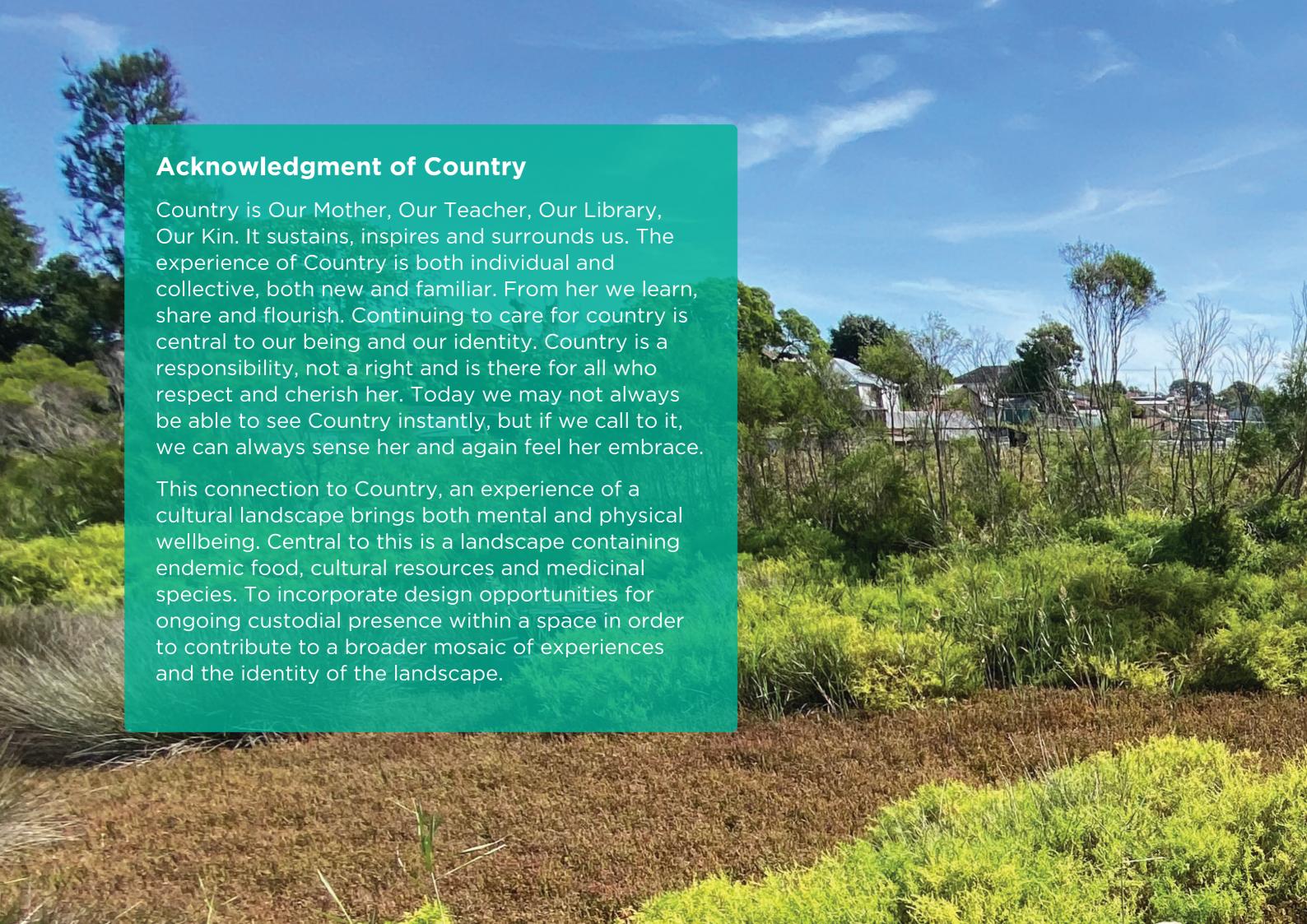




BAYSIDE PRIORITY GREEN GRID CORRIDORS SPATIAL FRAMEWORK

BAYSIDE COUNCIL

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PREPARED BY	OM/GL
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Information and Credits

Bayside Priority Green Grid Corridors Spatial Framework was prepared by ASPECT Studios and Yerrabingin for Bayside Council.





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BAYSIDE PRIORITY GREEN GRID CORRIDORS SPATIAL FRAMEWORK





Project Overview and Background

Project Purpose

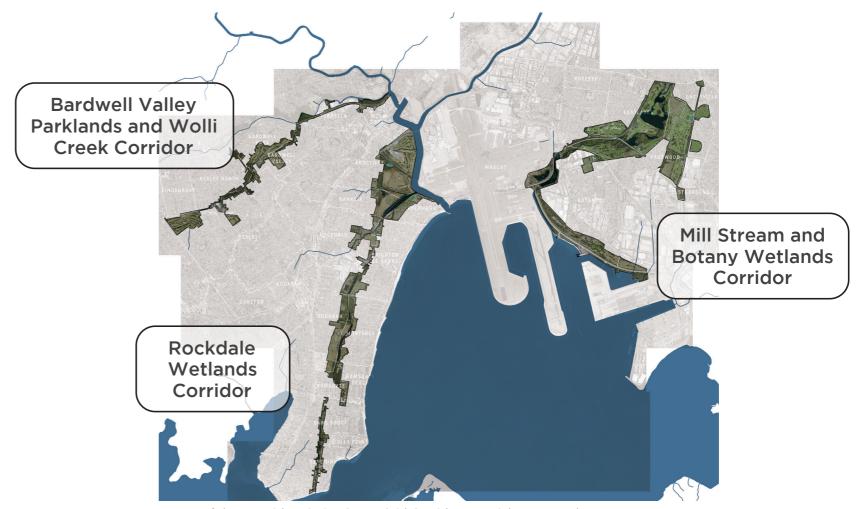
The Bayside Priority Green Grid Corridors Spatial Framework sets the vision and next steps for delivering integrated open space and ecological assets that promote healthy living, active transport, community engagement, and environmental benefits.

Bayside Council is undertaking significant strategic planning to ensure opportunities and sensitivities are best leveraged for future open space networks. The three corridors covered within this document have been identified in the Government Architects Office Sydney Green Grid, and are part of the 20 new grants awarded as part of the NSW State Government's Metropolitan Greenspace Program. The vision and spatial framework plans will contribute to the delivery of the Greener Places Framework and the priorities identified in the Greater Sydney Region Plan and the Eastern City District Plan.

The preparation of the Bayside Priority Green Grid Corridors Spatial Framework [Spatial Framework] will help establish the role of the corridors in encouraging healthy living through cycling, walking and jogging to improve connectivity, legibility, biodiversity, success of ecological communities and to improve water quality. This process will include planning and strategic documentation that pertain to the corridors, current and future infrastructural projects impacting on the site. The Spatial Framework also identifies catalyst projects that will promote the overall objectives and engage with local community as well as an implementation plan for projects with associated estimated costs.

The overall approach that has guided all three corridors is outlined in Section 2: Vision and Principles. The document has been structured so that each corridor is positioned as stand alone works to be used in future for grant purposes, place-based planning and design, and community engagement.

This document has identified opportunities to help guide future decision making. The implementation of these new assets would have ongoing financial implications for Council which would need to be taken into consideration at the detailed design stage, including allocating resources for long term maintenance. Implementation of proposed strategies is subject to future decision making by Bayside Council.



Extent of the Bayside Priority Green Grid Corridors Spatial Framework scope

Approach

A holistic team comprising of Bayside Council, ASPECT Studios, Yerrabingin, Dr Chels Marshall, MBM and Reid Butler have prepared this framework to appropriately respond to the complexities of the scope. Our collaborative team focused on identifying opportunities for connecting and enhancing an already rich tapestry of green corridors and waterways within the larger Bayside Local Government Area (LGA).

A key part of the approach was ensuring strong connections to Country are embedded within the early strategic work. This is supported by a community engagement process led by Bayside Council and Yerrabingin.

Additionally, the Spatial Framework has been informed by community consultation that was conducted by Bayside Council from 02 November 2020 to 14 December 2020.

Supporting documents

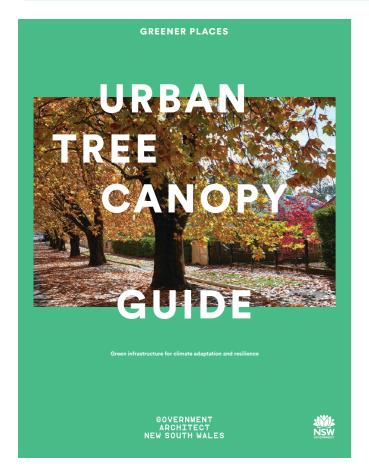
Refer to the following documents produced to support the Spatial Framework:

- Aboriginal Cultural Heritage Bayside Priority Green Grid Corridors Spatial Framework, Yerrabingin, May 2021
- Bayside Priority Green Grid Corridors Spatial Framework First Nation Engagement summary, Yerrabingin
- Bio-Cultural Report, Bayside Priority Green Grid Corridors Spatial Framework, Chels Marshall

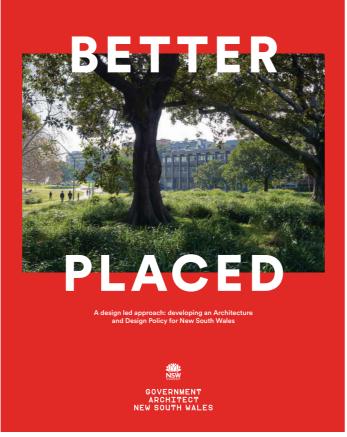


State Government Policies

The Spatial Framework is guided by best practice State Government initiatives and policies, Local Government planning policies, guidelines and plans. The following background documents provide a summary of the key objectives that have informed the vision.



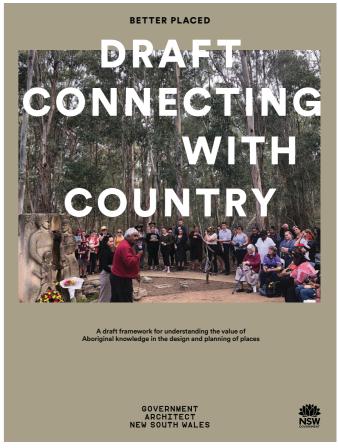
According to the Urban Tree Canopy Guide, Bayside Council has the lowest percentage urban tree canopy cover than anywhere else in Sydney. A significant increase in the tree canopy cover is needed to mitigate the large tracts of land dedicated to Airport and Port uses. Ambitious targets to increase street trees and green space will help create livable streets and communities in a part of Sydney that already has a high number of days with significant heat.



Better Placed establishes the value of good design, and identifies key concepts, good process, and objectives for good design outcomes. Better Placed identifies key challenges around health, climate resilience, rapidly growing population, changing lifestyles and demographics, infrastructure and urban renewal. With increasing population and environmental pressure within Bayside LGA, the role of good design to create quality open space has become fundamental to growing communities.



It is anticipated that Sydney's population will almost double to 8 million residents by 2054, many of whom will find home in increasingly small dwellings, in more dense urban areas. In Bayside LGA, the projected population is set to almost double to 228,200 by 2036, with a significant increase in aging population. With the provision of well planned green infrastructure there will be many sustainability gains such as; better access to public transport; active transport networks; and general improvement in quality of life and wellbeing. With the population increase, focus on conversation of the natural environment and increased accessibility to them to promote social, cultural and educational opportunities.



The framework aims to help all of us- Aboriginal and non-Aboriginal people to work together collectively, respectfully to unite our complementary knowledge. Opportunities to connect signficant cultural narratives and environmental issues through an intergrative design process, allows for Connecting and Caring for Country in Bayside to occur through many layers "Cultural awareness must come first. Having committed to prioritising Country and invested in growing cultural awareness, we can then develop project plans and associated project life cycle processes with an Aboriginal perspective"

Productivity Commission White Paper 2021

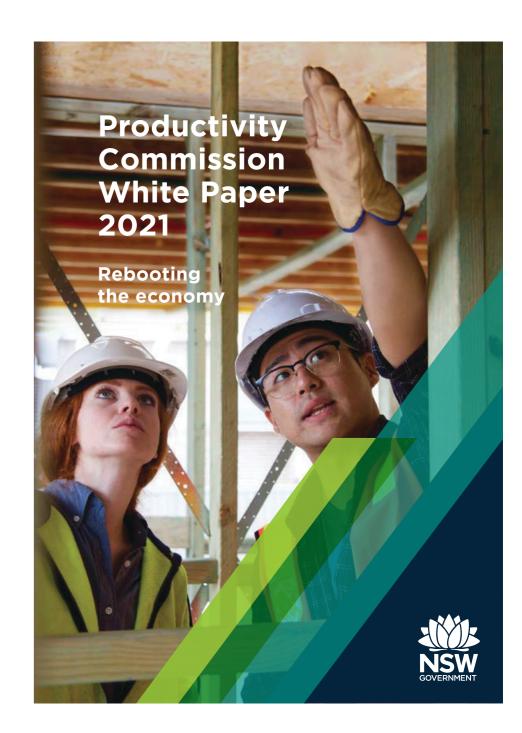
The Productivity Commission White Paper is a NSW State Government initiative to identify 60 opportunities that can help to reboot productivity growth. Key items included in the recommendations and relevant to the delivery of the Green Grid Corridors are:

Recommendation 7.6 Make the most of our open and Green Space

- The Department of Planning, Industry and Environment is working with local councils to improve access to open space through the Metropolitan Greenspace Program and to implement the 'Sydney Green Grid', a network of linked open spaces.
- Identified need to develop and deliver a consistent approach to measuring benefits to community welfare from the provision of open and green space.
- Identified need to progress development of evidence-based options for incorporating green infrastructure and open space in strategic land use planning.

Recommendation 7.7 Implementing Infrastructure Solutions Reform

- Addressing the challenge in New South Wales of it's Councils to fund, deliver and maintain infrastructure, this recommendation identifies 29 reform measures to make the process transparent, efficient, consistent, simple and certain.
- The Government has accepted all 29 recommendations
- Implement the 29 recommendations of the Review of Infrastructure Contributions to deliver a principles-based, transparent, and certain infrastructure contributions system.



Our Greater Sydney 2056, Eastern City District Plan

The District Plan shows how we can improve access to our amazing waterways, connect our green links, and add to our street tree canopy.

The Eastern City District Plan identifies the three corridors in Bayside Council as Priority Green Grid Corridors.

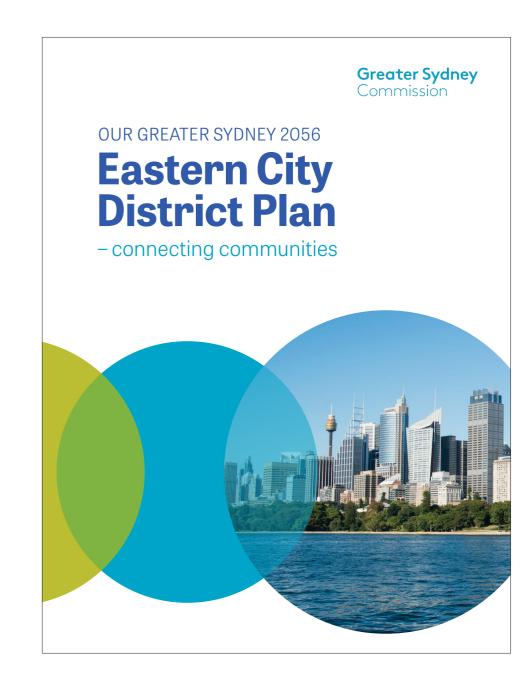
Mill Stream and Botany Wetlands Open Space Corridor is identified as an opportunity for improved north-south access and cross-district access. Wolli Creek Regional Park and Bardwell Valley Parklands is identified as a space to provide open space for recreation, walking and cycling trails, connect patches of ecologically significant vegetation and improve water quality and stormwater management.

Rockdale Wetlands Open Space Corridor is an important corridor to create a connected open space corridor for walking, cycling and greening the urban environment, and protect ecological significant areas.

Enhancing and protecting biodiversity, bushland and the city's waterways, and implementing initiatives to adapt to the impacts of climate changes are key to the design of open spaces. Increasing tree canopy coverage and delivering the Green Grid Connections is promoted to achieve connected habitat and bushland corridors, address urban heat and promote active transport options,

The District Plan supports the creation of multipurpose and intergenerational facilities, recreation areas and parks, with accessible and safe pedestrian and cycling connections that can be used by people of all ages. In particular, the District Plan identifies the projected increase over 20 years in both children under 4 (by 20%) and aged people over 65 (by greater than 64%) and the need to address multigenerational needs in open space design, wayfinding and accessibility.

The District Plan identifies upgrading streets as a priority to improving livability by providing connections to open spaces, space for safe cycling and walkable neighbourhoods. Initiatives to address open space and active transport links will work toward delivering a 30-minute city. The District Plan also identifies the need to foster connected communities that celebrate our heritage, both indigenous and non-indigenous.



Future Bayside: Local Strategic Planning Statement

Bayside Council is the amalgamation of the previous Rockdale City and City of Botany Bay Councils. The area covers 50 square kilometres and contains 29 suburbs. It's population is around 162,900 and is expected to reach 228,200 by 2036. The residents are culturally diverse, with 46% of residents born overseas. Notably, Bayside is becoming an increasingly older community. Local Strategic Planning Statement (LSPS)

The Bayside Land Use Vision 2036 aims to;

- Support a more sustainable city, better connecting people with the places they live, work and play, while also preserving the natural areas, landscapes and waterways
- Protect the natural areas, landscapes and waterways and deliver high quality open space. Increase tree canopy and extend the green Grid Corridors through a network of open space, footpaths and cycleways that provide greater connectivity to open space, centers, employment hubs and green corridors
- Be a vibrant, healthy and connected community that respects existing character and heritage
- Advocate for more public transport services and routes to connect our communities, with particular focus on increasing our east-west connections

Planning Priorities

The following Planning Priorities are directly relevant to the Bayside Strategic Framework Document;

A City For People

 B4 Provide social infrastructure to meet the needs of the Bayside Community

A City Of Great Places

- B9 Manage and enhance the distinctive character of the LGA through good quality urban design, respect for existing character and enhancement of the public realm
- B10 Value, protect and conserve Aboriginal heritage. Bayside is home to the Aboriginal people (Gwegal, Bidgigal and Gadigal clans) known as the 'water people' who live around Kamay (Botany Bay) and it is the wetlands and waterways of Bayside that continue to shape Bayside's landscapes.

A Well Connected City

- B12 Delivering an integrated land use and a 30-minute city
- B5 Foster healthy, creative, culturally rich and socially connected communities

A City In Its Landscape

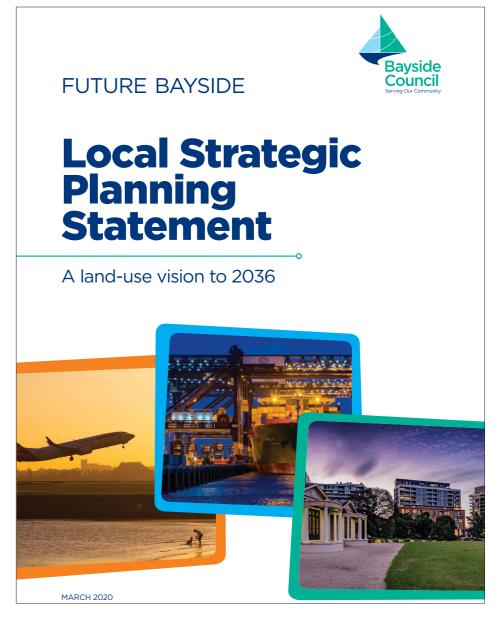
- B20 Protect and improve the health of Bayside's waterways and biodiversity. The wetlands and waterways of Bayside Council are an iconic feature of today's landscape forming an integral part of Sydney's Blue Grid. The LGA is home to over thirty threatened and significant species as well as a number of remnant vegetation communities.
- B21 Increase urban tree canopy cover and enhance green grid connections.
- B22 Deliver high quality open space
- B23 Protect and enhance scenic and cultural landscapes

Community Engagement

As noted to inform the LSPS, the following community values were highlighted.

- Bayside needs more pedestrian and cycling infrastructure that connects places, safer pedestrian crossings and improved lighting at night
- Community facilities need to be within walking distance and part of a hub
- Need more cultural spaces and programs that reflect diversity and aging population
- Need to protect areas of historical significance and cultural and natural landscapes
- Protect existing open space, beach and bushland to encourage an active and healthy lifestyle

- Desire for more open space in high density areas, look at shared use with schools and more multipurpose spaces
- Desire to embrace Aboriginal heritage as part of our rich history and character
- Need to preserve green corridors
- Consider having more community gardens
- Improve the water quality of the rivers, wetlands and Botany Bay
- Regular maintenance of stormwater network to improve water quality and mitigate flooding.



Draft Bayside Environmental Strategy

Bayside is home to open space, bushland, wetlands and coastal environments. The LGA is surrounded and intersected by some of Sydney's most important waterways including Botany Bay, Cooks River, Alexandra Canal and Georges River. These significant wetlands provide important corridors for native flora and fauna, as well as places for the community to engage with the natural environment.

Climate Change Adaptation And Community Resilience

Bayside will be particularly impacted by rising temperatures, as urban areas tend to concentrate and maintain heat, reducing the cooling effects of vegetation and air flow. There are significant concerns that foreshore areas of Bayside are increasingly vulnerable as flooding is predicted to occur more often and extend further.

Adapting to climate changes requires an understanding of climate risk and implementing actions to address this risk. Opportunities include;

- Address heat impacts by implementing a Bayside Urban Tree Canopy Strategy which ensures trees are appropriate for the location
- Best practice design guidelines to promote benefits of reducing the heat island effect
- Increase water sensitive urban design features to keep the water within local water bodies

Waterways

Botany Wetlands and Eve Street Wetlands are listed on the Commonwealth Directory of Important Wetlands which recognises the most significant wetlands in Australia. These wetlands provide important habitat for local species.

Being at the end of the catchment, Bayside waterways receive upstream gross and diffuse pollutants. Improving local water quality is a key objective of the local community and Council. These waterways and watercourses are a key part of Greater Sydney's Blue Grid. Recognising their social and environmental value, it is important to manage and improve local waterways. Opportunities include;

- Regenerating and naturalising waterways particularly the Cooks River and its tributaries
- Finalise and implement the Water Management Strategy
- Increase use of permeable surfaces
- Include Water Sensitive Urban Design (WSUD) initiatives
- Retain and enhance the character of waterways

Green Corridors, Spaces And Urban Tree Canopy

There are over 350 parks and reserves in the LGA and 13.7% of the LGA is covered by tree canopy. Bayside's tree canopy coverage – impacted by the presence of Sydney Airports and Port Botany – is the lowest amongst all Greater Sydney councils. The majority of open space in the former Botany Bay LGA is not in Council's ownership, care and control which creates challenges in enhancing and extending these spaces. Opportunities include;

- Identify potential future long-term open space opportunities that could be subject to further investigation, particularly those linked to waterways (e.g. Muddy Creek)
- Collaborate with Sydney Water and others to improve access to open space
- Undertake urban tree canopy mapping to identify significant trees, particularly those on Council land
- Create a Bayside urban tree canopy plan to guide species and location of tree planting, review plan in consultation with Sydney Airport
- Advocate for undergrounding of services and approaches to reduce impact on street trees







Bayside Council Environmental Strategy

August 2020



Draft Bayside Environmental Strategy (continued)

Biodiversity

Over 24 threatened fauna species and five threatened flora species have been recorded in the LGA. Delivering projects which protect and enhance local biodiversity ensures Bayside is a city in its landscape. Biodiversity corridors are connections between habitats allowing for species movement, their protection is necessary for ecosystem functions. Opportunities include;

- Develop and implement a Biodiversity Strategy for the Bayside LGA
- Promote community education on local environmental values, flora and fauna
- Protect breeding grounds for migratory birds (e.g. Cooks River).
- Identify areas suitable for delivery of the Green Grid and zone areas of importance
- Consider buffer zones around the green grid to support environmental outcomes

Protecting and Celebrating our Scenic and Cultural Heritage

Bayside's coastline and riparian areas are defining features of the LGA. Places like Botany Bay and the Cooks River are culturally and scenically important. They offer opportunities to reflect on Aboriginal and European heritage. Enhancing and protecting access to these areas and views will ensure Bayside's identity is retained for future generations. Opportunities include;

- Establish and maintain public connection and access to Bayside's waterways and foreshore areas
- Engage with local Aboriginal people to identify and protect culturally important sites (e.g. Barton Park)
- Promote opportunities for the community to connect with cultural landscapes

Contamination, Soil, Noise and Air Pollution

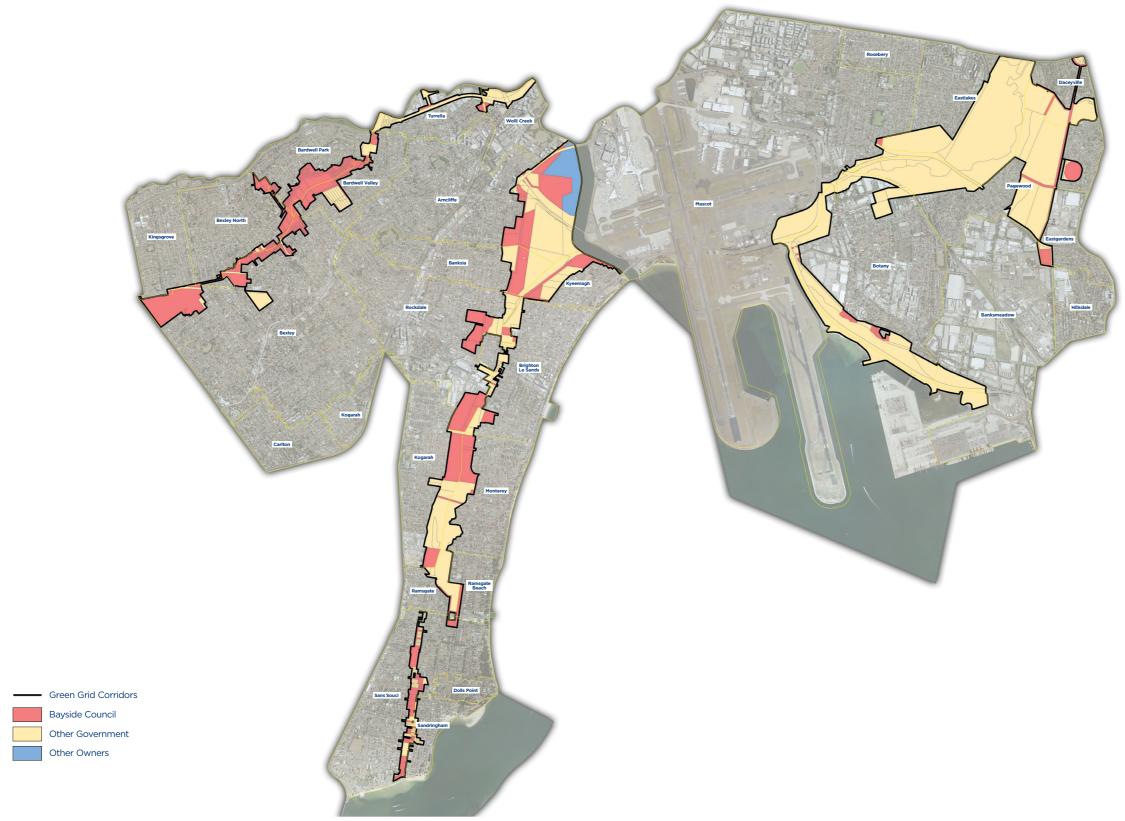
There have been increased controls on the industrial discharge of pollutants, however soils and groundwater in Botany Bay have a legacy of urban and industrial waste, including highly toxic chemicals, petroleum and heavy metals such as zinc, copper and lead.

In addition, the extent of car dependency is a major factor in emissions within the LGA. In 2016, 53% of residents traveled to work in a private vehicle. Of Bayside's households in 2016, 41% owned one car, 26.8% owned two cars and 10.2% owned three or more cars. Opportunities include:

- Use landscaping and trees along busy roads to improve air quality
- Enhance shared and separated cycle ways
- Improve tree canopy cover for active transport routes



Map of Bayside Priority Green Grid Corridors Land Ownership



Land ownership patterns in Bayside present an obstacle to achieving the objectives outlined in the Spatial Framework. A whole-of-government approach and collaboration with other stakeholders is required to realise this vision.

Map provided by Bayside Council and NSW Government







Guiding Vision and Principles

Key insights from community engagement

The purpose of community engagement is to set up a framework to ensure community is included within the end result with meaningful co-design partnerships. These aspects facilitate custodianship, access, cultural revitalisation, intergenerational transfer and adequate cultural interpretation of landscape.

Community engagement at La Perouse Local Aboriginal Land Council (7th May, 2021)

Yerrabingin with ASPECT Studios and representatives from Bayside Council met with the Gamay Rangers at the La Perouse Local Aboriginal Land Council (LALC) office, who are a conservation group funded through the Federal Indigenous Ranger Program. Rob Cooley Senior Ranger and team members David Johnson, Tarice Ingrey and Jade Anderson. An overview of the project and key opportunities for First Nation leadership were discussed and the below is summary of the key discussions on the 7th May 2021. Their input has been instrumental in framing the cultural design response to the Site Area.

Cultural significance, key values, concerns and integrity enhancement components discussed within the session included;

Bardwell Parklands and Wolli Creek Corridor

- Confluence of salt and freshwater.
- Effects of water quality on health including fauna such as fish.
- Importance of access, particularly within natural reserves that contain places of cultural significance.
- Incorporating accessibility into Natural Reserves Management Plans.
- Protecting native *Eucalyptus radiata* for its cultural culinary importance (and including this within the site's fire management).
- Protecting tree species for their cultural significance for soap, tools, baskets.







Key insights from community engagement

Rockdale Wetlands Corridor

- Re-instating rock oyster reefs.
- Importance of access, particularly within National Reserves that contain places of cultural significance. Promoting better access through incorporating it into National Reserves Management Plans.
- Promoting initiatives to improve water quality to make local food supply such as mullet, rock oyster reefs and blue-summer crab edible and accessible to community.
- Considering local habitats for local species such as sea grass and wetlands for crab.
- Gaining local information such as mapping crab and mullet movement throughout the seasons.
- Wurridjal Festival by Bayside Council, Canterbury Bankstown, Inner West and Strathfield Councils and the Cooks River Alliance. Seen as good community initiative.
- Improvement of water quality by managing industrial pollutant run-offs.

Cultural Significance Mill Stream and Botany Wetlands Corridor

 Improvement of water quality by managing industrial pollutant run-offs.

Uncle Ray Davidson and Colin Davidson (12th May, 2021)

Elders provided views and aspirations for the project. A general theme was the sharing of culture and education for children.

"Because if you're born here, you're Indigenous, your part of country. Doesn't matter if you're Italian heritage, or you're a black fella or if you come from Scotland. If you're born, here, you don't lose the identity but you're still part of country here. You belong to country, you don't own country, country owns us and through the children we will learn the same principle for everyone born on it."

"We know, the Gadigal people, over the times, we looked at that area of water as the 'Giver of Life'. Sydney Harbour for the Gadigal people is the 'Sustainer of Life'."



Emerging Mangrove- Photo Chels Marshall



Sea grass- Photo Chels Marshall

ASPECT Studios

Country Narratives

Yerrabingin was engaged to produce a desktop research report identifying key Aboriginal cultural heritage themes and storylines for the site in order to provide context for the spatial planning and design.

The report presents the research findings, including an overview of the site and its cultural context, key themes and storylines and opportunities to explore stories in engaging ways in the design and site interpretation. Identified narratives developed for the corridor areas have been synthesised based on the historical information about the region and the contemporary associations of Aboriginal people to the places along the corridors.

The full report, Aboriginal Cultural Heritage report Bayside, Yerrabingin, (May 2021), is provided as supporting information.

Living in water landscapes

The Bardwell Parklands Corridor area, with its rocky edges and remnant bushland is home to rock shelters with middens, rock shelters and stone artefacts. These sites are not dated, but reveal that the corridor area was probably used for camping, fishing, resource, manufacturing use and ceremony activities by Aboriginal people over thousands of years prior to British settlement in the area.



Berewalgal (people from far away) arrive (Europeans)

The British belief that they could claim land and resources, without understanding or acknowledging the connection Aboriginal people had to the land for tens of thousands of years prior to their arrival, and the differing world views of ownership, kinship, belonging and relationships to the natural world, led to conflict that is still part of the colonial landscape of Australia.



Preserved places

Though the course and health of the waterways changed over time as Sydney developed, their unique landscape character meant that they were preserved from absolute development and continue to form part of the cultural landscape of modern Sydney. The story of Kameygal man Mahroot can help us understand the experience of Aboriginal people in the Botany area through the nineteenth century.



Bio-cultural Lens by Dr Chels Marshall - Cultural Systems Ecologist

The key concepts that frame bio-cultural diversity and the paradigms relating to bio-cultural assets or eco-cultural landscapes start in the Indigenous ideology in planning considerations of the landscape, its meaning and the water sources and ecological functions are the primary objectives.

Maintaining and providing connection to the places allows people to appreciate that urban bushland is important for wildlife and biological functions such as clean air and water. They also provide easy and accessible means for nature connection assisting in the understanding of Aboriginal people's worldview in psychological and physical connection to nature.

In urban landscapes, especially cityscapes, the importance of remnant native vegetation becomes increasingly valuable as living examples of cultural landscapes. They contain plants, animals, geological formations and aesthetic attributes that remind and tell the story of what the area was like prior to colonisation. They are living databases holding the DNA of cultural and natural relationships and contexts.

Ecological calendars

To understand species biological cycles so development works do not impact ecological events on site (i.e. migratory species foraging times). It also assists with understanding the seasonality of the site (building timing and stages). Considering building specific ecological calendars for any construction works, rejuvenation and revegetation planning.

Habitat Provision

Ensuring what is there has sufficient viability (habitat) to ensure it can undertake its ecological function and support the animals, insects and plants dependent on it. A foundational plan that shows the retainment and enhancement.

Culturally Sustainable Landscapes

A large factor in Indigenous sustainability was self-sufficiency and self-sustaining constructs along with selection of areas that were livable (sun direction, wind, food etc) an integral component was availability of water and storage.

Viability of the landscape is a key component, where connectivity and functioning corridors allow the flow of biological energy and functions for species movement. The active maintenance of this is also a cultural practice (i.e.; harvesting, fire management for fire dependent species and access for cultural practices).

A full copy of Dr Chels Marshall's Bio Cultural Report is included as supporting information.



Cultural narratives interpretation opportunities

Environmental graphics

Ground plane graphics, inlays or installations designed using archival materials could be used to communicate earlier paths of waterways and how they have been altered over time. This could be communicated using colour, texture or objects to demarcate prior placement of waterways, swamps, creeks or coastlines.

Ecological preservation

Preserving the story of the landscape through the vegetation and existing species give a cultural context to the language, place and people. Regenerative work including cultural species, diversity in planting variety, community gardens, sharing knowledge with education on importance of species, vegetation to land and people.







Cultural narratives interpretation opportunities

Community custodianship

Aboriginal cultural knowledge events such as astrology, bush tucker and marine life and art events/ exhibitions could be expanded across all corridors to support community education and opportunity in caring for Country.

Options for embedding an indigenous theme within park upgrades across the Local Government Area would also be an opportunity to engage with young residents in a playful and educational manner.

Public art installations

Public art, in consideration with Bayside Public Arts Policy Document, should be designed to share the history of Aboriginal experience at the site, the stories of Aboriginal people and Aboriginal perspectives on Country.

Reference projects include; (though not on Gweagal / Kamaygal Country).

- The Eyes of the Land and the Sea by Alison Page and Nik Lachajczak commemorating the 250th anniversary of the 1770 encounter between Aboriginal Australians and Lt James Cook's crew at Kamay Botany Bay National Park, Australia.
- Barranga dyara (skin and bones) by Jonathon Jones which was installed at the Sydney Royal Botanical Gardens. As part of the project, kangaroo grass was planted in the site of the destroyed Garden Palace building.



"The Eyes of the Land and the Sea" Alison Page and Nik Lachajczak (2020)





Bayside Green Grid Corridors Networks

The complex nature of ecologies within an urban setting could be understood as isolated elements as well as different ways which they interrelate. Investigative networks have been organised into three primary 'lenses'. The biocultural lens is the overarching principle whereby all other investigative lens fall under as its ideology focuses on ecological connections.

1. Movement

The movement lens describes all the ways people move through their environment including private and public vehicles, and active transport including on streets and separated pathways.

2. Blue-Green Network

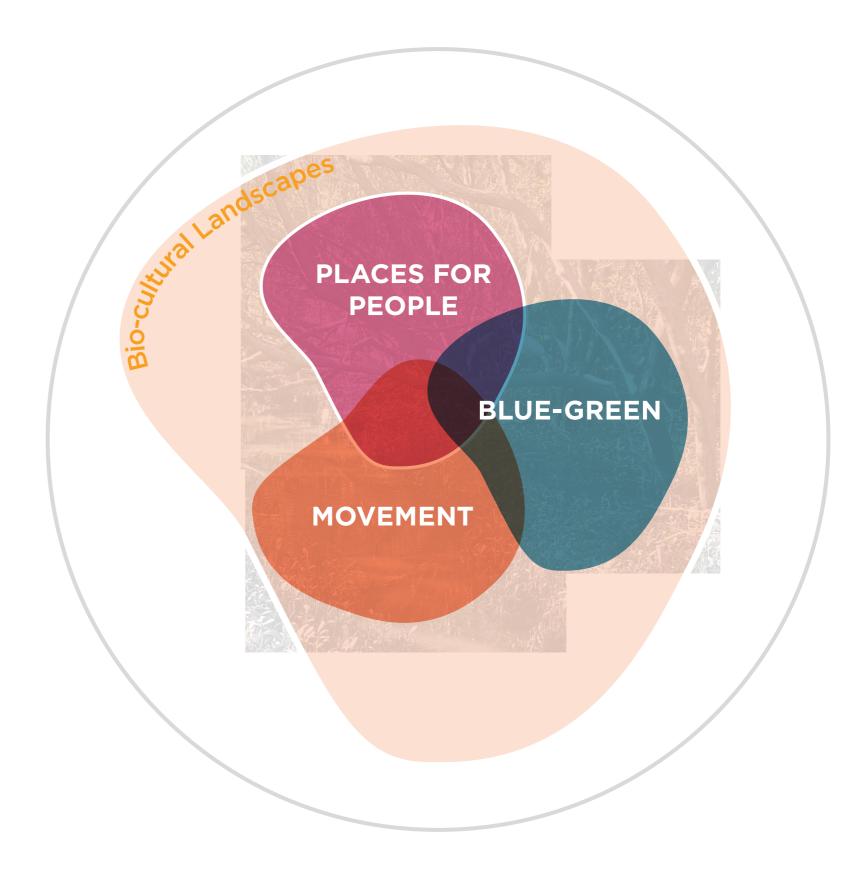
Blue elements includes all hydrological elements, natural and manmade including rivers, dams and wetlands, as well blue infrastructure such as in-ground stormwater systems.

Blue elements are used to describe all the places water is in or moves through the environment.

Green elements include trees and plants, remnant or planted. It includes all types of green-spaces from large areas of bushland to street lines with trees and sports fields.

3. Places for People

The Places for People lens comprises of different places within the environment which the community needs to access day-to-day. It includes places of community significance such as parks, playgrounds, plazas, ecological viewing platforms as well as important community services.



Place Principles

A Matrix Approach

The Bayside Priority Green Grid Corridors Spatial Framework seeks a dynamic approach to establish principles to remain relevant in a city of transformation by understanding how components are connected. The Place Principles Matrix builds on established Bayside Local Strategic Planning Statement principles with the three key lenses networks to articulate 12 individual Principles that are linked.

Through this approach, Yerrabingin have applied country centered design lens to make the Place Principles more specific and meaningful.

	CONNECTED	HEALTHY	INCLUSIVE	RESILIENT
MOVEMENT	MOVEMENT IN MINDSET	CREATE INTEGRATED MOVEMENT NETWORKS WITH OPPORTUNITY TO CONNECT WITH LANDSCAPE	ALLOW FOR DIFFERENT EXPERIENCES WITH COUNTRY	INNOVATIVE DESIGN THAT CATERS FOR FUTURE CONDITIONS
BLUE-GREEN NETWORKS	UNIFIED ECOLOGIES	FUNCTIONING ECOSYSTEMS	PROMOTING STEWARDSHIP OF NATURAL ASSETS	DIVERSITY IN THE LANDSCAPE
PLACES FOR PEOPLE	ACCESSIBLE AND READABLE	BALANCE BETWEEN MENTAL AND PHYSICAL WELL- BEING	EMPOWERMENT OF COMMUNITY	DIVERSE TANGIBLE AND INTANGIBLE EXPERIENCES





Overarching Corridor Strategies

Distinct Corridors

The role of water within the Bayside LGA is intrinsic to its local identity. Identifying and celebrating each corridor's unique waterscapes, flora, fauna and cultural heritage will enable a clear future direction for interventions.

Bardwell Valley Parkland and Wolli Creek Corridor

Bardwell Valley Parklands and Wolli Creek Corridor is a bushland creek corridor. There will be a clear focus on retaining and enhancing the existing remnant bushland vegetation. Its scenic qualities will be celebrated through retention of intimate bushland tracks and passive landscape uses. It will continue to be a quiet place for respite for the community.

Rockdale Wetlands Corridor

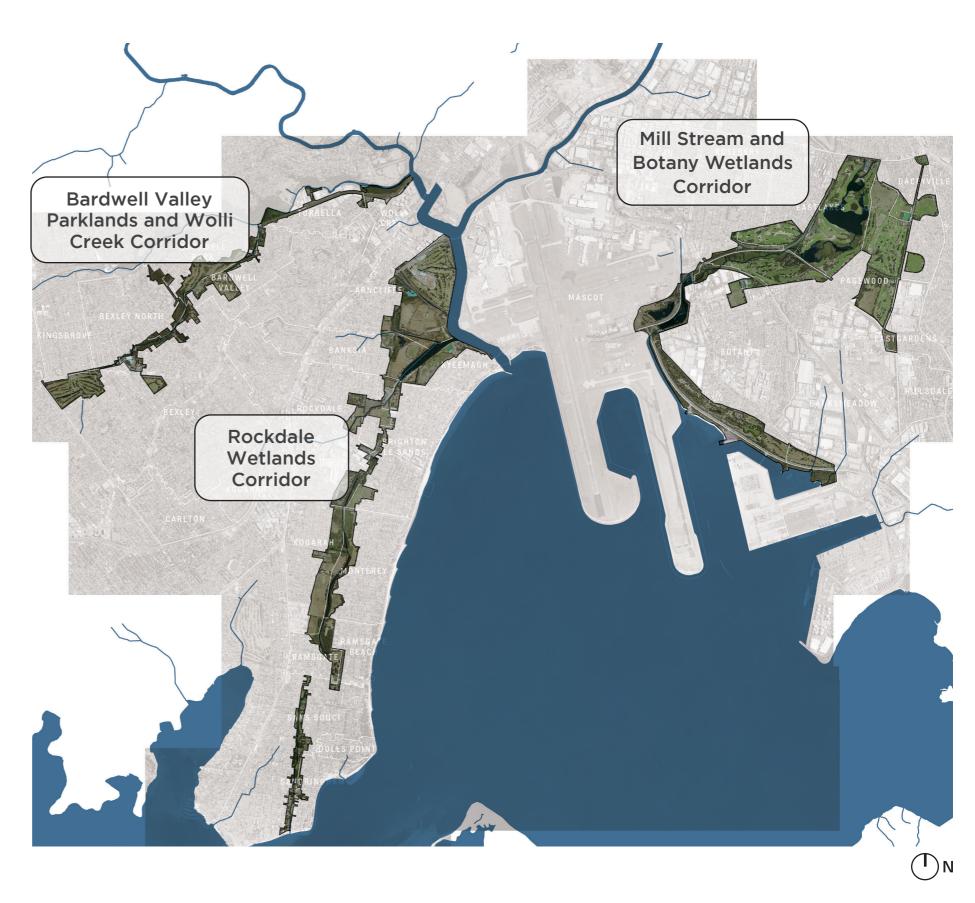
Rockdale Wetlands Corridor will be focused on protection and rehabilitation of the wetland and saltmarsh landscapes, protecting and enhancing remnant vegetation and habitat areas, whilst ensuring that it remains a people focused open space corridor that encourages community interaction with landscape and water.

Mill Stream and Botany Wetlands Corridor

The Mill Stream and Botany Wetlands Corridor consists of a series of highly engineered and altered waterways. The opportunity for this corridor is to celebrate the role that water has played in the evolution of Sydney, and refocus the community back toward this system.

The Great Coastal Walk: Botany Bay Foreshores

The Botany Bay Foreshores coastal walk is an additional project opportunity that has been identified in the Government Architect Sydney Green Grid Plan. The area extends from La Perouse to Kurnell, connecting important open spaces. This area has not been included in this study, however there are missing links along this coastal walk that could be explored in future.



Green Street Connectors and Movement Plan

Green Street Connectors are identifiable cross connector streets linking the open space corridors with each other, to local centres, to public transport nodes and to other key local spaces such as schools, playgrounds and pocket parks.

They are designed as green, tree lined streets, with bioswales and mass planting to function as extensions of the open space network to provide corridor habitat connections.

There is opportunity to have WSUD initiatives such as swales integrated into the verges and pedestrian refuges. This will aid in managing and improving water quality from streetscapes and reduce pollutants entering the waterways. Vegetation will also provide a buffer to the vehicular road network, and provide comfortable, shaded pedestrian and cycle links. Tree canopy and a diverse variety of vegetation prioritised along these streets will contribute to addressing tree canopy cover targets in accordance to Premier's Priorities.

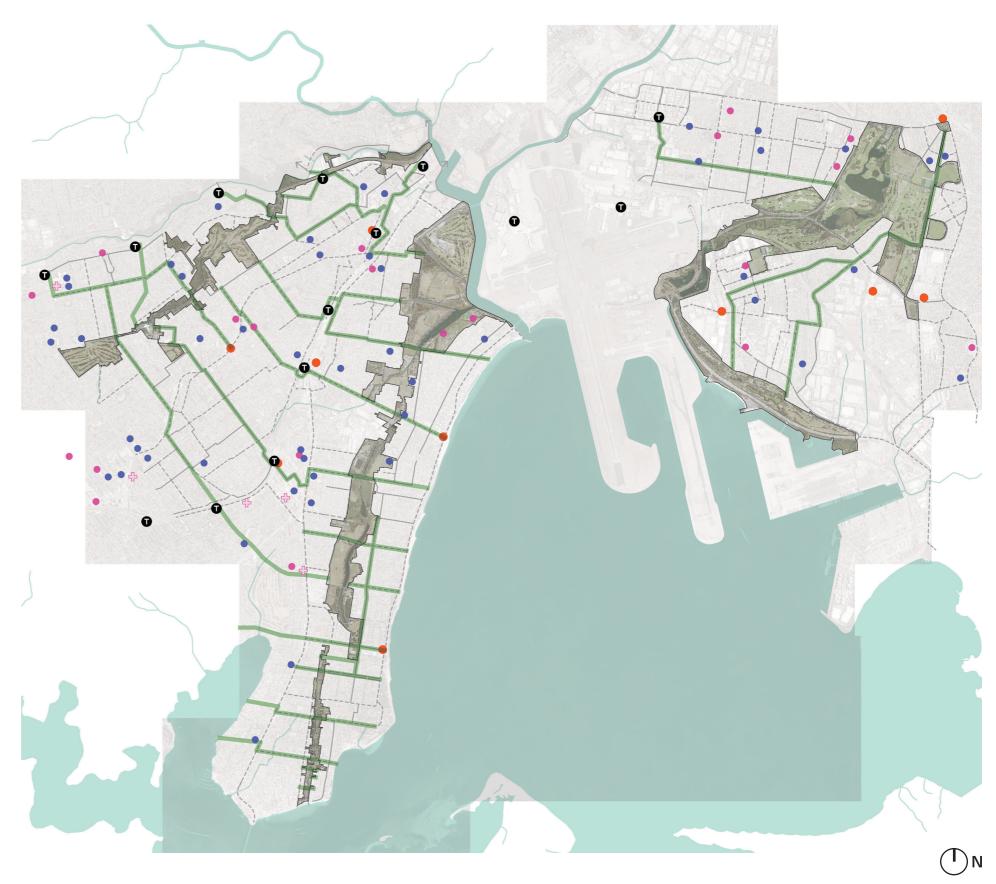
The majority of green street connectors are aligned with the key routes identified in the draft Bayside Council Bike Plan. These connectors have been identified to maximise opportunities to connect to facilities and open space. When detailed design occurs the routes may need to change to respond to specific characteristics of that space.

There is the opportunity to establish a parkland suite of signage, unique ground surface materials, and interpretation along these streets that identify them as key routes connecting to open spaces.

Also refer to the Green Connector Streets in Section 7: Catalyst Projects.

Legend

	Corridor extent
	Education facility
4	Health Facility
	Community/cultural facility
	Town centres
O	Train station
	Existing cycle link
	Proposed cycle link
	Green Connector Streets



Bio-Cultural Objectives

Improve water quality to allow for local species of bio-cultural importance such as the mullet and creek oysters to be accessible to communities

Consolidate the riparian vegetation along the whole catchment

Allow for various ways of movement for different experiences with Country

Establish a series of cultural playgrounds with educational overlays for custodianship and local knowledge

Implement water quality improvements to provide clean habitats for species (decrease nutrient loads, public/neighbour education program), remove weed or non-native species regenerate with vegetation species that assist in this biological function i.e.; mangroves, melaleuca, tea tree.

Use cultural lens to guide community education programs. Consolidate regeneration and Bushcare groups under one plan detailing cultural variables and ideology in restoration plans i.e. native food trees

Develop scope for partnership with the Aboriginal community or Aboriginal service providers in assisting in the implementation of planning outcomes

Consideration of bushfire management strategies. Opportunity to incorporate cultural burning methodologies and management

Utilise the ecological calendar for timing of construction works, the management of the areas, and education and interpretation outlining what the wildlife and nature is doing (kinship program)



Wayfinding strategy with dual- language, Kangaroo Island, Adelaide



Waraburra Nura Indigenous Plant Garden, UTS, Sydney





Indigenous Cultural Landscape Garden, South Eveleigh



Wayfinding and educational overlay



Movement

Define a hierarchy of paths that distinguish use (commuter cyclists, recreational cyclists, pedestrian pathways, bushland paths etc) that encourage a shift to active transport modes, minimise conflict and respect the environmental context

Create cross connector streets that link communities to their open space corridors via comfortable pedestrian and cycle links

Design corridors as active transport corridors for walking and cycling movement through and within the LGA, connecting with other active transport and priority green corridors within and outside of the LGA



Recreational Cycle link through Riparian Corridor, Meadowbank, Sydney



Cycle link through open space, Westerholt Leisure Park

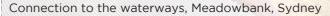


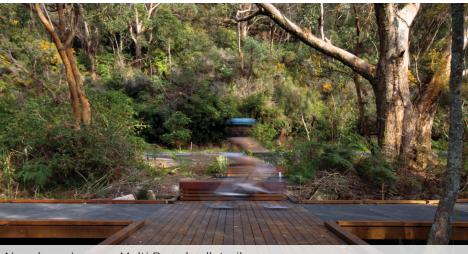
Active Link, Hafenpark



Identity and Wayfinding strategy, Western Ring Road Trail







Narrabeen Lagoon Multi Boardwalk trail

Blue Green Networks

Ensure the rich variety of existing ecologies are connected and continue to traverse the corridors

Exceed tree canopy cover targets across the corridors to offset extensive hardstand areas associated with the airport/ port

Improve water quality across all three corridors through WSUD initiatives and stormwater management

Introduce WSUD into streets to aid in water quality and reduce stormwater loads. Some waterways carry high velocity waters in peak flow. The solutions for these areas need to take this into account whilst striving for better environmental and aesthetic outcomes

Protect stands of significant vegetation and habitat zones, and expand via revegetation where possible

Linking the suburbs with the waterways through landscape and water quality interventions. Promoting to residents and visitors the natural assets of the area and fostering a spirit of care



Creek Naturalisation (water quality improvement), Powells Creek



Riparian Corridor (bank stabilisation), Flat Rock Gully, Northbridge



Bioswales in streets (water quality improvement), Zetland



Swales and Riparian edge (water quality improvement), Sydney Park



Bush regeneration (habitat creation), Flat Rock Gully, Northbridge



Rain Garden in streets (Water quality improvement) Sydney Streets

Places for People

Enhance the distinct landscape characters for the corridors through introduction of uses and materials that are appropriate for the site context

Maximise sporting use by reconfiguration of courts and fields and introduction of multi-use linemarking

Group recreational uses within key community parkland areas, focusing funding, ease of maintenance and management, and attracting visitation by multiple users

Create safe, welcoming spaces for a range of users

Improve access to open space and waterfront



Nature Play, Sydney Park





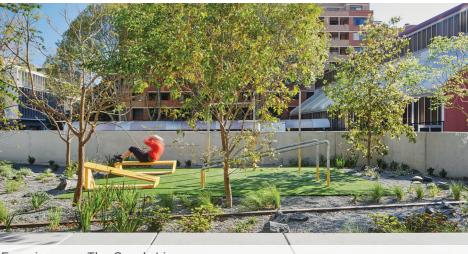
Skate/Scooter Plaza, Australian Technology Park



Heritage Interpretation on sports courts, Australian Technology Park



Multipurpose recreational park, Westerholt Leisure Park, Germany



Exercise area, The Goods Line

