Creating The Great Kai'mia Way

A CATCHMENT VISION

Report presented by SSEC and GREA
with funding from the NSW Government GRFIP
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Unit 4 Level 1
2-4 Merton Street
SUTHERLAND NSW 2232
AUSTRALIA
(02) 9545 3077

www.ssec.org.au

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Publishers note

SSEC and GREA welcome comments and ongoing contributions to this project. Please contact SSEC with suggestions.

Recommendations

Recommendations are reproduced in the Executive Summary and in Appendix 10.

The routes recommended in this report are proposed routes. The active participation of stakeholders will be crucial to ensure that no formal access is provided to areas before the full range of concerns and issues that might endanger sustainability are addressed.

Disclaimers

Every effort has been made to ensure accuracy at the time of publication. Every effort has also been made, within the limits of funding and other resource constraints, to ensure consultation with stakeholders. Information in this report has been provided in good faith. It does not intend to commit stakeholders to implementation of the Great Kai'mia Way, nor to bind SSEC, GREA, or any other organisation to responsibility for implementation.

Photos

Simon Annabel, Robin Barker, Bob Symington, Nick Benson, Les Bursill, Sharyn Cullis, Betty Dixon, Roy Dixon, Brendan Graham, Jim Higgins, Kurrunulla Aboriginal Corporation, Menai Public School, Lawrence Raddin, Rockdale City Council, Nilmina de Silva, , Sutherland Shire Council, Sydney Catchment Authority, Geoffrey Woo, Bankstown City Council.

EXECUTIVE SUMMARY

You cannot teach a land ethic...people learn by being involved in nature

Anon

The Great Kai'mia Way is over 200 kilometres of sustainable access routes to the foreshores of the Georges And Woronora Rivers, linking with the Illawarra Escarpment and Botany Bay. It is a vision of non-motorised movement through the valleys – on foot, by bicycle or in canoe, respecting the ecological, cultural, social and heritage values of the area. It is also a vision about partnerships and community participation, about building an asset that respects the past, the current and future generations.

Background

The Great Kai'mia Way project arose from the insight of a number of individuals who have had a long-term love and involvement in the Georges River Catchment. It was given momentum through a series of inquiries and studies that highlighted the need to enable access to foreshores and bushland areas to encourage better management and community engagement with nature.

In 1998, the State Government established the Georges River Foreshores Improvement Program (GRFIP) to find means to improve the health of the Georges River. The Sutherland Shire Environment Centre (SSEC) and Georges River Environmental Alliance (GREA) recommended that a feasibility study be carried out into the establishment of a continuous system of trails and tracks along the foreshores of the Georges and Woronora Rivers.

This report is the result of that study, managed by SSEC and GREA. It is intended for use by councils and community in the catchment, as well as state government departments with responsibility for urban planning, environment and health. It provides the rationale underlying the study, the routes that seem to be the most suitable for sustainable access, and recommendations for the coordination and action required to implement the Great Kai'mia Way.

Partnering with stakeholders and the community

The strategic cornerstone of this project has been the process of establishing partnerships with stakeholders and the community. Both SSEC and GREA canvassed the views and interest of community even before the study began. Preparatory discussions were

The Great Kai'mia Way has the potential to:

- Increase community awareness of river and catchment environmental values
- Enhance recreational and educational opportunities
- Provide safe, traffic free routes linking communities to their surroundings
- Promote appreciation of Aboriginal and non Aboriginal heritage
- Encourage active and healthy lifestyles
- Increase protection of foreshores and bushland in the catchment
- Foster cross community ties between indigenous and non-indigenous groups

also held with a number of council staff, Councillors and State members of Parliament.

During the course of the study, four formal meetings were held at the premises of different councils in the catchment to provide updates on the progress of the study and to solicit advice on issues and difficulties encountered by the project team. On a more informal level, numerous meetings were held with interest groups, council staff and landholders to ensure that all concerns and issues were properly addressed during the course of route selection.

It is worth noting that the enthusiasm with which the project was embraced indicated a latent demand for the possibilities the Great Kai'mia Way offers. A number of community groups and councils have already instigated their own plans for access along the foreshore, and others looked forward to educational and recreational opportunities associated with the establishment of the Way.

Route descriptions

The feasibility study was carried out as two overlapping parts. The first part deals with the route along the Georges River and the second deals with the route along the Woronora River. The Woronora River is the smaller and less urbanised of the two rivers and is located in only one Council area (Sutherland Shire Council). As a result it was possible to do an in depth study and provide detailed advice about this part of the Great Kai'mia Way. The study of the longer, more urbanised Georges River, on the other hand, involved discussions with many councils, state and federal government agencies, and other landholders. The advice about the route for this section is more generalised. It is envisaged that a next step in the project will be carry out the same in-depth work for the Georges River as was done for the Woronora River section of the Way.

Although in two parts and with different data detail, the Way information presented in this report is in a standardised format:

1. The routes have been divided into subsections and each subsection has been given a name. The information in the tables also identify suitability of the route for pedestrians, cyclists and canoeists.
2. A standard grading system has been adopted to indicate difficulty of the walk from 1 (wheelchair accessible) to 5 (experienced walkers only).
3. Some parts of the Great Kai'mia Way are already in place, other parts require construction. Subsections are prioritised to highlight the importance of the section to the function of the Way, and the difficulty and funding opportunities for implementation:
   - A Highest priority - recommended completion within two years
   - B Medium priority - recommended completion in next five years
   - C Lowest priority - within ten years.
4. Each subsection presents its own benefits and challenges which are listed in short form.
5. The project team has done its best to ensure that all relevant stakeholders for each subsection have been contacted. The project team hopes that by listing stakeholders in this way, those who have not been identified will contact the team to provide relevant input.
6. Actions and estimated costs of implementing each subsections are also noted.
7. Maps are a critical part of the way information is delivered in this report. Each subsection is accompanied by a map of that subsection. Larger scale landscape maps are also provided to increase ease of orientation.

These routes should not be seen as final, and are subject to further community consultation and refinement as the project evolves.

Coordination

A factor that became evident during the course of the study was the need for a coordinated approach to implementation of the Way. The Great Kai'mia Way traverses twelve local government areas, tracts

of Crown Land, National Parks, Aboriginal Land Council land, private land, Sydney Water Land and land belonging to other government authorities and agencies. Many sections of the Way already exist, but the standards of access and signage vary considerably. Many sections of the Way are missing and commitment from landholders varies from area to area. These issues are part of the subsections discussion.

The project team identified four aspects of the Great Kai'mia Way that require coordination:

1. Sustainability and safety
2. Signage
3. Use of materials
4. Implementation.

The report recommends a range of protocols for users of the Way, for infrastructure works, signage along the route, and for materials used.

A number of stakeholders were particularly concerned about the damage and danger caused by trail bikes and four wheel drive vehicles in natural areas, as well as inappropriate use of pedestrian tracks by mountain bikes. The report acknowledges concerns and therefore recommends limiting access through infrastructure works and appropriate policing.

The future of the Great Kai'mia Way and recommendations

This report delivers information necessary for the progressive implementation of the Great Kai'mia Way. It details where routes could best be allocated, the priority for implementation of sections of the route and guidelines for the coordinated implementation of the project.

Many stakeholders have been involved in the provision of information for this report. The project team recommends the following to ensure that stakeholders remain involved and the Great Kai'mia Way vision is realised:

1. That the precautionary principle guide development of the great Kai'mia Way, and that no development proceeds till appropriate management measures have been agreed to by stakeholders.
2. That the Great Kai'mia Way vision be implemented, appreciating the information for routing and priorities noted in Chapters 3 and 4 of this report, and ensuring that the precautionary principle is the arbiter of both route selection and implementation.
3. That the relevant communities name subsections of the Way[1].
4. That the safety code developed by the Great Kai'mia Way project team be adopted as the minimum standard for work carried out on the Great Kai'mia Way.[2]
5. That the codes of conduct detailed in the Great Kai'mia Way report[3] be noted on signage and on literature relating to the Way for the three main categories of non-motorised recreational uses: walking, cycling and canoeing.
6. That a regional strategy be developed to provide opportunities for cycling experiences while controlling inappropriate access through bushland.
7. That trackside benches and drinking fountains, such as bubblers, be provided where mains water supply is available at strategic access points along the Way, generally at roadside stops**.**

[1] The names provided in this report are suggestions only.
[2] Councils and government agencies, and other landholders and managers will have more detailed occupational health and safety procedures. These will, of course, be the ones applicable for works on their land. The recommendation here is for ***minimum*** standards only.
[3] The Great Kai'mia Way: Chapter 5.

8. Access to the Great Kai'mia Way should encourage legitimate non-motorised transport through appropriate entry points, and the provision of bike racks and parking.

9. Level or gently sloping sectors of the Way with good access should be developed and promoted to provide opportunities for less mobile people to use the Great Kai'mia Way.

10. Bans on the use of 4WDs and Trail Bikes on the Great Kai'mia Way should be reinforced with:
    - Provision of alternative places to go which are affordable;
    - Police and rangers should have powers to confiscate bikes;
    - System of fines and heavy penalties for transgressing law;
    - Amendment of laws to ban their use on the Great Kai'mia Way;
    - More frequent patrols by rangers backed up by police enforcement teams; and
    - Signage[4].

11. That land managers adopt a protocol for closing routes during severe fire danger periods, and maps show routes to enable quick exit in case of emergencies.

12. That the Great Kai'mia Way maximises the potential for people to use public transport and local amenities.

13. That traffic calming measures and associated signage be installed at intersections of roads and the Great Kai'mia Way

14. That landmanagers be encouraged to adopt the guidelines for signage recommended in the report and adopt the "family of signs" concept for the Great Kai'mia Way.

15. That a standard be adopted for construction and upgrade of track works, consistent with existing Australian Standards for walking track classification signage and infrastructure AS 2156.1-2001 and AS 2156.2-2001: a combination of Class 2, Class 3 and occasionally Class 4 out of 6 classes, where 6 is the least developed class (see appendix dd for details of standards).

16. That infrastructure on the the Great Kai'mia Way is free of all CCA treated pine products.

17. Effective measures be implemented to exclude trail bikes and 4WDs from sensitive areas by using, for example, gates made from galvanized steel pipe, fencing made from galvanized steel double rope, and kissing gates to enable access by legitimate users.

18. That Type A barriers as described in *AS2156.2-2001: Track Infrastructure* be be installed at lookouts and other relevant locations for safety and risk management at the discretion of track managers based on an assessment of effective fall height.

19. That stakeholders adopt the feasibility study through a signed memorandum that commits them to:

    19.1 a project staging plan as detailed in the feasibility study;

    19.2 a coordinated strategy for implementation of the Great Kai'mia Way, including:

        19.2.1 common signage as detailed in Chapter 5;

        19.2.2 ongoing communication between stakeholder groups to ensure appropriate linkages;

    19.3 adoption of the principles of sustainability in the implementation of the Great Kai'mia Way backed by increased research into the aspects of sustainable management;

    19.4 adoption of the planning checklist for development as detailed in Chapter 5

20. That Councils incorporate the Great Kai'mia Way route and vision for sustainability into their planning instruments and provide consistent funding through budget allocations and S94 developer contributions.

[4] For example: Trail Bikes and all unauthorised vehicles prohibited - Max Penalty $11, 500.

21. That Way community groups – local “friends of the Great Kai’mia Way” – be recognised and if necessary, established to help with the implementation of the Great Kai’mia Way vision.

22. That the Aboriginal community be an integral partner in the design and implementation of the Great Kai’mia Way.

23. That a management and implementation system be set up that will enable:

    23.1 An ongoing structure for decision making that involves land holders, land managers and interested community members, with particular note to engage the Aboriginal community;

    23.2 A funding structure that encourages contribution from a wide pool of stakeholders: community, private organisations and government;

    23.3 A commitment to continued promotion of the Great Kai’mia Way for environmental, cultural, recreational and health purposes;

    23.4 A commitment to sustainability whilst enabling access to as many users as possible.

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Creating The Great Kai'mia Way

INTRODUCTION

The Great Kai'mia Way is over 200 kilometres of sustainable access routes to the foreshores of the Georges and Woronora Rivers, linking with the Illawarra Escarpment and Botany Bay. It is a vision of non-motorised movement through the valleys - on foot, by bicycle or in canoe, respecting the ecological, cultural, social and heritage values of the area. It is also a vision about partnerships and community participation, about building an asset that respects the past, the current and future generations.

This report is about how the community, councils and government agencies can achieve that vision. It is the result of a twelve-month study undertaken by the Sutherland Shire Environment Centre (SSEC) in conjunction with the Georges River Environmental Alliance (GREA) and funded by the Georges River Foreshores Improvement Program (GRFIP).

Naming the project "The Great Kai'mia Way"[5] began the process of developing the vision. Kai'mia is the Aboriginal dreaming story of the Georges River and Botany Bay catchments. It tells of a young warrior named "Kai'mia" who rescued members of his band trapped in a cave. They were travelling up the valley to give thanks to the creator spirit. Kai'mia was wounded during his ordeal leaving a trail of blood. The Kai'mia (Gymea) lily plant, with its red flower, grows where his blood touched the earth.

Gymea lilies blooming in the catchment

The dreaming story is about respect for the environment, elders and the spirit of the land.[6]

The Gymea Lily is a spectacular plant common in bushland through the Georges River catchment. With its large red flower and bright green foliage, it is a striking and a recognisable symbol, providing the image from which the stylised logo for the project was developed.

Although SSEC and GREA spearheaded and coordinated the project, many people have contributed to the data gathered and the conclusions reached. This close partnership and consultation with stakeholders and the community has been a deliberate strategy and recognises that the Great Kai'mia Way (also referred to as "Way" throughout this report) traverses one of the most urbanised catchments in Australia, winding its way through a region that houses more than one-and-a-half million people and significant industrial sites, and lands within the authority of twelve councils, several government agencies, Aboriginal Land Councils and private landholders. By attempting to involve a maximum number of stakeholders, the project managers hoped to ensure that most issues regarding route features and selection are identified and appropriately considered in the discussion and recommendations for route implementation.

Community consultation is one of the four integrated components that underpinned the study. The other three components are:

[5] Pronounced *Ki may Way*.

[6] The source of this story is Gavin Andrews of the Dharawal People, and permission for its use was provided by Dharawal elders.

- Research and documentation of the natural and cultural features (including existing routes and planned routes) in the areas close to the rivers to provide the groundwork for Kai'mia Way routes.
- Creation of opportunities to increase sustainable use of the environment and care of our cultural heritage. This includes opportunities to promote the project and stimulate ideas for the different uses of the system of routes, tracks and trails.
- Establishment of funding strategy for implementation and ongoing care of the Great Kai'mia Way.

The following discussion will deal with each of these components and a fifth one which stakeholders also identified as important for implementation of the Great Kai'mia Way:

- Coordinated implementation of the Great Kai'mia Way.

Report Structure

This report begins with background information about the Georges River Catchment, the GRFIP, SSEC and GREA. Chapter 1 also explains how the Great Kai'mia Way can improve the health of the catchment and the wellbeing of people living in the catchment. To provide a framework for maximising outcomes, the project team adopted five guiding principles:

1. Caring for Country
2. Sustainability
3. Community stewardship
4. Safety
5. Loops and linkages

Chapter 2 then provides the details of how the project team engaged stakeholders, the contribution of stakeholders and the ongoing role they have in the Great Kai'mia Way project.

Chapters 3 and 4 provide the details of the groundwork done for location of routes. For quick reference for all stakeholders, the information is provided in standardised tables and broken into sections. Chapter 3 contains information about routes in the Georges River Catchment. Chapter 4 contains information about routes in the Woronora River Catchment. The recommendations arising from the study are discussed section by section and listed in Appendix 10.

Chapter 5 provides suggestions for the coordinated implementation of the Great Kai'mia way. These suggestions range from the use of materials for making tracks and signage through to safety issues and design to control and manage usage and ongoing management of routes.

Finally, Chapter 6 discusses recommendations and options for implementation of the Great Kai'mia Way. Implementation will require ongoing commitment from stakeholders and a commitment of resources to ensure that the full potential of the Way is realised.

Report intent

The information in this report is intended for use by councils, agencies and community members interested in either building and maintaining the Great Kai'mia Way, or using it for environmental, health and community capacity-building programs. It aims to enhance opportunities for regional coordination, efficiency and sustainability, as well as to promote general principals for sustainable trail route planning, design, construction and maintenance.

Much care has been taken to propose routes for the Great Kai'mia Way that are sustainable and inviting. However the report authors are aware that there are many contingencies guiding the selection and implementation of routes – and these contingencies change over time. This report is note meant to bind landholders or managers to proposed routes. It is ultimately up to landholders and managers to work together with stakeholders to ensure that the final route meets their special needs and objectives. The authors hope that the work that has been done in this feasibility study provides a sound foundation for making decisions about timing and routing of the Great Kai'mia Way.

Aims of this report

- Assist the community, councils and agencies to implement the Great Kai'mia Way (Way) while promoting general principals for sustainable Way route planning, design, construction and maintenance.
- Enhance regional coordination, efficiency and sustainability through the implementation of the Great Kai'mia Way through an extensive network of community, local and state government support.
- Present comprehensive information on the existing network of routes in the Georges and Woronora catchments, including the identification of opportunities for bush regeneration, environmental restoration and heritage conservation and community building along the foreshores of the waterways.
- Outline funding options for the construction and maintenance of the Great Kai'mia Way.

CHAPTER 1

Background

This project is the result of the vision of a number of individuals for creative ways to restore the environmental qualities of the Georges River and Woronora River Catchments.

The Georges River flows 96 km from Cataract Scout Park to Botany Bay, and its main tributary, the Woronora, is 32 km in length from its source just north of Dharawal State Conservation Area to its confluence with the Georges River at Como. Covering an area of 920 km^2, these catchments present a variety of environment types. The Woronora River and the upper and lower estuarine reaches of the Georges River flow through Hawkesbury sandstone into the wide Botany Bay estuary. In its middle reaches, the Georges River meanders through low rolling shale topography and densely urbanised floodplains of Liverpool and surrounds.

The vegetation of the Woronora Plateau, at the headwaters of the Woronora and Georges Rivers, comprises open forests, heath and hanging swamps, while the once extensive Cumberland forests of the Georges River floodplains have been dramatically reduced in the years since European settlement.

One of the hanging swamps that supply high quality water for the Georges River

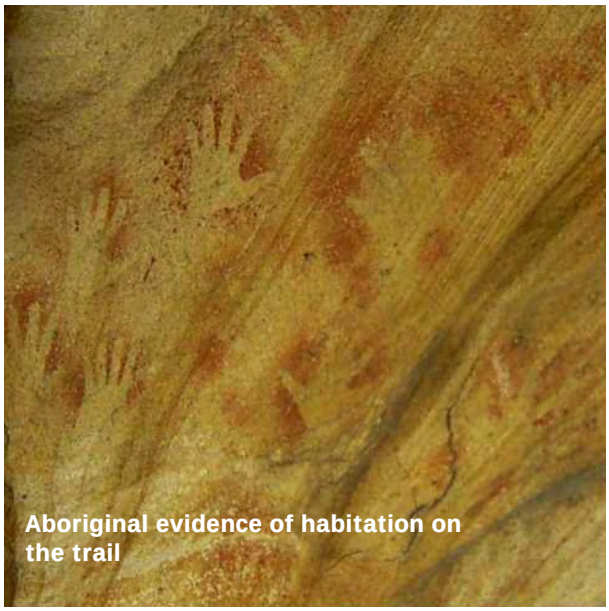
The Georges River catchment was home to a number of Aboriginal clans who belonged to Dharawal Nation: the "Saltwater People" of the coastal and bay area, "Bitterwater People" of the lower and middle reaches, and "Freshwater People" of the upper and top reaches.

The different landscape characteristics influenced the way these groups used the resources of the land, their walking/game trails and *Dreaming* places. Archaeological evidence in the over 1,200 Aboriginal sites in the catchment, such as axe grinding grooves, middens, and engravings, drawing and stencils, indicate that Aborigines may have spent lengthy periods living in one area, utilising its rich food and fibre sources - large number of bird species (over 100), mammals, reptiles and plants, as well as river fish.

In 1795, during the early years of European settlement, Bass and Flinders explored the Georges River as far as Prospect Creek. Their exploration produced favourable reports of the alluvial land along the Georges River and in 1798 the first land grant, 100 acres in the Bankstown area, was made to George Bass.

The best agricultural lands were found on the alluvial soils of the river banks and floodplains of the middle reaches. The communities of Liverpool and Fairfield were established in the early nineteenth century as agricultural supply centres for the Sydney colony. All along the river land was cleared for

grazing, crops, wool production and timber. Fishing and oyster farming were carried out in Botany Bay.

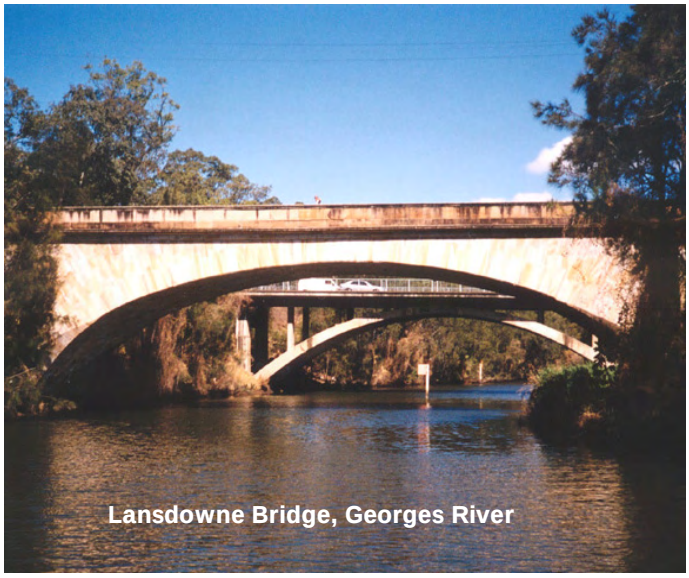


Aboriginal evidence of habitation on the trail

The establishment of land grants along the Georges River significantly reduced the Aboriginal communities' access to their traditional source of food and shelter, and led to growing hostility between Aboriginals and settlers. By 1816, the Aboriginal people of the upper reaches had been driven, by force, from their traditional home.

Development of the railway in the second half of the nineteenth century saw the gradual establishment of towns and infrastructure throughout the catchment. Progress from settlement to urbanisation was piecemeal, influenced by geography and topography[7].

Throughout the 1980s and 90s it became increasingly clear that the once richly biodiverse and productive Georges River catchment was in decline. The population in the catchment increased from approximately 1 million in 1986[8] to 1.2 million in 2003[9]. As the intensity of catchment residential development increased, significant areas of foreshore were stripped of vegetation to make way for housing and industry. The result of the development has been to gradually reduce the river from a pristine waterway that used to support industries such as oyster farming and safe swimming, to one plagued by problems. In May 2003, Riverkeeper Simon Annabel noted: "An enormous amount of silt is pouring into the river. Some of the sediment traps are ineffective. The topsoil from every unprotected building site in south-west Sydney is ending up in the Georges River"[10].



Lansdowne Bridge, Georges River

The upper catchment of the Woronora River is dammed, providing Sydney with one of its water supply areas. The resultant reduced flow has severe impacts on the natural flow of the Woronora River. The upper reaches of the river foreshores, however, have been relatively protect by their location in the Heathcote National Park and, the middle reaches have been protected by steep slopes.

In the 1990s community activists lobbied to protect the health of the rivers and their foreshores. These efforts culminated in the formation of the Shaping the Georges River Catchment (GRC) Strategic Plan[11] and the announcement by the State Government of a $6 million program – the Georges River Foreshore Improvement Program (GRFIP). The stated aim of the Program was to:

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[7] Georges River Catchment Management Committee Strategic Plan, 1994
[8] Sydney Region Population Projections for Local Government Areas 1986 - 2011
[9] *Lower Georges River stormwater action project*, 2003, NSW EPA, accessed 8/9/03, http://www.epa.nsw.gov.au/stormwater/casestudies/georgesriver.htm
[10] Woodford, James. *River sleuth despairs as sewage pours into bay,* 2003, Sydney Morning Herald, accessed 8/9/03, http://www.smh.com.au/articles/2003/05/21/1053196639402.html
[11] The Georges River Catchment Strategic Plan was written in 1994 as a framework for sustainable development.

…provide funding for projects that enhance the ecological sustainability, environmental quality, and recreational amenity of the Georges River Catchment by focusing on improving the foreshores of the Georges River and its tributaries.

Objectives of the GRFIP:

- To improve the Catchment's ecological integrity and environmental values by implementing best practice, ecologically sustainable and integrated foreshore improvement works;
- To equitably implement the metropolitan objectives for the environment including the initiatives for open space and waterways;
- To improve the Catchment's scenic and recreational amenity by improving foreshore open space areas and access to, and linkages between those areas;
- To help implement other components of the "Shaping the Georges River Catchment (GRC) Strategy, including the GRC Planning Strategy and The GRC Regional Environment Plan; and
- To promote cooperation and partnerships through consultation with the community, all levels of Government and key stakeholders.[8]

A Section 22 Committee, formed under the *Environmental Planning and Assessment Act 1979,* was established in 1995 by the Minister for Urban Affairs and Planning. The brief of the committee was to offer advice on the state and management of the Georges River. The Committee expanded the scope of the review to include the entire Georges River Catchment[12].

In 2000, Planning NSW[13] commissioned a study of the feasibility of creating a continuous route for pedestrians and cyclists along the foreshore of the Georges River. The study[14] concluded that such a route was possible.

GREA is a network of local community groups within the Georges River catchment. Its prime objective is to encourage protection of the catchment, its biodiversity, and to improve river water quality. It supports only ecologically sustainable development.

Sutherland Shire Environment Centre (SSEC) and Georges River Environmental Alliance (GREA) made separate applications to GRFIP in 2002 to take the study further and begin the coordination work to enable the foreshore access route to become a reality. Since there were obvious synergies in the two projects it was decided to combine them and manage both from SSEC's offices. The combined project has the potential to incorporate an even grander vision of route systems throughout the Botany Bay catchment, including the Botany Bay Trail (see Box on page 5) which can be progressively implemented as resources and opportunities arise over the next decade.

SSEC aims to enhance management and understanding of the environment in Sutherland Shire and its bioregion, working in partnership with community, business and government. It is an independent non-government organisation funded through donations, fundraising and project-specific grants.

In its application to *GRFIP,* the SSEC noted the potential benefits of such a project:

- Increased awareness of the value of the catchment's ecosystem biodiversity and its cultural, spiritual and heritage significance for both Aboriginal and non-Aboriginal people.
- Heightened capacity of the local communities to sustain their involvement in future environmental protection and enhancement activities.
- A focus for practical environmental education projects for local schools/colleges including the monitoring of the impact of the path on the catchment's biodiversity.

[12] From *Sharing the Georges River Catchment*, a Regional Environment Plan for the Georges River by DUAP, 1999. The GRFIP was discontinued in 2003.
[13] Now Department of Infrastructure Planning and Natural Resources (DIPNR)
[14] *Sharing the Georges River Catchment: Built Environment and Foreshore Access Study*. (2000) PlanningNSW.

Botany Bay Trail

The Botany Bay Program, a study of the Botany Bay environment managed by the Southern Sydney Region Organisation of Councils (SSROC), commissioned SSEC to carry out a pre-feasibility study of a trail system around Botany Bay. The findings for this study were delivered at the Trails Forum held at Sutherland Shire Entertainment Centre on 7th September 2002.
(*See Appendix 1*)

Similarly, GREA stated in its application that walks along the Georges River would raise community awareness of the river. Few people know of the historical and cultural significance of the river, nor fully comprehend the impacts of urbanisation on its health. GREA saw the feasibility study as an opportunity to promote the environmental/historical/cultural issues of the catchment, and encourage cooperation between the community, industry, environmental groups and all levels of government.

Both GREA and SSEC are organisations committed to working towards better management of the Georges River Catchment and to seek pro-active ways of doing so whilst continuously engaging stakeholders.

For this reason, the strategy for conducting the study was designed to provide for participation and a lasting information base available to interested parties. The strategy was also designed to ensure that maximum value was obtained within the tight twelve-month framework for delivery of the project and within the limits of the $145,000 grant provided under the GRFIP.

Underpinning the Strategy of the Great Kai'mia Way study

Two project officers were engaged to carry out the feasibility study. One project officer's brief was to concentrate on ground-truthing for implementation of routes along the foreshore of the Woronora Valley, the second project officer's brief was to conduct a feasibility study of routes through the Georges River Catchment. Both briefs were underpinned by a requirement that the final outcome must ensure that:

1. The community and other stakeholders become partners in the project
2. Research was professional, thorough and well-documented
3. They seek out and use opportunities for promoting the project and using it to enhance the message for sustainability
4. They identify funding opportunities for implementing the Great Kai'mia Way.

The project officers operated from the offices of SSEC which provided day-to-day office support and supervision of the study.

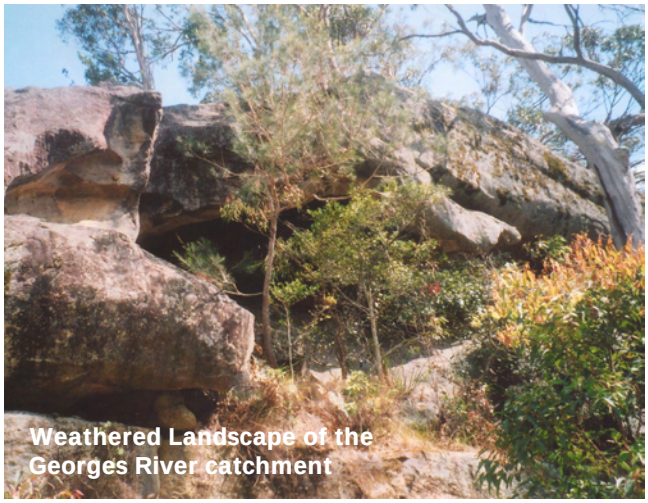
An Executive Committee, comprising two SSEC and two GREA representatives oversaw implementation, meeting on a monthly basis to review reports from the project officers and assess progress against the strategy. As well, the project officers and the executive reported on progress to a Stakeholder Board on a quarterly basis, with the explicit purpose of ensuring transparency of the study's progress and input from stakeholders.

The Great Kai'mia Way

From its inception, the Great Kai'mia Way project was a grand vision with the potential for achieving many environmental, heritage and recreational objectives. As the project unfolded, the promise was reflected by the enthusiasm with which many stakeholders participated in information gathering and decision-making. Without doubt, implementation of the Great Kai'mia Way is an initiative that has come of age.

The Great Kai'mia Way has the potential to:

- Enhance recreational and educational opportunities of existing open space
- Provide safe traffic free routes linking communities to their surroundings
- Increase community awareness of river and catchment environmental values
- Promote Aboriginal and non Aboriginal heritage
- Encourage active and healthy lifestyles for a wide range of people in the community
- Increase protection of foreshores and bushland in the catchment
- Foster cross community ties between indigenous and non-indigenous groups
- Develop stewardship partnerships between land owners, residents, local Aboriginal Land Councils, agencies and local government


Weathered Landscape of the Georges River catchment

It became quickly obvious from stakeholder meetings and research that adopting the following five principles would be a useful aid in guiding research and reporting:

1. Caring for Country

Since European settlement, the mentality of land management in Australia has been one of taming, conquering, mastering and manipulation. This strategy is at odds with the nature of the Australian landscape, which contains mostly old, infertile soils and ecosystems in delicate balance. The land requires a management system that acknowledges the uniqueness of the Australian environment.

Aboriginal people learnt to work with the land, adapting to their home in intricate ways[15], placing value on relationships between their "Country" and neighbouring "Country". The Aboriginal landscape is a shared landscape. "Country", in *Aboriginal English,* is a proper noun. People... speak to Country, sing to Country, visit Country, worry about Country, feel sorry for Country, and long for Country. People say that country knows, hears, smells, takes notice, takes care, is sorry or happy...Because of this richness, Country is home and peace; nourishment for body; mind and spirit; and heart's ease...[16].

The Great Kai'mia Way project aims to revive these values of Country as a living entity.

2. Sustainability

The GRFIP aimed to achieve: increased recreational opportunities; better environmental care; and enhanced community welfare. The Great Kai'mia Way helps to achieve these aims by promoting sustainable access to foreshore areas, improving recreational opportunities and community environmental awareness.

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[15] Robyn Smith (1998). *Caring for Country*. http://www.abc.net.au/science/slab/country/story.htm

[16] Deborah Bird Rose (1996). Nourishing Terrains – Australian Aboriginal Views of Landscape and Wilderness. Australian Heritage Commission, Canberra, p7-8.

The inappropriate intensity of development occurring along the foreshores of Georges River and the often poorly planned nature of development throughout the catchment result in greatly increased stormwater runoff impacts, erosion, turbidity and sedimentation. These impacts, along with the environmental damage caused by unsustainable recreational activities – such as illegal 4WD/trail bike access and inappropriate boat use, challenge the health of the catchment.

Sustainable Project Management is essential to achieving the implementation of a sustainable Great Kai'mia Way. The project manager should coordinate and monitor the Environmental Management Plans (EMPs) that ensure best practice environmental outcomes. The Great Kai'mia Way adopts the environmental benchmarks established during the Sydney 2000 Olympics[17]:

- Chapter 5 recommendations for construction and materials are mindful of issues such as *Life Cycle Analysis*;
- Throughout the report maintaining and enhancing biodiversity is a key consideration;
- How to reduce waste is considered in projects;
- Heritage values are respected;
- Community educational opportunities maximised;
- Trail planning and design involves community consultation and real involvement; and
- Stewardship is encouraged.

One of the principles of sustainability is the precautionary principle. It is recommended that the precautionary principle guide development of the Great Kai'mia Way.

Recommendation:

1. **That the precautionary principle guide development of the great Kai'mia Way, and that no development proceeds till appropriate management measures have been agreed to by stakeholders.**

3. Community Stewardship

The central thrust of the project is to develop a sense of ownership and partnership, empowerment and responsibility within and between communities throughout the Georges River Catchment. The Great Kai'mia Way project facilitates:

- Community building;
- Local communities connecting to "Country"; and
- Bush regeneration and Landcare groups – this project gives an effective framework to prioritise individual earth care projects and increase funding opportunities through strategic approaches to Care issues.

Sandy Point Residents crossing former military land near Mill Creek

The project team has actively encouraged communities to come forward with their own plans for local tracks, trails and routes, building on local knowledge and aims for their regions. By supporting and promoting a network of sustainable, community generated tracks throughout the Georges River Catchment, the project establishes the Great Kai'mia Way as a source of local pride and a unifying agent, while preaching the need to implement the precautionary principle in helping communities achieve their visions.

[17] Sydney 2000 Olympic and Paralympic Games Environmental Benchmarks www.csp.uts.edu.au/resources/benchmarks.pdf

4. Safety

The safety and enjoyment of walkers, cyclists and canoeists of all ages and abilities is a key design concern. Issues affecting safe use of the Way include 4WDs and Trail Bikes, vandalism, topography, erosion, design, bushfires and criminal behaviour. The project addresses these issues – many are discussed in Chapter 5 and in material published in hard copy or on the Great Kai'mia Way website.

Of particular concern is the ongoing problem of illegal access of recreational vehicles (trail bikes, and 4WDs) on public lands. As a step to provide information for strategies for better controlling and managing the problem, SSEC and GREA, TEC and NPA commissioned the Environmental Defenders Office (EDO) to provide a briefing paper on the legal status of such vehicles. The draft briefing paper from the EDO is reproduced in Appendix 13

The safety of those working on the maintenance of the Way and its environment is also a concern. This is addressed by encouraging a protocol for good occupational health and safety practices, also discussed later in this report.

There are potential liability issues raised through the development of the Way; and the management of risk to the public and landowners from using the Way is an important consideration for Councils and other land managers.

Understandably, Councils will only be responsible for parts of the Great Kai'mia Way on land under their care and control, ownership, or properties providing easements for the route; and when requesting consent from owners, including Crown Lands and LALCs, Councils are likely to be required to provide owners with indemnity against public liability on the track.

Currently the public use fire-trails for walking and cycling without any controls. NSW Rural Fire Service (RFS) consider that through the use of Great Kai'mia Way signage, an opportunity will be created to close trails to the public during extreme bush fire hazard conditions or during hazard reduction activities.[18]

5. Loops, Linkages and Regional Coordination

Loop tracks provide the means for experiencing the Great Kai'mia Way in segments. Local communities relate best to their own local loop tracks and the features (parks/foreshore reserves/sports facilities/shops/schools/etc) which these tracks access and connect. The majority of walkers and cyclists will only use their local tracks, but they will benefit in terms of the improved recreational opportunities resulting from better regional linkages.

Walkers and cyclists often prefer to arrive back where they started – where (reasonably) safe car parking or public transport is available[19].

The Great Kai'mia Way project aims to overcome some of the current problems of poor route usage and maintenance by providing loops and linkages most appropriate to the local community.

An important factor in the success of the Great Kai'mia Way will be its links to the Great North Walk, the Federation Track, the (very popular) Coast Walk in the Royal National Park, The Great River Walk and the Bay to Bay Cycleway. What is emerging is a network of sustainable transport, with great tourist, public health and environmental benefits.

It has attracted widespread media interest including an article in the Sydney Morning Herald, which is reproduced in Appendix 16.

Improved Health and Active Transport – Who Benefits?

As well as recreational benefits, the Way - particularly in the urbanised lower reaches of the Georges River - has the potential to contribute widely to facilitating 'active transport' - i.e transport that

[18] Examples of suggested actions by land managers to minimise risks involved in track use are discussed further in Chapter 5 / Sustainability and Safety / Risk Management & Liability.
[19] Results from Community Survey undertaken during feasibility study – see Appendix 2

involves incidental physical activity, such as walking, cycling and travelling by public transport - and its known links to improved health.[20]

Research in Perth (WA) has shown that problems such as obesity are associated with poor access to footpaths and recreational facilities, and perceiving that no shop is within walking distance[21]. Also, the current concensus of among health professionals is that, to protect health, every adult should accumulate 30 minutes or more of moderate-intense, endurance -type physical activity - such as walking or cycling - on most days of the week.[22]

The Way can act as a focus for programs such as: walking for pleasure (NSW Sport and Recreation); and healthy walks (South East Sydney Area Health Service), which promote active transport as a sustainable positive lifestyle habit.[23]

The following table provides a snapshot of population statistics from the twelve local government areas of the Georges River catchment. The Way has the potential to benefit more than one third of Sydney's population - a diverse multi-cultural community. Local businesses will benefit from improved recreational and active transport facilities for staff, and those on or close to the Way will benefit financially from increased patronage by residents, visitors and tourists.

Local Gov. Area	Land Area sq. km	Population [24]	% of Pop. where English is not the first language spoken [25]	Registered Businesses [26]
Bankstown	77	173, 370	51.6	7,300
Campbelltown	312	150, 631	25.2	2,100
Canterbury	34	136, 802	69.6	1,500
Fairfield	102	188, 889	70.9	10,000
Holroyd	40	90, 013	45.7	2,700 (estimate)
Hurstville	25	74, 703	43.1	3,200
Kogarah	19	53, 250	43.3	1,900
Liverpool	305	163, 464	49.3	7,500
Rockdale	28	92, 988	55.2	3,500
Sutherland	370	215, 028	13.7	9,000
Wollondilly	2,560	38, 981	9.4	1,100 (40 in Appin)
Wollongong	684	191, 254	21.7	5,000
TOTALS	**4,556**	**1,569,373**	**40**	**52,100**

NB Georges River catchment: land area = 920 km2 and estimated population = 1.2 million (based on (ABS) Data 2002.

[20] Davis A. Active Transport: a guide to the development of local initiatives to promote walking and cycling. London: UK Health Education Authority
[21] Transport WA: TravelSmart 2010: A ten year plan 1999
[22] Mason C. Healthy People, Places, and Transport. Health Promotion Journal of Australia December 2000 Vol 10 No 3
[23] Short walks are discussed in detail in Chapter 4 - 'Community Loop Walks'
[24] Australian Bureau of Statistics (ABS) Data 2002
[25] ABS 2001 Census Snapshot Information
[26] Source: Individual estimates from each Council based on Australian Business Register (ABR) data. The new ABS method, which uses Australian Tax Office (ATO) data, is unsuitable as it includes every individual ABN entry and only the head office location for larger businesses.

CHAPTER 2

Partnering with stakeholders and the community

The strategic cornerstone of partnering with stakeholders and the community began even before the launch of the feasibility study through the GRFIP. Both SSEC and GREA canvassed the views and interest of community members interested in natural and cultural heritage, and in recreational and education opportunities. Preparatory discussions were also held with a number of council staff, councillors and State members of Parliament.

The outcome of these discussions was a decision to launch the feasibility study at a public forum to which all groups and individuals interested in the creation of tracks, trails, routes and other access ways for non-motorised transport were invited[27]. Preparatory to this forum, SSEC undertook a pre-feasibility study of a trail around Botany Bay on behalf of the Botany Bay Program. The results of the pre-feasibility study were presented at the forum[28].

Residents gather outside the Sandy Point Community Centre

It was clear from the presentations at this forum, and from discussion initiated from the floor that both the community and government agencies enthusiastically supported the concept of the Great Kai'mia Way and were ready to participate in the initiative.

To maximise ongoing opportunities to participate, the project team decided upon both formal and informal meetings with stakeholders.

Advisory Board

At the most formal level, the team created an advisory board: a quarterly meeting comprising invited representatives of major stakeholders: federal, state and local government agencies, regional non-government organisations (NGOs), natural resource managers, elders and local Aboriginal Land Council representatives.

The four Board meetings were held in different local government areas – a deliberate strategy to promote ownership of the project across the catchment.

[27] The proceedings of this forum are published on www.kaimiaway.org.au
[28] See Appendix 1.

The major functions of the Advisory Board was to strengthen the partnerships developed over the lifespan of the study through:

Advisory Board - field inspection of Clear Paddock Creek – Fairfield LGA

- ***Communication***: A way of ensuring face-to-face two-way communication between the project team and stakeholders;
- ***Accountability***: Ensuring that the project team remained answerable to stakeholders through reports on project progress and discussion;
- ***Discussion of problem issues***: Ideas suggested at Board discussions in response to the project helped project coordinators to come up with innovative solutions to problems. For example, at the first Board meeting, questions were raised about how to provide sustainable access to environmentally sensitive areas alongside the Woronora River where no track currently exists. It was suggested that the project team develop a canoe "trail" along the river so that people could experience the beauty of the river without the need to construct a new track and the adverse impacts such a track would have on the riparian zone.
- ***Integration***: Encouraging major stakeholders to come together helped to avoid duplication of effort, helps the project team and all interested parties to see the bigger picture, and work together to achieve environmental and social goals.

Track navigation in the Mill Creek Valley

Board meetings were well attended. It was pleasing to note that the policy of changing the location of the meetings enabled different individuals to participate, though a core of stakeholders attended all meetings. Notes from the meetings are reproduced in Appendix 3 of this report.

Working groups

On a more informal level, working groups and steering committees were also formed, particularly to oversee the feasibility of routes through the Woronora Valley. No part of the route was planned or researched without the involvement of the landowner and others interested in the wellbeing of the particular section being investigated.

In particular, the team was concerned to ensure the involvement of the Aboriginal community, especially on lands owned and managed by them and actively pursued many different avenues of involvement in route planning.

In partnering with stakeholders and the community, the project team aimed to achieve community support and enhanced opportunities for the community to sustain the Great Kai'mia Way beyond the study period. Appendix 4 lists stakeholders and their involvement with the Great Kai'mia Way project.

Community events

In order to reach out to as many people as possible, the project team welcomed opportunities to participate in community events.

In March 2003 the project team coordinated a clean up of an abandoned Christian camp on the Woronora River as part of the Australia Day Clean up. Twenty eight people – local residents, Waterways staff, Rural Fire Brigade volunteers and the owner of the local boat shed (photo below) – participated on the day to dismantle eighteen steel-framed bunk beds, remove mattresses, old tin roofing sheets and collect rubbish. This was no mean feat considering the only access to the site was by boat (photo to right), and at least three tons of rubbish was removed that day. At one stage of the removal process, the barge nearly sank under the weight of the junk.

Removing waste along the Woronora River

Cleanup Australia Day Team 2003 Woronora River

The Volunteer Fire Brigade organised a sausage sizzle, and Sutherland Shire Council arranged to have the rubbish taken away. Overall, it was an excellent indicator of how the Kai'mia Way project can generate positive environmental action and community building.

The project team also set up stalls and promoted the Great Kai'mia Way as well as sought feedback at three festivals organised in the Sutherland Shire area: Menai Celtic Festival, Sutherland Shire Council School Environment Fair and Naidoc Day.

Menai Celtic Festival:
- A stall displaying maps of the Woronora catchment and part of the Georges River catchment.
- People were invited to participate in a survey on recreational usage of local tracks.

Sutherland Shire Council School Environment Fair:
- A talk on ecological footprints was given.
- School children were given the opportunity to view the maps, encouraged to find where they live and to suggest what impacts they have on the health of the catchment.

Naidoc Day:
- Brochures were distributed, and it was a good opportunity to talk to indigenous members of the community about the project.

Survey

The project team developed a short questionnaire to obtain a better understanding of the community's thoughts around the Woronora Way. Appendix 2 contains a copy of the questionnaire and a table of results.

The questionnaire was sent out to SSEC members with the June 2003 newsletter, distributed at the Parc Menai Celtic Festival, and to Year 4,5 and 6 students at Menai Public School.

The results of this survey are by no means representative of the entire Woronora River community, however, they do present possible trends in values and behaviour:
- The highest ranked reason given for using local tracks was for health, fitness and general well-being. Second ranked was appreciation of the natural environment.

- A majority of respondents indicated that they preferred to stay close to home when enjoying the outdoors - within 3km.
- Almost all respondents said they would use a sympathetically designed, waymarked route along the Woronora.
- The main concerns regarding a continuous route along the Woronora include pollution, vandalism, littering and overuse.

A Sample Use of the Way


Menai Public School Students enjoying a section of the Burnum Burnum Track

In response to a request by one of the Menai Public School teachers concerning local tracks that could be walked as part of physical education for students, the project team visited the school. They presented a talk to staff and students in years 5 and 6, on the Great Kai'mia Way and the Aboriginal Dreaming story of Kai'mia. A large map was left behind for students to find their home street and relate to the tracks and natural features nearby. The project team conducted a walk along a section of the Burnum Burnum track behind Barnes Crescent overlooking Barden Creek Valley. For the whole of the one term, different walks were undertaken by staff and students, including a visit to the tidal section of Mill Creek. Several students persuaded their parents/carers to join them on weekend walks to look at what they had discovered including the chance to observe rock wallabies.

Stakeholder contributions

A list of stakeholders for each section is part of the information provided in each of the sections discussed in Chapter 3 and 4. These stakeholders helped plan the routes, identify the issues and suggest enhancements and solutions to problems. It was clear that in a number of areas, stakeholders had already given a great deal of thought to the planning of a route. The Great Kai'mia Way project proved a welcome vehicle to enable them to gain recognition and for delivering outcomes. The Burnum Burnum Track, the Sandy Point Progress Association, Friends of Prospect Creek, Bankstown Bushland Society and Friends of Yeramba Lagoon.

- ***Burnum Burnum Track (A nature trail for West Menai)***

The Menai area has seen rapid urban growth over the past 15 years. However, there has been a strong community reaction to the poor road system, traffic build up, lack of infrastructure, loss and degradation of the natural environment and uncoordinated development. The community is also at the doorstep of a nuclear reactor and a massive waste management facility.

The Burnum Burnum Track is a community initiative. It was suggested as a means of advancing a broad regional vision for improving environmental and recreational opportunities, and building a stronger community. Residents of Menai approached the project team at the Trails Forum on 7th September 2002, suggesting the West Menai Nature Trail as a logical link between the Georges River Way and the Woronora River Way. The project team contacted Sutherland Shire Council and Gandangara Local Aboriginal Land Council and brought them together to discuss the possibilities for the route. The community indicated a desire to name the track after Burnum Burnum, a famous resident of nearby Woronora Valley who was an advocate and campaigner for Aboriginal rights and nature conservation. Sutherland Shire Council has now set aside funds to establish the Burnum

Burnum Track. Written and oral information, as well asmaps were provided by members of West Menai and Barden Ridge Precinct Residents' Association to supplement the efforts of the project team.

- ***Sandy Points The Way***

Residents of Sandy Point may be small in number but their contribution to the success of the Great Kai'mia Way project has been outstanding.

In March 2003, the Sandy Point Progress Association (SPPA) organised a community walk through the Federal Government's lands between Sandy Point and Mill Creek. The walk was aimed at promoting the cause of transferring the 178 ha of remnant bushland and salt marshes to the NSW National Parks and Wildlife Service for inclusion into the Georges River National Park.

SPPA strongly endorsed the Great Kai'mia Way – naming this particular section the 'Rock Wallaby Way' because of the presence of that and several other indigenous animal species of conservation significance.

50 residents (approximately one third of the Sandy Point population) took part in the walk – enjoying the bonding and the outstanding environmental values. Members of the SPPA and the project team had previously marked out a route for the 'Wallaby Way' from Sandy Point Community Centre to the historic former mill site on Mill Creek. This site also represented another high point in community stewardship as representatives of SPPA met up with members of West Menai and Barden Ridge Precinct Residents Association and Gandangara Local Aboriginal Land Council. The meeting symbolised the joining together of Burnum Burnum Track and planned tracks through Gandangara lands with the Rock Wallaby Way.

Sandy Point residents certainly made a strong point – that communities can take the initiative for environmental management of their local regions – and this point is the central aim of the Great Kai'mia Way project and will ensure its success.

- ***Friends of Prospect Creek***


Prospect Creek

Over the past 200 years Prospect Creek (a tributary of the Georges River) has felt the full impact of unsustainable rural and urban development degrading its natural environment. Some members of the local community have a vision for restoring Prospect Creek to good health.

The Friends of Prospect Creek (FPC) was formed and they have now organised several successful Clean Up Australia Days, where dozens of local people volunteered to clean up rubbish and plant over 17,000 trees and shrubs in Long Street Park, Smithfield where the Warali Wali Track of the Great Kai'mia Way route is planned. FPC also organise soccer games to improve the recreational opportunities for local youth and develop the social networks of this new and multi-cultural community.

The health of Prospect Creek has been an issue with numerous State Government reports – but it is groups like the FPC who are making a big difference on the ground. They are an excellent example of a community taking the lead in environmental restoration and stewardship. The Great Kai'mia Way could link together many community groups like FPC, and advance the good work done by Holroyd and Fairfield Council through projects like the Prospect Creek Aboriginal Heritage Trail and Five Creeks, to achieve this regional vision.

- ***Bankstown Bushland Society***

Bankstown Bushland Society (BBS) was one of many community groups that played an important role in advising the project team about critical environmental issues around the Georges River foreshores within the Bankstown local government area.

The group is a strong advocate for the scarce areas of remnant vegetation left in Bankstown, which was once covered by dense woodlands. BBS visited several sites with the project team, in order to plan a more sustainable trail route that would respect environmentally sensitive areas.

It was a positive experience to visit several sites of contention – where representatives from SW BUG (South West Bicycle Users Group – an affiliate of Bicycle NSW) were able to work out trail routes in concert with BBS and the team. The proposed route will be all the stronger and more sustainable for this type of effective community consultation.

The good work of the BBS was also evidenced in East Hills Park – where the group has regenerated the biodiversity of an area of bushland.

These are the kinds of initiatives that the Great Kai'mia Way can publicise and advance throughout the catchment.

- ***Friends of Yeramba Lagoon***

Yeramba Lagoon was once just a bend in the Georges River at Picnic Point until road construction in the early 1960's cut it off from the Georges. The environmental health of the 'lagoon' declined over subsequent decades as it collected polluted urban stormwater, nutrients and weeds. The illegal dumping of rubbish added to the sad state that prompted community members to take a stand and Friends of Yeramba Lagoon was formed a few years ago to restore the area to good health.

Yeramba Lagoon

Bankstown City Council and NSW Government agencies are now investigating the most appropriate clean up methods and have already installed pollutant traps and embarked on community education campaigns. The walking tracks around Yeramba could well be linked with the nearby Great Kai'mia Way raising their usage and community environmental awareness.

The Friends have shown their commitment with clean up days and their future involvement will be an essential part of the success of any Yeramba Lagoon restoration projects. As the Great Kai'mia Way is a community driven initiative, it is well placed to encourage such ongoing efforts towards the sustainable management of the Georges River.

Ongoing stakeholder role

The community and other stakeholders will have an ongoing role in the creation of the Great Kai'mia Way. As already noted above, a fundamental principle of the project is the principle of stewardship. For the Great Kai'mia Way to deliver the benefits envisaged by those involved to date, it must continue to be a community driven project.

SSEC and GREA are community organisations, which have spearheaded this project and have amassed a great deal of information as well as developing significant networks. Only some of that information can be transcribed into a report. The organisations have the potential to play an ongoing role, taking the concept of the Great Kai'mia Way to the next step of progressive implementation in partnership with landholders, land managers and the community.


Local residents meeting for a chat at Picnic Point

Chapter 6 describes how the organisations propose to take on an ongoing role.

The term "stakeholders" is used in this report in a non-aligned fashion to indicate the range of individuals, non-government organizations, loose associations of community members and government organisations with some interest in the planning and possible outcomes of the Great Kai-ama way project.

It is not meant to indicate support or otherwise of individuals and groups.[29]

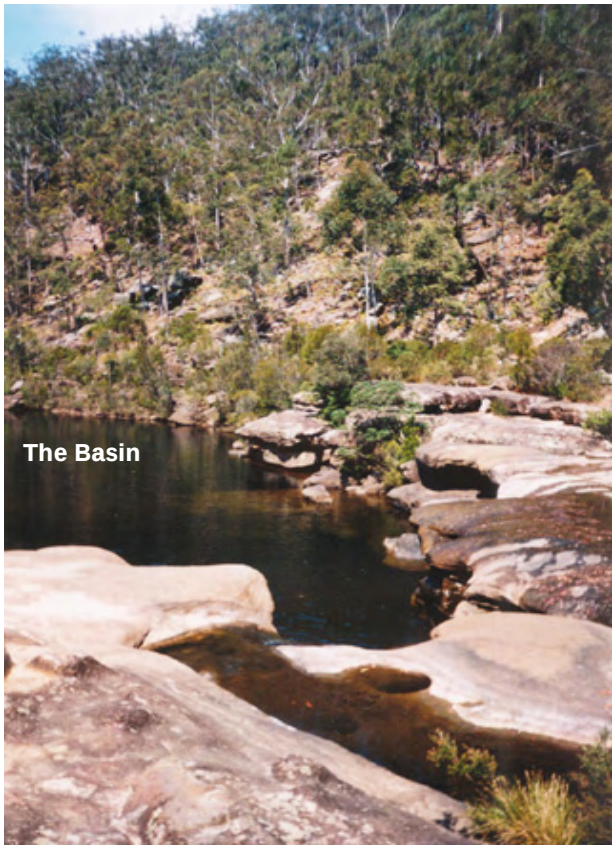
A member of the project team consults with National Parks & Wildlife Service staff engaged on track maintenance work in Heathcote National Park

[29] Some identified stakeholders, may indeed have serious issues that may or may not be fully addressed in this report. The editors have strived to encourage all stakeholders to say exactly what they think, and such opinions are acknowledged where known to the editorial committee. Indeed one group, the National Parks Association of NSW's Southern Sydney Branch has provided a statement of its concerns, which is included in appendix 15.

CHAPTER 3

The Great Kai'mia Way

This Chapter and Chapter 4 provide the outcomes of the groundwork carried out in this study. This Chapter deals with the Georges River section, and Chapter 4 with the Woronora River section.


The Basin

The separate GIRFP grants were both for twelve months, but the characteristics of the river systems are significantly different:

- **Length**: the Georges River is 96km long from its source near Cataract Scout Camp to Botany Bay; the Woronora River is only 21km long from Woronora Dam to the confluence with the Georges at Como.
- **Geographical extent**: the Georges River traverses parts of 12 separate local government areas[30], whereas the Woronora River is entirely under the jurisdiction of Sutherland Shire Council LGA.[31]
- **Social and demographic profiles**: the Georges River's heavily urbanised middle and lower reaches, are home to a culturally diverse population of approximately 1.2 million[32] (40% from non-English speaking backgrounds[33]). The Woronora Valley is characterised by steep bushland with plateau top settlements in the lower reaches supporting a largely Anglo/Celtic population of 50,000 people.

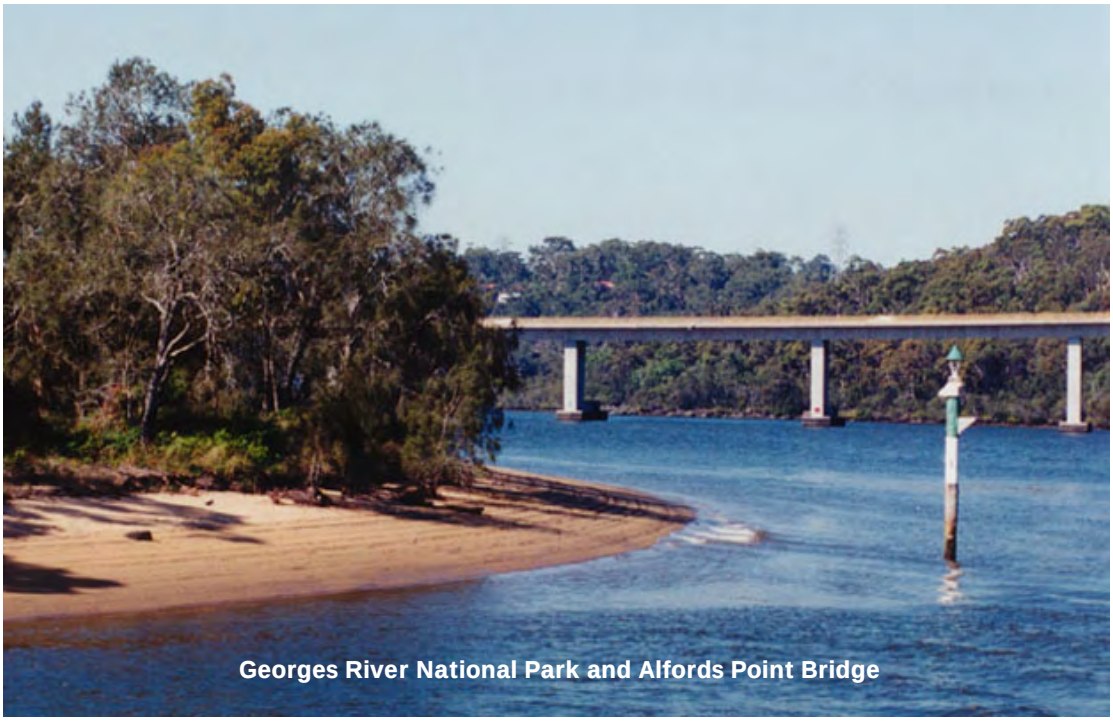
As a result, the methodology for carrying out the study for the two rivers varied, with the Georges River section concentrating on:

- Planning and promoting the cross-catchment Great Kaimia Way Vision, and engaging with stakeholders for regional coordination of delivery of the vision.
- Broad on-ground and map-based research to determine the overall existing network of track routes, identifying sub-sections, potential links, opportunities and constraints.
- Consultation with 12 Councils, major landholders, peak environment and user groups, community based non-government organisations, and representatives of the indigenous community.
- Factual information to be used as a basis for future detailed master planning by government and community in the 3 sub-regions - GLR/GMR/GUR.

[30] Refer to Chapter 1 for a full table local government areas and some key statistics
[31] Except the Sydney Water Catchment Special Areas above the Dam which are in Wollongong LGA.
[32] Australian Bureau of Statistics (ABS) Data 2002
[33] ABS 2001 Census Snapshot Information

With its reduced ownership, management and stakeholder issues, it was possible to carry out a more detailed study of actual routes in Woronora River section, undertaking some of the tasks which will need to be carried out along the Georges River sections in future:

- Developing a master plan for the staged implementation of the Great Kai'mia Way in the Woronora Valley (this could act as a template for future master planning in the Georges River Local Government Areas and sub-regions).
- Detailed field inspections and research to establish: suitability of track routes; problem areas; opportunities for links to related amenities and features (eg heritage sites, public transport nodes, schools, viewpoints); and environmentally sensitive sites which may be adversely affected by new routes and increased public access.



Georges River National Park and Alfords Point Bridge

- Smaller sub-sections, reflecting the intricate nature and high concentration of track routes in the valley, and the extra time available for field investigations. They provide a focus for discrete individual track and bush regeneration projects, which are potentially more easily adopted by local community groups such as Bushcare Volunteers.
- Opportunity for greater community consultation and input. Examining the feasibility of ideas: e.g. a school's healthy walks program[34], shorter loop walks to provide a facility for people of all levels of mobility, and a canoe trail for the Woronora River.

Georges River Wetlands

[34] Refer to Chapter 2 - A Sample Use of the Way

Standardised information

Although presented in two parts, the Way information in this report was collated and is presented in a standardised tables format:

8. ***Subsections:*** The Great Kai'mia Way was divided into sections according to a rationale that is explained subsection by subsection. Each subsection has been given a name, but the project team sees appropriate naming as an ongoing task of implementing the Great Kai'mia Way.
9. ***Standard grading system:*** A standard grading system was adopted for the sections to indicate difficulty of the walk from 1 (wheelchair accessible) to 5 (experienced walkers only). A brief explanation of the grading system is provided in the accompanying box and is based on AS 2156.1-2001, reproduced in Appendix 6.

Grading system for Great Kai'mia Way

1. **Wheelchair accessible** – suitable for all ages and fitness levels.
2. **Easy** - suitable for all ages, but take care with children
3. **Medium** – some stairs and steps –for people who walk occasionally
4. **Hard** – steep stairs and steps – for people who walk regularly. Visitors with heart or breathing difficulties should not attempt these walks.
5. **Experienced walkers only** – high level of fitness required, minimum 3 in a group. Advise friends or police of route and destination times.

10. ***Prioritisation:*** Some parts of the Great Kai'mia Way are already in place, other parts require more detailed investigation before construction. The tables provide a prioritisation for the information that considers the importance of the section to the function of the Way, and the difficulty and funding opportunities for implementation:
    - **A** Highest priority - recommended completion within two years
    - **B** Medium priority - recommended completion in next five years
    - **C** Lowest priority - within ten years.
11. ***Opportunities and constraints:*** Each subsection presents its own benefits and challenges. These are listed in short form in each table.
12. ***Stakeholders:*** The project team has done its best to ensure that all relevant stakeholders for each subsection have been contacted. These are listed in the table. The project team hopes that by listing stakeholders in this way, those who have not been identified will contact the team to provide relevant input.
13. ***Actions and estimated cost:*** Important for managers and those interested in implementing and managing the Great Kai'mia Way.
14. ***Maps*** are a critical part of the way information is delivered in this report. Large scale landscape maps precede both chapters 3 and 4 showing the location of maps that accompany each subsection of the Way.

The report authors recognise that identifying some routes in this study will cause some stakeholders and land managers a degree of nervousness. It should be recongnised that this is a feasibility study only. With few exceptions, finalisation of the routing is still to be decided – this is especially the case in the Georges River section where, as already explained, the complexity of the task precluded the detailed planning required to finalise routes.

The routes recommended in this report are proposed routes. The active participation of stakeholders will be crucial to ensure that no formal access is provided to areas before the full range of concerns and issues that might endanger sustainability are addressed.

Recommendation:

2. That the Great Kai'mia Way vision be implemented, appreciating the information for routing and priorities noted in Chapters 3 and 4 of this report, and ensuring that the precautionary principle is the arbiter of both route selection and implementation.

The Georges River

The project team divided the Georges River catchment into three major (sub-regional) sections which were then further divided into subsections. Table 3.1 lists the local councils in the sub-regions and briefly summarises major issues confronting implementation of the Great Kai'mia Way in those sub-regions.

The project team chose easy half-day and daily walking and cycling distances to decide on the distances in the 28 subsections, as well as distinct local environmental features. The intent of this form of subdivision is to increase the capacity of local communities involvement and inspire them to take on a stewardship role in their area.

Recommendation:

3. That the relevant communities name subdivisions of the Way[35].

[35] The names provided in this report are suggestions only.

A3 GLR

Back of A3

A3 GMR

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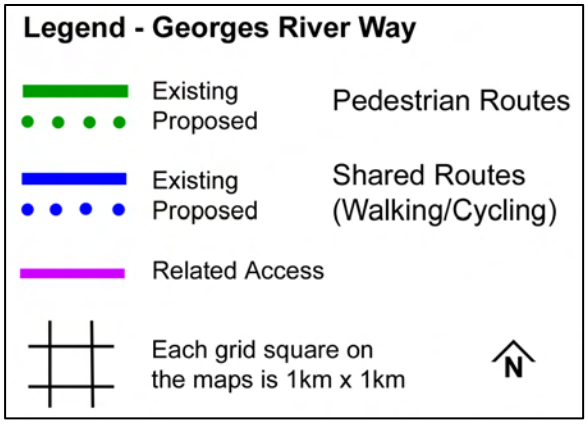
A3 GUR

Back of A3

Table 3.1 – Great Kai'mia Way Georges River sub-regions (refer to A3 maps)

Sub-region	Council areas	Major issues	Sub-sections
GLR – Georges Lower Reaches	Rockdale, Kogarah, Hurstville, Canterbury and Sutherland	Limited public foreshore access opportunities with intensive development pressures leading to vegetation loss, declining biodiversity and river water quality, and impacting upon highly scenic sandstone landforms. The cost of public buyback would be prohibitive. Large area of remnant bushland at Mill Creek presents conservation challenges and outstanding opportunities for foreshore access.	**GLR1** – Botany Bay **GLR2** – Kogarah Bay **GLR 3** – Shipwrights Bay **GLR4** – Oatley Bay **GLR5** – Lime Kiln Bay **GLR 6** – Salt Pan Creek – Lugarno **GLR 7** – Salt Pan Creek – Canterbury **GLR 8** – F6 Corridor (does not connect to GLR 7) **GLR 9** – Oyster Bay **GLR 10** – Mill Creek/Rock Wallaby
GMR – Georges Middle Reaches	Bankstown, Fairfield, Holroyd, Liverpool	Many parts of this sub-region suffer from major impacts caused by urban stormwater, sewer overflows, accelerated bank erosion and the consequent loss of riparian and aquatic biodiversity. However: • There are large redevelopment projects generating significant opportunities for improved public foreshore access to neglected and degraded areas. • Walkway/cycleway network – currently exists in sections but lacks co-ordinated regional linkages between local government authorities.	**GMR 1** – Padstow Heights **GMR 2** – Picnic Point **GMR 3** – Milperra **GMR 4** – Mirrambenna **GMR 5** – Lower Prospect **GMR 6** – Upper Prospect (Warali Wali Track) **GMR 7** – Racecourse **GMR 8** – Powerhouse **GMR 9** – Voyager Point **GMR 10** - Moorebank
GUR – Georges Upper Reaches	Campbelltown, Wollondilly, Wollongong	This sub-region has large state and Federal (Defence) Government holdings, and increasingly suffers from urban impacts. The Great Kai'mia Way has the potential to strengthen the community push for better protection of lands in the upper Georges River and Illawarra Escarpment.	**GUR 1** – Long Point **GUR 2** – The Basin **GUR 3** – The Woolwash **GUR 4** – Appin **GUR 5** – Jamboree **GUR 6 –** Dharawal Walk **GUR 7** – Dharawal Ride **GUR 8** – Illawarra Escarpment

The tables identify key stakeholders with the actions that need to be carried out to implement the Great Kai'mia Way. By doing so, the project team hopes to overcome a key problem for the Great Kai'mia Way project: the fragmentation of responsibilities between twelve councils and numerous state and federal agencies.



GLR1 – Botany Bay

Fishing off Towra Point in Botany Bay

GEORGES RIVER WAY

LOWER REACHES

LGA(s) – ROCKDALE KOGARAH

Sub-section	**Botany Bay**	**GLR 1**
Start and finish	Scott Park/San Souci Park (San Souci)	
Distance	0.75 km	
Grade	1-2	
Main features	• Botany Bay • Scott Park • Captain Cook Bridge	
Description	A section of the Rockdale recreational cycleway along Botany Bay foreshore with good resting and vantage points along Riverside Drive.	
Opportunities and constraints	• Scott Park constructed wetlands (GRFIP/RCC) project – potential educational signage • St George Sailing Club – no trail through car park/safety issue • Sans Souci Park (F6 Corridor) – poor landscaping/ no community ownership • Trails (4 way) intersection (Sutherland, Botany Bay and Rockdale, Kogarah networks) - weak trail junction/inadequate signage	
Actions	• RCC/KCC joint planning of upgraded major trails intersection - signage • RCC plan safe marked route through car park • RCC coordinate local bushcare group/CVA - regenerate degraded San Souci Park (north) – (potential 4 way trail intersection – F6 Greenway)	
Priority	B	
Estimated cost	$25k	
Key stakeholders	RCC/KCC/St George Sailing Club	

Rationale:

The proposed route follows the existing Rockdale recreational cycleway through Cook Park. The St George Sailing Club car park is the most direct route connecting with a safe pathway under Captain Cook Bridge, and providing outstanding views of Botany Bay, and excellent resting and vantage points.

Scott Park contains an innovative constructed wetland, which enhances biodiversity in the area and improves the quality of waters entering Botany Bay. The wetland provides opportunities for environmental education and could be an important setting for school excursions linking the headwaters at Maddens Falls to the estuary at Botany Bay.

Existing pathway along Botany Bay foreshore

GLR2 – Kogarah Bay


Carss Cottage, Carrs Park

Rationale:

The proposed route is an easy walking/cycling grade following existing paths through Sans Souci Park, Claydon Reserve and Carss Bush Park, using footpaths along Harris, Wellington, and Vista Street, The Promenade, Vaudan Street and Carlton Crescent. It avoids busy roads and permits good views of Kogarah Bay as well as providing links to several small foreshore parks and two Olympic swimming pools.

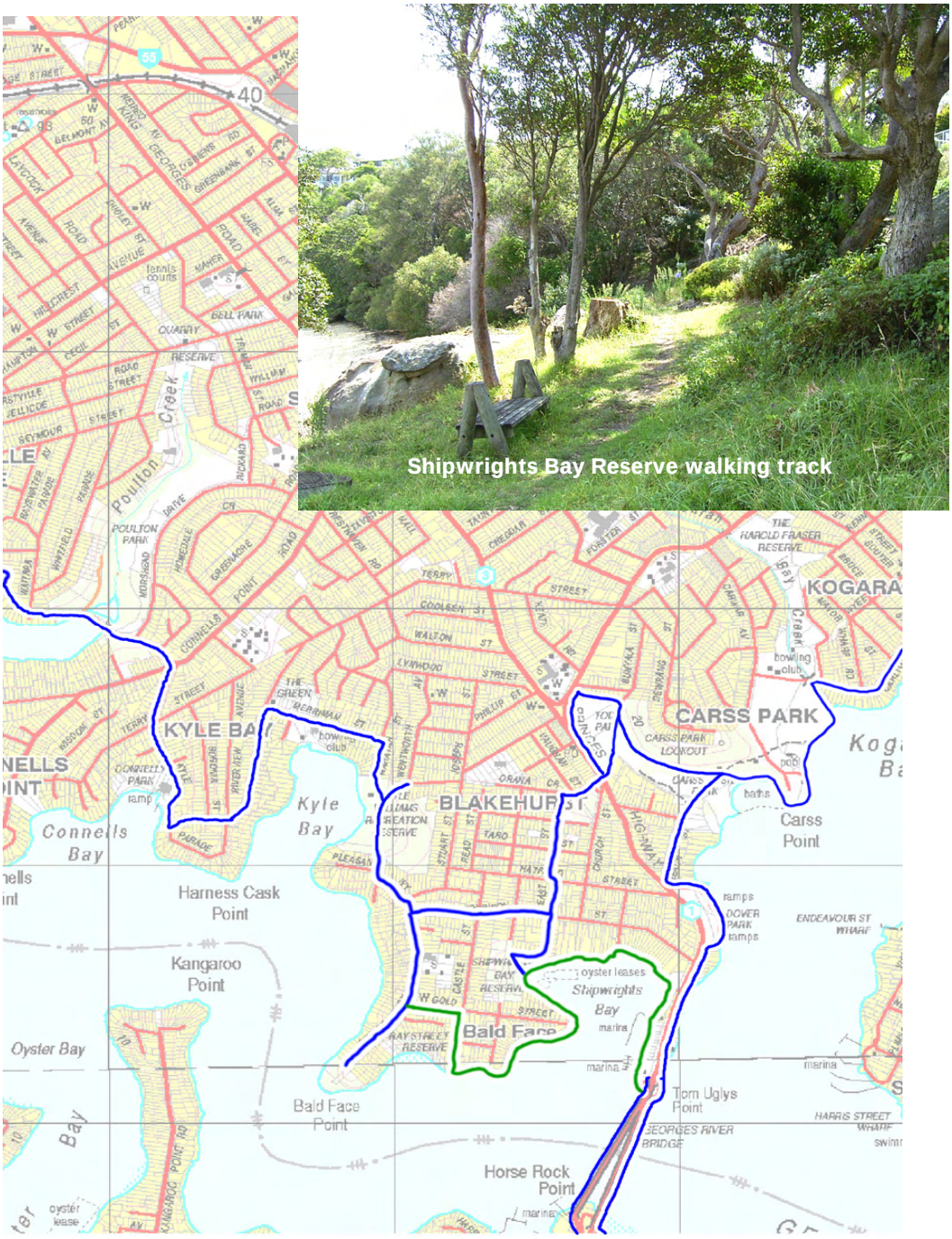
GEORGES RIVER WAY

LOWER REACHES

LGA(s) – ROCKDALE & KOGARAH

Sub-section	**Kogarah Bay**	**GLR 2**
Start and finish	Captain Cook Bridge / Carss Bush Park (Carss Park)	
Distance	5.0 km	
Grade	1-2	
Main features	• Kogarah Bay • Carss Bush Park (Olympic pool) • Carss Cottage • Claydon Reserve • Sans Souci Park (Olympic pool) • Anderson Park	
Description	Route mostly follows footpaths (3.0 km) / off-road sections through parklands (2.0 km)	
Opportunities and constraints	• Limited opportunities to increase public foreshore access - prohibitive land acquisition cost – need to improve park pathway networks • Unclear access under Captain Cook Bridge • Speed of cyclists under-bridge dangerous • San Souci Park, Claydon Reserve and Carss Bush Park and several small foreshore parks have good resting and Kogarah Bay vantage points • No route marked through Sans Souci car park/poor safety • No marked cycling shoulder – Vista Street and The Promenade • Claydon Reserve - eroded seawall/footpaths and toilet block/car park – degraded • Dangerous corner/intersection – Ramsgate Road and Vaudan St (need for cyclists to demount and walk on footpath) • Kogarah Bay/Claydon Reserve stormwater damage requires integrated solution – Beverley Park Golf Course and soft engineering seawall alternative • Opportunity to name Stormwater Channel flowing through Beverley Park and sign detailing stormwater impacts and links with Kogarah CBD ESD initiatives • Opportunity to improve Kogarah Bay water quality with constructed wetlands along Kogarah Creek in Harold Fraser Reserve • Educational signage – Kogarah Creek GPT • No foreshore pathway through northern part of Carss Bush Park and no signs to Olympic Pool and Carss Cottage • Tidal Baths repairs required • Pathway link to Todd Park needs upgrading	
Actions	• KCC/RCC - signage linking LGA's pathway networks • RTA/KCC/RCC to sign and construct bicycle speed controls - Captain Cook Bridge underpass approaches • KCC plan safe marked route through San Souci carpark • KCC to mark on-road shoulder routes on local roads and sign accordingly • KCC/RTA investigate cycle safety – Ramsgate/Vaudan intersection – consider boardwalk (linking Claydon Reserve and Park Rd) • KCC - pathway and signage - Carss Bush Park and Claydon Reserve	
Priority	B	
Estimated cost	$95k	
Key stakeholders	KCC/RCC/RTA/SW	

GLR3 – Shipwrights Bay



Rationale:

Development limits foreshore access in this part of the Way. The proposed route follows quiet residential streets, avoiding those with steep slopes and uses links to foreshore parks - Shipwrights Bay Reserve, Dover Park, Bald Face Point Reserve, Kyle Williams Reserve, Donnelly Park and Poulton Park, to enable people to reach the Georges River.

The route also promotes expansion of Shipwrights Bay Reserve walkway and links with Sutherland Shire sections of the Great Kai'mia Way.

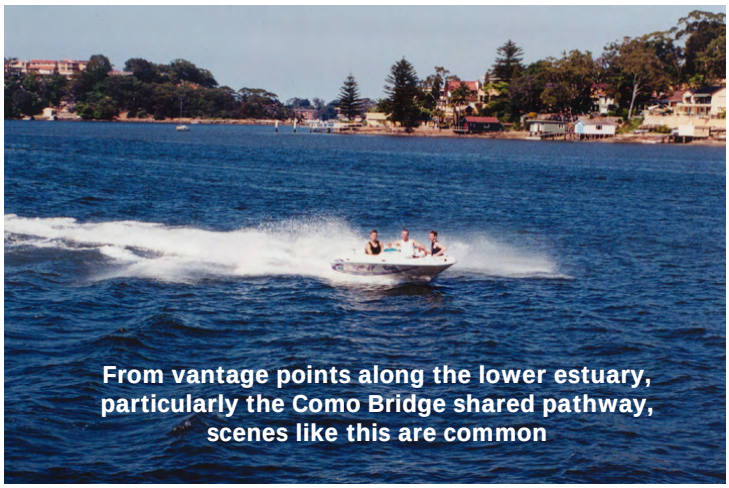
GEORGES RIVER WAY

LOWER REACHES

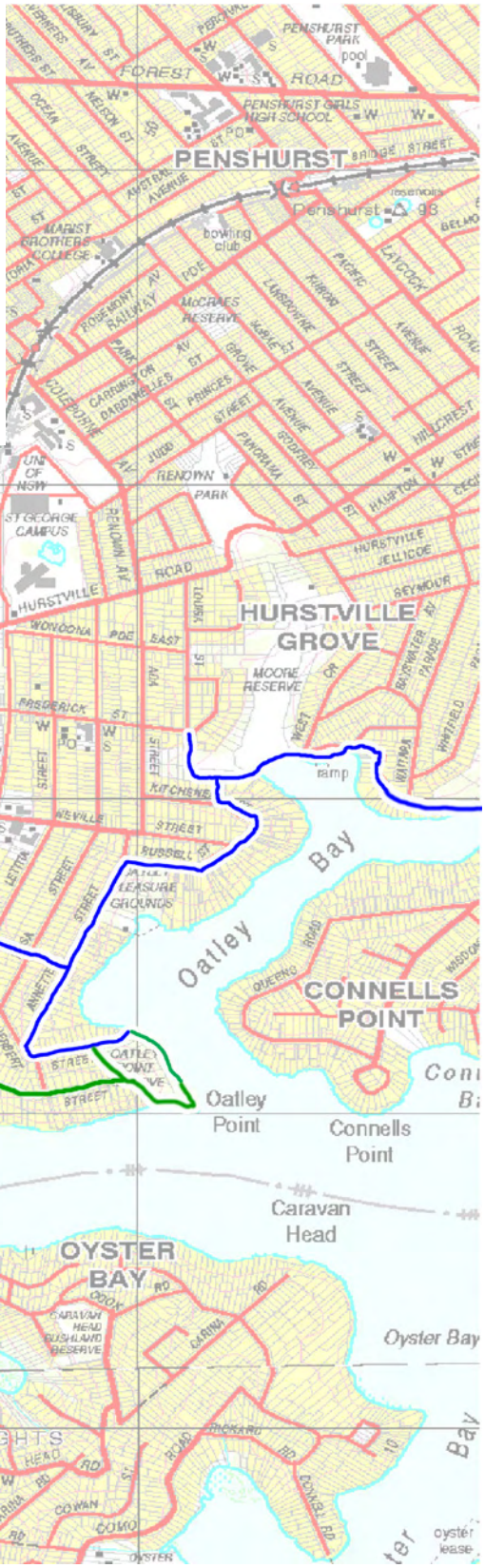
LGA(s) – KOGARAH

Sub-section	**Shipwrights Bay**	**GLR 3**
Start and finish	Carss Park / Poulton Park (Hurstville Grove)	
Distance	5.0 km	
Grade	2-3	
Main features	• Shipwrights Bay Reserve and Bald Face Point Reserve • Kyle Williams Recreational Reserve and Donnelly Park • Poulton Park	
Description	Route predominantly along street footpaths and potential on-road shoulder cycleways on quiet suburban streets (2.0 km). Walking tracks through Shipwrights Bay Reserve, Bald Face Pt Reserve and Kyle Williams Recreational Reserve (3.0 km). Links with mangrove boardwalk in Poulton Park. Potential shared use link from Carss Park along Beach Street, through Dover Park, Princess Highway, footpath under Tom Ugly's Point Bridge – linking to (potential) Shipwrights Bay walkway and Sutherland Shire routes.	
Opportunities and constraints	• Limited opportunities and prohibitive cost of increasing foreshore public access • Opportunities to improve access to existing foreshore reserves and maintain natural values • Shipwrights Bay Reserve - remnant foreshore bushland with good environmental/scenic values, bush regeneration required, great potential for bay wide natural walking track • Kyle Williams Recreational Reserve – good natural walking tracks through bushland – access points difficult to find/ no signs/ residents mowing grass into reserve • Legacy House • Kyle Bay Reserve and Donnelly Park – good resting/vantage points • No footpaths – East St/M Dodd Cr/Gold St/Waratah St/Terry St/Queens Rd • Redin Place Reserve - unclear access near houses/no signs to Poulton Park • Poulton Park – potential to restore natural creek, bush regeneration and improve walkway/cycleway networks • Connells Point – shows the impact of residential development on natural foreshore features	
Actions	▪ KCC – investigate potential of Shipwrights Bay Walk (Tom Ugly's Point/ Castle St) ▪ KCC/DIPNR – investigate damaged and unsafe cliff staircase in Shipwrights Bay Reserve (near Castle St) ▪ KCC – resolve Legacy House public access ▪ KCC/bush care groups – improve management of Kyle Williams Reserve – reverse residential privatisation of public land, Shipwrights Bay Reserve bush regeneration and community weed education ▪ KCC/RTA - Signs/ on-road shoulder cycleway marking/ bike barriers and lockups – clear signage of walking only trails	
Priority	B	
Estimat. cost	$40k	
Key stakeholders	KCC/RTA/bush care groups	

GLR4 – Oatley Bay



From vantage points along the lower estuary, particularly the Como Bridge shared pathway, scenes like this are common



GEORGES RIVER WAY

LOWER REACHES

LGA(s) – KOGARAH

Sub-section	**Oatley Bay**	**GLR 4**
Start and finish	Poulton Park (Hurstville Grove)/Como Cycleway/Oatley Parade Intersection (Oatley)	
Distance	3.5 km	
Grade	2-3	
Main features	• Moore Reserve • Oatley Pleasure Grounds • Oatley Point Reserve	
Description	Trail mostly follows footpaths and on-road cycleways along quiet suburban streets – shared use pathways through Moore Reserve and walking tracks through Oatley Point Reserve	
Opportunities and constraints	• Limited public foreshore access and prohibitive costs • Opportunities for minor land acquisition could emerge which could link fragmented foreshore reserves • High traffic speed along Morshead Drive • Unclear pathway link – Redin Place Reserve to Poulton Park/no single road crossing • Morshead Drive/Spalding Cresent - aged housing developers – building rubbish in public access-way • Moore Reserve – constructed wetland/ bush regeneration (GRFIP project) – educational opportunities • Oatley Pleasure Grounds – recent bush regeneration and stormwater management system installed • Oatley Point Reserve – good bushland tracks/ needs bicycle barriers and lockups/ improved signs – active bush care group	
Actions	▪ KCC – check building materials dumping Morshead Drive retirement complex development into public access way and (KCC/CVA) regenerate and upgrade this public access way ▪ KCC/RTA – review Moreshead Drive traffic speed management ▪ KCC/RTA - on-road cycling signs and marking ▪ KCC - Signs integrating Como Cycleway and GRW at Oatley Parade ▪ KCC - Bicycle barriers and lockups - Oatley Point Reserve ▪ KCC – plan Mortdale Railway Station/ Renown Park link ▪ KCC – investigate potential for Neverfail Bay Walking Track linking Como Bridge and Wyong Street ▪ KCC incorporate GRW into strategic planning documents pro actively seeking foreshore access opportunities	
Priority	B	
Estimated cost	$55k	
Key stakeholders	KCC/RTA/ bush care groups/Oatley Flora & Fauna Society	

Rationale:

Residential development in this section limits public foreshore access but the proposed route links the following foreshore parks: Poulton Park, Moore Reserve, Oatley Pleasure Grounds, Oatley Point Reserve and Myles Dunphy Bushland Reserve.

GLR5 – Lime Kiln Bay

View from Webster's Lookout Oatley Park

Rationale:

The proposed route follows quiet local streets, linking Myles Dunphy Bushland Reserve, Oatley Park, Gannons Park, Evatt Park, and Lime Kiln Bay pedestrian bridge, boardwalk and walking tracks. A spur links Edith Bay Reserve and Old Lugarno Ferry Wharf and Boardwalk[36].

[36] Under construction at the time of report writing.

GEORGES RIVER WAY

LOWER REACHES

LGA(s) – HURSTVILLE

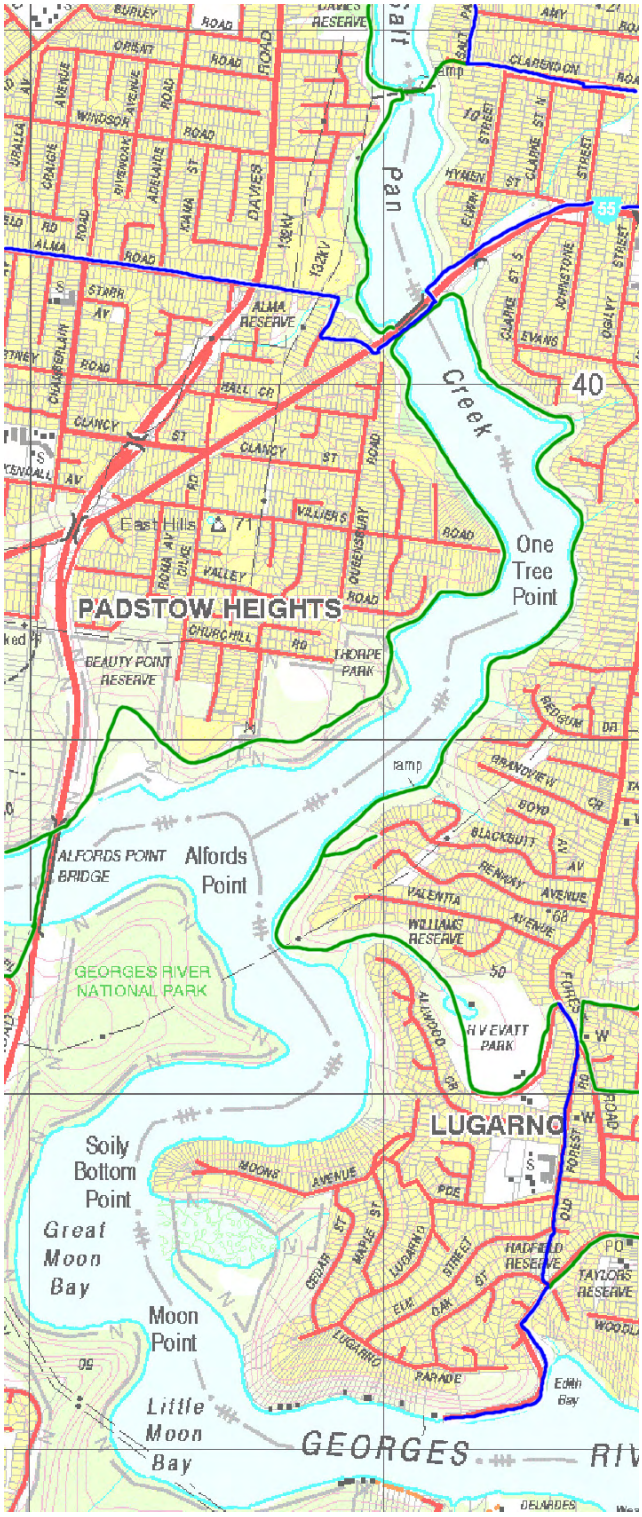
Sub-section	**Lime Kiln Bay**	**GLR 5**
Start and finish	Myles Dunphy Reserve (Oatley)/ Evatt Park (Lugarno)	
Distance	7.5 km (walking) 8.0 km (cycling) to Henry Lawson Drive	
Grade	2-3	
Main features	• Oatley Park • HV Evatt Park/ CF Williams Reserve/ Georges River National Park • Salt Pan Creek and Lime Kiln Bay • Gannons Park and Myles Dunphy Bushland Reserve	
Description	2.0 km on quiet suburban streets – 5.5 km through foreshore parklands – mostly good quality bush walking tracks	
Opportunities and constraints	• Myles Dunphy Bushland Reserve – lower park weed infestations require bush regeneration, old landfill erosion, track maintenance required • Oatley Flora and Fauna Conservation Society active - good remnant bush and regenerated areas • Oatley Park - 45 ha reserve (largest bushland area in St George region) – over 220 native plant species • Oatley Park Headland Nature Walk - great vantage and resting points and heritage items (Oatley Baths, Castle) • Some track erosion – east side and vandalism of facilities • Tidal baths – Oatley Swimming Club 1927 • Oatley Park – other management issues - mountain bikes erosion/weeds/rubbish/dogs and foxes • Lime Kiln Bay – recently completed HCC/GRFIP/EPA project – includes bridge/boardwalk/tracks – walking and cycling/bush regeneration/ pollution traps/constructed wetlands • Threatened plant community impacted during trail construction – due to inadequate consultation with community and bushcare groups • Boggeywell Creek – potential walking track link (Alsace Lane/View Street, Peakhurst) – opportunity to have several km continuous public foreshore access, subject to flora & fauna and archaeological assessments • Gannons Park – weeds, landfill leaching impacts need monitoring, no trail or signs in lower section of park • HV Evatt Park – good resting points and some educational signage	
Actions	• HCC – prepare Plans of Management – Oatley Park, Dunphy Reserve, Gannons Park, Evatt Park and Williams Reserve • HCC/CVA – repair eroded tracks Oatley Park • HCC - bicycle lockup facilities in Oatley and Evatt Parks • HCC - Gannons Park/ bush regeneration • Local bushcare group/GREA/HCC – investigate feasibility of Boggeywell Creek trail link in terms of sustainability • EPA – investigate Gannons Park landfill leaching • HCC – investigate potential for Gannons Park to relieve visitor pressure on Oatley Park, particularly activities such as cycling, etc • Local bushcare groups/TC – investigate setting up trail stewardship groups for this area • HCC/TC – improved community trail leaflets, web information and signs	
Priority	B	
Estimated cost	$75k	
Key stakeholders	HCC/bushcare groups/Oatley Flora & Fauna Society	

GLR6 – Salt Pan Creek - Lugarno

Salt Pan Creek Boardwalk

Lugarno Foreshore

Old Lugarno cottages on the waterfront



GEORGES RIVER WAY

LOWER REACHES

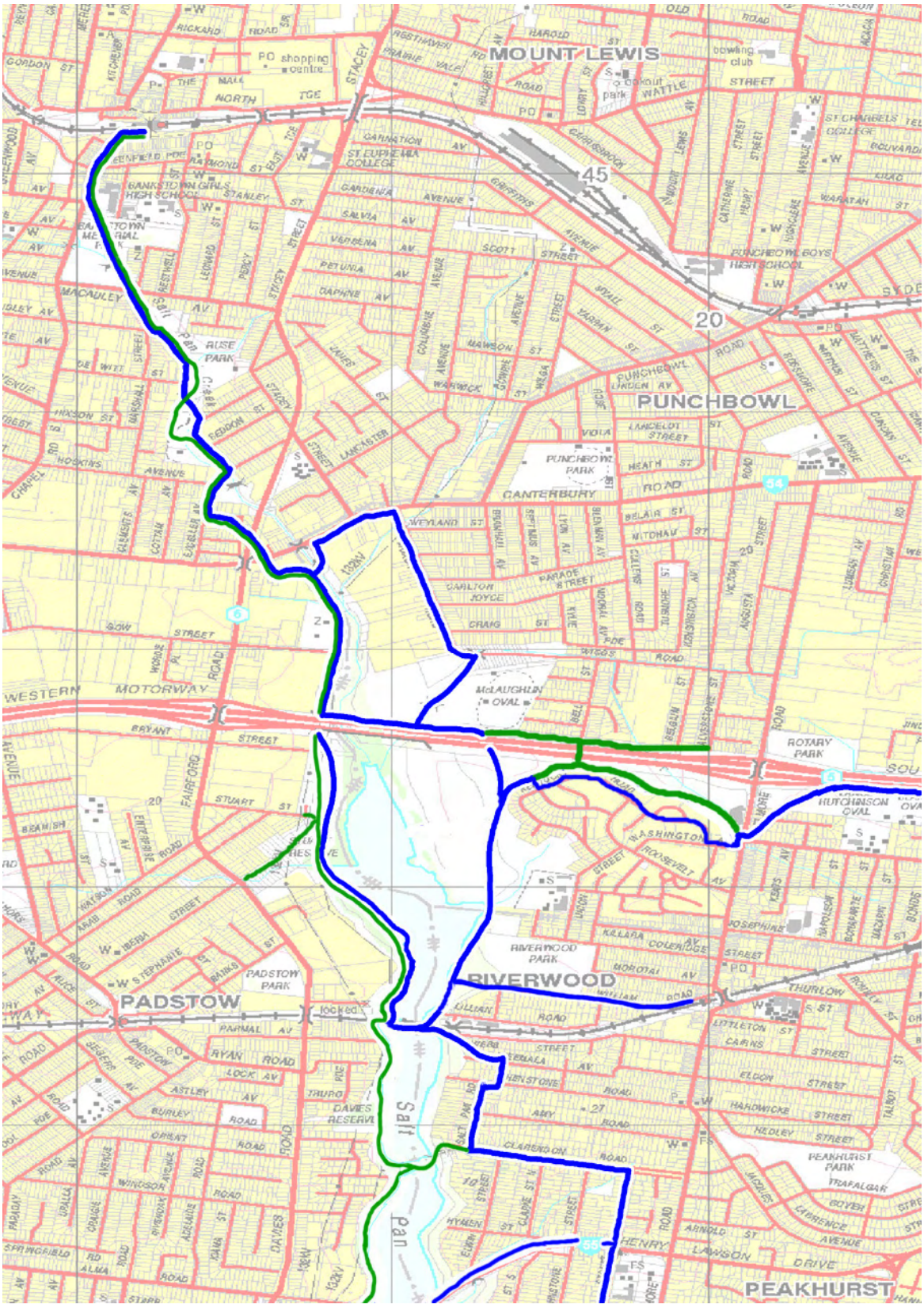
LGA(s) – HURSTVILLE

Sub-section	**Salt Pan Creek - Lugarno**	**GLR 6**
Start and finish	CF Williams Reserve (Lugarno)/ Henry Lawson Drive (Peakhurst)	
Distance	3.0 km (walking)	
Grade	2-3	
Main features	• Salt Pan Creek • Evatt Park Rainforest Walk • Salt Pan Creek Walk	
Description	Good bush tracks through HV Evatt Park/CF Williams Reserve	
Opportunities and constraints	• Evatt Park Rainforest Walk (1 km) – excellent natural bush walking track through Williams Reserve to Blackbutt Avenue and Murdock Cr – remnant open forest • Potential foreshore link – Murdock to Clarke Street • Cypress Drive to Charm Place – private land tenure prevents public access • Good pedestrian/cyclist link on Henry Lawson Drive Bridge to Padstow	
Actions	• HCC/DIPNR/TC – investigate feasibility of boardwalk option Cypress Avenue to Charm Place v HCC foreshore land acquisition (currently $2.4 M reserved to purchase land – residents resisting) • HCC/bush care groups/LPA/TC coordinate Lugarno/Peakhurst bush regeneration and design walking track – Murdock Cr to Henry Lawson Drive Bridge (1500m) • HCC/RTA - cycling route along Belmore Road – signed and marked – linking with Peakhurst West PS	
Priority	B	
Estimated cost	$20k	
Key stakeholders	HCC/DIPNR/Lugarno Progress Association	

Rationale:

The proposed route follows the Rainforest Walk from Evatt Park through CF Williams Reserve and along Salt Pan Creek foreshore. GLR 5 and GLR 6 allow for several kilometres of Georges River foreshore public access in the Hurstville LGA. The route follows a safe off road walking track linking with Bankstown trail system across the Henry Lawson Drive Bridge.

GLR7 – Salt Pan Creek – Canterbury



GEORGES RIVER WAY

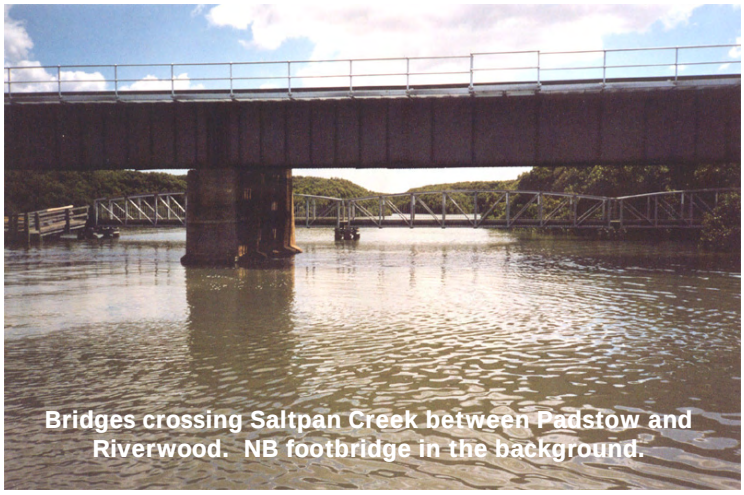
LOWER REACHES

LGA(s) – CANTERBURY HURSTVILLE

Sub-section	**Salt Pan Creek - Canterbury**	**GLR 7**
Start and finish	Henry Lawson Drive Footbridge (Peakhurst) / Henry Lawson Drive Bridge (Padstow Heights)	
Distance	6.0 km	
Grade	2	
Main features	• Salt Pan Reserve/Sporting Facilities • Salt Marshes • Riverwood Park	
Description	Potential shared use walkway/cycleway from Henry Lawson Drive Footbridge along Ogilvy Street North, Clarendon Road, Salt Pan Road, Webb Street, through Riverwood Park and Salt Pan Reserve, Moxon Road, Gow Street – connecting with exisiting Bankstown networks back to Henry Lawson Drive Bridge at Padstow Heights	
Opportunities and constraints	• Opportunity to integrate Canterbury walkway/cycleways with those of Bankstown and Hurstville – creating an integrated recreational network around Salt Pan Creek with increased usage	
Actions	• CCC/RTA/HCC – plan and construct trail network linking Hurstville, Canterbury and Bankstown LGA's	
Priority	B	
Estimated cost	$150k	
Key stakeholders	CCC/HCC/BUGs/Sports Clubs	

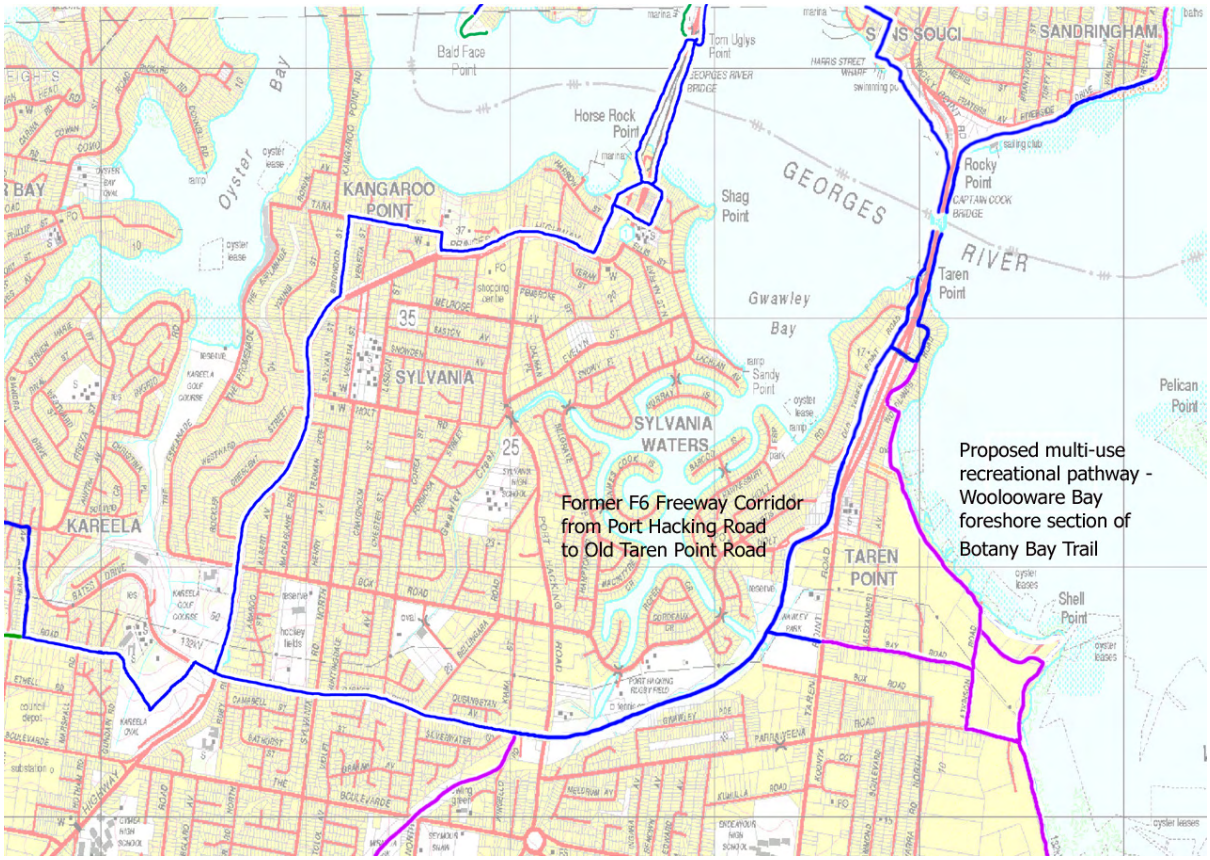
Rationale:

The proposed route links Canterbury, Bankstown and Hurstville local government areas and significantly improves the recreational opportunities of all three, potentially increasing the usage of the existing system. The route integrates well with existing Salt Pan Creek network of walkways and cycleways.



Bridges crossing Saltpan Creek between Padstow and Riverwood. NB footbridge in the background.

GLR8 – F6 Corridor



Footbridge connecting two sections of Garnet Road Miranda

Oyster channels colonised by mangroves. NB the modification of separation mound now used to form a BMX bike hump.

View northeast along F6 road reserve towards Garnet Road Miranda. NB the Nursery Green Houses straddling the entire width of the corridor.

GEORGES RIVER WAY

LOWER REACHES

LGA(s) – SUTHERLAND

Sub-section	**F6 Corridor**	**GLR 8** (does not connect to GLR7)
Start and finish	Captain Cook Bridge (Taren Point) / Kareela Oval (Princes Highway)	
Distance	4.5 km NB 4km from Kareela Oval to Georges River Bridge	
Grade	2	
Main features	• Gwawley Park • Sylvania Heights Reserve • Sporting Facilities (football, athletics, netball, hockey) • Sylvania Waters historic oyster channels	
Description	3.0 km along (former) F6 Freeway Corridor, 1.5 km on-road along Garnet Road shoulder	
Opportunities and constraints	• F6 Corridor is the subject of a NSWTransport study to consider options for "active transport", including shared use pathway • Associated landscaping and bush regeneration have the potential to contribute SSC's Greenweb Program (protecting core bushland habitats through linkages, corridors and buffers) • Gwawley Park/Sylvania Waters – opportunities for mangrove wetlands and remnant saltmarsh habitat restoration, also interpretation of historic oyster farming channels ("clairs") • Salt Marsh is an endangered ecological community – sensitive route planning required, including boardwalk solutions • Link with existing cycleway along Princess Highway (Georges River Bridge/ Waterfall) via Garnet Road, but no safe crossing at present over Port Hacking Road • Several existing businesses affected by F6 corridor proposals including 2 nurseries, 1 caravan park and a golf course	
Actions	▪ Department of Transport/SSC master plan and construct shared use walkway/cycleway along F6 Corridor ▪ SSC and RTA consider options for pedestrian bridge or pelican crossing at intersection of Port Hacking Road and Paraweena Road • SSC sign intersections at Captain Cook Bridge and Princes Highway	
Priority	B	
Estimated cost	$480k + Pedestrian Bridge	
Key stakeholders	SSC/RTA/Department of Transport	

Rationale:
This route benefits the community by utilising the former F6 Road Corridor for active transport and recreation. It advances Sutherland Shire Council's Greenweb strategies and provides for a 3km, safe, off-road pathway, linking several sporting facilities, recreation reserves and generating opportunities for environmental improvement projects.

Threatened Species: Salt Marsh near Gwawley Park. →

GLR9 – Oyster Bay

Historic Como Hotel c1886 reopened in 2001 after a fire

GEORGES RIVER WAY

LOWER REACHES

LGA(s) – SUTHERLAND

Sub-section	**Oyster Bay**	**GLR 9**
Start and finish	Kirrawee Sports Fields / Como Pleasure Grounds (Como)	
Distance	4.5 km	
Grade	2-3	
Main features	• Como Pleasure Grounds • Oyster Gully Creek • Carina Bay Reserve	
Description	On-road walkway/cycleway along Garnet Road, Anemone Place, Carvers Road, Carina Bay Reserve, Cremona Road to Como Pleasure Grounds	
Opportunities and constraints	• Como Pleasure Grounds – heritage and scenic values being restored under SSC/GRFIP project • Possible boardwalk under Como Bridge (Stage 2) • Potential to link with planned Como Heritage and Environment Trail (5.5 km) – part of the Woronora River Way • Potential to link with Como Bridge walkway/cycleway to Oatley • Oyster Gully Creek – potential link along walking tracks through Greenweb Corridor to Jannali and Kirrawee and improved focus for bush regeneration and creek restoration	
Actions	• SSC and the community to decide on route alignments approximately following Garnet Road, Carvers Road, Carina Bay Reserve and Cremona Road • SSC - sign trail intersections/upgrade bicycle parking facilities • SSC to consider future bushcare management plan for Oyster Creek Gully incorporating upgraded walking track system	
Priority	B	
Estimated cost	$95k	
Key stakeholders	SSC/Bush Care Groups	

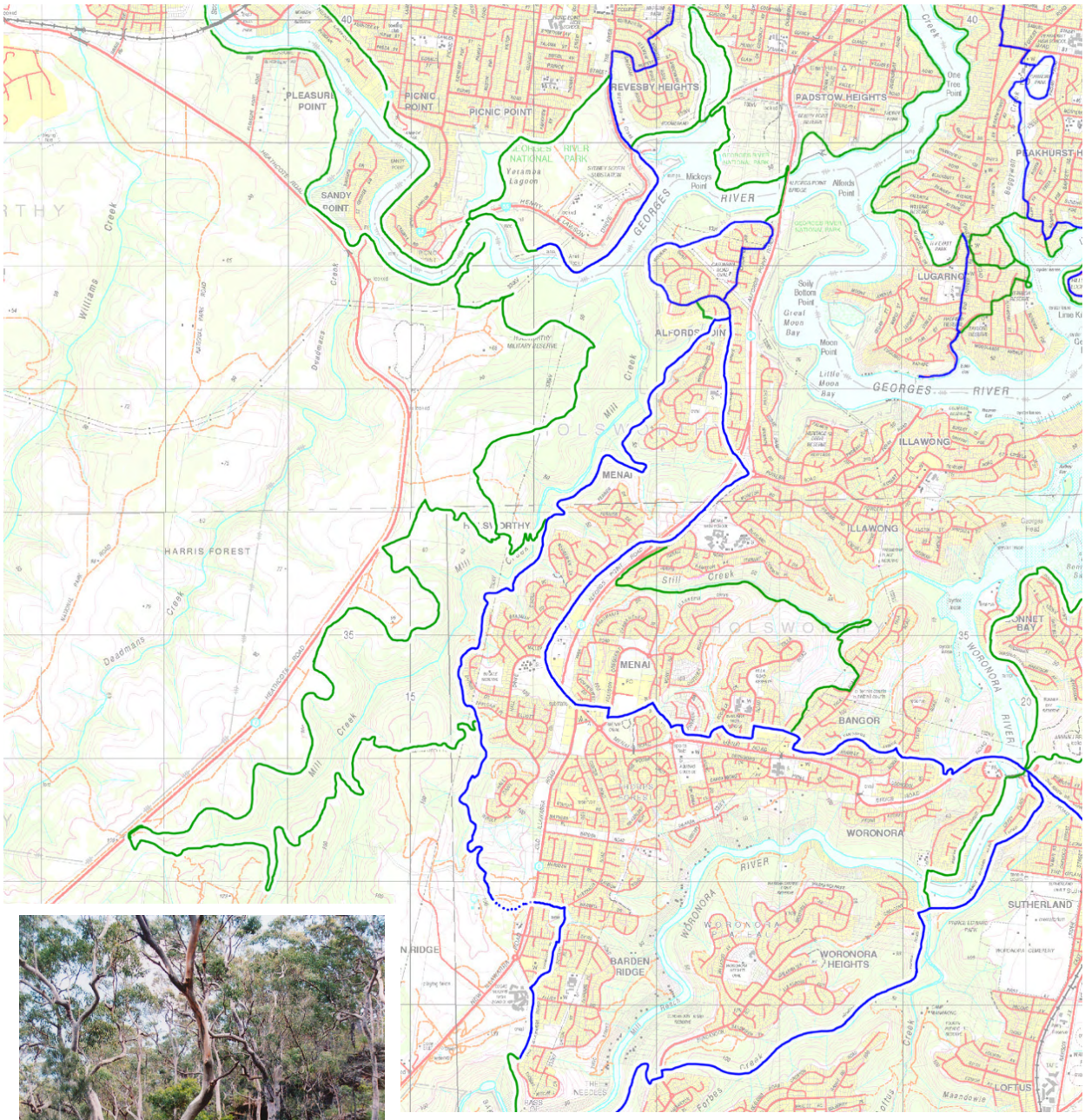
Rationale:

The proposed route follows quiet, local streets and reserves, maximising safety and easy grades as well as connecting three schools. The route is necessarily circuitous to avoid the Bates Drive which is steep and lacks road verges to accommodate pedestrian/cycle access between Oyster Creek and Box Road.

Several walking only links provide shortcuts through steep bushland reserves unsuitable for cyclists.

Bates Drive between Oyster Creek and Box Road. This is the most direct route, but it has no roadside facility for safe pedestrian and bicycle use. →

GLR10 – Mill Creek/ Rock Wallaby



Rationale:

The proposed route follows existing fire trails, utility easements and long established bush walking tracks, with only one recommended short section (250 m) of new track that follows animal tracks and natural contours, avoiding salt marshes.

The proposed route through Federal Government land links Sandy Point community to West Menai's Burnum Burnum Nature Trail.

← High Conservation Value bushland Mill Creek

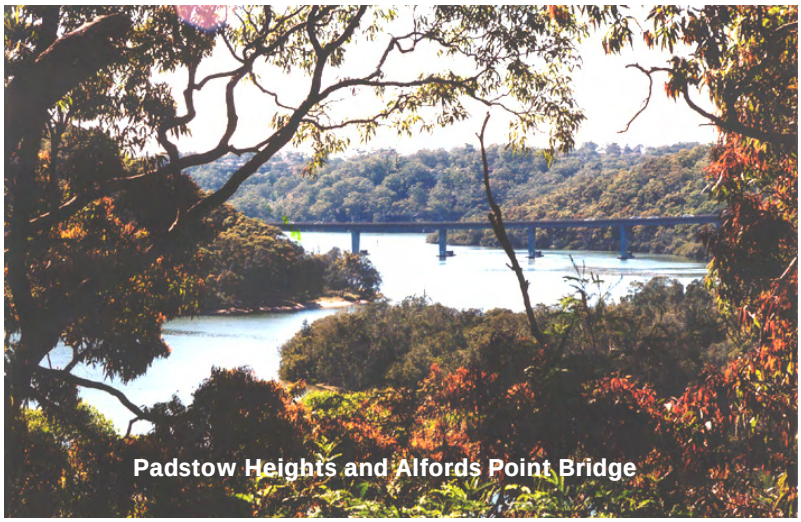
GEORGES RIVER WAY

LOWER REACHES

LGA(s) – SUTHERLAND

Sub-section	**Mill Creek/ Rock Wallaby**	**GLR 10**
Start & finish	Mill Creek (West Menai) / Sandy Point Community Centre	
Distance	5.0 km	
Grade	3-4	
Main features	• Federal government land – Mill Creek to Sandy Point • Mill Creek, weir and heritage mill site • Gandangara Land Council land • Bushland vantage points towards GR National Park	
Description	Mill Creek/Rock Wallaby is a rough walking track linking the old mill site on Mill Creek with Sandy Point Community Centre – the track follows fire trails, electricity line easements, heritage and even animal tracks. Near Sandy Point, tracks are well formed and popular with locals – Mill Creek area is relatively inaccessible and tracks are degraded. The route crosses into land owned by Gandangara Local Aboriginal Land Council.	
Opportunities and constraints	• Mill Creek Federal land – (formerly Department of Defence) rugged remnant bushland with environmental, scenic, cultural and heritage values – complimenting those of the Georges River National Park on opposite (Bankstown) foreshore • Great diversity of flora, pristine salt-marshes, mangroves, sandstone cliffs and caves, potentially of aboriginal heritage • Cars and rubbish dumped in a few areas only • Four wheel drive vehicles and trail bikes – causing serious track erosion problems – and on Gandangarra Lands – severe erosion and vegetation and habitat loss including sedimentation impacting on health of Mill Creek and Georges River • All fire trails dangerous for walkers due to (illegal) trial bike activity • Lucas Heights tip at headwaters of Mlil Creek a possible source of contaminants and turbidity	
Actions	• DIPNR/ SSC / Gandangarra LALC / DFA – establish task force to prepare EMP for Gandangarra/ Mill Creek and Quarry lands – immediate policing of four wheel drive and trail bike regulations • Restrict access with steel fencing along Heathcote Road / community education campaign • GLALC / SSC – investigate access to a restricted area for off road vehicles • Federal Government – transfer Mill Creek lands to NSW NPWS for inclusion in the GR National Park (or GR SCA) • NPWS/ SPPA / TC – plan walking track from Sandy Point Community Centre to Mill Creek to link with Burnum Burnum (West Menai) Nature Trail • DIPNR/ GLALC /SSC / Bush Care Groups – urgently commence bush regeneration and clean up project on GLALC land	
Priority	A	
Estimated cost	$600k	
Key stakeholders	Federal Government (DFA) / SSC / SPPA / DIPNR / GLALL / NPWS / NPA	

GMR1 – Padstow Heights



Padstow Heights and Alfords Point Bridge

GEORGES RIVER WAY

MIDDLE REACHES

LGA(s) – BANKSTOWN

Sub-section	**Padstow Heights**	**GMR 1**
Start and finish	Henry Lawson Drive - Salt Pan Bridge / Little Salt Pan Creek (Padstow Heights)	
Distance	3.5 km walking 1.5 km cycling	
Grade	2-3	
Main features	• Georges River National Park • Salt Pan Creek	
Description	(Walking route) - pedestrian bridge over Salt Pan Creek, walking track along foreshore to One Tree Point – possible boardwalk or track through to GR National Park, under Alfords Point Bridge and around Mickeys Point (Cycling route) – Salt Pan Bridge down steps to boardwalk (cyclists demount), into Alma Road and Mars Street, footbridge across Virginus Reserve – access to reserve and The River Road to GR National Park	
Opportunities and constraints	• Completion of this sub-section provides opportunity for several kilometres of continuous foreshore tracks from Lugarno to Lambeth Reserve in Bankstown LGA • Better access to the excellent scenic and environmental values of GR National Park • Potential for improved Park management with more resources – litter clean ups, repair of eroded tracks, educational signs, restrictions on illegal off road vehicles	
Actions	• DIPNR/BCC/TC - resolve access problems at One Tree Point – State land acquisition and/or boardwalk option • BCC – plan and construct rout from Henry Lawson Drive to GR National Park (800m) • NPWS – plan and construct walking track Valley Road to Little Salt Pan Creek (2.6km) • RTA – keep park access gates (on Alfords Point Road) locked to restrict illegal off road vehicle access • BCC – sign on-road shoulder cycleway along Alma Road and Mars Street	
Priority	B	
Estimated cost	$175k	
Key stakeholders	BCC/ NPWS/ DIPNR / TC	

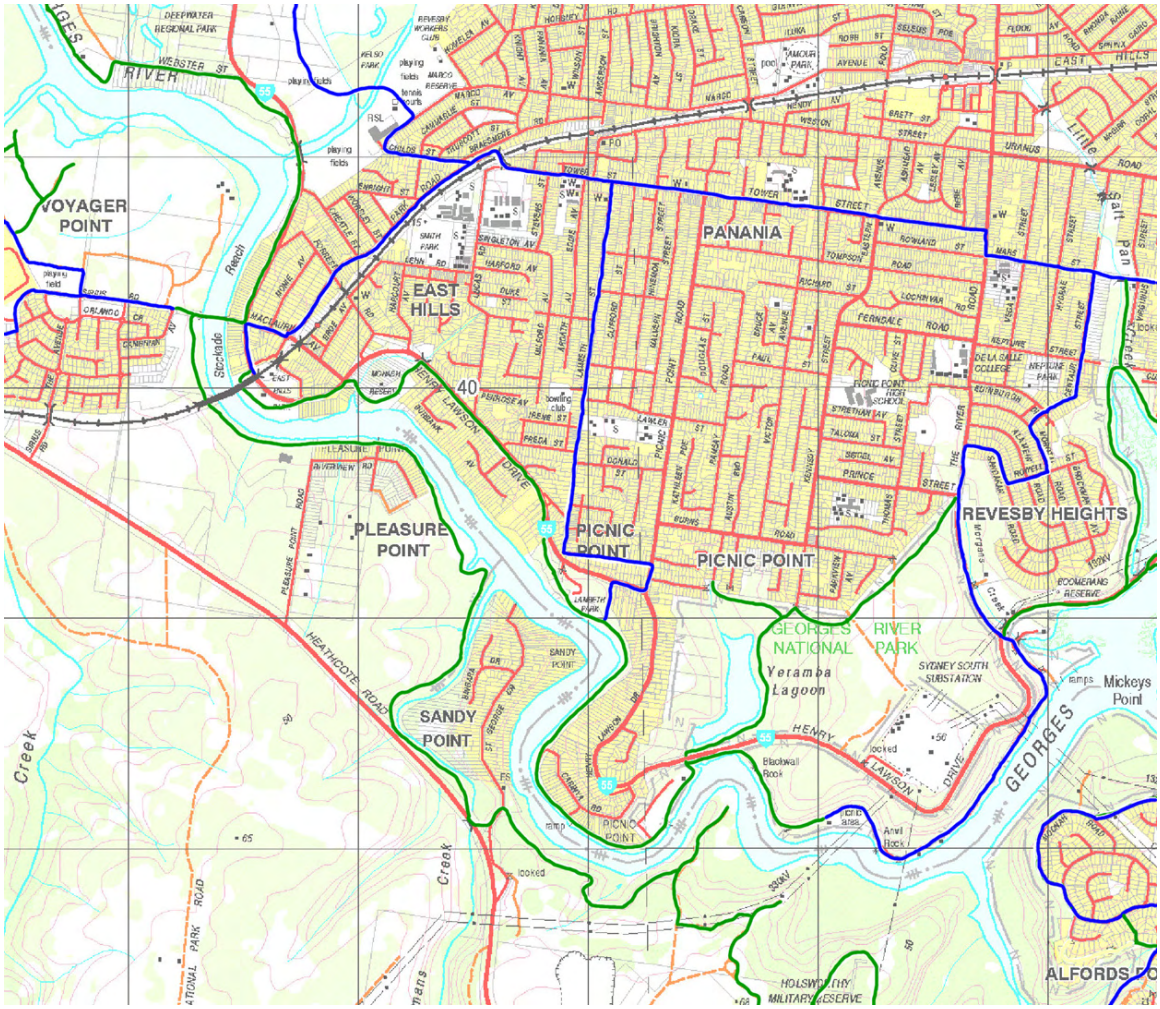
Rationale:

This walking route follows Georges River foreshores through Georges River National Park with its excellent scenic and natural beauty, improving public foreshore access and appreciation, additional signs and track maintenance.

The route links with the existing Salt Pan boardwalk system and Picnic Point Regional Accessway project. Walkers can cross Alfords Point Bridge to Sutherland.

The cycling route avoids dangerous Henry Lawson Drive from Salt Pan Creek to Little Salt Pan Creek tracks, following quiet local streets with spurs linking to various points of interest on the Georges River.

GMR2 – Picnic Point



The varied appeal of Georges River National Park

Rationale:

The walking route follows existing tracks through the Georges River National Park and tracks and boardwalk through Picnic Point Reserve and Lambeth Reserve. This subsection has over 5km of continuous foreshore access, through areas with high scenic and environmental values (8.5km when linked to Padstow Heights subsection).

The cycling route avoids dangerous Henry Lawson Drive, follows local streets and links with East Hills Park and footbridge to Voyager Point.