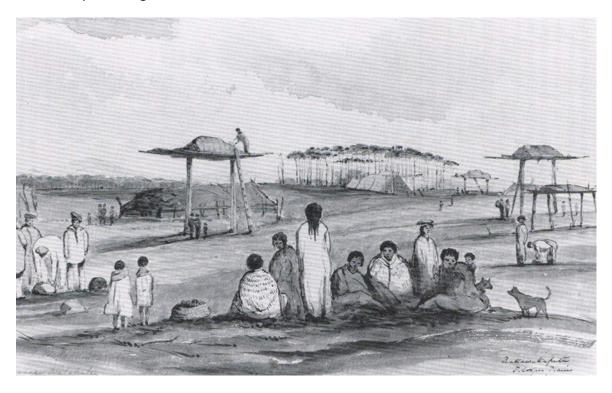
⁸ Dacker, B., The People of the Place: Mahika Kai, p.21.

⁹ Beattie, J,H., ed Anderson, A., *Traditional Lifeways of the Southern Maori*, Otago University press. 1994, re print 2009. P226

Whare wānanga: larger structures were built as meeting houses and places of learning. They were most likely to be less decorative than whare of rangatira/recognized leaders.

Whata: food storage structures were built from selected wooden branches and boughs, and they comprised of a platform and stepping podium to gain access to the dried and preserved resources.

The stored food would be placed in loosely woven harakeke/flax baskets and this would ensure air circulation preventing deterioration of the food.



Examples of whata: William Fox's watercolour in 1848 of Rakawakaputa village near Kaiapoi. 10

Waka: hollowed out trunks of totara would be sculptured to carry one or two people at a time. They were used in deeper waters and were a useful vessel for crossing rougher seas. Waka unua or doubled hulled canoes were used for larger crossings, in particular some of the first voyages to Aotearoa were on these vessels and were used to carry people, plants, animals and birds and food and water.

Mōkihi: temporary raft constructed from raupō and harakeke were constructed by lashing techniques and the materials use light weight and buoyant which enable the individual or a small group of people to carry over land when there was not enough water to float the mōkihi on, thus manoeuvring through meandering waterways of the swamps and wetlands.

Clothing and footwear: The local environment also provided the necessities for clothing, footwear. Production of clothing was an extremely intense exercise and many protocols applied to the technology and actual construction of items which were wearer specific, ie hieke/paki = raincapes,

¹⁰ Anderson, A. and Dunedin City Council (N.Z.), *The welcome of strangers: an ethnohistory of southern Māori A.D. 1650-1850.* image sourced from the Hocken Library, 1998, p.153.

and kākahu such kaitaka, korowai and tōpuni/dog skin cloaks. Fibre from harakeke was extracted using a kuku/kutai shell and beaten with muka patu against a flat stone surface. It was bundled into a hank of fibre, washed and dried before the fibre was exposed to natural dye baths of tanekaha, hinau ash and paru/black mud from swampy areas for colour variations.

Additional materials of tikumu/ mountain daisy leaves were used to insulate and adorn the cloaks as well as various feathers collected for similar reasons.



Korowai, Otago Museum. 11 Made of muka from harakeke.

Pāraerae: Sandals were an important travel item, especially over rough, swampy or mountainous terrain. Known as paraerae, they were made of harakeke or ti kouka Traditionally, paraerae could easily be remade en route, worn and discarded once signs of wear and tear were evident. The sole would be braided and lengths of harakeke cord would be used to lace the paraerae to the wearers ankles and chins. In colder conditions, the felt from the tikumu leaves would be pealed and used stuffing fill to insulate the feet.

Additionally, taupā or chins guards were also worn with paraerae and these would be made from whītau/ prepared flax fibre and woven with whatu technique. These were made with care as they protected the chins and lower legs from being scratched or mutilated from the barbs of various sedges and grasses.

¹¹ Otago Museum, Ngāi Tahu taoka: treasures from the Otago Museum, Reed Publishing, 2006, p. .



Traditional woven sandals (pāraerae) made from harakeke¹²

Tools: were constructed by various native trees. Garden tools such as Ko/ digging sticks and Tomo/ hand held grubbers were crafted from selected tree branches and trained as they grew to create strong handles and stone adzes were lashed with flax cordage to the wooden part of the tool. Totara logs were crafted into kumete/vessels for cooking and collecting fat which was rendered off bird carcasses. They were also used for the dye baths in which heated stones were placed into a dye solution contained in the kumete. The stones were transferred from the coals of a large open fire and would be replaced to keep a consistent heat for the mordant and dye solution ensuring the best results were achieved.

Godsticks were also crafted to liken as kaitiaki/guardians and were strategically placed around the mara kai/garden to ward off any bad mauri/energy.

¹² Anderson, A. and Dunedin City Council (N.Z.), *The welcome of strangers: an ethnohistory of southern Māori A.D. 1650-1850. Dunedin, N.Z.*, University of Otago Press in association with Dunedin City Council, image sourced from the Otago Museum, Dunedin, 1998, p.124.



pou whakpakoko

Cabbage trees were also planted to mark trails, boundaries and other important sites as they are generally long-lived.

Kai: various foods were sourced from native plants such as kauru and aruhe/bracken fern. These fibrous foods were extremely hard on the digestive system and would often cause discomfort. Ti kouka would provide kauru which was high in sucrose and acted as a staple carbohydrate to the everyday diet. When this resource was scarce or out of season, the people would eat the aruhe/fern root.

Food exchange between the settlements of Banks Peninsula and Kaiapoi Pā was an important custom known as kaihaukai (feast giving). Respected rangatira and tohunga Teone Taare Tikao talks of the ceremony of visiting and exchanging gifts of food. He tells of the different types of food from the various areas and the importance of this exchange to provide some variation in diet. The people of Kaiapoi might bring tuna (eel), kāuru (root of the tī kōuka/cabbage tree), kiore (rat), aruhe (fernroot) and kūmara. The people from Rāpaki might bring pipi, kuku (mussels), shark and maraki (dried fish) as a return gift. The food would be exhibited on tall structures like an inverted V framework with a platform or stage running across to provide tiers to hold the baskets of food. The staging was called a whata or tīrewa and the various platforms, which each displayed a different type of food, were called kaho. Tikao goes on to say that the food was not eaten at this time, but

rather exchanged. He also states "There was more food down here than in the North Island, and nothing was stinted in the efforts to create a good effect". 13

Rongoā: Ngāi Tahu were dependant on what the natural environment could provide for medicinal use to heal issues and ailments, particularly digestive concerns which were on going issue due to a diet consisting of fibrous natural materials. Ti kouka/cabbage tree provided rongoā benefits included eating of the shoots, which helped to prevent scurvy, and brewing as a hot drink to cure diarrhoea and dysentery. Harakeke/flax was also a popular and useful rongoā plant. Juices from the root were used for skin problems such as boils, the root of the flax was used for constipation, gum from flax was used for toothache and ringworm. The nectar from the flower is edible and was used as a sweetener.

Medicinal needs for travellers were also met by the vast medicine cabinet that was the vegetation around them. According to Rob McGowan, expert on rongoā Māori (traditional Māori medicine), "the first teacher of rongoā Māori is the ngahere, the Wao Nui a Tāne, the forest itself".¹⁴

The smallest details of seasonal changes, growth habits, survival mechanisms and relationship to the manu (birds) and insects taught the careful observer much about the potential medicinal qualities of plants.

Knowledge of medicinal lore was traditionally held by tohunga (expert practitioner in healing and other areas of traditional knowledge and skills). This came from detailed observation of the plants of the forest and the handing down of knowledge through the generations. During most expeditions a tohunga would have been present, however, general knowledge of rongoā Māori would have been known by the wider whānau group, and especially by those who assisted the tohunga with his work.

Wakawaka/nohoanga:

Although each hapū had their own defined area, they also had usage rights as determined by whakapapa and intermarriage to other resources outside of their main area. These areas are called wakawaka (family gathering sites) and the resources there were carefully managed by that whānau group in accordance with tikanga (right way of doing things, best practice). Wilson notes that families specialised, generation after generation, in management and harvesting of the particular resources within wakawaka, for which they were kaitiaki. Different whānau groups would sometimes need to travel long distances to areas to harvest seasonal delicacies such as tītī (muttonbirds) from Rakiura (Stewart Island). ¹⁶

¹³ Beattie, J. H., *Tikao Talks*, p.130.

¹⁴ McGowan, R., Rongoā Māori: A practical guide to traditional Māori Medicine. Kale Print, Tauranga, 2009, p. 1.

¹⁵ Williams, J., *Mahika Kai: The Husbanding of Consumables by Māori in Pre-contact Te Waipounamu*. Journal of the Polynesian Society, Vol 119, pages 149-180. 2010, p.170.

¹⁶ Williams, J., Mahika Kai: The Husbanding of Consumables by Māori in Pre-contact Te Waipounamu. Journal

Mahinga Kai

Water was essential to all traditional activity within Māori society. Over a long period of time, Ngāi Tahu gained an extensive amount of knowledge about the water within their takiwā (area) and mahinga kai (food gathering). Ngāi Tahu harvesting methods reflect a sophisticated understanding of the breeding cycles, migration time and feeding habits of all the important fresh and salt water species.

Taking part in mahinga kai is one way modern Ngāi Tahu can participate in the food practices of their tīpuna (ancestors). Water and the food that it supports remain at the forefront of Ngāi Tahu concerns today.¹⁷

Mahinga Kai in practice

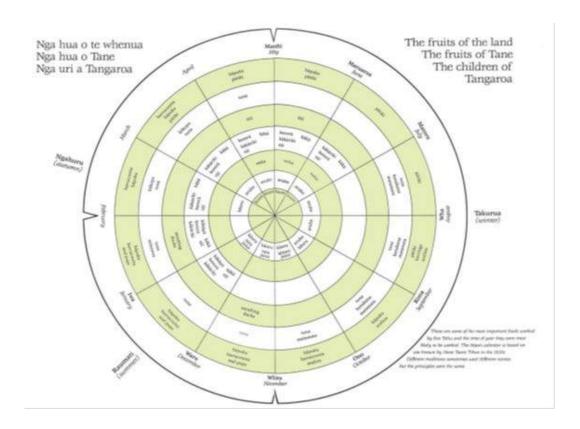
Mahinga kai, and the associated custom of kai hau kai (exchange of food/resources), is of central importance to Ngāi Tahu culture and identity. Literally meaning 'to work the food', it refers to the gathering of food and resources, the places where they are gathered and the practices used in doing so. Traditional mahinga kai practice involved the seasonal migration of people to key food gathering areas to gather and prepare food and resources to sustain them throughout the year. These hīkoi also provided opportunities to reinforce relationships with the landscape and other whanaunga (relations), develop and share knowledge and provide the resources that could be used for trade.

The mahinga kai chart shown below, based on one known by Hone Taare Tikao in the 1920s and developed by Bill Daker (1990), outlines the major foods worked by Ngāi Tahu, including tuna (eels), matamata (whitebait), tītī (muttonbirds), kererū (wood pigeon), aruhe (fernroot) and kāuru (cabbage tree root), and the time of the year they most were likely to be gathered.

From their settlements in and around the Ōpawaho mana whenua gathered and utilised natural resources from the network of sites across their takiwā that provided food as well as material for housing, garments, adornments and tools. ¹⁸

¹⁷ http://ngaitahufarming.co.nz/water-sustained/.

¹⁸ Adopted and Adapted by Pauling, C., & Robilliard, B. (2015) *He Puna Kōrero mo ngā Kura*, Educational hub, Cultural narrative.



Mahinga kai names and associated traditional uses — These are further identified in Table 1 below where applicable. Notwithstanding if species are not identified it does not mean they have no association or relevance to mana whenua and the wider ecological system of Ōtautahi. For this purpose we have focused on what the historical evidence states was utilised and with some further obvious inclusions.

Table 1: Mahinga kai and traditional uses of selected plants and animals associated with the area from the literature and informants¹⁹

Name	Traditional Uses		
Plants			
Trees and Large Shrubs			
ti kõuka/cabbage tree – Cordyline australis	used for cloths, food, medicinal and weaving		
matagouri – <i>Discaria toumatou</i>	unknown		
mānuka/tee tree – Leptospurmum scorparium	used for building, kai preparation and weapons		
Shrubs			
makaka/NZ broom – <i>Carmichaelia</i> appressa/"robusta"	used for building		
mikimiki & mingimingi/coprosma – Coprosma crassifolia/propinqua	poisonous and a favoured food for weka		
pohuehue/muehlenbeckia – <i>Muehlenbeckia</i> complexa	unknown		
tauhinu/cottonwood – Ozothamnus leptophyllus (Cassinia)	used for fishing, cooking		
makaka or manatū/marsh and lowland ribbonwood, - <i>Plagianthus divaricatus</i>	unknown		
Groundcovers and others			
sand fescue – Austrofestuca littoralis	unknown		

¹⁹ This is an initial list and more plants may be identified by Ngāi Tūāhuriri specialists.

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pohue/clematis – Clematis afoliata	possibly used for cooking treaded around tuna
toetoe – Cortaderia richardii	stem used for kai baskets, cooking, darts, arrows, kites, foretelling
	(weather, fishing), building, medicinal, torches, tapu (chewing),
	bedding, History jottings of Puketapu.
sand sedge – Carex pumila	unknown
sand daphne – Pimelia arenaria	unknown
harakeke/NZ flax – Phormium tanex	used for beliefs, clothing, fishing, medicine and boats
Niche	Plants for Damp or Wet Areas
rautahi-purei/cutty grass – Bolboschoenus caldwellii	unknown
upoko-tangata/umbrella sedge – <i>Cyperus</i> ustulatus	unknown
kāretu/holy grass – Hierochloe redolens	unknown
wiwi/rush – Juncus pallidus	thatching, bedding, fishing/bobbing, birding/hides, spiritism,
remu remu/a mat plant – Selliera radicans	unknown
	Animals
	Birds
(weka and swa	mp hen were also taken within the area)
kuaka/godwit	foretelling
makomako/bellbird	kai/feathers
ruru/owl	foretelling
piwakawaka/fantail	foretelling
pārera/grey duck	kai
pūtangitangi /paradise duck	Kai
Kererū/wood pigeon	Kai and feathers
Kotare/kingfisher	foretelling
	Lizards
mokomoko /skink or gheko	foretelling
	Spiders
katipo	waahi taonga
	Fish
mangō/shark	kai
mangō-maroke/dried shark	
taiwhatiwhati/Shellfish	kai
horihori/sole	kai
patotara/flounder	kai
	Shellfish
taiwhatiwhati/shellfish	kai

Mahinga Kai further explained - In 1879 at Kaiapoi, Wiremu Te Uki, stood before the Smith-Nairn Commission and declared: "We used to get food from all over our Island; it was all mahinga kai. And we considered our island as in a far superior position to any other, because it is called Waipounamu, the greenstone island; the fame thereof reaches all lands" (W Te Uki NA /MA/ 67/4: 295).

Te Uki had an obvious pride in his mahinga kai which was more than economic. Mahinga kai identified who he was and where he was from. There is a cultural connection here associated with mahinga kai that needs consideration. Usually mahinga kai has been discussed in functional terms represented in phrases such as "the seasonal round", used to describe the migratory habits of Ngāi Tahu. Rarely, if ever, has a cultural connection been made to mahinga kai.

As stated earlier mahinga kai is a reference to a phrase taken out of the 1848 Canterbury Purchase. One of the conditions of sale was that the document promised Ngāi Tahu that all its "mahinga kai" would be reserved for them. The relevant part of the text stated: "Ko ō mātou kāinga nohonga, ko ā matou mahinga kai, me waiho mārie mō mātou tamariki, mo muri ihi ia mātou, ā mā te kāwana e

whakarite mai hoki tētahi wāhi mō mātou a mua ake nei, ā te wāhi a ata rūritia te whenua e ngākai ruru".

The Crown interpreted the above text thus "... our places of residence and cultivations must still be left to us, for ourselves and our children after us. And the Governor must appoint a quantity of land for us hereafter when the land is surveyed". (ibid)

The shape of the problem was the interpretation of that word "mahinga kai". Mahinga kai is given different interpretations by the Crown and by Ngāi Tahu. The Crowns interpretation confines mahinga kai to its minimal definition which is cultivations. In 1868, at a Native Land Court hearing in Christchurch, Fenton ruled that he was bound to accept the Crowns interpretation of Mahinga kai. Fenton declared: The court is of the opinion that Mahinga kai does not include Weka preserves or any hunting rights, but local and fixed works and operations. (Minutes of the Native Land Court 1868) Fixed works were to mean gardens and fixed eel weirs. On the other hand Ngāi Tahu has given mahinga kai several definitions. In 1879 at the Smith Nairn Commission Wiremu Te Uki defined mahinga kai as: "Places where we use to obtain food, the natural products of the soil".

Later Te Uki added that mahinga kai meant: "Places where we used to catch birds. The places where we use to catch ducks — paradise ducks … we used to get food from all over our island; it was all mahinga kai". Under further questioning Te Uki added that mahinga kai also referred to "eel weirs". Other Ngāi Tahu witnesses continued to confirm and enlarge upon what Te Uki had stated. In a petition in 1891 by the Ngāi Tūāhuriri Rūnanga, the Rūnanga interpreted the original passage of Kemps Deed as follows: "Our food producing places or places where we might expect to obtain future supplies of food and all fisheries are to be reserved for us and our children after us, and it shall be for the Governor hereafter to set apart some portion for us" (R T M Tau: Wai 27 H6).

The contrast in interpretations is obvious. One party, the Crown, takes a limited approach. The other (Ngāi Tahu) has a wider, more general interpretation to mahinga kai. However, much of this dispute, which lasted right through to the 1998 Ngāi Tahu Claims Settlement rested on the narrow and limited view that the judiciary took on this matter (Tau, R.T. 2014).

Disclaimer and Limitations

This document is a cultural narrative which will serve to inform on and promote inclusion of values and stories into the proposed project design.

Further and ongoing advice should be sought from the principle group mandated to undertake such activities namely the Matapopore Charitable Trust to ensure the authenticity of the narrative's use where applicable.

Limitations are based on the scope of the report and multiple layers available and regionally specific interpretations.

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