

Vision and Principles

3

3.1 PROJECT VISION

The Prospect Pipeline Corridor will be an active transport and recreation link with new opportunities to move, engage and enjoy.

Structured around a continuous 16km pedestrian path and cycleway connecting Prospect Reservoir to Potts Hill Reservoir, it will be a shaded, safe and inviting space that provides respite from the car-dominated streets of the surrounds and intense heat in the height of summer. While the corridor can be utilised end-to-end, recreation loops and links to existing assets will be designed to support daily informal use by the area's diverse community. This will establish an accessible and visible network of spaces for children, older people, exercise and relaxation. These spaces will also provide recreation opportunities for workers in adjacent Town Centres and Industrial areas.

As part of the Sydney Green Grid, the corridor will become an integrated piece of public domain, unlocking new connections to Town Centres, schools, riparian and open space corridors. New connections to Prospect Creek and Duck River will be key priorities in the short to medium term. To facilitate this, new access points into the corridor and opportunities to safely traverse busy roads will be delivered as part of the project. These will be supported by increased tree canopy and streetscape upgrades leading into and along the corridor to provide cool and comfortable public domain spaces. In time, the corridor will be connected open spaces and cycleways along Cooks River in the east and Western Sydney Parklands to the west.

A unique identity will be established for the corridor which builds upon the existing landscape, social and cultural character of the surrounding areas. This will encourage a sense of community ownership and civic pride which will support the ongoing use, activation and care for the corridor and Country.

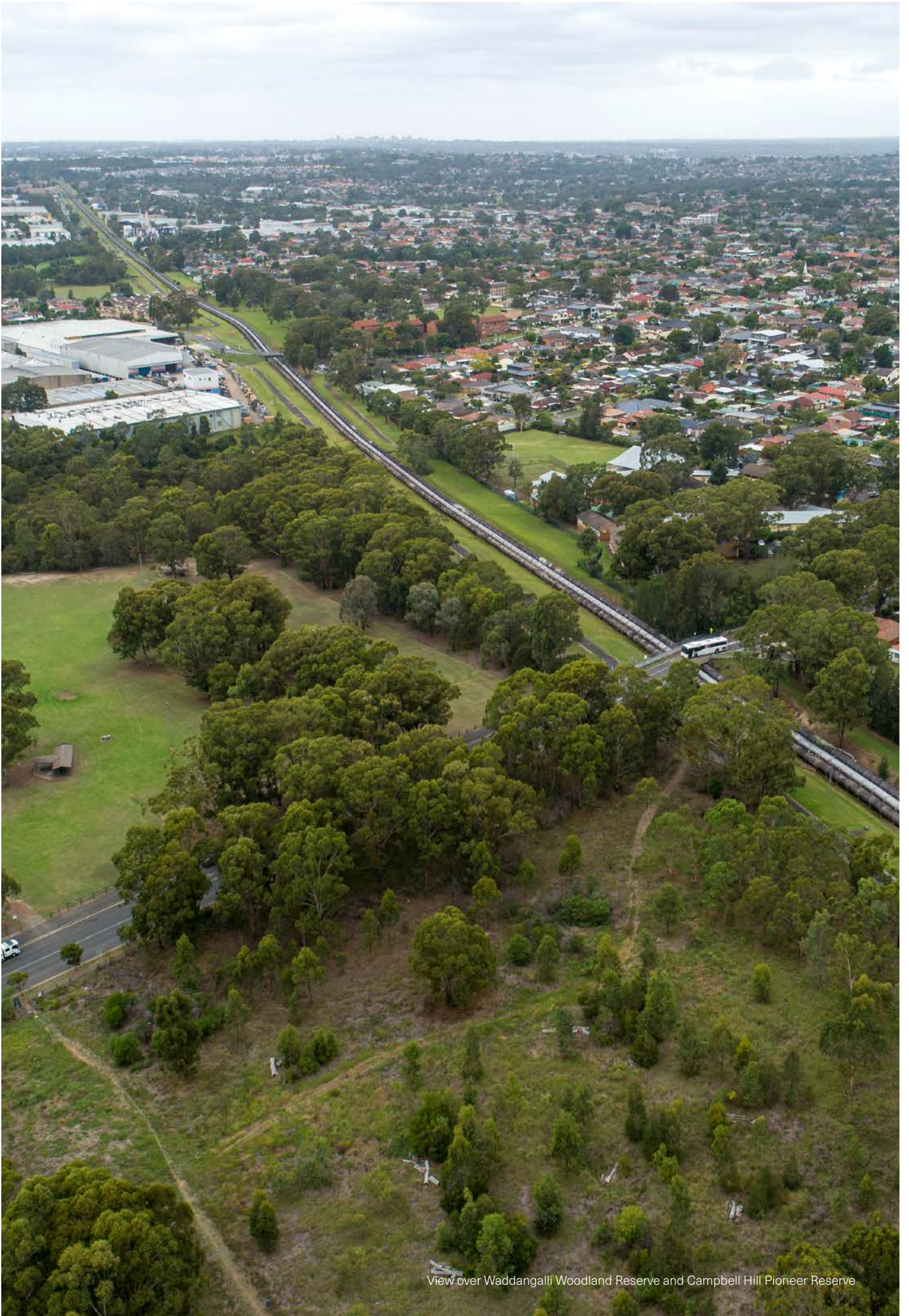
The Corridor will seek to "Heal Country" through the rehabilitation of existing waterways, increased tree canopy and enhancement of endemic ecologies. The incorporation of Indigenous knowledges and approaches will embed the values of environmental and social sustainability at the heart of the project.

New publicly accessible zones will co-exist with important water, energy and communications infrastructure above and below ground. The corridor will continue to enable their ongoing maintenance, future upgrades and the management of asset and public safety.

The key project objectives are to:

- Connect to and Heal Country
- Stitch together existing open spaces and ecosystems
- Bring together communities
- Support active and equitable modes of movement
- Embed resilience to extreme heat and climate change
- Retain existing infrastructure uses and support the ongoing maintenance and renewal of essential infrastructure

The project vision and objectives inform the project principles. These are delivered through the design strategies.



View over Waddangalli Woodland Reserve and Campbell Hill Pioneer Reserve

3.2 PRINCIPLES



Active transport and the Green Grid

- Integrate active transport and associated facilities such as bicycle parking, creating safe and efficient modes of transfer
- Ensure that pedestrians, cyclists and other road users are provided with safe, accessible and separated facilities where possible
- Provide cyclists with the most direct route, enabling them to reach destinations easily via paths that are connected across the network
- Provide pedestrians and cyclists with a shaded route where possible
- Ensure that riders of all ages and abilities are able to utilise the corridor at a speed at which they are comfortable
- Incorporate flexibility in design to accommodate changes in user needs over time
- Create recreation loops and links which support daily use by local residents

Image: Tallow Creek Pathway, Byron Bay



Ecology and waterways

- Retain and enhance the existing tree canopy
- Create and facilitate habitats for flora and fauna, ensuring the preservation of important biodiversity corridors
- Rehabilitate and naturalise existing waterways, promoting safe access to enjoy previously inaccessible zones
- Connect the corridor to existing networks of open space, parks, golf courses and community and leisure centres that can facilitate active and passive recreation. This will include new connections to the Cooks River, Prospect Creek, Duck River and Western Sydney Parklands
- Expand and restore existing ecologies by increasing tree canopy where permitted, creating cool and comfortable spaces
- Manage bushfire risk where necessary

Image: Parkland Walk, Haringey, UK



Connecting to Country

- Holistically consider the impact of the corridor on Country with an understanding that flora, fauna, landscape, waterways, climate and waterways are all interconnected
- Incorporate Indigenous knowledges, stories and their interpretations into the design of facilities and amenities
- Utilise local innovation and circular economies
- Seek out spaces to share cross-cultural stories and knowledge about Country, embedding a continuous educational focus along the corridor that can be accessed by the community
- Investigate opportunities to celebrate sites of Indigenous significance and heritage

Image: Artwork depicting the D'harawal story of women making string for hunting and fishing nets from Casuarina trees, along the Warali Wali Trail, Prospect Creek

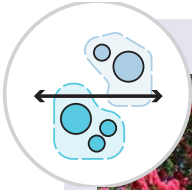


Open space and recreation

- Create safe and playful recreation loops and links to existing open space and recreation destinations
- Improve connections to existing clusters of open space and recreational facilities and facilitate new links where required
- Improve the public domain and surrounding infrastructure to support social connections and provide opportunities to meet and gather
- Create 'places for people' in the street network with wider footpaths and pedestrian zones in key locations
- Repurpose under-utilised areas and flanking zones that can be used to provide increased amenity
- Locate potentially louder community uses and amenities adjacent to major roads

Image: Burwood Park, Burwood

Vision and Principles



Character and identity

- Celebrate the existing social and cultural diversity in the communities present along the corridor
- Establish distinctive character areas and precincts that build upon the existing established character of the local areas
- Seek out opportunities to connect to existing services and offerings, such as local schools/ colleges, town centres and community facilities that facilitate social connection
- Protect and enhance existing heritage assets and conservation areas in and surrounding the corridor, such as the Boothtown Aqueduct
- Share the history of the provision of secure drinking water to Sydney with the community

Image: Guildford Town Centre



Placemaking and branding

- Frame the corridor as a destination and community focal point that is able to bolster local engagement and attract a wider visitation catchment
- Embed shared values and knowledge from Cumberland and adjacent councils to create a holistic and coherent vision for the corridor
- Consider opportunities to rename the parts, or the entirety of the corridor to elevate its status as a community asset, fostering a sense of civic pride. This could involve input from the community and could also include opportunities to connect back to Country
- Seek out opportunities to locate public art and interpretative elements associated with the corridor such as water supply history, water cycle, water conservation and indigenous cultural themes, along the corridor

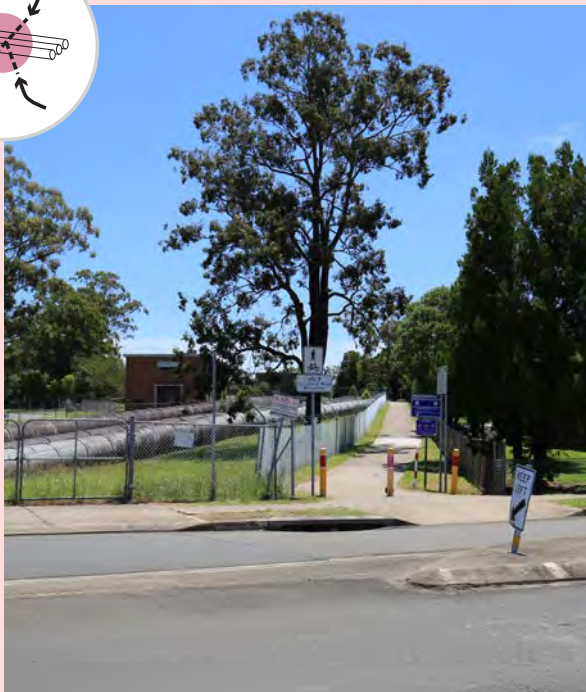
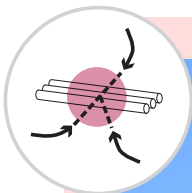
Image: Parkland Walk, Haringey, UK



Custodianship, management and cooperative governance

- Create a shared vision for the corridor that includes Cumberland and the adjacent councils, in order to enable the best outcome for the public
- Establish a clear staging plan that provides a framework and road map to the delivery of the corridor over time, accounting for the fragmented jurisdiction over the Sydney Water-owned land, the corridor's ongoing management, upgrades and renewal
- Foster collaboration and positive working relationships with surrounding local agencies and government entities, ensuring a coordinated and committed approach to the delivery of the corridor and its parts

Image: Potts Hill Reservoir



Movement and access

- Deliver new intersections that allow both pedestrians and cyclists to traverse busy roads and traffic in a safe and continuous manner
- Seek out alternative short-term interventions and opportunities for new links and connections that build upon existing infrastructure and access points
- Improve existing streets, footpaths and surrounding public domain connected to the corridor in the interim where longer-term solutions are staged
- Integrate the corridor with public transport

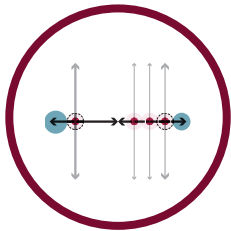
Image: Cycleway intersection near Guildford Pipehead Complex



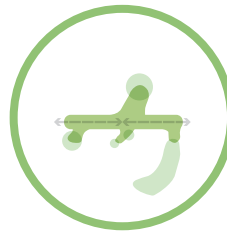
Regents Park

4.1 OVERVIEW

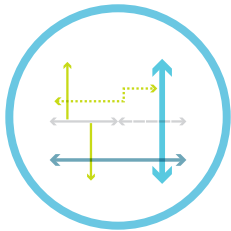
The interventions proposed within the structure plan have been structured around six design strategies. These enable the project vision and principles to be translated into tangible potential projects or inform future collaboration and studies.



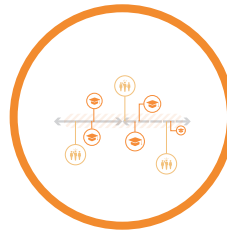
Active Transport Corridor



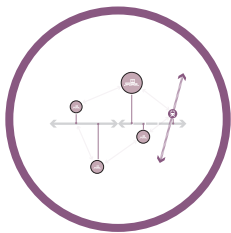
Green spine and fingers



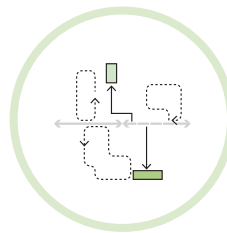
District Connections



Outdoor classroom



Connections to town centres and public transport



Recreation loops and links



Prospect Pipeline Corridor at Regents Park

4.2 ACTIVE TRANSPORT CORRIDOR

Balancing the needs of commuting cyclists with the recreational needs of the surrounding community.

The delivery of this active transport infrastructure will support the aspirations of the GANSW *Greater Sydney Green Grid* and Cumberland City Council's *Open Space and Recreation Strategy 2019-29*, TfNSW *Principle Bicycle Network* (in progress). The infrastructure will also facilitate the 150km Great Southern Circuit walking route around southern Sydney.

When connected into existing cycleways along the Cooks River and future cycleways in Western Sydney Parklands, the corridor will unlock over 30km of continuous cycleway from Wollie Creek to Western Sydney Parklands. As noted in discussions with surrounding Councils and TfNSW, the delivery of missing cycleway links support increased commuter use, even if that use seems minimal at present. In essence, "if you build it, they will come".

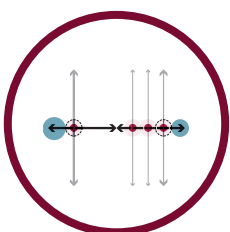
Additionally noted by local councils surrounding the corridor, shared paths along riparian corridors and through parks are highly utilised on weekends by families with generally less use during the week. The increased use of cycle infrastructure by food delivery services was also highlighted.

Understanding the diversity of potential users, active transport infrastructure will need to maximise safety and minimise modal conflict while also facilitating the ongoing maintenance requirements of the important

water, electrical and communications services within the corridor.

The delivery of cycle paths and pedestrian paths along the corridor will support a number of key objectives outlined within the TfNSW 2020/21 Walking and Cycling Program.

- Reduce congestion on our roads and public transport networks by delivering projects that encourage walking and cycling mode shift
- Deliver projects that make walking and cycling safe, comfortable and convenient transport modes that are accessible to a wide range of users
- Enable positive health, wellbeing, social and environmental outcomes



Design Strategies

Focus projects



The corridor cycleway

To support this design strategy, delivery of infrastructure to support cycling and walking will be a key focus along the corridor.

This will include:

- Generously sized, dual, separated cycle paths to accommodate cyclists travelling at different speeds and the ability to overtake
- A separate pedestrian path to support day-to-day recreation use
- Integrated seating with shade and avenue tree planting where possible, to create a cool and comfortable space at all times of the day. Targeting lighting will be provided to support safety and passive surveillance
- Maintenance of good visibility along which supports the safety of the public, residents and businesses alongside the corridor

Any proposed works along the corridor must be designed to enable continued access to the pipeline for maintenance and upgrades by Sydney Water.

Figure 30: The Bay Run, Haberfield



Intersection upgrades and bridges

The delivery of intersection upgrades and new bridges for pedestrian and cyclists will form part of this design strategy, delivering a continuous cycleway along the corridor.

This will include:

- New pedestrian (zebra crossings) or traffic lights at points where the corridor meets roads with local traffic
- Pedestrian and cycle bridges where the corridor meets high traffic roads to support continuous movement and reduce conflict between transport modes. Key bridges for delivery along the corridor will be at Prospect Highway, Woodville Road and Regents Park
- Pedestrian and cycle bridges to traverse the corridor north/south to provide increased permeability and access to park, schools, local centres and train stations. Key bridges for delivery will be at Duck River, at Regents Park.

Figure 31: Elizabeth Quay, Perth

4.3 DISTRICT CONNECTIONS

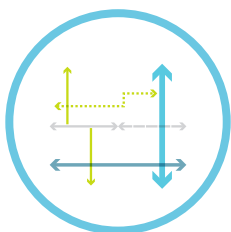
District connections will link the Prospect Pipeline Corridor into an interconnected network of open spaces and riparian corridors across Sydney.

The inclusion of these within the structure plan supports the aspirations of the GANSW *Sydney Green Grid* and the NSW Government Greater Sydney Region and District Plans. This will also be supported by the other project priorities which will draw people into and across the greater open space and public domain network.

The Prospect Pipeline Corridor will form an important part of an approximately 30km east-west active transport corridor proposed to connect Western Sydney Parklands through to Wolli Creek via the Cooks River.

This connection will unlock opportunities for:

- Commuter and long distance cycling and link into a wider network of cycling and walking paths across Sydney
- Extensive tree canopy and planting providing access to comfortable shaded spaces and habitat for local fauna
- Embedding of indigenous knowledge and engagement of Aboriginal rangers/land care groups to maintain and rehabilitate the riparian areas
- Connection to the future Great Southern Circuit walking route around southern Sydney



Design Strategies

Focus projects



Wolli Creek to Western Sydney Parklands District Connection

The Cooks River Strategic Framework is being prepared concurrently by City of Canterbury Bankstown (CBCity) and Strathfield Councils. The study area for that work and the Prospect Pipeline Corridor Strategic Masterplan are separated by an approximately 3km stretch of rail and infrastructure land. Understanding that future work will need to be undertaken to connect these two areas, interventions proposed within this Framework should not preclude extension of cycleways and include links to existing on and off-road cycleways to enhance movement in the short term.

Delivery of this district connection will be subject to ongoing discussion and coordination with adjacent Councils, stakeholders and project teams working on interconnected corridors. Work along this strategic connection should also include:

- Identification of potential wildlife corridors and establish appropriate vegetation habitat and animal access pathways such as land or sky bridges for native species such as possums, gliders etc. Small birds and insects also use native plantings and corridors for movement across the landscape.
- The use of signage and cultural mapping outlining the open spaces and riparian areas. Using known Aboriginal language names for areas will provide users with an entry point to understand and learn more about local Aboriginal culture, stories, connections and land use of the area.

Figure 34: Link to waterways, Cooks River



Duck River and Prospect Creek Riparian Corridors

Prospect Creek connects to the corridor in the west adjacent to Lower Prospect Canal Reserve and forms the boundary between Cumberland City and Fairfield City Council LGAs. It features continuous shared pedestrian and cyclepaths from Lower Prospect Canal Reserve through to Fairfield Road Yennora.

The Duck River extends north-south through Cumberland City and CBCity and City of Parramatta LGAs.

Proposed works along the corridor will:

- Support the aspirations outlined within the Duck River Spatial Framework including:
 - Rehabilitation and naturalisation of Duck River
 - Delivery of a new north/south cycle and pedestrian connection over the pipeline between Cumberland and CBCity LGAs connecting into future cycleways up to Parramatta River
- Explore opportunities to connect the Prospect Pipeline Corridor to shared paths along Prospect Creek

Opportunities to engage Aboriginal rangers/land care groups to maintain and rehabilitate the riparian areas along Duck and Prospect Creek should be explored. This can provide ongoing work opportunities for local Aboriginal youth.

Figure 35: Duck River riparian corridor

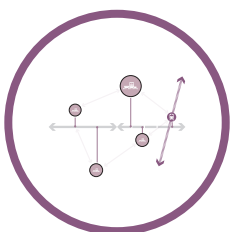
4.4 LOCAL CONNECTIONS TO TOWN CENTRES AND PUBLIC TRANSPORT

Connections between the corridor, town centres and public transport will be important in supporting access to employment, business and key services for the local community.

This aligns with the TfNSW *2020/21 Walking and Cycling Program* objective to “Ensure walking and cycling are the most convenient option for short trips to key destinations and within centres.”

This provides an opportunity to increase daily walking and cycling, reduce short car trips and the demand on parking within town centres. As the corridor is integrated into the wider cycle network, town centres may also serve as destinations for meal and rest stops for those traversing longer distances.

Paths into Yennora, Smithfield, Granville and Regents Park Industrial Areas will support active transport commutes for workers and unlock access to spaces for lunch or rest along the corridor.



Design Strategies

Focus projects



Streetscape upgrades and cycleways on adjacent streets

Streetscape upgrades and cycleways on adjacent streets are important to supporting safe and inviting routes into and out of the corridor. These will build upon the existing character of these areas.

This design strategy will be delivered through:

- Streetscape upgrades including increased tree canopy, upgrading of existing footpaths and provision of new footpaths where they do not currently exist along adjacent streets
- Provision of increased bicycle parking within town centres and alongside train stations and bus interchanges
- Provision of shared paths, on or off-road cyclepaths (as appropriate) between town centres and public transport and the corridor. These should take advantage of existing wide streets to support separation
- Widening or upgrade of existing bridges across the corridor to support shared paths, on or off-road cyclepaths (as appropriate) to support access to the corridor cycleway
- Use local tree species wherever possible, to support the recovery of endangered ecological communities such as the Cumberland Plain Woodland and Turpentine Ironbark Forest

Figure 36: Streets with integrated transport modes, Bourke Street, Surry Hills



Signage, wayfinding and branding

New branding of the corridor should look to position it as a unique and inviting space, shaped by the existing character and history of the areas through which it extends. Renaming of the corridor also provided an opportunity to inspire community buy-in and interest. Inner West Council's GreenWay is a good example of where the community has been engaged in supporting and delivering a vision for an underutilised corridor amongst residential areas.

Consistent signage, wayfinding and branding along the corridor should:

- support new access routes to town centres and public transport
- support cultural engagement through integration of diverse languages which respond to the cultural groups in the areas surrounding the corridor
- include maps and signage for wayfinding that includes information about traditional Aboriginal pathways through this area and some of the stories associated with this place

Figure 37: Building upon existing assets, Guildford Town Centre

4.5 GREEN SPINE AND FINGERS

Green and blue infrastructure is integral to reducing the impact of extreme heat days, the urban heat island effect, improving urban drainage and providing cool and comfortable places for people and animals to dwell.

The Prospect Pipeline Corridor will contribute to the health and scale of the blue and green grid of Sydney. The corridor will form a verdant green spine into which well-planted streets and parks are connected. Cross-corridor linkages to the Duck River and Prospect Creek will establish continuous passages for planting and tree canopy. New habitats that preference endemic planting and build upon remnant tree canopy will support the wellbeing of flora, fauna, humans and animals alike and seek to Heal Country. This aligns with the aspirations of the GANSW Sydney Green Grid, Cumberland Council's *Urban Tree Strategy 2020*, *Biodiversity Strategy 2019* and *Sustainability Action Plan 2020*.

This supports the Premier's priority to increase the tree canopy and green cover across Greater Sydney by planting one million trees by 2022.



Focus projects



Biodiversity and habitat

The corridor will connect existing areas of significant biodiversity and habitat around Prospect Reservoir, Prospect Creek, Waddangalli Woodland Reserve, Campbell Hill Reserve and Duck River. Delivery of the corridor should seek to tie into and enhance these existing spaces.

Landscape strategies for the corridor should:

- Using species that belong to the endangered ecological communities (Cumberland Plain Woodland and Turpentine Ironbark Forest)
- Integrate endemic small shrubs, grasses and understory plants are important habitat and food resources for small birds, insects and reptiles.
- Consult with Aboriginal knowledge holders as to the types of plants and vegetation that may be useful for cultural purposes. This may include:
 - Weaving materials like gymea lilly, lomandra and sedges
 - Bush tucker plants for people and as food for local bird and animal species
 - Plants that host butterfly species and other nectar dependant insects
- Rehabilitate and naturalise waterways
- Explore opportunities to engage local Aboriginal rangers and landcare groups

Figure 38: Prospect Reservoir from George Maunders Lookout



Extending the network

Vegetation cover varies greatly across the corridor as it passes through reserves, rivers, industrial zones and urban areas. Mapping completed indicates that while there is good canopy cover in surrounding parks and reserves, there is a lack of adequate vegetation cover along suburban street and industrial areas. There is limited tree canopy along the corridor from Guildford Pipehead Complex to Potts Hill Reservoir due to existing service maintenance requirements.

Works along the corridor should:

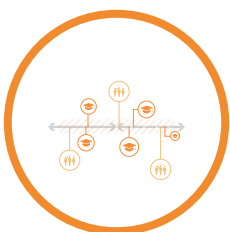
- Deliver increased tree planting and landscaping with consideration of the retention and maintenance requirements of infrastructure and heritage items within the corridor
- Locate landscaping and planting alongside the cycleway (where possible), to shade paths
- Integrate water sensitive urban design (WSUD) features where possible to protect waterways from gross pollutants and turbidity of water from of erosion and hard surfaces including:
 - Appropriate planting of local endemic plants like grasses and along edges of pathways and around drainage areas to allow for suspended sediments to be filtered out of the stormwater before it enters the waterways
 - Utilisation of sediment ponds and permeable surfaces wherever possible
- Improve tree planting and delivering streetscape upgrades along surrounding streets to provide comfortable and shaded routes into the corridor

Figure 39: Comfortable places to dwell- Bryant Park, New York

4.6 OUTDOOR CLASSROOM

Considering the corridor's proximity to several schools and the diverse community through which the corridor extends, informal and formal learning opportunities should be integrated to cater to children and adults.

The corridor extends through a number of communities, and places each with their own unique characteristics. The corridor should provide places to dwell, share knowledge, facilitate day-to-day learning and observation.



Design Strategies

Focus projects



Learning and sharing spaces

Formal and informal learning opportunities should be facilitated along the corridor to support knowledge sharing and social cohesion.

Relevant themes might include water, the environment and Country. The integration of learning opportunities in Sydney Olympic Park and Bicentennial Park are good examples of how landscaped spaces can be designed to support recreational and learning outcomes.

Learning and sharing opportunities can be supported through:

- Provision of outdoor gathering spaces, yarning circles or places to share knowledge adjacent to schools. These would occur in strategic locations, easily accessible to schools and away from residential interfaces
- Inclusion of maps and signage for wayfinding that includes information about traditional Aboriginal pathways through this area and some of the stories associated with this place
- Integrated heritage interpretation and public art
- Physical elements (e.g. plaques, public art), a digital interface (e.g. an app or website) or educational programs which could be formulated and provided by schools or the wider community
- Planting weaving materials and bush tucker plants near the outdoor gathering places for easy access
- Providing signage identifying useful plants using language names wherever possible

Figure 40: Outdoor teaching opportunities, Bicentennial Park, Homebush



Caring for and healing Country

Caring for Country requires a holistic perspective of the use and management of land, water, and air. This holistic view involves considerations of not only the tangible, but also the intangible aspects of places. Indigenous peoples have developed approaches and techniques to manage Country through a deep understanding of the needs of Country, and what is necessary to keep Country healthy, now and into the future. Colonisation impacted First Peoples' ability to access Country, both special places but also the mundane spaces used for everyday living. Therefore, in a large way, access to Country is a major aspect of being able to care for Country, and inevitably heal Country.

Along the corridor, moves need to be made to heal the landscape, including rehabilitation of the waterways, increased tree canopy and enhancement of endemic ecologies.

A core aspect of caring for Country is sharing knowledge, including with non-Indigenous peoples who now also must be carers of the lands, waters, and air. Sharing knowledges will embed the values of environmental and social sustainability at the heart of the project, including:

- Engagement with and employment of local Traditional Custodians about cultural practices that can be incorporated into ongoing care and management processes, for instance, cultural fire practices
- Landscapes with endemic planting to enable learning about indigenous flora, fauna and caring for Country

Figure 41: Country-centered, GANSW Connecting with Country framework, adapted from German architect Steffen Lehmann, Eco v Ego diagram 2010

4.7 RECREATION LOOPS AND LINKS

With limited opportunities to provide new open space within the corridor study area, the provision of recreation loops and links will be key to connecting residents to existing open space assets to support passive and active recreation.

Recreational loops and links are active, activated, green and high-quality pedestrian and cycle connections (along streets and paths) between homes, green spaces and public space destinations. Recreation loops and links present an opportunity to better connect residential and employment zones, local parks, train stations, schools, playgrounds and community destinations into the corridor, and create local recreational opportunities for people living along the corridor.

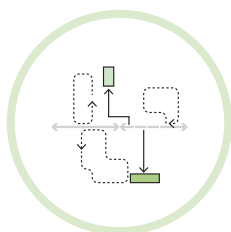
Recreation loops and links can help to encourage higher levels of physical activity and exercise in the community, increasing social cohesion and connectivity.

This aligns with the strategic directions and objectives of the Cumberland Council *Open Space and Recreation Plan 2019-29*.

- Strategic Direction 1: Deliver new open space and recreation facilities that meet the needs of our growing population
- Strategic Direction 2: Increasing the quality and capacity of existing open space and recreation facilities
- Strategic Direction 3: Supporting inclusion and increased participation by our diverse population
- Strategic Direction 4: Protecting our natural environment and increasing resilience

Characteristics or features of recreation loops and links within the study area may include:

- Green - Verge planting, larger trees for canopy cover
- Safe - Traffic calming, wide accessible footpaths, good passive surveillance
- Legible – Wayfinding signage, environmental information signage
- Play – places for children and young people to stop and play
- Comfortable - Seating, shade, wide for a variety of users, and places to stop and rest – particularly for older people
- Choice – Curation of a range of walking circuit lengths to suite all fitness and ability levels
- Cycle paths – Safe cycle paths
- Educational – Environmental art and signage
- Night time use – targeted lighting, passive surveillance, street lighting
- Link - to adjacent parklands and amenities
- Interchange - connecting to public transport nodes, railway and T-way stations



Focus projects



Recreation links and clusters

A recreational link is an active link along streets and paths for walking, cycling or running that connects people to and between the pipeline and destination public spaces such as schools, sportsfields, public transports, and other public facilities and public open space area. Users of recreational links will be residents, workers, and visitors who want to cycle or walk the pipeline or who want to access recreation clusters or open space via active transport links.

Works along the corridor should prioritise:

- connections that link local destinations to destination public spaces.
- connections that link residential and employment areas to the green grid e.g. the Duck River, Duck Creek, Toongabbie and Blacktown Creeks, and the Cooks River
- new access points into the corridor and to open spaces directly adjacent, including Wandangalli Woodland Reserve, Campbell Hill Pioneer Reserve and Duck River Parklands

Figure 42: Connecting into parks, Atlanta Beltline, USA



Recreation loops

A recreational loop will have a start and finish point within a local area. Users of a recreational loop are likely to be local communities, particularly those living in areas with below capacity provision of public open space and recreational facilities. These will be supported through streetscape upgrades, seating and shade to encourage local use.

Works along the corridor should prioritise:

- creating recreational loops in locations that will experience higher population growth in the future, and that have a lower level of public open space provision, for example Regents Park

Figure 43: High amenity streetscapes

