

### Office of Environment & Heritage **LIBRARY - GOULBURN ST**

**VOLUME ONE** 

W

Shelf no: ID no:

148500



March 1999

Dept of Environment LIBRARY – HURSTVILLE & Conservation (NSW)

> 711. Sydney Regional open space 4099441 review Vol 1

R

RET8401 A

# TABLE OF CONTENTS

Volume One	Open Space Review Stage 1
<b>1.0</b>	EXECUTIVE SUMMARY
1.1	Introduction
1.2	Study Areas & Site Locations
1.3	Study Objectives
1.4	Study Methodology
1.5	Categories of Open Space
1.6	Summary Site Descriptions
1.7	Summary Site Assessments
1.8	Recommendations
<b>2.0</b>	SITE DESCRIPTIONS
2.1	Introduction
2.2	South Creek ROS corridor
2.3	Ropes Creek ROS corridor
2.4	Eastern Creek (ex Telstra site)
2.5	Prospect ROS corridor
2.6	Hoxton Park ROS corridor
2.7	Minto corridor reservation
2.8	Georges River ROS corridor
2.9	Appin river corridor
2.10	Heathcote
2.11	Woronora River (old Shakel's estate)
2.12	Kurnell Peninsula west
2.13	Kurnell Peninsula east
2.14	Douglas Park ROS reservation
3.0	SITE ASSESSMENTS & EVALUATION
3.1	Introduction
3.2	Explanation of Assessment Criteria
3.3	South Creek ROS corridor
3.4	Ropes Creek ROS corridor
3.5	Eastern Creek (ex Telstra site)
3.6	Prospect ROS corridor
3.7	Hoxton Park ROS corridor
3.8	Minto corridor reservation
3.9	Georges River ROS corridor
3.10	Appin river corridor
3.11	Heathcote
3.12	Woronora River (old Shakel's estate)
3.13	Kurnell Peninsula west
3.14	Kurnell Peninsula east
3.15	Douglas Park ROS reservation

4.0

BIBLIOGRAPHY

Environmental Partnership Pty Ltd

## 1.0 EXECUTIVE SUMMARY

#### 1.1 INTRODUCTION

In 1995, the Department of Urban Affairs and Planning (DUAP) produced an "Open Space Development Program" report. In the course of that study, 12 sites were identified which had the potential to be established as major parks within the greater metropolitan region. The New South Wales State Government subsequently announced the establishment of a number of Regional Parks on lands identified in the Open Space Development Program.

This current 1999 joint National Parks & Wildlife Service and Department of Urban Affairs & Planning Open Space Review was commissioned for the purpose of reviewing land holdings and reservations held by DUAP and identifying lands in the Sydney region which might be suitable for immediate or future transfer to NPWS. These publicly owned land holdings could become Regional or National Parks, Nature Reserves or State Recreation Areas. For the purposes of this study, only lands owned or to be acquired by DUAP adjoining or within close proximity to NPWS lands have been included for consideration.

Volume Two of this study included details of land transfer requirements including capital costs, work programmes and assessment for ongoing management funding of all sites identified for transfer to National Parks & Wildlife Service.

### 1.2 STUDY AREAS AND SITE LOCATIONS

Fourteen sites were identified by DUAP for initial consideration with a further twenty sites examined as part of Volume Two of this study. These areas are currently identified as Regional Open Space (ROS) in DUAP's Regional Open Space Plan. DUAP has acquired these lands over the years under various planning schemes and for various reasons including reservations for future government infrastructure needs. Some of the areas have potential links with NPWS or other State Government department lands, or could be considered logical extensions to existing parks. DUAP is continuing with a land acquisition policy to meet the needs for future Regional Open Space for the greater metropolitan region.

The 13 sites include:

- 1. South Creek ROS corridor
- 2. Ropes Creek ROS corridor
- 3. Eastern Creek (ex Telstra site)
- 4. Prospect ROS corridor
- 5. Hoxton Park ROS corridor
- 6. Minto corridor reservation
- 7. Georges River ROS corridor
- 8. Appin river corridor
- 9. Heathcote
- 10. Woronora River (old Shakel's estate)
- 11. Kurnell Peninsula west
- 12. Kurnell Peninsula east
- 13. Douglas Park ROS reservations

### 1.3 STUDY OBJECTIVES

As outlined in the study brief prepared by the National Parks & Wildlife Service and the Department of Urban Affairs & Planning in December 1998:

"The study will identify DUAP land holdings and reservations for future acquisition which are suitable for transfer to NPWS for the establishment of Regional Parks, National Parks, Nature Reserves and State Recreation Areas."

The criteria agreed on by both NPWS and DUAP is the basis for the identification of land areas for potential transfer.

Stage One of the study will categorise an initial list of priority sites, with potential to be transferred to the NSW National Parks estate.

Stage Two will further detail the categorised sites, including transfer details, program costing, site activities and biodiversity details needed for the implementation of a long term transfer land programme.

### 1.4 STUDY METHODOLOGY

The study team's approach for the undertaking of this project includes the following tasks:

- review the findings of previous studies where relevant to any of these lands, including recent reports on the Georges River, ADI/South and Ropes Creeks, the Sydney Green Web document
- research the current land ownership within each of the identified areas or corridors to ascertain DUAP's level of ownership and proximity to existing NPWS estate holdings
- review the population growth projections for the metropolitan region to relate this to the need for strategic open space
- liaise with NPWS and DUAP officers to gain an understanding of their criteria for selecting potential open space lands
- visit each of the identified areas to carry out on-site reviews
- evaluate each of the sites using the agreed assessment criteria
- Provide recommendations on those sites most likely for transfer to the NPWS estate or another category of open space.

In the first stage of the study, this evaluation has been carried out in a general fashion to quickly identify the most appropriate sites for consideration as transfers. In the second stage of the study, these sites and other DUAP holdings will be considered in more detail. Specific recommendations will be developed for each and evaluated for their feasibility and related cost implications for ongoing capital development and maintenance.

The findings of the study are summarised in matrices to facilitate easy comparison between the sites. The matrices which appear in Sections 1.6 and 1.7 include a summary of site data and assessment for all 14 sites. On the assessment matrix, a value has been assigned on all the significant factors that have been considered. Finally, a recommended category of open space is nominated for each site.

### 1.5 CATEGORIES OF OPEN SPACE

The *National Parks & Wildlife Act Amendment No. 56 1996* defines the categories of open space managed by the service. These categories are based on the inherent values and features of those lands. The major categories which are of particular relevance to this study are:

- Regional Parks
- National Parks
- Nature Reserves, and
- State Recreation Areas.

**Regional Park** is a new category of land reserved under the amended NPWS Act. As defined in the Act, they are areas that have been "substantially modified since European occupation." Further, they provide open space and recreational opportunities for major regional population centres, and they are unsuitable for reservation as any other category of land under the NPWS Act.

Regional parks are usually large pieces of land within the urban context, that have the potential to accommodate large numbers of people in natural or semi-natural surroundings. They also provide for recreational activities which are prohibited in national parks.

Regional Parks are managed by the Metropolitan Regional Parks Unit of the NPWS.

**National Parks** are relatively large areas which have been permanently reserved to protect their unspoiled natural landscape, flora and fauna. Public education and recreation are their primary focus along with their conservation role.

**Nature Reserves** are areas of special scientific interest relating to wildlife, natural environments or phenomena. They are managed primarily for scientific investigation and education and are generally not accessible to the public for recreation purposes.

**State Recreation Areas** are permanently reserved for outdoor recreation with a regional catchment. They are generally natural settings which are capable of providing a range of recreation opportunities without destroying the natural or cultural qualities of the site.

In this study, the DUAP land holdings under investigation will be considered for transfer to one of the above open space categories. In addition to these NPWS categories, there are other options which might be considered. For example, the land holding could be transferred to the appropriate local government council for their "care, control and management" as regional public parkland. Should and alternative management regime not be undertaken, the land would remain in DUAP's holdings but be effectively not available for public recreational use.

Another option may be described as public open space lands, that is lands identified for recreational, parkland, buffer zone or infrastructure requirements eg. private recreation, conservation, transport, power supply etc. These lands would be corridor open space suitable for the establishment of cycle ways and open space link systems. These lands may form part of the proposed green web or NPWS native reafforestation programme.

Environmental Partnership Pty Ltd

# **1.6 SUMMARY SITE DESCRIPTIONS**

	location	area (ha) character local government area		ownership	zoning	planning controls	location & context	conflicting interests	current plans	comments			
1.	South Creek ROS corridor	approx. 400	vegetated creek corridor, cleared rural lands, mixed recreation open space	Penrith City & Blacktown Councils	65% DUAP owned	public recreation, special uses - corridor	Regional Open Space	river corridor extending south of ADI site	many existing land uses, prone to flooding	EDAW etc. management study	note EDAW/ERM Mitchell McCotter report for four options, high conservation value and potential open space link to RAAF lands		
2.	Ropes Creek ROS corridor	approx. 340	vegetated creek corridor, cleared rural lands, mixed recreation open space	Blacktown Council	45% DUAP owned	public recreation, special uses - corridor	Regional Open Space	river corridor extending south east of ADI site	many existing land uses, prone to flooding	EDAW etc. management study	note EDAW/ERM Mitchell McCotter repot for four options, low conservation value		
3.	Eastern Creek (ex Telstra site)	approx. 300	creek corridor and surrounding rural lands	Blacktown Council	100% DUAP ownership by mid '99	Commonwealth Uses	no current planning controls	north of Great Western Hwy. along Eastern Ck.	none, to be in total DUAP ownership	no current plans	good access by major roads and train, further investigation as to which portions could be transferred as Regional Park		
4.	Prospect ROS corridor	330	rural lands, Eastern Creek Raceway, Blacktown Drive - in, some remnant C'land Plain W'land	Blacktown City Council	70% DUAP owned	rural, reservoir, entertainment & tourism	Regional Open Space	between Western Motorway and Prospect Reservoir	many existing uses under their own management	no current plans	area of remnant Cumberland Plain Woodland should be transferred to NPWS as Nature Reserve with lands around Prospect Reservoir		
5.	Hoxton Park ROS corridor	approx. 1000	rural lands with bushland in southern areas, evidence of revegetation	Liverpool City Council	85% DUAP owned	special uses - corridor, water supply canal	Regional Open Space	extends south from Elizabeth Drive to Camden Valley Way	Olympic shooting facility, Sydney Orbital, water/ electricity supply	no current plans	northern area consists of one large parcel of land, potential as an extension of Western Sydney Regional Park		
6.	Minto corridor reservation	150	open space service corridor	Campbelltown City Council	some DUAP ownership	special uses - public purposes corridor	Regional Open Space	runs east - west between Ingleburn and Minto	many services potential accessing site	no current plans	potential open space links to Georges River Regional Open Space Corridor		
7.	Georges River ROS corridor	approx. 2,000	river corridor in non- urban area, bushland and rural blocks	Campbelltown City Council	83% DUAP owned	special uses, existing rec., snenic protection areas	Regional Open Space	western catchment of Georges River from Ingleburn to Kentlyn	private rural blocks on ridgetops, rec. areas	EDAW etc. management study	limited to use as Regional Park subject to land ownership, river banks have potential as National Park or Nature Reserve		
8.	Appin river corridor	approx. 600	quality bushland along upper reaches of Georges River	Campbelltown City Council	80% DUAP owned	non - urban	Regional Open Space	extends south from Georges River ROS to Appin township	none, majority DUAP land holdings	no current plans	consideration for National Park of Nature Reserve, eastern side of river corridor should be secured for complete catchment protection		
9.	Heathcote	approx. 90	valley and ridgetop bushland along upper reaches of the Woronora River	Sutherland Shire Council	some DUAP ownership	recreation, special uses - water supply pipeline	no current planning controls	adjacent to Heathcote National Park	encroaching residential dev., water supply pipe line, rec. reserves	no current plans	boundaries of a potential extension to the Heathcote National Park need to be defined		
10.	Woronora River (old Shakel's estate)	60	river gorge surrounded by urban development and recreation areas	Sutherland Shire Council	75% DUAP owned	recreation	no current planning controls	Woronora River catchment area, within suburb of Lucas Heights	adjacent residential development	no current plans	barge acces only, land to steep for multiple recreation purposes		
11.	Kurnell Peninsula west	approx. 70	extensively mined sand dunes with recent revegetation	Sutherland Shire Council	DUAP to be acquiring	recreation	no current planning controls	sand dunes behind Cronulla Beach	4WD park and adjacent industry	no current plans	highly disturbed area now being remediated		
12.	Kurnell Peninsula east	150	peninsula heathlands	Sutherland Shire Council	DUAP to be acquiring	recreation	no current planning controls	shares boundary with Botany Bay National PArk	4WD park and adjacent industry	no current plans	natural bushland in good condition		
13.	Douglas Park ROS reservation	36	deep river gorge surrounded by natural bushland	Wollondilly Shire Council	some DUAP ownership	regional open space	Regional Open Space	on Nepean River east of Southern Motorway	major Motorway bridge near recreation area	no current plans	potential population catchment not adequate to support Regional Park, may also be too small an area for Regional Open Space use		

Environmental Partnership Pty Ltd

# NPWS & DUAP Open Space Review

# 1.7 SUMMARY SITE ASSESSMENT

	high medium		cultural significance			strategic considerations			physical attributes				feasibility for implementation			development & manageability		space	
	location	heritage/historic importance	educational opportunities	recreational opportunities	regional identity	potential visitor catchment	access by public or private transport	visitor capacity	landform	visual quality	environmental diversity	potential open space links	cooperative stakeholders	suitable for phased implementation	capital costs	established plans & management structues	site maintenance & recurrent costs	category of open sl	co
1.	South Creek ROS corridor																	RP	south Regio
2.	Ropes Creek ROS corridor																	LP	river as pu
3.	Eastern Creek (ex Telstra site)																	RP	longe giona space
4.	Prospect ROS corridor																	SL	not su catego space
5.	Hoxton Park ROS corridor																	RP	very s corrio
6.	Minto corridor reservation																	RP/ LG	easter Georg recrea
7.	Georges River ROS Corridor																	NP/ NR/ RP	poten Natur Park
8.	Appin river corridor																	NR	narro poten existin
9.	Heathcote																	NP	portio Heath
10.	Woronora River (old Shakel's estate)																	LG	Coun
11.	Kurnell Peninsula west																	NP	mediu poten
12.	Kurnell Peninsula (east)																	NP	extens curre
13.	Douglas Park ROS reservation																	LG	too sn intere

RP - transfer as Regional Park NP - transfer as National Park NR - transfer as Nature Reserve LP - Long Term Potential

LG - transfer to Local Government

SL - Surplus Land, potential for uses other than public open space

mments	actions
ern portion to nal Park	possible staged transfer of lands & preparation of POM for whole corridor & reveg. progr.
corridor maintained blic open space	POM required for entire area, revegetation programme prior to transfer
r term inclusion as Re- l Park; significant open link	POM required;transfer part to Blacktown Council, opportunity for private recreation facility
itable for NPWS open space ories, but maintain open link to Prospect Reservoir	information required on current leases
outhern portion of lor into Regional Park	staged transfer to Reg. Park & POM; further investigation to define boundary, reveg. progr.
n half has value as link to ges River Regional Park, ation potential	transfer western half to Campbelltown City Council
tial for National Park, re Reserve and Regional	further investigation of land holdings to determine boundaries; undertake POM as appropriate
w corridor limits its tial for recreation extend ng NPWS study	long term transfer as Nature Reserve or National Park
on to be added to necote National Park	further investigation required to define boundaries
cil managed open space	possible transfer to Sutherland Shire Council
ım to long term tial	CCM by Sutherland Shire Council transfer subject to acquisitions that can provide links to NR & NP
ion of National Park ntly being finalised	transfer to NPWS
nall an area to be of st as Regional Park	transfer to Wollondilly Shire Council

### 1.8 RECOMMENDATIONS

The following recommendations have resulted from the study team's assessment of the initial group of sites under consideration, in consultation with NPWS and DUAP. In most cases, further investigation will be required to determine the extent of boundaries of the DUAP holdings which would be of value as a green space recreational resource, which can be transferred to the NPWS estate, or a similar management structure.

Management plans will be required for most of these sites, incorporating flora and fauna/recreation assessments, and master planning to determine the extent of sustainable regional public open space. Surplus lands with no ecological or recreational values should be considered for disposal, with funds generated used for upgrading public open space amenity.

The recommendations of this report relate to the study objectives and site evaluations for Volume One. These sites are regarded as priority for transfer within the following categories:

### 1.8.1 REGIONAL PARKS

The following sites are proposed for consideration as Regional Parks:

SITE NAME

#### COMMENTS

- 1. South Creek
- Approximately 390 hectares within the southern section of South Creek ROS corridor; proposed boundaries to be outlined in Volume Two of this study. Plan of Management/Masterplan to be developed prior to transfer of lands to NPWS in association with the redevelopment of the ADI site. Open space masterplan required, including input from all stakeholders involved in a collective management structure.
- 3. Eastern Creek (ex Telstra site) Total site area of 300 hectares to be acquired as Regional Open Space, portions to be considered for transfer to Blacktown Council. Long term consideration for portion to be transferred as a Regional Park. A tripartite Plan of Management and Masterplan needs to be developed with Blacktown, NPWS and DUAP, prior to long term management coordination by NPWS.

- SITE NAME COMMENTS
- 5. Hoxton Park Approximate area of 500 hectares subject to identification of surplus lands and parkland boundaries. Plan of Management and Masterplan required to define the extent of site. Continuation of revegetation works by DUAP required before transfer to NPWS.
- 7. Georges River ROS Corridor Approximate area of 80 hectares in northern section of ROS area to be transferred as an extension to Leacock Regional Park. Boundaries to be defined, including existing regional recreation facilities.

### 1.8.2 NATIONAL PARKS

The following sites are proposed for consideration as National Parks:

SITE NAME COMMENTS NO. 7. **Georges River** Boundaries to be defined subject to findings of current **ROS** Corridor NPWS study. 13. Kurnell Peninsula Approximately 50-60 hectare extension to Botany Bay National Park lands on the Kurnell Peninsula. (east) 9. Heathcote Approximate 100 hectare extension to Heathcote National Park. Boundaries to be determined by further investigation in consultation with NPWS. Detailed flora/fauna study required.

### 1.8.3 NATURE RESERVES

The following sites are proposed for consideration as **Nature Reserves**:

- SITE NAME COMMENTS NO 8. Appin river Approximately 600 hectares, with detailed investigation corridor required to determine extent of conservation value. Majority of western corridor of DUAP land holdings to be considered for transfer to NPWS. 4. Prospect ROS Remnant Cumberland Plain Woodland to be transferred to corridor NPWS as part of the Nature Reserve attached to Prospect Reservoir. Remaining reserve to be considered as corridor open space link with disposal of surplus land recommended. Further study required to determine content of surplus lands.
- 12. Kurnell Peninsula Consideration for mid to long term inclusion in NPWS estate subject to ongoing studies.

Environmental Partnership Pty Ltd

Dept of Environment LIBRARY – HURSTVILLE & Conservation (NSW) Page 8

### 1.8.4 PUBLIC OPEN SPACE LANDS

The following sites are proposed for transfer to ownership of the appropriate local government, parkland trust, or similar management structure to be determined:

# SITE NAME COMMENTS

- 6. Minto ROS corridor Approximate 75 hectare transfer of western portion of the corridor to Campbelltown City Council for recreation purposes Eastern portion to be included in open space reservation as part of the Georges River corridor as part of NPWS estate.
- 10. Woronora River (Old Shakel's estate) Possible transfer to Sutherland Shire Council for open space/recreation.
- 13. Douglas Park ROS reservation Possible transfer to Wollondilly Shire Council as open space parkland.
- South/Ropes
   Creeks ROS Corridors
   Joint management structure between Penrith and Blacktown Councils; comprehensive management plan for these corridors is required to determine the extent of useable recreational open space. Management structure for these lands may involve a number of agencies working within a defined Plan of Management.

# 2.0 SITE DESCRIPTIONS

### 2.1 INTRODUCTION

The initial task of the project has been to assemble basic data about each of the sites under consideration. This has involved:

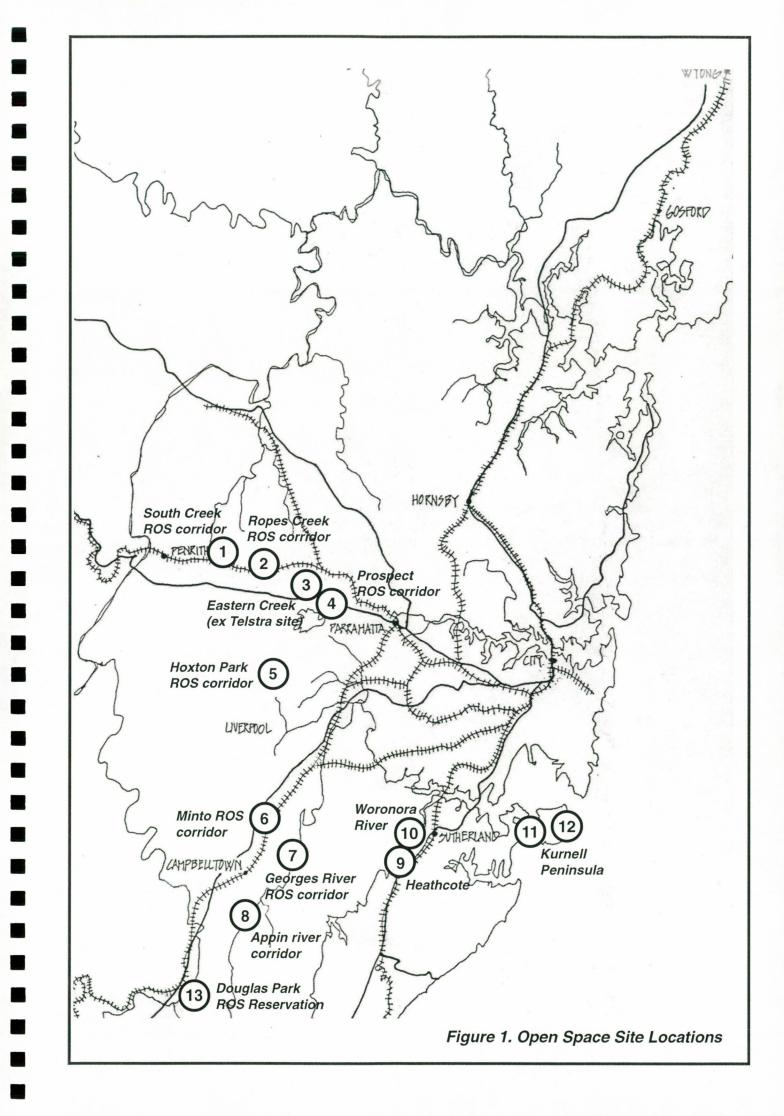
- reviewing DUAP's land ownership maps
- studying mapping that has been undertaken in other recent open space studies and where possible using electronic versions to create maps
- · visiting each of the nominated sites to photograph the existing open space conditions
- studying aerial photographs for each of the sites.

In some cases, more review will be required in Stage Two to accurately define the boundaries of sites and clearly outline the proposed open space areas.

In the initial analysis, information was obtained on the size of the site, its general landscape character, in which LGA it falls, what percentage of the site is in DUAP ownership, its zoning and any other planning controls over it. The location and context of the site is also noted.

Comments on any known conflicting interests or current plans have also been added. These are factors which will likely be clarified in the second stage of the study.

An introductory page of notes recording the site data is followed by a plan of the area, aerial photo and on-ground photos of the site. Figure 1 identifies the site location within the Sydney metropolitan area.



### 2.2 SOUTH CREEK ROS CORRIDOR

study site South Creek ROS corridor

site reference no. 1

area of land approximately 845 hectares

character vegetated creek corridor surrounded by cleared rural lands and active/passive recreational open space

- LGA Penrith City Council
- ownership approximately 65% DUAP owned

zoning 6(a) Public Recreation, 5(a) Special Uses - Corridor

planning controls Regional Open Space

Iocation &river corridor extending south from ADI development site, crossing thecontextwestern railway line, Great Western Highway and Western Freeway<br/>through the suburbs of Werrington, St Marys and St Clair

conflictingmany existing uses of land including grazing, sports fields, golf courses,interestshistoric estate etc.high European and aboriginal cultural valuearea prone to flooding

current plans EDAW/ERM Mitchell McCotter report

 comments
 see EDAW/ERM Mitchell McCotter Report for four Regional Park options

 proposed for South/Ropes Creek corridors and ADI site
 high conservation value and potential link along Brown's Creek to RAAF

 Defence Area
 Defence Area

Environmental Partnership Pty Ltd

# 1. SOUTH CREEK REGIONAL OPEN SPACE CORRIDOR



Not to Scale



### 1. SOUTH CREEK

-



Council managed parkland within South Creek ROS corridor.



Casuarinas lining South Creek.



Regeneration along Mamre Road and South Creek.

### **1. SOUTH CREEK**





View of bushland adjoining South Creek, North of Great Western Highway.

Typical creekline vegetation.



Trees lining the creek area recommended as Regional Park.

### 2.3 ROPES CREEK ROS CORRIDOR

study site Ropes Creek ROS corridor

site reference no. 2

area of land approximately 600 hectares

character vegetated creek corridor surrounded by cleared rural lands and active/passive recreational open space

- LGA Penrith City Council & Blacktown Council
- ownership approximately 45% DUAP owned

zoning Blacktown LGA: 6(a) Public Recreation, 5(a) Special Uses - Corridor Penrith LGA:

planning controls Regional Open Space

Iocation &river corridor extending south east from ADI development site, crossingcontextthe western railway line, Great Western Highway and Western Freewaythrough the suburbs of Lethbridge Park, Mt Druitt and Eskine Park

conflictingmany existing land uses including grazing, Council sporting fields,interestselectricity transmission linesarea prone to flooding

current plans EDAW/ERM Mitchell McCotter report

 comments
 see EDAW/ERM Mitchell McCotter Report for four options proposed for

 South/Ropes Creek corridors
 Ropes Creek has least conservation value of the two corridors

2. ROPES CREEK REGIONAL OPEN SPACE CORRIDOR.



### 2. ROPES CREEK



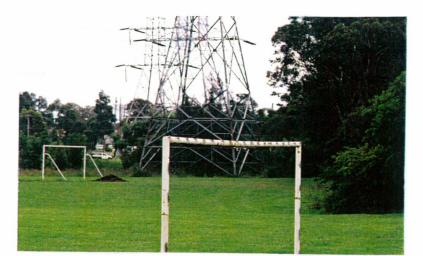
Tregear Reserve along side Ropes Creek, recommended to be retained under Council care, control & management.



The visual impact of the overhead cables along the Ropes Creek ROS.



Quality Bushland adjacent to Erskine Park within the Ropes Creek ROS corridor.



Council managed sporting facilities within Ropes Creek ROS corridor.



Tregear Reserve located adjacent to Ropes Creek ROS corridor, managed by council.



Ropes Creek located within Tregear Reserve.

### 2.4 EASTERN CREEK (EX TELSTRA SITE)

study site Eastern Creek (ex Telstra site)

site reference no. 3

- area of land approximately 300 hectares
- character creek corridor and surrounding clear rural lands

LGA Blacktown Council

ownership DUAP finalising 100% acquisition by mid to late 1999

zoning 5(a) Commonwealth Uses - ex telecommunication site

planning controls no current planning controls

Iocation &north of the Great Western Highway along the Eastern Creek corridor tocontextEastern Road within the suburb of Doonside

conflictingno conflicting interests due to absence of land users and total DUAPinterestsholdingsSydney Orbital road reservation - EIS plans available from RTA

current plans no current plans

comments good access by both major road corridors an train further investigation required for the potential to pass some of the land to Council as extensions to neighbouring Morreau, Aquilina and Nurragingy Reserves

# 3. EASTERN CREEK (EX TELSTRA SITE)



Regional Park site in association with Blacktown Council for extension of Nurragingy and Aquilina Reserves

# 3. EASTERN CREEK (EX TELSTRA SITE)



View over Eastern Creek (ex Telstra site) portion recommended as Regional Park.



Cleared area, possible surplus land within ex Telsta site.



Open paddocks within Eastern Creek Site.

# 3. EASTERN CREEK (EX TELSTRA SITE)

\*\*



Typical vegetation along Eastern Creek.



Cleared farmland along Eastern Creek, possible surplus lands.



Regenerating bushland within Eastern Creek (ex Telstra site) recommended as Regional Park.

# 2.5 PROSPECT ROS CORRIDOR study site Prospect ROS corridor site reference no. 4 area of land 330 hectares character many diverse uses including Eastern Creek Raceway and Blacktown Drive-in, some remnant Cumberland Plain Woodland LGA Blacktown Council ownership 70 % DUAP owned zoning 1(a) General Rural, 3(c) Entertainment & Tourism, 5(a) Corridor, 5(a) Reservoir planning controls Regional Open Space location & situated between the Western Freeway and Sydney Water lands surrounding Prospect Reservoir context conflicting many existing uses under their own management interests current plans no current plans comments area of remnant Cumberland Plain Woodland should be transferred to NPWS as Nature Reserve along with lands surrounding Prospect Reservoir surplus lands with 50-100 metre corridor to provide buffer zone and pedestrian link through to other open space areas

Environmental Partnership Pty Ltd

Page 14

Surplus lands, with public

### 4. PROSPECT REGIONAL OPEN SPACE CORRIDOR



Recommended transfer with Prospect Reservoir Nature – Reserve

.

2

-

2

Pedestrian open space link -

Not to Scale



### 4. PROSPECT ROS CORRIDOR

Z

1

8

8



View of mixed used areas within Propect ROS corridor.



Drive-in theatre located within Prospect ROS corridor.



Hobby farms within Prospect ROS corridor recommended as surplus land.

## 4. PROSPECT ROS CORRIDOR



Norfolk Island Pine avenue from Reservoir Road to Prospect Reservoir.



Regenerating bushland within Reservoir Reserve.



Remnant Cumberland Plain bushland on Sydney Water land.

Dept of Environment LIBRARY – HURSTVILLE & Conservation (NSW)

### 2.6 HOXTON PARK ROS CORRIDOR

study site Hoxton Park ROS corridor

site reference no. 5

area of land approximately 1000 hectares

character lands extending south from Elizabeth Drive to Camden Valley Way, crossed by the water supply canal, rural lands with bushland through the southern areas some revegetation being implemented

LGA Liverpool City Council

ownership approximately 85% DUAP owned

zoning 5(a) Special Uses - Corridor, 5(a) Special Uses -Water Supply Canal

planning controls Regional Open Space

 Iocation &
 extending south from Elizabeth Drive to Camden Valley Way

 context
 Kemps Creek Nature Reserve is on the western boundary

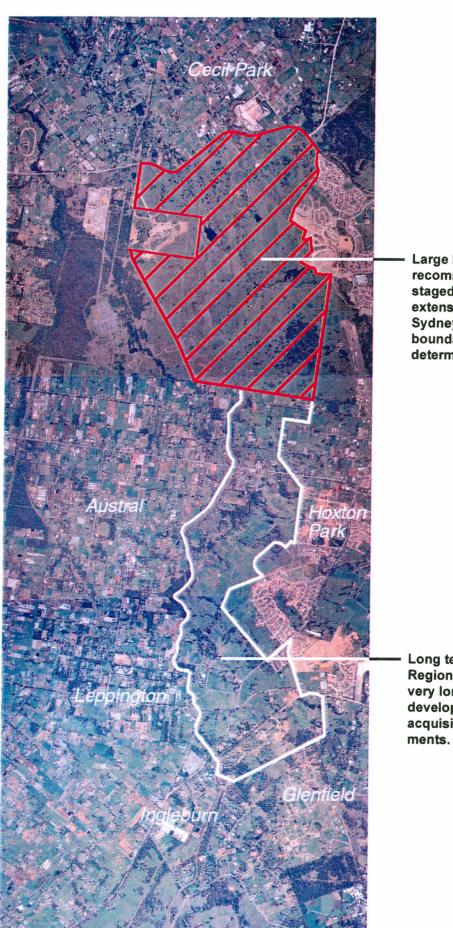
 surrounding suburbs include Cecil Hills, Hoxton Park Kemps Creek and

 Leppington

conflictingOlympic shooting facility being developed on adjoining siteinterestsSydney Orbital road reservation - EIS plans available from RTA,<br/>proposing three options for road alignment<br/>water supply canal crossing through site<br/>electricity transmission line easement

current plans no current plans

comments northern area consists of one large parcel of land



# 5. HOXTON PARK REGIONAL OPEN SPACE CORRIDOR

Large DUAP holding, recommended for staged development as extension of Western Sydney Regional Park; boundaries to be determined

Long term potential as Regional Park, with very long term staged development due to acquisition requirements.



### 5. HOXTON PARK ROS CORRIDOR



Undulating lands within Hoxton Park ROS corridor, possible surplus lands.



Mass planting & revegetation of Hoxton Park ROS corridor recommended as Regional Park extention.



Water supply canal within Hoxton Park ROS corridor.

# 5. HOXTON PARK ROS CORRIDOR



Area recommended for Regional Park extention within Hoxton Park ROS corridor.



View over Hoxton Park ROS corridor.

### 2.7 MINTO CORRIDOR RESERVATION

study site Minto corridor reservation

site reference no. 6

- area of land 150 hectares
- character open space/service corridor
- LGA Campbelltown City Council
- ownership reasonable % of DUAP ownership
- zoning 5(e) Special Uses, Public Purposes Corridor

planning controls no planning controls

Iocation &services corridor running east/west between the suburbs of Ingleburncontextand Minto crossed by the Hume Highway, Campbelltown Road and the<br/>southern railway line.

conflicting many services potentially accessing land

interests

current plans no current plans

comments corridor has potential as open space link to Georges River Regional Open Space corridor

#### 6. MINTO REGIONAL OPEN SPACE CORRIDOR





#### 2.8 GEORGES RIVER ROS CORRIDOR

study site Georges River ROS corridor

sire reference no. 7

.

area of land approximately 2,000 hectares

characterriver corridor in non urban area, ridge top and river bushland areasflat areas on ridge tops developed as rural blocks

LGA Campbelltown City Council

ownership 83% DUAP

zoning 5(a) Special Uses, 6(a) Existing Recreation, 7(b) Scenic Protection Areas

planning controls Scenic Protection Zones, Regional Open Space

location &western catchment of Georges River extending south from Ingleburn tocontextKentlyn, includes Simmo's Beach in the north

conflictingprivately owned rural residential blocks along ridge top roadsinterestsCouncil owned recreation reserves

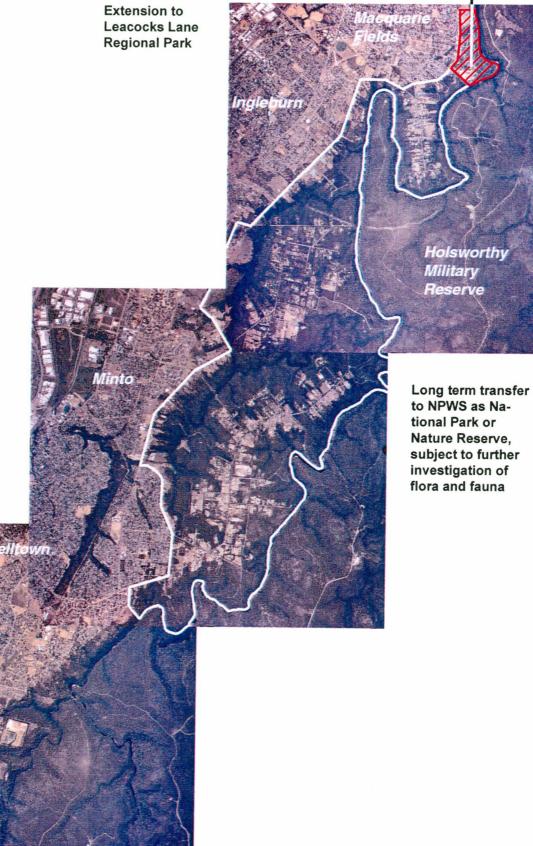
current plansGeorges River Regional Open Space and Scenic Protection CorridorManagement Study by EDAW and Berkout Planning & Development

comments limited to uses as Regional Park subject to land ownership river bank areas limited as to recreational uses

#### 7. **GEORGES RIVER REGIONAL OPEN SPACE CORRIDOR**

1

E



subject to further investigation of flora and fauna



#### 7. GEORGES RIVER ROS CORRIDOR



Simmo's Beach area recommended as an extention to Leacocks Lane Regional Park.



Bushland surrounding Simmo's Beach recommended as Regional Park.

Existing infrastructure at Simmo's Beach recreation area.





# 7. GEORGES RIVER ROS CORRIDOR



Typical exposed sandstone bushland within Georges River ROS corridor.



Healthy stands of remnant woodland recommended for transfer as National Park.



Typical view along Georges River.

# 2.9 APPIN RIVER CORRIDOR

study site	Appin river corridor
site reference no.	8
area of land	approximately 600 hectares
character	western catchment of upper reaches of Georges River quality bushland covering majority of the river corridor
LGA	Campbelltown City Council and Wollondilly Shire Council
ownership	80% DUAP owned
zoning	1(a) Non urban
planning controls	Georges River Parkway reservation
location & context	extending south from Georges River ROS Corridor to Appin township
conflicting interests	no conflicting interests as majority DUAP land holdings
current plans	no current plans
comments	consideration as National Park or Nature Reserve eastern side of river corridor should be secured for complete catchment protection

# 8. APPIN RIVER CORRIDOR



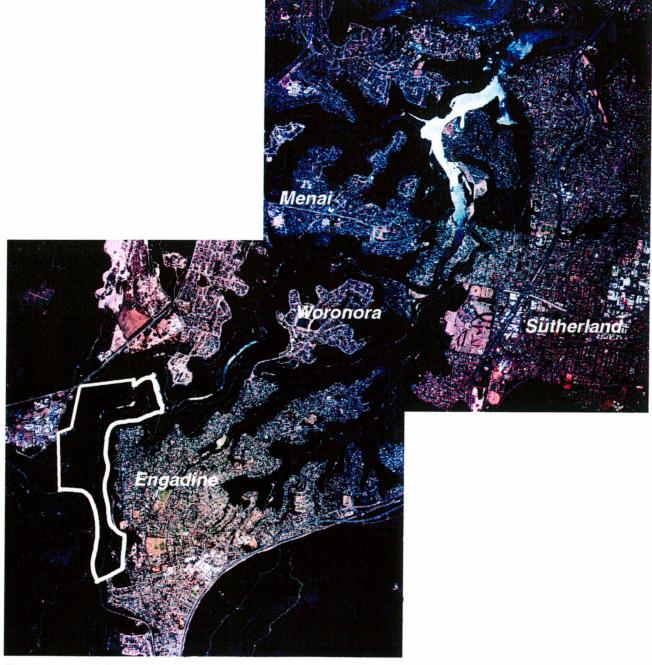
Long term potential for transfer to NPWS as nature reserve



# 2.10 HEATHCOTE

study site	Heathcote
site reference no.	9
area of land	approximately 90 hectares
character	river valley bushland surrounded by urban areas
LGA	Sutherland Shire Council
ownership	some DUAP ownership,
zoning	5(a) Special Uses - Water Supply Pipeline, 6(a) Recreation
planning controls	no current planning controls
location & context	upper reaches of Woronora River adjoining Heathcote National Park, within the suburbs of Lucas Heights and Engadine
conflicting	encroaching residential areas
interests	water supply pipeline
	Council owned recreation reserves
current plans	no current plans
comments	boundaries need to be investigated for partial addition/extension to
	Heathcote National Park

## 9. HEATHCOTE



Recommended for transfer to NPWS as extension to Heathcote National Park. Further investigation required to establish boundaries.

Not to Scale



#### 2.11 WORONORA RIVER (OLD SHAKEL'S ESTATE)

study site Woronora River (old Shakel's estate)

site reference no. 10

area of land 60 hectares

character river gorge bushland surrounded by urban areas and existing active recreation areas

- LGA Sutherland Shire Council
- ownership 75% DUAP owned
- zoning 6(a) Recreation
- planning controls no current planning controls

Iocation &Woronora River catchment lands with in the suburbs of Woronora, LucascontextHeights

- conflicting encroaching residential areas

interests

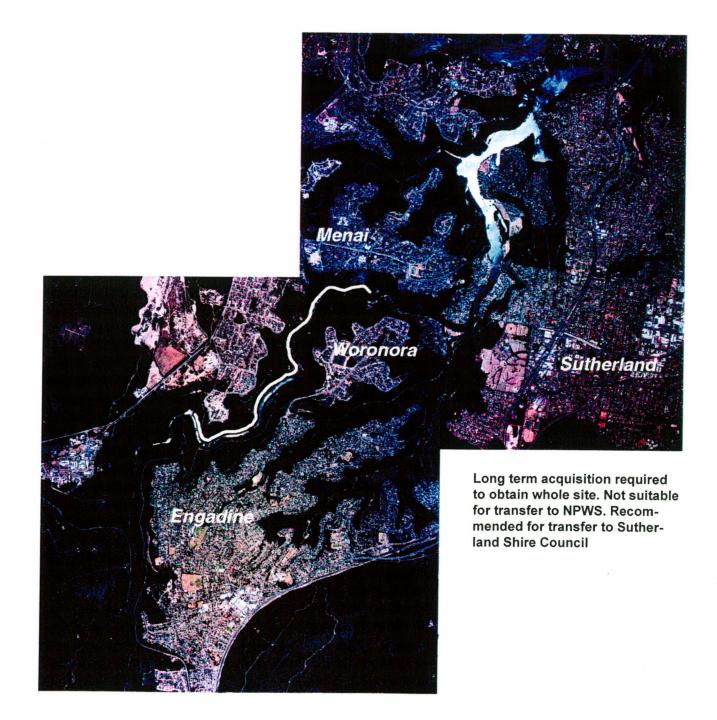
current plans no current plans

 comments
 barge access only

 land too steep for multiple recreation uses

# 10. WORONORA RIVER (OLD SHAKELS ESTATE)

E





#### 10. WORONORA RIVER (OLD SHAKEL'S ESTATE)

z

-



Woronora River.



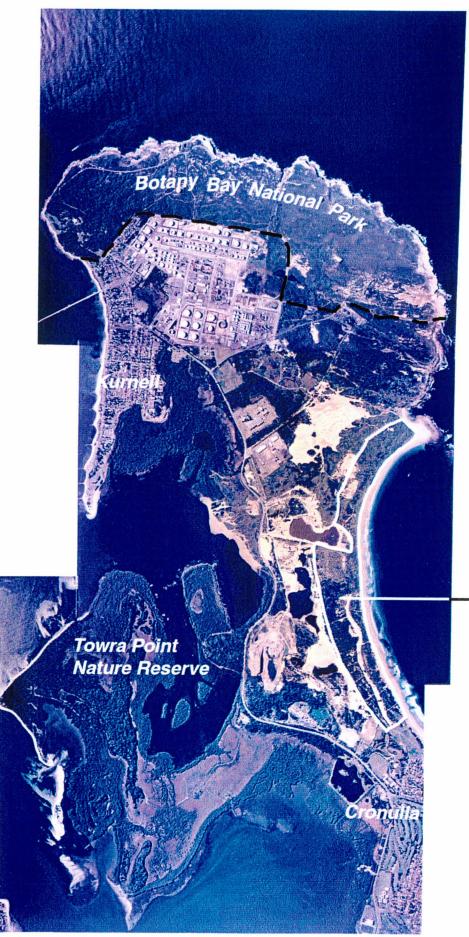
Steep sloping land prevents development. Land adjacent to the river is quality bushland.



Woronora River escarpment - not under DUAP ownership.

# 2.12 KURNELL PENINSULA WEST

study site	Kurnell Peninsula west
site reference no.	11
area of land	approx. 70 hectares
character	extensively mined sand dune lands with recent revegetation
LGA	Sutherland Shire Council
ownership	DUAP to be acquiring
zoning	6(a) Existing Recreation, 6(b) Proposed Recreation
planning controls	no current planning controls
location &	lands directly behind Wanda Beach within suburb of Kurnell
context	Boat Harbour 4WD Park on the eastern boundary
conflicting interests	privately owned land surrounding site may want access to beach
current plans	no current plans
comments	H1 lands - sand mining in 70's, being remediated
	H2 - Breen Corporation Land
	proactive acquisition v. "natural rate" of acquisition



Long term potential for transfer to NPWS subject to further investigation

Not to Scale



#### 2.13 KURNELL PENINSULA EAST

study site	Kurnell	Peninsula	east
------------	---------	-----------	------

site reference no. 12

- area of land 48 hectares
- character peninsula heathlands
- LGA Sutherland Shire Council
- ownership DUAP to be acquiring

zoning 6(a) Existing Recreation, 7(b) Special Development - Environmental Protection

planning controls Endangered Ecological Community

Iocation &shares boundary with Botany Bay National Park on southern tip ofcontextKurnell Peninsula

conflictingbounded by Boat Harbour 4WD Park and Continental Carbon Australiainterestssite

current plans no current plans

comments natural bushland in good condition allows for transfer as an extension to Botany Bay National Park

#### 12. KURNELL PENINSULA EAST



Immediate transfer to NPWS as extension of Botany Bay National Park

Not to Scale



## **11. KURNELL PENINSULA**



# View south from the Kurnell (east) site.



Pathway seperating public open space areas of Kurnell (west) site and private development site.

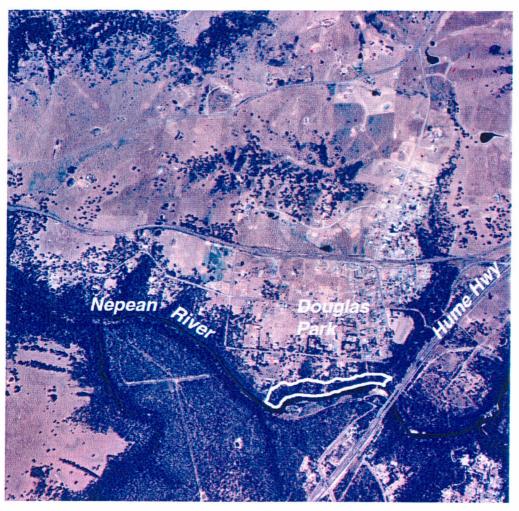


Regeneration of coastal dune area within Kurnell (west) site, recommended for long term consideration by NPWS.

# 2.14 DOUGLAS PARK ROS RESERVATION

study site	Douglas Park ROS reservation
site reference no.	13
area of land	36 hectares
character	deep river gorge surrounded by natural bushland
LGA	Wollondilly Shire Council
ownership	no DUAP ownership
zoning	9(e) Regional Open Space
planning controls	Regional Open Space
location & context	south of Douglas Park township on the Nepean River Southern Freeway is situated to the east
conflicting interests	major Motorway bridge creates noise and visual pollution
current plans	no current plans
comments	surrounding population levels do not cater for Regional Park category

## 13. DOUGLAS PARK



**Transfer to Wollondilly** Shire Council for recreation reserve



# 3.0 SITE ASSESSMENTS & EVALUATIONS

#### 3.1 INTRODUCTION

The information in this section is provided to support the matrix in Section 1.7, 'Site Assessment and Evaluation'. The site specific comments under each criteria allow for the value - 'high', 'medium' or 'low' with in the matrix - to be further explained.

#### 3.2 EXPLANATION OF SITE ASSESSMENT CRITERIA

Site Assessment includes five general categories for evaluating each site, including the following major issues:

- cultural significance
- strategic considerations
- physical attributes
- feasibility for implementation, and
- development and manageability.

Under each general category, several detailed aspects of these issues are addressed.

As each factor is evaluated, a rating of "high", "medium" or "low" is assigned, and a graphic representation used. The completed matrix will provide ratings that can be easily identified and compared.

#### 3.2.1 Cultural Significance

- heritage/historic importance within the metropolitan context, does the site have components or features that contribute to an understanding of the heritage and history of the area?
- educational opportunities in a formal or informal sense, are there opportunities to interpret the site to visitors of many ages?
- **recreational opportunities** does it include areas or existing or potential facilities, primarily for passive recreation; perhaps of a different nature than in other locations?
- regional identity does the site have a unique identity that can contribute to a memorable open space experience or set it apart from other open space areas as a unique destination?

#### 3.2.2 Strategic Considerations

Strategic considerations relate largely to planning issues, such as the number of people who are within a given distance of the site and so are potential visitors, ie **potential visitor catchment**. A "high" rating in this sub-category signals that there is a large number of potential visitors. In addition, the degree of **access to the site, by private or public transport**, will affect the potential for visitation. If the site is easy to get to and get into, either by private or public transport, it will get a "high" rating. Finally, the question is asked, "how many people can the site accommodate without compromising the site's quality - cultural, physical, recreational, etc?" If it is considered that the site can accommodate a large number of visitors without losing the qualities that attract people to it in the first place, it would receive a "high" rating for its **visitor capacity**.

#### 3.2.3 Physical Attributes

- **visual quality** is the site itself of high visual quality, or is it part of a scenic corridor or does it buffer less desirable views?
- **environmental diversity** does the site demonstrate or contribute to environment diversity in the region, or is it significant for flora/fauna?
- potential open space links can the site provide public access & links to other open space reservations?

#### 3.2.4 Feasibility for Implementation

In evaluating the site's "feasibility for implementation", the issues of **cooperative stakeholders**, likely **capital costs** and suitability for **phased implementation** are considered. At this stage of the assessment process, these sub-categories are somewhat hypothetical and will be further explored in Stage Two. However, their inclusion at this stage of the assessment will highlight any potential difficulties in realising a transfer to another open space status. "High" ratings for these sub-categories would indicate that the site has good prospects for implementation as a specific open space type, eg Regional Park, Nature Reserve or Council managed open space.

#### 3.2.5 Development & Manageability

The final category of assessment, "development and manageability", asks questions about the existence of **established plans of management and/or management structures** related to the site. Further, estimates of **site maintenance and recurrent costs** associated with a possible development option are rated. The **cost/benefit** analysis of the site being further developed - a high rating for these factors would indicate there is positive cost/benefit to be realised.

The categories are admittedly broad at this stage, but will be refined as the evaluation process proceeds toward a preliminary selection of sites. Stage 2 will provide further details and analysis.

#### 3.2.6 Category of Open Space, Comments & Actions

The final section listed on the Summary Site Assessment matrix seeks to provide a definition of the site's **category of open space**. eg. National Park, Nature Reserve, Historic Sites, State Recreation Area, Regional Park, Public Open Space.

The ownership and ongoing management issues are noted in the **comments** column with recommendations/actions detailed in the **action** column. The recommendations listed in the actions column result from the Site Assessment Matrix and detailed investigation of criteria defined for each open space category.

Environmental Partnership Pty Ltd

#### 3.3 SOUTH CREEK ROS CORRIDOR

# 3.3.1 Cultural Significance

-

heritage & historic importance	rural grazing lands, individual historic homestead estate, some aboriginal cultural sites
educational opportunities	limited to individual sites, low educational value
recreational opportunities	regional catchment established, active facilities already existing eg. golf course, sporting fields.
regional identity	large open space within urban area providing some established uses

# 3.3.2 Strategic Considerations

potential visitor catchment	surrounded by urban areas, large population in LGA's of Penrith and Blacktown, increased population through land release areas
access by public or private transport	vehicular access from major highway and freeway, nearby railway stations
visitor capacity	high due to area and flat lands

# 3.3.3 Physical Attributes

landform	large river flats area	
visual quality	site heavily degraded, transmission lines create visual pollution	
environmental diversity	threatened species have been recorded within both corridors; portions of corridor likely to meet requirements of Cumberland Plain Woodland, an endangered ecological community; regionally significant species have been recorded; healthy populations of both plants and animals identified within creek corridor; both creeks provide connectivity northwards into the ADI St Marys site, but southern linkages are limited	
potential open space links	high potential for linkage into ADI site	
3.3.4 Feasibility for Implementation		
cooperative stakeholders	many uses and stakeholders eg. golf courses, sporting fields etc.	
suitability for phased implementation	medium to long term	
capital costs	high costs involved in revegetating site	

#### 3.3.5 Development & Manageability

established plans &	South Creek Corridor Land and Vegetation Management Pla	n,
management	November 1998	
structures	requires management plan for whole site	

site maintenance & high due to poor soils, extreme climatic conditions, revegetation recurrent costs

#### 3.4 ROPES CREEK ROS CORRIDOR

# 3.4.1 Cultural Significance

-

heritage & historic importance	no significant heritage value
educational opportunities	limited to individual sites, area extensively degraded
recreational opportunities	established sporting fields etc with regional significance
regional identity	many other competing lands and corridors with higher qualities

# 3.4.2 Strategic Considerations

potential visitor catchment	surrounded by extensive urban areas, with large population in Blacktown LGA
access by public or private transport	access from major roads, internal access difficult
vicitor consolty	medium area and flat lands

visitor capacity medium area and flat lands

Dept of Environment LIBRARY – HURSTVILLE & Conservation (NSW)

# 3.4.3 Physical Attributes

.

landform	river flats area	
visual quality	current degradation of corridor, and dominant electricity transmission lines create visual pollution	
environmental diversity	threatened species have been recorded within both corridors; portions of corridor likely to meet requirements of Cumberland Plain Woodland, an endangered ecological community; regionally significant species have been recorded; healthy populations of both plants and animals identified within creek corridor; both creeks provide connectivity northwards into the ADI St Marys site, but southern linkages are limited	
potential open space links	links north to ADI site and potential links south to Hoxton Park ROS corridor	
3.4.4 Feasibility for Implementation		
cooperative stakeholders	many land uses with potential stakeholder conflict	
suitability for phased implementation	medium to long term implementation	
capital costs	high due to extensive degradation of creek lands	
3.4.5 Development & Manageability		
established plans & management structures	requires management plans for entire site	
site maintenance & recurrent costs	extensive rehabilitation of environment required	

# 3.5 EASTERN CREEK (EX TELSTRA SITE)

# 3.5.1 Cultural Significance

-

-

heritage & historic importance	no significant heritage value
educational opportunities	clearing of site provides no educational value
recreational opportunities	large flat areas provide for the establishment of active and passive recreational facilities
regional identity	forms part of and open space corridor

# 3.5.2 Strategic Considerations

potential visitor catchment	large population with in Blacktown LGA, along with growth in urban release areas
access by public or private transport	access from adjacent highway and nearby Blacktown Railway Station
visitor capacity	large flat lands provide for large visitor capacity

# 3.5.3 Physical Attributes

landform	undulating river plains, Rooty Hill peak on adjacent Morreau Reserve
visual quality	cleared land provides no visual interest
environmental diversity	no records of threatened species being present within this site were identified during the literature review; site highly disturbed and cleared
potential open space links	linkages to Nurragingy Reserve and Olympic Softball facility on Aquilina Reserve, Regional Open Space corridor to the south.

#### 3.5.4 Feasibility for Implementation

cooperative stakeholders	no conflict due to one hundred percent ownership by DUAP
suitability for phased implementation	potential for transfer of some lands to Council and NPWS over medium to long term
capital costs	entire site needs extensive revegetation and rehabilitation

# 3.5.5 Development & Manageability

established plans &	no existing plans or ma	anagement structure	es in place
management			
structures			

site maintenance &rehabilitation costs in terms of revegetation erosion control etcrecurrent costsdependent on nature of development

## 3.6 PROSPECT ROS CORRIDOR

# 3.6.1 Cultural Significance

F

heritage & historic importance	no existing heritage value
educational opportunities	no educational value
recreational opportunities	established recreational opportunities with Eastern Creek Raceway and Blacktown Drive-in
regional identity	forms part of an open space corridor and established uses have created an identity

# 3.6.2 Strategic Considerations

potential visitor catchment	large population within surrounding suburbs
access by public or private transport	Western Freeway provides direct access to site
visitor capacity	established uses provide a high capacity

# 3.6.3 Physical Attributes

landform	flat lands extensively developed
visual quality	overall extensive development of the site
environmental diversity	site highly disturbed and cleared; proximity of Prospect Reservoir and its associated bushland areas are expected to be more significant for the life cycle needs of those regionally significant species known or expected; connectivity to adjacent woodland stands
potential open space links	connects into extensive open space corridor but provides no exceptional value addition

## 3.6.4 Feasibility for Implementation

cooperative stakeholders	developed sites create potential conflict
suitability for phased implementation	due to being highly developed, phased implementation would be difficult
capital costs	lands that area not already developed would require revegetation or large capital costs if facilities to be developed to the levels that already exist on site

#### 3.6.5 Development & Manageability

established plans & developed facilities currently have management plans in operation management structures

site maintenance & dependent on facilities developed recurrent costs

#### 3.7 HOXTON PARK ROS CORRIDOR

# 3.7.1 Cultural Significance

-

heritage & historic importance	water supply canal crosses site, rural lands
educational opportunities	bushland areas provide some educational value
recreational opportunities	land area creates potential for many recreational opportunities and choices, Olympic Shooting facility currently being developed on site
regional identity	extensive open space area, with connection to other corridors

# 3.7.2 Strategic Considerations

potential visitor catchment	large potential visitor catchment with surrounding urban release areas
access by public or private transport	access only by private vehicle, internal access would need to be required
visitor capacity	large area provides for many visitors

#### 3.7.3 Physical Attributes

landform	flat to undulating hills
visual quality	some bushland areas, most of site has been cleared for grazing
environmental diversity	threatened species known to occur within and adjacent to woodland areas; drainage lines may be of value to some aquatic species; portions of corridor are known to support stands of Cumberland Plain Woodland and Sydney Coastal River-Flat Forest; regionally significant plant and animal species have been recorded within this area; provides north/south connectivity into Prospect Reservoir, the Western Sydney Regional Park and other retained woodland areas; suitable breeding, foraging, roosting and sheltering resources present within portions of this site
potential open space links	site forms large part of significant north south corridor including Horsley Park corridor
3.7.4 Feasibility for	Implementation

#### 3.7.4 Feasibility for Implementation

cooperative stakeholders	few users of land creates potential for conflict
suitability for phased implementation	medium to long term establishment of lands

capital costs dependent of facilities developed

#### 3.7.5 Development & Manageability

established plans &Hoxton Park Corridor (North) Land and Vegetation ManagementmanagementPlan (DUAP), Management Plan developed for Olympic sitestructures

site maintenance &rehabilitation and maintenance costs dependent on facilitiesrecurrent costsdeveloped

#### 3.8 MINTO ROS CORRIDOR

#### 3.8.1 Cultural Significance

heritage & historic	no existing heritage value
importance	

educational no existing educational value

opportunities

recreationalsome recreational opportunity may be provided throughopportunitiespedestrian/cycle routes or establishment of sporting facilities on flat<br/>areas

regional identity no significant identity

#### 3.8.2 Strategic Considerations

potential visitor catchment	potential to provide as access corridor to Georges River ROS corridor from neighbouring suburbs
access by public or private transport	access limit to adjacent roads

visitor capacity no established uses and small area provides low visitor capacity

# 3.8.3 Physical Attributes

landform	long flat area no significant land forms
visual quality	extensive clearing creates no visual importance
environmental diversity	No records of threatened species being present within this site were identified during the literature review; highly disturbed and cleared; Site connects into the Georges River and Holsworthy Military Reserve to the east
potential open space links	provides local link to Georges River ROS corridor
3.8.4 Feasibility for Implementation	
cooperative stakeholders	many services using site may create conflict
suitability for phased implementation	area creates no potential for phased implementation
capital costs	some degree of cost would be involved in establishing access routes through site
3.8.5 Development & Manageability	
established plans & management structures	some management of site potentially established due to surrounding urban areas

site maintenance & maintenance of site would be minimal dependent on facilities recurrent costs provided

#### 3.9 GEORGES RIVER ROS CORRIDOR

# 3.9.1 Cultural Significance

.

heritage & historic importance	the Wool Wash is an important heritage site
educational opportunities	extensive bushland areas provide educational value
recreational opportunities	established recreation areas ie. Simmo's Beach and bushland provide choice for recreational opportunities
regional identity	regional identity for local population

## 3.9.2 Strategic Considerations

potential visitor catchment	high visitor catchment with large population in Campbelltown LGA and growth release areas
access by public or private transport	access only via private vehicle, established road system
visitor capacity	bushland areas are steep creating difficulties in establishing facilities, high flat ground is developed with large lots residential areas

#### 3.9.3 Physical Attributes

landform	river gorges with steep slopes, flat ridge areas
visual quality	large bushland areas and river views
environmental diversity	threatened species known to occur within and adjacent to this river valley; aquatic areas expected to be valuable for the requirements of fish and other freshwater species; portions of site likely to meet requirements of Cumberland Plain Woodland and of Sydney Coastal River-Flat Forest; provides connectivity, and acts as a protective buffer, to the Holsworthy Military Reserve; suitable breeding, foraging, roosting and sheltering resources present within boundaries of valley
potential open space links	linear shape of corridor provides links within itself, cross river connection to Holsworthy Military Reserve, southern connection to Appin river corridor
3.9.4 Feasibility for Implementation	

# cooperative residential areas create conflict in acquisition of all lands stakeholders

suitability for phasedarea provides for many categories therefore medium to long termimplementationimplementability

capital costs dependent on facilities provided, but some established recreational facilities existing

#### 3.9.5 Development & Manageability

established plans &individual sites have existing management, overall site requires amanagementstructure for management. EDAW report provides limitedstructuresrecommendations and possible management structures (JointDUAP/Council study, 1998)

site maintenance &dependent on facilities developed, existing facilities require ongoingrecurrent costsmaintenance

## 3.10 APPIN RIVER CORRIDOR

# 3.10.1 Cultural Significance

-

heritage & historic importance	no significant heritage value
educational opportunities	bushland and river environment provides educational opportunities
recreational opportunities	landform provides few recreational opportunities
regional identity	no significant regional identity

# 3.10.2 Strategic Considerations

potential visitor catchment	not surrounded by urban Campbelltown LGA	areas, t	but some	catchment	from
access by public or private transport	no access by road				
visitor capacity	low capacity due to land form	and acce	ssibility		

-

landform	river gorge, steep slopes
visual quality	quality bushland and river views
environmental diversity	threatened species are known to occur within this river valley; site likely to be valuable for the requirements of fish and other aquatic species; site likely to meet requirements of SEPP-44, particularly areas in the vicinity of Wedderburn; portions of corridor likely to meet requirements of Cumberland Plain Woodland and O'Hares Creek Shale Forest, both endangered ecological communities; regionally significant plant and animal species known to occur within the Appin River Corridor; provides connectivity between the Georges River and water catchments areas to the south, also provides connectivity into the Holsworthy Military Reserve.
potential open space links	links to Georges River corridor to the north, Holsworthy Military site to the east, and water catchment areas to the south

#### 3.10.4 Feasibility for Implementation

cooperative	easily transferred as DUAP has majority of ownership	
stakeholders		

suitability for phasedimplementation a bushland reservation area along river corridorimplementationover short term.

capital costs minimal capital cost involved if development as bushland reservation

## 3.10.5 Development & Manageability

established plans &no existing management structures existing, minimal establishmentmanagementrequiredstructures

site maintenance &minimal maintenance required due to historic restricted access torecurrent costsland; minimal development of facilities

## 3.11 HEATHCOTE

#### 3.11.1 Cultural Significance

heritage & historic importance	no significant heritage values
educational opportunities	bushland provides educational value
recreational opportunities	landform creates minimal choices for recreation
regional identity	no significant identity, potential to be identified with Heathcote National Park

#### 3.11.2 Strategic Considerations

potential visitor catchment	no significant visitor catchment, medium local population
access by public or private transport	access by road limited

visitor capacity visitor capacity restricted by access and landform

#### 3.11.3 Physical Attributes

landform steep river valley

visual quality high quality bushland provides visual barrier along escarpment

environmental diversity threatened fauna species have been recorded within and adjacent to this valley; site valuable for the requirements of fish and other aquatic species; site may meet requirements of SEPP-44; portions of site may meet the requirements of Sydney Coastal River-Flat Forest; regionally significant plant and animal species known to occur within the Woronora Valley; site connects to Heathcote National Park and northwards along the Woronora Valley; suitable breeding, foraging, roosting and sheltering resources present within boundaries of valley

potential open space site links directly into Heathcote National Park links

### 3.11.4 Feasibility for Implementation

cooperative stakeholders	few stakeholders therefore minimal conflict in transfer of land
suitability for phased implementation	large area of bushland with minimal encroaching urban areas allows for short term extension of Heathcote National Park
capital costs	minimal to no capital costs in direct transfer of bushland to National Park

# 3.11.5 Development & Manageability

established plans & site would be included in management plans for Heathcote National Park structures

site maintenance & recurrent costs

incorporated into costs for Heathcote National Park, including fire management, erosion control etc.

## 3.12 WORONORA RIVER - OLD SHAKEL'S ESTATE

# 3.12.1 Cultural Significance

heritage & historic importance	some cultural significance due to the history of the site
educational opportunities	educational opportunities in bushland and river environments
recreational opportunities	recreational opportunities are minimal due to sloping landform
regional identity	some regional identity being bushland adjacent to residential areas, part identified by Sutherland Shire Council as regional reserves
3.12.2 Strategic Co	onsiderations
potential visitor catchment	catchment restricted to local population due to access difficulties

access by public or access restricted dur to steep slopes and river private transport

visitor capacity medium visitor capacity as some recreational/picnic site established

## 3.12.3 Physical Attributes

1

1

landform	steep river gorge
visual quality	bushland valley and river views from residential areas on ridge tops
environmental diversity	threatened fauna species recorded within and adjacent to this valley; portions of site may meet the requirements of Sydney Coastal River-Flat Forest; regionally significant plant and animal species known to occur within the Woronora Valley; connectivity northwards to Woronora Valley high, but southern movements prevented by residential areas; suitable breeding, foraging, roosting and sheltering resources present within boundaries of site
potential open space links	open space links with rest of Woronora Valley, and Heathcote National Park

### 3.12.4 Feasibility for Implementation

cooperative stakeholders	different land holders within site may create conflict
suitability for phased implementation	minimal potential for transfer to NPWS therefore implementation in short term low
capital costs	potential development of site minimal therefore capital costs would be low

#### 3.12.5 Development & Manageability

established plans & some established plans for areas already in use by Council management structures

site maintenance &maintenance costs would involve bushland protection, firerecurrent costsmanagement etc.

### 3.13 KURNELL PENINSULA WEST

## 3.13.1 Cultural Significance

1

heritage & historic importance	no historic importance as site has been extensive mined etc.
educational opportunities	no educational value due to extensive land disturbance
recreational opportunities	minimal recreational opportunities as site is currently being revegetated and large sections are fenced off
regional identity	no separate regional identity as the site is competing with nearby National Park and Nature Reserves

## 3.13.2 Strategic Considerations

potential visitor catchment	medium visitor catchment with local population not adjacent to site and access minimal
access by public or private transport	access by foot only, large areas fenced off, access from beach
visitor capacity	visitor capacity low due to current revegetation areas fenced off

### 3.13.3 Physical Attributes

-

landform	undulating sand dunes
visual quality	some visual quality, provides vegetation buffer from beach against mined areas
environmental diversity	no environmental quality due to extensive degradation of land through mining etc., current revegetation with a monoculture of species
potential open space links	links can be established to Botany Bay National Park and Towra Point Nature Reserve

## 3.13.4 Feasibility for Implementation

cooperative stakeholders	limited conflict as in DUAP ownership
suitability for phased implementation	DUAP ownership allows for a possible mid to long term transfer to NPWS. Some management of intervening period in consultation with NPWS to enhance site suitability
capital costs	dependent on development required for the site

# 3.13.5 Development & Manageability

established plans &management plans exist in terms of the previous revegetation ofmanagementthe site, as part of initial remediation process.structures

site maintenance &maintenance of revegetated areas including erosion control andrecurrent costsdune stabilisation

## 3.14 KURNELL PENINSULA EAST

# 3.14.1 Cultural Significance

-

-

heritage & historic importance	medium significance as land is associated with Captain Cook's landing site
educational opportunities	educational value in the heritage value and natural vegetation
recreational opportunities	few recreational opportunities, similar to those associated with the National Park
regional identity	regional identity is high due to association with National Park land and heritage

# 3.14.2 Strategic Considerations

potential visitor catchment	medium visitor catchment with local population and heritage/natural values
access by public or private transport	access by foot only via the National Park

visitor capacity visitor capacity low due to access

#### 3.14.3 Physical Attributes

landform	flat	sandstone	ridge top	and s	and d	unes

visual quality as an extension of National Park provides continuation of natural bushland

environmental diversity threatened fauna species recorded within and adjacent to boundaries of Calsil Dune; site meets the requirements of Kurnell Dune Forest, an endangered ecological community; regionally significant plant and animal species recorded; provides connectivity between, and to, Botany Bay National Park and Towra Point Nature Reserve; suitable breeding, foraging, roosting and sheltering resources present within boundaries of site

potential open spacelinks can be established to Botany Bay National Park and TowralinksPoint Nature Reserve

#### 3.14.4 Feasibility for Implementation

cooperative stakeholders	as DUAP has ownership no conflict would arise
suitability for phased implementation	immediate transfer to NPWS as an extension to Botany Bay National Park
capital costs	minimal capital costs involved as little development of the site is required

#### 3.14.5 Development & Manageability

established plans &with transfer to NPWS the site would be managed in associationmanagementwith Botany Bay National Parkstructures

site maintenance & site maintenance is minimal under National Park category recurrent costs

## 3.15 DOUGLAS PARK ROS RESERVATION

# 3.15.1 Cultural Significance

3

-

heritage & historic importance	no significant heritage value
educational opportunities	no significant educational value
recreational opportunities	some recreational value through boating activities
regional identity	no regional identity as area is small and not with in significant residential area

# 3.15.2 Strategic Considerations

potential visitor	low as site is not within large population area
catchment	
access by public or	access from southern freeway by private vehicle

private transport

visitor capacity due to small area visitor capacity is low

# 3.15.3 Physical Attributes

landform	river gorge, steep slopes	
visual quality	bushland provides buffer to nearby freeway	
environmental diversity	threatened fauna species have been recorded within and adjacent to this site; site expected to be valuable for the requirements of fish and other aquatic species; regionally significant plant and animal species known to occur within the Nepean Valley; given structure of vegetation along and adjacent to the Nepean River, the viability of any populations is expected to be high; The Nepean River is a significant ecological corridor providing movement opportunities and connectivity into, and between, the Metropolitan Catchment Areas; given likely condition of habitats present, and limited amount of disturbance within the Nepean Gorge, the diversity of life cycle resources is expected to be high	
potential open space links	potential links along the Nepean River, but the size of the site creates minimal impact	
3.15.4 Feasibility for Implementation		
cooperative stakeholders	land is to be in full DUAP ownership therefore conflict would be minimal	
suitability for phased implementation	potential transfer of care, control and management to Wollondilly Shire Council, Council manage part of the site currently	

capital costs some capital costs would be required for the development of visitor facilities

#### 3.15.5 Development & Manageability

established plans &	no plans existing for the site, potential to be included in Councils
management	park management structure
structures	

site maintenance &minimal maintenance due to small area only requiring higherrecurrent costsdevelopment for visitors

# 4.0 BIBLIOGRAPHY

Clouston (1995) Open Space Implementation Metropolitan Open Space Development Program Prepared for the NSW Department of Planning

Department of Urban Affairs and Planning (1998) Sydney Residential Land, Urban Development Programme Volume 8 Number 4

EDAW and Berkout Planning & Development (1998) Georges River Regional Open Space and Scenic Protection Corridor Campbelltown Local Government Area Management Study Prepared for the NSW Department of Planning, Campbelltown City Council, and the NSW Department of Housing

EDAW/ERM Mitchell McCotter (1998) Draft Conservation and Recreation Strategy: ADI Site/South and Ropes Creeks ROS Corridors Prepared for the NSW Department of Urban Affairs and Planning

David Kettle Consulting Services, Dr Richard Lamb, Integrated Site Planning and Management (1996) Landscape Value Assessment Study of Hoxton Park Corridor Prepared for the NSW Department of Urban Affairs and Planning

National Parks Association (NSW) (1999) Proposed National Parks Additions in the Sydney Region (2nd Edition) Prepared by Helen Latham

NSW National Parks and Wildlife Service (1997) *Regional Parks Policy Statement* Metropolitan Regional Parks Unit, Sydney

Ian Perkins Consultancy Services (1994) Eastern Creek/Prospect /Horsley Park Corridor Land and Vegetation Management Plan for Eastern Creek Corridor Glendenning Site Prepared for the NSW Department of Planning and Greening Australia (NSW)

Ian Perkins Consultancy Services (1997) Hoxton Park Corridor (North) Land and Vegetation Management Plan Prepared for the NSW Department of Urban Affairs and Planning and Greening Australia (NSW)

Ian Perkins Consultancy Services (1998) South Creek Corridor Land and Vegetation Management Plan Prepared for the NSW Department of Urban Affairs and Planning

The Sydney Regional Organisation of Councils (1997) Green Web - Sydney, A Vegetation Management Plan for the Sydney Region Prepared by Birgit Seidlich

Environmental Partnership Pty Ltd

Page 53

Dept of Environment LIBRARY – HURSTVILLE & Conservation (NSW)