STRATHFIELD COUNCIL

MASON PARK
PLAN OF MANAGEMENT


JUNE 2008

PARKLAND ENVIRONMENTAL PLANNERS

pod landscape architecture

Sainty and Associates

Avifauna Research & Services Pty. Ltd.

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PLAN OF MANAGEMENT

JUNE 2008

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This plan was adopted at the meeting of Strathfield Council on May 6 2008 following minor amendments to the draft Plan of Management and following Council's resolution 84/08.

Executive Summary

Introduction

This Plan of Management has been prepared to guide Strathfield Council, as owner of community land and Trust Manager of Crown land, in the future management of Mason Park.

This Plan of Management satisfies the requirements for content and process in preparing a Plan of Management under the *Crown Lands Act 1989* and *Local Government Act 1993.*

Review of the previous Plan of Management

This Plan of Management reviews, updates and replaces the previous Plan of Management for Mason Park that was prepared in 2000.

Preparation of this Plan of Management involved consultation with stakeholders (government, user groups, and residents). The Draft Plan of Management will be placed on public exhibition for community comment in early 2008.

This Plan of Management does not recommend any significant changes in permitted uses or management direction. However, it does recommend management actions aimed at meeting current demands of park users, and highlighting the Park's local and district significance.

Significance

Mason Park is significant because it:

- ❒ includes an internationally and locally significant saltmarsh.
- ❒ is a valuable habitat for local and migratory bird species, and is subject to the provisions of treaties with Japan and China. Some birds fly from as far as China, Japan, Siberia and Alaska to arrive at Mason Park Wetland during spring and summer.
- ❒ is listed on the Register of the National Estate (wetland).
- ❒ links with Sydney Olympic Park and Strathfield.
- ❒ includes a sporting field complex.

Current status

<table>
<tr><td>Site Name</td><td colspan="3">Mason Park and Mason Park Wetlands</td></tr>
<tr><td>Address</td><td colspan="3">Underwood Road, Homebush</td></tr>
<tr><td>Adjacent landuses</td><td colspan="3">Powells Creek stormwater channel, Powells Creek Reserve and residences to the east, Energy Australia sub-station and former Sydney Water sewer pumping station to the south, light industrial / commercial development to the west, Bressington Park and Sydney Olympic Park to the north.</td></tr>
<tr><td rowspan="4">Land parcels</td><td>Community land</td><td>Metropolitan Water Sewage & Drainage Board</td><td>Crown land</td></tr>
<tr><td>Lot 1 DP176625</td><td rowspan="3">Lot 1 DP943418</td><td rowspan="3">Lot and DP unknown</td></tr>
<tr><td>Lot 1 DP752023</td></tr>
<tr><td>Lot 1 DP129388</td></tr>
</table>

Area (ha)	12 hectares	
Ownership	Crown (25%), Strathfield Council (70%) Metropolitan Water Sewage and Drainage Board (5%)	
Manager	Reserve Trust; Strathfield Council	
Community land categorisation	Sportsground, Natural Area – Wetland, Community land	
Public purpose(s) of Crown land	Public Reserve and Drainage	
Zoning	6(a) Open Space – Recreation Existing	
Catchment	District	
Physical characteristics	Sporting fields, wetland, children's playground, amenities building, carpark, mature trees.	
Flora and fauna	Wetland – Mangroves, Coastal Saltmarsh communities, Casuarinas etc. comprising park landscaping. Migratory birds, such as Curlew Sandpiper (population in serious decline), Pacific Golden Plover, Sharp-tailed Sandpiper, Lathams Snipe. Introduced species – foxes.	
Visual elements	A central band of dense vegetation separates the sporting zone from the wetland area. The edges of the park are well vegetated, providing screening to Underwood Road and Bressington Park. The wetland is diverse with views internally to the mangroves, wetlands and mudflats, with abundant birdlife, and glimpses across Powells Creek to the parkland corridor. A large expanse of open grassed fields is contained by dense native planting at the edges of the park.	
Access	Pedestrian, bicycle, vehicle, bus. Vehicle entry off Underwood Road. Pedestrian / cycle linkages to Sydney Olympic Park, Concord West and North Strathfield.	
Assets and condition	Sporting fields – very good Amenities block / kiosk - good Children's play equipment – very good Carpark – poor	Lighting – very good Paths – very good Seating - good
Recent changes	Reconstruction of the playing fields, involving extensive re-levelling, installation of irrigation, and returfing of the field in 2005. Installation of rainwater tanks in 2006 to assist in catching water from the roof of the amenities block and using it to irrigate the sportsfields Upgrade of the playground in 2000, and addition of a shade sail in 2003-04. Upgrading of sportsfield lighting to meet the Australian standard for sport training (2005). Installation of seating overlooking the sports fields. A new bridge linking Mason Park to Concord West over Powells Creek. Landscaping in the carpark.	
Existing uses	Sport: soccer, cricket, Oztag, school sport Walking, jogging, cycling Informal games, children's play, birdwatching, nature appreciation, picnics	
Leases/ licenses/ bookings	Seasonal hire agreements with sporting groups.	
Maintenance	Rubbish removal, lawn maintenance, garden and tree maintenance, building maintenance, inspecting play equipment, bush regeneration, wetland monitoring.	
Income and expenditure	Income = $33,421.16(2006-07); Expenditure = Working expenses $40,611.26 (2006-07); Cost recovery = - 71%(2006-07) additional project costs 2006-07 approx $500,000.	
Easements	Electricity Australia cables, sewer line	

Basis for Management

Mason Park comprises Crown reserves and community land owned by Strathfield Council, so the provisions of the *Crown Lands Act 1989* and *Local Government Act 1993* apply. Other key relevant legislation includes the Strathfield Planning Scheme Ordinance under the *Environmental Planning and Assessment Act 1979.* Other legislation such as the Threatened Species Conservation Act, Environment Protection and Biodiversity Conservation Act, Companion Animals Act and Disability Discrimination Act apply to management of the Park.

The community land is categorised as Sportsground and Natural Area – Wetland, with those categories also being applied to the Crown land for consistent management. The Public Purpose of the Crown land is Community land, Public Recreation and Drainage

The local planning framework is governed by Council's Management Plan, the Strathfield Planning Scheme Ordinance, and various Development Control Plans. Council's strategic plans such as the Management Plan and the Strathfield Vision 2020, and planning projects for the Powells Creek corridor also influence planning and management of the Park.

Community values of the Park are related to:

- ❒ Ecology
- ❒ Environmental awareness
- ❒ Pedestrian and cycle linkages
- ❒ Recreation opportunity
- ❒ Image and visual quality
- ❒ Community involvement

The vision for the Park is:

Mason Park will be a quality field sporting complex adjacent to an internationally significant and healthy wetland both linked by regional pedestrian and cycle paths to Sydney Olympic Park, Strathfield, and Concord. Mason Park will be a model for ecologically sustainable development and water sensitive urban design practices.

The future roles of the park are:

"The wetlands park"

- ❒ Natural environment heritage
- ❒ Environmental education in an 'outdoor classroom'
- ❒ Destination as part of the Homebush Bay and Powells Creek open space system
- ❒ Field sporting venue for structured recreation
- ❒ Casual recreation
- ❒ Pedestrian and cycle linkages
- ❒ Gateway to Strathfield local government area
- ❒ Visual relief

❒

Issues

A number of issues were identified through preparation of this Plan of Management:

Value	Issues
Ecology	Tidal influence, water quality, monitoring of shorebirds, site contamination, weeds and undesirable plants, rare and restricted saltmarsh species, invertebrates, disturbance of shorebirds and their habitat, mosquitoes, funding of maintenance works.
Environmental awareness	Education and interpretation, awareness of significant environmental resource
Pedestrian / cyclist linkages	Links to adjoining open space, pedestrian access from Underwood Road, internal linkages, pedestrian / cyclist conflicts, pedestrian amenity, bridges
Recreation opportunity	Layout of playing fields, quality of the playing field surface, unstructured sporting activities, commercial use, access and carpark, overflow parking and other uses, shade, lighting, waste disposal, amenities building, playground development, safety of playground, informal recreation facilities
Image and visual quality	Gateway to the park, planting, green links to the Powells Creek corridor, power lines
Community involvement	Community involvement
Management	Strategic partnerships, treaty obligations

These issues are addressed in the Action Plan.

Actions

Key future actions and changes to the Park include:

- ❒ install an additional inlet to the wetland.
- ❒ formalise the carpark with water sensitive urban design initiatives.
- ❒ provide informal recreational facilities, such as picnic tables and seating.

This Plan of Management has been prepared with a series of Action Plans linked to the values. Strategies, actions, priorities, responsibilities, costs, and performance measurement are outlined, which will be incorporated into budgets and work programs.

Short-term or urgent actions are to:

- ❒ install an additional inlet to the wetland.
- ❒ formalise the carpark.
- ❒ increase vegetation and quality of the wetland.

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Acknowledgements

The consultants particularly wish to thank the following people who contributed towards the preparation of this Plan of Management.

Strathfield Council

Rob Bourke	Director Operations
Bernadette Murray	Natural Resources Officer and Project Manager
Geoff Swinney	A/Manager Parks
Andrew Wright	Recreation Planner
Cathy Jones	Policy and Projects Officer
Jeanie Muspratt	Environmental Projects Officer

Department of Lands

Ian Ferguson	Senior Environmental Officer – Land Management
Ed Bateman	Departmental Officer – Land Management

Sydney Olympic Park Authority

Kerry Darcovich
Judy Harrington
Swapan Paul

We would particularly like to thank all members of the community who attended the community meeting and/or made a submission.

1 INTRODUCTION

1.1 What is a Plan of Management?

A Plan of Management is a document that identifies issues affecting public open space, and outlines how that open space is intended to be used, improved, maintained and managed in the future.

1.2 Background to this Plan of Management

There are four significant parks in Strathfield – Mason Park, Strathfield Park, Airey Park, and Bressington Park. These parks are considered significant because each park is relatively large (greater than five hectares), they attract residents from the entire Strathfield local government area and beyond, and are important in defining the image of Strathfield.

Plans of Management were prepared for Mason, Strathfield and Airey Parks in 1996, which were reviewed and updated by Parkland Environmental Planners and CD Recreation Services in 1999-2000. A separate Plan of Management for Bressington Park was prepared in 1999, which is also currently being updated. Since that time, substantial changes have occurred in those parks, and in the planning and management context of the parks.

Physical and usage changes in Mason Park include:

- upgrading the playground in 2000, and addition of a shade sail in 2003-04.
- upgrading the sportsfield lighting to meet the Australian standard for sport training in 2005.
- reconstructing the playing fields, involving extensive re-levelling, installation of irrigation, and returfing of the field in 2005-06.
- installing rainwater tanks in 2006 to assist in catching water from the roof of the amenities block and using it to irrigate the sportsfields.
- landscaping in the carpark in 2006.
- installing seating overlooking the sports fields.
- constructing a new bridge linking Mason Park to Concord West over Powells Creek.. This will occur in the 2008/ 2009 financial year

Recent management and policy changes include:

- preparation of Council's policy documents that inform the planning and management of parks, such as the Strathfield Recreation, Cultural Facilities and Community Needs Study (2006), and the Strathfield Vision 2020 (2005).
- a greater emphasis on approaches that are now at the forefront of parks management, such as adapting water use in parks according to water restrictions, Ecologically Sustainable Development (ESD), Water Sensitive Urban Design (WSUD), better managing the carrying capacity of sporting fields, and Crime Prevention Through Environmental Design (CPTED).

Strathfield Council is reviewing and updating the strategies and actions in the current Plans of Management to bring them up to date, and to plan for the future of the three parks. Separate Plans of Management are being prepared for each park.

Strathfield Council commissioned Parkland Environmental Planners, POD Landscape Architecture, Sainty and Associates and Avifauna Research and Services in July 2007 to prepare this Plan of Management for Mason Park.

It is not intended that this Plan of Management recommends any significant changes in permitted uses or management direction for Mason Park. It does, however, recommend management actions aimed at conserving significant natural values, meeting current and future demands of park users, and highlighting the park's significance in a local and district context.

1.3 Land to which this Plan of Management applies

This Plan of Management applies to Mason Park, which is approximately 12 hectares in area (7 hectares of wetland, 5 hectares of recreational area).

Land within the Park is owned by the Crown (40%) and Strathfield Council (60%). Consequently, this Plan of Management has been prepared in accordance with the requirements of the *Crown Lands Act 1989* and the *Local Government Act 1993*.

Key features of Mason Park include:

- an internationally significant wetland that attracts migratory birds from the Northern Hemisphere.
- pedestrian / cycle linkages along Powells Creek to Sydney Olympic Park, Concord West and North Strathfield.
- a sporting field complex.
- a children's playground.

1.4 Objectives of this Plan of Management

Objectives of this Plan of Management for Mason Park are to:

- establish a sound and balanced approach to the management of Mason Park, while providing a flexible framework within which Council can respond to current needs and opportunities, as well as to future directions and pressures as demands on the Park change.
- establish a framework to guide day-to-day and long-term decision-making regarding the use and management of the park.
- identify important features of the land and any buildings or improvements.
- meet legislative requirements for the preparation of Plans of Management for Crown land and community land.
- be consistent with Council's Management Plan (2007), the Recreation, Cultural Facilities and Community Needs Study (2006), the Strathfield Vision 2020 (2005) and other Council strategies, plans and policies.

- conserve natural values.
- cater for the diverse recreation needs of the local community in an efficient and effective way.
- reflect the values and expectations of the local Strathfield and wider community and other users for future use and enjoyment of the Park.
- integrate and accommodate the needs of Council (as managers), residents (as neighbours and users), and current and future users of the park.
- outline how Council will manage the land.
- incorporate ecologically sustainable development (ESD) and other management principles.
- review, update and develop new detailed management strategies and actions.
- address and outline actions to resolve ongoing management issues.
- outline planned future projects.
- outline a consistent approach to facilitate carrying out proposed improvements.
- present a concept plan that illustrates the actions required to implement proposed physical changes and improvements to the Park.
- specify how the land and buildings may be used.

1.5 Process of preparing this Plan of Management

The process of preparing this Plan of Management, consultations with the community, and documents produced at each stage, are shown in **Figure 1.1**.

1.5.1 Crown Lands Act

The process required by the Department of Lands under Sections 112 to 115 of the *Crown Lands Act 1989* and the *Crown Lands Regulation 2006* for preparing a Plan of Management applying to Crown land is to:

- prepare a draft Plan of Management (Section 112 of the Act). The Minister may cause or direct a draft Plan of Management to be prepared; or a Reserve Trust may, with the Minister's consent, prepare a draft Plan of Management for the reserve.
- refer the draft Plan of Management to the Department of Lands for comment before the public exhibition (Section 112 of the Act).
- place a public notice in the NSW Government Gazette and in local newspapers advising the public of the public exhibition (Section 113 of the Act, Clause 35 of the Regulation)
- exhibit the draft Plan of Management to the public for not less than 28 days to allow for submissions to be made to Council.
- refer public submissions and any comments submitted by other government agencies regarding the draft Plan of Management to the Minister for Lands and Council as Trust Manager for review.
- make any alterations to the Plan of Management as required by the Minister as a result of public submissions under Section 114 of the *Crown Lands Act 1989*.
- Council to adopt the Plan of Management.

Figure 1.1 Process of preparing this Plan of Management

CONSULTATIONS	STUDY TASKS	OUTPUTS
Meeting with Council's Project Manager Site inspections	**INCEPTION**	
Review background reports, plans, 2000 Plan of Management Meetings with Council staff	**REVIEW BACKGROUND INFORMATION**	
Consultation with government (Dept. of Lands, Sydney Olympic Park Authority) Consultation with neighbours (Sydney Water, Energy Australia, City of Canada Bay Council) Letters to sporting and other user groups, schools, community groups Letterbox drop to local residents Notices in local newspapers Community meeting 27 September 2007	**CONSULTATIONS**	
Review by Dept. of Lands and Council staff	**PREPARE DRAFT PLAN OF MANAGEMENT**	Draft Plan of Management Report to Council
	COUNCIL RESOLUTION / DEPARTMENT OF LANDS APPROVAL	
Letters to stakeholders and community groups Notices placed in NSW Government Gazette and local newspapers Documents and plans on display at Council's administration centre and libraries, and on Council's website	**PUBLIC EXHIBITION for 42 days in March/ April 2008**	Written submissions to Council
	CONSIDER SUBMISSIONS	
	PREPARE FINAL PLAN OF MANAGEMENT	
Resolution by Strathfield Council Adoption by Minister for Lands	**ADOPTION**	Plan of Management for Mason Park
	IMPLEMENTATION	

- submit the Plan to the Minister with a recommendation for adoption under Section 114 of the *Crown Lands Act 1989*. However, this Plan of Management will not be adopted by the Minister.
- "carry out and give effect to" the Plan of Management pursuant to Section 114 of the Crown Lands Act 1989. The Reserve Trust may not allow any operations (activities, uses and developments) that are not in accordance with the Plan of Management.

1.5.2 Local Government Act

The *Local Government Act 1993* requires that draft Plans of Management are placed on public exhibition for a minimum of 28 days, with a further 14 days allowed for written comments.

1.5.3 Community consultation

Council began the community consultation process in September 2007 through a letterbox drop to surrounding residents, user groups and key stakeholders. The letterbox drop provided users with the opportunity to comment on park management, future improvements, and feedback. Council also invited the community to attend a presentation and information session on Mason Park in September 2007. Feedback received during the consultation phase assisted in developing the action plan.

The Draft Plan of Management for Mason Park was placed on public exhibition for viewing for 28 days from 5 March 2008 to 4 April 2008. Submissions were received for a further 14 days until 16 April 2008. Council received two submissions regarding Mason Park during the public exhibition. These submissions were considered, and appropriate changes were made to the Plan of Management. As these amendments were considered minor and not substantial, Council was not required to re-exhibit the amended draft Plan of Management.

1.6 What is included in this Plan of Management?

This Plan of Management is divided into the following sections, as outlined in **Table 1.1**.

Table 1.1 Structure of this Plan of Management

Section		What does it include?
1	Introduction	Background to the Plan of Management
2	Description of Mason Park	History, facilities, uses, physical description, maintenance
3	Planning context	State government planning legislation, local planning context
4	Values, roles and objectives for Mason Park	Values of the community and users, vision, roles, management objectives
5	Action Plan	Concept plan, desired outcomes, actions required to implement management strategies
6	Implementation and review	Leases and licences, permitted future uses and developments, reporting, review and implementation
	Appendices	Additional information, including results of the community consultation, and background information regarding saltmarsh management and shorebirds.

Requirements of the Local Government Act for the contents of a Plan of Management, and where they can be found in this Plan, are listed in **Table 1.2**.

Table 1.2 Contents of a Plan of Management for community land

Requirement of the Local Government Act	How this plan satisfies the Act
A description of the condition of the land, and of any buildings or other improvements on the land as at the date of adoption of the Plan of Management	Section 2
A description of the use of the land and any such buildings or improvements as at the date of adoption of the Plan of Management.	Section 2
Categorisation of community land	Section 3
Core objectives for management of the land.	Section 3
The purposes for which the land, and any such buildings or improvements, will be permitted to be used.	Sections 3, 6
The purposes for which any further development of the land will be permitted, whether under lease or licence or otherwise.	Sections 3, 6
A description of the scale and intensity of any permitted use or development.	Section 6
Authorisation of leases, licences or other estates over community land.	Section 6
Performance targets.	Section 5
A means for assessing achievement of objectives and performance targets.	Section 5

The objectives of the Crown Lands Act in Section 10 and the principles of Crown land management in Section 11 of the Act ensure that Crown land is managed for the benefit of the people of NSW. This Plan of Management has been prepared according to the requirements of Part 5 Division 6 – Plans of Management of the *Crown Lands Act 1989*. A Plan of Management will satisfy the *Crown Lands Act 1989* if the points in **Table 1.3** are addressed.

Table 1.3 Contents of a Plan of Management consistent with the Crown Lands Act

A Plan of Management satisfies the Crown Lands Act if:	How this plan satisfies the Act
The objects of the Act (Section 10) are included.	Section 3
The Plan of Management and its outcomes incorporate and satisfy the principles of Crown land management (Section 11).	Section 3
Any proposed uses, developments and management practices recommended in the Plan of Management must be ancillary to or supportive of the public purpose for the reserved or dedicated land, and with any policies of the Department of Lands applying to Crown reserves (Section 87).	Section 5
The role and functions of the Reserve Trust (Sections 92-95).	Section 3
Provisions of the Act for sale, lease, or mortgage of Crown land, or granting an easement or a licence are outlined (Section 102).	Section 6
Uses for which temporary licences may be granted (Section 108) are outlined.	Section 6
Requirements for referral of draft plans (Section 113) are met.	Section 1
The Plan of Management is prepared by the Reserve Trust under Section 112 of the Act.	The Plan of Management is prepared by Strathfield Council as Trust Manager of Crown Land in Mason Park under Section 48 of the Crown Lands Act.
The Plan of Management must address any matters required by the Minister responsible for Crown lands (Section 112).	No such requirements have been received by the Minister.

Table 1.3 Contents of a Plan of Management consistent with the Crown Lands Act (cont.)

A Plan of Management satisfies the Crown Lands Act if:	How this plan satisfies the Act
If the Reserve Trust proposes that a reserve is to be used for an additional purpose (Section 112), the draft plan must specify or deal with these matters: ❒ the condition of the reserve, and any buildings or other improvements on the reserve. ❒ existing use of the reserve, and of any buildings or other improvements on the reserve. ❒ the nature and scale of the proposed additional purpose. ❒ the nature, scale and term of any lease, licence or other arrangement that is intended to be granted or entered into in relation to the additional purpose. ❒ any submissions made in relation to the draft plan as a result of the consultation process and public exhibition requirements under Section 113.	No additional purposes are proposed.
The requirements of reports by Reserve Trusts are outlined (Section 122, and Clause 32 of the *Crown Lands Regulation 2006*).	Section 6

2 DESCRIPTION OF MASON PARK

2.1 Location and context

Figure 2.1 shows the location of Mason Park.

Figure 2.1 Location and context of Mason Park

Mason Park is located on Underwood Road in Homebush. The park lies in an irregular triangle formed by the arms of two canalised creeks Saleyards Creek and Powells Creek, which flow into Homebush Bay. Mason Park is separated from the adjoining Bressington Park to the north by Saleyards Creek. Powells Creek forms the eastern boundary of the park and is also the boundary between Strathfield and City of Canada Bay Councils. Powells Creek Reserve in the City of Canada Bay and Sydney Olympic Park lie to the north. Homebush Bay Drive separates Mason and Bressington Parks from Bicentennial Park within Sydney Olympic Park.

Other surrounding land uses are an Energy Australia depot and former Sydney Water low-level sewage pumping station to the south, residential development to the south-west, and industrial/ commercial land to the west. Residential development in the City of Canada Bay adjoins Powells Creek to the east.

Mason Park forms part of the regional Ryde to Botany Bay Cycleway, and the Bay to Bay Walk between Homebush and Botany Bay.

Two distinct zones comprise Mason Park:

- a wetland comprising saltmarsh, rush swamp, mangrove forests and a small freshwater pond.
- a recreational area consisting of lit playing fields with a landscaped perimeter, a car park, amenities block and children's playground.

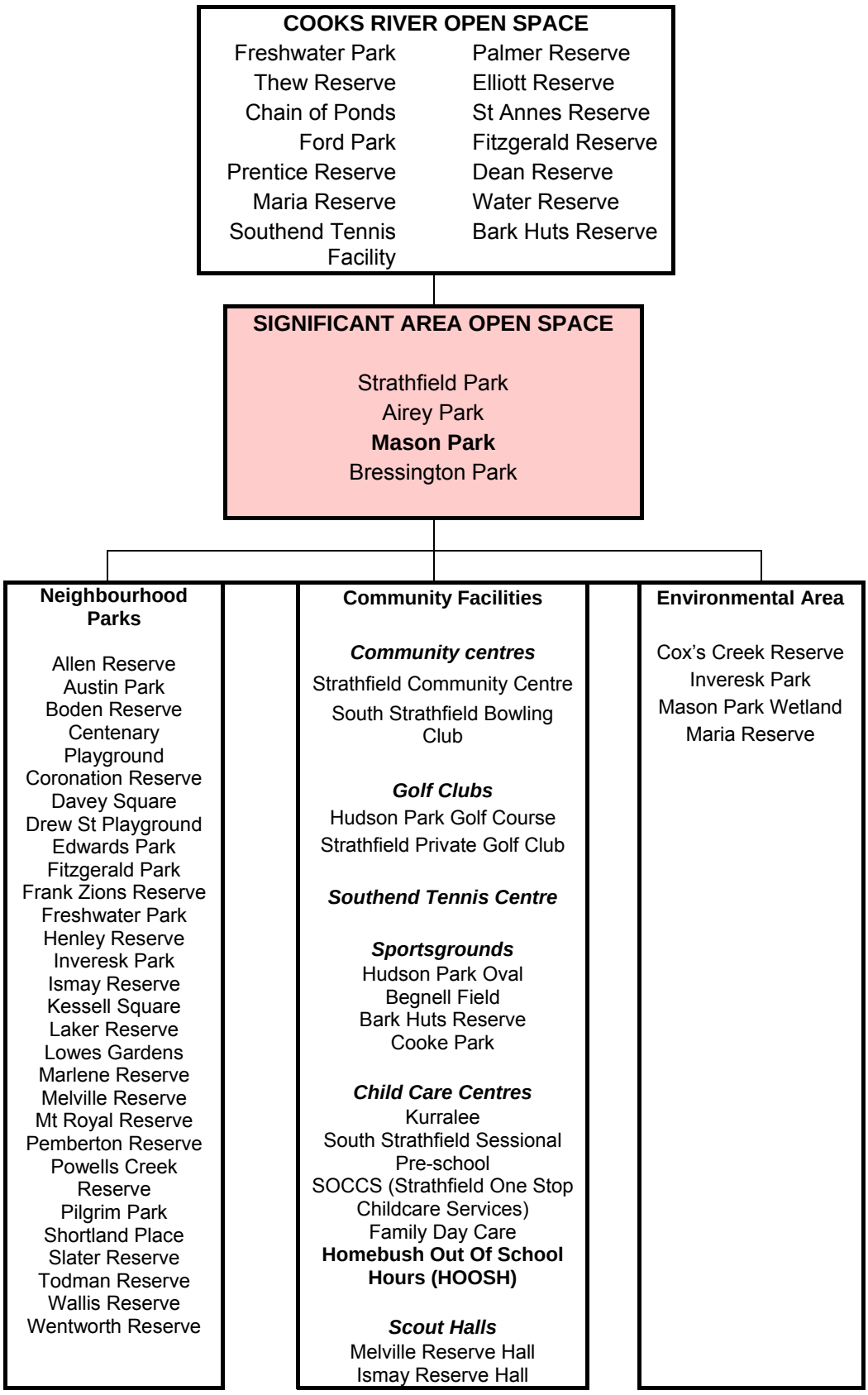
2.2 Significance of Mason Park

Mason Park is one of four significant parks in Strathfield local government area, together with Airey, Strathfield and Bressington Parks. **Figure 2.2** shows the hierarchy of parks in the local government area.

Mason Park is particularly significant because the wetland is listed on the Register of the National Estate. The Statement of Significance for the Mason Park Wetland on the Register of the National Estate (1998) is:

> The wetlands of Mason Park are one of eight significant remnant wetlands (Ermington Bay / Mud Flats, Meadowbank Park Foreshore, Yaralla Bay, Majors Bay, Homebush Bay, Lower Duck River and Haslams Creek) which were once part of an extensive wetland system bordering the Parramatta River. Mangroves of the Parramatta River area represent a significant proportion of the mangroves remaining in the Sydney region.

Figure 2.2 Hierarchy of open space in Strathfield



The saltmarsh communities of the place are significant due to their high proportion of chenopod species which is unusual in southern NSW. Mason Park supports one of the largest remaining populations of *Wilsonia backhousei* and the restricted saltmarsh species *Lampranthus tegens* (Small Pig Face).

The remnant wetlands of the Upper Parramatta River provide habitat for a diverse bird community, and have been ranked sixth in importance for waders in NSW. The place is of significance for migratory waders, providing habitat for 20 species listed in the Japan Australia Migratory Bird Agreement (JAMBA) and 19 species in the China Australia Migratory Bird Agreement (CAMBA). Two species which occur in the area – the Little Tern (*Sterna albifrons*) and the Black Tailed Godwit (*Limosa limosa*) are listed under Schedule 12 (Endangered Fauna) of the NSW *National Parks and Wildlife Act 1974*. The remnant wetlands support one of the two Sydney colonies of the White Fronted Chat (*Ephthianura albifrons*) and contribute habit for one of the largest populations of Chestnut Teal (*Anas castanea*) in NSW. The remnant wetlands are an important research site for environmental studies.

Mason Park has been identified as one of the most important wetlands for migratory shorebirds in the Sydney region, despite its small size.

2.3 Land ownership and management

2.3.1 Introduction

The ownership and management of the 5 parcels of land that comprise Mason Park are shown in **Figure 2.3** and detailed in **Table 2.1**.

Table 2.1 Ownership and management of Mason Park

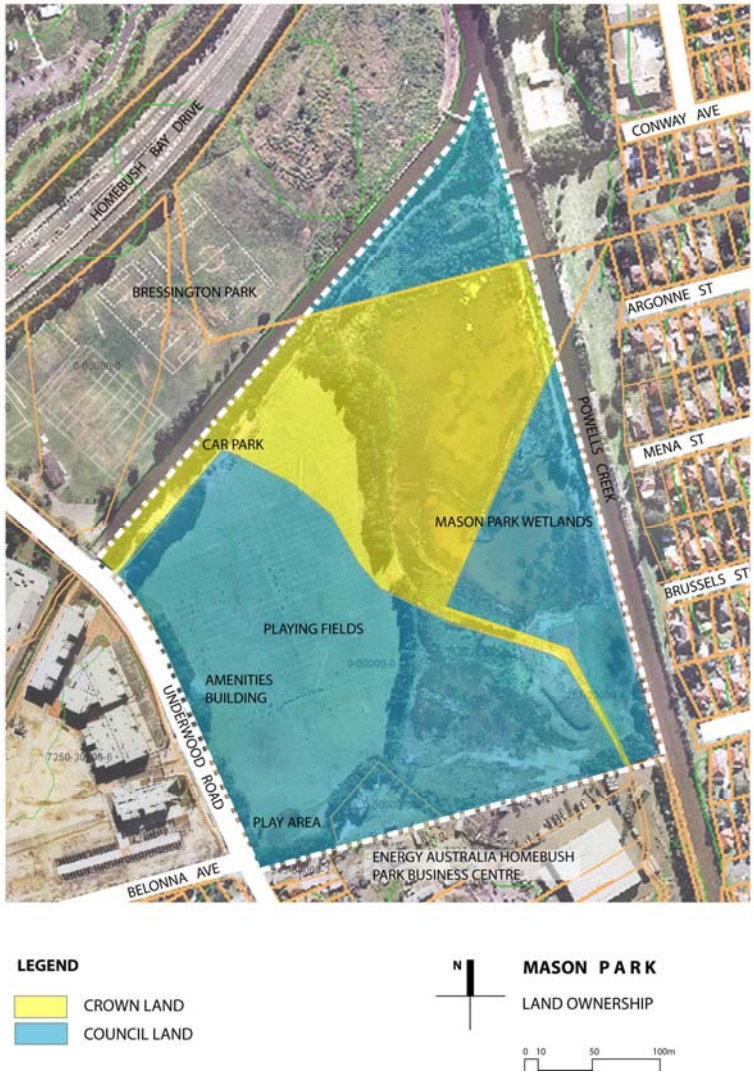
	Lot 1 DP 943418	**Lot 1 DP 176625**	**Lot 1 DP129388**	**Lot 1 DP752023**	**Lot 1 N/A**
Features	Energy Australia	Sportsfield , Mason Park	Mason Park Wetland, cycleway & Powells Creek	Mason Park Wetland. Bressington Park	Crown land, Mason Park Wetland
Owner	Sydney Water	SMC	SMC	SMC	Dept Lands
Manager	Energy Australia	SMC	SMC	SMC	SMC
Zoning	6(a) Open Space – Recreation Existing				
Public Purpose	Public recreation, Drainage, Significant habitat.				
Leases	none				
Easement	Electricity purposes	Stormwater channel Electricity purposes	Sewer lines Electricity purposes	Stormwater channel	N/A

Parcels of land within Mason Park are either:

- ❒ community land owned by Strathfield Municipal Council (SMC).
- ❒ Crown land reserved for Public Recreation and Drainage, for which Strathfield Council is responsible for care, control and management.
- ❒ Land owned by the Metropolitan Water Sewage and Drainage Board (Sydney Water).

Therefore, for the purposes of this Plan of Management, the *Local Government Act 1993* and the *Crown Lands Act 1989* apply.

Figure 2.3 Ownership of land in Mason Park



2.3.2 Crown land

Mason Park is in the Parish of Concord, County of Cumberland.

The minority (25%) of Mason Park is owned by the Crown. There is one parcel of Crown land in Mason Park as shown in **Table 2.1**.

The Powells Creek Reserve Trust (D500330) is the trustee of the Crown Reserves in Mason Park pursuant to the provisions of the *Crown Lands Act 1989*. Strathfield Council manages the affairs of the Trust consistent with Section 95 of that Act.

2.3.3 Community land

About 70% of Mason Park is land owned in fee simple by Strathfield Council, which is classified as community land under the *Local Government Act 1993.* All land classified as community land must be managed in accordance with the *Local Government Act 1993*. Strathfield Council manages community land in the Strathfield local government area.

2.3.4 Leases and licences in Mason Park

There are no current leases or licences applying to Mason Park.

Mason Park is used by a range of sporting clubs under seasonal hire agreements.

2.4 History and cultural heritage

2.4.1 Indigenous history

The Strathfield local government area was once inhabited by the Wangal clan of the Darug tribe, who spoke the coastal Eora dialect of the Darug language.

The Strathfield area once supported eucalypt forests with an understorey of native grasses, as well as areas of dense scrub.

There are no known remaining relics of Aboriginal occupation in Strathfield, nor any burial sites discovered. It is believed those that this is mainly due to the geology of the area as there are no large flat areas of sandstone, or rock shelters.

2.4.2 Non-indigenous history

Historical events

The history of Mason Park is documented in various books and reports (refer to the reference list). A summary of historical events is in **Table 2.2**.

Table 2.2 Events in the non-indigenous history of Mason Park

Year	Event
1788	Homebush Bay was first explored soon after the arrival of the First Fleet.
1793	The area was first settled when land grants were made to the first immigrant free settlers including Edward Powell, after whom Powells Creek is named, and D'Arcy Wentworth. Wentworth arrived with Second Fleet in 1790 as ship's surgeon on the *Neptune*. Wentworth became principal surgeon and chief magistrate in the colony, and received a grant of 920 acres at the head of the present Homebush Bay, which he called 'Home Bush'.
1826	Landfilling and reclamation of marsh and wetlands began.

Table 2.2 Events in the non-indigenous history of Mason Park

Year	Event
1839-1840	'Home Bush' was leased to Louisa Meredith, an illustrator and writer, who had migrated from England with her husband Charles. She published her observations in 'Notes and Sketches of New South Wales' during a residence in the colony from 1839 to 1844. At Homebush she described may of the animals on the estate including dingoes, flying foxes, native cats and birds such as robins, swallows, whip birds, bellbirds, larks, quail, ducks and snipe. She noted the fish and crabs of the Homebush wetlands and the mangroves, which held great appeal as 'the mangrove … grew very luxuriantly on the brink of the salt-water all along the embankments.'
1841	Wentworth developed an interest in horse breeding, importing horses from India and South Africa. Wentworth's son, William Charles Wentworth (one of the three Blue Mountains explorers) shared his father's interest in turf racing. William Wentworth agreed to lay down a course, fence enclosures and build a stand for a new racecourse on the cleared land of the Homebush estate located on the present Ismay Avenue. A special ferry was established for race days along the Sydney to Parramatta route.
1859-1860	The racecourse operated until 1859, and in 1860 moved to Randwick. The old course continued as a training ground, and later became a Chinese market garden.
1883-1890	After transfer of ownership of the 'Homebush' estate to William's son Fitzwilliam, subdivision of the estate commenced. Part of the land near Parramatta Road was sold, but most of the state remained unoccupied by 1890 as sales were slow, the land remained owned by the Wentworth's.
1891	A survey was conducted to investigate the possible re-positioning of the shoreline, and a sea wall was erected on the western part of Homebush Bay.
1907	367 hectares of the 'Homebush' estate were sold to the NSW Department of Public Works for the State Abattoirs.
1906	The area of Mason Park came under the control of the former Homebush Council in 1906.
1920s	The area of Mason Park at this stage includes the current Mason and Bressington Parks. The land area is named Mason Park after Albert Mason, a former Mayor of Homebush Council (which amalgamated with Strathfield Council in 1947). Mason was also chief electrician of the Arnott's Biscuit Factory in George Street, Homebush.
1920s	Homebush Council uses Mason Park and mangrove 'swamp land' for garbage tipping for household waste from local residents.
1929	Homebush Council signs a 21 year agreement with William Arnott Ltd to deposit 'certain refuse resulting from manufacture namely useless metal containers and other metal refuse' in the area known as Mason Park. Damaged and unusable biscuit tins returned to the Homebush factory were combined with ash from the factory's engine room and used to fill the swamp land and reclaim it is usable land.
1937	The Metropolitan Water and Sewerage Board (now Sydney Water) canalised Saleyards and Powells Creeks.
1930s-1970s	Mason Park is used as garbage tip. Waste is used to reclaim 'mangrove swamp lands'. Strathfield Council by agreement with Homebush Council uses Mason Park as tipping site, paying waste attendant.
1944	Mason Park operates as a football ground.
1947	Homebush Council amalgamates with Strathfield Council. Mason Park is now managed by Strathfield Council.
c.late 1940s	Strathfield Council decides to divide the large area of Mason Park into two smaller parks: Mason and Bressington Parks. Bressington Park is the area north of Saleyards Creek. Mason Park is reduced in size.
1961	Planning Survey of Strathfield notes that Mason Park has 4 Concrete Wickets, 1 Rugby League field, playground equipment, dressing sheds and toilets.
1970s	Mason Park was under the control of Strathfield Council. Despite many people protesting regarding dumping of rubbish in the Mason Park swamps, Strathfield Council considered using the area as a tip with the agreement of the Metropolitan Waste Disposal Authority. At the same time, academics and the community petitioned Strathfield Council to preserve the marshland as a feeding and rest area for birds.

Table 2.2 Events in the non-indigenous history of Mason Park (cont.)

Year	Event
1976	Senator Mulvihill raised the preservation of the Mason Park Wetland in the Commonwealth Senate on 23 May, stating that Australia was a signatory to the International Wet Lands Convention (1971) and the Migratory Bird Treaty (1974) with Japan. As the then Prime Minister Malcolm Fraser was visiting Japan, he needed to demonstrate that the treaty was being observed. Macquarie University and Sydney University provided assistance in formulating studies to preserve and improve the wetlands.
	After considerable community and political agitation, Strathfield Council resolved to preserve the Mason Park Wetlands, and substantial work has been done to reverse the damage and restore the habitat of the wetlands.
1987	Major construction work to raise the bund wall of Saleyards Creek effectively cut the wetland off from tidal flow. A small drop log weir was constructed at the northern end of the wetland to allow tidal water to reach the wetland, but it was ineffective.
1998	Strathfield Council installed a drop board weir to increase tidal flushing of the wetland from Powells Creek, and removed fill from the wetland edges which have been planted and mulched.

Source: Jones (2004, 2005)

2.5 Physical characteristics

2.5.1 Climate

Mason Park is located between two meteorological stations at Sydney Observatory Hill and Parramatta. Sydney has a more temperate climate than Parramatta, with temperatures higher in summer and colder in winter in Parramatta. Rainfall and average wind speeds are higher closer to the coast in Sydney compared to Parramatta. Taking an approximate average of Sydney and Parramatta meteorological data, Mason Park would experience:

- mean daily maximum summer temperature of 27^0C.
- mean daily minimum temperature in winter of $7\text{-}8^0$C.
- mean annual rainfall of approximately 1,100 mm.
- 10-11 wet days per month.
- mean wind speed at 9am of 9-10 km/hour.

The mature tree plantings provide a variety of sheltered spaces at the edges of the park. Such planting has created a diverse range of microclimates with shaded areas, open sunny spaces and areas protected from winds. The buffer of trees between the sports fields and the wetland protect the wetland from westerly winds. The majority of the recreation area of the park is open and exposed, with a lack of shade and shelter.

2.5.3 Landform, soils and drainage

Landform and topography

The park is a highly altered landform due to the history as a landfill site over the estuarine mudflats. The park edges along the creeks have been filled and formalised into drainage channels. The topography is relatively gentle and flat, draining from Underwood Road in the south, towards Powells Creek.

Geology and soils

Strathfield is on the eastern slopes of the Sydney Cumberland Plain, which stretches westward from Richmond in the north to Picton in the south. The area is characterised by gently undulating topography with clay soils from the Wianamatta Shale typical of the inner west and southern suburbs of Sydney (Benson and Howell, pp. 9, 67).

Mason Park is located on the floodplain of Powells Creek. The natural soils are predominantly silt and clay sized alluvium derived from sedimentary parent material of Triassic origin, particularly the Wianamatta Group shales. Sections of the park also include disturbed terrain comprising artificial fill of dredged estuarine sand and mud, demolition rubble, waste materials, rock and local soil material. It is a highly contaminated site, with parts containing unknown contaminants given that fill was dumped there at a time when there was no policing of movement of material from demolition and industry.

Wetland soils often naturally contain large amounts of iron sulfides, which are harmless in the soil under waterlogged conditions. If the soil dries out, oxygen reacts with the iron sulfide to produce sulfuric acid which is very harmful to most plants. Water running off from highly acid soils are also harmful to fish and aquatic organisms. Acid sulfate soils occur towards the middle to end of the saltmarsh in Mason Park which is infrequently flushed.

Hydrology and drainage

Strathfield LGA lies at the meeting of the Sydney Harbour Catchment to the north and the Cooks River catchments to the south. Mason Park is located within the Saleyards Creek and Powells Creek catchments, which forms part of the Sydney Harbour Catchment. Powells Creek drains through Homebush Bay to the Parramatta River.Sporting fields

Rainwater tanks for irrigation of the sporting fields have been installed in Mason Park. Water saving practices were used when re-constructing the sportsfields, including:

- reuse of rainwater from the amenities building for irrigation of the sportsground.
- use of specially formulated soil to hold water and prevent water runoff.
- design of the playing fields directing any excess water runoff into the landscaped garden beds and eventually Mason Park Wetland rather than using artificial drains to the stormwater system. This strategy prevents nutrients from entering the wetlands, which have experienced algal blooms from nutrient-laden water.

Wetland

Tidal flushing

Before European settlement, the Mason Park area was bisected by a creek, probably lined with mangroves. Outside the line of mangroves were extensive areas of saltmarsh.

Most of the environmental issues now facing the wetland are related to altered hydrology. A semi-natural wetland and a completely altered water regime have resulted from:

- extensive reclamation and landfilling.
- conversion of natural creeklines which once fed the wetlands into concrete channels.

- disturbance associated with maintenance work in Saleyard Creek causing increased input of fresh water.
- sewer construction.
- dumping of rubble on the north-east margins of the wetland.

When saltmarsh areas were isolated from normal tidal inundation, fluctuations in salinity levels occurred during rains.

Now, there are 5 hydrologically distinct basins in the wetland, some of which are connected during flooding. Tidal and stormwater influxes to the wetland have reduced. Movement of water into the wetland has been progressively restricted by mangroves that trap sediment around their trunks and pneumatophores.

Tidal flushing is important for:

- productivity of the estuarine wetland.
- increasing water movement through the system.
- promoting soil conditions that saltmarsh species require to thrive.
- providing a pathway for marine life between the estuary and Mason Park resulting in re-establishment of invertebrates and fish.

In 1998 Strathfield Council installed a single-vent dropboard weir inlet at the north-east corner of the wetland to reinstate tidal flow and flushing of the wetland from Powells Creek. Water entering the wetland is kept there for extended periods by placing boards in the weir. Benefits of the weir include a better water bird habitat, and reduction in the production of acid sulfate soils, and more neutral soil acidity. However retaining water in a saltmarsh prevents the free movement of nekton (free-swimming animals) into the estuary.

The two northern basins are shallowly flooded at tides above about 1.7 metres. The southern half of the saltmarsh (brackish marsh and saline pond) is protected by a low earth bund and receives no flooding from the highest king tides (2.1 metres). As a result, the southern basin does not receive enough water and frequently dries out, resulting in actual and potential acid sulfate soils. The area near the electricity stanchion is above the current king tides, but would have been flooded during the recorded highest tide of 2.4 metres in 1974. The swale adjacent to the southern Energy Australia boundary receives some tidal flooding during ‘king tides’ (1.9 metres or greater). The saline water backfloods the area from

a drain into Powells Creek. In addition to tidal flushing, small amounts of stormwater enter the southern and western sections.

Tidal inundation of the lower quarter of the saltmarsh has increased invasion of mangroves due to incoming water transporting mangrove seeds from the mangrove across the saltmarsh. Mangroves have not been controlled, and continue to grow to maturity and spread seedlings even further across the wetland.

In summary, the wetland does not flush efficiently. The existing inlet structure adequately floods the lower part of the saltmarsh, but is not able to flood the upper part of the saltmarsh. Infrequent tidal inundation of some areas in the wetland has resulted in:

- hypersalinity where evaporation results in soils with high concentrations of salt in which some saltmarsh plants, notably *Lampranthus*, do not thrive.
- dead zones in swards of *Juncus kraussii*.
- drying out of the wetland.

Some modifications to the existing drop board weir may be necessary, as removing and replacing the boards in the weir is time-consuming. The highest tides of more than 1.9 metres (1.0 metres AHD) occur about 40 times a year, and half those tides occur at night. Council staffs are not available to manually manipulate the weir at night. If staff resources and commitment wane, the wetland would return to its degraded state. Council will probably modify the weir so that the pressure of the water opens it as it flows in and shuts off as it flows back out, or install an additional inlet structure. The most effective way to manage the wetland and ensure water flow through the wetland would be through a combination of the existing weir as an outlet, and a new structure at the southern end as an inlet.

The proposed structure is similar to that used very successfully at Sydney Olympic Park to manage shorebird habitat. The system works on the principle of a sluice gate that is regulated using infrared beams to measure water depths on either side of the inlet.

The new inlet structure would be designed to:

- operate automatically in response to tides and water levels by a remote controlled automated inlet gate. This allows flooding or draining of the wetland to maintain specific water levels, or it can be overridden for various management needs. An automated system means the site can be effectively managed 24 hours a day without the need for site visits by staff at inconvenient times. The structure can be programmed for varying stages of the tide, from small neap tides to large spring tides. If required, the inlet can be opened or closed at short notice, such as preventing contamination of the wetland in the event of pollution in either Powells or Saleyards Creek or a sewage overflow.
- operate in the southern section of the saltmarsh at a point where the distance from saltmarsh to the concrete estuary channel widens.
- be of adequate size and width to ensure the tidal flood at the top of the tide would not be constrained and only limited by elevation and not by the inlet flow capacity.
- be capable of delivering enough water to flood the whole wetland on one tide cycle (spring tides) or progressively during smaller tides, and total drainage to allow for maintenance work in dry conditions.
- maintain a desirable water level and adequate tidal flow.

The benefits of the new structure would include:

- ❒ increased and regular tidal flushing, pushing water to higher areas at the back of the wetland.
- ❒ enable the free movement of nekton in and out of the estuary.
- ❒ discourage human access to the mudflat.
- ❒ reduce the potential for isolated water pooling and opportunities for mosquito larvae to mature.
- ❒ ameliorate acid and hypersaline conditions to improve productivity and plant growth.
- ❒ expand the extent of *Wilsonia backhousei*.
- ❒ limit the expansion of mangroves.

The cost of the structure and its installation would be in the order of $200,000.

A Statement of Environmental Effects (SEE) is required before installing the new inlet structure. The SEE should address:

- ❒ sea level rise.
- ❒ elevation of all parts of the saltmarsh and the extent these can be tidally flooded.
- ❒ potential to expand the saltmarsh including climate change and sea level rise issues.
- ❒ breaching the concrete channel.
- ❒ soil contamination and likely constraints on earthwork in and adjacent to the saltmarsh including erosion and acid sulphate soils.
- ❒ water quality, past and present.
- ❒ current mangrove presence and method of limiting spread.
- ❒ current saltmarsh species abundance and distribution.
- ❒ saltmarsh expansion and method of propagation of plants.
- ❒ invertebrate diversity and abundance.
- ❒ *Wilsonia* and *Lampranthus* protection and management.
- ❒ impacts on local and migratory birds on any changes.
- ❒ mosquito presence and management.
- ❒ surrounding vegetation including suitability and maintenance and weed control.
- ❒ human interference.
- ❒ sewage line and issues of maintenance
- ❒ electricity stanchion issues.
- ❒ catchment productivity including spill contamination in the estuary Catchment and floating rubbish management.

Water quality

Modifications to the wetland basin have affected water and soil quality parameters, particularly pH and salinity. In addition, development in the catchments has led to an increase in pollutants including elevated nutrient levels. The natural purification processes of Powells and Saleyards Creeks have been eliminated through canalising and concrete lining.

Health Officers in Council's Environmental Services Department are currently conducting a water monitoring program at Mason Park. Data collected includes the following characteristics:

- physical (flow, temperature, colour).
- physio-chemical (pH, salinity, suspended solids, dissolved oxygen, turbidity, conductivity).
- chemical (alkalinity, biochemical oxygen demand, phosphorus, nitrogen, heavy/trace metals, oil and grease).
- biological (macroinvertebrates, coliforms).

2.5.4 Soils

Most of the site is contaminated (Sydney Environmental Soil Laboratory, 1997). Earthworks and landfilling around the wetland over much of the 20th century have led to the contamination of soils with heavy metals, and in some parts the development of actual acid sulfate soils.

The sub-stratum of the saltmarsh is not natural, and is mostly contaminated soil extracted from building sites. The southern part of the marsh is undulating and required some earthwork to rectify.

Wetland soils often naturally contain large amounts of iron sulfides, which are harmless in the soil under waterlogged conditions. If the soil dries out, oxygen reacts with the iron sulfide to produce sulfuric acid, which is very harmful to most plants. Water running off from highly acid soils are also harmful to fish and aquatic organisms. Acid sulfate soils occur towards the middle to end of the saltmarsh in Mason Park which is infrequently flushed.

2.5.5 Flora and fauna

Flora

The vegetation of Mason Park is mapped in **Figure 2.4**.

The original vegetation in the local area, in raised lands out of tidal influence, would have been Sydney Turpentine-Ironbark Forest. This vegetation community is naturally found in the inner–mid western areas of Sydney, and is associated with Wianamatta Shale soils. This vegetation community is listed as an endangered ecological community, as most of the area is developed. Main tree species of the Turpentine-Ironbark Forest of the Strathfield area includes Turpentine (*Syncarpia glomulifera)*, Grey Ironbark (*Eucalyptus paniculata)*, Northern Grey Ironbark (*Eucalyptus siderophloia)*, and Broad-leaved Ironbark (*Eucalyptus fibrosa*) (Benson and Howell, p.67).

Figure 2.4 Classification of vegetation in Mason Park

Sporting zone

The park plantings are primarily native species including *Casuarina*, *Eucalyptus* and *Callistemon*. The she-oaks (*Casuarina*) are the dominant tree planting providing spatial definition to the park edges and car parking areas.

Most of the planting areas are mixed native plantings, merging with the vegetation regeneration areas and wetland areas of the park. Some of the trees are showing signs of senescence within the planting areas. There are a number of figs in the car park, and Plane Trees along the Underwood Road frontage.

Native vegetation planting areas at edges to the park

Dense planting areas between the sports zone and the wetland

Fig tree planting in the car park

Wetland zone

The current condition of the wetland is hostile or limiting to all plants except for Spiny Rush (*Juncus acutus*) and mangroves. Hyper-salinity, acid conditions, periods of poor tidal inundation, drought, human activity and weeds such as *Juncus acutus* have resulted in a loss of saltmarsh species, particularly *Juncus kraussii*, and low saltmarsh plant diversity.

Vegetation communities in the wetland include:

- **mangrove**: Grey Mangrove (*Avicennia marina*) is clustered around the weir. Mangroves are regenerating from production of seed in the mangrove forest. Seedling mangroves have been sporadically removed but in recent years have spread.
- **saltmarsh**: Coastal Saltmarsh in the Sydney Basin is an endangered ecological community (Schedule 1 of the *Threatened Species Conservation Act 1995*). The indigenous saltmarsh community in Mason Park is diverse, and includes *Sarcocornia quinqueflora*, *Suaeda australis*, *Wilsonia backhousei* and *Lampranthus tegens* which are uncommon in the Sydney Region. *Wilsonia* is a vulnerable species (Schedule 2 of the *Threatened Species Conservation Act 1995*). The areas of saltmarsh are generally in healthy condition because *Sarcocornia quinqueflora*, the dominant saltmarsh species at Mason Park is adapted to high salinity. The stand of *Wilsonia* in a small part of the southern section of the wetland is relatively large and healthy. Studies of *Wilsonia* and/or *Lampranthus* are being carried out by UNSW, Sydney University and UTS.
- **rushland** on the higher level ground is less frequently inundated by tides. The rushland includes an important stand of the native rush (*Juncus kraussii*), which is one of only two extensive stands in the Homebush Bay area. The rushland has not thrived and much of the original has died, probably as the result of high salinity coupled with poor or no tidal flushing and contaminated soils. Weed invasion by *Juncus acutus* is also a factor.

- a **brackish pond** containing a small area of *Sporobolus virginicus*, scattered *Spergularia marina* and at times extensive blooms of filamentous algae (primarily *Enteromorpha intestinalis).*

Landfilling around the wetland has created an edge that is rapidly and easily colonised by aggressive weed species and undesirable plants. In early 1998, Strathfield Council removed areas of fill from the wetland edges, which have since been planted and mulched. Around 20,000 plants have been planted around the wetland edges by GreenCorp, the Australian Trust for Conservation Volunteers, Greening Australia, local school groups, and a volunteer Bushcare group that meets once a month on a Saturday morning. Many plants have since been planted, extending the wetlands habitat and creating an aesthetically pleasing landscape.

In 2004-05 Council removed weeds by spraying and eradicating *Juncus acutus* along the boundary to the wetland and the adjoining Energy Australia property, and planted native species as part of its management plan and weed control program.

Volunteers in Council's community-based Bushcare Program planted native plants in 2005-06 and 2006-07 in Mason Park with the supervision and support of qualified Council staff.

The local Bushcare group plants and monitors once a month. An environmental education gala day in February 2008 involved planning planting with school students.

Council and Sydney Olympic Park Authority completed nocturnal bird surveys in 2007 to record species diversity and behaviour within the wetlands as part of a wider Parramatta River estuary study of wader birds.

Studies of some of the rare and restricted saltmarsh species, such as *Wilsonia backhousei* and *Lampranthus*, are being undertaken by the University of NSW, Sydney University, and UTS.

Weed control is an ongoing task undertaken by bush regeneration contractors.

Potentially appropriate species for replanting in the wetland, subject to their impact on waders and contamination that will prevent establishment, are listed in **Table 2.3**.

Table 2.3 Potential species for replanting at Mason Park

Tolerance to salt	Suitable species	Common Name	Significance in saltmarsh
Moderately salt tolerant (suitable for outer edge of saltmarsh)	*Bolboschoenus caldwellii*	Sea Clubrush	X
Salt tolerant	*Apium prostratum*		X
	Cotula coronopifolia	Water Buttons	XX
	Cyperus laevigatus		XXX
	Isolepis nodosa	Knob Rush	XXX
	Juncus kraussii	Sea Rush	XXXX
	Lampranthus tegens	Described as native but thought to be naturalised	X
	Leptinella longipes		X
	Mimulus repens	Creeping Monkey Flower	X
	Paspalum vaginatum	Salt Couch	XX
	Samolus repens	Creeping Brookweed	XX
	Sarcocornia quinqueflora	Samphire	XXXX
	Selliera radicans		XX
	Sporobolus virginicus	Sand Couch	XXXX
	Suaeda australis	Austral Seablite	XX
	Triglochin striatum	Streaked Arrow–grass	XXX
	Wilsonia backhousei	ROTAP species	XX

Notes:
X = minor species, may or may not persist — could be introduced — optional
XX = useful/attractive but plant in small amounts
XXX = saltmarsh species that should be represented in moderate quantityXXXX = major saltmarsh species for site.

Fauna

Shorebirds

The Mason Park wetland currently provides a mosaic of tidal pools and remnant saltmarsh vegetation once common along the Homebush Bay foreshore. Shorebirds that use Mason Park move between similar wetlands at the waterbird Refuge and Newington Wetlands in Sydney Olympic Park, and the intertidal areas of the Parramatta River estuary such as Hen and Chicken Bay.

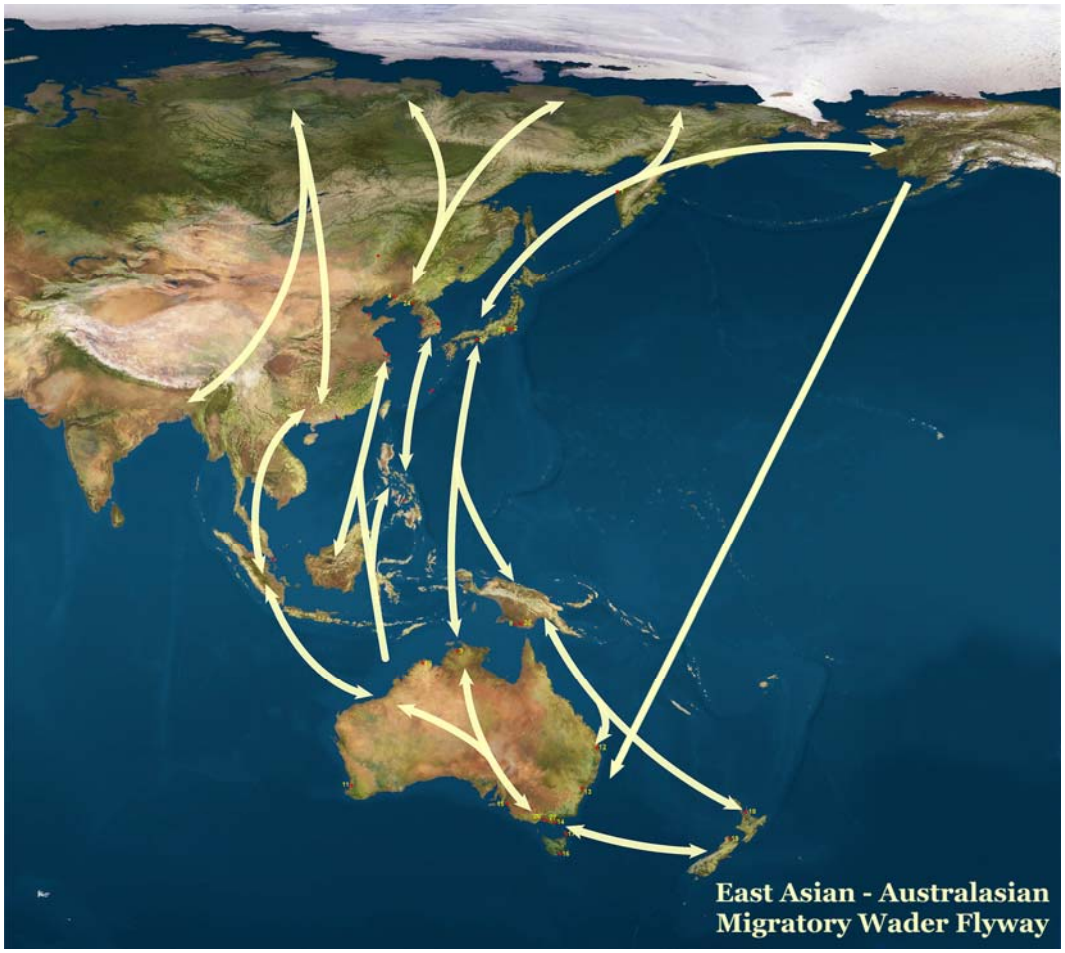
When flooded at high tide the wetland provides foraging and roosting habitat for migratory shorebirds and nesting habitat for several non-migratory species.

The numbers of shorebirds using the wetland since records have been kept have fluctuated with the conditions of the site over time. In the past this wetland has been one of the most important shorebird feeding and roosting sites in the Sydney area, and until recently has had more shorebirds per hectare than any other site in the region. Returning Mason Park wetland to a productive habitat for shorebirds is dependent on:

- ❒ adequate tidal flushing.
- ❒ providing soil conditions conducive to invertebrate production.
- ❒ establishment of suitable vegetation in and around the wetland.

Mason Park attracts migratory shorebirds from the Northern Hemisphere, including from China, Japan, Siberia and Alaska. To illustrate where migratory birds visiting Mason Park originate, **Figure 2.5** shows the Asia-Pacific migratory flyways.

Figure 2.5 Asia-Pacific Migratory Flyways



Numbers of migratory species vary with the flood regime. Important migratory species associated with Mason Park since the 1960s are:

- **Curlew Sandpiper**, which is now one of the most threatened migratory species in south east Australia with widespread declines, not just at Mason Park or the Parramatta River estuary. With declines to almost extinction in Botany Bay, Mason Park is now the most important site for this species in the Sydney region. In the past counts of up to 680 Curlew Sandpipers have been made in the Parramatta estuary (presumably roosting at Mason Park) during studies by Morris *et al.* Numbers varied with counts between 50 and 100 birds when the area was poorly managed and up to 240 when the tidal flushing was effectively managed by council. Unfortunately latest counts, during the 2006/07 season did not exceed 16 birds. However Mason Park is still the most important site for this species in the Sydney region.
- **Pacific Golden Plover**, which is another species that has declined at Mason Park and the Parramatta River estuary. Mason Park has long been the most important roost site for this species in the estuary. The population in 1985 was estimated to have been 200 birds

in Botany Bay and about 100 for the Parramatta River. The population in the Parramatta River estuary had declined to 80 birds in 1987, 60 in 1990, 36 in 1995, 12 in 1998/99 and is currently two birds at Mason Park. This species has also declined in Botany Bay, but not in the Hunter Estuary.

- **Sharp-tailed Sandpiper,** which is the only migratory shorebird not to have declined during recent studies at Mason Park. It has responded well to the current management actions at Mason Park. This species is most numerous at inland wetlands and may have increased in numbers at Mason Park due to the recent droughts in inland Australia. The Sharp-tailed Sandpiper is more at home foraging amongst saltmarsh plants whereas most other waders prefer to stay in the open.
- **Lathams Snipe** occur in small numbers roosting in rank vegetation around the periphery of the wetland, and venture out at dusk and dawn to feed on mudflats and in shallow water. This species fluctuates in numbers at coastal wetlands depending on the availability of habitat at ephemeral wetlands. Coastal wetlands provide important drought refuge.
- **Other migratory species** occurring in small numbers (one or two birds) from time to time include Red-necked Stint, Common Greenshank, Pectoral Sandpiper, Marsh Sandpiper, and rarely the Wood Sandpiper.

Non-migratory species include the Black-winged Stilt, Black-fronted and Red-kneed Dotterels, and Masked Lapwing.

Waterbird monitoring programs at Mason Park have been regularly carried out since 1992 but will be intensified as part of ongoing projects. For example, weekly / fortnightly monitoring of shorebirds in Mason Park and Hen and Chicken Bay is being carried out by the Sydney Ports Corporation as part of a 10-year monitoring program of reference sites for the Penrhyn Estuary Habitat Enhancement Program during the expansion of Port Botany (Avifauna Research and Services, in progress).

SOPA are currently conducting regular monitoring programs at its wetlands of shorebirds and other waterbirds as well as benthic organisms (which are essential for the survival of shorebirds). While SOPA may not be able to extend financial or human resources to cover invertebrate monitoring at Mason Park their expertise in this area should be drawn on to facilitate monitoring at Mason Park. Monitoring shorebirds and invertebrates at all of the major wetlands used by shorebirds in the Parramatta River Estuary is in the best interest of all who are interested in the welfare of migratory shorebirds.

Shorebirds that use Mason Park move between similar wetlands at Sydney Olympic Park, for example Waterbird Refuge and the Newington Wetlands, as well as the intertidal areas of the Parramatta River estuary, for example Hen and Chicken Bay. It is important to relate as much as possible to these other sites and the importance of Mason Park within this wetlands complex.

The wetland is gradually being hemmed in by trees and shrubs. This is reducing the suitability of the wetland for migratory shorebirds which prefer an open aspect and avoid closed-in situations, especially roosting areas, when birds are not able to see the approach of potential predators such as foxes or birds of prey. While the tall band of trees between the wetland and the sports field has not prevented shorebirds entering the site the trees and tall shrubs around the rest of the wetland will eventually result in a large proportion of the shorebirds leaving the site.

Introduced fauna observed at Mason Park include foxes, dogs and cats. A program to control feral animals is proposed.

Invertebrates

Previous studies have shown low invertebrate diversity and abundance in the Mason Park wetland. Despite this, the wetland has large numbers of Chironomids (bloodworms) and midge larvae which makes it attractive as a feeding ground for many shorebirds.

Mosquitoes occur naturally in the wetland area, and they are in neighbouring wetlands in Sydney Olympic Park. The key pest mosquito in the Mason Park Wetland is *Ochlerotatus vigilax,* a nuisance biting species which is a known carrier of arboviruses. The current tidal strategy favours the production of the species because the saltmarsh substratum is flat, resulting in the potential for water to be temporarily isolated.

Council monitors mosquito populations in the wetland through larval and adult population counts. If the population of mosquitoes reaches a certain level which justifies treatment of the mosquitoes using larvicides, pest control contractors are on call during peak tides. It has not yet been necessary to treat the Mason Park wetlands for mosquitoes.

Spread of mosquito borne diseases is likely to increase. Any change to the hydrology of Mason Park that does not recognise this could lead to ecologists and managers of Mason Park being liable to legal action for failing to take reasonable care to minimise mosquitoes. A before and after mosquito assessment is mandatory.

2.6 Visual assessment

Mason Park is divided visually into half by a central band of dense vegetation, separating the sporting zone from the wetland area. The edges of the park are well vegetated, providing screening to the road, and also screening potential views to Bressington Park to the north.

The wetland area, adjacent Powells Creek is a diverse precinct with views internally to the mangroves, wetlands and mudflats, with abundant birdlife, and glimpses across Powells Creek to the parkland corridor.

The sports area of the park is a large expanse of open grassed fields, contained by dense native planting at the edges of the park. The open grassed fields provide minimal visual diversity and differentiation.

Open grassed fields in the sports area of the park

Diverse wetland area

Park pathway along Powells Creek edge

2.7 Access and circulation

Refer to **Figure 2.5** for access routes to and circulation within the Park.

2.7.1 Access to the Park

Mason Park is easily accessible by foot, bicycle, vehicles, bus and train.

Entry points to the Park for pedestrians and cyclists are via Underwood Road and from the Powells Creek cycleway, and across the bridge from Concord West.

Access for private, and emergency and maintenance vehicles is through a gate to the carpark off Underwood Road.

Bus route 525 directly services the Park along Underwood Road. Buses on this route operate between Sydney Olympic Park and Westfield Burwood.

Concord West and North Strathfield railway stations are within an approximately one kilometre walk from the park.

2.7.2 Circulation within the Park

A pedestrian / cycle path follows Powells Creek. A path links the carpark with the footbridges crossing Powells Creek linking Mason Park to Bressington Park and Powells Creek Reserve.

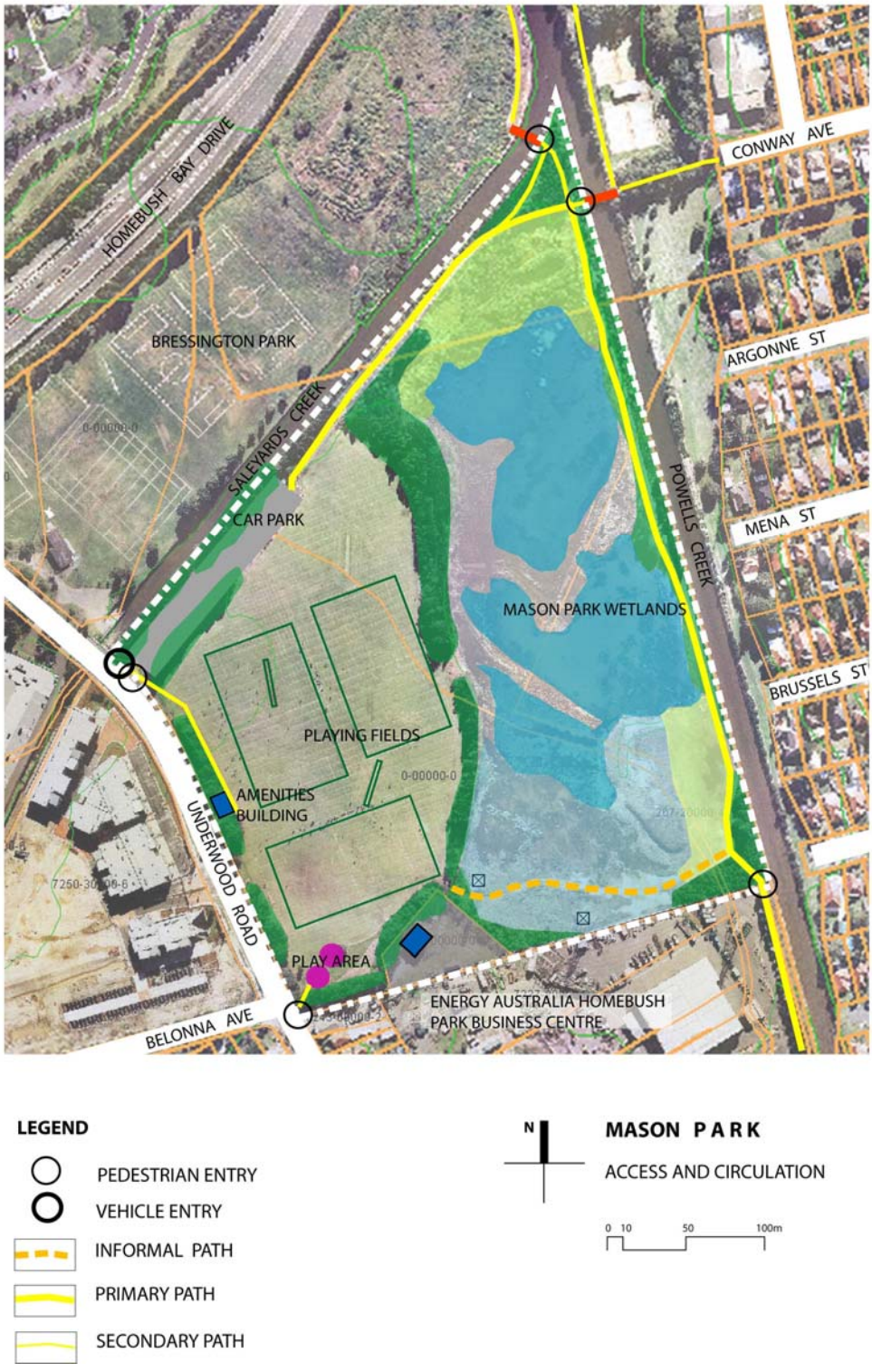
Shared path alongside Powells Creek, next to the wetland. Limited opportunity for bird watching and wetland appreciation due to narrow path.

Park entry at north, adjacent to the car park entry

Unformed access way through park, in southern area.

Vehicle parking is available in the unsealed carpark off Underwood Road. On-street parking is available on Underwood Road.

Figure 2.6 Access and circulation



The Park is not entirely accessible for people with disabilities. It is relatively difficult for people with disabilities to access the informal areas in the Park due to the lack of a pathway between the carpark, amenities building and the playground.

2.8 Built facilities and park furniture

Mason Park is a multi-purpose reserve incorporating facilities and features for active sport and informal recreation, and a wetland. **Figure 2.7** shows the type and location of built structures in Mason Park.

Improvements and changes to structures in Mason Park since the previous Plan of Management was prepared include:

- installation of the children's playground and shade sails.
- installation of sportsfield lighting poles.
- construction of a bridge crossing Powells Creek.
- stormwater tanks associated with the amenities building.

Section 36 of the *Local Government Act* 1993 requires that a Plan of Management that applies to just one area of community land must describe the condition and use of the land, and of any buildings or other improvements on the land, as at the date of adoption of the Plan of Management. **Table 2.4** outlines the condition and use of the land, buildings and other improvements within Mason Park.

All utility connections (electricity, gas, sewage, drainage) are available in the Park.

Figure 2.7 Key built structures in Mason Park

Table 2.4 Condition and use of land, buildings and improvements in Mason Park

Location	Major Facilities	Associated Facilities	Condition	Use
Sporting fields	3 sporting fields	2 synthetic cricket wickets 3 multi-purpose soccer / rugby fields	Average Recent ground improvements (drainage and irrigation)	Winter: 3 soccer fields, 6-7 Oztag fields Summer: 2 cricket fields, 6-7 Oztag fields
		Lighting towers	Very good	Sport training at night
	Amenities block	Canteen, toilets, change rooms, storage	Asset rating = 2 Good condition, with minor cracking which does not require remedial works. Brick walls, concrete floor, steel-clad sheeted roof	Player, spectator and visitor amenities
		Water tanks	Very good	Stormwater harvesting
	Carpark	-	Poor, unsealed	Vehicle parking
	Playground	-	Upgraded in 2000 and shade sail installed	Children's play
Wetland		Drop board weir	Good	Regulation of water intake
		Interpretive signs	Adequate	Visitor education
Powells Creek corridor		Pathways Bridge	Good Excellent	Walking, cycling Walking, cycling

2.9 Use of the Park

2.9.1 Sport

Mason Park has three fields used for soccer or rugby league/union, two synthetic cricket wickets, and has the capacity for seven touch football fields.

Organised sporting uses in Mason Park for which seasonal bookings are made through Council are cricket, soccer and Oztag. Sporting groups and local schools participate in organised sport. The soccer club runs a kiosk from the amenities building in winter. The fields are available for casual sporting games outside booked times.

The sportsfields are often used for large sporting events and competitions.

2.9.2 Informal uses

Mason Park is also used for non-organised sporting activities, which include walking for pleasure and exercise, walking dogs, cycling, picnicking, children's play, and flying kites.

Visitors to the wetlands enjoy bird watching, scientific study, community educational tours, and tours in conjunction with the Sydney Olympic Park Authority.

Conditions of use for casual and seasonal hirers are set by Council. Council collects a bond for larger events prior to the event. The bond is refunded if no damage was done during the booked period when inspected after the event.

2.9.3 Characteristics of park users

A survey of park visitors has not been undertaken.

2.9.4 Prohibited uses

Prohibited activities in the Park include off-leash dog exercise, model aeroplane flying, motorized bikes and vehicles, riding horses, fires, golf practice, and firearms.

2.10 Maintenance

Mason Park is maintained primarily by Council work crews. However, tasks such as cleaning of amenities will be put out for tender.

Maintenance tasks undertaken in Mason Park include:

- removing rubbish.
- lawn maintenance (mowing, edging, line trimming, herbicide application).
- garden and tree maintenance (weeding, dead plant removal, pruning, herbicide application).
- turf wicket maintenance.
- checking gardens.
- inspecting play equipment occurs every quarter. An audit of the play equipment is undertaken yearly.
- pest control in buildings (twice a year).
- cleaning gutters (4 times a year).
- weed removal and bush regeneration (contract).

All other park maintenance tasks are done as required.

2.11 Financial management

2.11.1 Cost recovery

Income from use of Mason Park is derived from hire fees for use of the sporting fields, the rotunda and other areas in the park. Income from these sources in the 2006-07 financial year was $33,421.

Costs associated with management of the Park include ongoing maintenance, plant and equipment, product (such as turf and plants), irrigation, topdressing, weed spraying, playground inspections, and capital improvements. The estimated annual management, capital and maintenance costs for Mason Park including the wetlands in 2006-07 were $96,603, comprising working expenses of approx $40,611.

2.11.2 Guidelines for expenditure

Under Section 106 of the *Crown Lands Act 1989,* income generated from a Crown reserve must be spent on improving that reserve or for the general purposes of the reserve trust, or unless the Minister makes a specific direction. Such income must not be placed in general revenue of the trust manager, in this case Strathfield Council.

3 PLANNING CONTEXT

3.1 Introduction

This section describes the legislative and policy framework applying to Mason Park. Full versions of the legislation outlined below is found on-line at www.legislation.nsw.gov.au and www.austlii.edu.au. Strathfield Council's website is www.strathfield.nsw.gov.au.

3.2 Legislation applying to Mason Park

3.2.1 Crown Lands Act 1989

Introduction

As Mason Park incorporates Crown reserves, the *Crown Lands Act 1989* applies to their management.

The *Crown Lands Act 1989* governs the planning, management and use of Crown land, including reservation or dedication for a range of public purposes, and leasing and licensing. The Department of Lands, together with Reserve Trusts appointed by the Minister, are responsible for management of the Crown reserve system throughout New South Wales to ensure that Crown land is managed for the benefit of the people of New South Wales, and having regard for the principles of Crown land management.

A Reserve Trust is a corporation established and appointed to manage a Crown reserve. Trusts are nominated by the Minister for Lands (Section 92 of the *Crown Lands Act 1989*). The Strathfield Council Reserve Trust has been appointed as trustee of the Crown reserves in Mason Park. The Reserve Trust is responsible, under the oversight of the Minister, for the care, control and management of those reserves. Strathfield Council manages the affairs of the Reserve Trust under Sections 92-95 of the *Crown Lands Act 1989*.

A Trust Board has functions conferred on it under the *Crown Lands Act 1989.* The Trust has care, control and management of the reserve in its everyday operation. The Minister cannot direct the Trust as to how it manages the reserve, unless the Trust exceeds its powers. The Minister can only suggest or make representations to the Trust regarding management.

Use and management of Crown land

The use and management of Crown land is determined or influenced by:

- **the objects of the Crown Lands Act** (Section 10)**,** particularly that Crown lands are managed for the benefit of the people of NSW.
- the principles of Crown land management (Section 11 of the Act).
- **the public purpose(s) of the land** (Sections 80 and 87). Crown land is reserved or dedicated for a public purpose(s), which means the reserve must provide a public benefit. Uses, activities, developments and agreements in a Crown reserve are defined by the public purpose(s) of the reserve. All uses of Crown reserves must be acceptable according to their public purpose(s). An additional purpose may be proposed in a draft Plan of Management under Section 112 of the Act.

- **Department of Lands' policies**, such as the Food and Beverage Outlets on Crown Reserves Policy Position 2004.
- **native title legislation**. However, native title has been lawfully extinguished over the Crown reserves in Mason Park.
- **rental from leases or licences**. A percentage of the rental received from new leases and/or licences of Crown land (rental over $2,000) is placed in the Public Reserve Management Fund. This fund is a State government initiative that raises funds to assist Reserve Trusts in NSW.
- **case law judgements**, which influence the policy and practice of the Department of Lands and Trust managers.
- **any conditions and provisions within the zoning** in the Council's Planning Scheme Ordinance. However, the applicable Public Purposes defined by State government legislation overrides the local zoning.
- an adopted Plan of Management, a contractual agreement (lease or licence), or a combination of both to more specifically define the permitted uses.

The objectives of the Department of Lands regarding land management directly relate to the principles of Crown land management listed in Section 11 of the *Crown Lands Act 1989*. These principles, and how this Plan is consistent with those principles, are outlined below.

Table 3.1 Principles of Crown land management

Principle of Crown land management	How this Plan is consistent with the principles
Observe environmental protection principles in relation to the management and administration of Crown land.	This Plan supports protection of natural resources in the Park, including the internationally significant wetland.
Conserve the natural resources of Crown land (including water, soil, flora, fauna, and scenic quality) wherever possible.	As above
Encourage public use and enjoyment of appropriate Crown land.	Recommendations in the Plan encourage public use and enjoyment of the Park for a wide range of recreational, social and cultural activities, while recognising there may be conflicts between activities.
Encourage multiple use of Crown land, where appropriate.	Recommendations in the Plan would continue multiple uses of the Park.
Use and manage Crown land in such a way that both the land and its resources are sustained in perpetuity, where appropriate	The Plan contains proposed actions which would help sustain the land and resources, such as managing the type and extent of activities and developments within the Park, and ecologically sustainable development (ESD) principles and practices.
Occupy, use, sell, lease, license, or otherwise deal with Crown land in the best interests of the State, consistent with the above principles.	This Plan contains prescriptions that would ensure that land owners, managers, lessees and licensees deal with the reserve in the best interests of the State.

3.2.2 Local Government Act 1993

Requirements of a Plan of Management

70% of Mason Park is owned by Strathfield Council, and is classified as community land under the *Local Government Act 1993* as amended. Community land must be managed according to the provisions of the *Local Government Act 1993* and the *Local Government (General) Regulation 1999*. Community land:

- must have a Plan of Management prepared for it, which sets out guidelines for use and management of the land. Until a Plan of Management is adopted, the nature and use of the land must not change.
- must be kept for the use of the general community, and must not be sold.
- cannot be leased or licensed for a period of more than 21 years.

Categorisation

Background

Land owned by the Crown in Mason Park is not required to be categorised under the Local Government Act, because it is Crown land which is not owned by Strathfield Council. Because Council manages Crown land, and to maintain consistency of management across the entire Park, the extent of the categories of community land within the Park are shown in **Figure 3.1**. The Public Purpose of the Crown land ultimately determines acceptable uses of the land. The categories applying to the Crown land in Mason Park (Natural Area – Wetland and Sportsground) are consistent with the public purpose of Public Park / Public Recreation or Conservation and Drainage

Under Section 36 (4) of the *Local Government Act 1993*, Mason Park is categorised as follows:

- 60% Sportsground (playing fields, carpark, playground and landscaped areas).
- 40% Natural Area – Wetland.

The land within Mason Park applying to each category is shown in **Figure 3.1**.

The basis for categorising land within Mason Park is according to the guidelines set out by the *Local Government (General) Regulation 1999*. The *Local Government Act 1993* establishes core objectives for all categories of community land. Council must manage the community land according to these core objectives. Any additional Council objectives must comply with the core objectives established within the Act. The significance of the prescribed core objectives is to ensure that any activities or uses of the land are consistent with the core objectives for that category of land. Guidelines for categorisation and core objectives for each category of community land in Mason Park are in **Table 3.2**.

Figure 3.1 Categorisation of community land in Mason Park

Table 3.2 Definitions of and core objectives for categories of community land

Category	Definition	Core objectives
Natural Area	If the land, whether or not in an undisturbed state, possesses a significant geological feature, geomorphological feature, landform, representative system or other natural feature or attribute that would be sufficient to further categorise the land as bushland, wetland, escarpment, watercourse or foreshore under section 36(5) of the Act.	❒ conserve biodiversity and maintain ecosystem function in respect of the land, or the feature or habitat in respect of which the land is categorised as a natural area. ❒ maintain the land, or that feature or habitat, in its natural state and setting. ❒ provide for the restoration and regeneration of the land. ❒ provide for community use of and access to the land in such a manner as will minimise and mitigate any disturbance caused by human intrusion. ❒ to assist in and facilitate the implementation of any provisions restricting the use and management of the land that are set out in a recovery plan or threat abatement plan prepared under the *Threatened Species Conservation Act 1995* or the *Fisheries Management Act 1994*.
Natural Area – Wetland	Land that is categorised as a natural area should be further categorised as wetland under section 36 (5) of the Act if the land includes marshes, mangroves, backwaters, billabongs, swamps, sedgelands, wet meadows or wet heathlands that form a waterbody that is inundated cyclically, intermittently or permanently with fresh, brackish or salt water, whether slow moving or stationary.	❒ protect the biodiversity and ecological values of wetlands, with particular reference to their hydrological environment (including water quality and water flow), and to the flora, fauna and habitat values of the wetlands. ❒ restore and regenerate degraded wetlands. ❒ facilitate community education in relation to wetlands, and the community use of wetlands, without compromising the ecological values of the wetlands.
Sports-ground	As the land is used or proposed to be used primarily for active recreation involving organised sports or playing of outdoor games.	❒ encourage, promote and facilitate recreational pursuits in the community involving organised and informal sporting activities and games, and ❒ ensure that such activities are managed having regard to any adverse impact on surrounding or nearby residences.

3.2.3 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EPA Act) establishes the statutory planning framework for environmental and landuse planning in NSW through State Environmental Planning Policies (SEPPs), Regional Environmental Plans (REPs) and Local Environmental Plans (LEPs). The EPA Act also sets out processes for approving development applications for structures and works on public and private land in the Strathfield Planning Scheme Ordinance.

3.2.4 Threatened Species Conservation Act 1995

The coastal saltmarsh in Mason Park is an endangered ecological community in Part 3 of Schedule 1 of the *Threatened Species Conservation Act 1995*. The Coastal Saltmarsh community occurs in the intertidal zone on the shores of estuaries and lagoons along the NSW Coast. Vascular plants that characterise this community, such as *Juncus kraussi* and *Sporobolus virginicus,* and the species Wilsonia backhousii are found in Mason Park. Threatening processes to this community include infilling, weed invasion, human disturbance and rubbish dumping.

The Act seeks to conserve threatened and endangered species, populations and ecological communities of animals and plants. A key objective of the Act is to conserve biological diversity and promote ecologically sustainable development. Under this Act, developments need to consider impacts to threatened species and ecological communities. Assessment under Part 5 of the Act requires a seven-part test.

3.2.5 Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth *Environment Protection and Biodiversity Act 1999* identifies wetlands of international importance (declared Ramsar wetlands), and listed migratory species protected under international agreements as being of national environmental significance. It currently applies to migratory wading birds and their habitat that are protected under the Japan-Australia, China-Australia and Republic of Korea-Australia Migratory Bird Agreements (JAMBA, CAMBA and ROKAMBA). All three agreements require each of the governments to protect migratory birds by protecting and conserving important habitats.

Under this legislation any works and activities within Mason Park that have, may have or are likely to have a significant impact on matters of national significance are subject to strict controls. Any such works and activities require approval from the Federal Minister for the Environment, separate from and in addition to any State approvals required.

3.2.6 Contaminated Land Management Act 1997

This Act establishes a process for investigating and (where appropriate) remediating land areas where contamination presents a significant risk of harm to human or environmental health. If contamination is or may be present, the proponent of the works or development must investigate the site and remediate land areas where contamination presents and significant risk. Contaminated land may be subject to a Section 28 Notice which sets conditions that must be complied with. In general, approval from the Department of Environment and Climate Change (DECC) must be obtained before disturbing the land.

3.2.7 Companion Animals Act 1998

The *Companion Animals Act 1998* aims to promote responsible animal ownership in NSW. Under the Act, dogs in public places must be on a lead under the effective control of a competent person, except in a declared off-leash area. Dogs are prohibited within 10 metres of children's play areas, food preparation / consumption areas, and recreation areas where dogs are prohibited by the local authority. If a dog defecates in a public place, the dog owner must remove and dispose of it in a rubbish receptacle.

3.2.8 Disability Discrimination Act 1992

The *Disability Discrimination Act 1992* is a Commonwealth Act that aims to eliminate, as far as possible, discrimination against people with disabilities in many areas, including access to premises. The Act also aims to promote recognition and acceptance in the community that people with disabilities have the same fundamental rights as the rest of the community.

The Act covers a range of areas including sport and recreation, and access to premises. The Act requires that people be able to access any building which the public is entitled to enter or use through the primary entrance used by the general public. It further requires that people should have access to any services and facilities provided in those buildings.

The NSW *Anti-Discrimination Act 1997* also makes it unlawful to discriminate on the ground of disability.

3.2.9 Other relevant legislation

Other legislation that may address specific issues in the management of Mason Park is listed below.

Table 3.3 Other relevant legislation

Issue	Legislation	Responsible agency
Air, water and noise pollution	*Protection of the Environment Operations Act 1997*	Department of Environment and Conservation Strathfield Council
Waste disposal	*Waste Avoidance and Resource Recovery Act 2001*	Department of Environment and Conservation

3.3 Local planning context

3.3.1 Planning framework

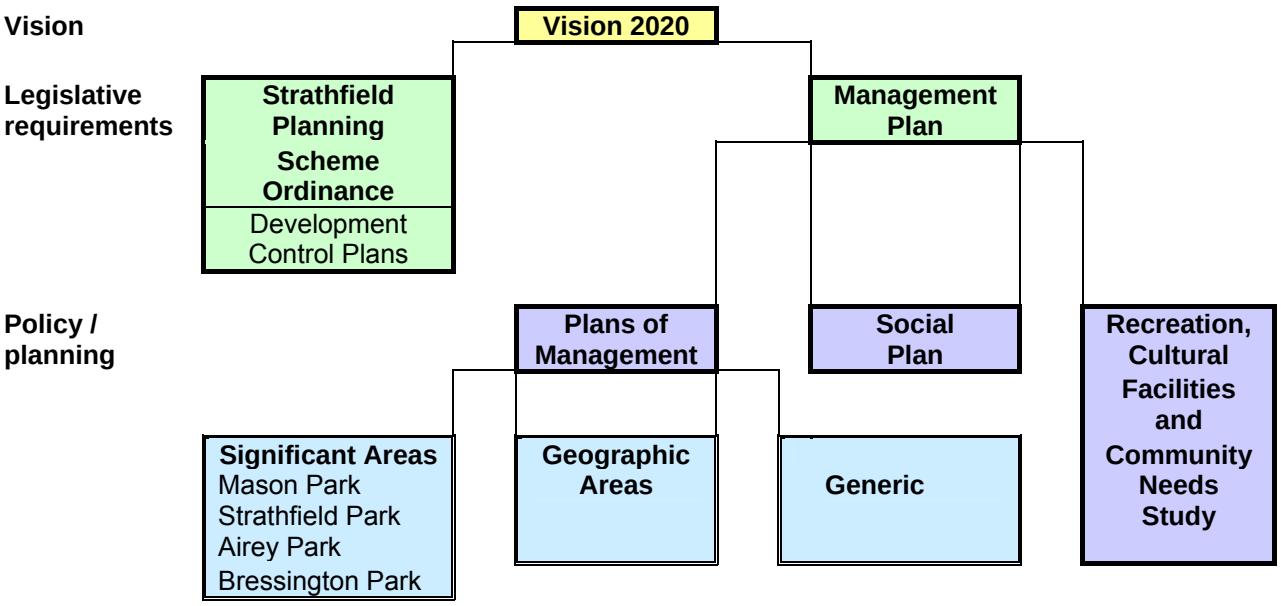
Strathfield Council's planning framework guides this Plan of Management as follows:

- Strathfield Vision 2020.
- Council's Management Plan, which sets overall objectives and performance targets for activities, budgets and other issues relating to open space and recreation management.

- ❒ Planning instruments, particularly the Strathfield Planning Scheme Ordinance, and various Development Control Plans govern uses of and development of facilities within the Park.
- ❒ Policy documents, such as the Recreation, Cultural Facilities and Community Needs Study.

The hierarchy of these planning documents is shown in **Figure 3.2**.

Figure 3.2 Planning Hierarchy



3.3.2 Strathfield Vision 2020

The Strathfield Vision Statement paints a long-term picture of the future that clarifies the direction of Strathfield Council:

"Our vision 2020 for Strathfield is our Council collaborating with our community to ensure a balance between the unique values of Strathfield and the varying pressures of our location within Australia's largest city."

3.3.3 Strathfield Council Management Plan

Council's Management Plan 2007-2010 contains a strategic overview of Council's proposed activities, budgets and other issues relating to community and the environment over the next three years.

This Plan of Management is consistent with the vision formulated by Strathfield Council in its current Management Plan for the whole of the Strathfield.

Council's vision as set out in the Management Plan is:

> ***"Our vision for Strathfield is an urban village easily accessible within Australia's largest city where our community is engaged with Council in shaping our sustainable future. We are a place that is rich in cultural and natural diversity. We value and benefit from the unique opportunities for learning, recreation, employment and quality of life in Strathfield."***

The vision for the municipality translates into action via Council's five principal activity areas and their associated programs.

Table 3.4 Principal activity areas and programs

Program Areas	Desired outcomes	Strategies	Indicators
Sustainable environment			
Biodiversity Environment Protection Greenhouse Gas Reduction Parkscape Waste Management Water Conservation	Our waterways, air and landscapes are clean and healthy, there are no net losses of biodiversity and biodiversity values are increased.	Design and renew Council streets, stormwater system, landscapes and civic spaces to protect the environment. Integrate sustainable urban design principles throughout the Council planning framework to protect the terrestrial, aquatic and atmospheric environment.	-
	Our attractive parks and natural areas continue to be a feature of Strathfield. Residents and other people visit our parks regularly. Our community values its parks and streetscapes.	Enhance the open space network by identifying and pursuing opportunities to link open space. Develop and implement sustainability initiatives to ensure the long term viability and quality of parks.	Community satisfaction with parkscape. Number of parks using harvested rainwater / stormwater per irrigated park.
Community building			
Community services Library and information services Compliance	We are a leading Council in the provision of community facilities.	Develop and implement the recreational, cultural and community facilities strategy.	% of available time community facilities is booked. Satisfaction with community facilities in Strathfield.

3.3.4 Local planning instruments

Strathfield Planning Scheme Ordinance

Uses of and development of facilities within Mason Park are governed by the Strathfield Planning Scheme Ordinance, under which Mason Park is zoned 6(a) Open Space – Recreation Existing. Uses and developments permitted in this zone, subject to conditions imposed by Council, include:

- ❒ parks, children's playgrounds, sports grounds and gardens.

- events, refreshment rooms, and car parks.
- grandstands, pavilions, seats, shelter sheds, kiosks, toilets and other buildings for the convenience of the public.
- improvement and embellishment of public reserves under its care, control and management.

Draft Strathfield Local Environmental Plan 2003

The draft Strathfield Local Environmental Plan 2003 has been adopted by Strathfield Council, and is intended to replace the Strathfield Planning Scheme Ordinance when it is gazetted. Under the draft LEP, two zonings will apply to Mason Park:

- 6(a) Local Open Space (Existing) 6A (sporting fields, carpark).
- 7 Environment Protection (wetland).

6(a) Local Open Space (Existing) zone

The objectives of the 6(A) zone are to:

- provide and maintain land for active and passive recreational purposes.
- increase the provision, diversity and quality of public open space and recreational land within the Strathfield Council area to meet the needs of the local community.
- enable development of land within the zone for recreational purposes.
- identify land within the zone for recreational purposes.
- identify land which is owned by the Crown and is under the care, control and management6 of the Council as public open space.
- permit subdivision provided it is broadly compatible with existing patterns and other objectives of this zone.
- enable the development of land for other purposes only where it can be demonstrated that the proposed use will not adversely affect the long-term usefulness of the land for recreation in accordance with the plan of management for the land.

Within this Zone, uses and development for the following purposes will be permitted with consent:

- Child care facility.
- Community facility.
- Kiosk.
- Public building.
- Recreation area.
- Recreation facility.
- Refreshment room.
- Utility installation.

Clause 40 of the draft LEP states that consent must not be granted to the carrying out of development on land within zone 6(A) unless the consent authority has considered:

a) The need for the proposed development on that land.

b) The impact of the proposed development on the locality and the likely future use of the land.

c) The need to retain the land for its existing or likely future use.

d) Whether the proposed development will significantly diminish public use and access to public open space.

Clause 43 of the draft LEP states that despite any other provision in the LEP, development may not be carried out on land within Zone 6(A) until such time as any associated plan of management adopted by the Council under the *Local Government Act 1993* or *Crown Lands Act* 1989 also permits the development to be carried out.

7 Environment Protection zone

The objectives of the 7 Environment Protection zone are to:

- conserve, manage and enhance the biodiversity, rare and threatened species, remnant habitat and the ecological viability of the land and wetlands.
- protect environmentally sensitive remnant habitats and communities.
- increase the community's awareness and appreciation of remnant habitats and biodiversity.
- protect the aesthetic, heritage, recreational, educational and scientific value of the lands.

Development for the purposes of recreation area and utility installation only are permitted with consent in the Environment Protection zone in the draft LEP.

Clause 45 of the draft LEP states that Council consent is required to disturb remnant habitat communities, remove any flora and fauna, alter the existing geography of land, or erect any structure of development within Zone 7 which would not be consistent with any Plan of Management in respect to the land. The consent authority shall not consent to any such activity unless:

- it has assessed the need to protect and preserve sensitive areas.
- disturbance of the land or waterway is essential for a purpose in the public interest and no reasonable alternative is available to disturbing that land or waterway.
- the amount of flora or habitat proposed to be disturbed is as little as possible. Where flora or habitat is disturbed to allow construction work, the flora or habitat will be reinstated upon completion of that work as far as possible.

Development of land adjoining the Environment Protection zone must consider the impact of that development on Zone 7, and set out steps to mitigate any such impacts.

Notwithstanding the permissible developments and uses listed above, the public purposes of the Crown reserves override the local zoning to determine acceptable developments and uses on the reserve. The zoning should be consistent with the public purpose of Public Park / Public Recreation or Conservation and Drainage of Crown land in Mason Park.

Council will refer to this Plan of Management as well as the Strathfield Planning Scheme Ordinance or Strathfield Local Environmental Plan, and other relevant legislation in assessing development applications relating to the Park.

Consolidated Development Control Plan 2005

As Mason Park is a former landfill site, Part K (Development on Contaminated Land) of the Strathfield Consolidated Development Control Plan 2005 applies. This DCP also applies to waste management and provision of off-street parking facilities in Mason Park.

3.3.5 Recreation, Cultural Facilities and Community Needs Study

The vision driving the Recreation, Cultural Facilities and Community Needs Strategy is:

> ***"Strathfield Municipal Council will facilitate opportunities for residents to participate in a diverse range of sporting, recreation, community and cultural activities through the equitable and accessible provision of appropriate facilities and open space, as well as through support for community infrastructure (ie. Clubs and community groups) that deliver suitable programs and services for residents of all ages, skill levels, cultures and abilities."***

The following principles underpin the strategy:

- Council will aim to provide and/or facilitate a diverse range of accessible open space settings, recreation and cultural facilities, services and opportunities across the municipality.
- Council implement a planned approach to the delivery of recreation and community services that respond to identified community needs.
- Recreation and community services, infrastructure and opportunities will be provided equitably having due regard to geographic needs, sustainability and Council's capacity to deliver as well as the age, gender, skill level, cultural background and ability of potential users.
- Council will encourage and facilitate community participation in recreational and cultural activities in recognition of the health, well-being and social benefits that they provide.
- Open space settings, recreation and community facilities and services will provide safe and supportive environments for participants.
- Council will promote and support public recreation and community facilities that maximise shared usage opportunities and overall design flexibility in order to adapt to possible long-term changes in community needs.
- Council will adopt a collaborative approach with community groups, government agencies and the private sector to form appropriate partnerships that facilitate the provision of recreation and community facilities and services for the Strathfield community.

Key objectives of the strategy that support achievement and delivery of the vision are to:

- provide a diversity of recreation and community facilities and opportunities.
- provide facilities and infrastructure that can support high levels of community use.

- encourage and support community involvement in sustainable club management and development.
- facilitate diverse recreation programs, cultural inclusion and participation opportunities (either directly by Council or external providers).
- provide effective management, support and resources.

3.3.6 Community Facilities Plan of Management

The Community Facilities Plan of Management sets out principles and strategies for use and management of community facilities in Strathfield, including sportsgrounds, bowling clubs, child care centres, and scout halls.

3.3.7 Greenweb principles

This refers to recommendations advocated by Sydney's Regional Organisations of Councils which encourages new areas of vegetation corridors and the enhancement of existing bushland corridors. The purpose of Greenweb is to link existing green areas throughout Sydney. Strathfield Council requires that Greenweb principles are taken into account when considering new developments on community and Crown land.

3.3.8 Ecologically Sustainable Development

Council's charter includes directions to have regard to the long term and cumulative effects of its decisions, and to properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible in a manner which is consistent with and promotes the principles of ecologically sustainable development (ESD).

The emphasis of ESD is to consider the future of our environment, and the resources which are required for continued human sustainability. Objectives for sustainability defined in national and state strategies for ESD are to:

- maintain intergenerational equity to ensure economic wellbeing that safeguards the welfare of future generations.
- enhance the individual and community wellbeing within and between generations.
- conserve and protect biological diversity and essential ecological processes and life support systems.

Council is also currently preparing its Local Agenda 21 strategy that will incorporate the principles of sustainable development and provide a context for all Council operations.

Council's Water Savings Action Plan (2006) reflects Council's commitment to reduce its use of water on facilities such as parks, sportsgrounds and other open areas, while maintaining safe, quality public areas for the community to enjoy. Site-specific initiatives to reduce Council's water use in public areas include water efficient taps and toilets, rainwater harvesting in tanks, and improved re-use of stormwater, such as at Mason Park.

3.3.9 Powells Creek Landscape Design Framework

The Powells Creek corridor extends from the Strathfield Town Centre to the Parramatta River at Homebush Bay, and including part of Mason Park.

The Landscape Design Framework sets out strategies that aim to:

- enhance awareness of the environmental and recreational value of the corridor.
- revitalise activity in the corridor.
- establish the Powells Creek corridor as a destination for recreation, cultural experiences and education.
- enhance and protect native habitat and promote biodiversity.
- improve physical integration between communities of Strathfield, Concord and Homebush.
- increase the number of access points and overcome physical barriers.
- create and define links with local and regional cycleways, pedestrian paths, transport facilities, shopping centres, and the sporting facilities of Sydney Olympic Parklands.
- protect and promote cultural and heritage values.
- restore and revitalise the natural environment and systems.
- regenerate vegetation.
- remediate / contain contaminated sites.
- improve the character and quality of the waterway.
- promote partnerships with State, local and private sector stakeholders to share and leverage the delivery of quality projects in the corridor.

The Powells Creek Landscape Design Framework recommends the following for Mason Park:

- an actual / potential regional park destination.
- upgrading the existing bridge spanning Powells Creek using a proposed tidal beacon as a lookout / bridge link / bird hide.
- Implementing a wayfinding / interpretation program along the length of the creek addressing Aboriginal / non-Aboriginal heritage and natural systems.
- exploring opportunities for breaking Powells Creek from its concrete channel at Mason Park, and opportunities for early creek reprofiling.
- exploring opportunities to combine the upgrade of sporting facilities with the protection and enhancement of the Mason Park wetlands.
- reviewing opportunities with SOPA for extension of education and interpretation programs.
- continuing to develop habitat buffer between the playing fields and Mason Park wetlands.
- potentially developing the park as a bird watching area and interpretive point.

Mason Park wetlands and playing fields were identified as one of five conceptual Demonstration Sites along the creek corridor that illustrate opportunities for future projects. Priority projects include:

- ❒ constructing a carpark serving the corridor and parklands, and incorporating sustainable design.
- ❒ integrating sports precincts and establishing a buffer to Mason Park Wetlands.
- ❒ upgrading the sports precinct in Mason Park, Bressington Park, and Powells Creek Reserve.
- ❒ upgrading visitor facilities including carparks, amenities buildings and shelters, demonstrating best practice in environmentally sensitive design principles.
- ❒ exploring opportunities to improve the physical, visual, recreational and natural values of the channelised creek.
- ❒ establishing design principles for naturalising parts of the creek.
- ❒ implementing wayfinding and interpretive projects.
- ❒ installing educational facilities.

4 VALUES, ROLES AND OBJECTIVES FOR MASON PARK

4.1 Introduction

The legislative and State, regional and local planning context applying to Mason Park was outlined in **Section 3**. This section defines the specific roles and objectives for Mason Park, based on community values and management directions of Strathfield Council and the Department of Lands.

The needs and requirements of Strathfield Council (as land owner and Trust Manager), Department of Lands (as land owner), residents (as neighbours and users of the Park), and current and future visitors (as users of the Park) are reflected in management of the Park.

4.2 Community values

4.2.1 The local community

The estimated population of Strathfield local government area in 2006 was 31,983 people, having increased by 14% from 2001. The estimated population of Homebush is 7016 and is characterised by:

- young children and young adults and their parents. The key age groups are 5-14 years (13.7%), 15-24 years (18%), and 25-54 years (48.9%).
- low proportion of people aged over 60 years (8%).
- high proportion of 'couple with children' households (53.2%)
- high mobility. Less than 50% of the population had lived at the same address as 5 years ago.
- higher educational levels than the Sydney average.
- high family incomes comparable to the Sydney average.
- high employment levels, predominantly office-based professional occupations (29.7%).
- high levels home ownership (43.7%)
- 55.6 % of the population having been born overseas, with key countries being India (8.9%),Sri Lank (8.5%), China (8.5%) and Korea (8.3%)., 61.8% or residents in the Homebush are Australian citizens
- households living in separate houses (31.7% of dwellings) and 61.1% in apartments.
- living in an increasing density of high rise and attached dwellings.
- high proportion of vehicle ownership.

4.2.2 Valued aspects of parks in Strathfield

A comprehensive survey of Strathfield residents (Stratcorp Consulting, 2007) found:

- the most popular activities undertaken in Strathfield's parks, including Mason Park, are:
  - meeting friends.
  - playing informal sport.
  - supervising children on playground.
  - walking / jogging for exercise.
  - sitting and relaxing.
  - playing organised sport.
  - watching sport.
  - walking the dog.
  - family outings.

- "Large open space areas / places to run around" and "well maintained" are the aspects of Strathfield's parks that are most liked.
- Over 80% of respondents are either "satisfied" or "very satisfied" with the quality of parks and open space areas in Strathfield local government area.
- "Maintenance of lawns, paths and gardens", "cleanliness", and "feeling of personal safety" received most ratings classified as 'good".
- relatively poor ratings were given for public toilets and car parking.
- 58% of respondents said there was no need for any improvements to existing recreation, community or cultural facilities and services. The other 42%% suggested the following improvements;
- additional lighting in the fields
- More seating in recreational areas
- More shade and BBQ areas
- Upgrade amenities buildings and cleaning program
- 79% of respondents said there were no new recreation, community or cultural facilities and services that may be needed in the Strathfield area. The other 21% suggested improvements including a skate park, cinema, gymnasium and swimming pool.

4.2.3 Values of Mason Park

The Strathfield community and park users value various aspects of Mason Park for different reasons. The community has expressed how the park is important and special to them by articulating their values during community consultation during preparation of the Plans of Management for Mason Park over the last 10 years.

Using values as the basis of the Plan of Management ensures that this plan will be valid longer than one based on simply addressing issues. Issues-driven Plans of Management can quickly become out of date. Values change at a much slower pace than issues do. Values may remain constant for up to a generation, therefore once values are documented, issues can easily be dealt with as they arise consistent with the values. New issues that arise over time very often cannot be dealt with easily unless a new Plan of Management is prepared.

The community of Strathfield places a high value on parks, and they are an integral part of the area in which they live. Community values are reflected in various Council documents, including the Management Plan and the Strathfield Vision 2020.

By understanding the reasons why the community values Mason Park, the role that the community expects the park to play in the future may be determined. As this Plan of Management is based on protecting and enhancing the community's values, desired outcomes, management strategies and actions have been developed that are consistent with these values.

The community values relating to Mason Park are explained in **Table 4.1**. The table also shows the level of significance of each identified value. The level of significance relates to the 'community' that would value that particular attribute of the park, and is denoted by Local, District, Regional, Metropolitan, National and International significance.

Table 4.1 Community values of Mason Park

Value	Explanation	Significance					
		Inter-national	National	Metro-politan	Regional	District	Local
Ecology	The Mason Park Wetland has international ecological significance because all the migratory shorebirds which visit the site are subject to international agreements for the protection of wader habitats. The saltmarsh is an endangered ecological community. The wetland is a remnant example of wetland / saltmarsh in the Parramatta River estuary.	✓	✓	✓	✓	✓	✓
Environ-mental awareness	Mason Park offers the opportunity to raise awareness of environmental issues in Strathfield to varying degrees through models of ecologically sustainable and water saving urban design development and management practices, maintenance of plantings that serve as wildlife habitat, and as an outdoor classroom.				✓	✓	✓
Pedestrian/ cyclist linkages	Mason Park provides valuable linkages with and between surrounding land uses, and within the park itself. The park is linked through regional pedestrian and cycle paths to Sydney Olympic Park, Strathfield Town Centre and Concord.				✓	✓	✓
Recreation opportunity	Mason Park provides for a range of organised and casual recreation and leisure opportunities that cater for the expressed needs of people of all ages. The size of the park accommodates quality settings for field sports, children's play, birdwatching, nature appreciation, and walking / cycling on a scale which attracts people from all over the local government area and beyond.					✓	✓

Table 4.1 Community values of Mason Park (cont.)

Value	Explanation	Significance					
		Inter-national	National	Metro-politan	Regional	District	Local
Image and visual quality	Mason Park has a highly valued peaceful and ambient atmosphere. It has a quality mature visual landscape that is an open, green, semi-natural contrast to surrounding residential properties, commercial and public utility land uses, and major roads. Trees, shrubs, grass and landscaping are appreciated because they create a visually pleasing environment, provide shade, attract birds, and screen adjoining homes. As such, Mason Park contributes to the clean, established and green image of Strathfield. The park is generally well maintained and clean, which contributes to its pleasant appearance. The adjacent open space of Bressington Park and Sydney Olympic Park creates an extensive green link. The wetland is a visual contrast with the playing fields, separated by a buffer of mature trees.					✓	✓
Community involvement	Mason Park is an important public place that provides a venue and facilities for social contact and interaction through sport, informal activities with friends and family, and through organised avenues such as Bushcare and wetland tours.					✓	✓

The management objectives, issues and actions outlined in the following sections will be presented according to these community values.

4.3 Vision and objectives for the Park

The management of Mason Park is based on a vision statement that is shared and endorsed by the Reserve Trust, Council and the wider community. The vision for the park is intended to inspire Council and the Reserve Trust by providing a long-term ideal and focus for all future decisions affecting the Park.

Council's corporate goals, community and user values, and the desired outcomes of the community culminate in a vision for the future direction of Mason Park:

Mason Park will be a quality field sporting complex adjacent to an internationally significant and healthy wetland both linked by regional pedestrian and cycle paths to Sydney Olympic Park, Strathfield, and Concord. Mason Park will be a model for ecologically sustainable development and water sensitive urban design practices.

4.4 Future roles of Mason Park

Following on from the values and vision defined above, the roles of Mason Park are the ways in which the park achieves the goals for Strathfield's open space system as a whole. The desired roles of Mason Park form the basis for making decisions about the future management of the park. The major roles of Mason Park are presented below.

The future roles of the park are:

"The wetlands park"

- Natural environment heritage
- Environmental education in an 'outdoor classroom'
- Destination as part of the Homebush Bay and Powells Creek open space system
- Field sporting venue for structured recreation
- Casual recreation
- Pedestrian and cycle linkages
- Gateway to Strathfield local government area
- Visual relief

4.5 Management principles

4.5.1 General principles

Following on from the values and roles of the park, it is important to establish some management principles and objectives against which recommendations for uses and development of the Park will be made. As owner of land within the Park and Trust Manager of Crown land, Strathfield Council intends to manage Mason Park to:

- preserve the Park as a local, district and increasingly regional community resource.
- preserve the aspects of the Park that are particularly valued, particularly the wetland.
- improve existing facilities within the park, rather than developing new ones.
- limit additional developments that do not relate to the park's roles.
- minimise major changes to existing uses and the function and character of the Park.
- ensure continued free public access.
- continue to provide high quality and well-maintained recreational and park facilities.
- provide opportunities for informal recreation and social interaction.
- maintain the current balance of sporting facilities to informal recreation areas.
- allow limited approved public cultural events which are ancillary to and supportive of the public recreational use of the park, and that have acceptable impacts on public recreational, residential and open space amenity.
- minimise intensification of uses that have impacts on park users and the local community.

- ensure future uses are compatible with existing activities and the carrying capacity of facilities and settings.
- maintain, and improve where possible, the current maintenance service levels of the sports fields.
- ensure the principles of ecologically sustainable development are considered in every area of improvement to the park.
- showcase the use of ecologically sustainable development, water sensitive urban design and other management approaches to minimise the use of non-renewable resources.
- ensure safety of Park visitors.
- discourage noisy activities at night.
- provide access to a range of appropriate open space and recreational facilities in order to meet the changing needs of the community.
- manage and maintain open space and recreation facilities to the highest possible standards in an efficient and cost-effective manner.
- involve the community in establishing their recreation needs and in management and maintenance of open space where appropriate.

4.5.2 Objectives for the wetland

Objectives for restoration and management of the Mason Park Wetland are to:

- encourage a functioning saltmarsh ecosystem.
- restore and retain saltmarsh communities and tidal lagoons that provide habitat for migratory and threatened species of shorebirds as well as fish nursery habitat.
- increase the numbers of migratory shorebirds at the site through appropriate management, and to maintain the wetlands as the most important site for species in serious decline, such as the Curlew Sandpiper.
- provide educational facilities on site and through various media to demonstrate the importance of wetlands and the plight of migratory birds in Australia and throughout the Asia Pacific Migratory Flyways in association with SOPA and other member bodies of Wetlands Link International (WLI).
- provide adequate tidal flows to:
  - provide ideal conditions for saltmarsh and tidal lagoons.
  - provide shorebird feeding and roosting habitat
  - improve water quality
  - minimise acid sulfate soils
  - manage mangroves.
- fulfil international treaty obligations regarding migratory birds.
- provide an outdoor classroom for educational purposes.
- control mosquitoes for human health.
- improve understanding of the function and significance wetland by the community.

The following sections of this document outline specific strategies and actions to address management issues consistent with the goals and objectives for the park outlined above, and consistent with community values.

5 ACTION PLANS

5.1 Introduction

Figure 5.1 is a landscape concept plan that shows proposed on-the-ground actions.

These and other actions required to resolve management issues (consistent with the community's values for the park) are presented in the following tables. Table headings are explained as follows:

Background – explanation of the issue, including options to address the issue.

Strategy – reflects the value of the park, and provides direction for the action.

Action – specific task or action required to address issues, consistent with the strategy.

Priority – importance or urgency of the action.

Responsibility – section within Council, or another organisation responsible for implementing the action.

Responsibilities within Council for implementing actions are:

CS Corporate Services
GM General Manager's Unit
O Operations
TS Technical Services

Other organisations responsible for certain actions are:

DoL Department of Lands
DPI Department of Primary Industries
SW Sydney Water
SOPA Sydney Olympic Park Authority
EA Energy Australia

Performance target – the desired outcome in implementing and achieving the action.

Monitoring method – how Council intends to measure its performance in implementing and achieving the action over time.

Figure 5.1 Landscape concept plan

5.2 Action Plan

5.2.1 Ecology

Background	Strategies	Actions	Priority	Respons-ibility	Performance measures	Monitoring
1. Tidal influence						
The importance of tidal flushing to the Mason Park wetlands is to provide a pathway for marine life between the estuary as a whole and Mason Park allowing invertebrates and fish to become established thus improving the health and viability of the wetlands. The existing drop-board weir does not adequately flush the wetland. Refer to **Section 2** and **Appendix B** for more information. A new automated inlet is proposed to improve flushing of the wetland. The cost of a new inlet structure including installation, is approximately $200,000.	Ensure full tidal flushing and interchange of water between the Powells Creek channel and the saltmarsh. Ensure the saltmarsh basin is maintained as close to a natural system as possible.	Liaise with Sydney Water regarding the proposed inlet structure and proposed de-channelisation of the concrete Powells Creek channel.	High	TS O GM	Conduct meetings and seek partnership	-
		Test surface soil for contamination.	High	TS	Soil analysis undertaken	Sampling
		Prepare a soil contamination study.	High	TS	Soil samples taken	Sampling/ monitoring
		Undertake water sampling.	Ongoing	TS	Sampling undertaken a minimum of 4 times per year	Continued water sampling
		Investigate the need for consent and prepare a Statement of Environ-mental Effects for the proposed inlet.	High	TS	Seek potential consultants skills	-
		Secure funding to install the new inlet structure.	High	TS O	Seek potential funding	-
		Provide for more channels in the wetland to connect the southern and middle basins, subject to satisfactory soil contamination evidence.	High	TS O GM	Additional channels constructed.	Less drying out of wetlands in southern basin.

Background	Strategies	Actions	Priority	Respons-ibility	Performance measures	Monitoring
Tidal influence (cont.)		Level slightly undulating land in the southern section, subject to satisfactory soil toxicity data.	High	TS O	Investigate soil data toxicity and preventative measures.	Sampling
		Construct a new tidal inlet / weir, with a mangrove seed and rubbish exclusion device, and a remote regulation system.	High	TS GM 0	Measure water levels in the wetland and Powells Creek using a data-logger with a probe either side of the bund.	Regular water sampling
		Prepare a maintenance manual for the inlet.	High	TS	Maintenance manual completed.	Update the Maintenance Manual every five years.
		Carry out inspections of the weir and inlet timed to match 'king' tides and when floods occur.	High	TS	Inspections of the weir and inlet complete.	Monthly and quarterly inspections.
2. Water quality						
Modifications to the wetland basin and its catchment over many years have affected water quality parameters, particularly pH and salinity. In addition, development in the catchment has lead to an increase in pollutants (including elevated nutrient levels) and the natural 'purification' processes of	Ensure the quality of water in the wetland promotes a healthy and functioning wetland.	Continue the current water monitoring program.	High	TS	Quantitative improvement in water quality compared with data obtained before the inlet was installed.	Regular water quality testing.

Background	Strategies	Actions	Priority	Respons-ibility	Performance measures	Monitoring
(cont.) Powells and Saleyards Creeks have been eliminated through canalising and concrete lining. Before the sewage line was patched in 2006, contamination of the wetland by sewage occurred.	Promote catchment management principles to reduce impacts on the wetland from surrounding land uses. Prevent sewage contamination of the wetland.	Liaise with Sydney Olympic Park Authority regarding monitoring of salinity, acidity and the presence of contaminants following any disturbance or altered inundation of the southern section of the saltmarsh.	High	TS	Testing conducted compared to nearby wetlands and water bodies	Regular water quality testing
		Regularly remove gross pollutants from the wetland, especially after flooding rain.	High	SW TS O	No accumulation of gross pollutants in the wetland.	Regular removal of gross pollutants, especially after floods.
		Liaise with Sydney Water to replace the sewage line.	Medium	TS O	Sewage line replaced.	Sampling and observation
3. Monitoring of shorebirds						
Regular monitoring of shorebirds and other waterbirds is essential to gauge the effectiveness of site management (water levels for example) in relation to birds. Bird monitoring was described in Section 2 and Appendix C.	Maintain the health and sustainability of the wetland ecosystem as a habitat for birds in the long term.	Liaise with the Sydney Ports Corporation and SOPA regarding the results of their weekly / fortnightly shorebird monitoring program at Mason Park as part of reference site monitoring program for the expansion of Port Botany.	Ongoing	TS	Provision of data to Council for reporting	-
		Seek the assistance of specialists at the Sydney Olympic Park Authority, Australasian Wader Studies Group, and other appropriate organisations regarding bird monitoring.	Ongoing	TS	Continually liaise With SOPA	-
		Carry out monthly monitoring of shorebirds and other waterbirds by skilled observers able to identify all species and interpret bird behaviour in relation to changes at the wetland.	Ongoing	TS	Monitor birds to measure abundance and show which areas are used.	Observation/ monitoring of numbers

Background	Strategies	Actions	Priority	Respons-ibility	Performance measures	Monitoring
Monitoring of shorebirds (cont.)		Encourage volunteer members of bird clubs and the general public to report sightings of species and events at the Mason Park wetland to alter management of any significant changes in numbers of shorebirds.	Ongoing	TS	Volunteer sightings	Follow-up with clubs and the general public.
		Liaise with Sydney Olympic Park Authority for expert input regarding benthic sampling.	High	TS	Input received from SOPA	Follow up sampling
		Carry out benthic sampling and monitoring initially on a monthly basis before and after the installation of the inlet structure, and then on a seasonal basis (2 to 4 times a year).	Ongoing	TS	Monitoring completed	Follow up monitoring
4. Contamination						
Earthworks and landfilling around the wetland over much of the 20th century have led to the contamination of soils with heavy metals and in some parts the development of actual acid sulphate soils. Refer to Section 2 and Appendix B for more information about contamination in the wetland.	Manage potentially contaminated soils to minimise any possible harmful effects on the public or the environment. Maintain a neutral pH level on the fill mound to minimise the movement of heavy metals in ground water.	Remove the road surface and hard fill from the area close to the power line easement.	High	EA SW TS	Liaise with EA and SW regarding access and site contamination	-
		Investigate composition of the landfill before any improvement works in the wetland proceed.	High	TS	Landfill composition report	Sampling
		Contract Sydney Environmental Soil Laboratory to undertake water monitoring to test levels of soil contamination, and advise on further action if required. And investigate updating the Acid Sulphate Soil Study.	High	TS	Contaminated soils managed in accordance with DECC and ANZECC guidelines.	Follow-up water quality monitoring.

Background	Strategies	Actions	Priority	Respons-ibility	Performance measures	Monitoring
Contamination (cont.)		Implement actions from the Acid Sulphate Soils Action Plan and Mason Park Wetland Maintenance Manual.	High	TS GM O	Actions implemented	Ongoing
5. Weeds and undesirable plants						
Landfilling around the wetland has created an edge that is rapidly and easily colonised by weeds such as *Juncus acutus* and undesirable plants including mangroves.	Reduce the edge effect around the saltmarsh by removing weeds and replacing them with indigenous vegetation where appropriate. Limit colonisation of weed species, concentrating on those species which threaten the integrity of the wetland. Control the propagation of mangroves, while allowing the passage of fish through inlets.	Continue the comprehensive to control all exotic shrub and grass species.	High	TS O	Significant reduction of weed species. No loss of saltmarsh in the area.	Quarterly inspections.
		Ensure the design of the new inlet structure precludes mangrove seeds.	High	TS O	New grate installed at weir inlet to prevent mangrove seedlings and rubbish, while permitting fish movement.	Inspections.
		Obtain approval from DPI to manually remove mangroves.	High	TS	Mangroves removed	Inspections.
		Manually remove mangroves where they are displacing saltmarsh vegetation or shorebird feeding habitat and maintain these habitats through the control of mangrove propagules.	Short	TS	Encroaching mangroves removed	Inspections. Photopoints
		Monitor any expansion of mangroves under the new tidal regime.	Ongoing	TS	Regular monitoring and recording	Map extent of mangroves.

Background	Strategies	Actions	Priority	Respons-ibility	Performance measures	Monitoring
6. Rare and restricted saltmarsh species						
The current condition of the wetland is hostile to all plants except mangroves. Studies of some of the rare and restricted saltmarsh species, such as *Wilsonia backhousei* and *Lampranthus*, are being undertaken by the University of NSW, Sydney University, and UTS. Some planting will be worthwhile, but once the new inlet structure is installed and inundation increases, natural colonisation should improve. A small remnant of the regionally rare species *Wilsonia backhousei* also occurs at the site. Once the new inlet structure is installed and the inundation pattern is established, the area of *Wilsonia* may expand.	Protect and enhance habitat for rare species. Re-establish indigenous species through planting and bush regeneration techniques, while maintaining areas of open water for wading birds. Encourage growth of *Juncus kraussii* in some parts of the wetland.	Expand the extent of the existing saltmarsh species by transplanting and /or planting tubestock of selected species, such as *Sarcocornia* and *Sporobolus*, in some areas of the saltmarsh.	High	TS	Area of saltmarsh expanded.	Area of saltmarsh mapped every five years using low level aerial photos.
		Carry out a six-part test and possibly a species impact statement for *Wilsonia* before undertaking changes to the saltmarsh.	High	TS	Liaise with wetland consultants	-
		Undertake trials over a number of years to expand the existing stand of *Wilsonia* by transplanting into suitable sites throughout the saltmarsh. Ensure plants are transplanted into the correct areas in the saltmarsh to minimise losses through drowning or desiccation.	Ongoing	TS	*Wilsonia backhousei* successfully re-established in suitable areas.	Area of *Wilsonia backhousei* mapped every two years.
		Replant some *Lampranthus* at a higher elevation.	Ongoing	TS	*Lampranthus* is successfully re-established in suitable areas.	Area of *Lampranthus* mapped every two years.

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
Lampranthus is an introduced species and is not protected. It is killed by tidal inundation, but there is a reasonable coverage of the rare *Lampranthus* sp. in the wetland. If it is to be conserved some will need to be planted at a higher elevation. Hypersalinity, acid conditions and periods of poor tidal inundation, drought, human activity and *Juncus acutus* have all led to a loss of saltmarsh. As a result, the large stand of *Juncus kraussii* has been lost and saltmarsh plant diversity is low.		Investigate the potential for Strathfield Council Native Nursery to propagate *Lampranthus* sp.	Ongoing	TS O	*Lampranthus* sp. Successfully propagated	Inspections and mapping
		Prepare an assessment of significance on *Wilsonia backhousei* and the saltmarsh community before carrying out any works which may impact on the vegetative community.	Ongoing	TS O	Assessment competed.	Monitor impacts of works on the saltmarsh community.
		Direct seed and / or propagate tubestock of *Juncus kraussii* and replant.	Ongoing	TS O	*Juncus kraussii* stands re-established.	Inspections and mapping
7. Invertebrates						
Previous studies have shown invertebrate diversity and abundance to be low. Improved saltmarsh coverage and diversity, improved soil structure and algal presence, coupled with regular flooding and draining have been shown to improve abundance and diversity of invertebrates. However the concrete estuary and loss of habitat for invertebrates makes re-colonisation of these animals slow and probably unrealistic.	Encourage invertebrate diversity and abundance.	Undertake core sampling of invertebrates four times a year.	Ongoing	TS	Sampling undertaken	Results graphed and analysed

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
8. Disturbance of shorebirds and their habitat						
Dogs, cats, hares and foxes frequent the wetland area and consequently threaten native fauna and wetland birds. Programs to control feral animals are being planned.	Control introduced fauna species to reduce their impacts on the wetland and wading birds.	Carry out surveys and counts of feral animals.	High	TSO	Flora and fauna survey complete.	Repeat survey in five years.
		Carry out planned programs to control feral animals.	High	TS O	Develop and implement control plan.	Trappings caught
		Co-ordinate the timing of feral animal control programs at Mason Park and Sydney Olympic Park.	High	TS O	Concurrent feral animal programs.	Diary entries.
		Liaise with the community and Council rangers regarding sightings of feral animals.	High	TS O	Increase in number of feral animals caught.	Reports from community and rangers.
Tall trees are gradually closing in the wetland, and are likely to result in shorebirds leaving the site, and may already be excluding some shorebird species that would otherwise use the site.	Provide more opportunities and protection within and around the saltmarsh for nesting and roosting birds.	Investigate the removal of tall trees and shrubs close to the wetland, including between the cycleway and the wetland and on the Sydney Water contaminated rubbish pile.	Short	TS O	Investigate Tree Preservation Order Appropriate levels cleared	Inspection
The buffer between the sports fields and the wetland is the only treed area that should remain.	Maintain a treed buffer only between the sports fields and the wetland.	Extend dense planting further south to the Energy Australia depot.	Ongoing	TS O	Increased plantings	Ongoing inspections
There is considerable 'through traffic' along the Ryde to Botany Bay walkway / cycleway. The speed of some cyclists along the walkway / cycleway is also a concern in terms of disturbance to shorebirds.	Minimise disturbance to waterbirds and their habitat by walkers and cyclists.	Educate users of the walkway / cycleway about the sensitivity of the site through signage and interpretive material.	Ongoing	TS	Disturbance to habitat and water birds is minimised.	Inspections. Ornithologists reports.

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
There are potential conflicts between recreational use of the neighbouring sportsfields and conservation of wetland values. These conflicts include disturbance of roosting and migratory birds by noise and activities on the playing fields, such as retrieving stray balls on the saltmarsh.	Provide visual and physical barriers between the sporting fields and the wetland to minimise the impact of sporting and other recreational activities. Prohibit developments and activities on adjoining recreational areas which are incompatible with preserving wetland habitat values.	Maintain planting between the Mason Park playing fields and the wetland as a dense buffer zone at least three metres wide, except for designated hides or viewing areas. Widen these planting areas where possible to provide additional separation, and to enhance the habitat value of the native planting areas.	High	TS O	Firm buffer between playing fields and wetlands maintained.	Inspection.
Light spill from the adjacent sports fields is an issue for birds using the wetland at night. Birds do not like to roost in well-lit areas. Illumination of the wetland also enables predators to see and approach shorebirds.	Ensure that lighting of the sports fields and surrounds does not affect fauna that inhabit the wetland.	Install shields on light towers.	Ongoing	TS O	Investigate potential to install shields without effect on lighting depth to fields and birds.	-

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
Light spill (cont.) The wetland has a considerable number of access points. Unauthorised entry to the saltmarsh zone is a cause of damage.	Deter access to the wetland from all but formalised viewing points. Provide limited opportunities for visitors to rest and view water birds without disturbing them. Discourage entry on to the wetland by pedestrians, cyclists and dogs especially in dry conditions.	Assess developments such as lighting towers with regard to the possible impact on wetland birds.	Ongoing	TS O	No negative impact on birds.	Observations
		Formalise the pathway at southern end and provide edge treatments.	High	O	No more than one informal pathway.	Inspections
		Investigate constructing a landscaped viewing area on the landfill area on the eastern side of the southern basin of the wetland.	Medium	O	Investigated and viewing area considered / constructed.	Observations
		Maintain a low spiky shrub layer close to the walkway / cycleway but away from the water's edge.	Ongoing	TS O	Barrier planting installed	Observations.
9. Mosquitoes						
Mosquitoes occur naturally in the wetland area, and they are in neighbouring wetlands in Sydney Olympic Park. Spread of mosquito borne diseases is likely to increase. Any change to the hydrology of Mason Park that does not recognise this could lead to ecologists and managers of Mason Park being liable for damages.	Manage the wetland to reduce mosquito breeding areas.	Obtain specialist advice regarding control of mosquitoes.	Ongoing	TS	Report on mosquito control prepared.	-
		Partner with the Sydney Olympic Park Authority and City of Canada Bay Council and regarding mosquito control and prevention strategies.	Ongoing	TS	Launch of joint program. Review existing SOPA program results.	Research
		Carry out an assessment of mosquitoes before and after the new inlet structure is installed.	Medium	TS	Monitoring program carried out.	-

Background	Strategies	Actions	Priority	Respons-ibility	Performance measures	Monitoring
Mosquitoes (cont.)		Implement recommended actions to control mosquitoes.	Ongoing	TS	Decrease in mosquito numbers.	Observation and sampling for larvae
10. Funding of maintenance works						
Although substantial rehabilitation works are complete, maintenance and enhancement of new vegetation zones around the periphery of the wetland, the weir, a new inlet, and the mangroves and saltmarsh is essential. Existing funding for maintenance and repairs is not adequate to cover all the works required. Funding for ongoing capital and restoration programs is required.	Increase funding for maintenance and repairs to cover all maintenance. Identify funding sources and grant opportunities for funding through agreements with local businesses, interested industries and other government departments.	Approach relevant government departments for funding assistance.	Ongoing	TS O	Funding secured.	Project initiated.
		Seek sponsorship from local business and interested industries.	Ongoing	TS	Sponsorship sought and secured.	Feedback from sponsors.

5.2.2 Environmental awareness

Background	Strategies	Actions	Priority	Respons-ibility	Performance measures	Monitoring
11.Education and interpretation						
Mason Park provides an ideal location for public and school education due to its ease of access and viewing potential. Interpretative signage is important to inform the public about the importance of migratory staging areas (i.e. birds on their way through to Victoria or New Zealand) and places for migratory shorebirds to spend their non-breeding season (those that stay for up to 7 months in Sydney). Interpretative signage should also cover the feeding ecology of shorebirds (why they live in wetlands), migration routes (arduous migration) as well as why Mason Park is has become a unique site. There is a continuing need for education and interpretation services such as signage, information, educational tours and viewing opportunities.	Maintain the environmental education role of the wetland. Raise awareness of the wetlands through targeted education and interpretation. Provide opportunities for appreciation of the wetlands. Continue school and community education programs. Increase appreciation of and access to the wetland.	Commission production of interpretive and educational material on the wetland, including signage and a wetland brochure.	Ongoing	TS	Brochure and signage updated.	Observation
		Install new interpretive signage in wetland viewing locations at the northern and southern ends of the wetland.	High	TS O	Feedback from visitors.	Observation.
		Replace/ upgrade interpretive signage when out of date or damaged.	Ongoing	TS O	Timely replacement of signage.	Observation
		Provide seating and shelter at interpretive and viewing points to encourage visitors to view the wetland.	Medium	TS O	Seating installed	Observation
		Co-ordinate wetland workshops and tours with SOPA.	Ongoing	TS	Educational tours conducted	Number held p.a
		Conduct education walks with school groups and local workers.	Ongoing	TS	Educational tours conducted	Number held p.a

Background	Strategies	Actions	Priority	Respons-ibility	Performance measures	Monitoring
Strathfield Council restore and maintain interpretive signs. However the current signs do not convey accurate text and graphics. New material may be available to illustrate better signage. Strathfield Council undertake annual public tours of Mason Park Wetland, and wetland workshops in conjunction with SOPA. Council also produce information for university and high school students. It is important that issues related to catchment management and Mason Park Wetland (toxic soils, poor inundation, low invertebrate productivity, poor connection to the estuary, etc.) are highlighted to students and the community.		Provide boardwalks viewing areas inlet / platform for bird viewing in the southern area of the wetland near the mound.	Medium	TS	Research appropriate designs and potential	Research performed
		Continue to liaise with Universities regarding Mason Park and potential projects.	Ongoing	TS O	Reports and records	-

Background	Strategies	Actions	Priority	Responsibility	Performance target	Monitoring method
12. Awareness of significant environmental resource						
Although there is increasing recognition that the Mason Park Wetlands are part of the Homebush Bay wetlands and are of international significance, there is limited public awareness of its ecological value or relationship to the wetland system as a whole. Strathfield Council regularly publish news articles about Mason Park Wetland in *Strathscene*, the Inner Western Weekly, and the Bushcare bulletin.	Raise public awareness of migratory waders and the ecological significance and processes of the wetland system.	Continue to produce and publish feature articles in local media on the Mason Park Wetland.	Ongoing	TS GM	Mason Park wetland recognised by the public as part of the Homebush Bay wetland system.	Feedback from users of Sydney Olympic Park and Mason Parks in future park user surveys.
		Organise publicity and events to coincide with World Wetlands Day (2 February each year) and World Migratory Birds Day (in May each year) with SOPA and other organisations.	Ongoing	TS	Successful events held to promote the area and to educate the community	Feedback from attendees
		Provide information to local residents on the importance of the wetland and how they can help by controlling their pets, in conjunction with City of Canada Bay Council.	Ongoing	TS	Local residents are aware of importance of controlling pets near the wetland.	Survey and feedback

5.2.3 Pedestrian / cyclist linkages

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
13. Links to adjacent open space						
Paths connect Mason Park with Bressington Park and south of the park along the Powells Creek channel. A bridge linking Powells Creek Reserve and Mason Park was recently constructed. Pedestrian and cycle links to adjacent open space – Bressington Park and Sydney Olympic Park, Powells Creek Reserve and the Powells Creek corridor – could be improved. The only pedestrian link between Mason Park, Bressington Park and open space areas to the north is at the north eastern end of Mason Park. A wayfinding Plan for Powells Creek corridor prepared by dotdash (2005) recommended improving wayfinding within and external to Mason Park. Access between Mason Park and Bressington Park is possible at the eastern end from the Powells Creek pathway, and at the western end. There is no mid-park link between Mason Park and Bressington Park.	Improve sealed path connections and directional signage to the Powells Creek corridor and south to Parramatta Road and Strathfield. Continue investigations into links to open space south along Powells Creek to Parramatta Road. Link Mason Park and Bressington Park.	Review current access points and desire lines for movement within the park and to surrounding areas.	High	O	Investigate new pathway designs	Designs assessed.
		Prepare a landscape plan, which addresses access to and pedestrian movements within the park.	High	O	Landscape plan prepared.	-
		Implement the linkage recommendations of the Harbour to Hinterland report.	Ongoing	O	Linkage potential investigated	Links increased
		Install directional signs, map and directory information, identification and interpretive signage.	Ongoing	O	New signage installed	Observation and feedback
		Improve signposting to direct cyclists from Pomeroy Street to the cycleway along the eastern edge of Mason Park.	Ongoing	O	Increase in cyclist use of pathway on eastern edge of Mason Park.	Observations.

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
Links to adjacent open space (cont.)		Further investigate improving links and access to the south through development of the Powells Creek corridor.	High	TS O	Pedestrian link to Parramatta Road.	-
		Construct a footbridge between the Mason Park carpark and Bressington Park over Saleyards Creek.	Medium	O	Investigate potential to construct footbridge	Community consultations
14. Pedestrian access from Underwood Road						
Underwood Road is a main road with constant traffic. The closest crossing of Underwood Road for pedestrians are traffic lights located at Pomeroy Street to the south, and traffic lights at the roundabout at the intersection of Underwood Road and Homebush Bay Drive.	Locate park entrances as close as possible to a pedestrian crossing to provide safe pedestrian access along and across Underwood Road.	Provide the main pedestrian entrance to Mason Park at the southern end of the park near the playground.	Medium	O	No pedestrian accidents on Underwood Road near the park.	Park user surveys. Police accident reports.
		Construct the rest of the footpath along Underwood Road connecting the existing sections of footpath between Mason Park and Bressington Park. Currently partially existing	Medium	O	Footpath constructed. Use of footpath.	Inspections.
15. Internal linkages						
Pathways connect the carpark with the wetland, but there are no other internal pathways.	Improve connections between settings and facilities in the park.	Connect the children's playground, car park, bicycle track and Underwood Road by a pathway on the southern side of the park.	Medium	O	Designs added in landscape plan.	Community feedback, surveys

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
16. Pedestrian / cyclist conflicts						
Some pedestrians are concerned about the speed of cyclists along the Powells Creek cycleway.	Minimise conflicts between pedestrians and cyclists. Reinforce the paths are for shared use.	Review and implement signage and on-path markings for the shared pathways.	High	O	Signage installed. Investigate potential of bike lane	User surveys and feedback
17. Pedestrian amenity						
Enhance the walkway / cycleway to cater for different park users such as walkers and cyclists.	Provide park furniture, shade and rest stops along pathways for the different park users.	Install seats along walking/cycle paths in appropriate locations.	High	O	Seats installed.	—
18. Bridges						
The hand railings of the bridges across Powells Creek and Saleyards Creek require repair.	Improve the safety railings on the bridges.	Liaise with Sydney Water to improve the safety of hand railings on bridges across creeks.	Ongoing	O	Hand railings improved.	—

5.2.4 Recreation opportunity

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
19. Layout of playing fields						
Configuration of the sporting fields was changed in 2005 to maximise the number and size of soccer fields. However, the current layout of the playing fields is not optimising use of the available space.	Accommodate an additional cricket wicket without impacting on soccer fields.	Review and reconfigure the layout of the sporting fields to include a cricket wicket.	High	O	Revised layout for sporting fields shown on landscape plan.	User demand feedback and survey
20. Quality of the playing field surface						
The surface of the playing fields underwent a major improvement program in November-December 2005 to address undulations caused by subsiding landfill. As a result, the Mason Park playing fields are highest quality fields in Strathfield. Despite the upgrade, drainage is poor on Field 3.	Maintain the quality of the playing surfaces to Council's standards.	Improve drainage of Field 3.	High	O	Investigate improved drainage solutions	Feedback from users.
		Continue to maintain the playing fields surface to a high standard.	Ongoing	O	Playing fields maintained to the current high standard.	Positive feedback from sporting users.
21. Unstructured sporting activity						
Recreational opportunities in the park are mainly restricted to organised sport, walking, cycling and children's play. Support facilities for organised sport, such as cricket practice nets, are also needed. There are also few facilities and settings in the park for people that are not interested in structured field sports.	Provide opportunities for unstructured sporting activities.	Install cricket practice nets.	Medium	O	Increased use of the park.	Park user surveys. Observations.
		Provide a practice wall for ball sports.	Medium	O	Investigate potential needs and demand	Park user surveys. Observations

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
22. Commercial use						
Requests have been made to Strathfield Council to use Mason Park for bike hire, filming TV commercials, and corporate promotions.	Permit commercial uses and developments that are compatible with the values of Mason Park, are consistent with the purpose of the reservation under the *Crown Lands Act 1989* and the objectives for sportsgrounds under *the Local Government Act 1993*, the open space zoning, and Council's Community Facilities Plan of Management.	Develop a policy and schedule of fees for the use of the park which includes different rates for commercial and community use, based on the Community Facilities Plan of Management, existing fee structure and large events policy.	High	CS O	Increased revenue to Council by charging market rates for appropriate commercial use of Mason Park.	Review suitability of commercial uses.

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
23. Access and car parking						
The carpark is surfaced with road base, which has numerous potholes. Although this is adequate for a carpark, the surface requires recurrent maintenance and it fills with water during wet weather. The carpark is sometimes used as a vehicle race-track and often as a dumping ground for rubbish and stolen vehicles, because it is remote from buildings and screened by vegetation. The entry/exit to the Mason Park carpark is quite narrow. Council has received a grant of $150,000 for a Water Sensitive Urban Design (WSUD) car park at Mason Park which is to be implemented in 2008-09. The grant was received from the Water Savings Fund administered by the Department of Energy Utilities and Sustainability. The grant will enable Council to re-use storm-water from a large hard surface adjacent to the park to irrigate Mason Park. Otherwise the water would run off into Powells Creek.	Re-design, formalise and resurface the carpark. Reduce vandalism and rubbish dumping in the carpark. Ensure vehicle access to the carpark is able to cope with existing and future traffic volumes.	Re-design the Mason Park carpark to maximise the number of car spaces in the existing car park area, and to eliminate long straight stretches of asphalt, and to improve vehicle entry and exit.	High	O GM	Carpark re-design complete.	Inspection
		Install a water collection and filtration system for water running off the carpark surface.	High	O GM	Carpark serviceable during wet weather. Pollution runoff from carpark minimised.	Inspections. Testing of overland drainage.
		Seal the carpark with a permeable surface.	High	O GM	Investigate appropriate resource	-
		Install stormwater pollution control devices on pipe outlets from the carpark.	High	O GM	Pollution runoff from carpark minimised.	Monitor performance of stormwater pollution control devices.
		Incorporate traffic calming features when the carpark is formalised.	Ongoing	O	Assess traffic conditions	Inspections
		Ensure that the gate is locked after hours.	Ongoing	O TS CS	No dumping of rubbish or cars. Gates locked after hours.	Feedback from residents and park users.

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
Access and carparking (cont.)		Erect a sign indicating the opening hours of the carpark.	High	O	Sign erected.	—
		Install timer or sensor lights in the carpark.	High	O	Sensor lights or timer installed.	Inspections regarding effectiveness of lights in preventing rubbish dumping.
24. Overflow parking and other uses						
As Mason Park is located close to Sydney Olympic Park, there may be a demand for overflow parking on the playing fields during major events there. Requests have already been made to use the park for overflow parking for annual cultural/social events. Vehicle parking is not permitted on Crown Reserves set aside for public recreation if the parking area serves another facility or activity located elsewhere.	Subject to conforming with the values of the park and not significantly impacting on established users, permit overflow parking and other uses, and revenue from car parking is allocated to park improvements and maintenance. Ensure that any car parking is only allowed on Council-owned lands.	Develop a policy for overflow parking and other uses in Mason Park (on Council owned portions only).	Ongoing	O	Orderly provision of overflow parking compatible with permitted park uses. Revenue from parking more than covers field maintenance and restoration costs.	Comparison of actual park restoration costs with parking fees.

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
25. Shade						
Shade and shelter around the sporting fields for groups of 40-50 people would be beneficial.	Improve shade for people watching sport.	Investigate options for shade shelters around the sports fields.	High	O	Increase level of shade	Positive feedback from sporting users
		Provide tree planting around the edges of the sports fields in association with seating and pathways.	Ongoing	O	Increase plantings in the park	Observation
26. Lighting						
Maximum use of the sportsfields for night training is not being achieved, for example the furthest field is not well lit. Additional lighting of the sporting fields will enable rotation of sports use at night which will reduce wear and tear on the fields. However additional lighting will likely impact on birds using the wetland for roosting. Any changes to lighting of the fields must take into account the impacts that light spill may have on the wetland. Installation of a new Cloudmaster system is being proposed for the 2007-08 financial year. The system will equate the use of lights with park bookings, which will have the benefit of reducing wear on fields.	Ensure lighting meets Australian standards for sports training and is energy efficient. Further investigate how to improve lighting of the sporting fields,given the unstable. Control the use of lights to be operational only when the park is being used.	Audit existing lighting.	High	O GM	Conduct lighting audit	-
		Implement measures that will address shortcomings in lighting revealed by the audit.	Ongoing	O GM	Playing field lighting is improved and conforms to AS 2560.	Feedback from sporting users.
		Install a new light on the free area and on the eastern side of Field 1.	Medium	O	Investigate need and potential	Inspection Survey user groups
		Install a Cloudmaster remote lighting system for the sports lighting.	High	O	System installed	User feedback

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
Lighting (cont.)	Light the park fronting Underwood Road.	Install lights on the back of the existing sports lights towards Underwood Road.	Low	O	Investigate need and potential	Survey resident and user groups
27. Waste disposal						
There are not enough garbage bins in the playing fields area. Rubbish is left behind after sporting events. The frequency of emptying the bins needs to be improved.	Ensure the garbage bins are emptied regularly.	Increase the frequency of emptying garbage bins.	High	O TS	Garbage bins do not overflow.	Reports from park users.
		Install additional bins for general rubbish and recycling.	High	O TS	Bins installed	Reduction of litter
	Ensure dog waste is disposed of .	Install additional dog waste bag dispensers in the park.	High	O	Receptacles installed	Monitor dog waste in park
	Promote resource recovery through recycling facilities.	Installation of recycling bins	High	O TS	Bins installed	Inspections and observation of level of waste.
28. Amenities building						
The amenity building is in good condition. Sporting groups that use the amenities building have requested a storage area, increasing the size of the canteen, and improving the hot water service in the change rooms.	Improve the amenities building to meet needs of users.	Undertake a detailed condition audit of the amenities building to determine asset maintenance and compliance issues.	High	O	Investigate potential for additional storage	-
		Liaise with the users of the amenities building regarding specific needs for extending the amenities building.	High	O	Need for extensions known.	-
		Extend the amenities building if required.	High	O	Extension completed	-
		Improve the delivery of hot water in the change rooms.	Medium	O	Hot water system improved	-
		Open the toilets for school sporting events.	Ongoing	O	Toilets available for users	-

Background	Strategies	Actions	Priority	Respons-ibility	Performance measures	Monitoring
29. Playground development						
The Strathfield Playground Management Strategy (2002) recommended a new playground for Mason Park in the long term, designed to provide: ❒ a custom designed setting suited to the wetland environment. ❒ use of landscape elements (earthworks and planting) to enhance the play. ❒ for a range of ages 3 to 12 years. ❒ a good range of play activities for children with disabilities. ❒ access for people with disabilities to amenities including shade and shelter, picnic, barbecue and toilets which should all relate physically to the play area.	Develop the playground to district level to service the northern end of the municipality.	Upgrade the playground consistent with the Playground Management Strategy (2002).	Low	O	Equipment complies with Playground Management Strategy (2002).	Inspection
		Reallocate existing equipment to a site where additional agility equipment is needed.	Low	O	Investigate relocation of playground	Survey users
30. Safety of playground						
Council has a responsibility to provide a safe environment for children. This responsibility extends to play equipment, softfall and environmental hazards. There are few facilities for adults supervising children at the play-ground. The shade sail over the playground is considered by users to be insufficient to shade children.	Ensure that all play equipment and softfall complies with relevant standards. Ensure play areas are kept free of rubbish and hazardous items, such as needles.	Remove all children's play equipment and softfall that does not meet relevant standards.	High	O	All play equip-ment and soft-fall in Mason Park complies with Australian Standards.	Risk assessment and equipment inspection reports.
		Inspect the children's play areas regularly for environmental hazards.	Ongoing	O	Regular inspections conducted	-
		Install additional seating and shade at the playground.	High	O	Seating installed	-

Background	Strategies	Actions	Priority	Respons-ibility	Performance target	Monitoring method
31. Informal recreation facilities						
There are very few facilities for informal recreation activities and sporting spectators, such as picnic and barbecue facilities, seating, and water taps or bubblers.	Provide additional park furniture around the perimeter of the playing fields to facilitate use by spectators and other users, while retaining flexibility in field configuration.	Provide picnic and barbecue facilities in appropriate locations.	Medium	O	Facilities installed and used.	Feedback from users. Use of facilities.
		Install seats along the northern and western sides of the sporting fields.	Medium	O	Seating installed	Observation
		Install other park furniture (bubblers etc.) at appropriate locations.	Medium	O	Additional furniture needs investigated	User feedback
		Define areas through tree planting, and provision of seating and picnic a facility that encourages informal uses in the park and defines areas separate to the main sporting fields.	Medium	O	Investigate and add to Landscape plan	User feedback observation

5.2.5 Image and visual quality

Background	Strategy	Action	Priority	Respons-ibility	Performance target	Monitoring method
32. Gateway to the park						
There is no obvious or visible "gateway" to Mason Park, such as signage.	Redesign the entrances to the park and investigate park entrance signage in the landscape plan. Provide clear and direct pedestrian entry points, with clear lines of sight into the park.	Address park entry points in preparing the landscape concept plan.	Medium	O	Investigate	User feedback observation
33. Planting						
The planting throughout the park needs to be improved. For example, some older trees are dying.	Improve the appearance of the park.	Prepare a Landscape Master Plan and planting plan for the park.	High	O TS	Needs for additional furniture investigated.	User feedback
An overall Landscape Master Plan and planting plan is needed for Mason Park, which should identify additional opportunities to extend existing plantings and reinforce buffer zones to the wetland. Any landscaping around the wetland must be compatible with and reflect the natural qualities of the wetland system.	Include new planting areas with locally collected propagation material through-out the park. Create a diversity of shaded park spaces around the edges of the sports fields.	Undertake additional supplementary planting and bush regeneration.	Ongoing	O TS	Minimal numbers of weeds	Photopoints
		Extend the current native planting areas.	Ongoing	O TS	Planting areas increased	Observation of vegetation cover

Background	Strategy	Action	Priority	Respons-ibility	Performance target	Monitoring method
34. Green links to Powells Creek corridor						
The Harbour to Hinterland project proposed green links along Powells Creek Corridor to the Strathfield Town Centre.	Improve green links along Powells Creek.	Liaise with City of Canada Bay Council about green links along Powells Creek.	Ongoing	O TS	Conduct meeting and seek potential joint projects.	-
35. Power lines						
Power lines crossing the park and electricity stanchions are visually intrusive and contrast with the natural values of the park.	Reduce the visual impact of power lines and electricity stanchions.	Place electricity cables underground if possible.	Low	O Energy Australia	Investigate potential and funding required.	-

5.2.6 Community involvement

Background	Strategy	Action	Priority	Respons-ibility	Performance target	Monitoring method
36. Community Partnerships						
The involvement of the local community in the Mason Park Wetland has been fostered to date through a Natural Heritage Trust-funded project. It is a very successful program that could grow with sponsorship support of Council, and local organisations and businesses. Council undertake Bushcare and 'adopt-a-park' days in the wetland involving interested community members. Banrock sponsored Bushcare days in 2004-05.	Encourage community and school involvement in the ongoing rehabilitation of the wetlands. Maintain a Bushcare volunteer group in the Mason Park Wetland to carry out ground works, monitoring and foster community interest.	Continue the association with local schools and community groups for assistance with revegetation, and quality and monitoring programs.	High	TS	Increased involvement by school and community groups in wetland rehabilitation.	Number of students and community members involved in programs.
		Maintain and support the operations of the Bushcare Group undertaking weed removal and bush regeneration.	Ongoing	TS	Bushcare group undertakes regular weed removal.	Inspections. Monitor health of weeded and planted areas.
		Continue to supervise people involved in work experience and job creation programs in rehabilitating the wetland.	Ongoing	O TS	Involvement by people in employment programs in wetland rehabilitation.	Number of students and Job seekers involved in programs
		Seek sponsorships and grant assistance for programs that involve the community in rehabilitation of the wetland.	Ongoing	O TS	Seek potential local sponsors and grant funding.	Number of sponsors or local business groups supporting the program

5.2.7 Management

Background	Strategy	Action	Priority	Respons-ibility	Performance target	Monitoring method
37. Strategic partnerships						
Mason Park is part of the wider Homebush Bay open space system and needs to be managed in conjunction with neighbouring sites. While the wetland is within the area of responsibility of Strathfield Council ongoing management of the wetland should, where possible, draw on the expertise and resources of other organisations such as Sydney Olympic Park Authority (SOPA), other local councils, Sydney Ports Corporation (SPC) and the Australasian Wader Studies Group (AWSG).	Integrate the planning for and management of Mason Park with City of Canada Bay Council and Sydney Olympic Park Authority.	Liaise with City of Canada Bay Council and Sydney Olympic Park Authority regarding issues relating to wetlands management.	High	TS O	Setup stakeholder group	Meeting conducted and programs developed
		Investigate the naturalisation potential of Powells creek	High	TS GM O	Seek funding and Investigate concepts	-
38. Treaty obligations						
Sydney Water should be made aware of their responsibilities under the EPBC Act to protect and maintain ecosystems essential to migratory species covered under international treaties. This responsibility includes repairing damage to habitats in past actions.	Involve Sydney water ongoing management of the wetland and in educational programs	Source appropriate contacts from Sydney Water, invite Sydney Water to be a key stakeholder	High	TS O	Sydney Water a member of stakeholder group	Meeting conducted and programs developed

6 IMPLEMENTATION AND REVIEW

6.1 Permitted future uses and developments

6.1.1 Introduction

It is not possible to forecast every activity, development or structure that may occur in Mason Park in the future. New activities, developments and structures may be proposed in response to an application for use of the Park, or because funding or another opportunity becomes available, or to address a need or management issue that may not be evident when preparing this Plan of Management.

Guidelines for assessing the appropriateness of new activities, developments and structures in the Park are outlined below.

6.1.2 Legislative requirements

Crown land

Principles of Crown land management

Crown land must be generally used and managed according to the principles of Crown land management under Section 11 of the *Crown Lands Act 1989* (refer to **Section 3**).

Public purpose

Any proposed use, developments and management practices on Crown land must conform to the public purpose for the reserve or dedicated land. Most of Mason Park is Crown land that is reserved for the public purpose of Public Park / Public Recreation or Conservation and Drainage. The uses, activities, developments and agreements for its use are determined by what is acceptable under the public purpose. The public purpose overrides the zoning and other provisions in the Strathfield Planning Scheme Ordinance or the draft Strathfield Local Environmental Plan as applicable. The permitted land uses are then more specifically identified by either a statutory mechanism (Plan of Management), contractual agreement (lease or licence), or a combination of both.

Case law

Case law judgments influence the policy and practice of the Department of Lands, and Strathfield Council as the manager of the Reserve Trust, to assist in defining acceptable uses and activities on Crown reserves. Principles established by case law are:

- use of the reserve must be consistent with the public purpose for which the land is dedicated or reserved. This includes uses ancillary to or supportive of the reserve purpose.
- use of the reserve must be consistent with the public purpose for which the land is dedicated or reserved. This includes uses ancillary to or supportive of the purpose, such as a kiosk to support sporting activities on land dedicated for public recreation.

- a reserve cannot be used for a purpose relating to an activity that is occurring off the reserve and that is not consistent with the reserve purpose. For example, car parking on a Crown reserve for Public Recreation that serves an adjoining land use would not be acceptable.
- land reserved or dedicated for public recreation must be open to the public generally as a right. Exclusive use of the reserve should be minimised to avoid sections of the community becoming alienated from using the reserve. The public may only be restricted from access to parts of the reserve and buildings if it is necessary for the public's enjoyment of the reserve or for health and safety reasons to be excluded, for example from a workshop, equipment storage or operational facilities.
- access as of right does not mean entirely free access. Reasonable entry fees and charges may be imposed, as well as other legal constraints to entry relating to health and safety, for example.
- a lease or licence must be consistent with the reason or purpose of the land's reservation or dedication.

Policies

Uses of Crown land must also be consistent with any relevant policies relating to Crown lands, such as the Food and Beverage policy that is applicable to restaurants, kiosks and the like.

Leases and licences

Refer to **Section 6.2** for requirements for leases and licences on Crown reserves.

Any proposed use or development of Mason Park must either support or be ancillary to the above principles, public purposes, case law, policies, and requirements for leasing and licensing.

The Reserve Trust will have the ongoing responsibility to provide care, control and management of Crown Land in this reserve in accordance with the *Crown Lands Act 1989*. It is important that all parcels of Crown Reserve are managed according to the *Crown Lands Act 1989,* as well as within the broader context of all land under Council's control.

Development application requirements

Reserve Trusts are "public authorities" as defined in the *Environmental Planning and Assessment Act*. Under Clause 49 of the *Environmental Planning and Assessment Regulation 2000*, consent in writing of the owner of the land for a development application is not required when a public authority, before making the application, serves a copy of the development application on the owner.

Community land

Purposes for which community land, and any such buildings or improvements on the land, will be permitted to be used or developed in future, whether by lease, licence or otherwise, are:

- activities and developments permitted under the Strathfield Planning Scheme Ordinance.
- purposes consistent with the core objectives for the relevant category of the land under the *Local Government Act, 1993* (refer to **Table 3.1**).

- purposes which meet the requirements of Sections 46 and 47 of the *Local Government Act, 1993* in terms of leases and licences.

Any commercial uses must support or complement the activities permitted above. Exclusive use of any area of community land is not desirable, as the park should be available for use by anyone in the community. An exception is a use where the exclusion of the public is desirable for security and public safety, such as for a works depot or materials storage area.

Under the *Local Government Act 1993*, uses and developments within land categorised as community land must be consistent with the guidelines for categorisation and the core objectives of the relevant category.

Leases and licences over community land must follow the requirements of the *Local Government Act 1993* for leases, licences and other estates.

Land zoned for recreation

The Strathfield Planning Scheme Ordinance sets out in general terms what types of developments are permissible within the 6(a) Open Space – Recreation Existing zone, and those within the two applicable zones in the draft Strathfield Local Environmental Plan. All proposed uses, development and building works in this Plan of Management need to be permissible under the applicable Local Environmental Plan, and assessed if required through a Development and Building Application process consistent with the *Environmental Planning and Assessment Act, 1979*. This Plan of Management would be an important supporting document for the required development and building applications for the proposed works.

Any Development Applications, proposed works and major management issues will be advertised to residents for information and to invite comment.

6.1.3 Permitted activities

Activities that are permitted within Mason Park should be consistent with:

- the objectives for management of the Park (**Sections 3 and 4**).
- relevant legislation (**Section 3.1**), particularly the *Local Government Act 1993* and *Crown Lands Act 1989*.
- the principles of Crown land management (**Section 3**).
- the core objectives for categorisation of community land (**Section 3**).
- the public purpose(s) of Crown land.
- the zoning under the Strathfield Planning Scheme Ordinance (**Section 3**).
- community values of the Park (**Section 3**)
- community objectives for the Park (**Section 3**)
- the future roles of the Park (**Section 3**)
- case law judgements for the future development and use of the land (**Section 6**).
- additional guidelines for assessing future uses and developments (**Section 6**).

The Reserve Trust must consider certain issues when deciding whether a particular land use or development on Crown land is appropriate, including the:

- compatibility of the proposal with the notified purpose of the reserve.
- impact on the existing use of the reserve.
- compatibility with the vision and management objectives established for the reserve.
- need for the proposal and whether it will promote and be ancillary to the use and enjoyment of the reserve, as distinct from satisfying a requirement generated by an adjoining property or by an independent or collateral community need.
- advantage and benefit that the development would bring to the normal reserve user.
- management responsibility and public availability of the development to reserve users.
- need for a lease and its draft terms, conditions and rental that would apply.
-

Permissible activities generally include those permissible under Council ordinance, and those that do not interfere with the use and enjoyment of the parkland by other park users, or unduly disturb local residents. Noisy and dangerous activities (particularly at night) should be discouraged.

Examples of permissible activities in and development of Mason Park are listed in **Table 6.1**.

6.1.4 Scale and intensity of future uses and development

Mason Park is generally intended to be used for informal and passive recreation, organised sport and informal games, and nature appreciation / environmental education.

Purposes for which any further development of Mason Park will be permitted (under lease, licence or otherwise) are outlined in this Plan of Management, consistent with the public purpose of Crown land and categorisation of community land, any approved Development Application, and any provision of an applicable development control plan for exempt and complying development.

Maintain the current range of facilities and activities available in the park, according to the current ratio of 60% for structured recreation and 40% of the park allocated to Natural Area – Wetland.

Any use or development that would encroach on the park's open space or the informal: formal ratio should be prevented.

There is insufficient space to develop new recreation facilities within the park. The focus should be on improving existing facilities to accommodate demand, rather than developing new facilities.

In Mason Park, the increase in intensity of use of sportsfields for sporting activities is desirable, due to the high demand for sporting fields in Strathfield. Works planned to be carried out in the park, including improving the existing carpark, will facilitate more intensive use of the sporting fields. However additional sports lighting should be designed to minimise light spill to the wetland, and sporting activities should not be noisy so the birds using the wetland are not disturbed.

Table 6.1 Future use and development of Mason Park

Examples of purposes for which the land and any such buildings or improvements will be permitted to be used	Examples of purposes for which any further development of the land will be permitted, whether under lease or licence or otherwise
Access for authorised/emergency vehicles Barbecues Bush regeneration Celebrations – weddings, family gatherings, parties Ceremonies Children's play Community use Community events Corporate functions and promotions Cycling Delivering a public address or speech Dog exercise (on-leash) Engaging in a trade or business Environmental education Environmental management and monitoring Festivals Filming for cinema or television Fire control and management Functions Gardening Habitat creation and improvement works Informal ball games Maintenance of buildings and structures Maintenance of environmental structures Maintenance of sports fields Markets and/ or temporary stalls, including food stalls Nature observation and experience Outdoor cinema Overflow parking Passive recreation Personal training Pest control (vertebrate and insect) Picnics Photography Playing musical instruments/singing for fee/reward Running / jogging Special events/promotions Sport Storage of park materials, machinery Storage of sporting equipment Vegetation management Walking	Access for people with disabilities Amenities – staff, public Barbecues Bicycle track Buildings for park management Children's' play equipment Drainage Exempt development Food and beverage outlet Hardstand for event structures Irrigation Landscaping / gardening Park furniture Pathways Picnic shelters Public utilities and works Sculpture / public art Seating Sculpture / public art Sports courts Telecommunications towers Underground pipes, conduits and other connections Utilities Vehicle parking area Management of hydrology (harvesting, weir, inlet)

The increased visitation of the Mason Park Wetlands for environmental education purposes will be encouraged, within the constraints of protecting the internationally-significant wetlands.

The scale and intensity of future uses and development is dependent on:

- the nature of the approved future uses.
- the Landscape Masterplan for the park.
- the carrying capacity of the parkland and its facilities.
- approved Development Applications.

The scale and intensity of any permitted development should be consistent with the approved landscape masterplan for the park. Physical impacts of activities and uses should be regularly monitored.

All proposed development and building works consistent with the values, desired outcomes, strategies and actions in this Plan of Management (excluding activities associated with landscaping, gardening or bushfire hazard reduction, which are permitted without development consent under the Strathfield Planning Scheme Ordinance and the Section 117 Direction of the Director of Urban Affairs and Planning) would be subject to normal development and building applications in accordance with the *Environmental Planning and Assessment Act, 1979* and the Strathfield Planning Scheme Ordinance. This Plan of Management would form an important part of the required Development and Building Applications for the proposed works.

Any proposed use of the Park that requires consent from Council will be subject to a Development Application or Activity Approval with appropriate conditions imposed.

All uses would be subject to Council's standard conditions, approval processes and booking fees. A temporary licence in the form of a Park Hire Approval would need to be issued by Council as part of the approval process prior to the park being used for these activities.

Facilities and structures require regular inspections and maintenance to keep them in a functional condition and to protect the safety of users.

Commercial activities

Commercial activities operate with Council permission, such as casual park hire or leases.

The *Crown Lands Act 1989* and policies for management of Crown land encourage the appropriate use of reserved Crown land. Appropriate commercial activities are encouraged to meet the needs of public users of a reserve, and to generate income required to manage and improve the Crown reserve system. The Act specifically requires that the proceeds of commercial activities on reserved Crown land be spent on the management of reserved Crown land.

Commercial activities may be approved provided them:

- enhance recreational opportunities.
- do not unduly impact on other park users.

- ❒ do not unduly impact on the natural values of the Reserve.
- ❒ pose no threat to public safety.

Any commercial uses must support or complement the permissible activities and developments. Exclusive use of any area of community land is not desirable, as the park should be available for use by anyone in the community. An exception is a use where the exclusion of the public is desirable for security and public safety, such as for a works depot or materials storage area.

Proposals for commercial activities should be considered on their specific merits. Conditions should apply in each case to ensure the above requirements are met.

6.2 Leases and licences

6.2.1 What are leases and licences?

A lease will be typically required where exclusive use or control of all or part of Mason Park is desirable for effective management. A lease may also be required due to the scale of investment in facilities, the necessity for security measures, or where the relationship between a major user and facilities in the Park justify such security of tenure.

Licences allow multiple and non-exclusive use of an area. A licence may be required where intermittent or short- term use or control of all or part of the Park is proposed. A number of licences for different users can apply to the same area at the same time, provided there is no conflict of interest.

The definition of “estate”, under Section 21 of the *Interpretation Act, 1987*, includes other rights over land, such as easements, including “interest, charge, right, title, claim, demand, lien and encumbrance, whether at law or in equity”.

Leases and licences can be established by the Council for public or private purposes, providing they are consistent with the major objectives of this Plan of Management, and that the residential and environmental amenity of surrounding areas is maintained.

Leases and licences for the use of the subject land for activities need to be permissible under the *Local Government Act 1993*, *Crown Lands Act 1989,* the Strathfield Planning Scheme Ordinance or Strathfield Local Environmental Plan, this Plan of Management, and pursuant to Development Consent if required.

6.2.2 Existing leases and licences

No leases or licenses currently apply to Mason Park.

Seasonal hire agreements with sporting clubs are in place for use of the sporting fields.

6.2.3 Future leases and licences

General

Any future leases and licences in Mason Park or renewal of existing licences for use of significant parks in Strathfield are authorised by this Plan of Management, provided the proposed use is consistent with the guidelines for permissible uses above.

In considering whether to grant any lease or licence, the Trust (for Crown land) and Council should take into account the consistency of the proposal with the values and objectives of this Plan of Management, particularly regarding:

- ❒ whether the use/activity is in the public interest.
- ❒ whether the use / activity is consistent with the public purpose of Crown land and / or the categorisation of community land.
- ❒ whether the use/activity would not cause any significant detrimental impact on the reserve or on the local community.
- ❒ the impact of the lease/licence on the public/private space of the reserve.
- ❒ the impact on maintaining the reserve as one cohesive open space.
- ❒ compatibility with zoning and other Council requirements.
- ❒ provision of benefits and services or facilities for the users of the land.
- ❒ responsibility of the lessee/licensee for ensuring the area is maintained to a standard which is acceptable to Council.
- ❒ the need to define the times the land or facility will be available for use by the lessee/licensee.
- ❒ any fixed or temporary outdoor lighting of areas to be allowed only between the hours identified in the lease/licence.

Any leases and licenses granted over Mason Park should be in accordance with the *Crown Lands Act 1989,* the *Local Government Act 1993*, and Council's Community Facilities Plan of Management.

Further considerations that may affect leases and licences are:

- ❒ fees can be charged as part of a lease or licence and can be commercially based.
- ❒ the lessee or licensee should take out public risk insurance and produce notices of the policy as required on renewal.
- ❒ use of the premises by the lessee or licensee is restricted to only those activities authorised in the lease or licence.
- ❒ any alteration, transfer or sub-letting etc should not be permitted without Council's consent.
- ❒ ownership of improvements should be dealt with in the lease or licence.
- ❒ a lease (5 years or more) should be registered on the land title.
- ❒ a licence can be terminated by either party.

Leasing and licensing will be in accordance with Council's objectives and principles as outlined in its Management Plan. Depending on the nature of the proposed lease or licence, Council would develop specific objectives and requirements tailored to the proposed use.

Leases and licences on Crown land

The Reserve Trust has the power to lease or license uses within a reserve. Leases and licenses can be established by the Council for public or private purposes, providing they are consistent with the major objectives of this Plan of Management, and that the residential and environmental amenity of these areas is maintained. Any lease or licence must be in accordance with the reserve purpose and the lessee must not provide any facilities that create any barriers to entry or other facilities within the reserve.

All tenures over part or all of a Crown reserve are made between the Reserve Trust and the lessee / licensee, and are subject to the provisions of the *Crown Lands Act 1989*. Lease agreements are based on the standard Crown lease conditions applying to the leasing of Crown land under Section 34 of the *Crown Lands Act 1989*.

A lease or licence over a Crown public reserve must be consistent with the public purpose of the reserve or dedication. As such, any lease or licence granted over Crown land in Mason Park must be consistent with the public purpose of Public Park / Public Recreation or Conservation and Drainage, guidelines for use of Crown reserves, other legislation and plans, and this Plan of Management. Otherwise, the Minister cannot approve any leases or licences granted by the reserve trust. Recent amendments to the *Crown Lands Act 1989* allows reserve trusts some flexibility in approving leases and licences.

Under any lease, the construction of facilities on Crown land will be permitted, provided the lessee obtains the consent of both the Minister and the Reserve Trust for any development applications or proposals for activity to enable construction of the facilities.

The Reserve Trust must obtain consent from the Minister for Lands before granting any long term licence on Crown land.

A temporary licence can be granted only for the purposes prescribed under Clause 31 of the *Crown Lands Regulation 2006*. Such purposes include activities such as access through a reserve, advertising, camping, catering, emergency occupation, entertainment, equestrian events, exhibitions, filming, functions, grazing, hiring of equipment, holiday accommodation, markets, meetings, military exercises, mooring of boats to wharves or other structures, sales, shows, sporting and organised recreational activities, stabling of horses, and storage. A temporary licence does not require the Minister's consent, but can only be granted for a maximum period of one year.

The Trust Manager has a responsibility to notify the Department of Lands of any leases. Consent must be obtained from the Minister for Lands before any long term licence on Crown land is granted. Leases greater than 5 years are required to be advertised under Clause 34 of the *Crown Lands Act 1989*. Licence agreements of less than 1 year (temporary licences) do not require the consent of the Minister and may be approved and issued by the Trust.

Leases and licences on community land

The *Local Government Act 1993* requires that any lease or licence of community land be authorised by a Plan of Management. Leases and licences formalise the use of community land by groups and organisations. Activities must be compatible with the zoning of the land and provide benefits, services, or facilities for users of the land.

To comply with the Local Government Act, this Plan of Management must clearly specify what leases, licences and other estates are priorities within Mason Park. Terms and conditions of a lease should reflect the interest of the Council, protect the public, and ensure proper management and maintenance.

Pursuant to the provisions of Section 46 of the *Local Government Act*, Council may lease or licence community land in a Plan of Management for purposes consistent with the categorisation and zoning of the land.

Occupations of community land by leases, licences and other estates that apply to Mason Park are set out in Sections 46 and 47 of the *Local Government Act 1993*. In respect of community land in general, a lease, licence or other estate may only be granted within Mason Park for:

- ❒ provision of public utilities and works associated with or ancillary to public utilities.
- ❒ a purpose expressly authorised in this Plan of Management, for purposes including:
  - the provision of goods, services and facilities, and the carrying out of activities, appropriate to the current and future needs of within the local community and of the wider public in relation to public recreation; the physical, cultural, social and intellectual welfare of development of persons (these purposes include, but are not limited to, maternity welfare centres, infant welfare centres, kindergartens, nurseries, child care centres, family day care centres, restaurants or refreshment kiosks); and the provision of public roads.
  - purposes which are consistent with the core objectives for the category of the land.
  - for short-term casual purposes, including the playing of a musical instrument or singing for a fee or reward, engaging in a trade or business, delivering a public address, commercial photographic sessions, picnics and private celebrations such as weddings and family gatherings, filming for cinema or television, and the agistment of stock. However, the use or occupation of community land for these short-term casual purposes is permitted only if the activity does not involve erecting a permanent building or structure.
  - for the purpose of providing underground pipes, conduits or other connections to connect premises adjoining the community land to a Council facility or other public utility provider located on the land.

Lease and licence periods

The maximum period for leases and licences on community land allowable under the Local Government Act is 21 years (including any period for which the lease or licence could be renewed by the exercise of an option) for purposes consistent with the categorisation and core objectives of the particular area of community land. Community land may only be leased or licensed if public notice is given according to the requirements of the Local Government Act.

Under Section 47, Council may grant a lease, licence or other estate exceeding 5 years if it gives public notice of the proposal to the owner, the public and all stakeholders, and invites and considers public submissions. If an objection to the proposal is made, Council may not grant a lease, licence or other estate without consent of the Minister for Local Government.

For proposed leases, licences and other estates of 5 years or less, Council must publicly advertise the proposal in the same way as for leases, licences and other estates over 5 years. Final approval of the lease rests with Council, but the Minister for Local Government has the discretion to call in a proposed lease and determine the matter in place of Council. However, some short-term and other types of leases, licences and other estates, such as providing underground pipes and connections, are exempt from the need to advertise.

Sub-leasing

Where a lease arrangement has been entered into with Council for community land, sub-leasing of the land must be in accordance with the requirements of Section 47C of the Local Government Act.

Under Section 47C, land within the parks subject to a lease cannot be sub-let for a purpose other than:

- ❒ the purpose for which the land was to be used under the lease.
- ❒ refreshment kiosks, dances and private parties in the case where land is leased to a sporting club.

Commercial uses

Small-scale commercial uses that support the use of the park for passive recreation, sport, and cultural and social activities, such as personal training, bicycle hire and mobile food / beverage vans, are authorised by this Plan.

Short-term casual hire

All short-term casual hire will be in accordance with Section 24 and 25 of the *Local Government (General) Regulation 2005*. To be considered as casual hire, activities must not:

- ❒ involve the erection of any building or structure of a permanent nature.
- ❒ continue for more than three consecutive days.
- ❒ continue to recur for a period of more than 12 months in the case of uses occurring more than once. Each occurrence must be no more than 3 consecutive days, not including Saturday and Sunday.

Fees for short term, casual bookings will be in accordance with the fees and charges as published in Strathfield Council's current Management Plan.

Temporary structures

The *Local Government and Environmental Planning and Assessment Amendment (Transfer of Functions) Act 2001* transfers approvals formerly required under Section 68 of the Local Government Act to the Environmental Planning and Assessment Act. These transferred approvals include installing temporary structures on land. Consequently casual use hire of the park may require a Development Application if the proposal includes the erection of temporary structures such as tents, booths, stage areas and mobile structures.

Emergency purposes

Community land may be used for emergency purposes, including training, when the need arises.

Leases and licences by tender

Section 46A of the Act requires that Plans of Management must specify purposes for which a lease, licence or other estate may be granted only by tender. A lease or licence for a term exceeding 5 years may be granted only by tender, unless it is granted to a non-profit organisation. However, Council may apply a tender process in respect to granting any particular lease, licence or estate.

Leases and licences applying to Mason Park for which tenders must be called are for:

- ❒ commercial activities
- ❒ a period of five years or more
- ❒ advertising.

Private purposes

Section 46 of the *Local Government Act 1993* generally prevents Councils from granting leases, licences or other estates over community land for private purposes. However, the Act does enable short-term casual licences to be issued by Councils for purposes prescribed by the Regulation. The purpose of the lease, licence or other estate must still be consistent with the core objectives for the relevant category of community land.

Exclusive occupation

The exclusive occupation or use of Mason Park is only permitted for the purposes of:

- ❒ a lease, licence or other estate to which Sections 47 and 47A of the Act applies.
- ❒ a sub-lease or other title derived from the holder of such a lease, licence or other estate.

However, exclusive occupation or use of part of Mason Park is permitted:

- for a senior citizens centre or home, or community care facility.
- if the exclusive occupation or use was lawfully in existence or lawfully undertaken immediately before 8 December 1998.

6.3 Funding sources

6.3.1 Introduction

There are a number of approaches that Council and Crown Reserve Trusts can take in funding the implementation of this Plan of Management. Strathfield Council, as Trust Manager and land owner, is likely to fund most of the proposed improvements to the Park.

6.3.2 Reserve Trust proceeds

Under Section 106 of the *Crown Lands Act 1989*, the Minister may direct that proceeds from a sale, lease, easement or licence (including a temporary licence) of a Crown reserve be paid to:

- another Reserve Trust to be used for care, control and management of the other Trust's reserve.
- the Consolidated fund or to a Public Reserves Management Fund under the *Public Reserves Management Fund Act 1987*.

The Public Reserves Management Fund provides loans or grants that assist Reserve Trusts in the management, planning, development and improvement of Crown reserves. The Fund principally relies on levies on coastal caravan parks, and repayments of loan principal and interest. A 15% levy on the proceeds from leases and licences that can then be applied for the care and maintenance of reserves also contributes to the Public Reserves Management Fund. Funds are distributed on a merit basis to Trusts that apply for grant or loan funds for specific projects, such as commercial initiatives on Crown reserves, and major regional projects across a number of reserves.

In the absence of a direction from the Minister, the proceeds from a reserve shall be invested or applied for the general purposes of the Trust. Under Section 106 of the *Crown Lands Act 1989,* income generated from a Crown reserve must be spent on improving that reserve or for the general purposes of the reserve trust, or unless the Minister makes a specific direction. Such income must not be placed in general revenue of the trust manager.

6.3.3 Council funding

General

The implementation of this Plan of Management is achieved through its linkage with Council's Management Plan, operational budgets, and capital works programs. Funding is integral to implementing the Plan.

Funding arrangements for Mason Park need to address recurrent costs of management and maintenance, together with capital costs for new facilities or upgrading works. Council currently funds management and maintenance costs through its annual budget allocation, and uses capital funds and Section 94 funding for capital and non-recurrent works.

Funding for construction of new facilities is generally through the annual budgeting process, but special projects may be partly funded through State government grant allocations, which may involve matching funding from Council.

Staging of works will need to occur because Council cannot meet the cost of every single item of work proposed at one time, due to other financial commitments throughout the municipality. Actions listed in the Action Plans have been prioritised, which will assist in preparing forward open space work programs and annual budgets. This Plan will therefore provide direction for future works in the Park.

Section 94A contributions

Council currently enters into planning agreements, or levies contributions or works in kind from developers towards the cost of upgrading facilities, including parks, to meet the needs of new development.

Council's Section 94 Contributions Plan (2001) specifies that contributions are levied for:

- implementing works set out in the Plan of Management for Mason Park.
- the sportsfields in Mason Park.
- various works for the Powells Creek corridor.

Partnerships

There is an opportunity to develop further partnerships with residents and interested people in relation to park improvements and ongoing management, such as through the Bushcare program and sponsorship by businesses.

Opportunities for ongoing partnerships with other interested organisations to manage the wetland include with Sydney Olympic Park Authority and Sydney Ports Corporation.

Rental income

Income from the Park is generated by seasonal hire fees, and from applicants for approved functions and events.

Rationalisation and disposal

Revenue for park projects and improvements may be raised from sales of assets, such as surplus or inappropriate land elsewhere in Strathfield.

6.3.4 Grants

A number of Commonwealth and State government grants are available to assist with capital works in the Park. While not exhaustive, the following list gives an indication of the range of available grant programs through which improvements to the Park consistent with its size, catchments and intended uses could be funded.

Table 6.2 Potential sources of grant funding

Grant	Organisation	Purpose
Commonwealth		
Community Water Grants	Dept. of Environment and Water Resources; Dept. of Agriculture, Fisheries and Forestry	Projects related to water saving and efficiency, water recycling, and water treatment.
Natural Heritage Trust	Department of Environment and Heritage	Envirofund: small community-based projects tackling important local coastal and marine natural resource management problems. Bushcare Program: conserving and restoring habitat for native flora and fauna. Coastcare: regeneration and associated construction works, and educational and awareness programs.
Public Art Program	Ministry for the Arts	Grants of up to $4,000 are available to assist in the commissioning of concept proposals by artists. Matching grants of up to $20,000 are available for commissioning public art.
Australia Council for the Arts	Australia Council	Community cultural development, visual arts / crafts, theatre, dance, music
State		
Public Reserve Management Fund	Department of Lands	Assists Crown Reserve Trusts in the management, planning and development of Crown reserves.
Capital Assistance Program	Department of Tourism, Sport and Recreation	Community-oriented sporting and / or recreational facilities.
Environmental Trust: Integrated Environmental Program	Department of Environment and Conservation	Environmental restoration and rehabilitation to prevent or reduce pollution, waste or other environmental degradation.
Regional Cycleway Network	Roads and Traffic Authority	The RTA matches Council funding for regional cycleway routes.
Community Development and Support Expenditure Scheme	NSW Office of Liquor, Gaming and Racing	Encourages larger registered clubs in NSW to contribute to the provision of front-line services and community projects.
Estuary Management Program	Department of Environment and Climate Change	Management and restoration of rivers and lakes.
Restoration and Rehabilitation Program	Environmental Trust (NSW)	Restoration of degraded environmental resources, including rare and endangered ecosystems. Protection of important ecosystems and habitats of rare and endangered flora and fauna.

6.4 Reporting

Under Section 122 of the *Crown Lands Act 1989*, a Reserve Trust must furnish a report on its activities for the previous financial year. Required contents of the report are listed in Clause 32(2) of the *Crown Lands Regulation 2006*.

6.5 Implementation of this Plan of Management

Once Council adopts the Plan of Management and the Department of Lands approves it, it is incumbent on the Reserve Trust to "carry out and give effect to it" (Section 114 of the *Crown Lands Act 1989*). The Trust must only allow operations or development that is in accordance with the Plan of Management.

Implementation of the Plan will be monitored annually with the preparation of annual performance standards and capital works programs. Performance standards and works programs for administration, maintenance and upgrading works are revised each year to meet allocated budgets and works priorities determined in Council's Management Plan.

Funding for management of the Reserve will be sought from a range of government, Council, corporate and community sources on an ongoing basis.

6.6 Review of this Plan of Management

Under Section 115 of the Crown Lands Act, this Plan may be altered. A full review of the Plan of Management should be carried out after five years, and updated if necessary to reflect changes in government legislation and policy, Ministerial directions, expectations and requirements of the community, issues that arise, and to recognise completed actions. Review of this Plan of Management should also take into account the changing priorities in strategic and operational plans prepared by the Department of Lands and Strathfield Council.

The Action Plan tables have a shorter life, and therefore require more frequent reviews and updating. The Action Plan tables should be reviewed and revised yearly in accordance with Council's budgets, Capital Works Program and changing priorities.

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Appendix A

Results of community consultation

ATTENDANCE:

Mr Rob Bourke	Manager Parks & Community Services, SMC
Ms Bernadette Murray	Natural Resources Officer, SMC
Mr Andrew Wright	Recreation Planner, SMC
Ms Jeanie Muspratt	Environmental Projects Officer. SMC
Mrs Sandy Hoy	Principal, Parkland Environmental Planners
Mr Steven Hammond	Director POD Landscape Architecture
Mrs Marlene Doran	Resident
Mr Graham Doran	Resident
Debbi Rossi	Homebush Public School
Greg Blundell	Homebush Public School
Anna Urginic	Resident
Ruza Urginic	Resident
Jon Irvine	SOPA
Judy Harrington	SOPA
Fidele	Oz tag

APOLOGIES: Mr David Backhouse, General Manager, SMC
Mr Geoff Swinney, Open Space Technical Officer, SMC

Minutes prepared by Bernadette Murray
Presentation performed by Sandy Hoy

AGENDA:

Welcome and introductions
Agenda for tonight
Background to the Plan of Management
Recent changes to the park
Values of the park
Future planning
Discussion – issues, suggestions
Where to from here?
Thanks and close

Introductions – Rob Bourke
Discussion of Councils Major projects for Mason over the next years.

- Water Harvesting Project explanation $150,000 dollar grant awarded to council to install WSUD Car Park at Mason Park. Concept plans will be developed this current financial year and construction/installation begins in the 08/09 financial year.

Sandy- Presentation
Local's issues/comments/values

Graham & Marlene Doran

- Current shade sail not is not in the correct position, shading the playground, it does not block out sun at any time during the day. It should be removed and relocated to shade the play area and allow a shaded picnic area.
- Seating needs to be installed in the play area, as well as picnic tables.

- **Debbi Rossi**

Question on field 2, why it is not available for use currently.
-Andrew Wright: It is season change over. This allows regeneration and growth of the grass after poor weather and to get ready for the impacts of the summer heat and high usage

Anna Ugrinic
- Commendations on the quality of the area. Feels the area is valuable to locals as an openspace area. Likes to walk dogs in the area, would like doggie receptors to be available, and a sign for dogs to be kept on leashes.

Judy – SOPA
- Performs bird surveying in the wetlands with SOPA and personal observations/surveying. Mason is one of the most important bird sites along Parramatta River for bird habitat. Currently the migratory birds have arrived and are nesting in the wetlands. Surveying has shown tagged birds to be returning annually, a good sign of the quality of the area.
- Commendations on the quality of the Playing fields. She likes the wetlands attached, it is such a contrast to the manicured fields.

Fidele
- Values the sports fields as a director of Oz Tag business.

Homebush Public Reps Debbi Rossi, Greg Blundell
- Issue - need more shade to cover school groups, particular in summer afternoons.
- Bench seating should be added to the play area. Also the amenity block needs additional shading and toilets need be open during day.
- Surprised to hear of the wetlands adjoining was not aware that it existed. Would like to take in school groups as an educational tool.

Judy
- Offer to teach school kids with Jeanie as part of environmental education.

Jeanie
- School education with world wetlands day in February, info will be sent and advised.

Fidele
- Changes to be made: Potential to extend upwards
- Increase the size of amenities block
- Add a storage area and increase the size of the canteen.

Anna Ugrinic
- Dog - free bags, dog bins

Jeanie
- Would like to have more rubbish bins along the path/cycleway in the wetlands

Sandy
- Wetlands, explanation on water levels and the need to upgrade the weir and tidal flows entering the area. Council currently investigating this as an improvement/action for the wetland. Explanation on Weir installed at SOPA, remote controlled from office to fluctuate water levels. Potential to have a similar weir at Mason.

Judy
- Explanation of Weir at SOPA, controls, benefits to the area and the quality increase of its waters and wetlands.
- The weir construction was a joint project with Sydney Water at a cost of $200,000

Jeanie
- Would like more signage along the cycleway. Signs for cyclists and walkers to be aware of each other, speeds are dangerous.

Sandy
- Suggestion – of extending plantings along the path and increasing vegetation-low lying shrubs along path.

Jon Irvine
- Perhaps need an inlet / platform for bird viewing in the southern upper are near the mound. This would reduce the hazard of cyclists and bird viewers clashing.

Judy
- Prickly planting to be placed along the paths to reduce people entering the wetlands, reduce foxes and cats accessing the area as well as being safe house to small birds.
- Potential to connect water harvesting scheme at SOPA. Potential to join recycling program, mass recycling, revise program

Rob
- Not in the near future but eventually. There is potential to use water over to golf course at Hudson Park.

Judy
- Mason urgently needs shields on the lights on the playing fields to protect birds, as they do not like to roost in well lit areas.

Rob
- Cloudmaster System is proposed in the current budget. If installed this will control the use of lights with park bookings and only be active when the park in use. Also will reduce the strain on resources.

Andrew
- Will reduce light use wear of fields, by giving code system for users

Judy
- Monitoring of birds is going well and birds tagged are returning, two years in a row.

John
- Mason Park is considered one the most important areas for shortailed sandpipers, hence the importance to retain the high grade quality of the area.

Rob
- Field area ear marked for equal access play area.
- Proposed green links along the canal to include Pomeroy St area- Powells Creek Corridor. This will extend the green corridor and increase the cycleway link to the town centre.
- Masterplan currently being developed, Strathfield Council are working with Canada Bay.

Anna Ugrinic
Question on what is happening with the Pomeroy Bowling club and grounds.
The area has large clean up potential to become a wheel used facility.

Rob
Council has plans to lease the area out and to capture the potential by doing works on the area. No decisions have been made as to what type of group will be leashing the area.
- Bressington Park however has been proposed to be turned into a Korean garden. The area is contaminated land, therefore development and landuse changes are limited as well as the area owned by the Crown.
- View to incorporate all areas and links to areas along the canal.

Jeanie
- Need for feral animal control in the plan as an action. Hares and foxes in the area..

Judy
- Fox hunters and soft trappings to eradicate problem. Has been performed at SOPA and was successful.
- Signage should be installed to keep dogs out of the wetlands. – Dogs on leash

Marlene
- History- Mason Park was named after Mr Mason, Grandson for Mr Mason – Marlene for more info.

Homebush Bay was first explored soon after the arrival of the First Fleet in 1788. The area was first settled in 1793 when land grants were made to the first immigrant free settlers, which included Thomas Rose, Frederick Meredith, Thomas Webb, Edward Powell and Joseph Webb. As land grants were made to free men, the area became known as 'Liberty Plains'.

OTHER SUGGESTIONS
Educational signage along Mason Wetlands.
Fencing off the back area- Saltmarsh species area along the Energy Australia fence.
Reduce access to the area- vehicle access.

THANKS AND CLOSE.

Additional notes

	VALUES	
Community	Open space is highly valued. Is beneficial that Bressington Park is adjacent.	
Community	Valued as a place for dog walking.	
Community	Value the wetlands and bird life associated with them. Wetlands in the area (Hen and Chicken Bay, Bicentennial Park) are important for migratory wader birds. Currently using the wetlands after travelling from Siberia.	
	AMENITIES	
School reps	Toilets should open for schools when used for sporting events.	
	SPORTS / RECREATION	
RB	Note that oval was rebuilt approx 2 years ago. Water harvesting project has been initiated.	
Community	Shade sail over playground considered insufficient. Additional seating for playground beneficial.	
S Hoy	Supplementary play equipment for the playground would enhance the play provision.	
Community	Shade around the sports ovals for spectators would be beneficial.	
School Reps	Shelter for sports groups of around 40 – 50 people.	
Community	Storage areas needed to clear space within amenities building.	
Community	Sporting lights – for field 1 in particular – would be beneficial.	
RB	Requires additional sports lights to enable rotation of sports use at night, which allows fields to recover from use.	RB

	SOCIAL ISSUES	
Community	Some concern about the speed of cyclists along the Powells Creek cycleway.	
	MAINTENANCE / IMPROVEMENTS	
RB	Current plan to surface the car park and include water collection for reuse from hardstand. Also plan to build pedestrian bridge link to Bressington Park.	
Community	Field 2 (near canteen) recent works undertaken installing drainage.	
Community	Bins for dog waste and general rubbish required. Noted that dogs should be on leads, and or responsible dog management off leash.	
S Hoy	Proposed high tide weir to improve water control	
RB	Potential future proposal from Sydney Water to de-channelise the canal (Powells Creek).	
Community	Consider means of separation between walkers / cyclists and the wetlands. Discourage people walking / cycling in the wetlands when they are dry. Potential spiky planting.	
Community	Boardwalks and bird watching areas would benefit the appreciation and access to the wetland environment.	
Community	SOPA is undertaking water recycling / harvesting from nearby developments for irrigation use in the parks. RB note: S Council undertakes regular discussion with SOPA. Potential collaboration on these initiatives. Generally they are cost prohibitive.	
Community	Ay future lighting needs to be installed with shields to limit light spill to wetlands area. Current lights installation is working well. RB note: recent initiatives include manual code entry for lights to allow greater control and flexibility for users.	
Community	Potential additional planting / bush regeneration supplementary planting to extend the current native planting areas. Some older trees are dying off.	
Community	Rubbish sometimes evident following sports events. Additional bins may be needed to cope with the larger events.	
Council staff	Understanding feral animals in the area is important. Surveys and counts should be considered. Feral hares and foxes known in the locality.	
	ACCESS	
Community	Signage and information to raise awareness of the wetlands in the area. Opportunities for education / interpretation.	
Community	Possible tours / education walks to the wetlands. Local schools may be interested.	
Community	May be able to encourage other people (such as nearby workers) to the park.	
	OTHER	
RB	Plans in the future for expansion and development of the parklands along the Powells Creek corridor. Cycleway development and bridges are important to the future development.	

Appendix B

Mason Park Saltmarsh Issues

Mason Park saltmarsh issues

Sainty and Associates

Background

Mason Park wetland contains a remnant of saltmarsh community once common along the Homebush Bay foreshore. In the past this wetland has been one of the most important shorebird feeding and roosting sites in the Sydney area, and until recently has had more shorebirds per hectare than any other site in the region. Returning Mason Park wetland to a productive habitat for shorebirds is dependent on: (i) adequate tidal flushing (iii) providing soil conditions conducive to invertebrate production (iii) establishment of suitable vegetation in and around the wetland.

History

Prior to European developments the Mason Park area was bisected by a creek probably lined with mangroves. Outside the line of mangroves there were extensive areas of saltmarsh. Since then, urbanisation and concrete channelisation has completely altered the water regime of the area. The substratum of the marsh is not natural and is mostly soil extracted from other building sites. Tidal and stormwater influxes to the site have been reduced. Sea water inflow is now restricted to a single vent from Powells Creek at the north east corner of the wetland. Storm water enters the southern and western sections but is now restricted to small amounts due to urban, industrial and park developments. In summary it is not a natural saltmarsh and contains highly contaminated soils.

The Mason Park wetland is composed of five hydrologically distinct basins some of which are connected during tidal flooding. The two northern basins are shallowly flooded at tides above about 1.7 metres. The southern brackish marsh and saline pond are protected by a low earth bund and receive no tidal flooding. The swale adjacent to the southern boundary (Electricity Trust property) receives some tidal flooding during ‘king tides’ (1.9 m or greater), the saline water backflooding the area from a drain into Powells Creek.

Movement of water into the wetland has been progressively restricted by mangroves until an inlet weir was installed by Strathfield Council. Mangroves trap sediments around their trunks and pneumatophores. Ultimately a barrier is built that reduces flow.

Many lessons have been learned from Mason Park. The new inlet structure whilst adequate for the lower part of the saltmarsh is not able to flood the upper part of the saltmarsh. The increased tidal inundation of the lower quarter of the saltmarsh has increased mangrove invasion of the area due to incoming waters transporting mangrove seeds across the saltmarsh (largely from seed stock contained in the existing mangrove forest in the wetland., Mangroves have not been controlled and continue to grow to maturity and spread seedlings even further across the wetland. Despite recording poor invertebrate diversity in earlier (Australian Museum) studies it continues to be a favoured feeding ground of many shorebirds. This appears to be the presence of large numbers of Chironomids (bloodworms) or midge larvae. Mosquito productivity is high because of the flatness of the saltmarsh substratum and the potential for water to temporarily isolate.

Mason Park from the air, 1995. Large areas are mudflat. Acid levels in the soils have limited growth. The current tidal inlet is adjacent to the mangroves in the bottom left corner of the photo. The proposed new inlet is to be situated at top left of the saltmarsh at a point where the distance to the concrete estuary channel widens.

Importance of tidal flushing

The importance of tidal flushing to estuarine wetland productivity is recognised. Structures that reduce tidal flushing impact adversely on vegetation, fish invertebrates and plankton in estuarine wetlands. Many studies have shown that removal or modification of inlet structures leads to at least partial recovery of biological communities (Streever et al 1996). Zedler et al in *Handbook of Restoring Wetlands* (2001) describes processes in saltmarsh and emphasises that hydrology is the key to 'healthy' functioning of these systems. Essentially it is this — alter the tidal hydrology and changes will take place in saltmarsh processes and biota.

Saltmarsh are considered nurseries for many nekton species but the nursery concept has not been clearly defined. Beck et al (2001) recognised that production of animals reaching adult populations is dependent on a combination of processes. Minello et al (2003) examined the nursery role of saltmarshes for transient nekton by searching the literature for data. Nekton survival in saltmarsh (11 studies) was higher than in open water , lower than in oyster reef cobble, and higher but not significantly different from seagrass. Vegetated saltmarsh appeared to have a higher nursery value than non-vegetated marsh; however tidal dynamics and nekton movement among marsh components complicates these comparisons (Minello et al 2003). Notwithstanding the questions surrounding flushing and nekton productivity, there is

sufficient scientific evidence to warrant expenditure to improve tidal flushing of saltmarsh. In the Mason Park setting improved and more regular tidal flushing will, amongst other benefits, reduce human access to the mudflats, reduce the potential for mosquito production—provided pools are not allowed to be isolated for larvae to mature—and ameliorate the current acid and hypersaline conditions that limit invertebrate productivity and plant growth.

Improving tidal flushing

Before any action can be taken to improve tidal flushing a Statement of Environmental Effects (SEE) will be necessary. Issues to be fully dealt with in this study include:

1. Elevation of all parts of the saltmarsh and the extent these can be tidally flooded.
2. Potential to expand the saltmarsh including climate change and sea level rise issues.
3. Breaching the concrete channel
4. Soil contamination and likely constraints on earthwork in and adjacent to the saltmarsh including erosion and acid sulphate soils.
5. Water quality, past and present.
6. Current mangrove presence and method of limiting spread.
7. Current saltmarsh species abundance and distribution
8. Saltmarsh expansion and method of propagation of plants
9. Invertebrate diversity and abundance
10. Wilsonia and Lampranthus protection and management
11. Impacts on local and migratory birds on any changes
12. Mosquito presence and management.
13. Surrounding vegetation including suitability and maintenance and weed control.
14. Human interference.
15. Sewage line and issues of maintenance
16. Electricity stanchion issues.
17. Catchment productivity including spill contamination in the estuary catchment and floating rubbish management.
18. The southern half of the saltmarsh is not all commanded by the highest (2.1 m) tides. The area near the electricity stanchion is probably above the current “king tides”, but

would be flooded during the recorded highest tide of 2.4 m in 1974. The southern low level part of the area includes some slightly undulating land and this would need to be levelled subject to a soil contamination study. A new inlet to Powells Creek would need to be of sufficient size to ensure that the tidal flood at the top of the tide would not be constrained and only limited by elevation and not by the inlet flow capacity.

19. Sea level rise of around 0.5 m by 2100 is predicted by IPCC. However, these predictions are being adjusted upward and scientists in Australia point out that the predictions are conservative. Whatever the case construction or rehabilitation of saltmarsh needs to take into account sea level rise. At present Mason Park is not fully commanded by tide and a 10 cm rise would be an improvement over current tidal flooding. A new wide inlet will leave southern higher parts of the saltmarsh not adequately commanded by tide except during rare tidal surges. A 20 cm rise would make the northern lower elevated part of the saltmarsh more suited to mangroves. The northern higher elevation area would be commanded by 1.8 m tides. However, if an automated inlet gate is installed the higher tides could be excluded from entering the marsh, but this has negative outcome in that free movement of nekton is reduced. Once sea level rise exceeds 20 cm the saltmarsh would be under threat and probably not sustainable without continued exclusion of tides above 1.8 metres.

20. Breaching the concrete estuary and building an inlet of adequate width with remote control automated gates (?$200,000) is a project, and includes issues of exposing contaminated soil and protecting estuary water quality.

21. The southern part of the marsh is undulating and requires some earthwork to rectify. As most of the site is contaminated (SESL 1997) any regrading of the site could only be done after appropriate investigation.

22. Information on water quality in the saltmarsh and in the estuary is lacking. Water quality data is expensive to gather and snapshot sampling of little or no value. Determining what water quality data to gather, and the period of gathering has not been addressed.

23. Mangroves will continue to be an ongoing threat to Mason Park. The Avicennia marina mangroves at the northern end of the marsh will benefit by improved tidal flushing if water is allowed to rise and fall. With sea level rise they will naturally expand. Management of mangroves and exclusion of fruits will require regular re-assessment.

24. Hypersalinity, acid conditions and periods of poor tidal inundation, drought, human activity and Juncus acutus have all led to a loss of saltmarsh. As a result the large stand of Juncus kraussii has been lost and saltmarsh plant diversity is low. Automated remote control gates at the proposed inlet will enable water levels to be manipulated. The extent to which this can be done is problematic given the likely change in skilled staff to undertake this.

25. **Table 1** is a list of species that can be grown in the saltmarsh. All are known to grow naturally in Sydney's estuaries.

26. Previous studies have shown invertebrate diversity and abundance to be low. Improved saltmarsh coverage and diversity, improved soil structure and algal presence coupled with regular flooding and draining have been shown to improve abundance and diversity of invertebrates. However the concrete estuary and loss of habitat for invertebrates makes re-colonisation of these animals slow and probably unrealistic.

27. Wilsonia is confined to small part of the southern section of Mason Park. As it is a listed endangered species and changes to the marsh would require a six part test and possibly a Species Impact Statement. Lampranthus is an introduced species and not protected. It is killed by tidal inundation. If it is to be conserved some will need to be replanted to a higher elevation.

28. Migratory and local waterbirds. Mason Park has been identified as one of the most important wetlands for migratory shorebirds in the Sydney region, despite its small size. However shorebird populations have fluctuated over the past fifty years as a result of changes to the hydrological conditions of the wetland. There has been a general large scale decline of many species of migratory shorebirds, such as Pacific Golden Plover (98%), Curlew Sandpiper (97%) . Management of water levels has resulted in some success in attracting larger numbers of Sharp-tailed Sandpiper and Curlew Sandpiper. Although species may return to the site in larger numbers with appropriate management of tidal flows and control of tall vegetation

29. Spread of mosquito borne diseases is likely to increase. Any change to the hydrology of Mason Park that does not recognise this could lead to ecologists and managers of Mason Park being liable to damages. A before and after mosquito assessment is mandatory.

30. Juncus acutus has been controlled but not eradicated. With a few minor exceptions, sea strength salinity kills most weeds and improved tidal coverage will eliminate the semi-salt tolerant plants. Given the tall bank of trees on the west boundary of the saltmarsh, the eastern side of the marsh must be kept free of trees.

31. Poor tidal inundation has led to parts of the marsh drying and being used as a walkway or for bikes. Improved tidal inundation coupled with better signage will limit this type of activity.

32. Sewage line??

33. Electricity stanchion??

34. Catchment. Nothing will be done so the marsh will get what it gets. Floating rubbish can be excluded.

Table 1. Saltmarsh species that grow in Sydney Region and are potentially suitable for the Mason Park site subject to impact on shorebirds and contamination that will prevent establishment

	Suitable species	Common Name	Significance in saltmarsh
Moderately salt tolerant. (suitable for outer edge of saltmarsh)	Phragmites australis	Common Reed (Needs to be carefully placed as this species is invasive if there is ample ground and surface brackish water)	X
	Bolboschoenus caldwellii	Sea Clubrush	X
	Bolboschoenus fluviatilis	Marsh Clubrush	X
	Schoenoplectus validus	River Clubrush	X
Salt tolerant	Apium prostratum		X
	Cotula coronopifolia	Water Buttons	XX
	Cyperus laevigatus		XXX
	Isolepis nodosa	Knob Rush	XXX
	Juncus kraussii	Sea Rush	XXXX
	Lampranthus tegens	Described as native but thought to be naturalised	X
	Leptinella longipes		X
	Mimulus repens	Creeping Monkey Flower	X
	Paspalum vaginatum	Salt Couch	XX
	Samolus repens	Creeping Brookweed	XX
	Sarcocornia quinqueflora	Samphire	XXXX
	Selliera radicans		X
	Sporobolus virginicus	Sand Couch	XXXX
	Suaeda australis	Austral Seablite	XX
	Triglochin striatum	Streaked Arrow–grass	XXX
	Wilsonia backhousei	ROTAP species	XX

X = minor species, may or may not persist — could be introduced — optional

XX = useful/attractive but plant in small amounts

XXX = saltmarsh species that should be represented in moderate quantity

XXXX = major saltmarsh species for site

Notes on preparation, harvesting and transplanting

Juncus kraussii, Sporobolus virginicus, and *Suaeda australis* are species that can be readily grown from seed. Harvested vegetation should be kept damp/wet with freshwater. Saltwater plants do not need to be kept in salt water. The harvesting placement and care must be done under the supervision of a person familiar with saltmarsh vegetation establishment.

Harvested plants and other species of native saltmarsh, should be planted in a substratum that is a 'living' soil, free of *Juncus acutus* seeds. High acid levels and hypersalinity will prevent establishment of plants in Mason Park. ,Once full and regular tidal inundation is established the soils will become more suitable for planting. The soil must be tested by a soil scientist for suitability for this purpose, and verified that it is free of contaminants. Suitable soil for saltmarsh contains fine sediment, and has some similarity to saltmarsh soils. It should have a moderately high water holding capacity. Transplanted material will require frequent (every two days where the weather is hot and dry) irrigation with fresh or salt water by sprinkler, and this task must be supervised by a specialist familiar with transplanting saltmarsh.

Surface protection

Research by Roberts and Chapman (2003) conclusively demonstrated that wrack spread on the substratum provides protection and moisture for seeds to germinate and grow. Wrack (dried *Zostera capricorni* leaves) is light and will float on high tide. To use wrack it has to be pinned in place. One untested approach is to pin the wrack in place with open weave hessian and then plant seedlings into the wrack and allow seedlings to germinate.

Supplementary planting

Supplementary planting may be necessary in event of a failure with seedlings or saltmarsh transplants. Specialist nurseries can supply some of these species, but they are not a standard nursery item and may take three to six months, depending on the species, to supply. The availability of seed is usually an issue. Before purchasing seedlings, obtain a written guarantee that the seed was collected from the catchment area.

Planting process/timing

Planting can be done any time, but early spring is best, provided the area can be sprinkler irrigated if there are protracted dry periods. Success rate for establishment and growth may diminish after this period. The seedling planting or transplant process will require supervision by a horticulturalist familiar with saltmarsh establishment.

Post planting

It is essential that the seedlings or transplanted species are not allowed to dry out. The seedlings and transplants (and/or supplementary plantings) will need irrigating at least every week in summer for successful establishment. Late autumn through to spring the need to irrigate will depend on climatic conditions. Weekly monitoring will be necessary to determine the amount of irrigation with sprinklers of either fresh or saline water.

Access to the area must be restricted in the establishment phase. In the long-term this can be achieved by 'spikey' native species, such as *Grevillea* spp. and *Hakea* spp. above the salt line. In the short-term it may be advisable to fence the area with stakes and chicken wire. Appropriate signage detailing the project and importance to the site's protection should be put in place.

After three months, establishment success needs to be assessed, and any planting failures identified. Where failures occur, the need to replant will depend on the species.

Site preparation

Given the sensitivity of saltmarshes to slight changes in tidal inundation, achieving appropriate elevations will be a critical factor to the establishment rates of the saltmarsh species. The importance of substratum type is also critical to the success of this project. The temptation to cut costs by obtaining inappropriate substratum that is not suitable to this site must not be considered. Supplementary sprinkler irrigation is essential. During the establishment phase, a saltmarsh specialist ***must*** be on hand to ensure that the saltmarsh is managed correctly.

Selection of substratum

The substratum must consist of′ soil capable of supporting healthy vegetation. Experimental saltmarsh creation on Kooragang Island, NSW, clearly indicated the importance of an appropriate substratum, with dramatically better survival and spread of *Sarcocornia quinqueflora* and *Sporobolus virginicus* in plots where topsoil (with a high fine clay content) was spread over underlying clay (Streever et al., 1997). The substratum must not be loose, and of a consistency that will wet slowly and dry out slowly. Supplementary fertilisation may be necessary, and this could be applied by incorporating a slow-release fertiliser around the roots of the stock at the time of transplanting. The rate of fertiliser application will need to be determined once the substratum nutrient status is known.

The substratum (topsoil) must be free of *Juncus acutus* (Spiny Rush) and contaminants. This topsoil must be evaluated for suitability by a soil scientist and a person experienced with saltmarsh establishment.

Levelling of substratum

This is a critical phase of the preparation. There needs to be ample time to get this right. Tidal inundation during earth moving and levelling will create problems by turning the surface into a slurry. The substratum must be prepared and smoothly graded to levels indicated on plans. Pooling or depressions will provide habitat for mosquitoes and must be avoided. The surface ultimately needs to be laser-levelled to ± 2.5 cm and a slope of 1 to 1.25%.

Potential Acid Sulphate Soils (PASS)

Potential Acid Sulphate Soils remain in the area. Soils that were originally moved from an area that was previously mangroves still retain the potential for acid production. Oxidation of these soils upon exposure produces sulphuric acid that effectively lowers the pH of soil water, ground water and eventually surface water. Acidic surface water will not support many of the natural predators of mosquitoes. Additionally, the sulphuric acid produced by Actual Acid Sulphate Soils (AASS) corrodes concrete, iron, steel and certain aluminium alloys and is known to cause weakening of concrete structures such as slabs and underground water and sewerage pipes.

Weeds

Few weeds survive in saltmarsh. Of these the most invasive are *Juncus acutus* and *Baccharis halimifolia* (Groundsel). Both species need to be controlled. Other minor weeds that may have a brief surge in growth are *Parapholis incurva and Polypogon monspeliensis*.

Mangrove seedlings

Mangrove invasion into saltmarsh areas will primarily occur at the tidal point of entry. As mangroves begin to colonise this point, sediment accumulates, altering the immediate area to a more favourable site for mangrove colonisation. This colonisation will impede tidal flushing to the saltmarsh altering the inundation regime that is crucial to saltmarsh maintenance. Mangrove seedlings should be removed by hand when they appear within the saltmarsh. Mangroves removed as seedlings in this situation will require approval by NSW Fisheries.

Mosquitoes

Due to the ability of the mosquito to act as a vector for disease, it will be necessary to determine whether they are present or absent from the saltmarsh on a regular basis. Minimisation of areas for mosquito adults and larvae to hide, maintenance of flow through the saltmarsh, avoidance of small puddles/depressions, algal build up on structures and control over water levels are the main management strategies.

The saltmarsh plantings have the potential to provide a significant habitat for the important pest mosquito *Aedes vigilax.* This species is the most important coastal vector of Ross River virus and Barmah Forest virus and breeds in habitats characterised by saltmarsh, particularly in *Sarcocornia* and *Sporobolus* wetland habitats. This mosquito is a known important pest in estuarine areas of Sydney, and is particularly a problem further up the Parramatta River, e.g. at Homebush Bay, from where it invades nearby residential areas. It is able to readily disperse at least 5 km in Sydney, and could become a significant local concern if it became established at the Penhryn Estuary (Russell, 1993).

For Mason Park to not sustain populations of this mosquito, the saltmarsh must readily de-water and depressions must not hold water for more than 4 days. If the plantings are dense as intended, they will encourage mosquito oviposition (egg laying); the persistence of water after inundation of any depressions occasions egg hatching and provides for larval development to adults that can be completed in 5 days in summer. This de-watering i.e. drainage of surface water from the marsh, is a critical factor (Russell, 1993).

Slopes and plantings must allow for natural de-watering of the marsh, and there should be a maintenance provision such that depressions caused by subsidence or surface traffic are repaired and do not provide habitat for *Aedes vigilax*. Traps can be utilised to determine the species of mosquito present (Russell, 1993).

Considerations during rehabilitation

Appropriate signage detailing the phases of construction and creation of the saltmarsh should be made available for the public. Public access must be restricted during both the construction and establishment phases of the saltmarsh. During construction the contractors must take all possible measures to minimise disturbance to the area.

Monitoring

Initial monitoring of the newly planted saltmarsh will be integral to the success of its establishment and ongoing maintenance program. Weekly monitoring will be necessary, at first, to ensure the saltmarsh vegetation is not allowed to dry out, and this must continue until the need for artificial irrigation is no longer necessary. The length of time for this "settling down" period is not predictable due to a number of variables, including but not limited to: the robustness of harvested material; seasonal variation in growth rates; potential invasion by undesirable plant species; climate and microclimate variations. The main objective of this phase of monitoring will be to minimise vegetation losses that are commonly experienced with such projects.

After this phase, monitoring will remain essential, but can be scaled down to monthly inspections, and eventually every three months. The objective will be to determine establishment rates and identify areas, if any, that require supplementary planting. Although scaled down, this phase of monitoring is equally important to the success of the project.

Summary of saltmarsh establishment issues

1. It has been demonstrated in Australia and elsewhere that saltmarsh can be reestablished or constructed.
2. What has not been demonstrated is that the saltmarsh has achieved full ecosystem diversity and performance, whatever that is!
3. Experience elsewhere has shown that if the hydrology and the substratum condition is right and the nutrient availability is adequate, saltmarsh will rapidly cover an area. If the substratum is poor or contaminated growth is slow.
4. Saltmarsh is often a mosaic of plants and bare areas and this mix has been shown to be ideal for the wade range of birds that feed in these areas. Therefore getting a complete coverage of plants in a saltmarsh is not necessarily the goal.
5. An overarching issue with saltmarsh near human activities is mosquitoes, although these are mostly native animals. Estuarine mosquitoes such as *Aedes vigilax* will grow from eggs to adults in 5 days in summer. Eggs are laid in the saltmarsh waiting for the right conditions. Normally in wetlands there are many insect and sometimes fish predators of the larvae of mosquitoes. However, where water pools briefly there are often no predators and vast numbers of mosquitoes are produced.
6. The slope of saltmarsh becomes important and gradients of 1% are necessary. These gradients are not normally found in saltmarsh and this is why naturally formed saltmarsh is at times full of mosquitoes. Obtaining the gradient and its relationship to mud flats becomes increasingly difficult when inundation is required at 1.6 to 2.1+ LAT (Lowest Astronomical Tide) is required.
7. Obtaining saltmarsh plants in large amounts requires forward planning. A mixed source of seed grown plants and vegetative pieces is desirable to ensure genetic diversity in the planting.

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Appendix C

Background information on Shorebirds

Background information on Shorebirds

Avifauna Research and Services

History

The Parramatta River Estuary used to provide extensive areas of saltmarsh and tidal mudflats. The loss of most of these habitats as a result of landfill and the spread of mangroves now means that little remains of these ecosystems. Although there are no early records of the numbers of shorebirds that frequented the estuary in the early days it is safe to assume that the decline in the numbers of shorebirds has been proportional to the loss of these habitats. There has certainly been a substantial decline in the numbers of shorebirds at Mason Park and other parts of the Parramatta River Estuary proportional to habitat loss or degradation since records have been kept.

Mason Park currently provides a mosaic of tidal pools and saltmarsh vegetation which provides foraging and roosting habitat for migratory shorebirds and nesting habitat for several non-migratory species such as Black-winged Stilt, Black-fronted and Red-kneed Dotterels and Masked Lapwing. The numbers of shorebirds using the wetland since records have been kept have fluctuated with the conditions of the site over time.

The numbers of shorebirds at Mason Park have fluctuated over the past twenty years when fairly detailed figures are available. It is quite clear that these numbers have changed as a result of the flooding and drying of the wetland with numbers increasing when the wetland has been flooded by tide or heavy rains. Flooding of the site has been assisted by Strathfield Council which has had a positive effect on migratory shorebirds. However changes in staffing and presumably available resources have seen substantial rises and falls in shorebird numbers.

The wetland is gradually being hemmed in by trees and shrubs. This is reducing the suitability of the wetland for migratory shorebirds which prefer an open aspect and avoid closed in situations, especially roosting areas, when birds are not able to see the approach of potential predators. While the tall band of trees between the wetland and the sports field has not prevented shorebirds entering the site the trees and tall shrubs around the rest of the wetland will eventually result in a large proportion of the shorebirds leaving the site.

Habitat requirements by shorebirds

Most shorebirds require on open habitat of mudflats, tidal pools or shallow wetlands. Shorebirds tend to avoid wetlands enclosed by tall vegetation or structures (Lawler 1996) that obstruct their view of potential predators (whether terrestrial e.g. foxes or avian e.g. birds of prey). This was clearly demonstrated at a major roost site at Stockton in the Hunter River Estuary where the site gradually became encircled with mangroves and overgrown in parts with Juncus acutus. The numbers of shorebirds using the site as a roost site gradually declined from several thousand to nil. The clearing of the Juncus acutus resulted in some birds returning to the site. However it was not until fringing mangroves were removed that the full complement of shorebirds returned to the site (Herbert and Crawford 2007).

Shorebirds at Mason Park

The numbers of shorebirds have fluctuated at Mason Park, and the Parramatta River estuary as a whole over the past 50 years. It must be borne in mind that Mason Park is inextricably linked to other parts of the wetland system associated with the estuary, especially areas such as Hen and Chicken Bay and Sydney Olympic Park, in that Mason Park has been recognised as the most important high tide roost site for small shorebirds using this system. At times, when Mason Park has been allowed to flood at high tide, the area has provided both feeding and roosting habitat for migratory species and nesting habitat for non-migratory species. Curlew Sandpiper, Sharp-tailed Sandpiper and Pacific Golden Plover have all been associated with Mason Park since the 1960s. Numbers of shorebirds at the site have fluctuated according to how much the wetland has been allowed to flood during high tide or allowed to dry out and degrade.

The Curlew Sandpiper is now one of the most threatened migratory species in south east Australia with widespread declines, not just at Mason Park or the Parramatta River estuary. With declines to almost extinction in Botany Bay Mason Park is now the most important site for this species in the Sydney region.

In the past counts of up to 680 Curlew Sandpipers have been made in the Parramatta estuary (presumably roosting at Mason Park) during studies by Morris *et al.* Numbers varied with counts between 50 and 100 birds when the area was poorly managed and up to 240 when the tidal flushing was effectively managed by council. Unfortunately latest counts, during the 2006/07 season did not exceed 16 birds. However Mason Park is still the most important site for this species in the Sydney region.

The Pacific Golden Plover is another species that has declined at Mason Park and the Parramatta River estuary. Mason Park has long been the most important roost site for this species in the estuary. The population in 1985 was estimated to have been 200 birds in Botany Bay and about 100 for the Parramatta River. The population in the Parramatta River estuary had declined to 80 birds in 1987, 60 in 1990, 36 in 1995, 12 in 1998/99 and is currently two birds at Mason Park. This species has also declined in Botany Bay, but not in the Hunter Estuary.

The only migratory shorebird not to have declined during recent studies at Mason Park is the Sharp-tailed Sandpiper which has responded well to the current management actions at Mason Park. This species is most numerous at inland wetlands and may have increased in numbers at Mason Park due to the recent droughts in inland Australia. The Sharp-tailed Sandpiper is more at home foraging amongst saltmarsh plants whereas most other shorebirds provide to stay in the open.

Planning concept

The future security of shorebird habitat at Mason Park will depend on ongoing management of the site. While the wetland is within the area of responsibility of Strathfield Council ongoing management should where possible draw on the expertise and resources of other organisations such as Sydney Olympic Park Authority (SOPA), other local councils, Sydney Ports Corporation (SPC) and the Australasian Wader Studies Group (AWSG).

SOPA are currently conducting regular monitoring programs at its wetlands of shorebirds and other waterbirds as well as benthic organisms (which are essential for the survival of shorebirds). While SOPA may not be able to extend financial or human resources to cover invertebrate monitoring at Mason Park their expertise in this area should be drawn on to facilitate monitoring at Mason Park. Monitoring shorebirds and invertebrates at all of the major wetlands used by shorebirds in the Parramatta River Estuary is in the best interest of all who are interested in the welfare of migratory shorebirds.

The SPC are committed to a ten year monitoring program of shorebirds at Mason Park and Hen and Chicken Bay as part of their reference sites for the Penrhyn Estuary Habitat Enhancement program during the expansion of Port Botany (Avifauna Research & Services in progress).

Relationship with other wetland sites

Shorebirds that use Mason Park move between similar wetlands at Sydney Olympic Park, for example Waterbird Refuge and the Newington Wetlands, as well as the intertidal areas of the Parramatta River estuary, for example Hen and Chicken Bay. It is important to relate as much as possible to these other sites and the importance of Mason Park within this wetlands complex.

Monitoring programs have been carried out on a regular basis since 1992 but will be intensified as part of ongoing projects, for example weekly/fortnightly monitoring of shorebirds at Mason Park by the Sydney Ports Corporation as well as regular monitoring at Sydney Olympic Park.

Desirable goals

High priority goals for the restoration of the Mason Park Wetlands should be:

- Restore and retain saltmarsh communities and tidal lagoons that provide habitat for migratory and threatened species of shorebirds as well as fish nursery habitat.

- Increase the numbers of migratory shorebirds at the site through appropriate management and to maintain the wetlands as the most important site for species in serious decline, such as the Curlew Sandpiper.

- Provide educational facilities on site and through various media to demonstrate the importance of wetlands and the plight of migratory birds in Australia and throughout the Asia Pacific Migratory Flyways in association with SOPA and other member bodies of Wetlands Link International (WLI).

Time table

Short term

Remove mangroves where these are displacing saltmarsh vegetation or shorebird feeding habitat and maintain these habitats through the control of mangrove propagules.

Removal of tall trees and shrubs close to the wetland, including between the cycleway and the wetland and on the Sydney Water contaminated rubbish pile.

Maintain the low shrub layer along the cycleway and the installation of a low fence to discourage entry onto the wetlands by dogs and recreational cyclists.

Removal of the road surface and hard fill from the area close to the powerline easement

Establishment of low profile saltmarsh plants, such as *Sarcocornia, Sporobolus, Wilsonia* etc

Mid-term

Secure funding to install structures to ensure the long term protection of this important remnant wetland

Education

Mason Park provides an ideal location for public and school education due to its ease of access and viewing potential.

Interpretative signage is important to inform the public about the importance of migratory staging areas (i.e. birds on their way through to Victoria or New Zealand) and places for migratory shorebirds to spend their non-breeding season (those that stay for up to 7 months in Sydney). Interpretative signage should also cover the feeding ecology of shorebirds (why they live in wetlands), migration routes (arduous migration) as well as why Mason Park is has become a unique site.

Tidal flushing

The importance of tidal flushing to the Mason Park wetlands is to provide a pathway for marine life between the Estuary as a whole and Mason Park allowing invertebrates and fish to become established thus improving the health and viability of the wetlands.

Liaise with Sydney Water

Sydney Water should be made aware of their responsibilities under the EPBC Act to protect and maintain ecosystems essential to migratory species covered under international treaties. This should be to include repairing damage to habitats in past actions.

New structures

Due to its isolated state Mason Park requires adequate tidal flushing, while maintaining saltmarsh quality, while at the same time excluding mangroves from the major part of the wetlands.

Attempts in the past have relied on the availability of staff to manually regulate the existing drop board weir during certain states of the tide, often at night. If dedication or resources waned the wetlands reverted back to their degraded state.

The most effective way to manage the wetland habitats would be through the use of an automated system that can operate automatically in response to tides and water levels in the Mason Park wetlands.

Monitoring and maintenance

Monitoring of birds, marine life and vegetation is important in order to maintain the health and sustainability of the wetland ecosystem in the long term. Such monitoring programs should be carried out with the input and assistance of specialists at SOPA, AWSG and other appropriate organisations. Volunteer members of bird clubs and the general public should also be encouraged to report sightings of any species and events at the Mason Park Wetlands to alert management of any significant changes.

Site monitoring

Regular monitoring of shorebirds and other waterbirds on a regular basis is essential to gauge the effectiveness of site management (water levels for example). This should be carried out at least on a monthly basis by skilled observers able to identify all species and interpret bird behaviour in relation to changes at the wetlands. Benthic sampling needs to be carried out, initially on a monthly basis prior to and after the installation of the inlet structure then on a seasonal basis (2 to 4 times a year).

Bird monitoring can be carried out at no cost to Council as part of a weekly/fortnightly monitoring program being carried out by Sydney Ports Corporation as part of a reference site monitoring for the expansion of Port Botany. Benthic monitoring can be carried out with expert input from SOPA but will probably have to be funded by council.

Automated tidal flow inlet

The proposed design for a tidal inlet for Mason Park allows flooding or draining of the wetland to maintain specified water levels or can be overridden for various management needs. By constructing an automated system the site can be effectively managed 27/7 without the need for site visits at inconvenient times by staff. The structure can be programmed for varying stages of the tide from small neap tides to large spring tides. If need be, the inlet can also be closed or opened at short notice in the event of pollution either in Powell's or Saleyard Creeks (preventing contamination of the wetland) or to manage onside incidents (such as the recent Sydney Water sewer overflow).

The proposed design is similar to that used at Sydney Olympic Park very successfully to manage shorebird habitat. The system works on the principle of a sluice get regulated using infrared beams to measure water depths on either side of the inlet.

The cost of the structure, including installation, is approximately $200,000

Other issues

Minimising disturbance to the shorebirds at Mason Park should be a high priority through appropriate low fencing and planting close to pathways but away from the water's edge. Light spill from the adjacent sports fields is an issue for birds using the wetlands at night and creating a greater exposure to roosting birds to predators. Lighting should there be shielded from the wetland as much as possible.

Appendix D

Submissions from the public exhibition

Summary of Mason Park Submissions

Park	Suggestion/comment	Council response
Mason Park Wetlands pg 60	Liaise with Sydney Olympic Park Authority – several of the actions identified in Part 5.2 of the Plan require Council to liaise with the Authority, particularly for actions relating to ecological management and mosquitoes. However the Plan shouldn't identify the Authority as having responsibility for implementing particular actions under the Plan, or contain performance measures based on the Authority's involvement (action 3).	References have been removed where SOPA has been listed as responsible. In regard to performance measures these refer to Council working with SOPA or monitoring effectiveness of SOPA based programs for Council.
Weeds and undesirable plants pg 61	Action 5 – Department of Primary Industries, rather than DECC, issues approvals for mangrove removal.	Plan Amended to reflect correct department.
Rare and restricted saltmarsh species pg 62	Action 6 – An 'assessment of significance' is required for proposed works affecting the saltmarsh 'endangered ecological community' as well as for works affecting *Wilsonia backhousei*.	Add 'Perform an assessment of significance on *Wilsonia backhousei* and the saltmarsh community prior to any works which may impact on the vegetative community'.
Feral animal management Pg 65	Action 8 – feral animals – suggest a further action could be to 'seek to coordinate the timing of feral animal control programs at Mason Park and Sydney Olympic Park".	Action to be added to the plan.

Park	Suggestion/comment	Council response
Feral animal management Pg 65	Action 8 – screening of the eastern edge of the wetland from the adjacent cycle/pedestrian pathway is not specifically addressed. Increasing pedestrian and cycle traffic, including nocturnal use of this pathway, has high potential to disturb roosting shorebirds. Screening of this pathway with tall shrubs should be considered.	Large vegetation is not recommended on the eastern side of the wetland from the advice of Council's avifauna expert Dr Phil Straw. Such action would prevent migratory birds using the wetland due to the closing in of the wetland and that further pruning and removal of trees along this section is currently required. Dr Phil Straw also outlined that his studies have shown that the effect on birds in the wetland of cyclists/pedestrians on the path is negligible. No amendments are considered necessary.
Lighting	Action 26 – lighting – actions to improve lighting of sports fields could also reference action 8 re preventing lightspill into the wetlands.	Add to background of lighting 'any changes to the field lighting must take into account impacts lightspill may have on the wetlands'.
Mr John Byrnes	This submission provides no actions or suggestions for the Plan of Management, but rather is a request for more information regarding a possible stone axe in the vicinity.	Council staff will assist with this enquiry as much as possible. No amendments are considered necessary.