Open space is one of Sydney’s greatest assets. Our national parks, harbour, beaches, coastal walks, waterfront promenades, rivers, playgrounds and reserves are integral to the character and life of the city.

In this report the hydrological, recreational and ecological fragments of the city are mapped and then pulled together into a proposition for a cohesive green infrastructure network for greater Sydney.

This report builds on investigations undertaken by the Office of the Government Architect for the Department of Planning and Environment in the development of District Plans. It interrogates the vision and objectives of the Sydney Green Grid and uses a combination of GIS data mapping and consultation to develop an overview of the green infrastructure needs and character of each district.

Each district is analysed for its spatial qualities, open space, waterways, its context and key natural features. This data informs a series of strategic opportunities for building the Sydney Green Grid within each district. Green Grid project opportunities have been identified and preliminary prioritisation has been informed by a comprehensive consultation process with stakeholders, including landowners and state and local government agencies.

This report is one step in an ongoing process. It provides preliminary prioritisation of Green Grid opportunities in terms of their strategic potential as catalysts for the establishment of a new interconnected high performance green infrastructure network which will support healthy urban growth. Future reports should be undertaken to assess the future delivery and implementation strategies of Green Grid projects.
West
Spatial Framework

1 MAJOR RIVER CATCHMENT

91,500 ADDITIONAL PEOPLE BY 2036

327,455 HECTARES OPEN SPACE

71% OF THE DISTRICT IS OPEN SPACE
The West District is characterised by the Greater Blue Mountains Area and an extensive range of seven National Parks providing a visual backdrop for the Western suburbs of the Sydney Metropolitan area. The Blue Mountains National Park constitutes one of the largest and most intact tracts of protected bushland in Australia and is internationally significant having achieved UNESCO World Heritage status. Its exceptional biodiversity values are complemented by indigenous and post-European-settlement cultural values, geodiversity, water production, wilderness, recreation and natural beauty. The primary catchments for the district are the Hawkesbury-Nepean River Catchment and the South Creek Catchment with their floodplains and extensive network of tributaries that traverse the district.

Underlying the West district are some of the deepest sections of the Sydney Basin sedimentary strata and consequently highly valuable natural resources. Sand, gravel and clay continue to be extracted to supply Sydney’s construction industry from the Hawkesbury and Penrith LGAs, while the potential of the district’s natural gas and coal resources is also currently under investigation.

Due to the topography, history of land use and climate, the district is also subject to a number of environmental hazards, such as flooding, bushfire and salinity. The water quality of the Hawkesbury-Nepean River and its tributaries has been reduced by stormwater runoff from urban areas and nutrient and sediment runoff from agricultural areas. A number of tributaries have been either channelised or piped so that there are limited natural open water bodies throughout the district.
The West District is in a strategic location as the gateway to regional NSW via the historic Great Western Highway. The Regional City, Penrith is the economic and commercial centre of the district. It has a strategic location between the North West and South West Growth Centres and in close proximity to the Western Sydney Employment Area.

This district forms the periphery of the Sydney metropolitan area. The district has a wealth of regional assets including the World Heritage listed Blue Mountains National Park, the food producing floodplains of the Hawkesbury-Nepean River, military reserves and defence bases, cultural institutions such as the Western Sydney University and major sporting attractions such as Penrith International Regatta Centre and Whitewater Stadium.

The Hawkesbury-Nepean River and the Blue Mountains National Parks are significant social and economic assets within the district that will continue to play a critical role in ongoing development and investment. Public access to these key open spaces should continue to be enhanced at all opportunities.

Many initiatives are being planned to enhance the open space and public domain in and around Penrith and provide better connections to and across the Nepean River. Future large scale projects such as the Penrith Panthers site and Penrith Lakes Regional Park will provide a focus of regional assets for the district and beyond.

While the majority of land within the district is open space, areas east of the Hawkesbury-Nepean River are transitioning from traditional rural or village settings to higher population densities. This presents opportunities and challenges for creating a variety of open space and recreation facilities within reasonable distances from where people live.

The changing nature of the area provides the impetus to adopt a co-ordinated approach to flood management, biodiversity conservation and the creation of habitat corridors, healthy transport network linking major community facilities with local town and transport centres. Strategic consideration in all future development needs to be given to the District’s hazards associated with bushfires, flooding and heatwaves.

The recent announcement of Western Sydney Airport will have a significant influence on development opportunities, growth and infrastructure within the district.

Major projects such as the potential South West Rail Link extension to St Marys via Western Sydney Airport, potential Outer Sydney Orbital and Bells Line of Road corridor improvements should consider opportunities available to increase connections to existing open space or provide open space along with infrastructure delivery.

A number of initiatives are already in place that reflect the strategic objectives of the Sydney Green Grid. For example, the Our River Nepean River Master Plan, Penrith Lakes Master Plan, Riverview Precinct Plan and Nepean Bridge uphold the principle of increasing public access to and along the river foreshore and providing a variety of open space, recreation opportunities and active living connections.

These initiatives along with infrastructure and development projects and providing improved access between centres, forms an important starting point for the implementation of the Green Grid strategy across Sydney.

With significant population growth projected across the Sydney Metropolitan region many suburbs will undergo dramatic change to the existing character or land-use within their region. The integration of open space with future transport and development projects will contribute to increased liveability for communities.
WEST DISTRICT

1.3 PROJECT OPPORTUNITY CLUSTERS

THE STRATEGIC FRAMEWORK PROVIDES AN OVERVIEW OF REGIONAL OPEN SPACE OPPORTUNITIES AS A SERIES OF PROJECT OPPORTUNITY CLUSTERS. IT IS ENVISAGED THAT THESE CLUSTERS FORM A STARTING POINT FOR ENSURING THE MORE GENERALISED DISTRICT STRATEGIES AND ANY FUTURE PROJECT DELIVERY RESPONDS TO THE LOCAL STRATEGIC CONTEXT AND LANDSCAPE CONDITIONS.

WD.1.1 PENRITH-ST MARYS

This outer suburban area is characterised by a dominant linear rail line, road infrastructure and the industrial land south of Penrith and north of St Marys. With proposals to undergo significant urban renewal around the station precinct and Patrician sites, Penrith will form a critical link between the South-West and North-West Growth Centres and Western Sydney Employment Area. Penrith’s catchment however, extends far beyond to areas such as the Blue Mountains, Hawkesbury, Blacktown, Carrington and Western City LGA’s and as far as Central Western NSW. With significant areas of open space occupying the floodplain there is great opportunity for redeveloping open spaces, sports facilities and new connections that will support recreation needs and enhance liveability for a growing population in the surrounding area and beyond.

With Penrith’s close proximity to the Nepean River there is key opportunity to enhance open space, pedestrian links, sports and water sports facilities along the Nepean River and as part of the Penrith Lakes Regional Park. There is also an opportunity to extend the key open space networks to create continuous floodplains and increased access to the waterfront at key destinations.

WD.1.2 NEPEAN RIVER, PENRITH

The Nepean River at Penrith is considered to be the stretch from the M4 bridge to the Penrith Lakes precinct on both the eastern and western banks. With a significant amount of water frontage within the Penrith LGA there are key opportunities to enhance the identity of the area through public domain improvements and improved access to, across and along the river. Connections from surrounding centres to the river can also be enhanced. Key sites that could contribute to the open space network are Penrith Panthers, Penrith Council’s Carpenter and Woodhill Gardens, Peach Tree Creek corridor, Penrith Lakes precinct, Tench Reserve, Wat Reserve, Regatta Park and River Road Reserve.

WD.1.3 HAWKESBURY-NEPEAN RIVER

The River, its floodplain and tributaries are the most distinguishing features of the district. With a tradition of agriculture and rural residential dwellings, the major opportunities for open space projects are to create continuous floodplains, increased access to the waterfront at key destinations. As increases in density occur within nearby centres, the importance of the river as a recreational destination will also increase.

Water quality management and revegetation along all waterways should be sought at every available opportunity.

WD.1.4 PENRITH LAKES

Covering an area similar to that of Sydney’s outer harbour, there is significant opportunity for the previous quarry at Penrith Lakes to become Western Sydney’s iconic water haven. An urban settlement within an extensive system of lakes and parklands will also become a major recreational asset for Western Sydney. The project provides an opportunity to show case best practice in environmental rehabilitation and water management. It provides opportunities for enhanced quality of life and healthy lifestyle choices for the people of Western Sydney and beyond. The established sports focus (Sydney International Regatta Centre and the Penrith Whitewater Stadium) will guide the development of the parklands, with the Lakes providing a unique open water body for the people of Western Sydney.

WD.1.5 SOUTH CREEK AND ROPES CREEK

Western Sydney is defined by its network of creeks and rivers systems. Currently many of the creeks suffer from poor water quality due to surrounding land uses and reduced or fragmented vegetation cover. As land use patterns change and development increases, Ropes and South Creek corridors have the potential to be ‘green corridors’ providing a greater contribution to the development of healthy urban environments, active lifestyles and connectivity. With a balanced approach to access, biodiversity, development and recreation these networks can form valuable green infrastructure supporting future growth in the district.

WD.1.6 LOWER BLUE MOUNTAINS - GLENBROOK TO BULLABURRA

The foothills of the Blue Mountains where the M4 meets the Great Western Highway to Bullaburra, is characterised by a number of small towns along the route of the Great Western Highway and Main Western Railway Line. Bounded to the north and south by the Blue Mountains National Park and Greater Blue Mountains World Heritage Area, there is opportunity to enhance civic spaces for visitors and local communities, provide safe connections across the Great Western Highway and the rail line to key nature trails.

WD.1.7 MID BLUE MOUNTAINS - WENTWORTH FALLS TO KATOOMBA

This stretch along the Great Western Highway and Main Western Railway Line is characterised by popular tourist towns such as Leura and Katoomba with renowned natural features including Wentworth Falls and the Three Sisters at Echo Point, Katoomba. As the Blue Mountains continues to be an important nature-based recreational destination attracting local and overseas visitors, it is vital that the ecological biodiversity continues to be protected and that local communities are provided with enhanced public spaces and safe connections across the Great Western Highway and the rail line to key nature trails.

WD.1.8 UPPER BLUE MOUNTAINS - MEDLOW BATH TO WILSON'S CREEK

At the highest points of the Blue Mountains are the towns of Medlow Bath, Blackheath and Bell lying within a semi rural setting. As quiter visitor destinations with a number of key natural features such as the Grose Valley, Perrys Lookdown, Blue Gum Forest - with lookout points, waterfalls and bush walks, opportunity exists to improve the visitor experience and enhance nature based recreation. Opportunities exist to enhance public spaces for both visitors and local communities and provide safe connections across the Great Western Highway and the rail line to key nature trails.

WD.1.9 NORTH RICHMOND- RICHMOND-WINDSOR

This area is characterised by a dominant linear road between Windsor and Richmond, Richmond Air Force Base, the paddocks of WISU Hawkesbury Campus, expansive surrounding agricultural lands and floodplains of the Hawkesbury River and the rural-residential areas of Windsor, South Windsor, Richmond and North Richmond. With a significant amount of water frontage within the Hawkesbury LGA there are key opportunities at North Richmond, Richmond and Windsor to enhance the identity of the area through public domain improvements, improved access to, across and along the river and to enhance connections from the surrounding towns to the river.

WD.1.10 HAWKESBURY VALLEY PLAINS

The fertile floodplain of the Hawkesbury-Nepean and Rickabys Creek has a rural and rural-residential character with a long agricultural history and includes the suburbs of Castlereagh and Londonderry. The area will continue to provide agricultural and resource lands. There are a series of key regional open spaces along The Northern Road including Warrimoo Nature Reserve, Castlereagh Nature Reserve and Windsor Downs Nature Reserve. There is potential to utilise these reserves as regional destinations, enhance amenities and create improved connections to Windsor and Penrith Lakes Regional Park. Other significant open spaces include Agnes Banks Nature Reserve and the Rickabys Creek corridor.

WD.1.11 BLUE MOUNTAINS FOOTHILLS

The lower slopes of the Blue Mountains are an important food producing area with a long agricultural history including the orchards of Kurrajong. The area borders the Blue Mountains National Park and has semi-rural and rural residential character and includes the villages of Grose Vale, Kurrajong, Tennyson and Willenre. The area is a popular visitor destination for its natural surrounds and quiet village atmosphere. There is opportunity to promote sustainable agriculture and provide support and incentives for smaller farms and market gardens.
WD.1.12 GLENMORE PARK
This area is characterised by the existing residential at Glenmore Park and Glenmore Ridge. There is opportunity to improve water quality and vegetation cover of the extensive creek network and utilise these corridors to provide healthy urban environments, active lifestyles and connectivity to support future growth in the area.

WD.1.13 BELLS LINE OF ROAD
Bells Line of Road is considered the scenic route of the Blue Mountains and as an alternative to the Great Western Highway. Key destinations along this tourist drive include the fruit growing areas of Bilpin, Mount Tomah Botanic Gardens, Mount Wilson and Mount Irvine villages. There is opportunity to continue to promote and protect the agricultural heritage and character of the route, while any potential future motorway corridor should investigate benefits for cycle connections.
There are significant health and well being benefits associated with readily accessible, high quality open space. Well designed parks, plazas and streetscapes create highly liveable environments. With future growth in the West District estimated at 133,620 additional people in areas such as Penrith, Kingswood and St Marys, high quality open space and an interconnected network will provide the opportunity to promote greater liveability. The West District has a wealth of natural resources and key regional open spaces that provide significant recreational opportunities and form the basis for a regional network of open space. The Blue Mountains National Park, Penrith Lakes, the Hawkesbury-Nepean River and its tributaries provide a coherent spatial strategy that defines the landscape quality of the District. Opportunities to improve access to these key assets from new growth areas will provide benefits for the existing and future population. Improvements to access should also be accompanied by improvements to the quality of the open space and the facilities available. This will ensure a better user experience and potentially increase the capacity of existing open space.

A series of key strategic opportunities have been identified and include:

- Undertake local open space studies to increase access to open space at a local level and ensure equity of access across the district.

1.4 INCREASE ACCESS TO OPEN SPACE

CONNECT PEOPLE WITH KEY REGIONAL OPEN SPACE AND PROMOTE THE DISTRICTS OPEN SPACE ASSETS BY CREATING BETTER CONNECTIONS WITH MAJOR CENTRES, NEW TRANSPORT INFRASTRUCTURE AND AREAS OF URBAN RENEWAL.
A series of key project opportunities have been identified and include:

1. Enhance the Nepean River foreshore as a parkland edge to Penrith. Provide continuous foreshore access and create a series of destination parklands along the corridor between Penrith and Penrith Lakes. Enhance access from Penrith town centre and station precinct to the Nepean River Foreshore and open space network.

2. Connect railway stations at Blue Mountains key centres with open spaces, surrounding Blue Mountains National Parks and key visitor destinations.

3. Enhance access to key open spaces along the Nepean River foreshore including Tench Reserve, Regatta Park, Weir Reserve.

4. Improve pedestrian and cycle connections across the M4, Great Western Highway and The Northern Road to facilitate access to major regional parks and creek corridors.

5. Enhance access from Richmond and North Richmond to the Hawkesbury River and reinforce the parkland edge.

6. Establish South Creek and Ropes Creek as major open space destinations to support development in the Werrington-Kingswood and St Marys precincts.

7. Create new open space supporting potential residential development at Orchard Hills.

Figure W.4: West District Access to Open Space Plan

SCALE: 1:80,000 @ A1
CREATE A LIVEABLE GREEN NETWORK OF HIGH QUALITY ACTIVE TRANSPORT LINKS CONNECTING KEY DESTINATIONS, CULTURAL FACILITIES, RECREATION OPPORTUNITIES AND HERITAGE ITEMS.

Walking and cycling are becoming increasingly important recreation and transport choices. Increased opportunities for physical activity contribute significantly to greater health within the community, reducing health costs and increasing quality of life. Walking and cycling have some of the highest participation levels out of all recreation types. Opportunities for increasing Sydney’s network of active transport links should provide links between the places people live and work and the places that people want to visit.

The West district has many visitor attractions, cultural facilities and places of interest associated with open space. Key areas of urban renewal will afford the opportunity to improve cycleway and footpath networks linking key open spaces and the Hawkesbury-Nepean River. With a number of key links already in place, the district already has some good recreation resources to build on. However, these links connecting regional open space are not evenly distributed across the district.

PROMOTE HEALTHY AND ACTIVE LIVING

1.5
1.6 CREATE NEW HIGH QUALITY PUBLIC REALM

ESTABLISH A VIBRANT, PEDESTRIAN FRIENDLY PUBLIC REALM AT KEY CENTRES, TRANSPORT INTERCHANGES AND URBAN RENEWAL AREAS, WITH PLACES FOR GATHERING AND GOOD CONNECTIONS TO OPEN SPACE.

A series of key project opportunities have been identified and include:

1. Create high quality public domain and civic space at key locations associated with areas of urban renewal such as Penrith, Kingswood, Warrington and St Marys.
2. Create high quality civic spaces associated with areas of urban renewal along the Great Western Highway and rail corridor at Glenbrook, Blaxland, Springwood, Faulconbridge, Woodford, Hazelbrook, Lawson, Wentworth Falls, Leura, Katoomba and Blackheath.
3. Create new public space as a benefit of the potential South West Rail Link extension.
4. Create new public space as a benefit of large scale infrastructure projects including Great Western Highway upgrades (Woodford to Hazelbrook and Bullaburra) and potential future Bells Line of Road corridor improvement program.

Build an open space network with high quality public realm at the centre. Squares, plazas and active streets offer important recreation and open space opportunities for social interaction. The public realm offer a starting point for the development of a well used and connected open space network. Key civic spaces or destinations should be integrated with public transport opportunities and existing development.
Identify and minimise disturbance to riparian areas and protect and improve the natural character, ecological integrity, visual amenity and public access to foreshores and rivers.

Examples of major watercourses in the district include the Hawkesbury River, Nepean River, South Creek, Glenbrook Creek, Cedar Creek, Wentworth Creek, Grose River, Colo River and Macdonald River. The catchment of the Blue Mountains National Park is an important source of water for the district.

Blue Mountains Swamps occur within the West District and are listed as a threatened ecological community under the TSC and EPBC Acts. They comprise a unique floral assemblage and provide habitat for a number of threatened species including the Blue Mountains Water Skink and Giant Dragonfly. The swamps play a vital part in maintaining the water flows of creeks and waterfalls, including acting as a filter prior to releasing water into the creeks.

The district contains the Penrith Lakes site, where completed quarry stages are rehabilitated into lakes, wetlands and parklands.

Cranebrook Wetland has been identified as a regionally significant wetland within the Penrith LGA.
Figure W.6: West District Hydrological Grid Detail Plan

SCALE 1:80,000 @ A1

LEGEND
- District Boundary
- Concrete Canals
- Rivers and Creeks
- Water Bodies

NEPEAN RIVER
BADGERYS CREEK
BLAXLAND CREEK
MULGOA CREEK
HAWKESBURY RIVER
PROSPECT RESERVOIR
PENRITH LAKES
CATTAI CREEK
GROSE RIVER
ROPES CREEK
SOUTH CREEK
RICKABYS CREEK
KILLARNEY CHAIN OF PONDS

BLUE MOUNTAINS NATIONAL PARK

SCALE 1:80,000 @ A1

Figure W.6: West District Hydrological Grid Detail Plan

Tyrrell Studio | NSW Government Archaeology

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The West District includes the Blue Mountains National Park and World Heritage Area, which is a major tourist attraction to the district, and listed as one of 16 of “Australia’s most spectacular regions” by Australia’s National Landscapes Program.

The Blue Mountains National Park is home to a diverse array of locally endemic flora and fauna species including threatened species, endangered populations and threatened ecological communities. Examples include Acrophyllum australe, Pultenaea glabra, Epacris hamiltonii, Isopogon fletcheri, Spotted-tailed Quoll, Broad-headed Snake, Blue Mountains Water Skink (mentioned above), Red-crowned Toadlet, Gang-gang Cockatoo, Scarlet Robin, endangered population of Pultenaea villifera, Blue Mountains Basalt Forest and Blue Mountains Shale Cap Forest.

Other National Parks and conservation reserves within the district include Wollemi, Yengo and Scheyville National Parks, Parr State Conservation Area, and Pitt Town, Windsor Downs, Agnes Banks, Castlereagh, Wianamatta and Mulgoa Nature Reserves.

Many areas of high biodiversity are protected in national parks and nature reserves, as well as on privately owned land managed for conservation purposes. The protection of biodiversity in the landscape provides a range of environmental, social and economic benefits. Detailed information on areas of high environmental value is available from the Office of Environment and Heritage and councils. Where necessary, data and mapping of areas of high environmental value will be ground-truthed to improve accuracy.

The Office of Environment and Heritage has also developed a Biodiversity Investment Opportunities Map (BIO Map) for part of Greater Sydney. The BIO Map identifies priority areas for investment in bushland protection and restoration, comprising core areas of bushland and corridors, that are important at a state and regional level for biodiversity.

Connect biodiverse areas and apply planning and zoning provisions to protect corridors. Corridors aim to provide ecological connectivity, to facilitate the movement and dispersal of native flora and fauna across the landscape. Connecting biodiverse areas is particularly important in the face of climate change. Investigate opportunities to enhance native biodiversity in Green Grid corridors to help expand the urban forest to achieve canopy cover targets.

Protection and offsetting of impacts will be supported by innovative approaches such as Biodiversity Certification and Biodiversity Banking (BioBanking), both of which were supported by the Independent Biodiversity Legislation Review Panel, whose recommendations were endorsed by the NSW Government in early 2015.
The use of Biodiversity Certification in strategic locations is supported as it identifies areas of high conservation value at a landscape scale and these areas can be avoided and protected while identifying areas suitable for development.

The use of BioBanking is supported as it provides in-perpetuity funding and security to protect and enhance the biodiversity values of the protected area.

Engage local communities about the biological assets of their ‘local patch of bush’ to encourage active involvement in the protection and enhancement of bushland and other biodiversity. This will require engagement of local communities about the multiple benefits of their local bush and riparian areas and waterways and action to improve the ecological literacy to deepen the community perception of green infrastructure.

Volunteer and community groups are an important sector in the rehabilitation of native vegetation in urban areas. In recognition of the effort and funding dedicated to these areas, a level of protection should be provided through the planning process by applying appropriate provisions and mechanisms.

NOTE: Ecological Grid values and text provided in consultation with the Office of Environment and Heritage [DEH].

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<td>High Environmental Lands</td>
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<td>Metropolitan Rural Area</td>
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Figure W.8: West District Ecological Grid Detail Plan
WEST DISTRICT
THE RECREATIONAL GRID

RECREATION
Key features and findings regarding recreational open space planning for both passive and active sports are currently being analysed and will be described in collaboration with other consultancies.

HERITAGE
The West District includes world, state and local heritage areas, and important cultural facilities.

Places of heritage significance include WSU Hawkesbury campus, Penrith Lakes, Blue Mountains railway stations, Nepean River and the historic towns of Windsor, Richmond, Pitt Town, Wilberforce and Kurrajong. There is opportunity to promote heritage protection and tourism together.

The protection of important heritage places and landscapes from the early planning stages is important as these places contribute to the district’s identity and provide a sense of place, history and visual character. They also contribute to the economy through the attraction of visitors. Heritage is a non-renewable resource and the significance of heritage to the community should be appreciated, valued, protected and conserved for the benefit of current and future generations.

Aboriginal cultural heritage is legally protected in NSW. Protecting Aboriginal heritage means far more than looking after sites in parks or artefacts in museums. Aboriginal people need to be consulted on the conservation of the natural environment and the development of areas.

Acknowledgement heritage resources as a ‘value addition’ in urban development. This will include identifying significant heritage values and incorporating them into developments, including the adaptive reuse of heritage resources.
The Existing Values plan represents a combination of the current values from the Hydrological, Ecological and Recreational Grids.
Figure W.12: West Green Grid Existing Values Detail Plan

LEGEND
- District Boundary
- Concrete Canals
- Rivers and Creeks
- Water Bodies
- BioMap Core Areas
- BioMap Regional Corridors
- High Environmental Lands
- Metropolitan Rural Area
- Public Open Space
- Cycleways Existing
- Cycleways Proposed

SCALE 1:80,000 @ A1

0 2 4 6 km
The list of projects is a compilation of projects derived from the original Green Grid Reports together with the outcome from Greater Sydney Commission’s District Plan Workshops and NSW Department of Planning and Environment Open Space Workshops.

This project list represents the projects identified by various interest groups and governments as potential priority projects. The projects are currently being assessed against the GIS data and work methodology as described previously.

The “Dominant Grid Layer” in the Project List refers to the infrastructure layer of the city that is most concerned with this project, and as a result may have funding allocated to it. This layer only represents the project as it currently exists and is not necessarily correlate to its future vision.
Figure W.14: West Green Grid Project Opportunities Detail
The Green Grid projects have been analysed against ten priority criteria. Each project has been given a total score which represents its level of priority in the Green Grid network. The ten criteria are:

- Existing ecological, hydrological and recreational value
- Regional potential to connect to other Green Grid projects
- Super District Scale potential to connect across Local Government Area and District Boundaries
- Projects proximity to development
- Projects with lands currently controlled by the Office of Strategic Lands (OSL)
- Projects identified by Local Council’s as priorities during the Greater Sydney Commission’s Technical Working Group process.
- Projects in regions with open space deficiency as identified in the Government Architect’s Office Open Space Audit.
- Projects that overlap or provide important connections to NSW Department of Planning Priority Precincts.

Each project is given a total score based on the sum of the above values. Of the projects that score 10 or higher (of a possible 12), Priority projects were selected based on relevance to future development requirements and other Greater Sydney Commission and NSW Planning priorities. For each district two or three projects are selected and are highlighted dark green in the project prioritisation matrix. High scoring projects that are not deemed as Priority Projects combined with projects that score 8 or higher are defined as other important projects and are highlighted light green in the project prioritisation matrix. From the “other important projects” list a shortlist were selected for inclusion into the District Plans based on their immediate relevance to other Greater Sydney Commission and NSW Planning priorities.
## West District Preliminary Project Prioritisation Matrix

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<th>Overlap &amp; Proximity Values</th>
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### West District Project Opportunities

1. The Union River Walk: The Hawkesbury-Nepean River
2. South Creek
3. Ropes Creek
4. Penrith Lakes Parklands
5. Penrith CBD and Hospital to the River Green Links
6. Great Western Highway: Penrith to Paramatta Easements
7. Great Western Highway: Penrith to Blackheath Link
8. Windsor to Ornamental Creek, Kameys Corridors
9. Granbank to Windsor Downs Nature Reserve
10. Warragamba Pipeline Open Space Corridor
11. Penrith Rail Line Corridor from Penrith to Blacktown
12. M4 Western Motorway Corridor Open Space
13. M2 Motorway Green Boulevards
14. Rixaby Creek Open Space Corridors
15. Grose River Trail: Blackheath to Yarramundi Reserve
16. Blue Mountains Eco Tourism Trail and Destinations
17. Bell Line of Road Tourism Trail and Destinations
18. Eastern Escarpment Open Space and Trails
19. Woodford Dam and Woodford to Glenbrook Trail
20. Blue Mountains Highway to Bundoora WULG Green Links
21. Blue Mountains Villages to Bundoora Green Links
22. North West Rail Link Extension: St. Marys to Badgerys Creek
23. South West Rail Link Extension, St. Marys to Badgerys Creek
24. Allotment Survey Corridor
25. The Northern Road Green Boulevards: Badgerys Creek to Penrith
26. Shanes Park and Wianamatta Regional Park
27. Windsor Town Centre Green Links
28. Richmond Town Centre Green Links
29. Upper Kurniara and Yarramundi Reserve
31. Upper Kurniara Trails: Little Howen Creek
32. Colo River Trails
33. Windsor Town Centre Nepean River Edge
34. Scheyville National Park and Creeks
35. Agnes Banks Nature Reserve
36. Agnes Banks Olid East West Links: The Driftway and Deavin Rd
37. The Great Blue Mountain Trail
38. Western Escarpment: Six Foot Track and the Megalong Valley
39. Northern Escarpment: Grose River Valley
40. Cascades Creek Dam Open Space and Trails
41. Jamison Valley and Mt. Solitary Trails
42. Klings Tabiaba Bushland and Trails
43. Blue Labyrinth Open Space and Trails
44. Richmond to the River Green Link
45. Wentworth Falls Lake, Bushland and Golf Course Trails
46. Molongloos Creek and Killarney Chain of Ponds Corridor
47. Hawkesbury River Trail: Windsor to Wishaw
48. Glenmore Park Open Space Corridors
49. Molga Nature Reserve
50. Jamison Park and South Penrith Open Space Corridors
51. Windsor Road Active Transport Corridor
52. Richmond Rail Line
53. M12 Motorway Green Boulevards

### Notes:
- Ropes Creek has also been identified as an important project in the West Central District Report. Please refer to the detailed plans in the West Central District Report for more information.
The following important Green Grid project opportunities have been selected for further scoping. The selected projects represent a mix of Priority and other important Green Grid projects. The selected projects also represent a mix of project types including projects with hydrological, ecological, recreational, transport and utility infrastructure values. The projects selected for further scoping may not represent the highest priority projects but aim to further understand the potential issues around different project types.

1. SOUTH CREEK

South Creek is a major tributary of the Hawkesbury-Nepean River, starting from Narellan in the South West District, it flows north all the way to Windsor where it connects to the Hawkesbury River. It runs over 50km and passes through more than 20 suburbs. The water quality of South Creek has a major impact on the Hawkesbury River and it also has important ecological communities along its banks. The project aims to create a continuous open space corridor along the entirety of South Creek that provide ecological protection and enhancement, improved stormwater treatment and a regionally significant recreation and active transport corridor for Western Sydney. The project passes through the South West Growth Area and will act as a major open space corridor for the future development of the region.

2. WARRAGAMBA PIPELINE

The Warragamba Pipeline is the major drinking water pipeline from Warragamba Dam to Prospect Reservoir. This project aims to use surplus easement lands for recreational open space, urban greening and walking and cycling trails. This project would provide a significant amount of linear open space through the South West Growth Centre connecting to Mulgoa, Badgerys Creek, Kemps Creek, Blaxland Creek and Horsley Park.

Figure W.15: West Preliminary Priority Projects Plan
South Creek is a major tributary of the Hawkesbury-Nepean River, starting from Narellan in the South West District, it flows north all the way to Windsor where it connects to the Hawkesbury River. It runs over 50km and passes through more than 20 suburbs. The water quality of South Creek has a major impact on the Hawkesbury River and it also has important ecological communities along its banks. The project aims to create a continuous open space corridor along the entirety of South Creek that provide ecological protection and enhancement, improved stormwater treatment and a regionally significant recreation and active transport corridor for Western Sydney. The project passes through the South West Growth Area and will act as a major open space corridor for the future development of the region.

**POTENTIAL FOCUS AREAS**

A. Bridge Street, Windsor  
B. Richmond Rail Line and Hawkesbury Valley Way  
C. Richmond Road, Windsor Downs  
D. Shanes Park and Ropes Crossing  
E. Dunheved St, Penrith Rail Line and Great Western Highway, St Marys  
F. M4 Motorway, Claremont Meadows  
G. Blaxland Creek and Blaxland Nature Reserve  
H. Warragamba Pipeline

**LEGEND**

- Existing Roads
- Existing Rail Lines
- Local Streets
- Waterways
- Green Grid Projects
- Existing Open Space
- High Environmental Lands
- Key Opportunity Sites
- Potential Open Space

Figure W.16: South Creek Potential Focus Areas
IMPORTANT CROSS CONNECTIONS

The important cross connections for this project include existing and potential connections into surrounding neighbourhoods and to adjacent Green Grid project opportunities.

The connections include existing roads, infrastructure corridors, creek lines, open space corridors and potential future street structures where projects intersect with priority precincts. This diagram is intended to highlight the priority connections that should be investigated in any future project scoping.

Figure W.17: South Creek Potential Important Cross Connections
The Warragamba Pipeline is the major drinking water pipeline from Warragamba Dam to Prospect Reservoir. This project aims to use surplus easement lands for recreational open space, urban greening and walking and cycling trails. This project would provide a significant amount of linear open space through the South West Growth Centre connecting to Mulgoa, Badgerys Creek, Kemps Creek, Blaxland Creek and Horsley Park.
KEY OPPORTUNITIES

A. Warragamba Dam
B. Nepean River and Warragamba River
C. Nepean River
D. Mulgoa Road
E. Mulgoa Creek
F. The Northern Road
G. Blaxland Creek and Nature Reserve
H. Luddenham Road and Oaky Creek
J. South Creek
K. Mannie Road
L. Ropes Creek
M. Western Sydney Parklands and M7
N. Prospect Reservoir

LEGEND
- Existing Roads
- Existing Rail Lines
- Local Streets
- Waterways
- Green Grid Projects
- Existing Open Space
- High Environmental Lands
- Key Opportunity Sites
- Potential Open Space

Figure W.18: Warragamba Pipeline Potential Focus Areas
The Great River Walk: The Hawkesbury-Nepean River
Includes two related Green Grid projects; Nepean River Bridge to Bridge Trail (Penrith to Windsor); and Hawkesbury River Bridge to Bridge Trail (Windsor to Wisemans Ferry).
The Great River Walk project aims to provide a connected open space corridor along the Hawkesbury-Nepean River from Camden to Windsor. This is a major project that includes rural and urban lands and stretches for more than 50km. The project aims to protect, enhance and connect important ecological communities, improve water quality and stormwater treatment from nearby development, increase public access to the river edges, create a series of connected public open spaces and walking and cycling trails along the length of the river. The project will also improve river crossings, including the Nepean River Green Bridge at Penrith.

Ropes Creek
Ropes Creek has also been identified as an important project in the West Central District Report. Please refer to the detailed plans in the West Central District Report for more information.
Ropes Creek is an important creek corridor for the West and West Central Districts, and runs for 20km from Cecil Hills and the Western Sydney Parklands north-west to Wianamatta Regional Park and Shanes Park. It is a major tributary to South Creek, and has important threatened ecological communities along its length. This project aims to protect and enhance the ecologically valued lands, improve water quality and stormwater runoff, and provide a diverse and connected sequence of recreational open spaces, walking and cycling trails. The project aims to create a green link that connects nearby suburbs including Cecil Hills, Erskine Park, Minchinbury, Mount Druitt, Oxley Park, St. Marys and Ropes Crossing.

Cranebrook to Windsor Downs Nature Reserve Corridor
The Cranebrook to Windsor Nature Reserve Corridor is a sequence of large and important Nature Reserves including Wianamatta Nature Reserve, Castlereagh Nature Reserve and Windsor Downs Nature Reserve. The project aims to protect and enhance these regionally significant ecological communities and connect them to improve resilience. The project will also improve the water quality and treatment of stormwater along Rickaby’s Creek. It will provide a continuous open space corridor from Cranebrook to Windsor and South Creek, including recreation facilities, walking and cycling trails. This project will have important links with the Penrith Lakes Parklands, South Creek, Ropes Creek and Agnes Banks Nature Reserve Projects.

Great Western Highway: Penrith to Blackheath Active Transport Corridor
This project provides a major east west active transport corridor, from Penrith to Blackheath. This corridor will connect to the major centres along the route, including Penrith, Glenbrook, Blaxland, Springwood, Lawson, Woodford, Wentworth Falls, Katoomba and Blackheath. This project will provide a safe and separated walking and cycling trail along the corridor the takes in views along the mountain escarpments.

Penrith Lakes Parklands
Penrith Lakes Parklands, a former sand and gravel quarry, will be a regionally significant lakes and open space project for Western Sydney. This project aims to create a diverse open space parklands and waterway facilities, around the lakes and along the Nepean River. The project, in tandem with development with the Penrith Lakes precinct and Penrith Town Centre to support the needs of a growing population, will include high quality public domain pedestrian and cycle links from Penrith, linking the key centre with the Penrith Lakes precinct. It will have important links with the Great River Walk project,

Ropes Creek

Shanes Park and Wianamatta Regional Park
Shanes Park and Wianamatta Regional Park are important nature reserves that are important threatened ecological communities that have important connections to South and Ropes Creeks.

WEST DISTRICT
OTHER IMPORTANT GREEN GRID OPPORTUNITIES

Penrith Lakes Parklands

Ropes Creek

Cranebrook to Windsor Downs Nature Reserve Corridor

Great Western Highway: Penrith to Blackheath Active Transport Corridor

The Great River Walk: The Hawkesbury-Nepean River

Penrith Lakes Parklands

Ropes Creek

Cranebrook to Windsor Downs Nature Reserve Corridor

Great Western Highway: Penrith to Blackheath Active Transport Corridor

The Great River Walk: The Hawkesbury-Nepean River

Penrith Lakes Parklands

Ropes Creek

Cranebrook to Windsor Downs Nature Reserve Corridor

Great Western Highway: Penrith to Blackheath Active Transport Corridor

The Great River Walk: The Hawkesbury-Nepean River

Penrith Lakes Parklands

Ropes Creek

Cranebrook to Windsor Downs Nature Reserve Corridor

Great Western Highway: Penrith to Blackheath Active Transport Corridor

The Great River Walk: The Hawkesbury-Nepean River

Penrith Lakes Parklands

Ropes Creek

Cranebrook to Windsor Downs Nature Reserve Corridor

Great Western Highway: Penrith to Blackheath Active Transport Corridor

The Great River Walk: The Hawkesbury-Nepean River

Penrith Lakes Parklands

Ropes Creek

Cranebrook to Windsor Downs Nature Reserve Corridor

Great Western Highway: Penrith to Blackheath Active Transport Corridor

The Great River Walk: The Hawkesbury-Nepean River
Nepean Creeks: Peach Tree, Mulgoa and Surveyors Creeks
Includes related project: Mulgoa Nature Reserve
This collection of creeks and open space corridors are tributaries of the Nepean River throughout Mulgoa and Glenmore Park. Together with Mulgoa Nature Reserve they represent an important series of threatened ecological communities and hydrological systems for the region. The project aims to enhance and protect these assets and increase public access and recreational opportunities along the corridors. The project will include urban greening, recreational open space, walking and cycling trails and stormwater management along the creeks and nature reserves.

Eastern Escarpment Open Space and Trails
The Eastern Escarpment is the defining landform that marks the edge of the Sydney Basin and the start of the Great Dividing Range. Along the Nepean River there are large areas of threatened ecological communities and creek corridors. The project aims to connect a series of recreational and tourist open space facilities along the escarpment, maximising it’s unique landscape and views.

Blaxland Creek and Bushland Reserve
The Blaxland Creek and nearby bushland are important open spaces for the future South West Growth Centre development. Blaxland Creek is an important tributary of South Creek.