

Geraldton Botanical Gardens

Maitland Park
Landscape Master Plan Report



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1.0 INTRODUCTION

EXECUTIVE SUMMARY

FrOGGs is an incorporated community based organisation with the key objective to realise, sustain and interpret the cultural and natural values of the unique botanical heritage of the Mid West.

The Mid-West is located in a biodiversity hotspot which is a region that is rich in plant and animal species and ecosystems; and that has a high degree of endemism (species found nowhere else in the world) that face an immediate threat.

FrOGGs realise that the creation of a botanic garden is a magnificent opportunity, in an expanding economic sector, to add to the tourism income of the region and also to assist local community with better access to knowledge about their local environment. The garden will also contribute to place making and the vibrancy of the Geraldton City Centre. The income that the addition of a botanic garden will add to the regions revenue is substantial, and the FrOGGs would like to work in association with local organisations including the community and City of Greater Geraldton to make this a reality.

This report will:

- Outline the reasons for the establishment of a botanic garden and associated undertakings.
- Provide background on the economic aspects of garden tourism and also analyse the potential income for the City from the addition of a Botanic Garden.
- Provide background on the consultation process the FrOGGs have been involved with to date.
- Provide information that contributed to the development of the concept design.
- Provide a draft implementation plan which includes timelines and deliverables for the project.
- Provide draft budgets for the different phases of the project, which will be implemented in stages. (Appendix 2: Draft Budget).
- Provide background on the envisaged roles and responsibilities of FrOGGs and the City of Greater Geraldton (Appendix 3: Realising the Vision).

VISION

The key objective of the Friends of Geraldton Gardens Inc (FrOGGs) is to realise, sustain and interpret the cultural and natural values of the botanical heritage of the Midwest.

The long term vision of the Froggs is to:

- Create a network of destinations throughout the region which will consist of existing and new attractions to market and showcase our region and increase tourism
- To develop a showcase garden in the centre of Geraldton which could incorporate Maitland Park, Queens Park and the gardens around the St Francis Xavier Cathedral and Monsignor Hawes heritage centre.
- To identify private gardens and other unique places that will form part of our network
- To identify areas of Geraldton that could be enhanced with indigenous landscaping such as the Brand Highway, Durlacher Street (from the entry of town to the Cathedral) and the foreshore.
- To develop marketing material and events associated with our Flora.
- To involve a wide range of stakeholders such as the Aboriginal community, schoolchildren, educational institutions etc.

Driven by a public engagement program FrOGGs aim to deliver an extraordinary place for interacting with the wonders of the greater Mid-West region of Western Australia. The park will become a tangible symbol not only of the endemic flora of this important and threatened bio-region but much more of an expression of how our society can merge natural ecologies within a strikingly urban setting. However, the park is not envisaged solely as a 'Botanic garden', but much more as an engaging, activated and innovative public open space that meets the needs of diverse local and regional user groups. Education focused, the park seeks to engage both local users and tourists alike. Important to the success of this project is community engagement and participation of which FrOGGs continue their broad-based discussions, input and feedback with a variety of stakeholders. This has been and will continue to shape the design and active programming of the final site.

FrOGGs acknowledges the Yamatji traditional owners and their knowledge, custodianship and respect of the region's flora and landscape as crucial in developing the project. The involvement of local aboriginal people in the conception, direction and processes of this project is a key factor in the success of the botanic garden.

CLIENT

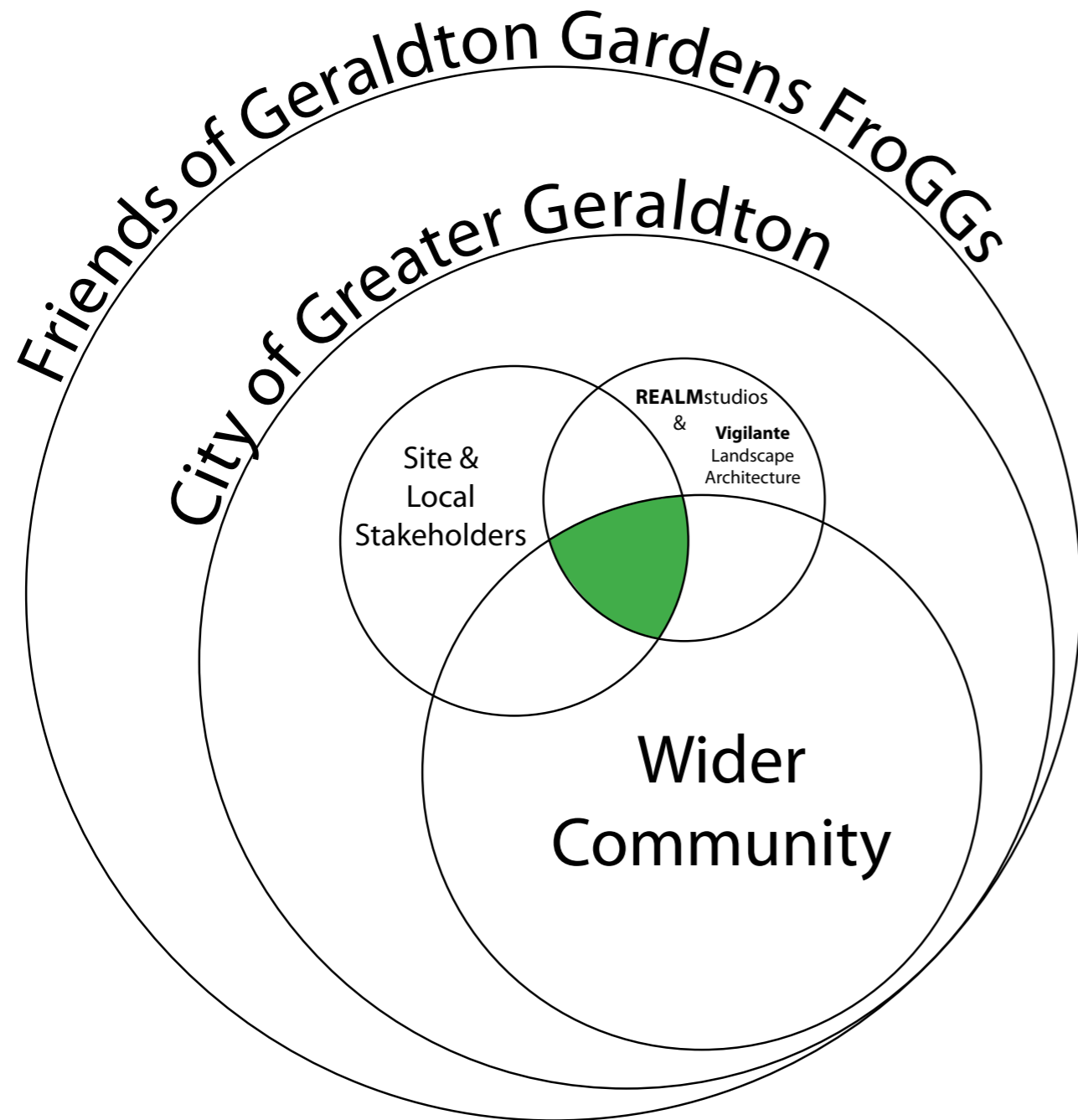
As at March 2016 Friends of Geraldton Gardens Inc. (FrOGGs) have 61 paid members and a management committee of nine members, with Chairperson, Secretary, and Treasurer etc, a Bank Account and an ABN. FrOGGs have a working relationship with the City of Greater Geraldton and have applied for and received a grant to facilitate and pay for a concept plan with the intent of receiving a Memorandum of Understanding to proceed with further planning and developing a botanic garden. FrOGGs have facilitated community discussions which have greatly contributed to strengthening the vision of a Botanic garden and of which this document aims to build upon.

BRIEF

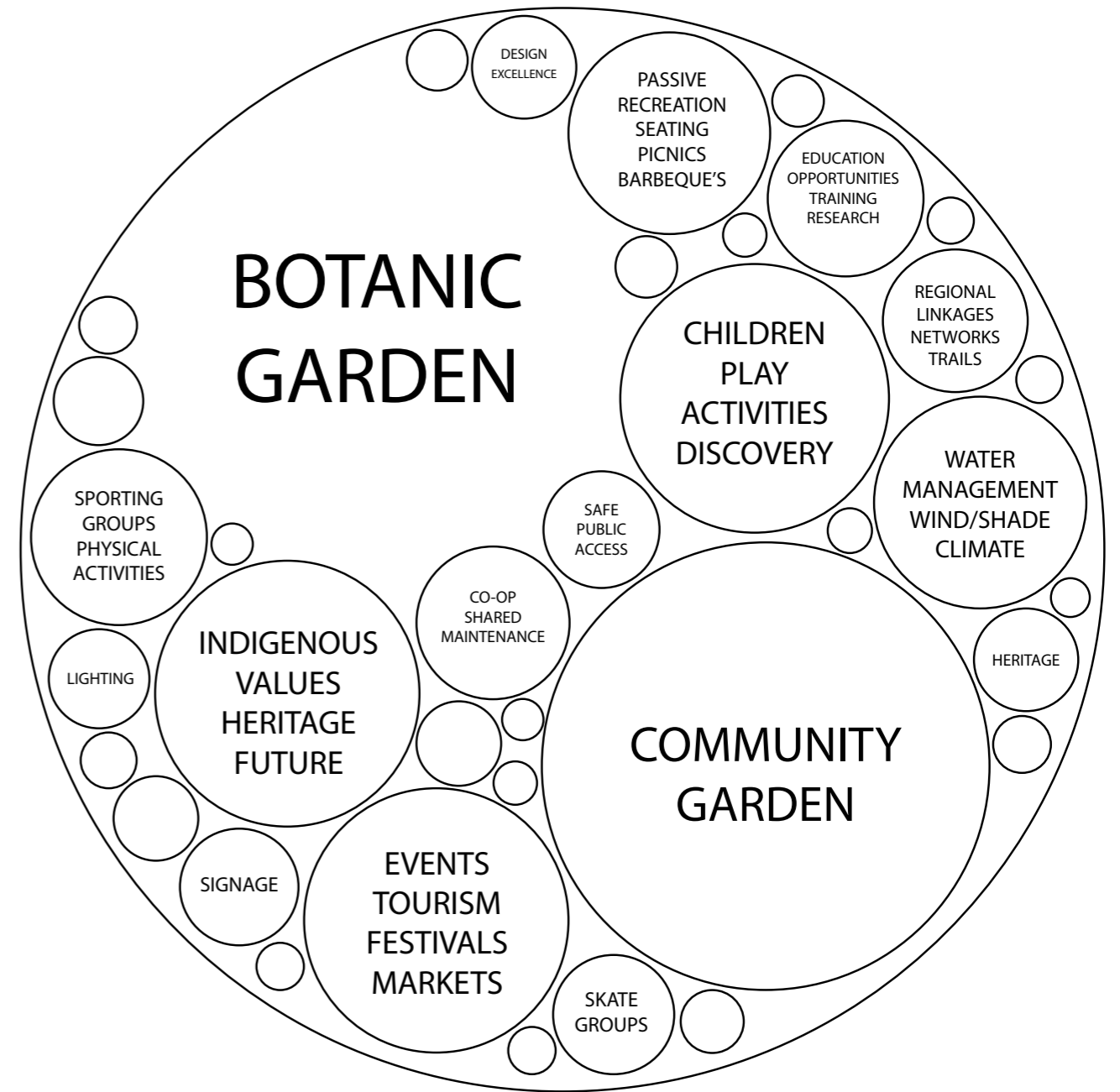
The production of a concept master plan is expected to show the outline and features of a Mid-West 'Botanic garden'. Beyond this the master plan will need to establish a basis for development through exploration of precedents and develop a good understanding of the existing conditions through site analysis. The project vision as outlined is to be examined to clarify both project parameters in terms of site design and organizational structure whilst further defining the brief, vision and project requirements. The production of a staged plan graphic and supporting imagery is to result from the above.



INPUT STRUCTURE



CONCEPTUAL VISION



2.0 ECONOMIC IMPACT OF GARDEN TOURISM

GARDEN TOURISM: A GLOBAL PERSPECTIVE

Dr. Richard Benfield, prominent Garden Tourism specialist and author, was invited to Geraldton on 28 October 2014, by the Chamber of Commerce and Industry. His lecture provided some background of the potential and opportunities in the field of garden tourism.

More background information on the history of garden visitation, tourist motivations, management and marketing of gardens and the future form and tourism-based role of gardens is outlined in his 2013 publication: *Garden Tourism*. (CABI Publishing, Wallingford, Oxfordshire).

The following statements are from his lecture:

- Gardening tourism has the highest revenue of any tourism activity and more tourists visit gardens than Disneyland and Disneyworld combined (that is 50 million a year).
- Orlando gets about 50 million visitors a year, Las Vegas about the same whereas gardens get about 80 million visitors a year in USA.
- All age cohorts are represented in gardening: gardeners on average start at age 24 and usually do not lose interest. Where other attractions such as amusement parks have to attract new visitors every five years, gardens do not.
- Visitors around the world spend about two and a half hours visiting a garden. There is also a strong repeat visitation. Most people that visit a garden have seen another garden in the last six months.
- There is a strong crossover from people who visit gardens to cultural tourism; they go to heritage sites, memorials and other interesting tourist destinations, of which Geraldton has many, covering a wide variety of attractions.
- Gardens do not have a product lifecycle like shops or businesses, gardens are still being built and are very viable.
- There are about 500 public gardens in the USA and 48 in Canada, 300 of which are botanic. The average visitor number is about 50,000 people per annum.
- The most visited gardens in Australia are the Royal Botanic Garden in Sydney, Kings Park in Perth and the Melbourne Botanic Garden. Kings Park attracted 5.75 million visitors last year – averaging 16,000 visitors every day.

- 43% of tour operators have gardens in their product offering. Australia has 166 botanic gardens (WA has only 1) they are generally very well subscribed and have been going on for some time.
- Research indicates that gardens stimulate all of the five human sensory emotions. Art galleries do not.
- Statistics show that once you get into Garden tourism or Botanical garden tourism, you don't have to convince people to visit gardens, they are pre-occupied to do this anyway and the visitors tend to be fairly educated individuals.

TOURISM IN GERALDTON

The MWDC Tourism Development Strategy estimates that Wildflowers of the North Midlands and the natural attractions of Kalbarri and Dongara-Port Denison are currently the region's major drawcards. These attract an average of 729,000 day trip and overnight visitors annually to the Mid West, mostly during holiday periods and from autumn to spring.

July sees an increase in numbers to the visitor centre seeking information on the wildflowers and leads to our busiest time over August and September. The quietest month is usually February when school returns for the new year. The comparison is nearly a 90% increase in numbers through the door! The 2015 wildflower season from July to September saw the largest number of visitors through the door since 2012. Visitor numbers to Geraldton has increased by over 17% between the 2014 and 2015 season. (Source: Geraldton Visitor Centre)

In recent years, domestic overnight visitor numbers to the Mid West have been trending up with an annual average of approximately 358,000 visitors. The Batavia Coast accounts for around 70%, the Murchison 20% and the North Midlands 10% of domestic overnight visitors.

The number of international visitors has been trending down with an annual average of approximately 47,200 visitors. The Batavia Coast accounts for around 84% of visitation, the Murchison 10% and the North Midlands 6%. Day trips in the Mid-West have fluctuated but otherwise remain relatively static averaging around 324,000 annually. Combined day trips and overnight visits have an annual average of approximately 729,000 with 2012 being above average.

Tourism Western Australia research (Geraldton overnight visitors' fact sheet for the years ending 2011/2012 and 2013) estimates the annual average visitor figure as 180,500. Of these, 155,000 (86%) were of domestic origin and 25,500 (or 14%) were from international visitors.

These numbers translate into 586,000 (67%) visitor nights for the domestic component and 285,700 (33%) nights for international visitors. The average length of stay for domestic visitors is 3.8 days and the figure for international visitors is 11.2. This research also indicates that the most popular reason for visiting Geraldton, in both domestic (35%) and international categories (80%) is for holiday or leisure.



Source: bgpa.wa.gov.au/images/support/guided_walk.jpg



FUTURE TOURISM SOURCES

Tourism WA identifies the following market potential for the region for future visitors to WA:

- Visitor spend by tourists from China, Hong Kong, USA, Canada, UK and Australia has the potential to be worth over \$5 billion by 2020;
- Visitor spend by tourists from New Zealand, South Korea, Singapore and Malaysia has the potential to be worth over \$2.5 billion by 2020;
- Visitor spend by tourists from Japan, Indonesia, India, Germany and the Middle East has the potential to be worth over \$1 billion by 2020;
- Brazil and Vietnam are identified as ‘fast emerging’ markets; and
- Italy and France are classified as ‘high priority’ markets.

GARDEN TOURISM AND ECONOMIC GROWTH

As the resources boom shows signs of slowing, regions in Western Australia find themselves in a period of transition. This is due to the demand for labour and services in the resources sector reducing as large projects shift from construction to production phases. To be successful in this transition, regions in Western Australia will have to play a proactive role in creating their futures, by “identifying and pursuing new competitive advantages that best capitalise on the changing environment”.

Tourism, which includes event-based tourism, is identified as one of the fantastic five growth opportunities for Australia in the future (together with agribusiness, gas, international education, and wealth management). These “lie squarely at the intersection of global opportunity and Australian advantage”. (Deloitte, Building the Lucky Country, #3, Business Imperatives for a Prosperous Australia.)

The same publication states that tourism is projected as one of the world’s fastest growing industries with forecasts of the sector growing by 4% per annum from now, until 2033. That is, doubling in size over the next two decades. This places WA at an advantage, since many of these travelers will depart from China and other Asian origins including Malaysia and Singapore.

The Mid West Development Commission (MWDC) identifies tourism as a growth opportunity in the Mid West regional Blueprint. The long term aspirations of the MWDC Mid West Tourism Strategy, which is one of the pillars of the Mid West Regional Blueprint is for the region to:

- attract 1,000,000 overnight visitors by 2050, staying 5,000,000 nights, and generating overnight expenditure of \$544,000,000;
- attract 616,000 day trip visitors generating \$67,000,000 expenditure by 2050; and
- be recognised as a leading self-drive region offering a broad range of high quality, year-round options for the Aspirational Achiever, Dedicated Discoverer, Grey Explorer, Family Connectors and Experience Seeker markets.

ECONOMIC IMPACT

If a botanic garden draws only 0,5% of Perth Botanic Garden Visitors, over and above our existing wildflower tourists, the direct injection into the local economy will equal \$6,900,000 and the amount of revenue, based on the tourism multiplier will be between \$8,970,000.00 and \$13,248,000.00 annually

This is calculated as follows:

Perth Botanic Garden attracts 5.75 million visitors annually: 0,5% of this equals 28,750 visitors, which stay in Geraldton for an average of 2 days and spend \$120 on a (low) average.

The direct injection into the economy thus equals:

28,750 (visitors) x 2 (days) x \$ 120 = \$6,900,000 annually.

A ‘tourism multiplier’ measures the amount of flow-on effect from \$1 spent in the tourism sector, in other words, how many times that \$1 is circulated in the local economy before it leaves the region. For instance, sources of leakage from an area include taxation, foreign ownership and investment and the spending of money on products and services not sourced from the local region.

Remplan (<http://www.remplan.com.au/>) provides a multiplier for the tourism sector between 1.3 (Type 1 Multiplier) and 1.6 (Type 2 Multiplier).

A report compiled by the Caravan Industry Association of Australia (Benefit Report, 2014) uses a multiplier of 1.92.

These multipliers indicate that for every \$1 spent on a tourism activity or product, the benefit to the local economy is between \$1.3 and \$1.92.

The estimated benefit of \$6,900,000.00 to the local economy, annually, with a very conservative baseline of 28,750 extra visitors equals between \$8,970,000.00 and \$13,248,000.00.



Source: bgpa.wa.gov.au/images/bgpa/images/thingstodo/views_sign_jdarcy.jpg

3.0 STRATEGIC ALIGNMENT

FEDERAL LEVEL: TOURISM 2020

Tourism 2020 was developed to respond to ongoing challenges and emerging opportunities for the Australian tourism industry. Providing a framework for growth, Tourism 2020 will assist tourism businesses remain competitive into the future in a dynamic global environment.

Tourism ministers from the Australian and state and territory governments have identified four policy priorities under Tourism 2020. These include:

- *encouraging high-quality tourism experiences, including Indigenous tourism*
- *undertaking coordinated and effective marketing campaigns to drive demand*
- *working with industry to support the development of tourism infrastructure that can drive demand.*

Australian, state and territory governments and tourism industry stakeholders agreed to work together to deliver several key reforms .

A key reform area that the botanic garden looks to operate within is to:

Integrate national and state tourism plans into regional development and local government planning to generate effective infrastructure to service regional communities, services to the visitors and encourage private investment in tourism infrastructure.

STATE LEVEL: STATE GOVERNMENT STRATEGY FOR TOURISM IN WESTERN AUSTRALIA, 2020, TOURISM WESTERN AUSTRALIA

The overall vision statement for tourism in Western Australia is as follows:

Through partnership between private sector and government, the State's tourism industry will achieve its full potential by delivering against the tourism brand promise – Experience Extraordinary Western Australia.

To bring this vision to life, the goal for tourism in WA is:

To double the value of tourism in Western Australia – from \$6 billion in 2010 to \$12 billion by 2020.

The Strategy identifies seven strategic pillars for growth which are:

The Experience Extraordinary Brand:
The brand represents a significant opportunity to stimulate awareness and demand in key markets, and at the same time provide industry with a clear and aspirational benchmark for the delivery of high quality products and services.

Aboriginal Tourism:
Extending the reach and impact of Aboriginal tourism experiences is an important element of differentiation in overseas markets and delivers on the Experience Extraordinary brand promise.

Infrastructure:
Government and industry partnership is critical to address systemic shortfalls in hotels, aviation and transport, workforce development and other infrastructure areas.

Asian Markets:
It is critical to focus on international growth markets. To ensure that WA grows its share, strategies must be in place to meet target market requirements in terms of the routes to get here, and the quality and relevance of the products, service and experience they receive once here.

Business travel:
With the growth of WA's economy, the business travel segment represents a major opportunity to drive growth in both international and domestic visitation – for business and leisure.

Regional Travel:

Many of the Extraordinary Experiences available in Western Australia are located in regional areas, as are many of the leisure based tourism businesses in the State. To enable visitors to enjoy these experiences and to support the regional tourism businesses, increasing visitors to regional areas is critical.

Events:

Events are a powerful yet currently underutilised asset to help energise intrastate and interstate demand, appeal to overseas markets and support the Experience Extraordinary brand promise.



Source: abc.net.au/news/topic/surrey-downs-5126



REGIONAL LEVEL: THE MID-WEST BLUEPRINT AND MID WEST TOURISM DEVELOPMENT STRATEGY

This strategy identifies tourism opportunities, game changers, priorities and gaps for the Mid West to inform future development and investment.

The long term aspiration of this strategy is for the:

- Mid West to attract 100,000 overnight visitors by 2015, staying 5,000,000 nights, and generating overnight expenditure of \$544,000,000;
- 616,000 day trip visitors generating \$67,000,000 expenditure by 2050; and
- Mid West to be recognised as a leading self-drive region offering a wide range of high quality, year round options for the Aspirational Achiever, Dedicated Discoverer, Grey Explorer, Family Connector and Experience Seeker Markets.

The document acknowledges the potential of the Mid West but also notes the growth of tourism in the area as being erratic due to:

- Aged tourism infrastructure;
- Limited choices of holiday destinations,
- Lack of “iconic” appeal, activities or experiences;
- Distinct and separate branding of towns and therefore no cohesive (regional) identity in the mind of visitors;
- Regional produce is not highly promoted in hospitality venues; food-wine-culinary experiences are underrepresented; and food tourism is under-developed Aboriginal tourism activities are under-represented;
- Digital media and online promotional information is limited, including gaps in town information, day trip options, experiences available and recommended ‘must- do’ activities; and
- Competition from neighbouring world heritage areas and overseas destinations.

Tourism opportunities determined for the Mid West, identified by the Strategy (relating to Geraldton) include:

- Mid West events and iconic events;
- The Abrolhos Island Maritime History and nature-based experiences;
- Develop self-drive trails;
- Adventure activities, (mountain bike, canoeing, riding, walking trails);

- Development of an ‘iconic’ skywalk lookout, sealed access roads, a nature bank eco-park, campground and trail upgrades in Kalbarri National Park;
- Develop coastal campsites and day use visitor nodes from Greenhead to Kalbarri;
- 4WD Trail along the Zuytdorp Coast linking Kalbarri to the Shark Bay World heritage area;
- The development of tourism-recreation infrastructure;
- Develop geo tourism and a geo park in the Murchison;
- Aboriginal tourism experiences and activities;
- Extend and enhance the Wildflower Way;
- Headworks and planning pre-approval for a conference facility in Geraldton;
- Grow visitation from China;
- Encourage eco nature, food and cultural tourism experiences; and
- Events tourism, aboriginal tourism, geo tourism and coastal experiences.

LOCAL LEVEL: THE CITY OF GREATER GERALDTON STRATEGIC COMMUNITY PLAN

The creative community plan is organised into eight broad themes, and each theme includes a number of initiatives. The following are relevant to this initiative.

Theme 3: Place & Identity

Develop Greater Geraldton’s sense of place and identity

3.1: Recognise the different cultural traditions that have built contemporary Greater Geraldton culture.

3.5: Incorporate cultural diversity into events and activities.

Theme 4: Cultural Tourism

Develop and promote the uniqueness of the region

4.1: Promote the region’s cultural/artistic events and activities.

4.6: Build the City’s capacity to attract international conventions.

4.7: Increase the capacity to host multiple national or international trade or tourism conferences per year.

4.9: Leverage off other major events to cross-promote Greater Geraldton’s artistic and creative strengths.

4.10: Actively seek new and different events to be run in the City that will attract visitors.

LOCAL LEVEL: CITY OF GREATER GERALDTON CITY CENTRE VIBRANCY STRATEGY

This strategy contains a number of actions that relate to this project:

- Consolidate and combine promotion of the City through a consolidated website that promotes the city centre across all sectors (tourism, investment, events etc.) with stakeholder to provide regular updates via e-newsletters;
- Promote heritage and culture through programming and events;
- Align key stakeholders’ events calendars and cluster events to create critical mass of seasonal activity;
- Make Geraldton synonymous with world-class, unique and authentic activities;
- Establishing flagship events that can be ‘owned’ by the city, to support/endorse the brand and promote the city centre;
- Adopt themes that leverage the city centre’s key assets and unique strengths (fresh produce, seafood and sailing, indigenous [mid-west], beach, local culture, port) etc;
- Relocate existing special events to the city centre wherever possible;
- Support cultural development programs and encourage activation of the foreshore, Marine Terrace, as well as Queens Park Theatre;
- Facilitate community members, organisations and businesses to deliver quality events for the community;
- Support a strategic, diverse, vibrant and sustainable program of events in Greater Geraldton;
- Attract and support events which provide optimal benefits (social, cultural and economic) to the Greater Geraldton area; and
- Strengthen Greater Geraldton’s position as a desirable place to live, work and play.

4.0 DEFINING THE REGION

THE GERALDTON & MIDWEST REGION

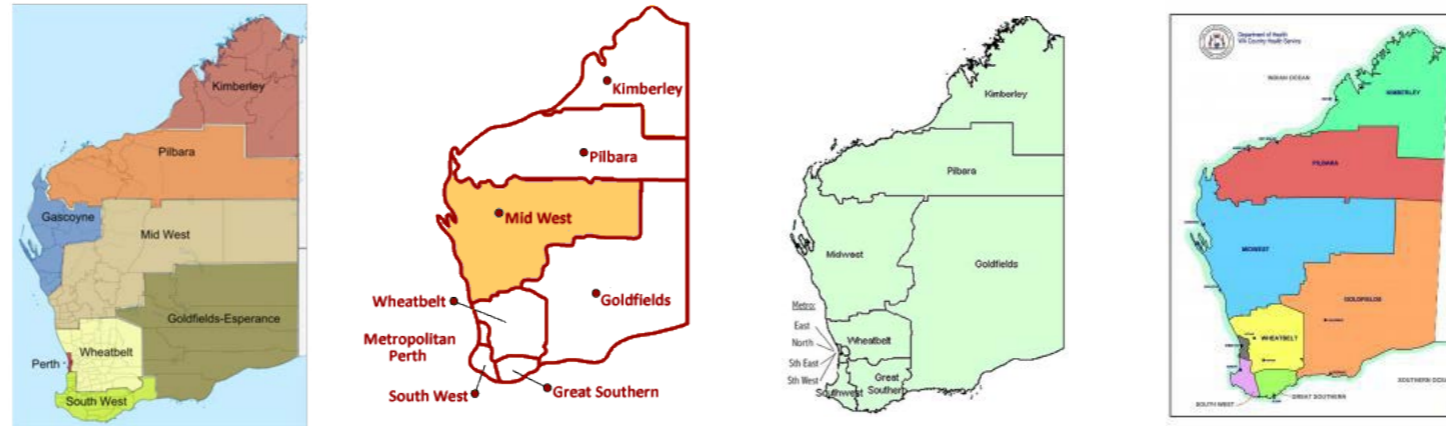
A Geraldton botanic garden, would represent and celebrate the broader region's natural assets in a diverse and engaging garden landscape. The development of a contemporary Botanic garden is an opportunity for Geraldton to demonstrate its surrounding landscapes, flora and cultures in an accessible and urban setting whilst promoting tourism and travel to sites and trails across the region. It is important for the garden to have a strong rationale for defining the region it represents, as this then forms the framework for design of garden spaces and selection of plant species.

The Midwest region is a term that has historically been associated with the administrative region for which Geraldton serves as the main regional centre. The boundary and definition of the Midwest region varies greatly between different government departments, and organisations. At its broadest it ranges from Exmouth to Lancelin along the coast (taking in the regional centres of Geraldton and Carnarvon) and extending eastward as far as the WA/SA border. More commonly it refers to an area ranging from Kalbarri to Greenhead and eastward as far as Wiluna.

"The Mid-West Region of Western Australia extends along the west coast from Green Head to Kalbarri and more than 800km inland to Wiluna in the Gibson Desert. Its area of 468,712km² covers nearly one fifth of the State. The City of Greater Geraldton is the region's commercial, administrative and service centre."

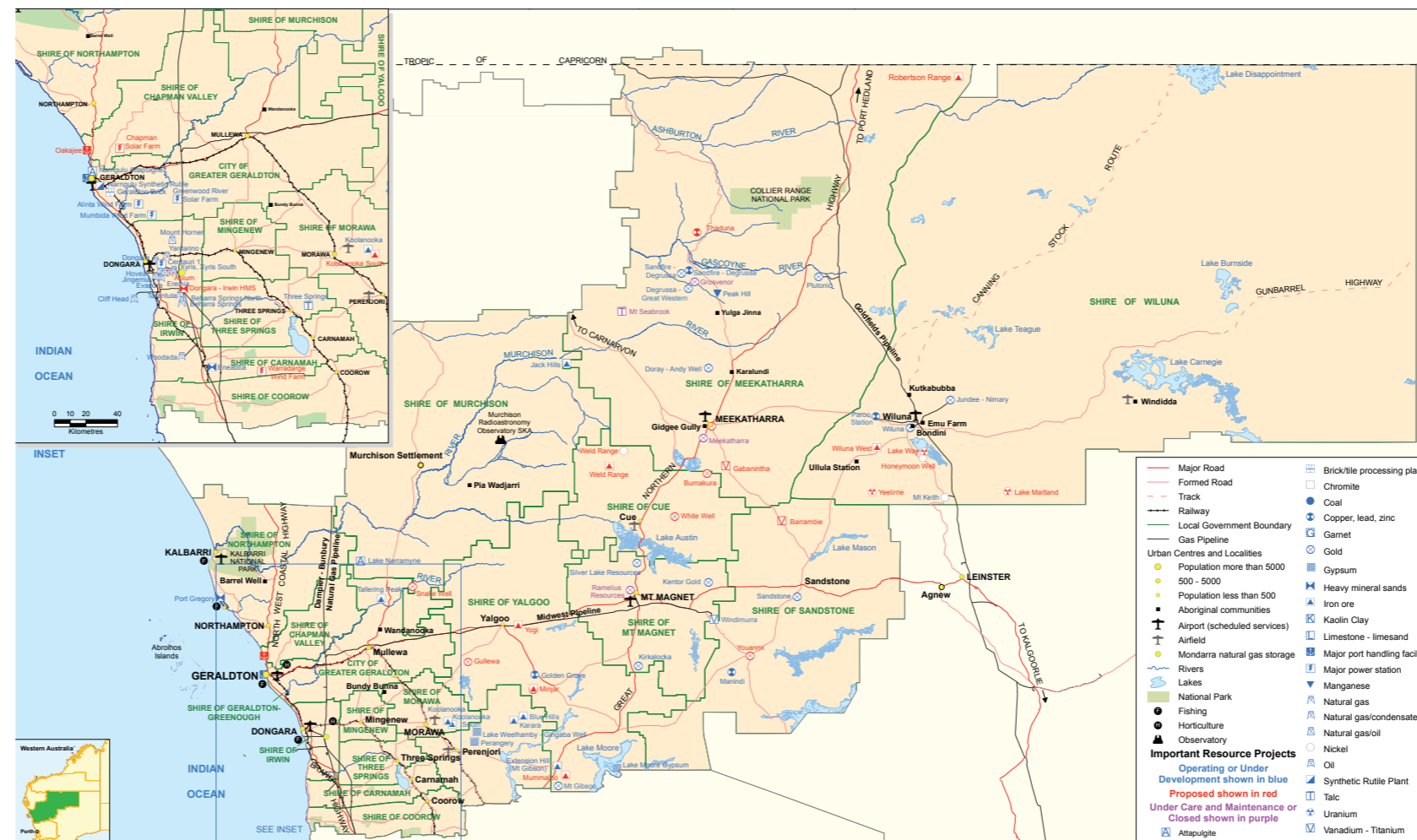
The Mid-West includes a diversity of geographic features. Ranges include the flat topped Moresby Ranges near Geraldton, the Weld, Nicholas, Dividing, Montague, and Robinson ranges. However, these are minor and with a few other exceptions including the dissected Northampton Block and small areas of breakaway country, the region tends to be relatively flat. Apart from these 'outcrops', the most prominent landform features in the region are the river valleys formed by the Greenough, Chapman and Irwin rivers and the spectacular gorges carved by the Murchison River in the sedimentary rock layers near Kalbarri. In eastern parts of the region, the absence of external river systems has resulted in the formation of numerous salt lakes. These varied landscape support a myriad of ecological communities each supporting a wide variety of flora."

Mid West Development Commission (2013)



VARIOUS MAPPINGS OF THE MID-WEST

Sources: wikitravel.org/upload/shared/thumb/3/32/Proposed_WA_regions.png, westausguide.com/wa_regions.php, WA VHC Region Map, DOH WA Region Map



MID-WEST AREA MAP - GOVERNANCE + MAJOR FEATURES

Source: Department of Regional Development



THE YAMATJI REGION

'Yamatji' is the wadjarri word for man/person and is a name that a number of Aboriginal groups within the Midwest region collectively identify with in referring to 'Yamatji people' and 'Yamatji country'. Wadjarri is the largest language group linguistically & geographically within what can be termed the 'Yamatji region'. For our purposes the Yamatji region is most easily defined by the region represented by Yamatji Marlpa Aboriginal Corporation the native title regional representative body. This area represents the boundaries of native title claimant groups that identify broadly as 'Yamatji people'.

The use of the Yamatji region is a term to broadly define the area we are working within. Aboriginal tribal and environmental boundaries tend to align and are more relevant than contemporary administrative boundaries.

Reference to the aboriginal cultural region respects the custodial role of aboriginal people in regards to the regions botanical resources.

INDIGENOUS IMPORTANCE

"Within the Midwest region there are various localised Aboriginal language groups which are collectively known as Yamatji and include the Amangu people, Naaguja people, Wadjarri people, Nanda people, Badimia people and additionally the region includes the Western Desert people known as the Martu people.

The Yamatji people have a strong presence in the region and a major focus for the City is to engage and consult with Aboriginal community groups on all key aspects pertaining to culture and to foster a unified approach towards building a positive sustainable future."

City of Greater Geraldton (2014)

A Mid-West Botanic garden has the potential to create a practical reconciliation project where local Indigenous and non-Indigenous people can work together. The region's flora is an aboriginal resource that exists because of traditional custodianship and has been largely decimated by non-aboriginal land management – the involvement of local aboriginal people in the conception of this project and subsequent process of permissions to collect, use and interpret regional flora, landscapes and cultures is critical to the project.

The city of Geraldton and the Maitland park site sit within the overlapping native title claim areas of the Amangu people, Naaguja people and Mullewa Wajarri people. The involvement of these groups will initially be critical to the development of this particular site. Initial steps have been made through Yamatji Marlpa Aboriginal Corporation, to introduce the project concept to traditional owners of the Maitland park site and hopefully the development of a collaborative relationship with FroGGs & CGG for further planning and design of the project.

Beyond the proposed garden site, any representation of Yamatji landscapes and cultures and collection, propagation and planting of Yamatji plant resources from across the region will be dependent on permissions and further collaborative relationships with those traditional owner groups.

There are numerous opportunities for Yamatji people to be involved or drive aspects of the garden project particularly the representation of Yamatji country, culture and traditional ecological knowledge attached to plant resources. The following opportunities are noted:

- Garden design development and planning
- Seed collection, propagation, planting
- Landscape construction opportunities for Yamatji artists, & designers
- Interpretation & education opportunities
- Regional cultural awareness training venue
- Potential cultural tourism within the garden site and the promotion of cultural tourism at the regional scale



YAMATJI & PILBARA REPRESENTATIVE AREA

Source: ymac.org.au/wp-content/uploads/2013/04/representative-areas.png



ABORIGINAL HERITAGE TOUR AT ROYAL BOTANIC GARDENS SYDNEY

Source: australia.com/content/australia/de_de/campaigns/discover-australias-aboriginal-tourism-experiences/



ABORIGINAL CULTURAL TOUR AT ADELAIDE BOTANIC GARDENS

Source: tastesa.com.au/ImageGallery

5.0 DEFINING THE BOTANICAL REGION

SOUTHWEST AUSTRALIA ECOREGION & SOUTHWEST AUSTRALIA BIODIVERSITY HOTSPOT

The Southwest Australia Ecoregion (SWAE) is a vast, triangular-shaped swathe of land stretching roughly from Shark Bay on Western Australia's northern coast to Esperance on the south-east coast, and then extending in a narrow band towards the South Australian border. It covers approximately 493,000 square kilometres of some of the most biologically diverse areas on Earth¹, and is unique, even by Australian standards. An ecoregion is a large area of land that contains a geographically distinct array of species, natural communities, dynamics and environmental conditions.

The Southwest Australia Ecoregion was selected as one of the 35 Global Priority Places in a scientific review conducted by WWF in 2007. The ecoregion has also been recognised as:

- one of only 34 global biodiversity hotspots, based on the high number of unique plants and the high level of threats to the region by Conservation International.
- an Endemic Bird Area by BirdLife International.
- a Centre for Plant Diversity by WWF and the IUCN.

Many people don't realise that the Southwest Australia Ecoregion is one of five Mediterranean biomes and that this biome type is the most threatened of the planet's eight biomes. Mediterranean biomes have extremely high levels of biodiversity and are severely threatened by rapidly expanding populations.

In fact, this region has the highest concentration of rare and endangered species in Australia. The SWAE is thus a primary focus for biodiversity conservation both nationally and internationally.

The ecoregion's landscape and its biodiversity is truly unique on a global scale. Characterised by hot, dry summers and cool, moist winters the region is one of only five Mediterranean biomes in the world that experience these conditions. Whilst the Mid-West's landscape and habitat is globally rare, it features extraordinary biodiversity of uniquely adapted animal and plant species with these five areas collectively harbour well over 10 per cent of the Earth's plant species. Most plants are fire adapted, and dependent on this disturbance for their persistence.

The southwest Australia ecoregion's shrub and woodlands have flora that are significantly more diverse than the other Mediterranean eco-regions. More than 5,500 species of plants have adapted to southwestern Australia, with nearly 70 percent being endemic.

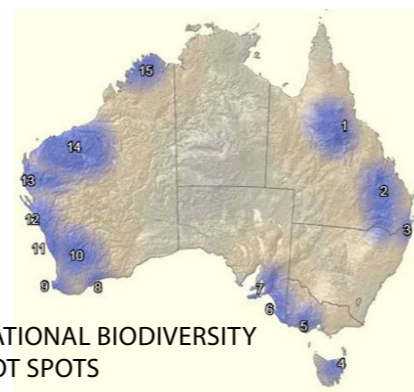
This high level of botanic endemism is due in part to the landscape. Denuded and highly weathered, the area comprises of large complexes of different soils over relatively short distances. It is these differences in soil structure and properties that has led to the diversification of large numbers of plant species and communities, with many restricted by their high level of specificity.

The area has been recognized as a global biodiversity hot spot. However, large areas (over 54%) of this botanical province have been extensively cleared of native vegetation leaving the remaining vegetation highly fragmented, degraded and susceptible to dryland salinity.

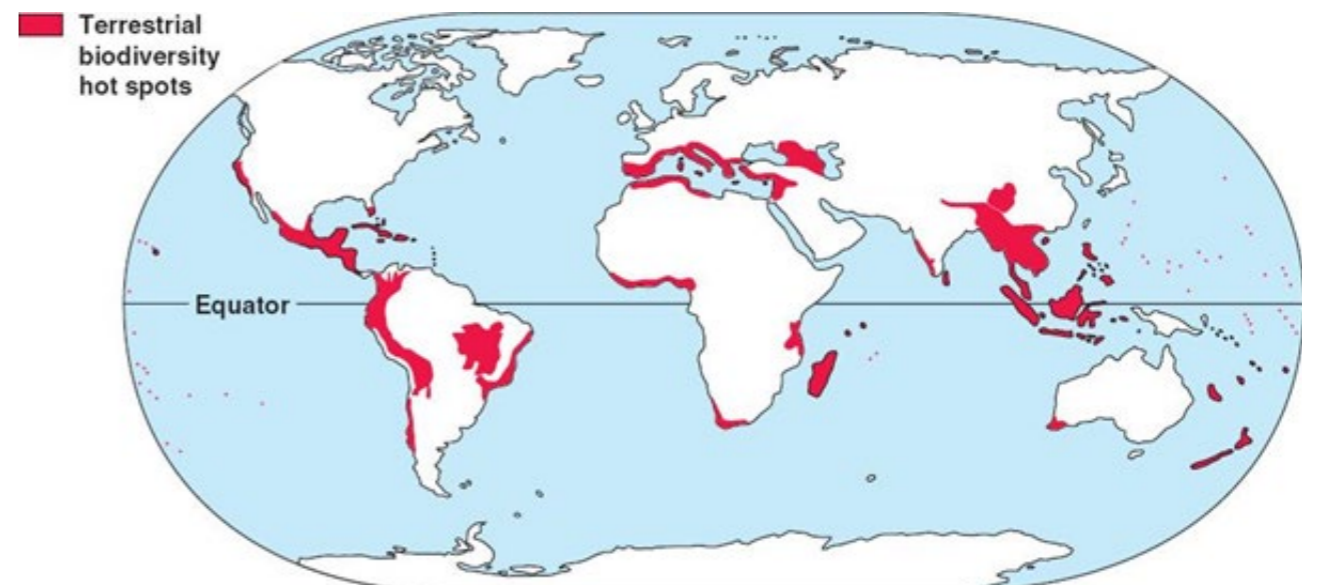
AUSTRALIA'S 15 NATIONAL BIODIVERSITY HOTSPOTS - #12 GERALDTON TO SHARK BAY SAND PLAINS

Extensive heaths and scrub-heaths, strongholds for native plants and animals, characterise much of the hotspot. Sandplains are most extensive in the north, where the area overlaps the edges of the Carnarvon Basin hotspot. The sandplains are home to a diverse range of endemic plants and many reptiles, including a number of endemic small skinks and the Western Australian Carpet Python.

Pastoralism, with some cereal cropping, dominates much of the region, and grazing pressure from stock and rabbits has led to land degradation and fragmentation of vegetation. Unsustainable grazing is also causing high sediment loads in rivers and extensive salination across the area.



Source: google.com/site/climatetypes/mediterranean



Source: alfa-img.com/show/ecological-hotspot

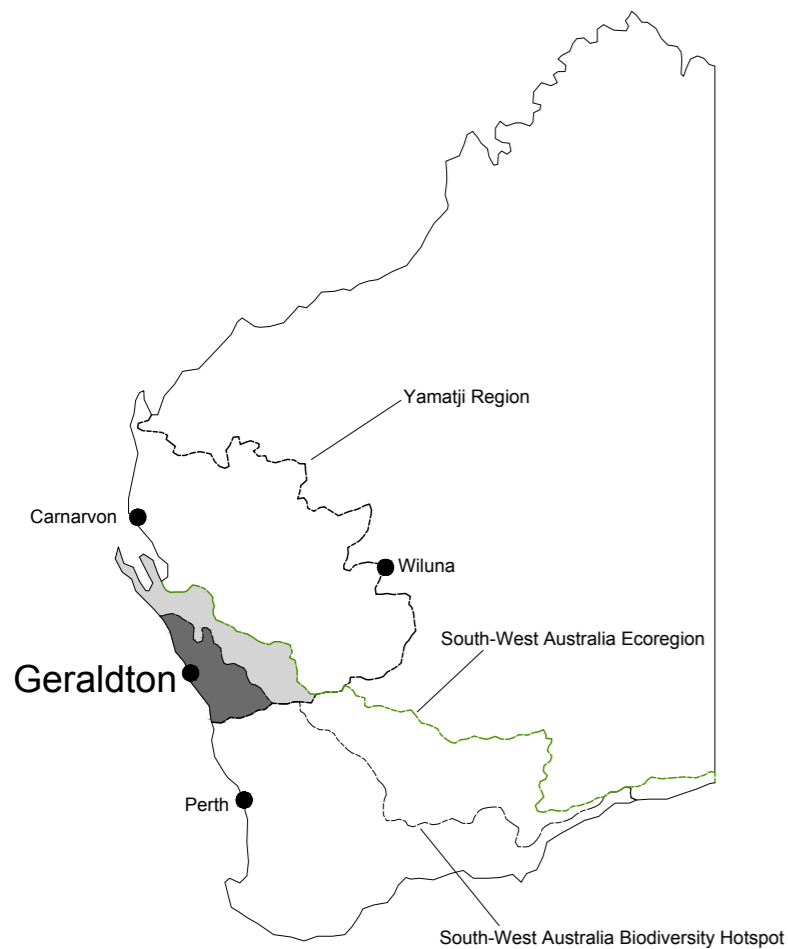


THE YAMATJI-HOTSPOT REGION

In order to define the region that a Geraldton Botanic Garden would represent, we have overlaid the Yamatji region with the south west Australia ecoregion & biodiversity hotspot. This provides focus on an area that is relevant in a local context whilst botanically significant on a global scale.

We have termed this region the Yamatji-hotspot region and it will initially provide the broader area of focus for the Geraldton Botanic garden project.

Most of Australia's only biodiversity hotspot – the southwest Australia ecoregion falls within Nyoongar country, with a small northern triangle sitting within Yamatji country. This triangle is unique as it represents a transition area between the more temperate and higher rainfall areas of the southwest and the arid zones and sub-tropics of the Gascoyne and Pilbara. The Yamatji hotspot region is characterised by a lot of southwest plant species at their northernmost extent as well as northern plant species at their most southern reach.



SUB-REGIONS

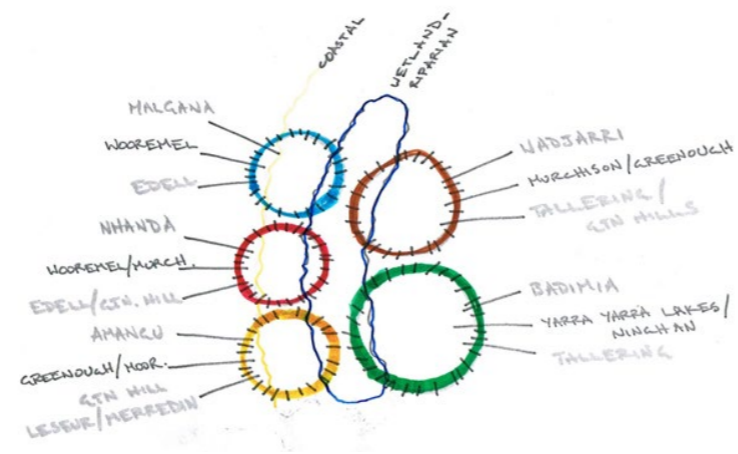
Having defined a region that a Geraldton botanical garden could represent it was then necessary to define some sub-regions that could inform a finer system for laying out garden spaces and developing a planting strategy.

Within the defined region the dominant Aboriginal cultural groups are:

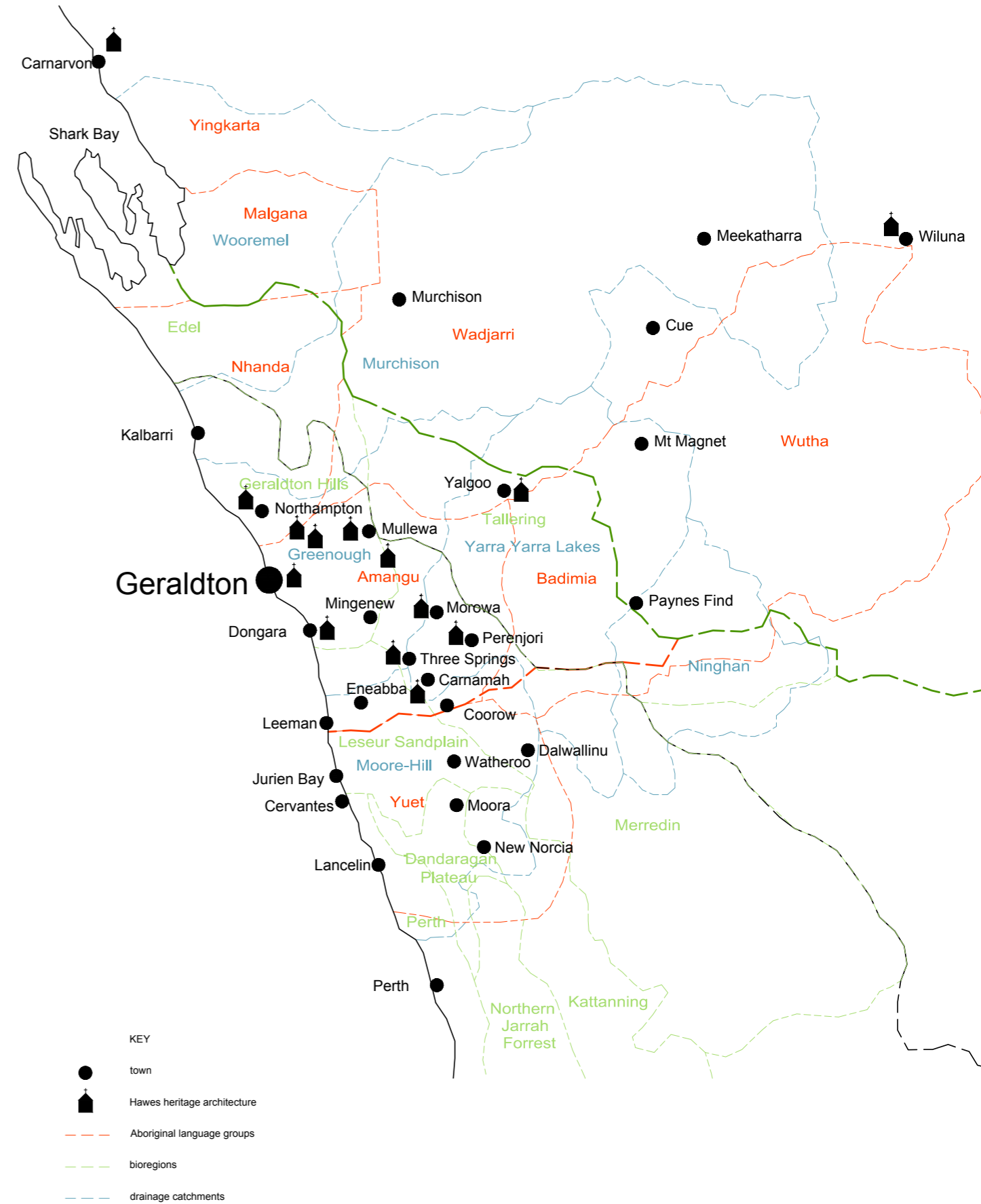
- Amangu, (including overlaps with Naaguja, Mullewa Wadjarri & Widi)
- Badimia,
- Nanda,
- Malgana
- Wadjarri

(The representation and definition of these groups is more complex than outlined here and may change based on future discussions with traditional owners)

These cultural groupings are initially being used as the overarching boundaries for dividing the garden area into sub-regions to be represented. The division by Aboriginal cultural group sets up a structure for approaching traditional owner groups to gain permissions and hopefully collaborate in defining and interpreting sub-regional landscapes and cultures and using Aboriginal plant resources in the formation of the botanic garden.



PLANTING STRATEGY RELATING TO ABORIGINAL CULTURAL GROUPS



- KEY
- town
 - ⬛ Hawes heritage architecture
 - - - Aboriginal language groups
 - - - bioregions
 - - - drainage catchments

5.0 DEFINING THE BOTANICAL REGION

BIOREGIONS

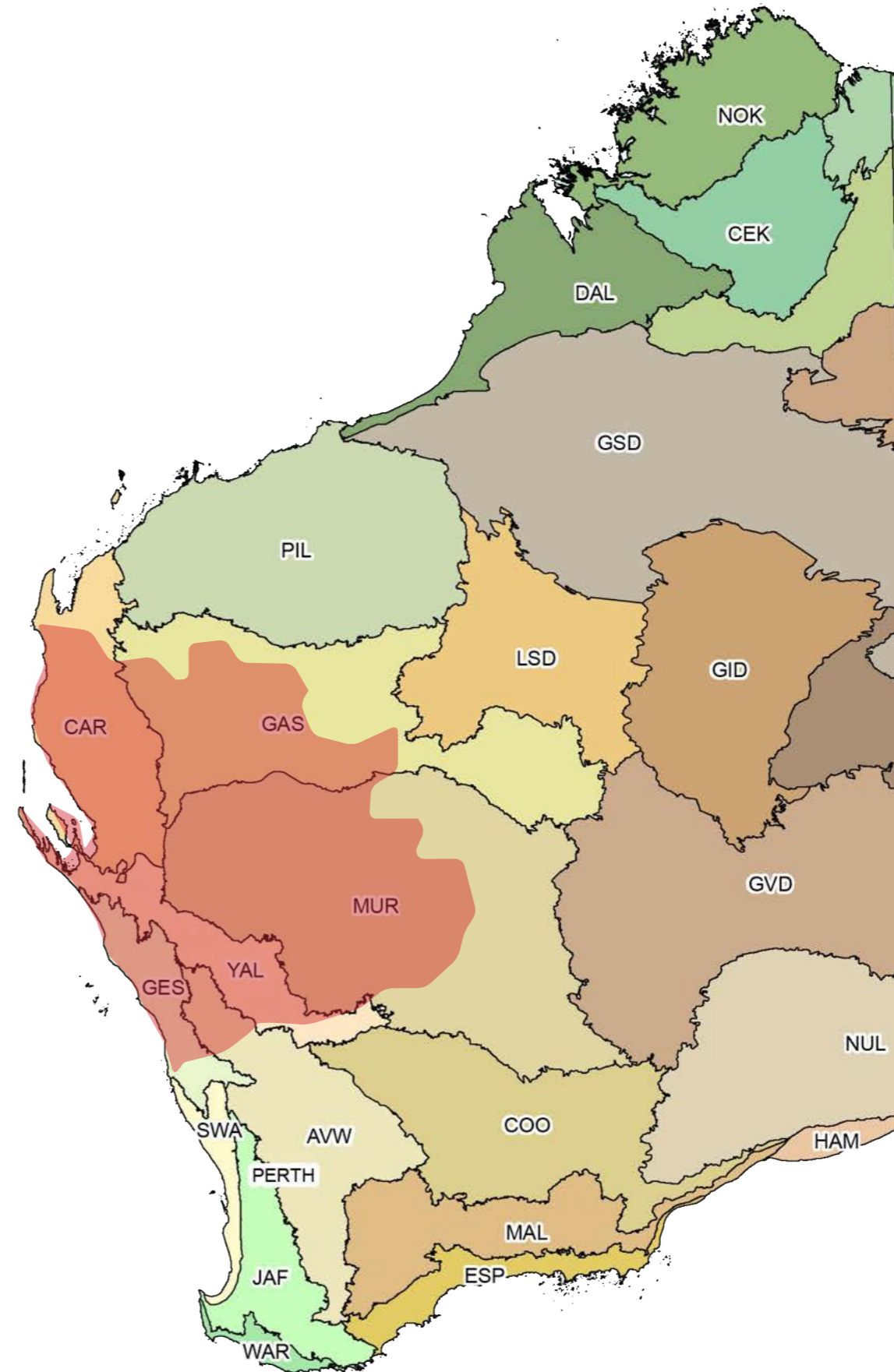
A bioregion is an area of land or sea defined by common patterns of natural characteristics and environmental processes (such as geology, landform patterns, climate, ecological features and plant and animal communities). A bioregion's borders are defined by natural boundaries such as mountain ranges and soil types (rather than the political boundaries of many maps) therefore some bioregions will cross into other states and territories. Each bioregion has a unique collection of ecological communities as well as different patterns of land use and threats to biodiversity.

The Interim Biogeographic Regionalisation for Australia (IBRA) classifies Australia's landscapes into 89 large geographically distinct bioregions based on common climate, geology, landform, native vegetation and species information.

The priorities of developing a bioregional mapping system is to define key habitats for nationally listed threatened species or migratory species and/or Ramsar sites or wetlands of national importance. It also seeks to identify areas that contribute to whole-of-landscape conservation outcomes, such as places that offer refuge and or contribute to connectivity and the adaptation of biodiversity to changing climate.

The Yamatji hotspot region includes the following IBRA sub-regions:

- CAR Carnarvon
- GAS Gascoyne
- MUR Murchison
- YAL Yalgoo
- GES Geraldton Sandplains
- AVW Avon Wheatbelt



INTERIM BIOGEOGRAPHIC REGIONALISATION
AUSTRALIA, VERSION 7 (2012)
Source: Department of Sustainability, Environment, Water, Population & Communities

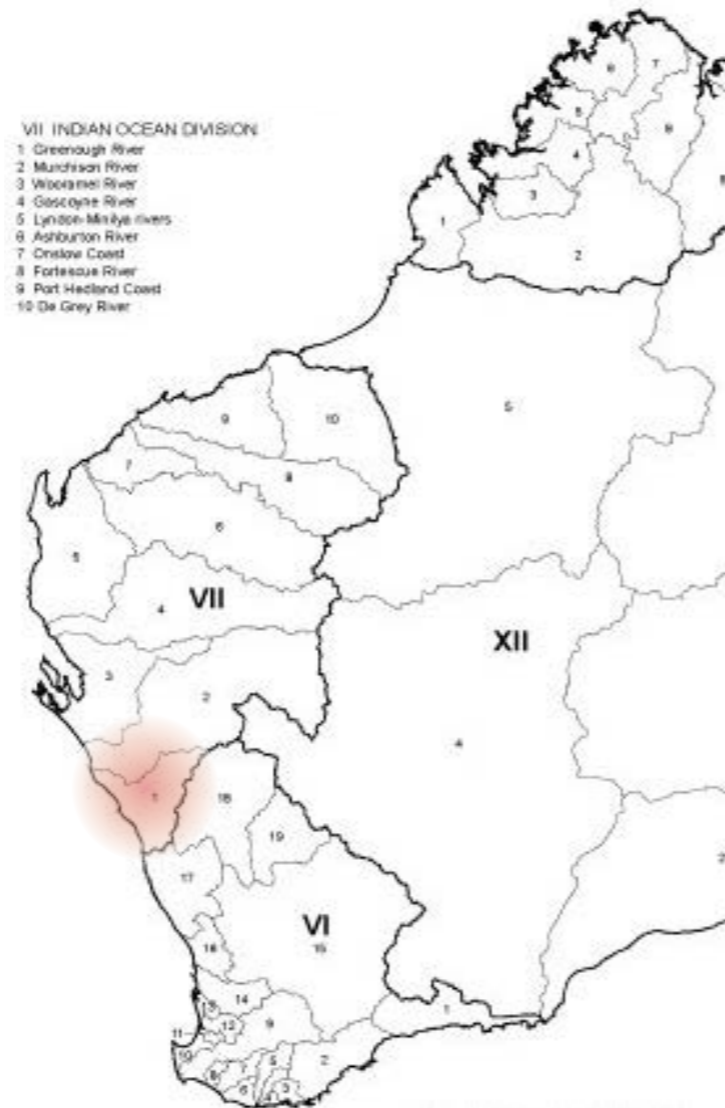
DRAINAGE DIVISIONS

The Yamatji hotspot region's rivers are dominant features in the landscape. The main rivers include; the Wooremel, Murchison, Hutt, Bowes, Chapman, Greenough, Irwin, Arrowsmith, Hill, & Moore.

We have used the system of drainage divisions for Australia to form another layer to assist in developing sub-regions. Drainage divisions relate to coastal rivers and inland lake system catchments which have further relevance to local NRM and landcare groups which are often defined by such systems.

The drainage sub-divisions in the Yamatji hotspot region are:

- Wooremel River 3
- Murchison River 2
- Greenough River 1
- Moore-Hill River 17
- Yarra Yarra Lakes 18
- Ninghan 19

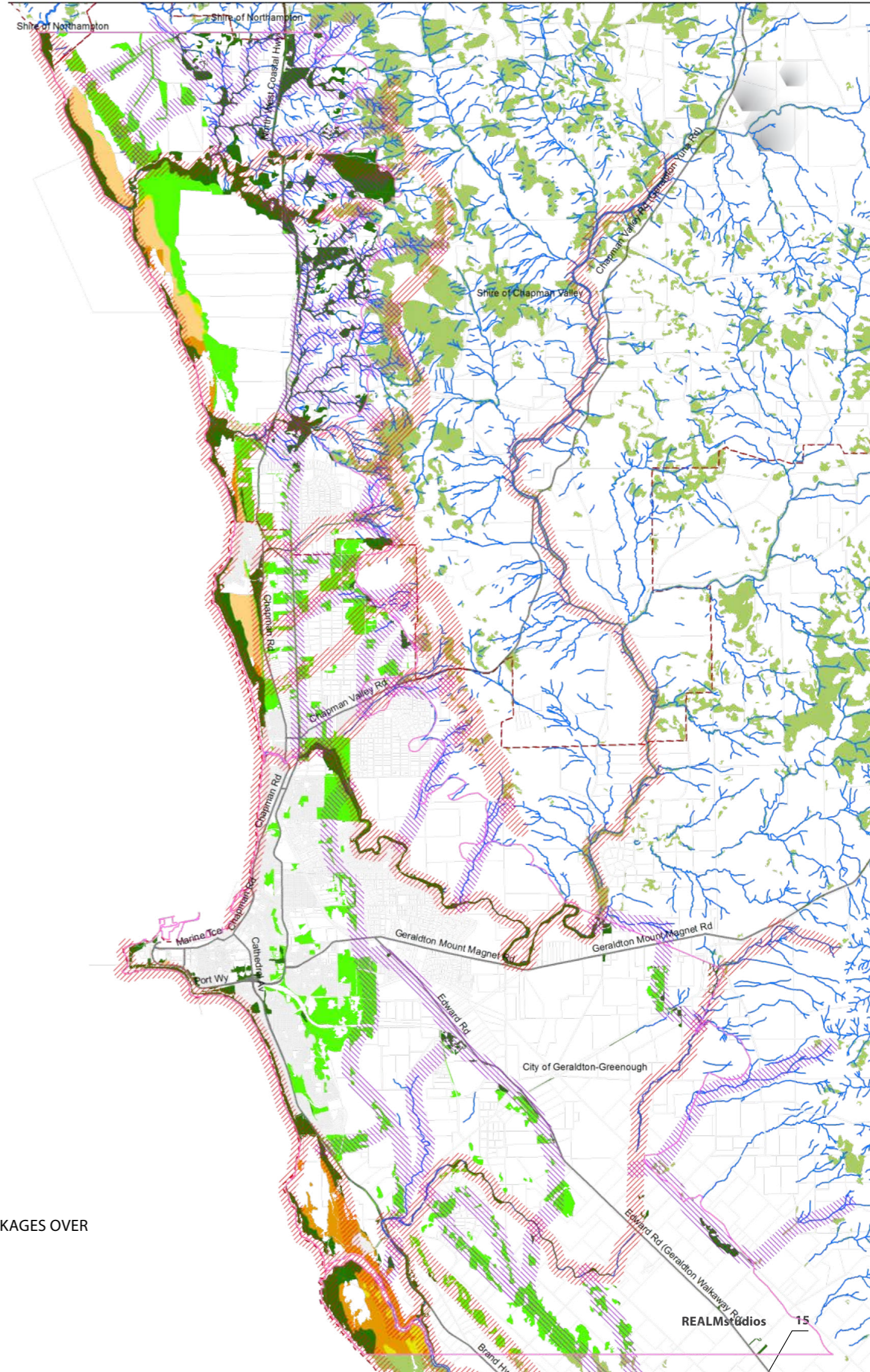


WA DRAINAGE DIVISIONS AND RIVER SYSTEMS

Source: BOM Topographic Drainage Divisions

PORTION OF GERALTON WITH REGIONAL AND LOCAL ECOLOGICAL LINKAGES OVER REMNANT VEGETATION CLASSIFIED BY CONSERVATION SIGNIFICANCE.

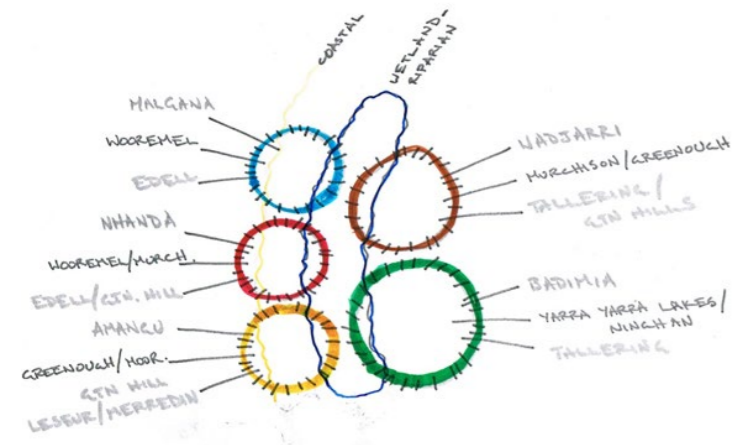
Source: Department of Environment and Conservation - Perth Biodiversity Project Regional and Local Ecological Linkages Report



5.0 DEFINING THE BOTANICAL REGION

VEGETATION COMMUNITIES – ICON LANDSCAPES

Based upon the following diagram showing aboriginal cultural groups and language a planting strategy has been developed.



PLANTING STRATEGY

SOUTHERN AMANGU

- Eucalyptus macrocarpa, Nuytsia floribunda (Christmas tree), Xanthorrea preissii (grass tree), Macrozamia fraseri (zamia palm), Banksia menziesii, Conospermum stoechadis (smoke bush), Beaufortia squarosa, Lechenaultia hirsute, Verticordia sp. Lechenaultia biloba Verticordia grandis.



AMANGU

- York Gum/Jam woodland (*Eucalyptus loxophleba*, *Acacia acuminata*) with associated species *Acacia tetragonaphylla*, *Acacia acuaria*, *Senna artemisioides*, *Clematicissus angustissima*, *Dioscorea hastifolia* and *Austrostipa elegantissima*; over carpets of everlasting daisies (*Cephalopterum drummonii*, *Lawrencella rosea*, *Lawrencella davernportii*, *Rhodanthe* sp *Waitzia* sp - this would be a fairly flat area with red/brown loam or clayey loam.
- Orange sandplain with *Banksia prionotes*, *Banksia attenuata*, *Xylomelum angustifolium*, *Calitris arenaria*, *Grevillea leucopteris*, various *Verticordia* (*Verticordia monadelpha*, *Verticordia oculata*...) and *Calytrix* sp, *Acacia blakelyi*, *Acacia neurophylla*, *Acacia spathulifolia*, kangaroo paws (*Anigozanthus manglesii*). This community is mixed and diverse and extends into the Nanda language group area.
- Moresby range slopes and flat topped hills with mixed shrublands - *Allocasuarina campestris*, *Melaleuca megacephala*, *Melaleuca leuropoma*, *Acacia Banksia sessilis*, *Banksia fraseri* var. *ashbyi* (*Dryandras*) *Hakea pycnoneura*, etc scrub heath with *Verticordias*, *Chamaelucium uncinatum* (Geraldton wax).
- Limestone ridges - *Eucalyptus erythrocorys*, *Acacia rostellifera* (summer scented wattle) *Melaleuca cardiophylla*, *Melaleuca huegelii*, *Melaleuca lanceolata*.



NANDA

- Orange sandplain with *Banksia prionotes*, *Banksia attenuata*, *Xylomelum angustifolium*, *Calitris arenaria*, *Grevillea leucopteris*, various *Verticordia* (*Verticordia monadelpha*, *Verticordia oculata*...) and *Calytrix* sp, *Acacia blakelyi*, *Acacia neurophylla*, *Acacia spathulifolia*, kangaroo paws (*Anigozanthus manglesii*).
- Zuytdorp Cliffs heath on coastal limestone.





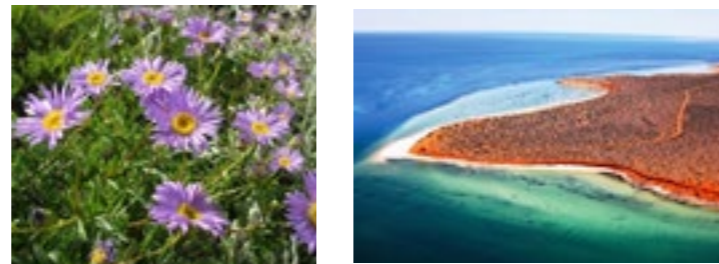
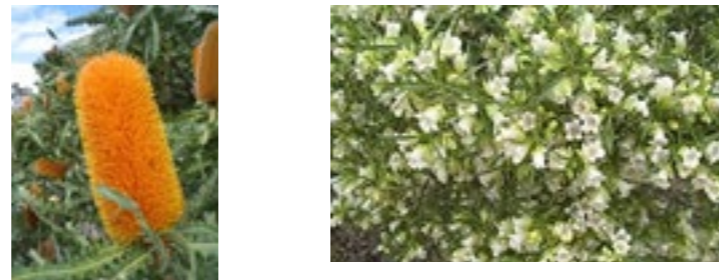
WADJARRI

- Acacia ramulosa shrublands on sand dunes and sandplains- Acacia murrayana Acacia sclerosperma, Eremophila forrestii, Grevillea biformis, grasses such as Monochatha paradoxa Lechenaultia macrantha (wreath lechenaultia), Ptilotis exaltatus.
- This type of vegetation extends into the Badimia and other language groups.
- Mulga Shrubland – Acacia aneura would also fit in this language group area.



MALGANA

- Shark Bay Tree Heath, Eucalyptus beardiana, Banksia ashby, Grevillea rogersoniana, Eucalyptus roycei - Shark Bay Mallee, Eucalyptus fruticosa, Acacia xiphophylla - Snakewood
- Acacia cuspidifolia - Bohemia, Calothamnus formosus - Hawkeswood, Verticordia cooloomia, Eremophila maitlandii - Shark Bay Poverty Bush, Pembertonia latisquamea - Shark bay daisy, Angianthus acrohyalinus - Hook-leaf Angianthus Triodia plurinervata - Spinifex).
- Dirk Hartog Island dwarf scrub.
- Zuytdorp Cliffs heath on coastal limestone.



BADIMIA

- Gimlet (Eucalyptus salubris) Salmon Gum (Eucalyptus salmonophloia) Woodland – over Acacia and/or Melaleuca scrub and chenopods. Santalum acuminatum Exocarpos aphyllus, Acacia colletioides, Melaleuca adnata, Melaleuca lateriflora, Enchylaena tomentose, Rhagodia preissii.



5.0 DEFINING THE BOTANICAL REGION

WETLAND/RIPARIAN ZONE

- All of the sub-region areas are characterised by riparian and wetland areas including estuaries, rivers, lakes, salt pans. There is significant overlap of species within this riparian/wetland zone across sub-regions to suggest a shared wetland garden space to represent the flora of this zone whilst interpreting the changes in the coastal zone across sub-regions
- River edge - Greenough /Chapman river - creek bed lined with River gums and Casuarina with sedges and samphire. A salt marsh community could be incorporated into either the coastal community or the river community - I think the scale of natural salt pans is too large to fit lots of these scattered through the park and may impact too much on the adjoining soil conditions so it may be useful to simplify this aspect of the design. (Greenough River is south and Chapman is north).

COASTAL GARDENS

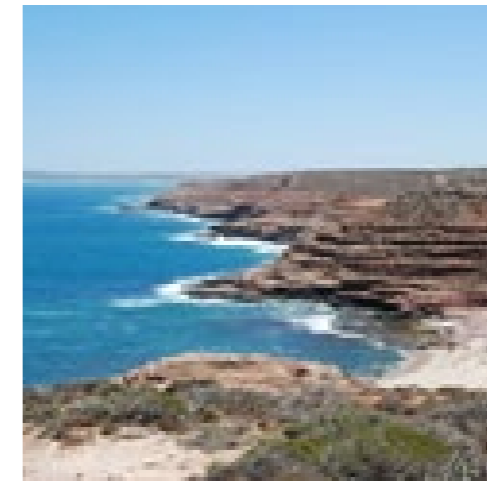
- The Malgana, Nanda & Amangu sub-regions share the coastal zone. There is significant overlap of plant species through this zone to suggest a shared coastal garden space to represent the flora of this zone whilst interpreting the changes in the coastal zone from north to south.
- Coastal dune shrub/heath on white sand hills - not very colourful but variation in foliage colour and texture make it interesting (*Atriplex isatidea*, *Nitraria billardierei*, *Myoporum insulare*, *Scaevola crassifolia*, *Olearia axillaris*, *Spinifex longifolius* (This extends from the Amangu into to Yuet area).



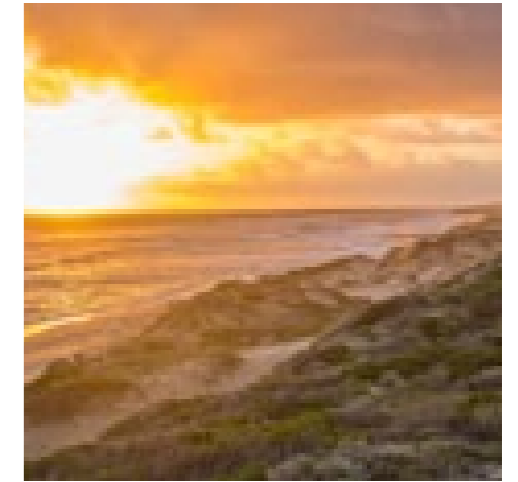
SHARK BAY, PERON PENINSULA



ZUYTDORP CLIFFS



KALBARRI COAST



GERALDTON COAST



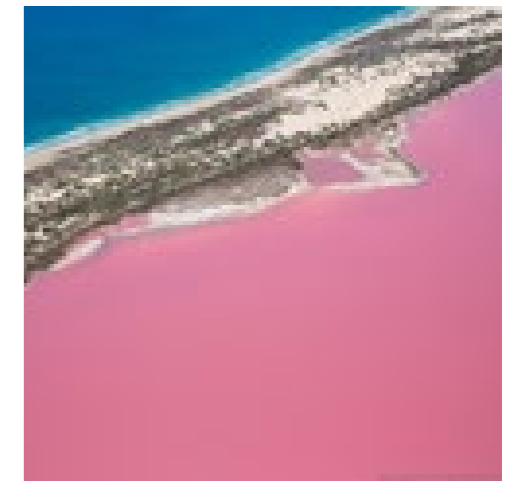
MURCHISON RIVER



CHAPMAN RIVER ESTUARY



YARRA YARRA LAKES



PINK LAKE, PORT GREGORY



WILDFLOWER TRAILS

Wildflower tourism key component of regions tourism marketing/strategy, spring flowering season, drive trails, opportunity for botanic garden to become a key node/ stopping point on drive trails and central point for interpreting regions flora.

GATEWAY TO THE WILDFLOWER TRAIL

The Geraldton Botanic Gardens can form a gateway or prominent node within the wildflower trails of the Mid-West Region. The region boasts diverse geological features, including flat-topped ranges, vast flat plains, river valleys, gorges and salt lakes. The landscape supports a myriad of ecological communities and their endemic flora.

The Geraldton Botanic Gardens will celebrate these features through its Botanic garden, to reflect the scenic qualities of this unique environment at an accessible urban scale for the public to learn from and enjoy.

HAWES HERITAGE

Unique architectural/cultural heritage that overlaps with botanical region creating interesting synergy between architectural nodes and landscapes/communities they sit within Hawes heritage drive trails.

Hawes Heritage centre/cathedral neighbouring Maitland park site – opportunity to combine as visitor precinct and make use of synergy between architectural heritage and landscape interpretation.



ST FRANCIS XAVIER CATHEDRAL & HAWES HERITAGE CENTRE
Source: sfxcathedralproject.com.au

HAWES HERITAGE TRAIL

The Hawes heritage trail is a journey of inspiration and surprise, revealing some of the finest architecture in the state. Monsignor John Hawes legacy is a trail of beautiful churches, from the splendid cathedral in Geraldton to tiny country chapels. Every structure is different, designed in harmony with the land and consisting mostly of rough textured local stone and simple lines.

The Hawes Heritage Centre together with the historic St Francis Xavier Cathedral forms an important visitor and heritage precinct directly neighbouring the Maitland Park site. There is an uncanny overlap between Geraldton diocese and Hawes designed buildings and the Yamatji hotspot region. This creates an opportunity to combine the visitor precincts and potentially combine the landscape based interpretation of Hawes architectural heritage and the corresponding region's botanical heritage.

The Cathedral presently attracts 50,000 visitors per year. These numbers are set to increase with the opening of the Hawes heritage centre. This important local precinct in such proximity to Maitland park stands as a valuable asset to the development of the botanic garden.



HAWES HERITAGE TRAIL
Source: australiasgoldenoutback.com/sfimages/default-source/monsignor-hawes



WILDFLOWER WAY TOURIST TRAIL
Source: australiasgoldenoutback.com/sfimages/default-source/wildflower-way

6.0 SITE CONTEXT

STUDY SITE

Maitland Park is a triangular park bounded by the key arterial roads Cathedral Avenue, Carson Terrace and Maitland Street. The park area is mostly turfed with numerous copses of larger, mature trees. The soil profile is largely comprised of coastal sand within imported topsoils. Smaller areas of decorative plantings are found on the edges of the park. Generally, the condition of the park is common of many regional parks of this size with a restricted maintenance regime resulting in large areas of turf with a few parkland trees. The site features a small playground, toilets and BBQ facilities, skate area, and the Geraldton Croquet Club located in its western corner.

RATIONALE

Centrally located within the Geraldton and surrounded by major civic and educational facilities Maitland Park is an exceptional site for the location of a future Botanic garden. It's proximity to the CBD and major tourism attractions allow for easy access whilst its location on Cathedral Ave provide excellent exposure for a garden of this nature. A proportion of Maitland Park is underutilized, under-maintained and generally unloved. The FrOGs volunteer base can function as a valuable resource in which these areas may be repurposed to aid in activation.

EDGE CONDITION

Surrounding Maitland Park are numerous large civic, historic and educational facilities. These being St Francis Xavier Cathedral Precinct (including the Hawes Heritage Centre), Nagle Catholic College, St Francis Xavier Primary School, Anglican Cathedral, Geraldton Secondary College, Geraldton Primary School, The Queens Park Theatre and the Geraldton Council Chambers. These neighbours represent significant stakeholders due their proximity to Maitland Park and will be instrumental in the parks future direction, design and activation. Furthermore, Cathedral Avenue which runs along the parks eastern edge is the main entry road to the Geraldton CBD from the south and a significant central artery for visitors and locals alike and opportunity for signage and exposure.



CURRENT USES/USERS

Maitland Park is currently used weekly by a local farmers markets, once a year by both the Sunshine Festival and Harmony Day. It is also used occasionally by smaller local fairs and events. Further to these organised events, it also serves as a playspace, dog walking and exercise area, and skating area. As mentioned, Geraldton Croquet Club is a significant user group with well maintained facilities and a sizable membership.

PARKING + TRANSPORT

Formalised parking is currently provided by parallel parking on Carson Tce and angle parking on Maitland St. Informal vehicle parking within the park has developed adjacent to the croquet club and opposite Geraldton Secondary College. Public transport by way of bus is adequate.



STAKEHOLDERS



CGG

FrOGGs currently have a working relationship with the City of Greater Geraldton (CGG) and have applied for and received a grant to facilitate a concept plan with the intent of receiving a Memorandum of Understanding to proceed with the works in Maitland Park and surrounding areas in the City. The CGG currently own and maintain Maitland Park.

BCMi

The Batavia Coast Maritime Institute campus is a state of the art training, research and development facility located at Separation Point in Geraldton (less than 1km from Maitland Park). With strong links with industry, and courses including Horticulture, Environmental Science and Land and Conservation Management BCMi represent a key stakeholder and enabler in the success of a Botanic garden. Members of BCMi are currently engaged within FrOGGs and are working to facilitate further links with the educational facility.

INDIGENOUS GROUPS

Numerous local and regional indigenous groups have an immutable link with the land of which Maitland Park forms an integral part. Not only can local indigenous botanic knowledge inform the Botanic garden but wider heritage and culture elements should be integrated into any future design. Furthermore, current claims from several groups also must be entertained in any future design and works within the park.

TOURISM GROUPS

Numerous tourism operators, the Geraldton Visitor Centre, Tourism WA and the Midwest Development Commission all have interest in developing a diverse range of attractions within and around Geraldton. Wildflowers throughout the surrounding areas, particularly during July and October, currently support many regional shows, tours, trails, and add greatly to local economies outside of the traditional summer tourist season.

BOTANIC GROUPS

Numerous local and regional floral, botanic and land management groups may wish to be included in development of a Botanic garden within Maitland Park. These include Geraldton Regional Herbarium Group who currently care for a comprehensive reference Herbarium of all local native plants within the Midwest region through field work performed by volunteers and members of the public. The NACC, Rangelands NRM and Department of Parks and Wildlife represent key facilitators in any Botanic garden projected for Geraldton. All organisations have a long history in environmental management, biodiversity protection initiatives and indigenous land management programs. Their knowledge and resource base could be considered crucial in delivering a garden of wider significance.

NEIGHBOURS

Immediate neighbours of Maitland Park including St Francis Xavier Cathedral Precinct, Nagle Catholic College, St Francis Xavier Primary School, Anglican Cathedral, Geraldton Secondary College, Geraldton Primary School and the Geraldton Council Chambers represent significant facilitators in the Botanic gardens development, activation and ultimate success. Due to their proximity to Maitland Park and their significant resource base all should be considered as active participants in the parks future direction and design.

USERS & USER GROUPS

Current users of Maitland Park will need to be engaged in any change of use that may take place in relation the development of a Botanic garden. Organisers of markets, music events and festivals, alongside those engaging in passive recreation, users of the skate park and the Geraldton Croquet Club should be consulted and their suggestions and concerns considered in any future design.

KINGS PARK

Kings Park has an international reputation for scientific research, leading horticulture, conservation and public education. Their advice and resource base should be heavily leveraged to achieve best possible outcomes for any Botanic garden.

6.0 SITE CONTEXT

CLIMATIC CONTEXT

Wind direction is a significant factor to consider due to the coastal nature of the city and its exposure to extreme wind. Though climatic conditions vary throughout the year, however the predominate wind occurs from a south westerly direction.

Geraldton's Mediterranean climate result in cool wet winter, hot dry summer. Summers are an extreme environment for plants due to low rainfall, strong hot drying easterly winds combined with strong salt laden sea breezes & low humidity. Geraldton records the state's highest summer UV index. Rainfall is low at 442mm on average per year.



URBAN CONTEXT

Maitland Park and its future as Geraldton Botanic Gardens becomes a key centerpiece among many surrounding local schools including Geraldton Primary School, Geraldton Secondary college, St. Francis Xavier Primary School and Nagle Catholic College. Various religious buildings within the immediate vicinity include the Anglican Cathedral, St. Francis Xavier Cathedral and Churches of Christ. Neighbouring schools have expressed an interest in any educational role the park could play as a site in walkable distance from their grounds.

The park also serves as the primary public open space for a wide residential area and home for weekend markets.

Maitland Park's central location has made it an invaluable resource to the City of Geraldton throughout the years. The space continues to host a weekly farmer's market and occasional festivals, it acts as a key meeting point for the Geraldton community.



Geraldton Botanical Gardens

- 1 Existing park entry wall
- 2 Existing playground/shelter/bbq
- 3 Existing electrical substations
- 4 Existing water storage tanks
- 5 Existing toilet block
- 6 Existing electrical outlet
- 7 Existing park archway structure
- 8 Existing skate park
- 9 Existing croquet club



ST. FRANCIS
XAVIER CATHOLIC
PRIMARY SCHOOL

ST FRANCIS
XAVIER
CATHEDRAL

NAGLE CATHOLIC
COLLEGE

MAITLAND STREET

CATHEDRAL AVENUE

ANGLICAN
CATHEDRAL

CARSON TERRACE

GERALDTON
SENIOR COLLEGE



1 EXISTING MAITLAND PARK ENTRY WALL



2 EXISTING PLAYGROUND/SHELTER/BBQ



3 EXISTING ELECTRICAL SUBSTATIONS ON MAITLAND STREET



4 EXISTING WATER STORAGE TANKS



5 EXISTING TOILET BLOCK



6 EXISTING ELECTRICAL OUTLET



7 EXISTING MAITLAND PARK ARCH



8 EXISTING MAITLAND PARK SKATE PARK



9 EXISTING MAITLAND PARK CROQUET CLUB

Geraldton Botanical Gardens

- ① Existing open lawn event space (primary)
- ② Existing open lawn event space (secondary)
- ③ Existing lawn stage



ST FRANCIS
XAVIER
CATHEDRAL

ST. FRANCIS
XAVIER CATHOLIC
PRIMARY SCHOOL

NAGLE CATHOLIC
COLLEGE

MAITLAND STREET

CATHEDRAL AVENUE

ANGLICAN
CATHEDRAL

GERALDTON
SENIOR COLLEGE

CARSON TERRACE



1 EXISTING OPEN LAWN AND EMBANKMENTS USED FOR EVENTS SUCH AS MIDWEST SHOW AND SHINE



2 EXISTING OPEN LAWN USED FOR MARKET EVENTS



3 EXISTING LAWN STAGE USED FOR PERFORMANCE EVENTS SUCH AS HARMONY DAY AND CAROLS BY CANDLELIGHT



7.0 HISTORIC CONTEXT



1940'S AERIAL PHOTOGRAPH



1940'S AND PRESENT DAY OVERLAY

HISTORIC CONTEXT

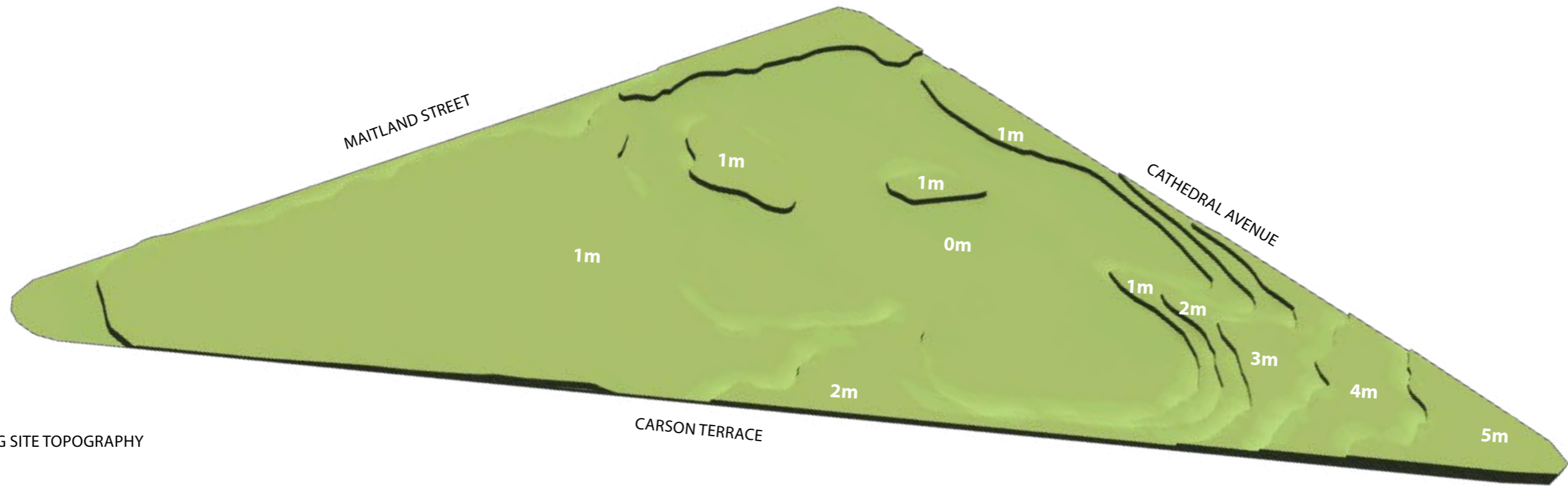
Maitland Park was a leftover triangle of land between key CBD streets that remained coastal dune scrub as Geraldton developed in its early years. It was first vested and developed through clearing and regrading as a recreation area with ovals and playing fields for local sports.

In the early eighties as sporting facilities were developed in other areas of town Maitland Park was redeveloped as a public park for recreational and cultural uses.

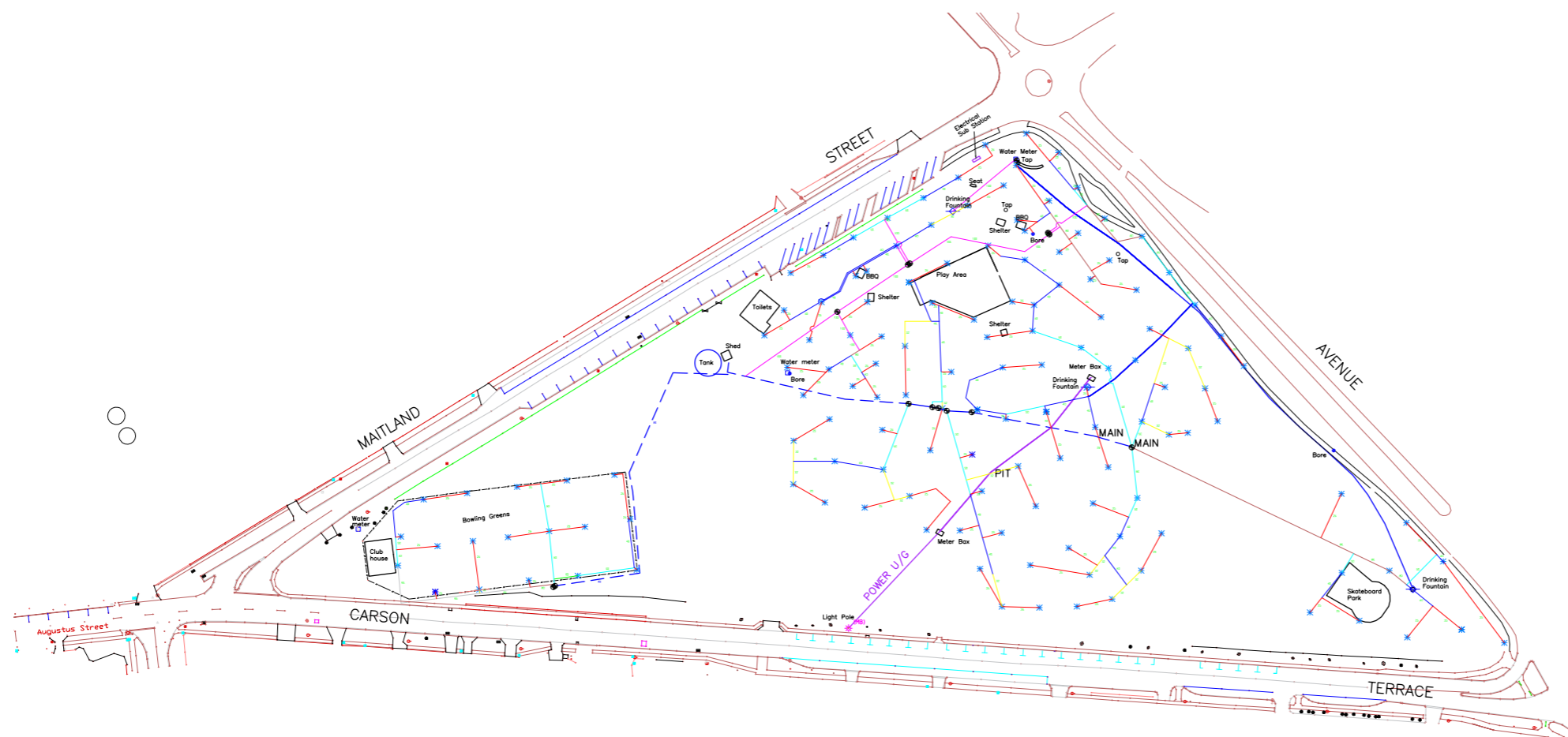
The Geraldton Municipal Council prepared an ambitious masterplan for the park including reticulation systems, pedestrian path networks, parking areas, artificial streams, water features, playgrounds, importing soils for major earth mounding and mass planting of regional tree species. The project was significantly reduced due to budget cuts, however the earth mounding and tree planting carried out at the time forms the existing topography and mature tree structure of the park today.



MAITLAND PARK ORIGINAL PLAN



EXISTING SITE TOPOGRAPHY



CURRENT RETICULATION PLAN

8.0 VISUAL ANALYSIS



VIEWS INTO THE SITE



VIEW 1 - MAITLAND STREET



VIEW 2 - CORNER MAITLAND STREET + CATHEDRAL AVENUE

SIGNIFICANT ADJACENT BUILDINGS



ST FRANCIS XAVIER CATHEDRAL



VIEW 3 - CATHEDRAL AVENUE



VIEW 4 - CATHEDRAL AVENUE



ANGLICAN CATHEDRAL



VIEW 5 - CORNER CARSON TERRACE + CATHEDRAL AVENUE



VIEW 4 - CATHEDRAL AVENUE

9.0 PRECEDENT STUDY

DESERT BOTANICAL GARDENS, PHOENIX, USA

OVERVIEW

The Desert Botanical Garden in Phoenix, USA is a 57ha park featuring one of the world's finest collection of plants adapted to desert conditions. The Garden has more than 50,000 desert plants on display linked by five thematic trails that illustrate topics such as conservation, desert living, plants and people of the Sonoran Desert, and desert wildflowers. The garden is run by both permanent staff and a large pool of volunteers runs specialized tours, events, seasonal exhibits, concerts and family activities. It also features a restaurant, café, gift shop and nursery.

LESSONS

Whilst on a much larger scale than intended for a Botanic garden within Geraldton the Desert Botanical Garden presents many ideas that may be incorporated successfully into a smaller Botanic garden. A clear focus on one planting typology, in this case plants from the world's arid regions, allows the garden to be clearly understood by all visitors. A clear wayfinding and signage strategy has been developed leading visitors from more structured plantings nearer the central entrance to defined trails. These trails have been considered to present a singular idea or concept which is reflected into the materials, plant selection, route and interpretation signage. The park also has a strong volunteer, outreach and family activity program which has the added benefit of increasing potential sponsorship opportunities. A cafe, restaurant, gift shop, nursery and events supplement the parks income, appeal to a wider range of visitors and encourage repeat visitation. Incorporation of high quality sculpture and lighting display are to be commended.

PRECEDENT IMAGERY





GARDEN FOR THE FUTURE, BENDIGO, AUSTRALIA

OVERVIEW

Bendigo's Garden for the Future master plan, as part of the extension of the current botanic gardens aims to create a botanically rich and diverse garden that contains over 500 different plant species. Climatically suitable plantings from Australia and further afield have been chosen to display to visitors potential plants that they may want to incorporate within their own gardens. Interpretation and wayfinding, including on-site signage and a smart phone application, are key drivers in educating and managing visitors to the site. The Garden will host free civic events such as the Summer in the Park outdoor music performances and events such as markets and regional festivals. Semi-intimate spaces within the gardens cater for wedding ceremonies and parties, supplementing the parks operating income. Picnic amenities, such as barbecues and shelters are also planned to be installed to encourage longer visitor stays. Funded primarily through a partnership between the City of Greater Bendigo, the Victorian Government and the Friends of Bendigo Botanic Gardens the majority of the maintenance will be overseen by volunteers with the City providing a small permanent staff.

LESSONS

By developing a clear management, funding and maintenance strategy the Friends of Bendigo Botanic Gardens have been able to secure significant funding and produce a consolidated overarching visual master plan. This strong vision coupled with an organised development group provides a strong base of which to move forward to construction.

PRECEDENT IMAGERY



Source: bendigobotanicgardens.com.au/Garden_for_the_Future_design



9.0 PRECEDENT STUDY

AUSTRALIAN GARDEN, CRANBOURNE, AUSTRALIA

OVERVIEW

The Australian Garden, set within the Royal Botanic Gardens, Cranbourne is an inspiring and immersive display of Australian flora, landscapes, art and architecture. Set across 15 hectares, at Cranbourne, the Australian Garden features a number of exhibition gardens, sculptures and displays where visitors can explore the beauty and diversity of Australian plants and the evolving connections between people, plants and landscapes. It features over 100,000 plants spread across fifteen landscape displays. These follow the journey of water from the arid inland landscapes of central Australia including dry river beds, flat plains and coastal fringes. A popular feature are the show gardens where visitors can find both examples and information on how to use Australian plants in the home garden.

LESSONS

The Australian Garden sets out to engage and stimulate visitors at a sensory level, in doing so creating a unique experience. It is a bold cultural gesture, utilising the familiar materials found throughout the Australian landscape. An understanding of landscape, plant material and journey are carefully considered and laid out engaging the visitor as participant. Whilst, generally well received the large scale and conceptual nature of the garden does not appeal to all and has been criticised as over stylised whilst not providing comfortable areas in which to linger. However, by pursuing a conceptual interpretation of landscape to its zenith the garden has achieved world wide fame with visitor numbers in the hundreds of thousands. It offers an extreme example of concept driven design.

PRECEDENT IMAGERY



Source: landezine.com/index.php/2013/04/the-australian-garden-by-taylor-cullity-lethlean-and-paul-thompson/



TAGUS LINEAR PARK, POVOA DE SANTA IRIA, PORTUGAL

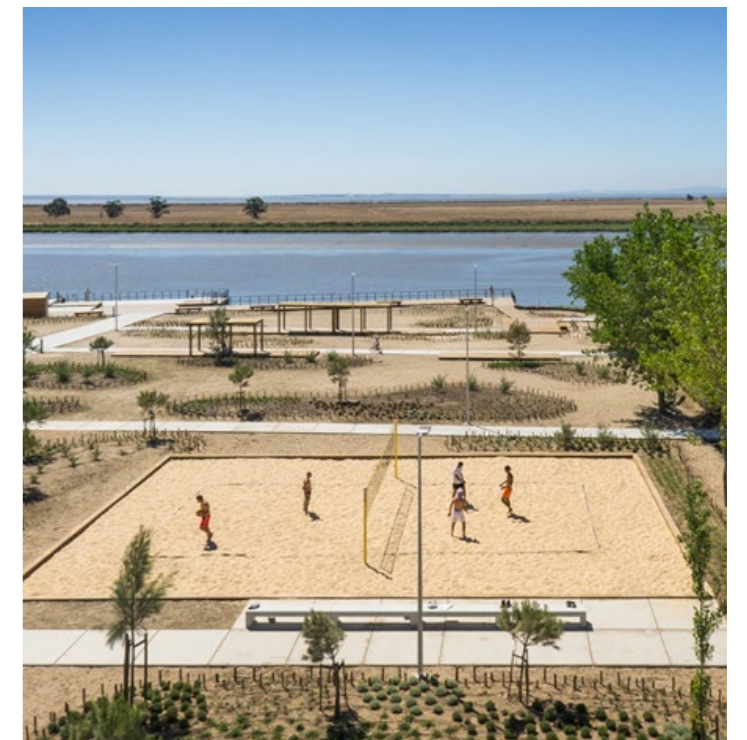
OVERVIEW

The Tagus Linear Park, Portugal is an area of 15K sqm that was repurposed and reimagined by the surrounding community who felt deprived of access to the river edge. The aim was to maintain the 'sense of place' grounded in the landscape's natural and cultural features. This was coupled with a multitude of recreational and leisure options to activate and encourage wider visitation. The existing natural systems, in particular water and tidal flows were restored and celebrated through small design interventions. A simple palette of materials, structures and signage support environmental education, passive recreation and informal sports. Shelters, viewing platforms and shelters, picnic areas, a volleyball court, a simple playground with recycled tires and platforms for sunbathing create an interesting and unique landscape. A centre for environmental and landscape interpretation is located on site in a series of converted shipping containers, with other containers programmed with temporary exhibitions and events. Vegetation features predominately native species and was planted in clusters which contrasts with the extensive areas of beach sand. The plantings are protected by an inexpensive border of individual wooden poles (these also help capture and secure top soil and protect the plants during early stages of the parks development).

LESSONS

Tagus is an achievable example of cultural celebration, social activation, and ecological restoration within a well designed landscape that captures the spirit of the place.

PRECEDENT IMAGERY



Source: landezine.com/index.php/2014/06/tagus-linear-park-topiaris-landscape-architecture/

9.0 PRECEDENT STUDY

EMU VALLEY RHODODENDRON GARDEN, TASMANIA, AUSTRALIA

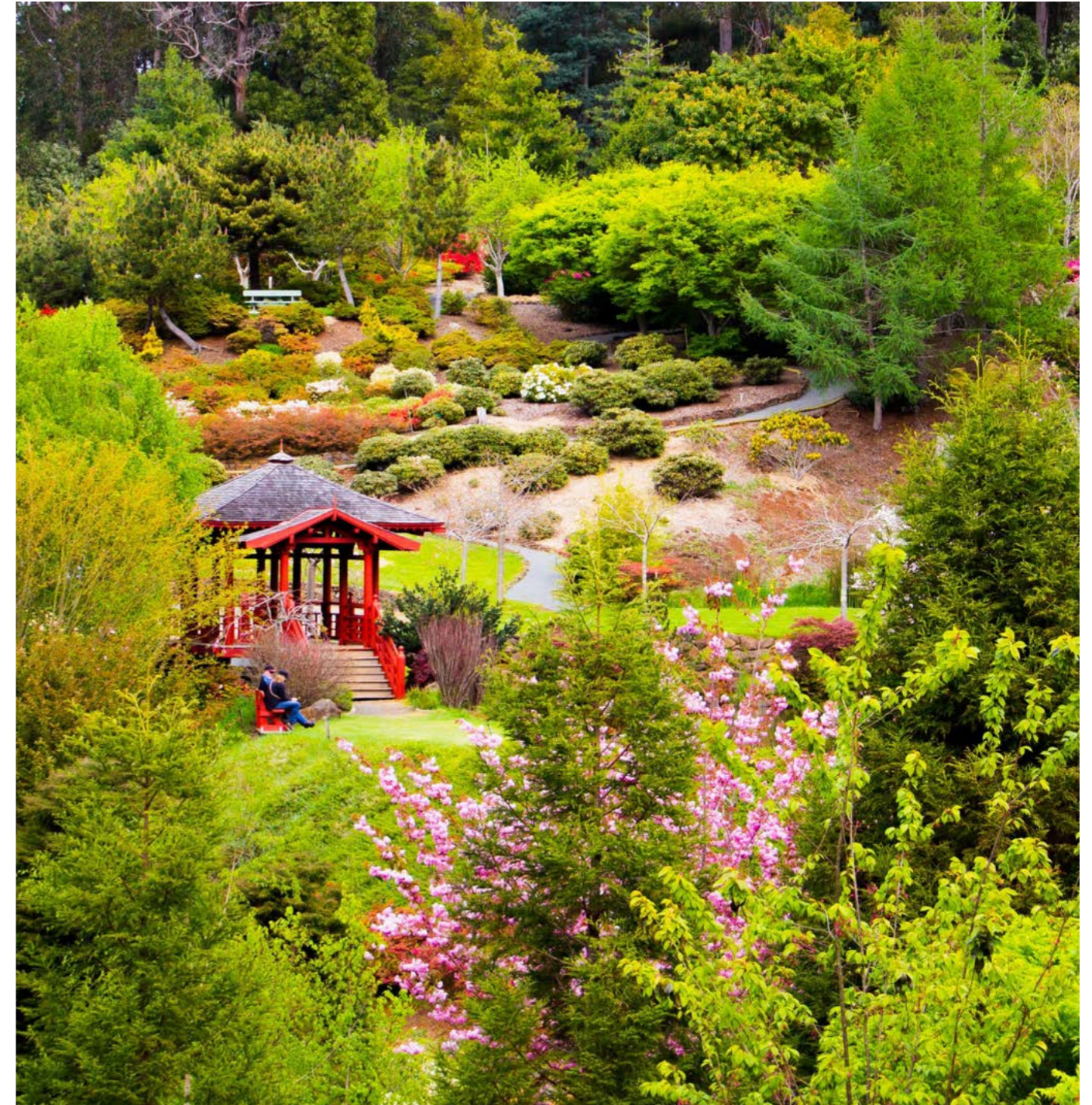
OVERVIEW

The Emu Valley Rhododendron Garden was started in 1981 by members of the Australian Rhododendron Society, North West Tasmanian Branch and is now an independent, non-profit organisation. The ornamental gardens development has been achieved through voluntary effort by members with little outside funding. The garden covers 11 hectares with over 22,000 plants with plans for further expansion. It features a tearoom, guided tours and facilities for weddings and events.

LESSONS

The Emu Valley Rhododendron Garden presents many ideas that may be incorporated successfully into a smaller Botanic garden. A clear focus on one style of garden, in this case oriental, has created a unified and legible landscape. The thematic is carried through into all aspects including signage, shelters and smaller infrastructure. An impressive volunteer and membership program has proved sustainable in managing the garden in the long term. Numerous income streams have been pursued to supplement the parks income.

PRECEDENT IMAGERY





VILLAGE OF YORKVILLE PARK, TORONTO, CANADA

OVERVIEW

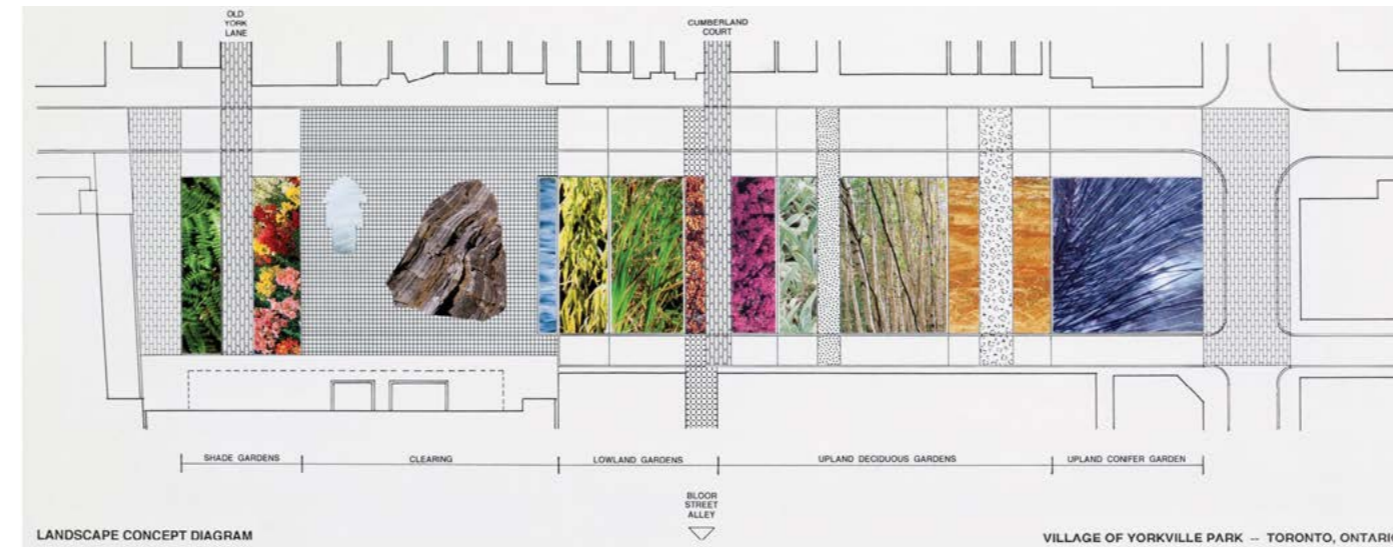
The Village of Yorkville Park is comprised of a series of unique gardens which connect to the surrounding neighbourhood and celebrate the diversity of the Canadian landscape. The community wanted a park that reflected “the scale and context of the neighbourhood, incorporated the native ecology of the surrounding region, and made connections with the circulation of local streets and a system of mid block passageways.” The design strategy for the park was to express the Victorian style of collecting. In this case, “collecting” landscapes of Ontario — pine groves, prairies, marshes, orchards, alder woods, rock outcroppings and so on — and arranging them in the older housing pattern of the district. “Each linear park segment is distinct in character but related to the next, creating a park of diversity and unity. To anchor this space with an element of regional glacial geology, a large 700-ton bedrock outcrop of native Muskoka granite was taken apart along natural crevices, moved 150 miles south, and reconstructed on site. Movable tables and chairs next to the boulder offer a nice contrast of permanence and flexibility.”

ASLA Awards (2012)

LESSONS

Yorkville Park succeeds in creating an inviting and memorable public space that celebrates the indigenous local landscape and its botanical diversity. The park displays how a disciplined design language can take disparate planting typologies and tie them together in a legible and engaging manner.

PRECEDENT IMAGERY



Source: asla.org/2012awards/034

10.0 SCALE COMPARISON

Known precedent examples of Botanic and display gardens have been sourced and the Maitland Park triangle applied to achieve a sense of comparative scale. The triangular portion of that precedent has then been cut out and applied to Maitland Park. What becomes immediately obvious is the size/scale of Maitland Park and its ability to accommodate significant amenity and display.



JARDÍ BOTÀNIC DE BARCELONA, SPAIN

Source: ferrater.com/wp-content/uploads/2013/05/P_PA_JARDIN_BOTANICO_BARCELONA



CANBERRA ARBORETUM, ACT

Source: citynews.com.au/wp-content/uploads

10.0 SCALE COMPARISON



MELBOURNE BOTANICAL GARDENS, VIC
Source: deviantart.net/dd49/f/2014/090/3/6/royal_botanic_gardens__melbourne_1_by_okavanga-



MELBOURNE BOTANICAL GARDENS, VIC
Source: tcl.net.au/cms_images/78_30-06-2015_4530.jpg



EDEN GARDENS, SYDNEY, NSW



KINGS PARK, PERTH, WA

Source: somewhere42.files.wordpress.com/2015/09/wpid-kings-park-festival-2-jpg



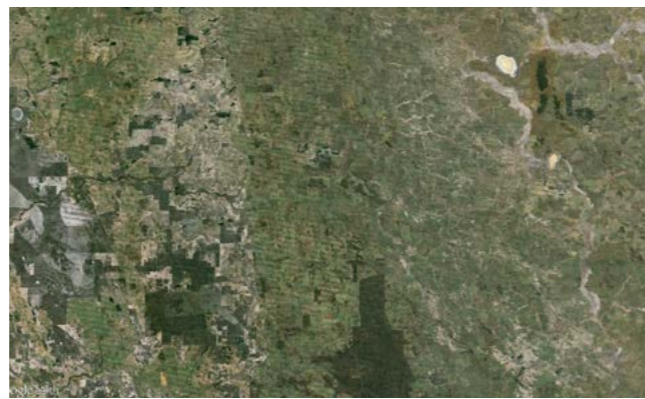
11.0 LANDSCAPE AS JOURNEY

The idea of the journey is central to the site consideration and to the place of Geraldton relative to the wildflower trail.

The following pages describe the geographic journey and the diversity of the landscapes of the region.



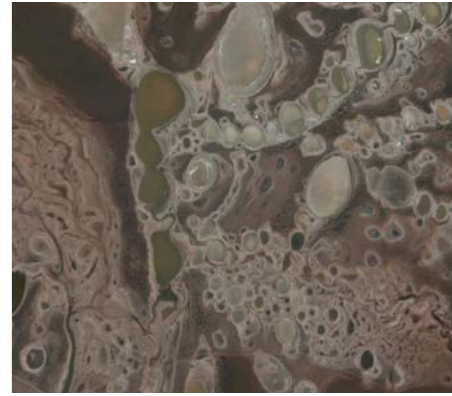
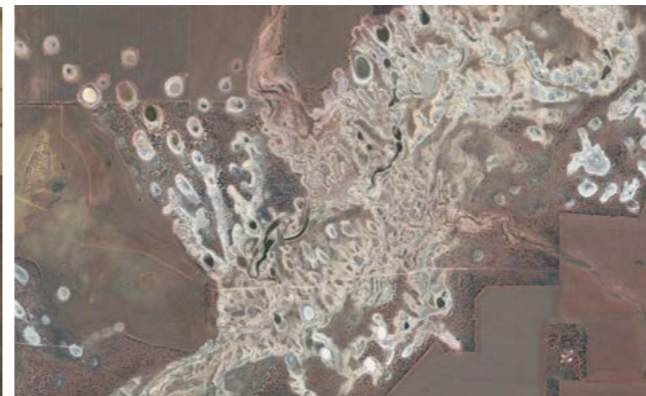
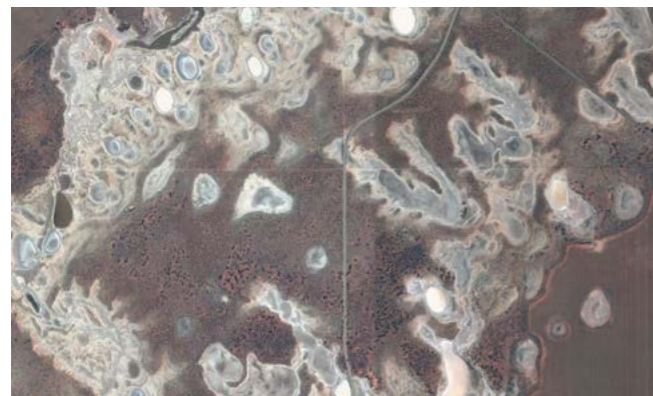
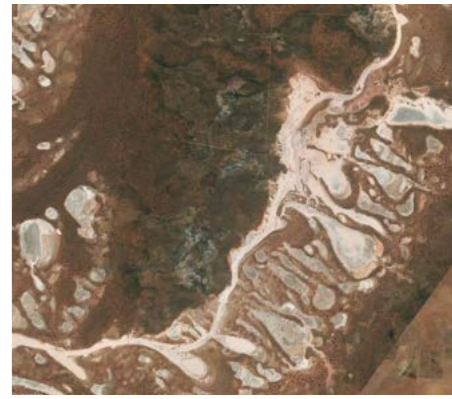
NEW NORCIA



MOORA



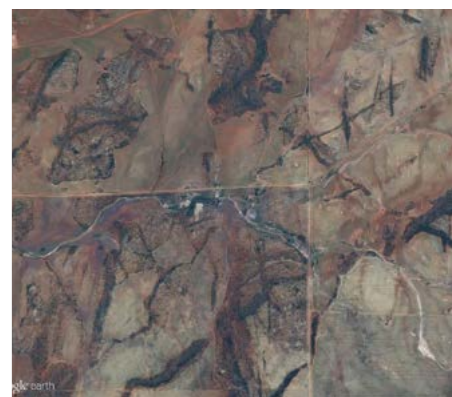
PERENJORI

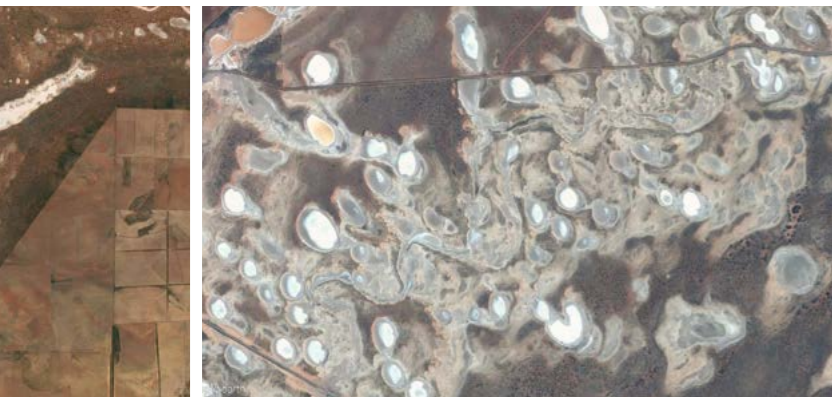


YALGOO

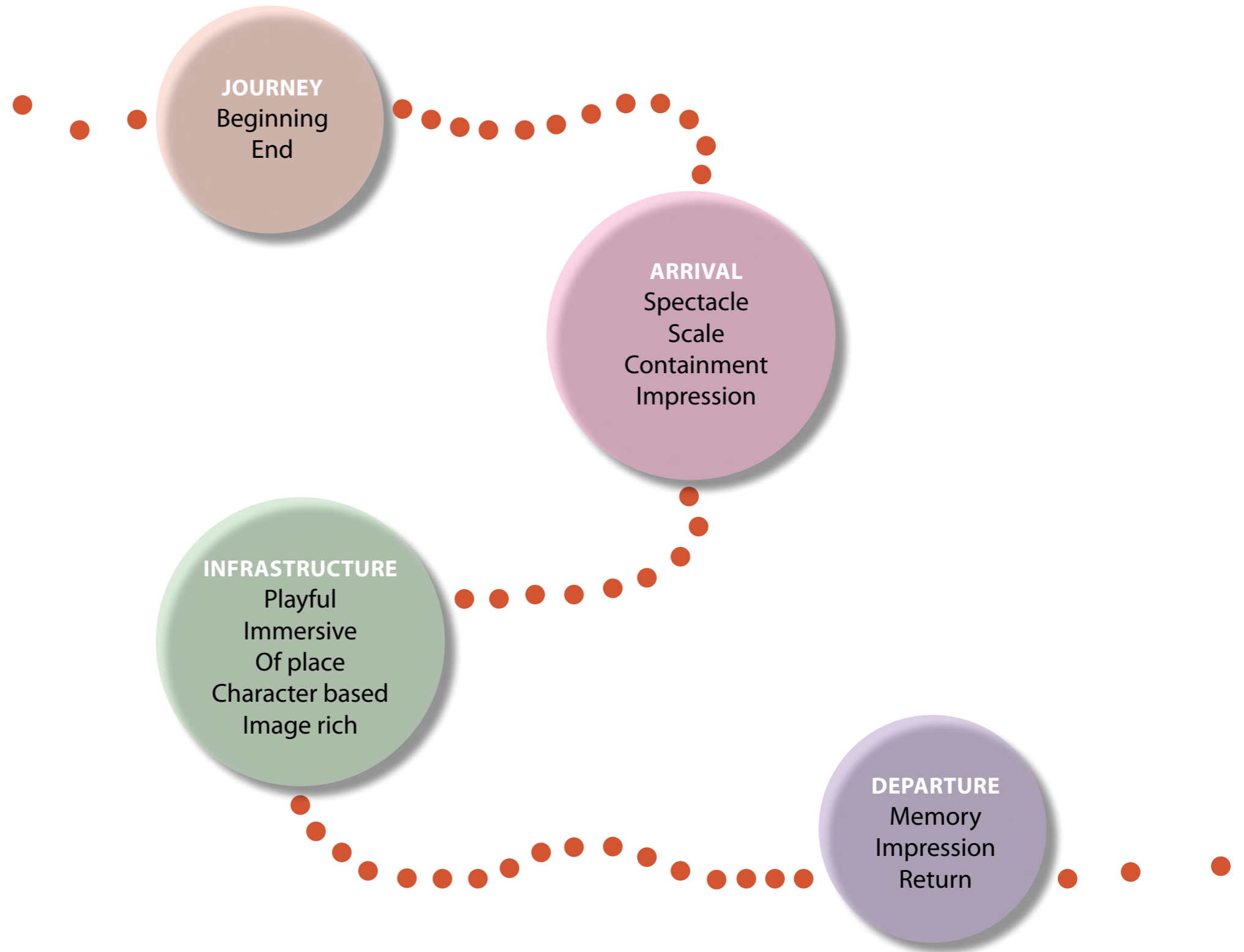


MULLEWA





MORAWA



12.0 CONCEPT DEVELOPMENT

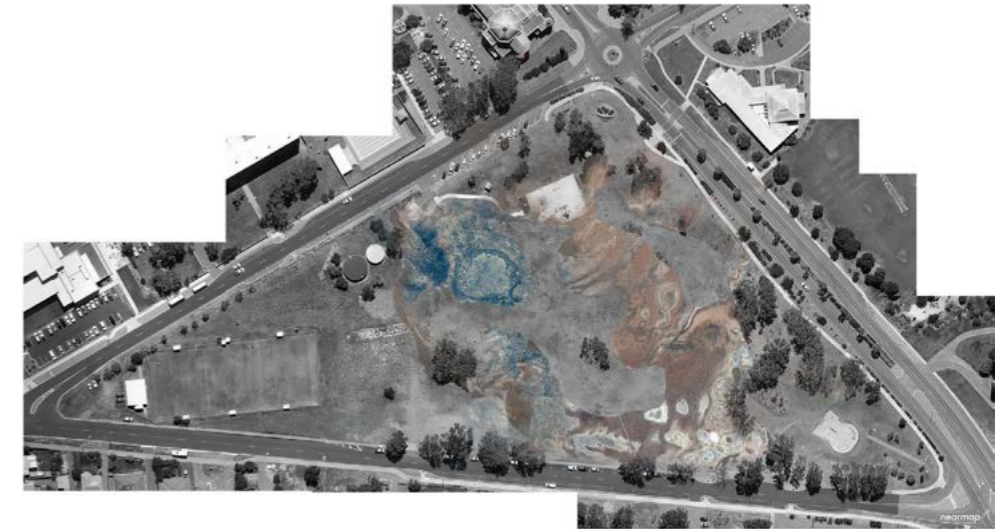
In superimposing the landscapes of the region onto the site a range of landscape ideas and typologies begin to emerge.



Morawa



Penenjori / Morawa



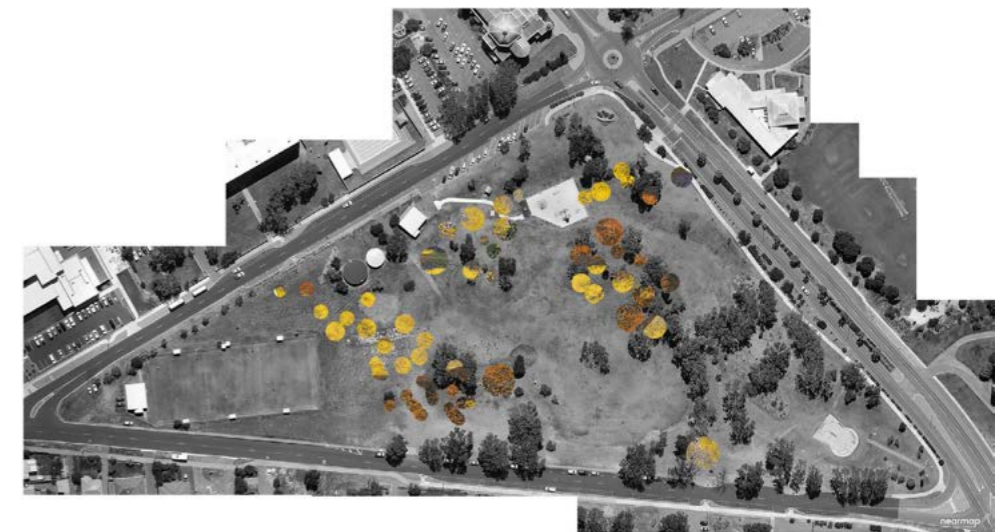
Yalgoo / Morawa



Morawa



Perenjori / Mallewa / Morawa



Salt pans



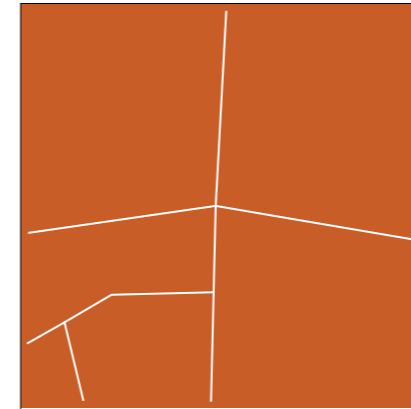
4 key design moves emerge from an analysis of the broader landscape terrain which when applied to the site begin to provide a spatial and movement pattern for the site. This is derived from the 'region' and which resonates strongly with the projects intent.



Circular Salt Pans



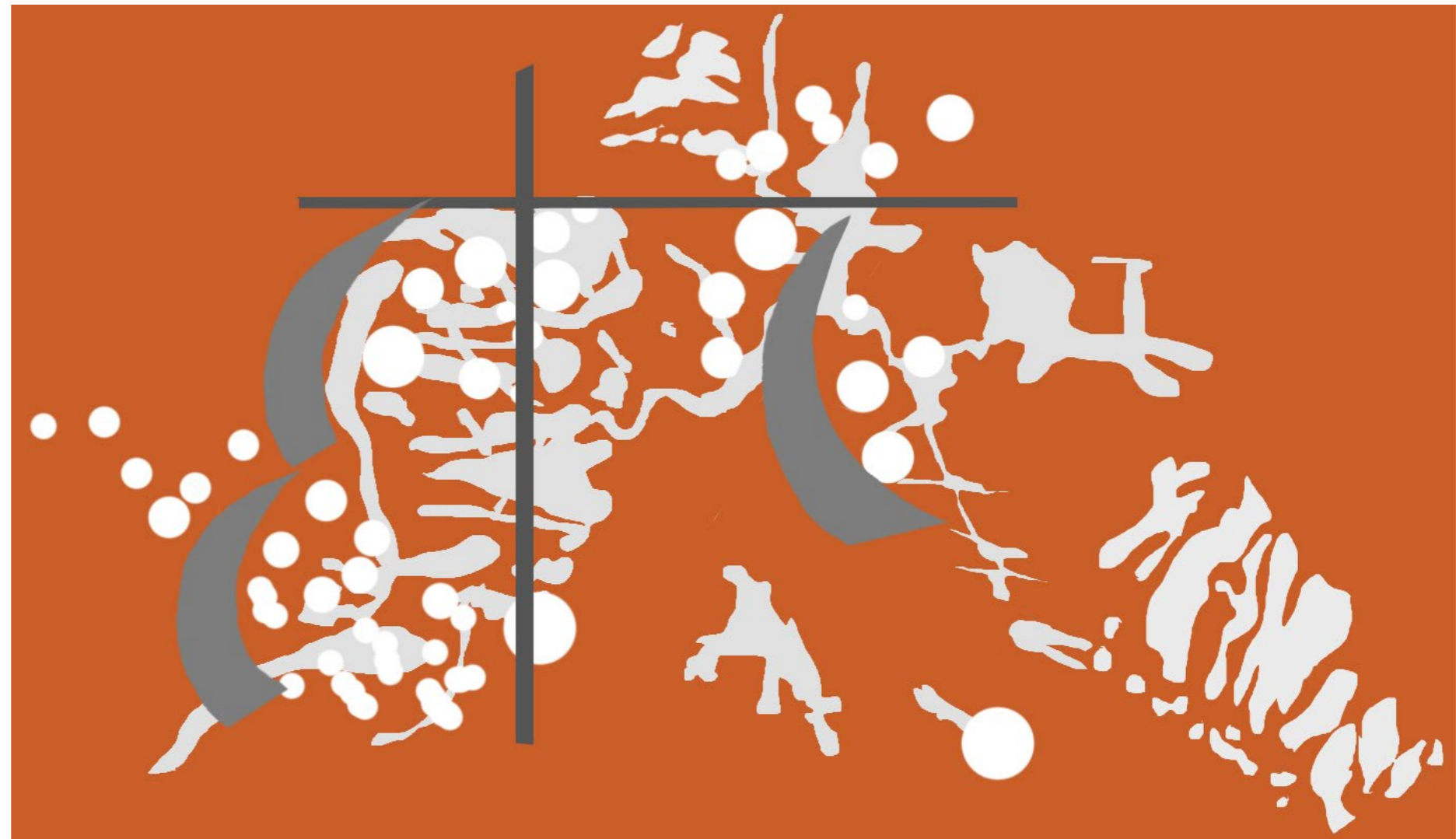
Linear Geographical Pattern



Highway/Cadastral Network



Cyclical Forms



Initial Concept

13.0 SPATIAL CONFIGURATION

The structure established within the master plan seeks to allow for inherent flexibility. The two considered design options demonstrate the ability to shift and relocate proposed garden components while maintaining an organized, legible and structured garden.

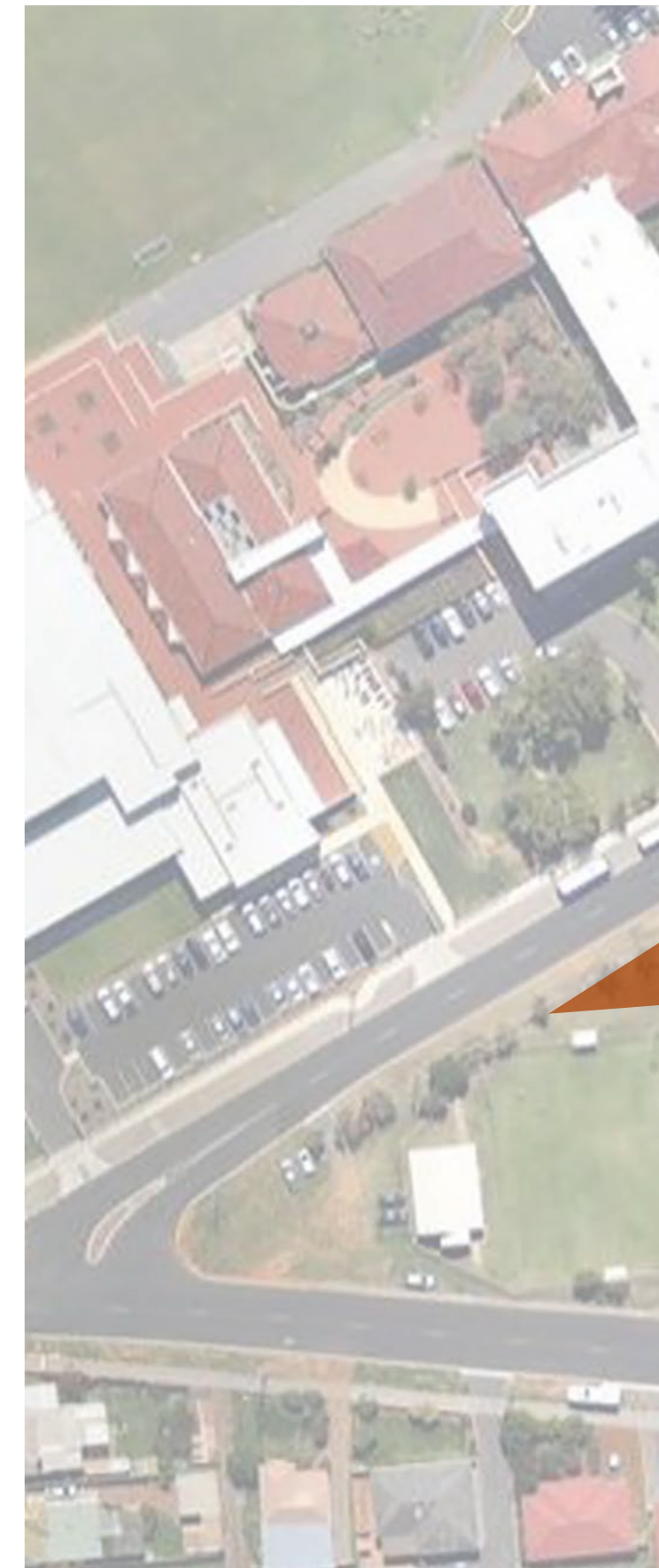
Additionally, within each of the components is the opportunity for flexibility in expanding or decreasing scales relative to location and program.

The structure and operation of the botanic garden is proposed to be open to the public all hours (no perimeter fencing). Limited access or secure areas may however be required in association with the visitors centre and maintenance areas. This would need to be considered in development of the master plan.

The rationale of the planting strategy is to utilise the endemic flora associated with aboriginal language groups, bioregions and drainage divisions to further define representative area and sub-areas.



OPTION 02



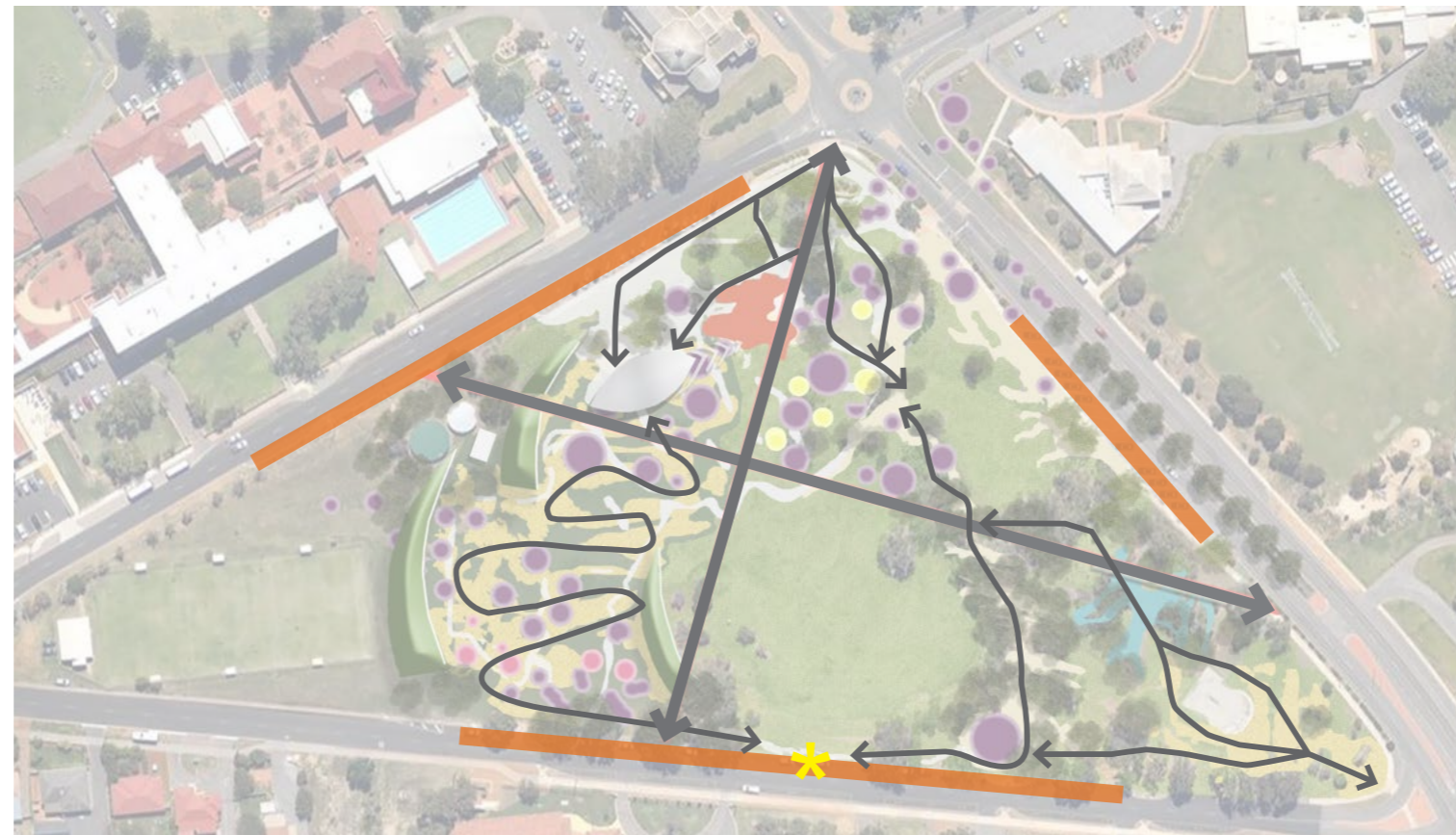
OPTION 01 - PREFERRED OPTION



14.0 MASTER PLAN

The master plan builds a series of spatial and functional zones through the application of the regional landscape patterns and at the same time a mega structure of mounding and planting to deal with the issue of wind and to create 'contained' landscape spaces.

The open lawn area to the centre of the site maintains the sites community and historic value and at the same time works in a complimentary manner with the new garden.



-  Car parking
-  Primary pedestrian path
-  Secondary pedestrian path
-  Proposed vehicle access

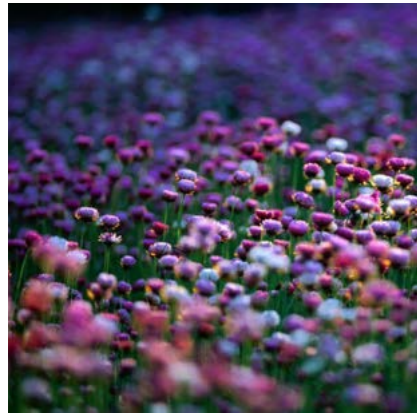
ACCESS AND CIRCULATION

Geraldton Botanical Gardens

- 1 Proposed Playground
- 2 Proposed Interpretive / Educational Centre
- 3 Proposed Vegetated Berms
- 4 Proposed wetland gardens and bridge
- 5 Open Lawn Area
- 6 Garden Room 01
- 7 Garden Room 02
- 8 Garden Room 03
- 9 Garden Room 04
- 10 Axial Pathway
- 11 Forest Walk
- 12 'Back of House' Maintenance Location
- 13 Croquet Club
- 14 Youth Park
- 15 Indicative Underground Water Storage Location
- 16 Water Origin Point
- 17 Wildflowers
- 18 Building Forecourt
- 19 Forecourt Arbours
- 20 Arrival Car Parking
- 21 Future Car Parking
- 22 Reserve Parking



14.0 MASTER PLAN



WILDFLOWER PLANTINGS



VEGETATED BERMS



WILDFLOWER BEDS



MULTI-USE EVENT LAWN



INTERPRETIVE/EDUCATION CENTRE

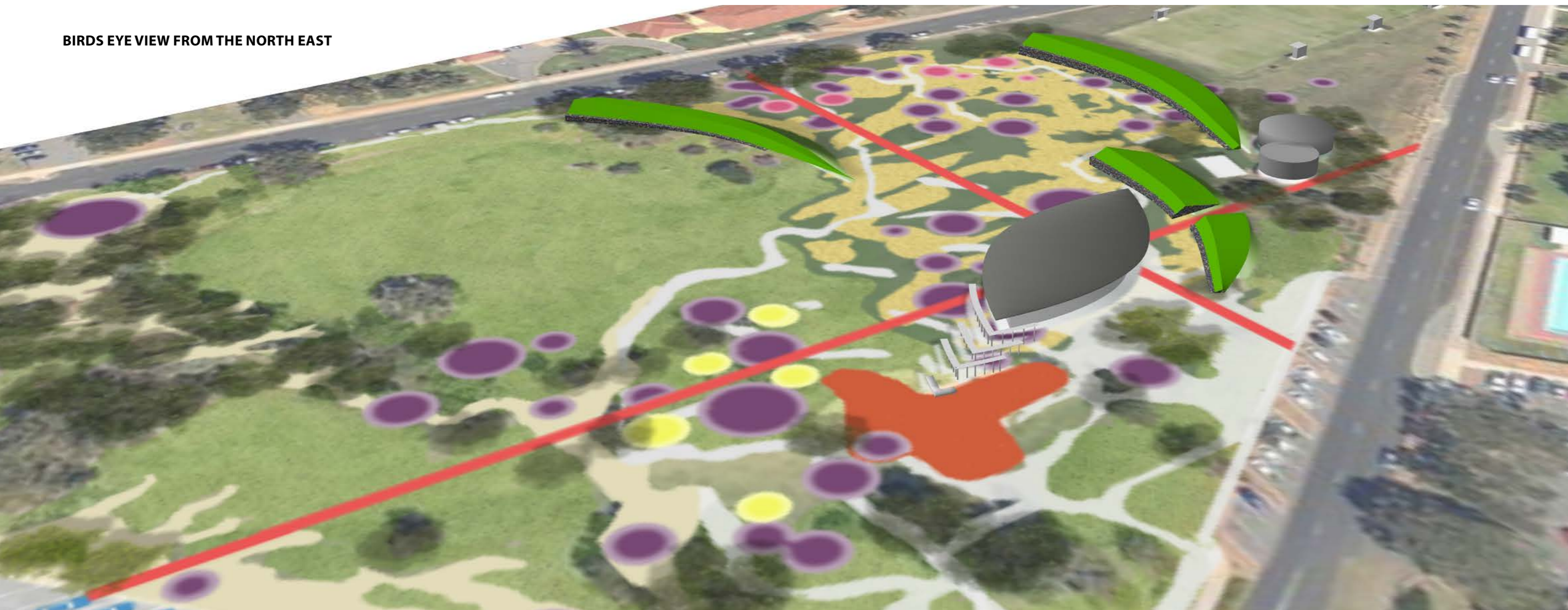


INTERACTIVE ELEMENTS



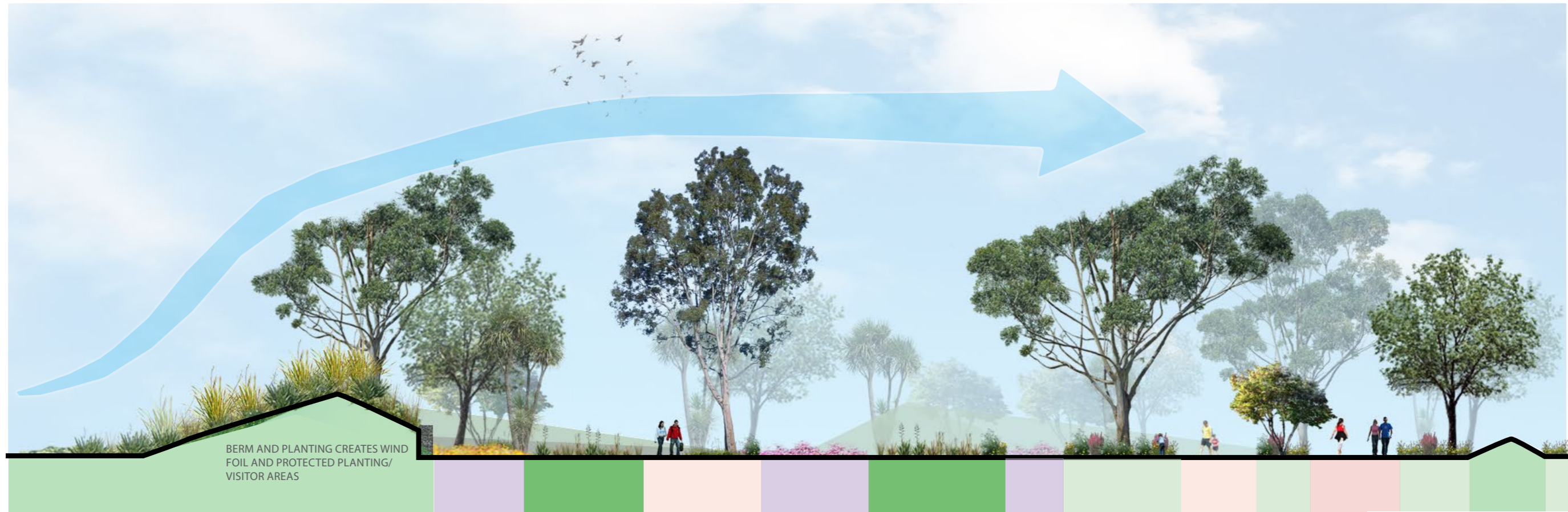
CHILDREN'S PLAYGROUND

BIRDS EYE VIEW FROM THE NORTH EAST



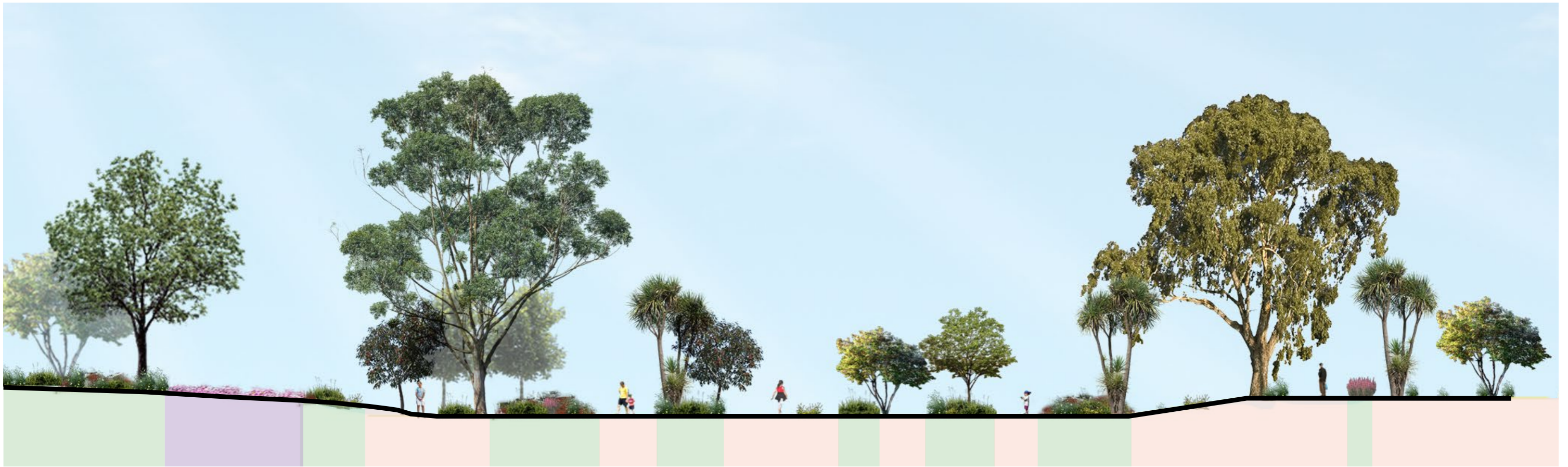


ARTIST VIEW FROM INTERPRETATION / EDUCATION CENTRE



11.5 SECTION A - VEGETATED BERM SECTION

- Planting** - Dry
- Planting** - Wet
- Planting** - Berm
- Planting** - Seasonal
- Planting** - Feature
- Pathway** - Meandering
- Wind



11.6 SECTION B - **PARK SECTION**

- Planting** - Dry
- Planting** - Wet
- Planting** - Seasonal
- Planting** - Feature
- Pathway** - Meandering

15.0 STAGING

An indicative staging strategy has been set out together with a costing.

Stage 01 - Garden Room
Existing embankment

Stage 02 -
Childrens playground

Stage 03 -
Garden room

Stage 04 -
Garden room and maintenance area

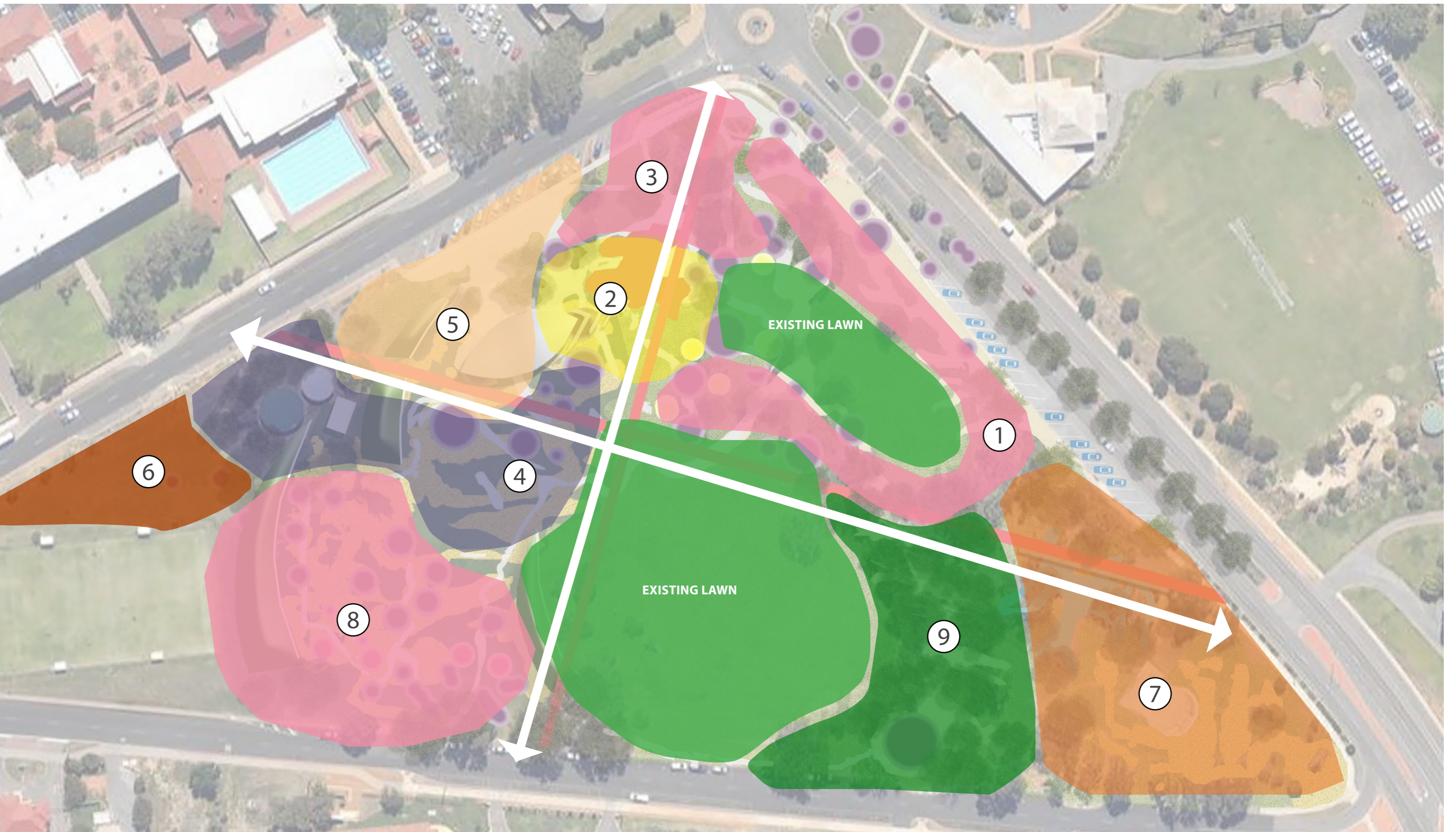
Stage 05 -
Educational/interpretive building

Stage 06 -
Introduction of onsite car parking.

Stage 07 -
Garden room and ephemeral wetland

Stage 08 -
Garden room





16.0 CONSIDERATIONS AND OPPORTUNITIES

CONSIDERATIONS

Whilst it is important to have a long-term vision for both the Botanic garden and the wider parkland, the successful execution of the project is contingent on considering the feasibility of both and understanding the return on investment for the community and other stakeholders. Balancing operational planning and budgetary constraints relative to other community priorities and wishes within the wider parkland are paramount in the success of the project.

However, the ideas and issues explored opposite form the basis on which a solid foundation for a Botanic garden can be developed. By identifying and engaging with all constraints opportunities can be found that will drive the future of the park with the community's support.

CONNECTIVITY

A Botanic garden should be accessible for all residents as part of a diverse public open space network. Well-planned and designed community gardens, shaded with trees and integrated into wider local transport networks and routes can assist with connectivity, encourage pedestrian movement, and provide wildlife corridors. Linear linkages and clear pedestrian pathways and cycle ways between community gardens and surrounding parklands can improve access for people of all ages and enhance the diversity of experiences available within a neighbourhood.

FINANCIAL

Community gardens require significant investment to construct and maintain. The amount required varies dramatically across gardens according to their size, scale of activities and the skill base and volunteer time of their members. In order to ensure that the Botanic garden receives sufficient income to cover costs incurred it will need to develop diverse income streams to provide long term financial support. By expanding sources of income, a Botanic garden is more likely to be able to achieve financial self-sufficiency.

FUNDING + SPONSORSHIP

Financial sustainability is one of the critical elements in maintaining a vibrant and viable community garden. Donations, membership fees, grants and partnerships all form important income streams for community gardens. Grant funding is an important funding stream in both the early stages of development to the large upfront costs for initial establishment of the garden, as well as during subsequent staged expansion and development of the garden over time. Developing long-term partnerships and revenue streams are crucial in running one-off events and programming initiatives that expand the range of activities on offer with the show case garden.

MAINTENANCE

A management plan will assist to clarify the practical procedures for development of a Botanic garden. Management systems are essential to any project, and include the development of policies and procedures for managing community participation, maintenance, administration, ongoing infrastructure development and garden safety.

ACCESS + SECURITY

Incorporation of universal design and social inclusion principles with a Botanic garden is essential in providing facilities that cater for people of all ages and abilities, and from diverse cultural backgrounds. Careful design of pathways, and location and configuration of seating and shelter encourages social interaction and minimises user conflicts. Incorporation of amenity lighting where practical can extend visitation and an enhanced sense of safety and security.

Adoption of Crime Prevention through Environmental Design (CPTED) principles can enhance feelings of safety and comfort. Locating facilities with clear lines of sight, providing appropriate lighting and ensuring placement of vegetation does not block paths or provide places for inappropriate concealment can substantially improve perceptions of safety.

SENSE OF PLACE

The integration of physical geographic features of the parkland (e.g. topographic features, trees, water bodies etc.) is essential in preserving a sense of place. Sensitive design through the conservation and integration of other cultural, historical and heritage features are appropriate in enhancing a place's unique identity.

MATERIALS

Use of appropriate materials for landscape works and infrastructure within the parkland will have significant impact on the level of community use, durability and longevity.

WATER MANAGEMENT

As a large naturally low-lying area without substantial built asset, Maitland Park forms a stormwater overflow basin during large rain events – this function will need to be maintained as part of any redevelopment. A Botanic garden's amenity can be optimised through use of integrated water management systems that better community and environmental outcomes. The process of integrating design of landscape and drainage functions to support each other can include living streams, constructed wetlands, ephemeral detention areas, vegetated swales and biofilters. These types of interventions can be achieved by the placement and type of drainage infrastructure and consideration of its potential impact on a Botanic gardens functionality and environmental outcomes.

INFRASTRUCTURE

Maintaining a simple and adaptable approach to design and selection the infrastructure within a Botanic garden allows for future enhancement. As part of designing for future flexibility, it is important to identify physical and cultural features that can be preserved. Recreational facilities should be located close to other compatible infrastructure to minimise duplication. A Botanic garden should be designed to create spaces able to be adapted and used for different community purposes and events.

Inclusion and placement of infrastructure to support these uses and associated event management such as emergency access, location of public facilities and access to power and water should be considered in the early stages of design.



ACTIVATION

A botanic garden is a sizable attraction in its own right but the inclusion of a diverse set of attractors not only increases visitation but increases resilience of operations within the garden over time. The success of all curated public space is wider community engagement and participation. By developing a diverse set of programs, spaces and functions increased community stewardship and patronage results, to the benefit of all.

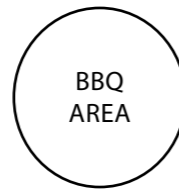


Source: landezine.com/index.php/2014/11/klyde-warren-park-by-the-office-of-james-burnett/

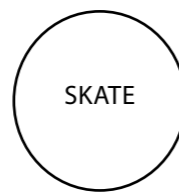
EXISTING TO BE RETAINED AND ENHANCED



Introducing elements of nature play that encourage imaginative interaction with the landscape in a more natural setting increases the exposure of younger generations to local flora in an engaging and accessible manner.



Installing barbecue and outdoor cooking facilities alongside an area for picnics and dining is attractive to both families and visitors promoting wider user groups and longer visitation.



Integrated skate landscapes offer safe, social youth spaces that can enrich local communities. Recent, skate focused landscapes in Fremantle, Collie and Geelong are testament to this.

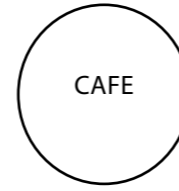


Markets activate public space and complement local amenities and community culture providing an outlet for small, local producers.

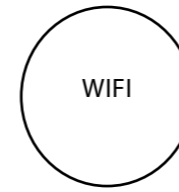


Creating spaces for events to take place facilitates longer and more varied visitation whilst providing activation throughout quieter periods.

POTENTIAL SUPPLEMENTARY ATTRACTORS



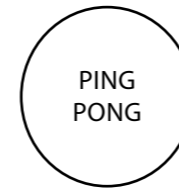
Developing a small, contemporary cafe with movable outdoor seating can encourage longer and more varied visitation whilst provide activation throughout the day.



Providing a wifi network is a relatively low cost way of activating a space without the need for built works to take place.



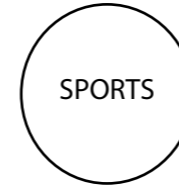
Referencing the local indigenous presence, heritage and culture through built works, signage and interpretive design foster cross cultural links and are a meaningful example of the community's engagement with our first peoples.



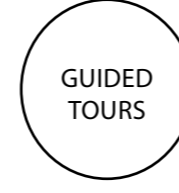
Free-to-use, permanent, weather-proof ping pong tables are increasingly being used to activate public spaces around



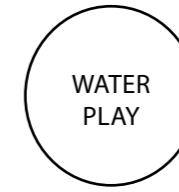
Increasingly yoga groups are utilising open space in which to hold group classes. Creating a sheltered place for these classes to utilise can promote more diverse user groups within the garden.



Sports traditionally feature in public space however more appropriate and accessible sports such as bocci or petanque could be incorporated to increase visitation.



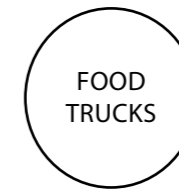
Guided tours provide the opportunity for direct engagement with visitors and can centre on a range of topics.



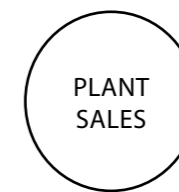
Particularly, in warmer climates water play is a enticing attraction for families with younger children looking for a more sheltered place to cool down.



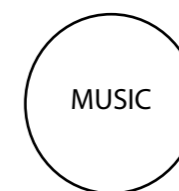
Installation of robust, contemporary and diverse artworks works can create a unique and exciting place for both locals and visitors. These can rotate providing year round interest.



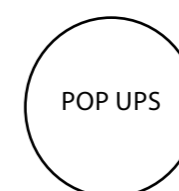
Food trucks are a unique idea catering to a wide clientele. They skillfully use mobile technology as a business strategy encouraging people out to activate underused public spaces.



Many community gardens have successfully raised funds by selling plants produced within the garden to supplement operating income.



Providing areas in which music and performances can take place activates space day and night and caters to a wide range of user groups, both locally and further afield.



Pop-up shipping containers are ideal for use for events, to Botanic products, act as gallery space, shelters or meeting places.

Geraldton Botanical Gardens

Maitland Park
Appendix 1 - Draft Implementation Plan



Geraldton Botanical Gardens

Maitland Park
Appendix 2 - OPC



REALM
studios

Vigilante | LANDSCAPE
ARCHITECTURE

MARCH 2016