

/// MINCHINBURY EMPLOYMENT PARK

ENVIRONMENTAL ASSESSMENT REPORT

DECEMBER 2009



Redevelopment of the Eastern Creek Quarantine station to establish an employment park, and supporting infrastructure, located at 60 Wallgrove Road, Minchinbury



/// MINCHINBURY EMPLOYMENT PARK

ENVIRONMENTAL ASSESSMENT REPORT



/// Contents

ENVIRONMENTAL ASSESSMENT

1 Introduction	
1.1 Executive Summary	1
1.2 Report Structure	2
1.3 Consultant Team	3
1.4 Certification by Author	3
2 Site Details and Location	
2.1 Site Location	7
2.2 Site Details	8
2.3 Surrounding Landuses	12
3 Minchinbury Employment Park Concept Plan	
3.1 Concept Plan Vision	15
3.2 Alternatives to Proposal	16
3.3 Concept Masterplan	17
3.4 Likely Landuses	19
3.5 Design Development Controls	20
3.6 Infrastructure Servicing	22
3.7 Public Domain	27
3.8 Staging	28
4 Planning Context and Statutory Considerations	
4.1 Commonwealth Environment Planning	31
4.2 State, Metropolitan and Subregional Strategic Planning	32
4.3 Environmental Planning & Assessment Act 1979	36
4.4 Other State Legislation	46
4.5 Development Contributions	48
5 Consultation & Identification of Issues	51
6 Environmental Issues	
6.1 Risk Assessment of Environmental Impacts	55
6.2 Soil & Water	57
6.3 Traffic	65
6.4 Noise	67
6.5 Urban Design & Landscaping	71
6.6 Air Quality	75
6.7 Greenhouse Gas Emissions	76
6.8 Flora & Fauna	78
6.9 Aboriginal Heritage & Archaeology	82
6.10 Heritage	85
6.11 Waste Management	88
7 Draft Statement of Commitments	91
8 Conclusion	
8.1 Conclusion	99
8.2 Proposed Orders	100

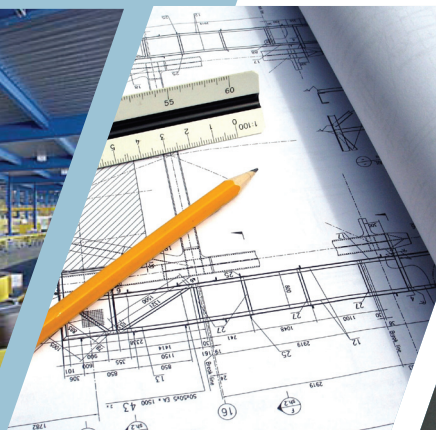
FIGURES

1. Site Location & Road Network
2. Extract of Deposited Plan 1040948
3. Aerial Photo & Contours
4. Quarantine Station Layout
5. Site Entry from Wallgrove Road
6. Plant Quarantine Office
7. Greenhouses
8. Horse Stables
9. Dog Enclosures
10. Existing Trees in Western Part of Site
11. Wallgrove Road from Site Entrance Looking South Towards M4/M7 Flyover
12. Surrounding Land Use
13. Concept Plan for the MEP
14. Scenario 2
15. Scenario 3
16. Internal Road Cross-section
17. Pedestrian Cycleway Diagram
18. WSEH Map
19. SEPP(WSEA) 2009 Zoning
20. Flow and Basins under Natural Drainage
21. Flow and Basins under Benching Option
22. Flow and Basins under Diversion Option
23. Perspective of stormwater detention and treatment
24. Landscape concept for the western drainage basin.
25. Opportunities & Constraints
26. Building Height Control in the MEP & Key Sites
27. Ecological Communities on the Site
28. Map showing Areas of Disturbance on Site
29. Artefacts Found On Site
30. Area Resumed by Commonwealth in 1941

APPENDICES

- A. Response to Director-Generals Requirements
- B. SEPP (WSEA) 2009 Zoning
- C. Review of Infrastructure Services, prepared by ATL & Associates
- D. Report on Geotechnical and Hydrogeological Assessment, prepared by Douglas Partners
- E. Phase 1 Environmental Site Assessment, prepared by JBS Environmental (2009)
- F. Phase 2 Environmental Site Assessment, prepared by DASCEM (2001)
- G. Water Sensitive Urban Design Strategy, prepared by EDAW AECOM
- H. Traffic and Parking Assessment Report, prepared by Transport and Traffic Planning Associates
- I. Acoustic Assessment Report, prepared by Wilkinson Murray
- J. Sustainability report, prepared by AECOM Australia
- K. Flora and Fauna Assessment Report, prepared by Cumberland Ecology
- L. Assessment of Aboriginal Heritage, prepared by Jo McDonald Cultural Heritage Management
- M. Heritage and European Archaeological Assessment, prepared by Cityplan Heritage
- N. Urban Design Report & Design Guidelines, prepared by EDAW AECOM

/// 1 INTRODUCTION



1 INTRODUCTION

1.1 Executive Summary

Afteron Ltd proposes the development of the Minchinbury Employment Park. This Concept Plan application for the MEP comprises:

- > a precinct masterplan covering 21.87 hectares, containing 25 developable lots to be used for warehousing, light industrial, high technology and business park purposes
- > development of up to 95,800m² gross floor area
- > upgrading of the existing intersection with Wallgrove Road and key local intersections
- > offsetting the loss of 5.1 hectares of Endangered Ecological Community (EEC) through future Biobanking transactions to occur prior to development
- > an Infrastructure strategy comprising connection of the site to key trunk infrastructure services, a Water Sensitive Urban Design strategy, and encouragement of alternative modes of transport including cycling and public transport
- > the Minchinbury Employment Park Urban Design Guidelines submitted as part of this Concept Plan, which detail the development controls applicable to the site including sustainable development guidelines

The development of the Minchinbury Employment Park (MEP) will require a capital investment in the order of \$60 million, and upon occupation will support 300 full time jobs.

The MEP site enjoys an unparalleled position at the intersection of the M4 and M7 Orbital Motorways, in the heart of the Western Sydney Employment Area. Development of the site for employment purposes is complements to the multi-billion dollar public infrastructure investment in the central Western Sydney Employment lands since the 1990s. Employment land use on this site is consistent with the State Plan, the Sydney Metropolitan Strategy, Employment Lands for Sydney Action Plan, the draft North-West Subregional Strategy, and the recently gazetted State Environmental Planning Policy (Western Sydney Employment Area) 2009. Efficient connection to the metropolitan and regional transport networks and all mainland capital cities, provides the site with a "national" economic value.

The Concept Plan proposes the removal of 5.1 hectares of Endangered Ecological Community existing in varying conditions on the site. Current and past land uses practices on the site has compromised the value of this EEC such that only 76 Biobank credits exist on-site. The Concept Plan proposes to offset these credits

to address maintain and improve flora values to better located, aggregated and sustainable positions elsewhere in the Sydney region. Retention and revegetation of these communities on-site, provides a poor conservation outcome given its isolation from broader communities and relatively small community size. A draft Commitment has been proposed that no development upon the site is to occur until the liability of 76 Biobanking "credits" are retired in to DECCW's satisfaction.

In accordance with the issued Director General's Requirements and contemporary planning procedure, an extensive environmental assessment of the site has been undertaken. The review has included existing and past land uses, surrounding development, ecological and environmental reviews of the site, cultural heritage assessments, and infrastructure services. The impacts of the development, including water runoff and management of downstream impacts, the capacity of the surrounding road network, noise impacts, and infrastructure servicing, have been assessed and analysed in conjunction with the proposed Urban Design guidelines for the MEP. Development guidelines have been clearly established for the MEP based on site attributes and conditions, and comparable practice for the Eastern Creek employment lands, and Blacktown City Council DCP.

Environmental impacts of the development and operational phases of the MEP have been identified and a draft Statement of Commitments forms part of the Concept Plan application. These Commitments acknowledge the proponent's strategy to mitigate environmental impacts arising from development of the site. Key commitments are:

- > Soil and water management during construction and operational phases
- > Noise and amenity impacts during construction and operational phases
- > Development of "common" or "public" infrastructure, including roads and stormwater infrastructure to Blacktown City Council standards and dedication to Council of those assets
- > Contributing towards regional transport infrastructure
- > Promotion of alternative transport modes to access the site, such as cycling and public transport
- > Water efficiency and reuse on-site and as potentially as part of a Regional Harvesting Scheme
- > Offsetting of 76 Biobanking credits to an off-site location

On 20 August 2009 Commonwealth Department of Environment, Water, Heritage and the Arts (DEWHA) determined that the proposed development was NOT a controlled action pursuant to the Environment Protection and Biodiversity Conservation Act 1999.

The development of the MEP is permissible development in the zone, and on 20 March 2009 the Director General of the Department of Planning declared that the proposed Concept Plan was a development to which Part 3A of the EP & A Act applies. All State and Commonwealth environmental planning requirements have been considered and it is therefore open for the Minister (or her delegate) to approve the proposed Concept Plan.

Approval of the Concept Plan expedites delivery of the MEP. By addressing the preliminary planning requirements of the State Environmental Planning Policy (Western Sydney Employment Area) 2009 the MEP provides certainty to the future developers of this site, and enables the MEP to be “development ready”.

1.2 Report Structure

The following Environmental Assessment Report for the proposed Minchinbury Employment Park is structured as follows:

- Section 1 – Provides an executive summary of the Concept Plan and Environmental Assessment, project team
- Section 2 – Site Details and Location – Describes the location, site, and provides an understanding of the land uses of the site and surrounding land
- Section 3 – Minchinbury Employment Park Concept Plan – Discusses the need for the proposal, the proposed masterplan, land uses, design controls, servicing strategy, public domain strategy and staging
- Section 4 – Planning Context and Statutory Considerations – Reviews relevant statutory obligations and compliance with regard to the range of relevant statutory considerations applicable to approval of the MEP
- Section 5 – Consultation & Identification of Issues – Identifies who the key stakeholders in development of the MEP, and issues raised through consultations held, and how these have been addressed in the Environmental Assessment Report, Concept Plan, or draft Statement of Commitments
- Section 6 – Environmental Issues – Summarises the key environmental issues considered to be pertinent to planning and development of the site, and includes the detailed Urban Design Guidelines to govern future development of the MEP
- Section 7 – Draft Statement of Commitments – Details the measures proposed to mitigate environmental impacts, implement the development of the MEP, and satisfy relevant statutory obligations
- Section 8 – Conclusion – Details the justification for approval of the project, and the orders sought by the proponent

1.3 Consultant Team

This Environmental Assessment Report and specialist reports have been prepared on behalf of Afteron Ltd by the following consultant team:

Discipline	Consultant
Infrastructure	ATL & Associates
Land Capability	Douglas Partners
Planning	Planning Logic
Contamination	JBS Environmental
WSUD	EDAW AECOM
Traffic & Parking	Transport & Traffic Planning Associates
Acoustics	Wilkinson Murray
Sustainability	AECOM
Flora & Fauna	Cumberland Ecology
Indigenous Heritage	Jo McDonald Cultural Heritage Management
Heritage	Cityplan Heritage
Urban Design & Landscaping	EDAW AECOM

1.4 Certification by Author

Part 3A Environmental Assessment

Prepared under the Environmental Planning and Assessment Act 1979

Environmental Assessment prepared by:

Name Philip Drew
 Position Consultant Town Planner
 Qualifications Master of Urb Reg Plan, BA
 Address Afteron Ltd.
 Level 12 / 225 George Street
 Sydney NSW 2000

Project to which Part 3A applies:

Application number 09_0099
 Project Minchinbury Employment Park Concept Plan
 Proponent name Afteron Ltd
 Proponent address Level 12 / 225 George Street
 Sydney NSW 2000

Land to be developed Lot 1 DP 1040948
 60 Wallgrove Road, Minchinbury

Certificate I certify that I have prepared the contents of this document, and to the best of my knowledge the assessment:

- Has been prepared in accordance with the requirements of Part 3A and the Regulations

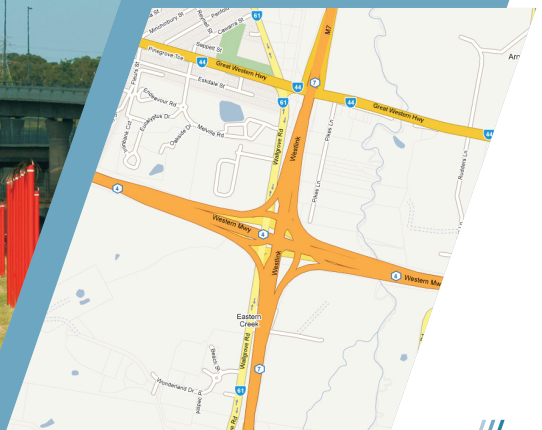
- Does not contain false or misleading information

Signature

Philip Drew
 6 December 2009



/// 2 SITE DETAILS AND LOCATION



2 SITE DETAIL AND LOCATION

2.1 Site Location

The site is located at the intersection of the M4 and M7 Orbital Motorways in the western Sydney suburb of Minchinbury. The site is within the local government area of Blacktown City Council, and within the State electorate of Mount Druiett.

The site does not directly adjoin any existing or future employment lands, however it is within a sub-regional grouping of employment lands at Eastern Creek, Minchinbury, and Huntingwood, referred to collectively as the Western Sydney Employment Area (WSEA). (refer figure 17) Unlike other parts of the WSEA to the south of the M4, it is situated closer to existing residential suburbs of Minchinbury and Rooty Hill, and contains an existing use (in this case the Plant and Animal Quarantine Station).

The site is strategically located at the most significant intersection in the regional road system of Western Sydney. This facilitates access to and from metropolitan, states, and national markets, as well as the resident population central, western, south-western and north-western Sydney.

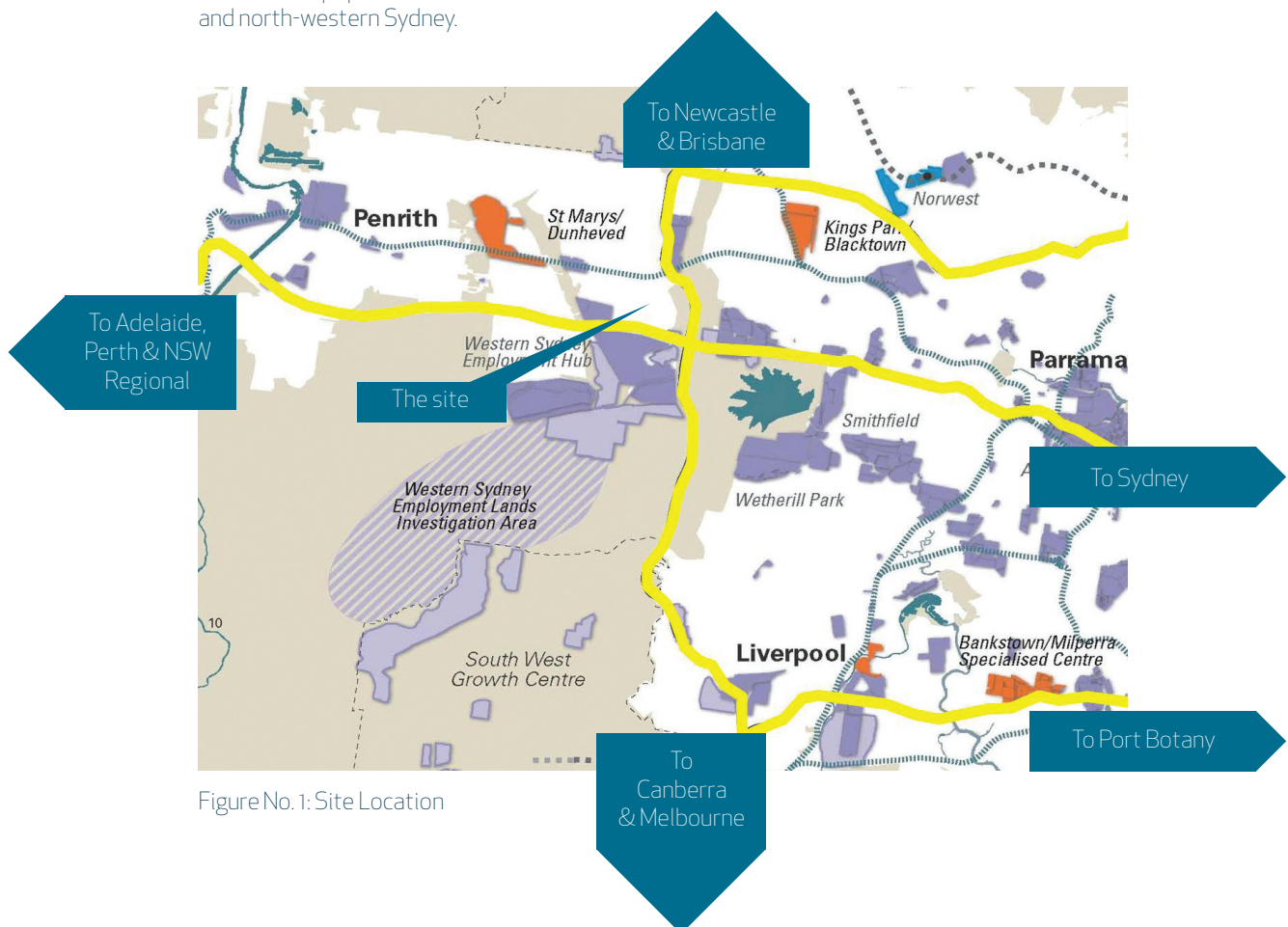


Figure No. 1: Site Location

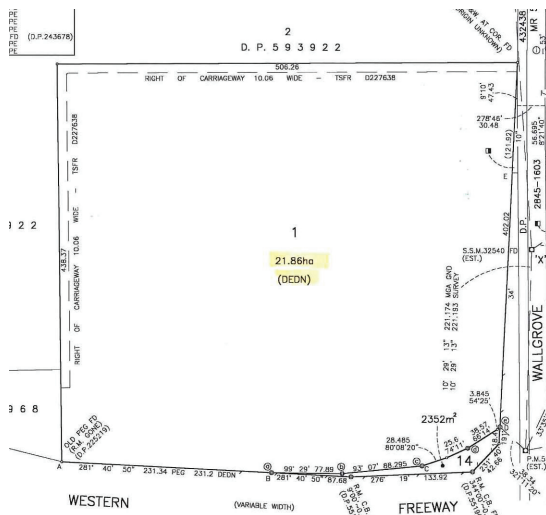
2.2 Site Details

2.2.1 Site Particulars

The site of the proposed Minchinbury Employment Park is nearly square in shape, with a total land area of 21.86 hectares. The site comprises a single parcel of land legally described as Lot 1 in DP 1040948. It has frontages of 402 metres to Wallgrove Road and 461.7 metres to the M4 Motorway.

The gently sloping topography of the site (slope 0.8% – 2.8%) is typical of much of the Western Sydney terrain. From a high point at the south-western boundary of RL 60, the site slopes down to RL 47.5 – 51.5 across its northern boundary, and RL 47.5 – 50 along its eastern boundary. A gentle ridgeline runs approximately north east to south west across the subject site, with low points occurring generally at the north western corner and south eastern corner.

Figure 2 - Extract of Deposited Plan 1040948



former incinerator and equipment sheds. A cattle holding yard is located towards the north-western corner of the site. All buildings on the site are of a modest scale, built for purpose, and of little or no aesthetic value:

Since 2001 the site has been held in private ownership, with ECQS occupying the site pursuant to a lease which is due to expire in December 2010. The lessee has rights to exercise a 5 year option to extend that lease up to 2015.

During 2008 a review was undertaken by the Commonwealth of Australia's Quarantine and Biosecurity Arrangements. On 18 December 2008 a review report was released which documented 84 recommendations in relation to national quarantine and biosecurity services. While it is not clear exactly what

impact this will have the current ECQS operations on the site, certain recommendations (nos 61-62) recommend a review of resource requirements, cost-recovery, and ownership and operations of the current Quarantine Stations will be undertaken. It is anticipated that implementing those recommendations will result in the current Quarantine facility being relocated from the site in the next few years.

The current use of the site as a Plant and Animal Quarantine Station has resulted in many years of underutilisation of the site. This is evidenced by the very low traffic volumes experienced through the site access to Wallgrove Road as well as the absence of any active use of substantial portions of the site in its western and southern sides, where sporadic regrowth by Cumberland Plain Woodland has occurred.

Figure No. 4: Quarantine Station Layout – note: DDU refers to Detector Dog Unit; PQS is Plant Quarantine Service, AQS is Animal Quarantine Service

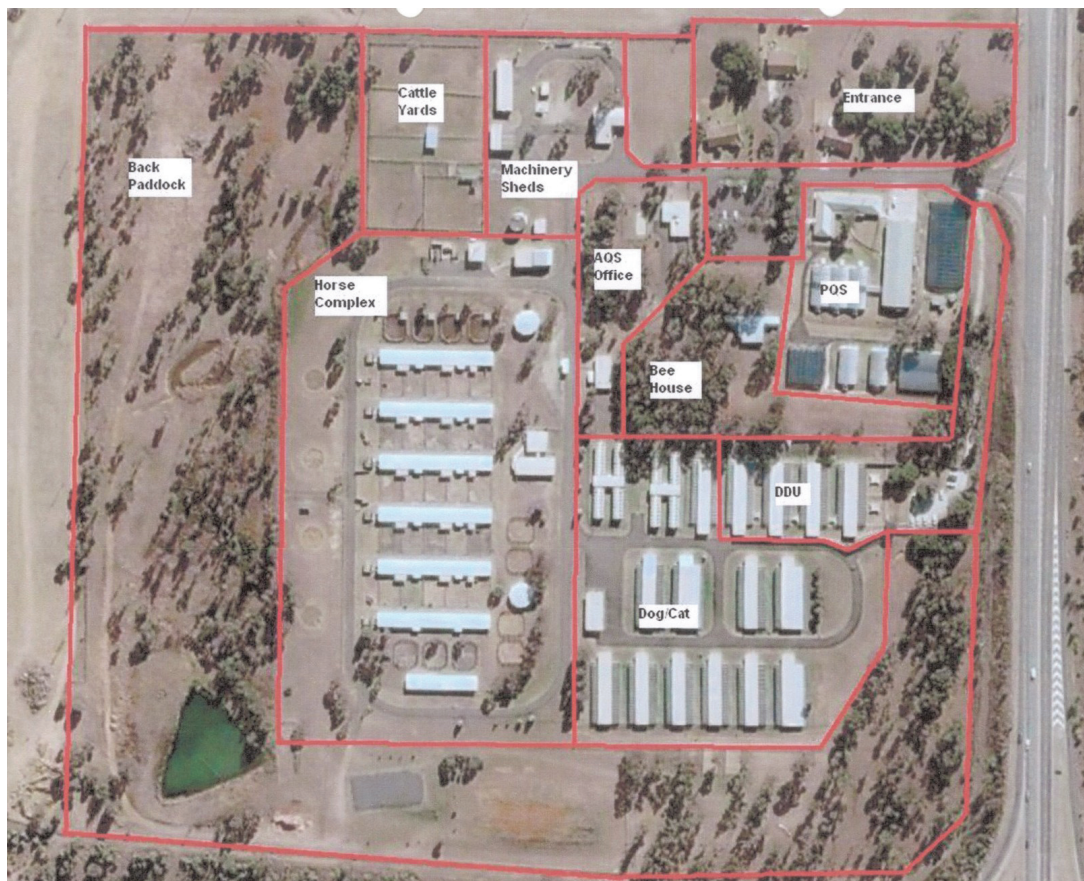




Figure No. 5: Site entry from Wallgrove Road



Figure No. 6: Plant Quarantine Office (c 1998)



Figure No. 7: Greenhouses



Figure No. 8: Horse stables



Figure No.9: Dog enclosures



Figure No. 10: Existing trees in western part of site



Figure No. 11: Wallgrove Road from Site Entrance Looking South

2.3 Surrounding Land Uses

Forming an "L" shape around the northern and western boundaries of the site is the Pinegrove Lawn Cemetery. This cemetery includes an administration building, expansive open lawn cemetery areas, crematorium, landscaping and a dam, and ancillary buildings scattered throughout the site. The Chinese Community section of the cemetery adjoins the northern boundary of the site. Immediately adjoining the western boundary of the site is an undeveloped part of the cemetery.

To the east of the site is Wallgrove Road and the M7 Orbital. These roads provide a formidable barrier to the parkland and rural residential land uses to the east of the site. It is noted that the land to the eastern side of the M7 Orbital forms part of the Western Sydney Parklands.

Suburban housing is situated approximately 270 metres to the north, and 550 metres to the west of the site boundaries.

Adjoining to the south is the M4 Motorway, and further south of that is the Interchange Business Park, an estate of large industrial style buildings that has been progressively developed since c.2003.



Figure No. 12: Surrounding Land Use

/// 3 MINCHINBURY EMPLOYMENT PARK PLAN



/// 3 MINCHINBURY EMPLOYMENT PARK PLAN

3.1 Concept Plan Vision

The Minchinbury Employment Park will be a high quality employment precinct providing job opportunities for Western Sydney residents as well as strategic business opportunities in the Sydney region. It will be noted for its high quality streetscape design, interesting and varied industrial and commercial architecture, landscaping, and management of impacts including traffic, noise and stormwater to enable surrounding landuses to continue operating whilst allowing efficient and practical use of the site's exceptional access and locational attributes. The MEP provides opportunities for landmark development and will require adherence to high standards of environmental, aesthetic and sustainable design.

3.2 Alternatives to Proposal

Alternatives to employment land use (for example residential, or institutional use) are considered poor planning outcomes because:

- The site is affected by road traffic noise providing poor amenity for noise sensitive land uses
- The site is remote from commercial centres and transport hubs, being over 2.8 kilometres from Rooty Hill, and almost 5km from Mt Druitt
- The site has the potential to yield only 255 dwellings (@ 15 dwellings per net hectare = 600 residents) which is insufficient to provide critical mass for retail or other community services, thus providing for an isolated dormitory area of no particular vitality or regional planning merit
- The site adjoins billion dollar transport infrastructure that cannot be replicated elsewhere in Sydney, and adjoins non-residential land uses, and thus the "opportunity cost" of providing equally well positioned and accessible employment land elsewhere in the Sydney region is very high and position surrounded by non-residential land uses
- Other institutional uses, such as retaining the site as a Research Station cannot provide the guaranteed return in terms of increased economic activity or jobs that private sector development is likely to achieve

Alternative approvals pathways are also considered inefficient in delivering employment land to the market, compared to the Part 3A Concept Plan approach proposed. Two pertinent examples developed under the SEPP 59 "Precinct Plan" approach were as follows:

- Eastern Creek Stage 3 – zoned in 1999, released in 2003, Precinct Plan adopted in December 2005, section 94 plan not yet adopted by Council and infrastructure servicing for parts of the Precinct yet to be resolved in 2009
- Huntingwood East Precinct – zoned in 1999, Precinct Plan on exhibition in 2008

The use of the Part 3A pathway was identified in Action 4 from the Employment Lands for Sydney Action Plan as an appropriate and desirable approach to cutting delays in delivery of new employment lands. Approval of the subject Concept Plan will enable development to proceed with certainty on this site as early as mid-2010.

The Concept Plan for the Minchinbury Employment Park addresses the Precinct Plan matters for consideration under the former SEPP 59, and addresses the Principal Development Standards of the SEPP (WSEA) 2009. On this basis Concept Plan approval is appropriate and effective in achieving the same planning outcomes as those envisaged by the previous SEPP 59 and SEPP (WSEA) 2009 in shorter time frames.

3.3 Concept Masterplans

A Masterplan for the Minchinbury Employment Park has been developed. The key elements of this Masterplan are as follows:

- Demolition of all existing improvements on the site
- A precinct masterplan covering 21.87 hectares, containing 25 subdivided lots to be used for warehousing, light industrial, high technology and business park purposes
- Lot sizes between 4,000 to 10,000m² in area
- development of up to 95,800m² gross floor area
- upgrading of the existing intersection with Wallgrove Road
- development of the proposed industrial collector road within the site to Council
- offsetting the loss of 5.1 hectares of Endangered Ecological Community (EEC) through future Biobanking transactions to occur prior to development

- development of two stormwater detention basins on-site

The Masterplan has been developed in response to an iterative urban design and environmental planning process that is fully described in the Urban Design Report at Appendix N, and in summary involved:

- consideration of the locational and environmental attributes, constraints, and opportunities presented by and on the site
- analysis of the employment typologies that feature in modern employment precincts
- applying the spatial implications of those and movement systems around the site
- allowance for physical infrastructure, including on-site detention basins, a fixed site access point site drainage in particular
- addressing sustainable and the impacts of this development upon the surrounding area



Figure 13 - Concept Plan for the MEP

The Urban Design report demonstrates that the Masterplan is not the only conceivable layout for development of the site, and 2 "alternative" scenarios are

reproduced below to illustrate what else is possible on this site considering variations in lot sizes (2 and 3); and changes in road ownership to private roadway (3).



Figure 14 - Scenario 2

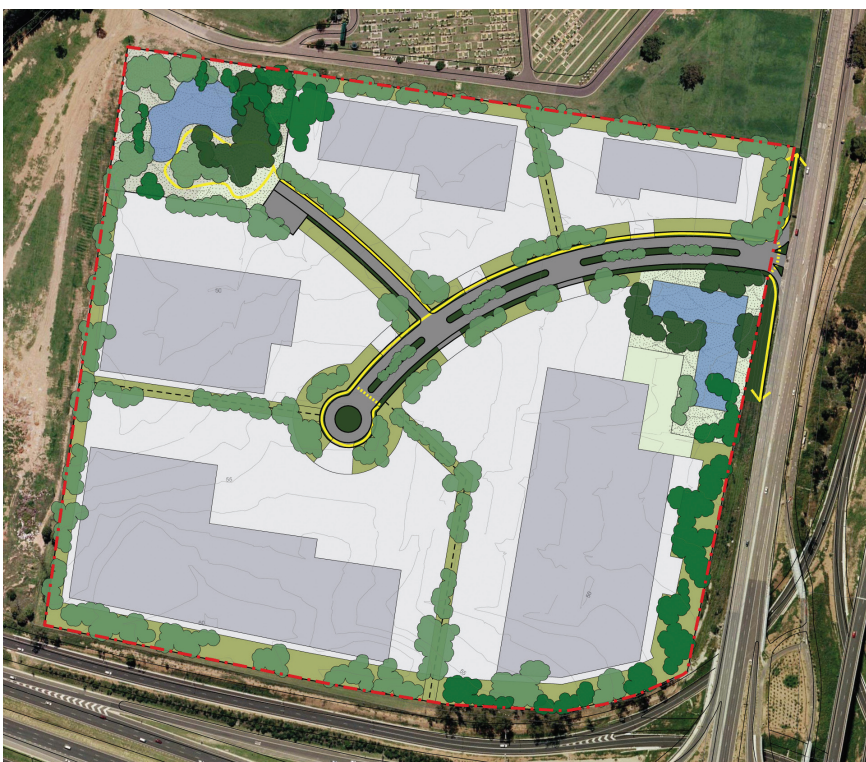


Figure 15 - Scenario 3

3.4 Likely Landuses

The likely landuses for the Minchinbury Employment Park include the following:

- Warehouse and distribution centres
- Light industry
- Office premises (where ancillary to a use permissible in the zone)
- High technology uses,
- Freight transport facilities

The full range of permitted land uses pursuant to the IN1 General Industrial Zone under the SEPP (WSEA) 2009 are:

Depots; Freight transport facilities; Industrial retail outlets; Industries (other than offensive or hazardous industries); Neighbourhood shops; Roads; Transport depots; Truck depots; Warehouse or distribution centres.

3.5 Design & Development Controls

Design & development controls have been established for the Minchinbury Employment Park based on the urban design analysis of the site undertaken by EDAW (contained in Appendix N), and the existing controls from Blacktown City Council's Employment Lands Precinct Plan (Eastern Creek Precinct) December 2005. Where the proposed guidelines do not address an issue, the controls of Part E of the Blacktown DCP 2006 will prevail. It is intended that future project/development applications would be required to address compliance with these in statement accompanying those applications to the relevant consent authority.

A summary of numeric based controls for MEP follows:

Table 3: Development Controls for Minchinbury Employment Park

Development Issue	Standard	Rationale
Subdivision	4,000m ² site area (min) 45 metres frontage (min) Orient lots for slope, site access, solar access, prevailing winds	Comparable to existing Council Standards
Roads	23 metres reserve (15.5m carriageway) - Industrial collector roads	Blacktown City Council Standard
Site coverage	65% of lot area	Eastern Creek Precinct Plan Standard
Setbacks	20 metres to Wallgrove Road/M4 boundaries 10 metres to collector roads 10 metres to northern and western site boundary which is to be landscaped Nil setbacks permitted to side and rear where adjoining IN1 zoned land	Reflects site issues and are comparable to Council Standards
Building Height	15m – 20m as per height diagram in Appendix N 50% height variations permitted for commercial components	Reflects site opportunities for landmark development
Car parking	1 space per 300 m ² GFA (warehouse) 1.3 spaces per 100 m ² GFA (industry) 1 space per 40 m ² GFA (ancillary office only where office component exceeds 20% of the associated industry/warehouse floorspace) Located behind front building/setback line	Comparable to RTA Standards

To ensure relevant design quality issues, including views from Wallgrove Road and the M4 Motorway are addressed by future applicants, "Design Guidelines" supplement these numeric controls. Generally the Design Guidelines (included in Appendix N) supplement the above standards with qualitative standards and considerations of:

- > Subdivision layout
- > Internal road network
- > Site coverage
- > Building Height and Built Form
- > Site Access and Manoeuvring
- > Car Parking
- > Sustainable Building Design
- > Sustainable Building Materials
- > Building Appearance
- > Signage
- > Landscape design

3.6 Infrastructure Servicing

3.6.1 Offsite Works, Access and Roads

Signalised Intersection with Wallgrove Road

Due to the high capacity of the existing intersection with Wallgrove Road, no significant change to the current geometry of the existing intersection is warranted. Under the development scenarios modelled for the site, it has been found that the intersection will perform at a high standard subject to the following:

- Installation of traffic signals upon the existing seagull intersection
- Lengthening of existing right turn waiting bay in Wallgrove Road to accommodate sufficient waiting area for vehicles turning into the site

Internal roads

Internal roads are to be designed to allow for the largest vehicle to use them, in this case likely to be B-double size trucks. It is possible that the site could be developed either as a private employment park, or via a traditional subdivision model.

In the latter event, roads will be designed in accordance with the Blacktown City Council's Engineering Guide for Development 2005. Design approval will be sought prior to road construction and inspections undertaken during construction to ensure Council standards are satisfied. Certification will be undertaken in accordance with Council requirements to enable roads to be dedicated to Council in the event of site subdivision into multiple titles.

In the event that the site is developed as a private employment park (where roads are to remain in private ownership), reservation widths, verge and roadway design criteria will satisfy relevant Austroads and Australian Standards.

Consistent to all scenarios is the principle of an entrance "boulevard" including landscaped median and high quality landscaping on both sides of the entrance, which will provide an entrance statement to the Minchinbury Employment Park.

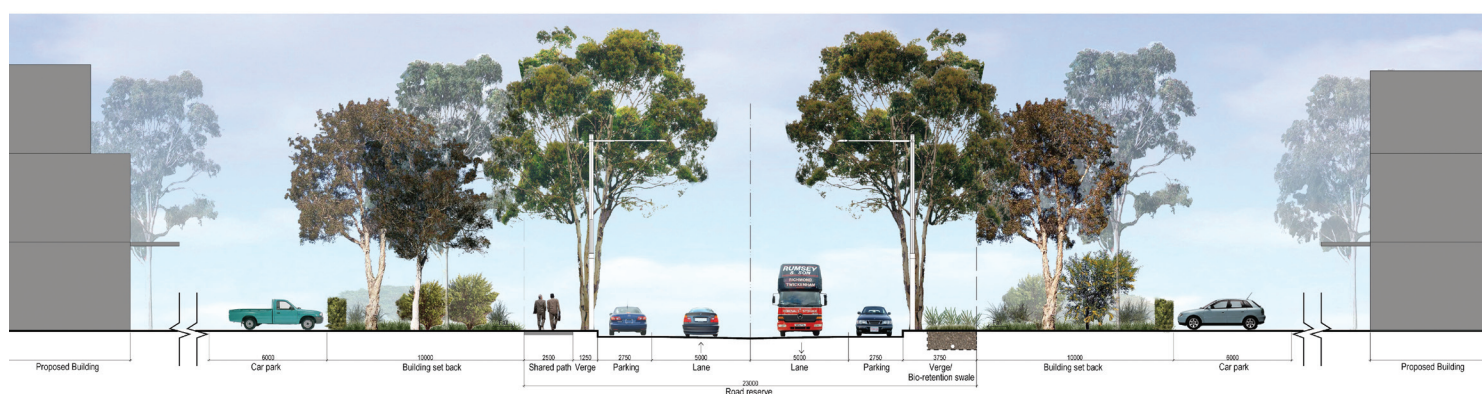


Figure 16 - Internal Road Cross-section

Pedestrian and cycling and bus routes

Pedestrian and cyclist access to the site has been considered in the proposal. Within the site a shared pedestrian/cycleway will be provided on 1 side of the internal roads. Pedestrians will also have access to footpaths on the opposite side of the road. Externally there is no current footpath or cycleway connecting the site in any direction. The closest footpath and an existing link to the M7 cycleway occurs at the intersection of the Wallgrove Road and Great Western Highway, 450 metres to the north of the site. It is a draft commitment of the Concept Plan that the developer construct 450 metres

of shared cycleway/footpath within the verge on the western side of Wallgrove Road to connect pedestrians and cyclists to the site. (refer Section 7)

Bus route 738 (Busways) passes the frontage of the site in Wallgrove Road. It is proposed to continue to liaise with Department of Transport, Busways, the RTA and Council to endeavour to construct new bus stops in close proximity to the site (refer draft commitments Section 7).

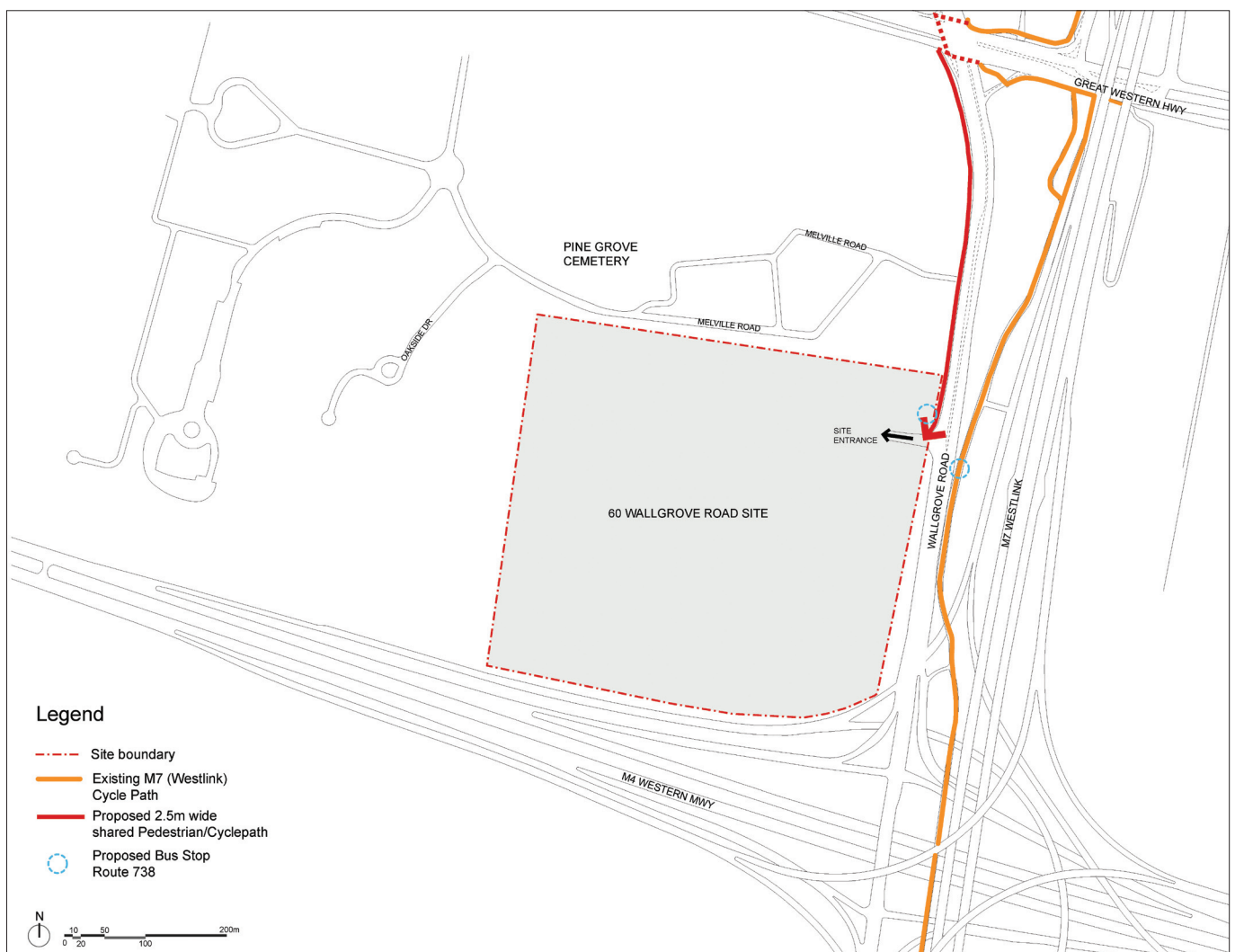


Figure 17 - Pedestrian Cycleway Diagram

3.6.2 Water

Potable Water Supply

An existing 250mm main adjoins the site frontage, however Sydney Water advises that this is not available to supply the Minchinbury Employment Park.

A permanent supply will need to be sourced from the second surface reservoir recently constructed at Minchinbury, approximately 1 kilometre south of the site. A new link main (likely to be 200mm in size) will need to be constructed from this source to the site boundary in accordance with a future design and negotiations with Sydney Water through the section 73 process.

A Water Sensitive Urban Design (WSUD) strategy is included at Appendix G, which incorporates strategies to reduce potable water demand on site via:

- Installation of water efficient appliances and fixtures (ie water efficient dual-flush toilets, showerheads, taps, and appliances)
- harvesting and reuse of rainwater for non-potable uses such as toilets, laundry and irrigation
- use of native species in landscaping to reduce water demand

It is noted that further reductions in potable water demands may be achieved in conjunction with the establishment of a regional rainwater harvesting scheme. This is addressed in the draft commitments in Section 7.

Stormwater Management

Runoff from the site currently discharges in three separate directions. The eastern catchment discharges via a 900mm pipe under Wallgrove Road located close to the eastern boundary of the site. The western catchment discharges via a culvert located at the north-western boundary of the site into the cemetery. A smaller area in the north-eastern corner of the site flows overland into cemetery property at the north-eastern corner of the site.

A Water Sensitive Urban Design (WSUD) strategy is included at Appendix G. This strategy establishes treatment and retention standards prior to discharge off site.

Treatment of stormwater for the development will occur within a constructed wetland to be situated within the E2 Environmental Conservation Zone, and within a bioretention facility to be located in the eastern part of the site. The water quality outcomes for these facilities are anticipated to comply with the Blacktown City Council's WSUD DCP; ie:

- Gross pollutants (>5mm) – 90% reduction
- Total Suspended solids (TSS) – 85%
- Total Phosphorus (TP) – 65%
- Total Nitrogen (TN) – 45%

Stormwater quantity and waterway stability management will be met within the scope of the design for On Site Detention (OSD) systems to be developed on-site. Storage for flood detention will be co-located with the stormwater quantity treatment devices. OSD has been designed so as not to increase peak flows or flooding in either catchment for runoff from events of the 1, 2, 5, 10, 20, 50, and 100 annual recurrence intervals (ARI).

In the western catchment, flood detention will be provided above and around the stormwater treatment wetland, made up of:

- Gross pollutant trap upstream prior to entry into the wetland
- inlet zone
- macrophyte zone
- ephemeral zone

This basin will be located in the lowest topography of the catchment. The rehabilitation of this area will comprise plant species appropriate to the likely hydrologic regime of the detention basin. A sketch of the principles for this area is shown in figure 23.

In the east catchment, flood detention will be provided directly above and around the stormwater bioretention system at the lowest part of the catchment. This proposal includes bioretention adjoining a future road. Additional flood detention storage will be provided further upstream in a series of cascading detention basins created in the vegetated corridor along the east extremity.

The existing sheet flows from the north-eastern catchment will be diverted back into the eastern catchment by filling part of this site by up to 1.5 metres.

There is capacity to divert a significant portion of runoff from one catchment on-site to the other. In particular diverting runoff into the western catchment (thus discharging to the cemetery) may be considered advantageous given:

- it permits a reduction in the size of the flood detention basin in the east catchment, thus increasing the area of developable land within the accessible and high value frontage to Wallgrove Road
- the cemetery currently relies on runoff waters feeding into their existing dam which is an irrigation resource for their vast landscaped areas on that site. Thus the diversion of water has the benefit of reducing the potable water demands of the cemetery by supplying them with an alternative source of water suitable for irrigation.
- Initial on-site treatment, then successive treatments through the Cemetery's pond and then through a Council owned stormwater facility (under construction at the corner of Wallgrove Road and Great Western Highway) provides ecosystem benefits for the health of the Eastern Creek catchment by further attenuating flows and reducing nutrient loads.

3.6.3 Sewer

The site is currently connected to Sydney Water sewer network via a 150mm diameter spur line that drains to the north of the site and ultimately to SPS 0395 located at the corner of Cable Place and Rooty Hill Road.

Sydney Water's preferred and permanent strategy to service the site will be to develop a new 225mm diameter sewer pipe connection to the recently completed Eastern Creek sewer submain located adjoining Pikes Lane, 320 metres to the east of the site boundary. This connection will need to cross beneath Wallgrove Road and the M7 Orbital Motorway. Sydney Water have confirmed that the design capacity of this submain included provision for the development on the subject site.

There may be potential to provide a limited release stage of the site redevelopment pending final completion of the new connection. This potential and the design details of the new connection will be negotiated with Sydney Water and undertaken during the section 73 process. It is a commitment of this Concept Plan that Sydney Water negotiation, staging, and design approvals will be undertaken prior to the issue of the first construction certificate for a building on-site. (refer Section 7)

Subject to standard design and property negotiations, suitable sewer services will be available to the site.

3.6.4 Electricity

The site has access to a local service provided via overhead lines in Wallgrove Road.

Integral Energy's preferred and permanent strategy to service the site will be via 1 or possibly 2 x 11kV feeders from the new North Eastern Creek Zone substation under development in Wonderland Drive. Integral Energy (IE) anticipate this substation to be commissioned in 2011.

There may be potential to rely upon the existing overhead connection for a limited part of the redevelopment pending final completion of the new connection. This potential and the design details of the new connection will be negotiated with Integral Energy upon the submission of an application to IE prior to the issue of the first construction certificate for a building on-site.

Subject to standard design and property negotiations, the site can be serviced with power adequate for employment use of the site.

3.6.5 Gas

There is no current mains gas supply to the site. There are 3 potential services within the general Minchinbury area that could be suitable for limited or complete supply of the site.

The closest suitable line for complete site supply is the existing secondary main in Archbold Road 2.5 kilometres to the west of the site. Upon a better understanding of gas requirements, typically at project/development application stage, Jemena (the asset owners) will undertake a demand assessment and enter into a commercial contract to connect gas services to the site, which may include Jemena part or complete funding of the provision of this connection infrastructure.

Subject to further demand assessment and future design and negotiation, the site can be serviced with gas adequate for employment use of the site.

3.6.6 Telecommunications

The site is currently serviced from the Rooty Hill telephone exchange, and there is a major Optus fibre optic line running past the site in Wallgrove Road.

It is anticipated that upon future development plans being known at project/development application stage, further consultation with telecommunication providers will be undertaken to ensure their requirements are satisfied and the site is adequately supplied.

There is no impediment to future design and negotiation enabling the satisfactory connection of this development to telecommunication networks.

3.7 Public Domain

The Masterplan for the MEP includes a number of key public domain elements, all of which are to be provided by the estate developer in accordance with the Commitments that accompany this Concept Plan (see Section 7) and the Masterplan, including:

Element	Proposed Features
Industrial Collector Roads	<p>To be dedicated to Blacktown City Council</p> <p>23 metre wide road reservation, with 15.5 metre carriageway and 3.75 metre wide verges</p> <p>Inground services within verge</p> <p>Street lighting and signage to be provided in accordance with relevant standards</p> <p>Landscaping of verges in accordance with Landscape Guidelines in Urban Design Report in Appendix N</p> <p>Off-street shared pedestrian/cycleway around site</p> <p>Detailed design and specification subject to Council approval</p>
A stormwater detention basin in the eastern part of the site	<p>To be dedicated to Blacktown City Council</p> <p>Occupies 4,364m² of site, assuming a basin depth of 600mm maximum</p> <p>Basin and surrounds to be vegetated</p> <p>Detailed design and specification subject to Council approval.</p>
A stormwater detention basin in the north-western part of the site	<p>To be dedicated to Blacktown City Council</p> <p>Occupies 1.55 hectares of site, assuming a basin depth of 600mm maximum</p> <p>Basin and surrounds to be vegetated</p> <p>Detailed design and specification subject to Council approval..</p>
Interface on private land	<p>10 metre landscaped setbacks required</p> <p>Signage strategy to be developed for the MEP</p> <p>Consideration of façade design and quality in MEP Design Guidelines</p> <p>1.8 metre high open style fencing forward of building line</p>

3.8 Staging of Development

The staging and timing of development in the Precinct will depend on a number of factors including the market for employment lands and timing of infrastructure provision. It is noted that the Minchinbury Employment Park at 21.86 hectares is unlikely to be of a size that will warrant staged release of industrial land. Accordingly the physical staging of the development is likely to occur in the following manner:

> Stage 1

Bulk earthworks, on-site services and drainage, internal roads

Construction of off-site infrastructure (roadworks, intersection, connections to trunk sewer, water, gas, electricity)

> Stage 2

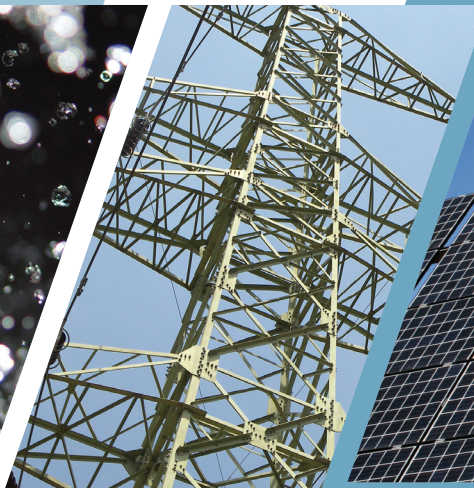
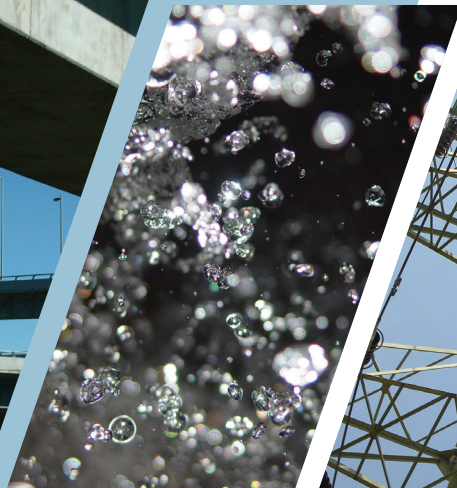
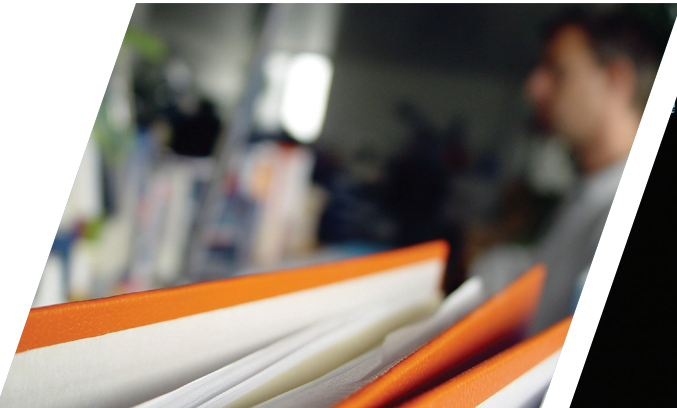
Subdivision into individual lots for future development

> Stage 3

Development/Project applications for development upon individual sites

Note that Stages 2 & 3 may be combined.

/// 4 STATUTORY AND PLANNING CONTEXT



4 STATUTORY AND PLANNING CONTEXT

4.1 Commonwealth Environmental Planning

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 aims to protect the environment and streamline national environmental assessment and approvals processes, protect Australia's biodiversity and integrate management of important natural and cultural places. The Commonwealth and NSW governments signed a bilateral agreement in January 2007 which accredits the assessment regime under Part 3A of the EP & A Act for assessment purposes under the EPBC Act.

The EPBC Act protects Australia's native species and ecological communities by providing for:

- > *identification and listing of species and ecological communities as threatened*
- > *development of conservation advice and recovery plans for listed species and ecological communities*
- > *development of a register of critical habitat*
- > *recognition of key threatening processes*
- > *where appropriate, reducing the impacts of these processes through threat abatement plans*

Part 3 outlines the requirements for environmental approvals, in particular for listed Matters of National Environmental Significance (MNES). These matters are considered below:

Table 4: EPBC Matters of National Environmental significance

MNES	Comment
World Heritage Property	There are no World Heritage properties in the vicinity of the site.
National Heritage Places	There are no National Heritage places in the vicinity of the site.
Ramsar wetlands of international significance	There are no wetlands in the vicinity of the site.
Listed Threatened species and ecological communities	The proposal will involve an action affecting a listed Threatened Ecological Community, being Cumberland Plain Woodland (CPW)
Listed Migratory species	There are no migratory species that have been found to use the site
Nuclear actions	The proposal does not involve nuclear actions
Commonwealth marine area	There are no Commonwealth Marine areas in the vicinity of the site.

On 20 August 2009 Commonwealth Department of Environment, Water, Heritage and the Arts (DEWHA) determined that the proposed development was NOT a controlled action pursuant to the Environment Protection and Biodiversity Conservation Act 1999.

The proponent has addressed their obligations with regard to the EPBC Act.

4.2 State, Metropolitan and sub-regional Strategic Planning

4.2.1 State Plan

The State Plan: A New Direction for NSW, released in November 2006, sets out the priorities for Government action over the next 10 years. The proposed development is consistent with the following key priorities of the State Plan:

P1 increased business investment

- The development features \$60 million of investment to bring the site “on-line” for employment land use. The development increases the supply of serviced and ready for development employment lands, driving competitive market forces to enhance the competitiveness of NSW

P2 Maintain and invest in infrastructure

- The development will contribute to regional roadworks through contributions, and will provide local links to the M7 cycleway.

P3 Cutting Red Tape

- Approval of the subject Concept Plan under Part 3A of the EP & A Act 1979 will enable future development to be established quickly on this site, eliminating the delays inherent in the traditional rezoning and Precinct Planning/DCP processes. It enables development to occur responsively to market demand.

E2 A reliable electricity supply with increased use of renewable energy

- Opportunities to utilise renewable energy in the Minchinbury Employment Precinct are addressed by AECOM (Appendix J)

E4 Better outcomes for native vegetation, biodiversity, land, rivers and coastal waterways

- Endangered Ecological Community (EEC) on-site total only 5.1 hectares and is considered unsustainable or a stand alone community. There are no opportunities to link it with larger stands of vegetation. Alternatives to extend and regenerate EEC on-site will result in the loss of scarce and valuable employment land. Regional biodiversity values and broader strategic employment and planning are best served in this instance through ‘offsetting’ via Biobanking.

E5 Jobs closer to Home

- The Concept Plan anticipates an estimated creation of 300 full time positions once the estate is fully developed. The site is located within close proximity of the established residential areas of Minchinbury, Rooty Hill, and the Blacktown and Penrith LGAs. By 2031 it is forecast that there will be a further 46,500 new dwellings established in the Blacktown and Penrith LGAs (almost 2,000 per annum). **The use of the site for employment purposes ensures that jobs are available close to existing and future populations.**

E7 Improve the Efficiency of the Road Network

- Traffic analysis has been provided to establish that the proposed development will provide minimal if any discernible difference in travel flow. To reduce the proportion of private vehicles used for journey to work and maximise road volumes, alternative modes of transport such as public transport, walking and cycling will be encouraged through the proposed commitment towards bus stops and extension of links to the M7 Cycleway network.

4.2.2 Sydney Metropolitan Strategy: City of Cities

The Metropolitan Strategy forecasts the growth of Sydney's population by 1.1 million between 2006 - 2031. The strategy seeks to balance growth with financially viable infrastructure, better lifestyles and urban design with housing affordability, environmental sensitivity with economically feasible land development, and the location of employment land accessible to residential areas.

Employment growth of 500,000 is required to service this additional population, and an additional 7,500 hectares of employment land is required to be developed. The strategy also promotes the economic competitiveness of the Sydney region through the identification, and delivery of sufficient land for employment in a timely fashion.

Approval of the Minchinbury Employment Park Concept Plan is considered to be consistent with the Metropolitan Strategy with regard to the following Actions from the Economy and Employment section of the strategy:

Action A1 Provide suitable commercial sites and employment lands in strategic areas

- It promotes job growth clustered around the M7 orbital and M4 road networks
- Unlike other sites in the M7 corridor this site can be delivered quickly as it is easily serviced or serviceable with all required infrastructure
- The site is part of the Western Sydney Employment Hub, a 2,450 hectare resource of new employment lands in Western Sydney
- Concept Plan approval under Part 3A of the EP & A Act 1979 streamlines development approvals processes for this site without unnecessary delays regarding other unrelated areas of the WSEA
- The Minchinbury Employment Park will provide for development which features an estimated 300 jobs once complete

A3 Improve Opportunities and Access to Jobs for Disadvantaged Communities

- The development will enhance access to jobs for residents of Western Sydney (south-west, west central and north west subregions) a high growth population area projected to contain two-thirds of Sydney's new dwelling growth by 2031

The development aligned with the Metropolitan Strategy in particular through creation of additional employment opportunities and release of new employment lands in close proximity to strategic infrastructure corridors, and its location within Western Sydney.

4.2.3 Employment Lands for Sydney Action Plan

The Action Plan is a key component of government strategy to promote NSW business opportunities. It addresses key considerations raised by the Employment Lands Task Force and recommends actions designed:

"...to maximise opportunities for new investment and jobs from the timely provision of employment land in the right places." (page 2)

Approval of the Concept Plan is considered to be consistent with the Action Plan with regard to the following grounds Actions of the Plan:

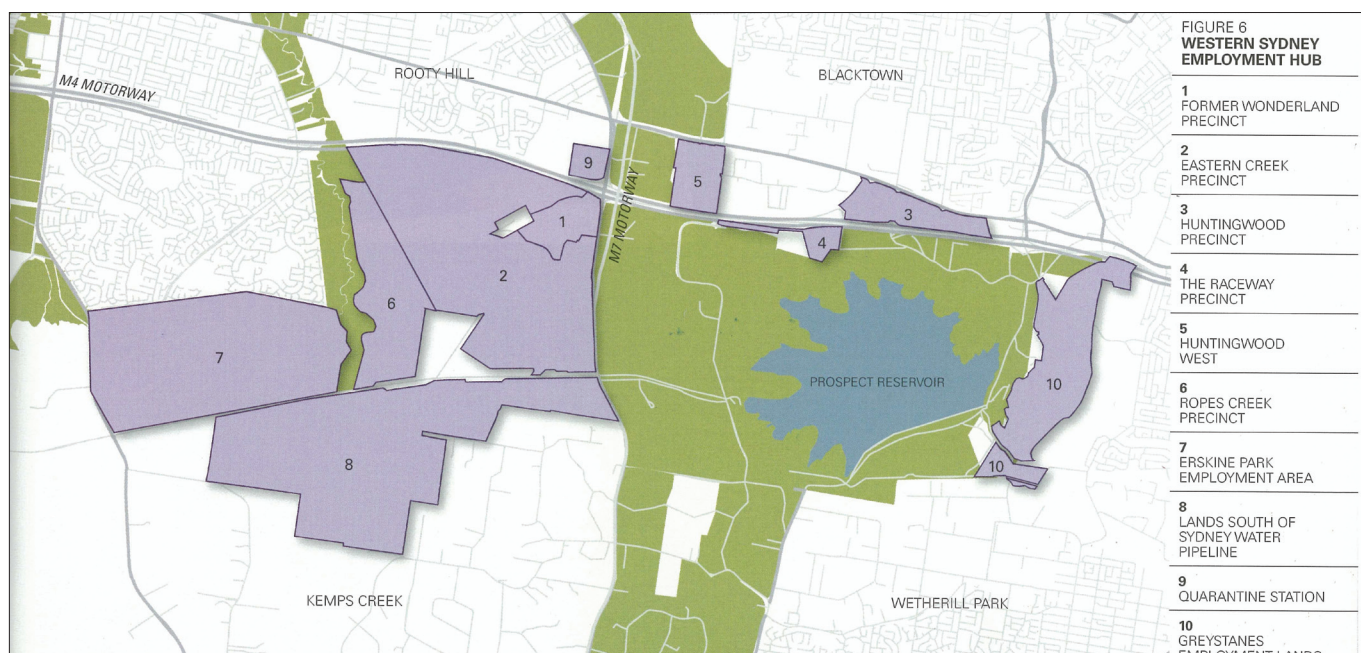
Action 2 Release More Employment Land

- The Action Plan identifies the WSEH as a key element of government's immediate response to ensuring sufficient employment land is identified. The subject land is identified as Precinct 9 within the WSEH.
- The site enjoys minimal servicing constraints and therefore can be delivered to the market far quicker than many other areas of Western Sydney

Action 4 Employ More Efficient Processes for Zoning and Developing Employment Lands

- Approval of a Concept Plan under Part 3A of the EP & A Act 1979 is an efficient process for rezoning and establishing development guidelines that will govern future development of the site, and makes it "development" ready.

Development of the Minchinbury Employment Park is consistent with the recommendations of the Action Plan.



4.2.4 North West Subregion Draft Subregional Strategy

Subregional strategies are the intermediate step in translating the Metropolitan Strategy to a local level. Subregional strategies will guide the preparation of new Principal Local Environmental Plans, and have relevance in considerations for land use decisions and the “zoning” of land. The North West draft Subregional Strategy incorporates the employment land planning policies contained in the Metropolitan Strategy and the Employment Lands Action Plan.

Approval of the Concept Plan is consistent with the identified Actions of the draft Subregional strategy on the following grounds:

- The site has already been identified as being strategic employment land (A1.2)
- It implements the approvals’ process for employment land in the M7 corridor (A1.5)
- Concept Plan approval facilitates timely delivery of infrastructure through providing certainty for development on this site (A1.6)
- The development supports the aim to strengthen the economic roles and prioritises access to the network to employment land uses (B5.2)
- Through its commitments to link the site to existing pedestrian, cycling and bus networks, the Concept Plan responds to the challenge to provide alternatives to private car usage (D1.2 and D3.1)

Development of the Minchinbury Employment Park is closely aligned to the North West draft Subregional Strategy in particular through employment creation in close proximity to strategic infrastructure corridors and location within ease of servicing and delivery for development.

4.3 Environmental Planning & Assessment Act 1979

The EP&A Act and the EP&A Regulation provide the framework for environmental planning in NSW. The EP & A Act includes objectives to ensure the proper management of resources, consideration of impacts upon the environment, and provide opportunity for public participation in the planning process.

4.3.1 Objectives of the EP & A Act 1979

This EA has been prepared with regard to the objectives of the EP & A Act 1979 being:

(a) to encourage:

- (i) *proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
- (ii) *the promotion and co-ordination of the orderly and economic use and development of land,*
- (iii) *the protection, provision and co-ordination of communication and utility services,*
- (iv) *the provision of land for public purposes,*
- (v) *the provision and co-ordination of community services and facilities, and*
- (vi) *the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
- (vii) *ecologically sustainable development, and*
- (viii) *the provision and maintenance of affordable housing, and*

(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and

(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.

In particular the development of strategically positioned land for employment purposes is consistent with objectives (a)(i), (ii) and (vii). The identification and protection of biodiversity values in the region is consistent with (a)(i), (vi) and (vii). The identification of strategies to minimise greenhouse gas emissions and reduce potable water demands is consistent with (a)(vii). The co-ordinated planning of infrastructure servicing for development of the site is consistent with (a)(iii). The undertaking and investigations pertaining to the site as part of the EA process is consistent with (a)(i). The establishment of a land use planning regime and design guidelines is consistent with (a)(i) and (ii). The process of consultation and the exhibition of the EA and concept Plan pursuant to Part 3A procedures, is consistent with (b) and (c).

The objects of the Act, including the encouragement of ESD, has been considered during the EA and Concept Plan preparation.

4.3.2 Ecologically Sustainable Development

There are five accepted ESD principles:

- (a) *decision-making processes should effectively integrate both long-term and short-term economic, environment social and equitable considerations (the integration principle);*
- (b) *if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should be used as a reason for postponing measures to prevent environmental degradation (the precautionary principle)*
- (c) *the principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the inter-generational principle)*
- (d) *the conservation of biological diversity and ecological integrity should be fundamental consideration in decision-making the biodiversity principle); and*
- (e) *improved valuation, pricing and incentive mechanisms should be promoted (the valuation principle)*

Furthermore the EA has been prepared with regard to principles of ecologically sustainable development as summarised below:

Integration principle

- The proposed Concept Plan establishes a balance between regional economic, social and ecological values. The development of the Minchinbury Employment Park will lead to short term and longer term benefits to the economy of the Blacktown area in addition to supporting the social well being of its population. The proposed Concept Plan also protects and enhances local ecological values.

Precautionary principle

- Relevant environmental issues have been identified and where appropriate relevant measures have been identified and "commitments" made to mitigate and manage environmental impacts during the course of the development. Future development upon the land will be subject to approvals' processes that enable consideration of the impacts of those development and suitable measures to mitigate any identified impacts. No serious or irreversible harm to the environment is likely or anticipated from approval of the Concept Plan.

Climate change

- The site is not affected by sea level changes. Climate change is not anticipated to significantly render any element of this Concept Plan invalid or inappropriate.

Inter-generational Principle

- The Concept Plan incorporates environmentally sustainable design guidelines and principles and implementation and management practices to be employed during construction of the new development will ensure that the environment is protected for future generations. It is a commitment that future development/project applications are supported by detailed reports that address energy usage and energy savings' measures. (refer Section 7)

Biodiversity Principle

- Endangered ecological communities are present on-site in modified and/or degraded forms. The proposal features the practical and appropriate strategy to conserve and enhance regional biodiversity values through Biobanking in this instance.

Valuation Principle

- The identification of the site for employment land uses and the development of the Minchinbury Employment Park will promote economic activity and improve the value of existing valuable transport and utility infrastructure, and enable residents to work in proximity to their work, and leisure opportunities.

4.3.3 State Environmental Planning Policy (Major Development) 2005

This policy identifies developments that are considered to be Projects to which Part 3A of the EP&A Act 1979 will apply. The primary aim of SEPP (Major Development) 2005 is:

To identify development of economic, social or environmental significance to the State or regions of the State so as to provide a consistent and comprehensive assessment and decision making process for that development.

The Minister for Planning (through her delegate) declared on 20 March 2009 that the proposed Minchinbury Employment Park to be a Project to which Part 3A of the EP & A Act will apply given it satisfies the criteria under Schedule 1 of SEPP 2005, namely:

Group 4 Other manufacturing industries, distribution and storage facilities

12 Distribution and storage facilities

Development for the purpose of container storage facilities, or storage or distribution centres, with a capital investment value of more than \$30 million.

The Minister for Planning is therefore the consent authority for this proposal.

4.3.4 Permissibility

The development of the Minchinbury Employment Park is permissible in the IN1 General Industrial zone under the SEPP (WSEA) 2009..

On 20 March 2009, the Director General of the NSW Department of Planning, as the authorised delegate of the Minister for Planning, formed the opinion that the project was a "Major Project" for the purposes of Part 3A of the EP & A Act. Part 3A of the EP & A Act and related Environmental Planning & Assessment Regulations 2000 sets out requirements for submission of applications, environmental assessment requirements, public review and consultation, and preparation of an assessment report, and determination.

Clause 80 of the EP & A Regulations prohibits approval of Concept Plans on sites which are not subject of an authorisation to submit a Concept Plan, and are located in an "environmentally sensitive area of State Significance". Approval of a Concept Plan is NOT prohibited in this case given:

- authorisation was granted on 20 March 2009 by the Director General of the NSW Department of Planning to submit a Concept Plan
- The subject site does not meet any of the criteria for "environmentally sensitive area of State Significance" as defined under the SEPP (Major Projects) 2005

It is open for the Minister for Planning to grant approval to the proposed Concept Plan.

4.3.5 Compliance with Part 3A of the EP & A Act

The relevant provisions of Part 3A of the EP & A Act will be satisfied as follows:

Table 5: Requirements of Part 3A of the EP & A Act 1979

Section	Requirement	Response
75M(2)	(a) outline the scope of the project and any development options, and (b) set out any proposal for the staged implementation of the project, and (c) contain any other matter required by the Director-General.	The proponent has addressed these matters in the EA with particular regard to sections 3 and 6.
75M(4)	If an environmental planning instrument requires the preparation of a development control plan before any particular or kind of development is carried out on any land, the obligation may be satisfied for a project by an application for approval and approval of a concept plan in respect of the land concerned (but only if the Minister authorises or requires an application for approval of the concept plan).	The SEPP (Western Sydney Employment Area) 2009 requires the preparation of a DCP for this purpose. This requirement has been addressed through this EA and Concept Plan which addresses all the pertinent environmental and site development issues pertinent to the future development of the Minchinbury Employment Park.
75F	Environmental assessment requirements	Director Generals' Requirements were issued on 24 June 2009. A summary of DGRs and guide to where they have been addressed in the EA is included in Appendix A.
75H	Environmental assessment and public consultation	This section will be satisfied by: <ul style="list-style-type: none"> ➤ This EA prepared on behalf of the proponent ➤ A draft version of the EA will be submitted to the Department for "adequacy" testing ➤ The Department will publicly exhibit the EA and Concept Plan in accordance with statutory requirements ➤ The Department will provide copies of any submissions from the public or any organisation to the proponent ➤ The proponent undertakes, where requested by the Department, to respond to the issues raised during the consultation process ➤ The proponent undertakes, where required, to modify this EA to produce a preferred project report (PPR) to accommodate modifications arising from submissions or responses to those submissions
75I	Director General's environmental assessment report	This will be prepared by the Department and submitted for the Minister's consideration and approval. Requirements to consider relevant SEPPs, and EPIs, and this clause generally has been addressed in this Part of the report.

4.3.6 State Environmental Planning Policy No. 55 – Remediation of Land

This policy has state-wide application and aims to:

to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment:

- (a) *by specifying when consent is required, and when it is not required, for a remediation work, and*
- (b) *by specifying certain considerations that are relevant in rezoning land and in determining development applications in general and development applications for consent to carry out a remediation work in particular, and*
- (c) *by requiring that a remediation work meet certain standards and notification requirements.*

Guidelines have been published by the EPA and DUAP (Managing Land Contamination – Planning Guidelines SEPP 55 – Remediation of Land) which provide practical issues to address in meeting obligations under SEPP 55 and the Contaminated Land Management Act 1997. The following table (from the Guidelines) summarises the pertinent decisions to be made by consent authorities exercising their planning functions pursuant to these statutory instruments:

Table 6: Planning Function and Land Contamination

Planning function	Decisions to be made
Preparing and making a planning instrument	Is the land suitable or can it be made suitable for the rezoned use?
Preparing and making a development control plan (DCP)	Are appropriate issues covered in the DCP?
Processing and determining a development application	Is the land suitable, or can and will it be made suitable, for the proposed development?
Modifying a development consent	Will the land be suitable for the proposed use under the modified consent?

It is acknowledged that the past and present use of the site (rural, military camp, and animal and plant quarantine station) are potentially contaminating activities for the purposes of the Guidelines and SEPP 55.

With regards to the site investigations into contamination, it has been determined that the site will be suitable for its proposed employment use on the following grounds:

- a Phase 1 Environmental Site Assessment, prepared by JBS Environmental Pty Ltd (included at Appendix E) concludes that the risk ranking for contamination on this site is typically low or medium, and that:

Based on the results of the investigation undertaken at the site, and subject to the limitations stated in Section 6, contamination is unlikely to preclude the proposed commercial/industrial use, provided that the site is further assessed through a detailed site investigation process, and appropriate remediation/validation actions are undertaken (if required) to confirm that the site is suitable for the proposed development.

- previous environmental investigations, including a Phase 2 environmental investigation prepared by DASCEM in 2001 documented the satisfactory removal of a 12KL Underground Storage Tank (UST) from the site. Furthermore it included the testing of the effluent pond in the south-western corner of the site and concluding that no contamination was present downstream of the settling ponds
- there are no uphill sources of contaminants potentially entering the site
- there are no obvious physical signs of contamination present nor recorded environmental issues on this site.

It appears that while there may be some localised areas of low-moderate of contamination risk on-site in certain locations, the hazards posed by those potential contaminations are either relatively benign or of no significance environmental consequence, and can be suitably addressed in supplementary testing or minor remedial works. The current evidence indicates that there is nothing to suspect the site cannot be readily made suitable for the proposed employment land uses.

Targeted testing and remediation (if required) of the likely low level of contaminants on-site has been addressed as a draft Commitment (see Section 7).

The requirements of this SEPP and its ancillary guidelines have been satisfactorily addressed.

4.3.7 State Environmental Planning Policy No. 59 – Central Western Sydney Employment Area

This policy does not apply to the subject land. Furthermore it is noted that the SEPP (WSEA) 2009 has recently superseded the role of SEPP 59 with regard to employment land planning in Central and Western Sydney.

Notwithstanding the above, Schedule 1 of SEPP 59 (regarding the matters relevant for Precinct Plans under this SEPP) provides a useful set of considerations for the subject proposal. These considerations have been analysed in the following table:

Table 7: Considerations for Precinct Plans under SEPP 59

Ref	Matters to be considered	Concept Plan Response
1(a)	Regional transport access, water, sewer, drainage, servicing, and state and regional Planning	The site has been identified as being suitable for employment purposes in Sydney's Metropolitan Strategy (2005)), the Employment Lands for Sydney Action Plan (2007), draft North West Subregional Strategy (2007), and draft SEPP (Western Sydney Employment Hub) 2008. The site has no regional or fundamental infrastructure constraints to its development. It enjoys existing direct access to Wallgrove Road and through it excellent links to the M4, M7 and the Great Western Highway. It sits within close proximity of key sewer, water and electricity infrastructure which will ensure the site can be quickly and adequately serviced.
1(b)	Response to guiding principles, development and infrastructure staging, infrastructure provision	Given the relatively small size of the net developable area of the site (17 hectares), servicing and development of the estate is likely to occur in a single stage in accordance with the Servicing Strategy at Appendix C.
1(c)	Detailed analysis of the development proposal	The Concept Plan is essentially an envelope setting exercise rather than response to a single development project. It incorporates analysis of the required range of physical, environmental, cultural, and infrastructure issues pertinent to the site's future development without unnecessarily mandating a particular development layout. It provides a tool for the future assessment of applications within the principles and guidelines contained in the Concept Plan.
2(a)	Land uses, phasing, road pattern, servicing and infrastructure issues, regional transport issues, open space, heritage conservation, ecological issues and biodiversity, regional employment and social services, urban design, contamination	<p>Land uses proposed in this Concept Plan are consistent with current State and metropolitan planning documents.</p> <p>Phasing see comments to 1(b) above</p> <p>Road pattern the site size and constraints to access, provide little flexibility to road layout on this site. The layout and design of future roads on this site has however been explored within the Urban Design Report at Appendix N.</p> <p>Servicing and Infrastructure Separate infrastructure servicing and a water sensitive urban design (WSUD) report has been formulated to guide future development of the site. See comments to 1(a) above.</p> <p>Regional transport the development of this site can be safely and easily integrated into an existing high capacity road network. Subject to further detailed design and consultation it is possible to provide safe pedestrian and cycling access to the site, and bus services pass the site on Wallgrove Road. (refer to traffic report in Appendix H).</p> <p>Heritage This matter has been considered within a Heritage Assessment in addition to a Aboriginal Archaeological Report (see Appendices L and M)</p> <p>Ecological Issues Ecological values have been identified and are appropriately convened in this case through offsetting. A report (including Biobank agreement) into flora and fauna has been undertaken and is included in Appendix K.</p> <p>Regional employment The site is part of the Western Sydney Employment Area a key response and element of the strategic employment planning in the Sydney region. The proposed development implements this element of metropolitan employment planning.</p> <p>Urban Design The development principles, guidelines and key development controls for this site have been outlined within the Urban Design Report & Guidelines included at Appendix N.</p> <p>Contamination see comments regarding SEPP 55 above.</p>

4.3.8 State Environmental Planning Policy (Infrastructure) 2007

The aim of this Policy is to facilitate the effective delivery of infrastructure across the State by:

- (a) *improving regulatory certainty and efficiency through a consistent planning regime for infrastructure and the provision of services, and*
- (b) *providing greater flexibility in the location of infrastructure and service facilities, and*
- (c) *allowing for the efficient development, redevelopment or disposal of surplus government owned land, and*
- (d) *identifying the environmental assessment category into which different types of infrastructure and services development fall (including identifying certain development of minimal environmental impact as exempt development), and*
- (e) *identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and*
- (f) *providing for consultation with relevant public authorities about certain development during the assessment process or prior to development commencing.*

Wallgrove Road is a classified road under the Roads Act 1993. Schedule 3 of the SEPP requires referral to the RTA where development has access to a classified road and will exceed 5,000m² is for industrial floor space greater than 5,000m².

The RTA has been consulted during the environmental assessment process, where matters of traffic impact, signal design, Wallgrove Road modifications, bus, cycling and pedestrian access was discussed. The issues, responses, and outcomes of this consultation has been considered and incorporated into the Traffic Report (refer Appendix H). Further consultation and approvals' will be required from the RTA following Concept Plan approval. The purpose and intent of SEPP (Infrastructure) 2007 will be satisfied through the EA preparation and assessment of this Concept Plan.

4.3.9 State Environmental Planning Policy (Western Sydney Employment Hub) 2008

The aim of this policy is:

- (a) *to promote economic development and the creation of employment in the Western Sydney Employment Area by providing for development including major warehousing, distribution, freight transport, industrial, high technology and research facilities,*
- (b) *to provide for the co-ordinated planning and development of land in the Western Sydney Employment Area,*
- (c) *to rezone land for employment or environmental conservation purposes,*
- (d) *to improve certainty and regulatory efficiency by providing a consistent planning regime for future development and infrastructure provision in the Western Sydney Employment Area,*
- (e) *to ensure that development occurs in a logical, environmentally sensitive and cost-effective manner and only after a development control plan (including specific development controls) has been prepared for the land concerned,*
- (f) *to conserve and rehabilitate areas that have a high biodiversity or heritage or cultural value, in particular areas of remnant vegetation.*

Part 2 of the policy establishes zoning and land use controls for the subject site, in which the land is entirely zoned IN1 General Industrial. The zone objectives and land use control table for the IN1 zone are as follows:

Objectives of zone

- *To facilitate a wide range of employment-generating development including industrial, manufacturing, warehousing, storage and research uses and ancillary office space.*
- *To encourage employment opportunities along motorway corridors, including the M7 and M4.*
- *To minimise any adverse effect of industry on other land uses.*
- *To facilitate road network links to the M7 and M4 Motorways.*
- *To encourage a high standard of development that does not prejudice the sustainability of other enterprises or the environment.*

- To provide for small-scale local services such as commercial, retail and community facilities (including child care facilities) that service or support the needs of employment-generating uses in the zone

2 Permitted without consent

Nil.

3 Permitted with consent

Depots; Freight transport facilities; Industrial retail outlets; Industries (other than offensive or hazardous industries); Neighbourhood shops; Roads; Transport depots; Truck depots; Warehouse or distribution centres..

4 Prohibited

Any development not specified in item 2 or 3.

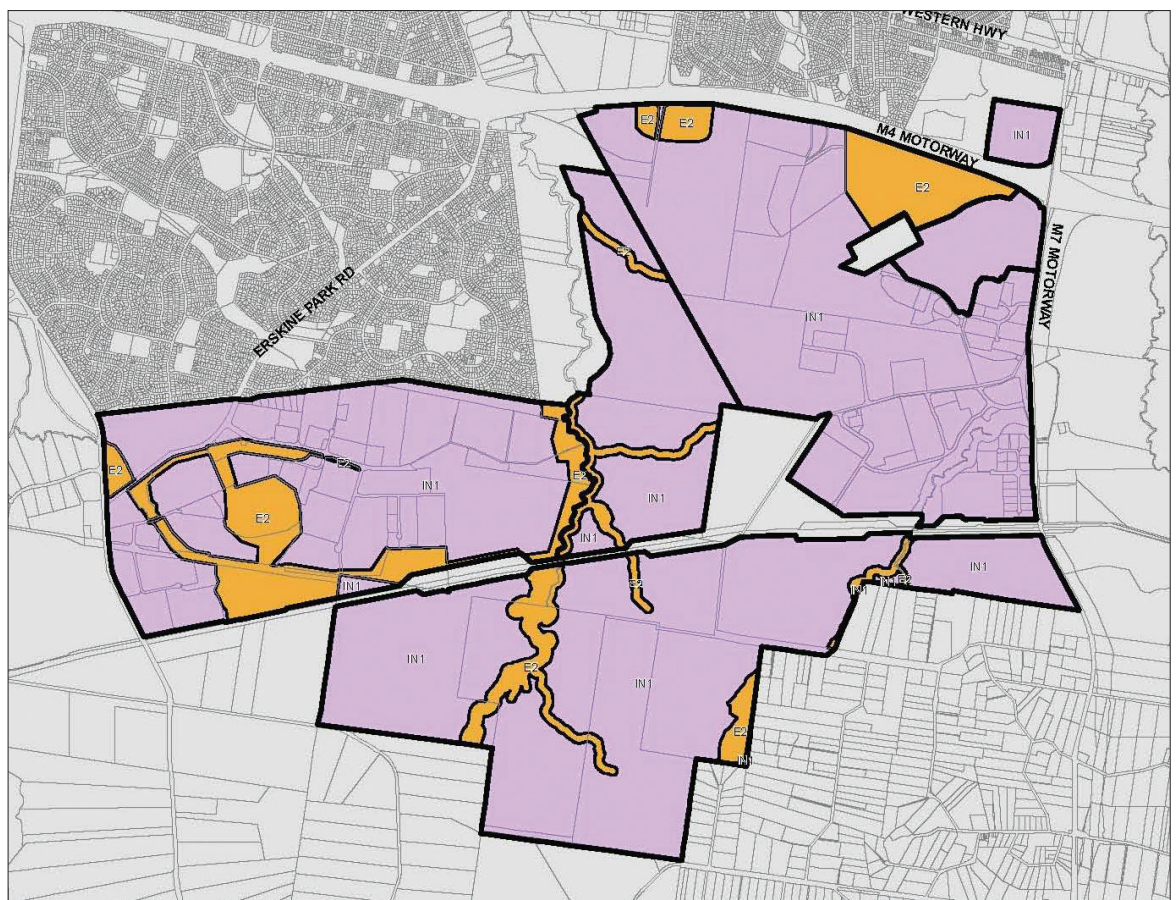


Figure 19 - SEPP(WSEA) 2009 Zoning

Table 8: SEPP (WSEH) 2009 Compliance with Principal Development Standards

SEPP Clause	Control	Key development standards	Plan complies	Comment
20	Sustainability	Reductions in potable water use Reduction in greenhouse gas emissions	Yes	Runoff reuse and use of water efficient appliances are proposed to reduce potable water demand at Concept Plan stage. Greenhouse gas reductions will be obtained through a range of suggested building siting, orientation, landscaping, natural ventilation and lighting proposals in addition to alternative transport initiatives. Furthermore development of this strategic site for employment purposes is a regionally appropriate development. (Refer to draft commitments in section 7, the WSUD Report in Appendix G, and Sustainability Report in Appendix J)
21	Height of buildings	Heights to consider visual impact and topography	Yes	Refer to height controls and presentation considerations for new development in the Minchinbury Employment Park in Appendix N.
22	Rainwater harvesting	Rainwater harvesting infrastructure to be provided	Can comply	Refer to draft Statement of Commitments in section 7.
23	Development adjoining residential land	Development within 250 metres of residential areas to consider impacts	Yes	The site is not within 250 metres of land zoned for residential purposes. Notwithstanding an Acoustic Report has been prepared where noise criteria have been established utilising INP criteria – see Section 6.4. The Urban Design guidelines includes provision for lower height limits (maximum 15 metres), and landscape screening is proposed along the northern boundary of the site. – see Appendix N.
24	Development involving subdivision	Land fragmentation Employment land supply impacts Access to roads and services	N/A	N/A – Concept Plan only. Subdivision of site will be subject to future development/project applications and will need to be consistent with the subdivision controls contained in the Urban Design Guidelines of Appendix N.
25	Public Utility Infrastructure	Required infrastructure to be provided, including potable water, electricity, gas and sewerage	Yes	Site can be relatively easily serviced, and a servicing strategy has been provided in Appendix C.
26	Development adjoining proposed transport routes	Refer applications to Department of Planning	N/A	Site does not adjoin any proposed route
29	Arrangements for contributions to Regional Infrastructure	Provision to be made for contributions towards regional transport infrastructure	Yes	Refer to Statement of Commitments in Section 7
31	Design principles	High quality design Safety of materials and finishes High quality landscaping Compatible scale and character	Yes	

4.3.10 Blacktown Local Environmental Plan 1988

There are no relevant provisions of this LEP that affect the subject proposal.

4.3.11 Blacktown Development Control Plan 2006 and Employment Lands Precinct Plan (Eastern Creek Precinct)

It is noted that neither of these plans apply to the subject site, however they do provide a useful comparison to the development standards and controls that apply to comparable development elsewhere in the Blacktown LGA. A comparative table of controls is shown below:

Table 9: Comparison Development Controls

Control	Blacktown DCP 2006 Part E	Employment Lands Precinct Plan: Eastern Creek Precinct	Minchinbury Employment Park Concept Plan	Comment
Lot size (min)	1,500 m ²	5,000 m ²	4,000 m ²	maintains a large lot standard compared to DCP controls
Lot frontage	35 m	35 m	35 m	consistent control
Site coverage		65%	65%	consistent control
Building height	-	-	15 – 20 m	stating a preferred maximum height is appropriate given visibility of site, and articulating 'bonus' provisions for landmark and office users
Setback (main road)	20 m	20 m	20 m	consistent control
Setback (collector road)	10 m	10 m	10 m	consistent control
Carparking forward of building line	Only for main roads, to within 10 m	-	Yes (visitors only, streetscape quality)	appropriate in context of MEP
Fencing forward of building line		1 m setback & 2.1 m in height	1.8 m (open style only)	simplifies control
Car parking (warehouse & industrial use)	1 space per 75 m ² GFA (buildings less than 7,500 m ²) 1 space per 200 m ² GFA (above 7,500 m ²)	1 space per 75 m ² (buildings less than 7,500 m ²) 1 space per 200 m ² (for GFA above 7,500 m ²)	1 space per 300 m ² GFA (warehouse) 1.3 spaces per 100 m ² GFA (industry)	consistent with RTA standards
Car parking (ancillary office)	1 space per 40 m ² GFA	1 space per 40 m ² GFA	1 space per 40 m ² GFA (where office exceeds 20% of warehouse GFA)	consistent with RTA standards

4.4 Other State Legislation

4.4.1 Water Management Act 2000

The existing site topography includes two drainage lines. The eastern drainage line has been artificially formed between buildings in the Plant Quarantine section of the site, and the other is in the "back paddock" area on the western side of the site. Both drainage lines join other drains both on and off-site and ultimately form part of the Eastern Creek catchment.

Part 3 of the WMA requires approval for controlled activities. The threshold test to ascertain whether this Act controls activity or has any role in development on this site, is to determine whether the drainage lines are "rivers" (aka watercourse) and thence whether the works proposed are within "waterfront land" (defined as an area from the river bed to 40 metres away from that bed).

To determine whether any on-site drainage lines satisfied the definition of a "river", advice was sought from the Water Management Division of the Department of Water & Energy. On 16 February 2009 the following response was provided:

We have looked at this site and can advise that both watercourses on site are Category 3. The eastern watercourse identified has been altered significantly by the construction of the M7 and the Department would not have any interest in maintaining this on site.

This was supplemented on 5 March 2009 as follows:

The western watercourse identified has been sufficiently proven not to be a river and the Department would not have any interest in maintaining this on site.

(DWE's file reference is ERM2009/0160)

4.4.2 Roads Act 1993

The Concept Plan features the following proposed works within the road reserve of Wallgrove Road:

- Modifications to surface levels, islands, kerb and guttering, additional pavement, crossings and linemarking, and erection of signals and signage as required to facilitate the installation of traffic signals at the existing intersection
- The construction of two bus bays adjoining the existing carriageway
- The construction of approximately 450 metres of concrete footway/cycling path within the western verge of Wallgrove Road

It is understood that Blacktown City Council are the "roads authority" for Wallgrove Road pursuant to this Act. Accordingly the detailed design and approvals for these works will be subject to future applications for approvals under the Roads Act.

4.4.3 Threatened Species Conservation Act

The TSC aims to protect and encourage the recovery of threatened species, populations and communities that are listed under the Act, through threat abatement and species recovery programs.

Section 5A of the EP & A Act 1979 requires consideration of an assessment of significance, or seven-part test for applications lodged under Part 4 or 5 of that Act. However there is no statutory requirement to undertake an "Assessment of Significance" for a development being assessed under Part 3A. Assessment of ecological impacts however are considered during the Environmental Assessment (EA) process, and is guided by the Director-General's environmental assessment guidelines which in this case includes "Flora & Fauna" and assessment of impacts upon threatened species pursuant to the Draft Guidelines for Threatened Species Assessment under Part 3A of the Environmental Planning & Assessment Act 1979 (DEC).

Flora and Fauna studies of the site were prepared in accordance with the requirements of the Director-General's Requirements and supplemented by consultation with DECCW (contained in Appendix N). Whilst no endangered fauna and no threatened species of plants were recorded on-site, the study reveals a total of 5.1 hectares of Endangered Ecological Community (EEC) listed under the TSC Act:

- 4.01 hectares of Cumberland Plain Woodland
- 0.35 hectares of Swamp Oak Floodplain Forest and
- 0.73 hectares of Shale Gravel Transition Forest.

The report notes that while this vegetation occurs as isolated fragments of degraded woodland and forest, it is nonetheless protected under the TSC Act. Clearing of such vegetation is deemed a "key threatening process" and direct cause of in the decrease of biodiversity in the region.

The TSC Act enables a number of responses to actions that are identified as having a significant impact upon EECs. These include recovery plans, threat abatement plans, stop work orders, conservation agreements and biodiversity banking.

Part 7A of the TSC describes the procedures for creation, and trading in Biobanking credits. This methodology uses an objective "model" to calculate the number of credits on a site. In this case an assessment has been undertaken in accordance with DECC Biobanking guidelines to ascertain the existing credits on the site. In this case this assessment informs the extent of liability where they are to be removed. The subject site has been assessed to contain only 76 credits.

Section 75JA of the EP & A Act include the following special provision relating to Biobanking:

- (1) Without limiting section 75J, the Minister may approve a project subject to a condition that requires the proponent to acquire and retire (in accordance with Part 7A of the Threatened Species Conservation Act 1995) biodiversity credits of a number and class (if any) specified by the Minister in the approval. This subsection applies whether or not a biobanking statement under Part 7A of that Act was obtained in respect of the project.

The proponent has been undertaking some preliminary investigations into the availability and costings of such credits. However this process cannot be reasonably concluded until there is a degree of certainty regarding approval of the MEP Concept Plan. Accordingly it is the proponent's position that the biobanking credits from the site should be "retired" prior to commencement of clearing works on the site. This is addressed in the draft Statement of Commitments in Section 7 and can be confirmed in a condition attached to the Concept Approval of the MEP.

4.4.4 National Parks & Wildlife Act 1974

Preliminary Aboriginal Archaeological studies of the site have revealed existing 6 surface artefacts, and concludes that there is potential for further sub-surface artefacts. However the conclusion of the study reveals that the identified or potential artefacts on the site are not so significant as to pose a constraint to development of the site on archaeological and Indigenous heritage grounds.

A report detailing consultation with Aboriginal groups, site survey and analysis of the site, will be submitted with the environmental assessment, and satisfy contemporary guidelines regarding Aboriginal community involvement. It is envisaged that given the findings of that report, it will be recommended that an Aboriginal Heritage Management Plan will be included as a condition of approval for the Concept Plan, and that such AHMP would warrant approval of NPWS in the form of a "whole of development" section 87/90 permit.

4.5 Development Contributions

4.5.1 State Contributions

On 21 August 2009 the Minister for Planning announced a new State Infrastructure Contribution (SIC) for employment development within the Western Sydney Employment Area. This contribution was set at \$180,000 per net developable hectare. It is included in the draft Statement of Commitments in Section 7 that the proponent (or their successor) will enter into an agreement with the Minister for Planning to satisfy that contribution."

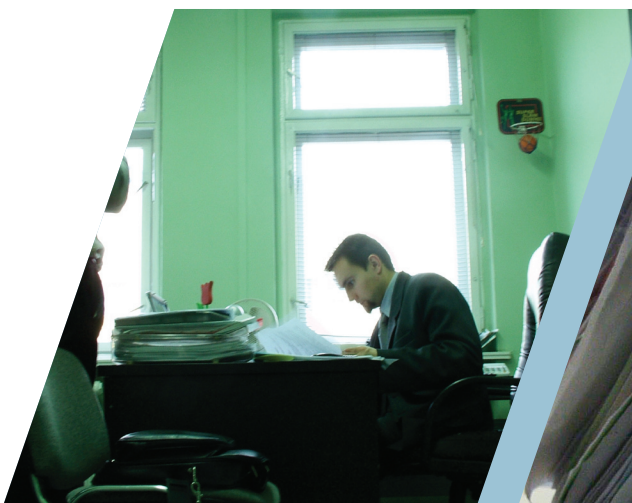
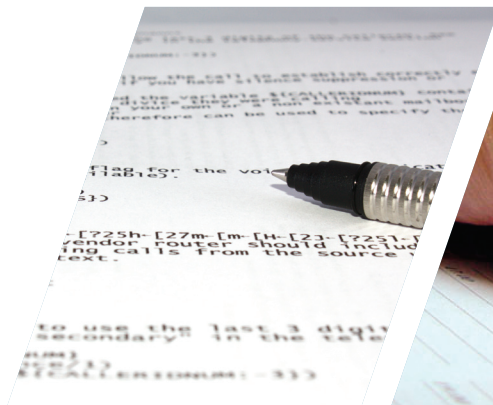
4.5.2 Local Contributions

The development of MEP includes a number of works and commitments that do not give rise to additional increases in demands for Council provided services. The proponent will assume responsibility for provision of all linking infrastructure to the site, it will pay the SIC, it will undertake the necessary roadworks to facilitate smooth access and the operation of nearby intersections, and will construct a new share cycle/pedestrian path from the Great Western High to the site.

It is intended to dedicate the trunk drainage basins within the site and the internal roads to Blacktown City Council. However this will be done in accordance with standard Council procedure for such dedications and will not rely on Council to develop in the first instance. Runoff will be detained on-site and discharges at controlled rates to ensure existing downstream systems are not overloaded nor polluted.

Given it is envisaged that no council provided services or facilities are to be subject to additional demand arising from the MEP development, no local contributions are warranted.

/// 5 CONSULTATION & IDENTIFICATION OF ISSUES



5 CONSULTATION & IDENTIFICATION OF ISSUES

The Director-Generals' requirements have identified numerous issues that have been considered in the course of the EA preparation. An analysis of this consideration is included in Appendix A.

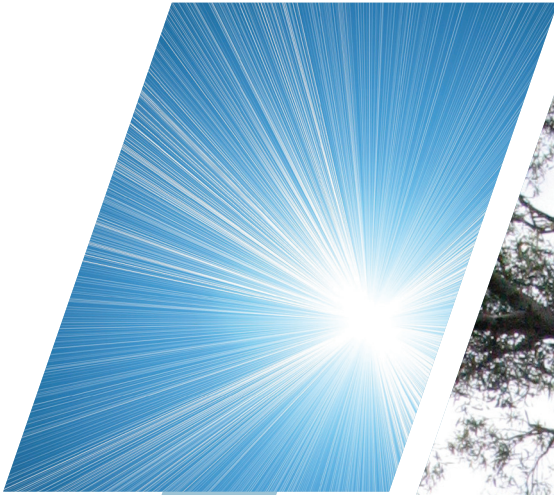
During the course of the EA preparation additional consultation was undertaken with relevant authorities and a record of additional issues raised that were not originally covered in the Director-General's Requirements, are as follows:

Table 10: Consultation with Authorities and Issues Raised

Authority	Date	Issues Raised (in addition to those referred to in DGRs)	Where addressed in EA
Roads and Traffic Authority	6/7/09	Regional transport contributions	Section 7
Blacktown City Council	18/6/09 & 24/6/09	Environmental conservation area needs to be accessible	3.3
		Asset protection zones from bushfire hazards	6.12
		RTA parking standards are not supported	6.3
Department of Environment, Water and Climate Change	24/6/09 17/11/09	EPBC referral	4.1
		Concern raised regarding viability of retaining EEC on-site	note
Integral Energy	23/2/09	Once more definitive plans are available then a final determination on supply demands and required infrastructure	Section 7
Sydney Water	4/2/09	Once more definitive plans are available then a final determination on supply demands and required infrastructure	Section 7



/// 6 CONSIDERATION OF ENVIRONMENTAL IMPACTS



6 CONSIDERATION OF ENVIRONMENTAL IMPACTS

6.1 Risk Assessment of Potential Environmental Impacts

The following a tabulated summary of the potential environmental impacts arising from this proposal:

Table 11: Environmental Risk Analysis

Issue	Analysis/Comment
Soil & Water	<p>Erosion: The site contains gently sloping land (generally between 0.8% - 2.8%). It does not adjoin any watercourse of significance, nor is geological profile such that hazards or unusually erosion prone soils are likely to occur on-site. In this context there it is appropriate to consider that the matter of soil and water erosion that may occur during construction can be addressed at future project/development applications stage, and this is addressed in section 6.2.5 below.</p> <p>Runoff Water Quality & Quantity: Post development: runoff will be controlled and managed to ensure water of suitable quality and controlled quantity in accordance in a detailed civil engineering design that implements the principles and solutions contained the WSUD Report that forms part of the Concept Plan (Appendix G). The appropriate environmental background and summary response to this matter is addressed in section 6.2.4 below.</p> <p>Contamination: The site has been used in the past by potentially contaminating activities. The status of the site has been considered in detail and it has been found that there is no substantive reason why this site cannot be developed for its intended purpose. This is addressed in Appendices E & F and section 6.2.2 below.</p> <p>Salinity: Development of the site has the potential to result in salinity problems unless appropriate soil management procedures are implemented. This has been addressed in Appendix D and section 6.2.3 below.</p>
Noise	<p>The permissible uses sought on the site envisage 24 hour 7 days per week operations. The nearest "sensitive receivers" are residential properties in excess of 270 metres from the northern site boundary and 550 metres from the western site boundary. Appropriate noise goals should be identified to address the acoustic impacts of future development in the Minchinbury Employment Park. The appropriate environmental background and response to this matter at Concept Plan stage is addressed in section 6.4 below.</p>
Air Quality	<p>Without the benefit of specific development proposals, it is envisaged that the principal source of air quality impacts that can be anticipated at this Concept Plan stage will arise from construction activities and vehicle emissions. Encouragement of cycling, walking and public transport use is discussed below in section 6.6.</p>
Flora and Fauna	<p>The current Quarantine Station use of the site includes noted areas of bushland within its boundaries. These include the endangered ecological community Cumberland Plain Woodland which has regrown largely since the original AQIS development in 1980.</p> <p>The Environmental Assessment incorporates a Threatened species (flora and fauna) assessment, including identification of any endangered ecological communities on-site, an assessment of their circumstances and significance, and recommendations for incorporation into the development. This is addressed below in section 6.8.</p>
Aboriginal Heritage	<p>Unlike many sites within the WSEA, this site is not currently used for rural purposes, nor used as an extractive industry, nor does it include a natural watercourse. Notwithstanding the current site use has had a relatively low impact upon the current landform and there are "unused" areas on the subject site. These facts warranted review and report into the archaeological potential of the site. The appropriate environmental background and response to this matter at Concept Plan stage is addressed in section 6.8 below.</p>

Issue	Analysis/Comment
European Heritage	The site contains no significant items of European heritage, yet it is known to have a history of successive and quite distinct land usage phases since its occupation in the 1800s. To date no evidence has arisen of any significant colonial rural occupation or construction on the site, however the site is known to have been formerly part of the Wallgrove Army Camp. The appropriate environmental background and response to this matter at Concept Plan stage is addressed in section 6.10 below.
Traffic and Transport	The site has direct access to Wallgrove Road and adjoins the Interchange at the intersection of the M4 and M7 Orbital Motorways. Maintaining multi-directional access to Wallgrove Road will warrant the provision of traffic lights. It is intended that a survey of traffic volumes, expected generation rates using RTA guidelines, and modelling of the proposed intersection performance will be undertaken, in addition to any on-site road planning. Suitable parking rates based on RTA guidelines, will be proposed as a key development guideline. The appropriate environmental background and response to this matter at Concept Plan stage is addressed in section 6.3 below.
Visual amenity	<p>Development of the Minchinbury Employment Park will be visible from Wallgrove Road, the M4/M7 intersection, and from the neighbouring cemetery. Screening is considered appropriate with regard to the cemetery.</p> <p>Screening is not considered a paramount objective from the remaining vantage points, and appropriate urban design controls will be proposed to positively respond to the visual impact of future development from these perspectives. Visual impact of development from the proposed internal road network will also be addressed through a combination of landscaping and building design responses. The appropriate environmental background and response to this matter at Concept Plan stage is addressed in section 6.5 below and in Appendix N.</p>
Hazards	<p>The proposed Concept Plan does not presume any hazardous or offensive development. In fact the range of permissible land uses excludes Offensive or Hazardous Industry and storage establishments.</p> <p>Where issues of potential hazards are relevant to future project/development applications, it is recommended that at those times, relevant Preliminary Hazard Assessments are undertaken in accordance with applicable statutory requirements including SEPP 33.</p>
Greenhouse Gas emissions	Development and operation of the Minchinbury Employment Park will necessarily involve the production of greenhouse gas emissions. It is an objective of this EA that greenhouse gas emissions are minimised where feasible, and strategies put in place to ensure future development/project applications will lead to reductions in emissions relative to base case scenarios. The appropriate environmental background and response to this matter at Concept Plan stage is addressed in section 6.7 below.
Waste	Sources of waste arising from the development of the Minchinbury Employment Park will occur at demolition, construction and operational phases. The appropriate environmental background and response to this matter at Concept Plan stage is addressed in section 6.11 below.
Bushfire	Not applicable. The proposed incorporates removal of all significant stands of trees on-site.

6.2 Soil and Water

6.2.1 Geology and Soils

Published soil landscape mapping reveals that the site is within the Blacktown Soil Landscape, which is characterised as follows:

Blacktown Soil Landscape – a residual soil landscape developed on a landscape typically comprising gently undulating rises with local relief to 30 m and slopes usually less than 5% on Wianamatta Group shales. The Blacktown soils are shallow to moderately deep (<1 m), red and brown podsolc soils on crests, upper slopes and well drained areas. Deep (1.5 m – 3 m) yellow podsolc soils are located on lower areas and in areas of poor drainage. These soils are derived from weathering of the underlying (typically shaly) bedrock and are highly plastic, moderately reactive, of low soil fertility, poor soil drainage and include localised areas of salinity or sodicity and moderate erodibility.

The site is over 50 metres above the level of estuarine soil development which is the closest known source of acid sulphate soils.

Based on detailed investigations of nearby sites, and the published knowledge of the geology of the locality, the geological and hydrogeological model of the site is summarised as follows:

- highly variable weathering profiles with clay profiles ranging from less than 1 m to about 9 m deep on the Bringelly Shale, which is characterised by rapid lateral and vertical variation in the lithology. Dispersive conditions, high susceptibility to shrink-swell movements and low bearing strength (particularly for road pavements) are expected within the residual soils.
- shale and siltstone bedrock initially ranging in strength from very low to low strength and potentially medium to high strength below about 5 m in many areas.
- weathering and erosion resistant, medium to very high strength sandstone bands irregularly distributed in the stratigraphic sequence, but probably at depths greater than 10 m at this site.
- very saline soils along poorly drained sections of Eastern Creek and tributary gullies outside of the site. Within the site it is anticipated that most of the site will be classified as non or slightly saline, but with a scattering of moderately saline areas, particularly in footslope locations or where shale bands are preferentially salt rich.
- groundwater within the shale sequence being fracture controlled and very saline.

Cut and fill to provide for benched sites will be required during development of the site. Soils on the site are not inherently unstable, and cut and fill can be adequately addressed by flattening of batters or construction of retaining walls.

6.2.2 Site Contamination

In 2001 a Phase 2 environmental assessment for contamination, hazardous materials and dangerous goods was undertaken on behalf of the Commonwealth of Australia prior to the sale of the site. With regard to contamination it found:

- No excavations be permitted in the area of a suspected grenade range pending a detailed Unexploded Ordnance (UXO) assessment of the site
- That a 10KL Underground Storage Tank had been removed and soils in the vicinity of the tankpit did not exceed threshold criteria
- Some TPH contamination had occurred within the 300mm surface soil layer adjoining an existing Above Ground Storage Tank
- Sampling of waters from the settling pond and secondary pond in western part of the site, revealed that no heavy metal or microbiological contamination was present, and that elevated nutrient levels present in the settling pond were being effectively treated by the time the water reaches the secondary pond
- Faecal streptococci levels were significantly lower in the secondary pond in comparison to the settling pond, and the absence of algae in the secondary pond suggests that no further investigation was warranted

A number of investigations including field survey and historical research were undertaken between 1995-2003 to assess the likelihood and presence of UXO on the site.

The results of these studies did not reveal any UXO on the site, concluded that there was in fact no firing/equipment ranges even on-site. Consequently it was concluded there is no practical likelihood of finding UXO on the site.

A Phase 1 Environmental Site Assessment was commissioned and undertaken in 2009 over the Minchinbury Employment Park site. This report identified the following areas for future testing and likely risk ratings:

Table 12: Areas of Environmental Concern and Associated contaminants of Potential Environmental Concern

Section	Area of Environmental Concern (AEC)	Contaminants of Potential Concern (COPCs)	Risk Ranking ¹
Entire site ²	Current and former buildings across the site	Heavy metals, OCP/OPPs, asbestos	Low
	Fill material in various locations across the site	Heavy metals, TPH/BTEX, PAHs, OCP/OPPs, PCBs, asbestos	Med.
	Former rural use of the site	Heavy Metals, OCPs	Low
Plant Quarantine Station	Greenhouses and steel shed	Metals, OCP/OPPs, herbicides	Low
	Electric sterilizing unit with minor staining beneath it	TPH/BTEX, PAHs	Low
Animal Quarantine Station	Storage shed in the AQS section	Heavy metals, TPH/BTEX, PAHs, OCP/OPPs, asbestos, herbicides	Low
Horse Complex	Grease trap	TPH	Low
	Disused incinerator	Heavy metals, PAHs	Med.
	Tractor and 200 L diesel storage area	TPH/BTEX, PAHs	Med.
Machinery Sheds	Diesel AST	TPH/BTEX, PAHs	High
	Former diesel AST 10 m north of current location, including identified hydrocarbon impact under adjacent kerb and guttering to the west	TPH/BTEX, PAHs	High
	Former leaded petrol UST	Lead, TPH/BTEX, PAHs	High
	Storage sheds, including bunded area in northern shed containing a diesel generator and three diesel storage drums, and storage areas for herbicides, fungicides, formaldehyde and other chemicals	Heavy metals, TPH/BTEX, PAHs, OCP/OPPs, asbestos, herbicides, VOCs, dioxins, furans	Med.
Back Paddock	Surface water and sediment in the settling pond	Heavy metals, TPH, OCP/OPPs	Low
	Dumped waste material west of the settling pond	Heavy metals, PAHs, asbestos	Low
	Burnt material in the northern portion	Heavy metals, PAHs	Low
	Surface soils where ash/manure/sawdust material was formerly spread	Heavy metals, PAHs	Low

¹ Risk Ranking is based on the likelihood of widespread impact associated with AEC and COPCs.

² AECs with common COPCs are grouped based on their similarity, which allows for any future investigations to target groups of AECs.

The study identified a number of locations of generally low-moderate potential contamination risk. However at this stage no additional intrusive testing has been undertaken to confirm the presence of any contaminant. In the context of the modest contamination potential, and the less sensitive nature of the ultimate land use proposed (ie. commercial-industrial) with potential for development with large impervious areas, no further

testing is warranted at this point. The undertaking of targeted testing in those identified risk spots before works commence on-site, and required remediation, has been included within the draft Statement of Commitments in Section 7.

6.2.3 Salinity

Based on extensive experience at the M7 Hub, Western Sydney Parklands and Old Wallgrove Road, consultants Douglas Partners (report in Appendix D) have found that saline conditions are found adjoining creeks or riparian areas, or on lower slopes. There are no riparian zones, nor creeks located in the Minchinbury Employment Park.

Saline conditions are however anticipated within the groundwater and associated to localised areas of waterlogging. Salinity on the subject site is not anticipated to pose any constraint upon site development subject to the preparation of suitable management plans, including:

- Salinity Management Plan
- Erosion & Sediment Control Plans for each development
- Groundwater and surface water monitoring program
- Geotechnical reports during the design of each building

The preparation of these plans have been addressed within the draft Statement of Commitments contained in Section 7 below.

6.2.4 Water Sensitive Urban Design

A Water Sensitive Urban Design (WSUD) strategy has been prepared for the site (in Appendix G), which addresses the objectives of the Blacktown City Council WSUD Development Control Plan.

The strategy notes that:

- There is no upstream catchment to the site, given the interruption caused by the M4 Motorway development in the 1980s.
- The site is essentially divided into 2 approximately equal catchment areas, with the east catchment currently draining into a 900mm pipe under Wallgrove Road, and the Western Catchment draining into a dam on the adjoining cemetery property

DCP objectives with regard to reducing reliance on potable water networks, can be addressed in this Concept Plan principally through commitments to reduce potable water consumption through:

- installing a dual reticulation for non-potable water sources, including potential access to regional recycled water (where practical) or on-site collection
- utilising water efficient appliances within developments, including water efficient fixtures (for example 6/3 litre toilets and AAA rated fittings)
- a landscape strategy which is based upon native plants requiring little if any ongoing irrigation

Compliance with water quality targets for Gross Pollutants (90%), Total suspended solids (85%), Total Phosphorus (65%), and Total Nitrogen (45%), can be addressed in the Concept Plan principally through commitments to:

- Treat water in the “western catchment” through the development of an engineered wetland within the north-western corner of the site to cater for runoff going into the “western” catchment of the site and discharging off-site
- Treat water in the “eastern catchment” through a bio retention system prior to discharge off-site

DCP objectives with regard to maintaining stormwater quantity will be addressed in the Concept Plan principally through commitments to detain runoff within flood detention basins. Basins will be co-located with water quality measures, and will ensure peak flows from the site in the 1, 2, 5, 10, 20 and 100 year annual recurrence interval (ARI) are not increased.

By far the largest water flows and treatment requirements is anticipated to be in the "western catchment". Opportunities have been identified in the report to divert a significant portions of the runoff from the eastern catchment to the western catchment, to augment the cemetery's irrigation supply (thus reducing their potable water demand) as well as reduce the size of the flood detention basin requirements in the high value land near to Wallgrove Road.

In the western catchment, the wetland/detention area will be designed to accommodate revegetation that is complementary to the purpose of the zone and local flora communities. The principles of this will be documented in the detailed design of the basin, and include plant species appropriate to the likely hydrologic regime of the detention basin.

The preparation and approval of a detailed Stormwater Management Plan (SMP) has been included as a Commitment in Section 7

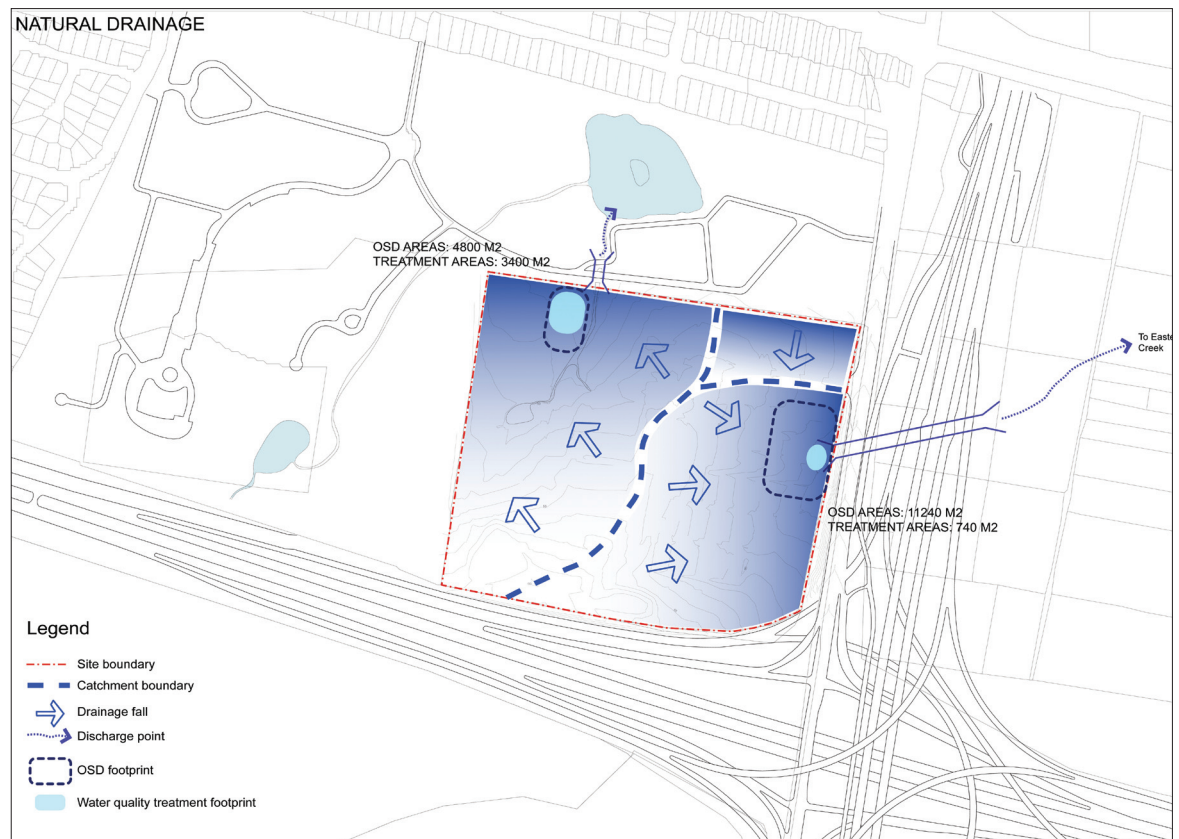


Figure No. 20: Figure 20 - Flow and Basins under Natural Drainage

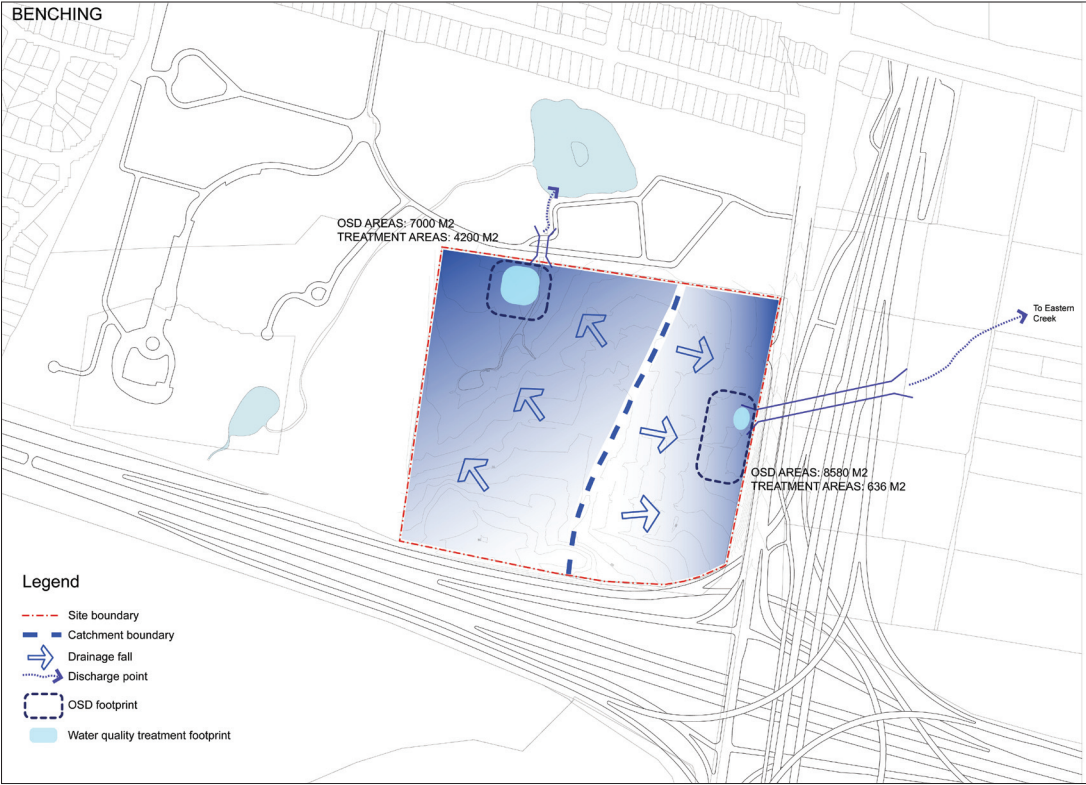


Figure 21 - Flow and Basins under Benching Option

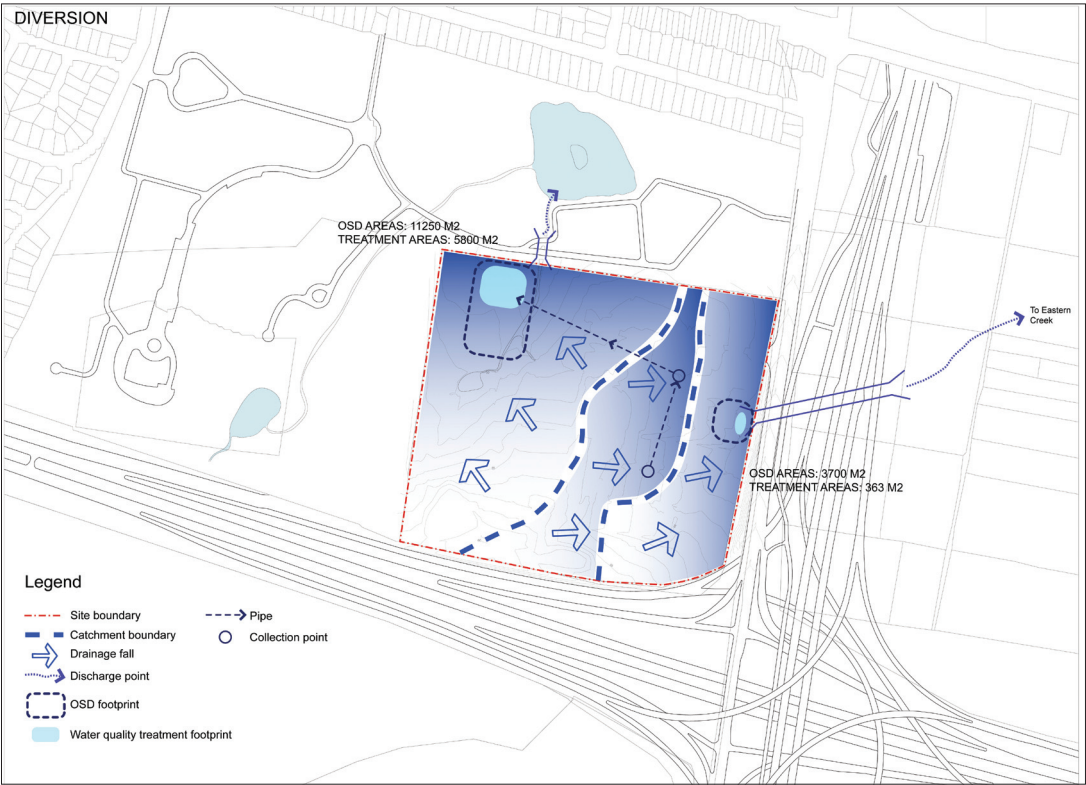


Figure 22 - Flow and Basins under Diversion Option



Figure 23 - Perspective of stormwater detention and treatment

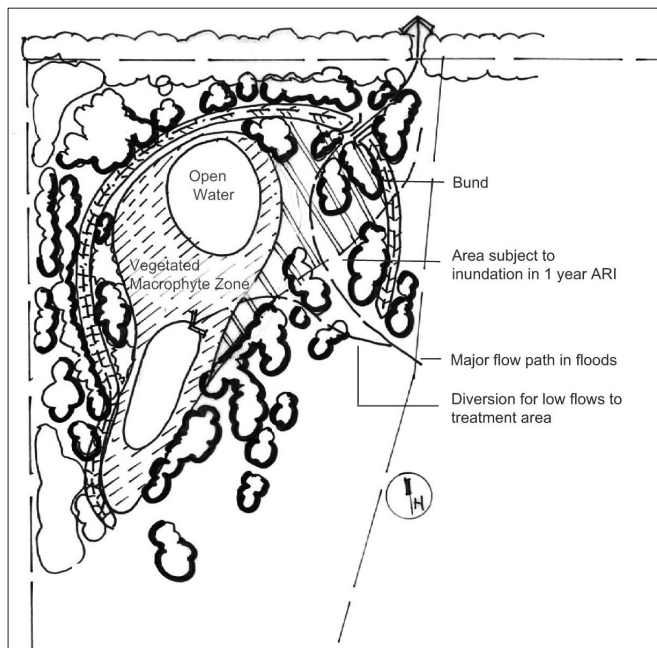


Figure 24 - Landscape concept for the western drainage basin

6.2.5 Sediment and Erosion Control

The site grades are gentle with slopes of typically less than 3%. Douglas Partners have reviewed soil profile in the locality and on-site evidence, and conclude there is no inherent risk of instability in the soils present on-site.

In this context, and with regard to experience on development sites elsewhere, risks can be addressed at construction stage using best practice control methodologies and techniques. It is therefore a commitment of this Concept Plan that Erosion and Sediment Control Plans (ESCPs) will accompany each project/development application involving excavation, soil handling or filling. The requirement for soil and erosion control during development is addressed in the Commitments in Section 7.

6.3 Traffic

The site adjoins key arterial roadways which have been significantly upgraded over the past 30 years to cater for regional traffic growth. Wallgrove Road, the M4 Motorway and M7 Orbital, and Great Western Highway are all multi-lane freeway or arterial standard roads that link the site to broad areas of the Sydney Region efficiently and effectively. Development of the subject site efficiently utilises existing high quality infrastructure.

Wallgrove Road is an existing 4 lane 70 km/h sub-arterial road adjoining the site that was upgraded to its current 4 lane configuration at the time of the construction of the Western Motorway in c1978. Most recent Annual Average Daily Traffic (AADT) data counts reveal that it carries 35,981 vehicles per day. The existing "seagull" intersection was developed soon after for the newly established Quarantine Station c 1980. Under current usage by the Quarantine Station this intersection retains a significant additional capacity to cater for increases in traffic flows to/from the site.

The traffic assessment (Appendix H) estimates that the MEP will generate up to 695 vehicle trips in the morning and afternoon peak hours, which is significantly higher than the current site related traffic flows (3-13 vehicle trips).

Analysis of existing flows on Wallgrove Road and traffic generated by the development, indicate that the existing "seagull" configuration to/from Wallgrove Road can be retained, and satisfactory traffic conditions can be maintained by installation of traffic lights. To minimise disruption to traffic flow in Wallgrove Road, the phasing of the lights can be co-ordinated to nearby lights at M4 off ramp/Wallgrove Road and Great Western Highway/Wallgrove Road to minimise disruptions to existing flow.

An analysis of the performance and function of the three intersections under existing and proposed conditions in the vicinity of the site have been modelled using SCATES software. The results of this analysis is shown below:

Table 13: Intersection performance - Existing and Developed Scenarios

	Existing		Proposed	
	AM Peak	PM Peak	AM Peak	PM Peak
Wallgrove Road / Great Western Highway				
Level of service	C	C	C	C
Degree of Saturation	0.68	0.76	0.72	0.81
Average Vehicle Delay	31.6	32.9	32.3	34.6
Wallgrove Road / Site Access				
Level of service	N/A	N/A	A	B
Degree of Saturation	N/A	N/A	0.49	0.68
Average Vehicle Delay	N/A	N/A	12.4	24.3
Wallgrove Road / M4 Eastbound Ramp				
Level of service	A	A	A	A
Degree of Saturation	0.67	0.59	0.70	0.63
Average Vehicle Delay	12.3	14.0	11.9	14.0

The results of the intersection analysis identify that at full development and upon installation of traffic signals, reveal that development of the MEP:

- will not discernibly affect the existing level of service, driver delay and operations of the two nearest signalised intersection to the site
- the proposed signalised intersection will operate with high levels of service and minimal vehicle delays

Note that the above analysis was made based on a number of assumptions that provide a robust analysis of impacts which are worth noting here:

- RTA traffic generation rates for warehouse and office areas were used
- at the highest yield site scenario for MEP (ie. 95,800M² GFA) was used for impact assessment
- A 15% office/85%warehouse split has been used, which is a much higher office ratio than most recent warehouse type developments in the locality, where office areas are around 5%
- Overall traffic generation rates equate to 36.5vtph (vehicle trips per hectare) whereas recent surveys undertaken by the consultants of comparable industrial estates identify that 15vtph is common (eg Nexus in Kurringong Road Prestons)
- Assumed higher rates of traffic generation, and site yields provide a substantial buffer to the assessment of traffic impacts

To minimise disruption to the flow of traffic on Wallgrove Road, it is recommended that the phasing of the proposed traffic lights are co-ordinated with the existing signalised intersection at the intersection of the M4 off-ramp/Wallgrove Road. This has been addressed in the draft Statement of Commitments in Section 7.

Parking and on-site manoeuvring have also been addressed in the Traffic and Parking Assessment Report (Appendix H) and demonstrate:

- that the existing intersection design safely accommodates B-Double sized vehicles turning into and out of the site onto Wallgrove Road
- the RTA parking rates adopted by the Urban Design Guidelines (in Appendix N) are appropriate based on recent empirical survey evidence

The above report concludes that there is no traffic and parking assessment impediment to the development of the site, and that multi-directional access to and from the site onto Wallgrove Road can be safely accommodated within the existing road network.

6.4 Noise

6.4.1 Preliminary

Approval is sought for 24 hours operation as part of this Concept Plan. A Concept Acoustic Assessment of the likely noise generated by the operation of the Minchinbury Employment Park has been undertaken by Wilkinson Murray Pty Ltd (Appendix I) to establish the relevant criterion for noise generation for future project/development proposal. The noise assessment was undertaken in accordance with the Industrial Noise Policy (DECCW).

6.4.2 Existing Noise Measurements

The Assessment included measurement of ambient noise for a 7 day period at residences nearby to the site:

- To the north of the site at the rear boundary of residences facing Eskdale Street (on the northern boundary of the cemetery) – 270 metres from the site boundary
- To the east of the site as a residence in Pikes Lane – 310 metres from the site boundary

Results of this monitoring were as follows:

Table 14: Measured Ambient Noise Levels

Site	Rating Background Level (dBA)			LAeq/Period (dBA)		
	Daytime (7am-6pm)	Evening (6pm-10pm)	Night (10pm-7am)	Daytime (7am-6pm)	Evening (6pm-10pm)	Night (10pm-7am)
A – Eskdale Street	49	52	48	56	56	53
B – Pikes Lane	50	54	50	58	58	54

With regard to the provisions of the INP to consider acoustic amenity and intrusiveness, in addition to considering short term sleep disturbance, and consideration of traffic noise criteria, the following specific noise criteria have been established:

Table 15: Project Specific Noise Criteria

Site	Area	Intrusiveness LAeq,15min			Amenity LAeq/period		
		Daytime	Evening	Night	Daytime	Evening	Night
A – Eskdale Street	Urban	54	57	53	55	46*	53*
B – Pikes Lane	Semi-rural	55	59	55	48*	48*	44*
C - Cemetery	N/A	50**	-	-	50**	-	-

* Based on areas with high traffic noise levels whereby amenity criteria become existing LAeq – 10 dB

** There is no acknowledged noise criteria for cemeteries, for comparison the INP recommends a noise goal of 50dBA for areas of passive recreation

With regard to the issue of sleep disturbance, the report notes the following:

Intermittent noises due to activities such as trucks starting and loading dock activities during the night-time period are not directly addressed by the Industrial Noise Policy.

There is no universally accepted criterion governing the likelihood of sleep disturbance. In other words, as the current level of understanding, it is not possible to establish absolute noise level criteria that would correlate to an acceptable level of sleep disturbance (for all or even a majority of people). The DECC recommends that, in order to minimise the risk of sleep disturbance from the operations during night-time operation that:

Sleep disturbance is assessed as the emergence of the LA1(1 minute) level above the LA90(15 minute) level at the time. Appropriate screening criteria for sleep disturbance are determined to be an LA1(1 minute) level 15dBA above the Rating Background Level (RBL) for the night-time period.

Accordingly sleep disturbance criteria of 63 and 65 dBA have been established for the Eskdale and Pikes Lane residences respectively.

6.4.3 Assessment of Operational Noise

Concept Plan approval is sought for 24 hour per day 7 days per week operation of the Minchinbury Employment Park. The following noise sources were used to model the potential for noise impact at the above surrounding receivers:

- > Fixed mechanical plant and equipment
- > Truck deliveries and movements
- > Loading dock activities; and
- > Traffic on surrounding roads

Site related noise emissions were modelled using "Cadna A" acoustic noise prediction software. Factors such as atmospheric and ground absorption, meteorological conditions, screening effects of buildings have been considered. Sound pressure levels for the above activities have been used ranging from 87 – 104 dBA for the above activities, as well as assumptions about operating activities during daytime and night-time operating scenarios. In assessing compliance with a noise goal at receiver location, the lower of "intrusive" and "amenity" criteria was adopted for the purposes of robust assessment. The following tables provide the assessment of the model with regard to the noise goal during daytime, night-time scenarios.

Table 16: Predicted Noise Levels at Receivers - Daytime

Receiver	Predicted Noise Level (dBA)	Noise Goal (dBA)
Eskdale Street Residences	39	54
Pike Lane Residences	38	48
Cemetery – Oakside Drive	39	50
Cemetery – Melville Drive	48	50

Table 17: Predicted Noise Levels at Receivers – Night-time

Receiver	Predicted Noise Level (dBA)	Noise Goal (dBA)
Eskdale Street Residences	39	43
Pike Lane Residences	38	44
Cemetery – Oakside Drive	-	-
Cemetery – Melville Drive	-	-

The review of the predicted daytime and night-time operating scenarios concludes that the resultant noise levels are well below established noise criteria at residences and the assumed amenity criteria for the cemetery. With regard to the latter it is also notable that noise at the cemetery will be below existing traffic noise.

6.4.4 Assessment of Sleep Disturbance

Based on past experience of loading dock activities, trucks, trolleys and roller doors tend to produce the highest noise levels. Reversing alarms and engine noise occur at the beginning and end of the loading dock activities and the entire loading/unloading procedure usually last less than half an hour. Sound power levels for these loading dock activities range from 93 – 110 dBA. On the assumption of no physical barrier between the northern and eastern boundaries of the site to the receivers' locations, the following summarises the predicted maximum noise level for residences:

Table 18: Predicted Maximum Noise Levels at Residences

Receiver	LA1 Noise Level	
	Calm condition	Temperature Inversion
Eskdale Street Residences	46	49
Pike Lane Residences	47	50

6.4.5 Plant and Operational Noise

Whilst these are not known in detail at this point, several design guidelines have been recommended to mitigate plant and operational noise from the Minchinbury Employment Park from reaching adjoining receivers:

- Plant noise level should be addressed at detailed design stage to not exceed established noise criteria
- Plant noise can be ameliorated by judicious placement behind building elements
- Acoustically lining of ductwork, walls, roofs and/or the use of ceilings in factories
- Louvres on building openings facing residences
- Operational noise can ameliorated by judicious location of openings or loading areas

With standard engineering treatments, the proposed development will not adversely impact upon the acoustic amenity of surrounding sensitive land uses.

6.4.6 Traffic Noise Impacts

The M4 and M7 networks provide ample opportunities for traffic generated by this development to be dispersed without any requirement to pass residential properties. The impacts of this development upon traffic noise levels is considered negligible.

6.4.7 Recommendations

The following are the recommendations to ensure acoustic impacts are properly managed in future development of the Minchinbury Employment Park:

- Site Specific Noise Criteria have been established for surrounding receivers. These criteria are considered appropriate for the surrounding areas and are in accordance with DECC objectives.
- The layout of the site facilitates the containment of noise generated by air conditioning plant, vehicles and loading activities by orienting the lots so that the future buildings are likely to shield any noise generated on site
- New facilities should orientate openings away from residences and the cemetery wherever possible or practicable
- Industrial facilities that are likely to generate high internal noise levels should be assessed in detail to determine whether additional treatment of the building is required
- Future development should be reviewed at Development Application stage to ensure that noise at surrounding residence are consistent with the finding of this report. Where necessary engineering noise controls should be incorporated in the design to mitigate any identified noise impact.

6.5 Urban Design & Landscaping

6.5.1 Urban Design Principles

The site occupies a strategic and visually prominent position at the intersection of 2 critical metropolitan traffic routes. Furthermore the site presently contributes to the ecological value and diversity of Western Sydney. Of paramount importance to ensure future development recognises this position and responds with high quality outcomes both that enliven the locality as well as showcase a high standard of urban design within a landscape setting suitable for Western Sydney, an Urban Design Report & Design Guidelines have been produced to accompany the Concept Plan.

The Report sets out the following "vision" for development on the site:

Ensure an integrated urban design approach that considers and resolves the site planning issues including subdivision layout, building configuration,

built form and appearance, internal road network, site access and manoeuvring and parking

Design a landscape approach that incorporates landscape design elements, signage and restoration of the Environmental Conservation zone, while managing site topography and level changes

Propose a water sensitive urban design approach that reduces demand for potable water, manages stormwater quality and protects waterway stability

Ensure urban design, landscape and building design integrates sustainability elements, including the incorporation of sustainable building design solutions and use of sustainable building materials

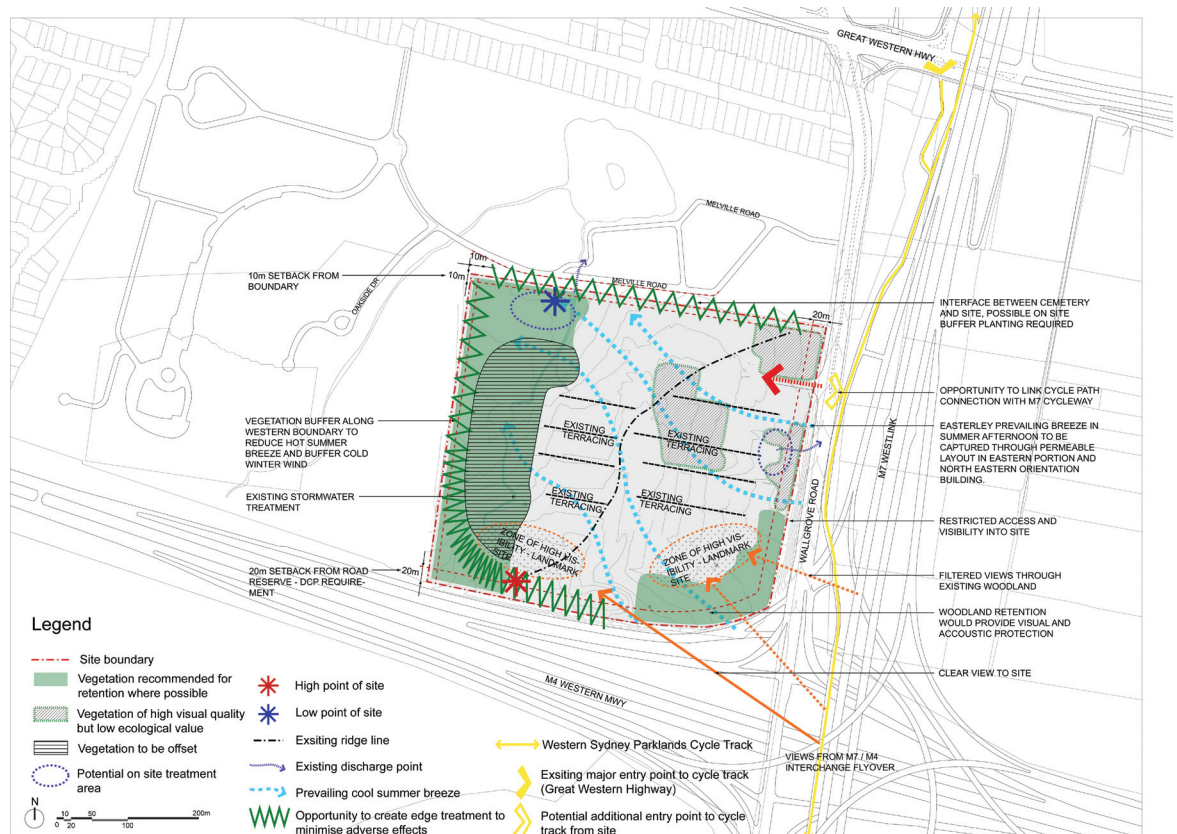


Figure 25 - Opportunities & Constraints

After reviewing an analysis of the site,, EDAW AECOM have set out the following Urban Design Principles for the MEP:

Function and Land Use Composition:

The preeminent feature of a high quality industrial development is a functional, "convenient", highly accessible and adaptable master plan. 60 Wallgrove Road, at approximately 20 hectares site area provides the opportunity to create a "boutique" though strategically significant employment precinct gateway. Good urban design principles and outcomes will ensure that through an innovative, site and fiscally responsive approach this will be delivered.

Common to all scenarios are the following features:

- The retention and augmentation of visually and ecologically significant vegetation in setbacks, buffers and around site drainage and retardation systems..
- The creation of a cell based, layered and diverse land use hierarchy.
- Development flexibility within each "cell" to respond to market forces and evolving development criteria.
- A range of development site sizes and "profiles" that respond the site opportunities and constraints - creating new precinct gateways, "landmarks" and "beacons".

Movement and Mobility:

A well designed Industrial site should provide an efficient and functional multi modal movement network, capable of accommodating a variety of Industry vehicles, with the potential for staged implementation. The development should also ensure a safe and convenient mobility network for pedestrians, cyclists and smaller vehicles.

This section comprises a series of descriptive Masterplans and typical sections that aims to illustrate the integration of each potential development scenario, and discuss landscape treatments for the site.

The strategically positioned site location at the intersection of the nationally significant M4 and M7 Motorways offers an unprecedented opportunity to develop a notable logistics based industrial estate.

Common to the three scenarios are the following opportunities for a "simple" yet fully integrated movement system, and include:

- Maintaining and improving the main entry point off Wallgrove Road.
- Upgrading the intersection alignment and traffic management at this location.
- Creating a defined and discrete "precinct" loop road directly servicing the individual development "cells".
- Minimising potential conflict by segregating vehicle and pedestrian movement.
- Adopting generous road reservations, in the order of 20-25 metres, which accommodate a range of users, including heavy and light service, commercial and cartage vehicle types.
- To provide shared pedestrian and cyclist movement within the precinct, and encourage connectivity to the M7 Westlink Cycle Path.
- Exploring the opportunity to create a pedestrian/ worker environmental [perimeter] loop network through the proposed conservation zones, of approximately 2Km in length.
- Ensuring modest slopes and gradients to all roadways to enable ease of use and convenient accessibility for heavy vehicles, and potentially B-Triples.

Environment, Sustainability and Open Spaces:

The masterplan for development should adopt environmentally sustainable urban design outlook which retains and enhances the sites' existing notable characteristics, whilst introducing new initiatives for water management and energy use reductions. The open space arrangement of the development should provide a platform for an integrated master plan where the landscape and built form provide a balanced and cohesive outcome.

Common to the three scenarios are the following opportunities to create an

environmentally sensitive, sustainable and visually integrated development plan.

- Embracing the existing site drainage system and remnant vegetation at the north-western boundary to establish an wetland treatment zone and stormwater detention area for the site that makes use of the existing depression and stormwater outlet..
- Maintaining important perimeter vegetation particularly at the motorway interchange.

- Ensuring the creation of a landscape buffer and visual screen to the existing cemetery interface.
 - Minimising site excavation and re-profiling, by responding to the established topography and working with the site slope rather than against it..
 - Adopting a layered landscape response, with varying vegetation types and densities which ameliorate harsh climatic affects, whilst creating an innovative and visually cohesive master plan.
 - Incorporating Water Sensitive Urban Design practices for management and retardation of stormwater and to eliminate adverse off-site impacts.
 - Exploring the potential to retain other "pockets" of existing vegetation within the site.
 - Creating an unified streetscape and public realm through the integration of on-street, frontage setback and more naturalised "cluster" landscaping that "associate" the industrial land with the environmental land.
 - Creating an arrangement of development "cells" suitable for flexible building orientation responding to the climatic conditions of the site such as aspect and prevailing winds.
- streetscape/public domain composition, with the ability to vary frontage setbacks, whilst ensuring "activated" frontages.
 - Generally unified building heights in the order of 15-20 metres
 - Specific and site responsive interface treatments to all boundaries ranging from the creation of suitable setbacks, appropriate building siting and a unified landscape treatment.
 - The creation of a precinct gateway, at the point of entry, with visually dynamic architectural expression and composition
 - The response to the site characteristics and substantial exposure to the motorways, in particular, to create a variety of building form outcomes, some highly 'animated' and of visual interest along the southern and eastern edges.
 - The potential where appropriate to provide an articulated and potentially "sculptured" roofscape.
 - incorporate stormwater detention and treatment close to the existing outlet.

Urban Form and Architectural Expression

The masterplan should introduce a development model that creates a distinctive character in response to contextual and site attributes, taking advantage of the excellent visual exposure of the site to major national highways. The site has no neighbouring development or immediate built form context and therefore has the opportunity to employ robust and contemporary architectural form within a high quality landscape setting. This, combined with the small 'boutique' nature of the development site allows for the inclusion of some diversity and visually dynamic buildings within the constraints of the guidelines.

The common elements to the three scenarios include:

- The creation of a development reflective of its' outstanding context and site attributes and features.
- A "central" or loop type road, which immediately establishes and defines the "feel" and character of the public realm throughout the development.
- An articulated and modulated, landscape dominant

6.5.2 The Masterplan and alternate scenarios

EDAW AECOM have applied these principles to 3 development scenarios being:

- The Masterplan - Small to Medium Lot Subdivision (av 6,956m², range from 4,017 – 20,037m²);

and additional scenarios:

- Medium Lot subdivision (av 18,020m²)
- Super lots subdivision (av. 38,320m²)

These scenarios are illustrated in figures 13-15 above (in Section 3).

The Masterplan (aka Scenario 1) has been predicated on market perceptions of 4,000m² being the smallest site area that is feasible or commercially efficient in the Eastern Creek locality. The intent of the subdivision layout is however to allow consolidation of lots to form sites in excess of 10,000m² where required, and provide for larger 'landmark' development of key locations

Analyses of the yields arising for development of the site under these three scenarios follows:

Table 21: Analysis of Site Yields under 3 development scenarios

Land Use	Area (Ha)		
	The Masterplan	Scenario 2	Scenario 3
Total	17.39 (79.5%)	18.02 (82.4%)	19.16 (87.6%)
Developable area	2.49 (11.4%)	2.16 (9.9%)	1.35 (6.2%)
Road Reserve	1.99 (9.1%)	1.69 (7.7%)	1.36 (6.2%)

The above analysis identifies that net developable area on the site will amount to between 17.39 -19.16 hectares on the site. Assuming a conservative site yield of 50%, anticipated floorspace for the Minchinbury Employment Park will be approximately between 86,950 – 95,800 m², with higher figures only possible with greater office area components.

Another key purpose of this analysis has been the identification and testing of the empirical development controls included in the Design Guidelines (as described in Section 4 above and in Appendix N).

6.5.3 Urban Design Guidelines

Urban Design Guidelines for the MEP have been prepared by EDAW AECOM and included in Appendix N. These guidelines are intended to inform developers and authorities of the urban design and development controls that apply to the site. Future development proposals will be required to consider these guidelines pursuant to section 75P(2)(a) of the EP & A Act 1979.

The standards adopted in the Guidelines are generally consistent with those in the Blacktown DCP 2006 and the Eastern Creek Precinct Plan. Variations have been proposed to address specific issues on this site (eg landmark sites or encouraging high technology/office type uses, minimum lot size to maintain large sites), or to adopt controls that are sourced from industry standards (eg parking rates). A summary of key standards is contained in section 3.5 of this planning report.

The Guidelines generally are structured to enable its use in the form of a DCP or similar document, and addresses the following matters:

- Site Planning (Subdivision Layout, Internal road network, Site Coverage, Building Height and Building Form)
- Access, Movement and Car Parking (Site access and Maneuvring, Car Parking)
- Building Configuration (Sustainable Building Design, Sustainable Building Materials, Building Appearance, Signage)
- Landscaping (Landscape Design, Site Topography and Management of Level Change)



Figure 26 - Building Height Control in the MEP & Key Sites

6.6 Air Quality

6.6.1 Dust Emissions

It is a commitment of this Concept Plan (refer Section 7) that dust emissions arising from construction activities will be mitigated through imposition of dust control measures, including:

- Covering of truck loads of soils that enter or leave the site
- Damping of dust prone areas
- Stabilisation of areas which are exposed for significant periods through revegetation or other applied treatments
- Use of Hessian or similar dust netting around the site perimeter

6.6.2 Emissions during Operation

The main source of air emissions associated with the operation of the Minchinbury Employment Park are likely to be as a result of vehicle and plant emissions. These emissions are considered to represent a negligible concern to regional air quality because:

- Employment land is efficiently located in close proximity to regional road infrastructure
- Reliance on private vehicles will be reduced through provision of footpaths/cycleways and bus stops in close proximity to the site (refer commitments in Section 7)
- Warehouses and clean-research based operations, which are anticipated to be the predominant form of development attracted to the site, typically involve little if any discernible emissions
- Detailed considerations of air emissions can be addressed at development/project application stage

6.7 Greenhouse Gas Emissions

6.7.1 Regional Planning & Commitments

Sustainability incorporates principles which inherently lead to reductions in greenhouse gas (GHG) emissions. A sustainability Report for the proposed Minchinbury Employment Park has been prepared by AECOM Australia and is included at Appendix J.

A key consideration of this issue at Concept Plan stage is considering the land use and broad development guidelines for future development on this site rather than detailed building design.

It is worth noting that the land use proposal which is central to this Concept Plan is itself an outcome of a sustainable strategic planning policy which seeks to:

- cluster employment lands within easy proximity to regional road routes and central to population catchments in order to reduce Vehicle Travelled per Kilometre (VKT) per person per day and maximise utilisation of existing infrastructure – *both of which have positive greenhouse gas outcomes in comparison to alternative locations which require upgraded infrastructure &/or are distant to population catchments*
- provide efficient freeway standard transport access to key metropolitan economic drivers such as Port Botany and Sydney Airport
- provide for a large cluster of employment land to provide for critical mass in service provision and operational efficiencies

(refer to “Economy and Employment” within the North West Subregion draft Subregional Strategy)

Commitments have been included to reduce the potential for private vehicle usage through access to the site by pedestrian, cyclists and public transport. These have been outlined in Section 7 of this report.

At Concept Plan level individual building designs are not resolved and it is appropriate to establish guidelines and considerations to be considered to facilitate sustainable building design, which will lead to reduced greenhouse gas emissions compared to the alternative scenarios. These are described in section 6.6.2 – 6.6.4 below.

6.7.2 Microclimate (wind, solar access)

Adverse wind and solar directions are principally found to the south west to northerly directions. Consequently minimisation of building openings and glazing is recommended in those general directions. Buildings should ideally be oriented to allow south, east and south-easterly winds to flow through the site, and areas with typically sedentary use, such as outdoor recreation areas, patios, and glazed areas generally should be oriented towards the east and south east. The environmental conservation area provides a substantial westerly buffer to windows and low sunlight in summer, and this should be augmented by additional screening in the south-western corner of the site. Landscaping in the public roadway should consider microclimatic effects, and to create pleasant shading to enhance pedestrian and occupant comfort.

6.7.3 Sustainable Building Design

This incorporates the use of design principles that lead to reducing demands on energy usage and therefore greenhouse gas emissions. While not intended to be exhaustive nor prescriptive, these may include:

Building orientation

- orient glazed portions of buildings to the north and/or east wherever possible or practicable supplemented by external shading devices where appropriate/necessary

Natural ventilation

- designing for ventilation sourced from easterly and south-easterly winds

Active energy conservation

- mechanically service only the areas that require thermal control; use of energy efficient HVAC systems and controls; zoned lighting controls and motion sensors; use of photovoltaic systems;

Materials selection

- minimising or avoiding use of products produced with high carbon emissions, including aluminium (1kg/18.6 kg CO₂e), bitumen (1kg/0.66kg CO₂e), and materials that absorb heat (for example dark coloured materials)

6.7.4 Assessment of Greenhouse Gas emissions in Future Projects on-site

It is clear there are numerous ways to provide for sustainable development on this site. Whilst no one solution is preferred it is recommended that future project/development applications be accompanied by detailed energy assessments that quantify anticipated resource savings based on each individual proposal. Compliance of those future proposals to certain target numbers is not recommended until such time as broadly adopted goals are adopted or legislated (for instance in the SEPP or BCA) to ensure the Minchinbury Employment Park can be delivered in an feasible and cost efficient manner in relation to other industrial and employment estates.

It is notable that this precinct is relatively modest in comparison to other precincts within the Hub, and is located in close proximity to existing or planned public infrastructure. In this context resource savings are most likely to be generated by active systems and the use of passive sustainable development principles in individual project designs and the subdivision layout. It is a commitment of this Concept Plan that such strategies and goals are considered in detailed design of future projects in the Minchinbury Employment Park.

6.8 Flora & Fauna

6.8.1 Flora & Fauna Surveys

Flora surveys were conducted between 16-20 February 2009 and additional searches conducted on 15 May, 22 July and 12 November, and involved quadrat sampling, random meander, meander transect survey, and targeted threatened species search for threatened species previously recorded in the Blacktown LGA.

Fauna surveys were undertaken onsite, including a habitat assessment which considered important indicators of habitat condition and complexity including the occurrence of microhabitats (such as tree hollows, fallen logs, bush rock, and wetland areas such as creeks and soaks). An assessment of structural complexity, age structure of vegetation, canopy extent and extent of understorey, and flowering characteristics, was undertaken. Fauna surveys were conducted where possible to comply standards provided in DECCW's "Threatened Biodiversity Survey and Assessment Guidelines for Development and Activities" (2004), and featured use of hair tubes; spotlighting, call playback, bat survey, and incidental observations.

The results of the flora surveys revealed the following:

- The site is currently used for the Quarantine Station and has been modified as a result of past actions.
- All vegetation on the property is actively managed and the majority of the site is mown. Given the historical use of the site and current management actions, the native woodland consists of relatively young, even aged trees with heavily altered understorey.
- Woodland vegetation on-site comprises 4.01 hectares and is dominated by *Eucalyptus moluccana* (grey box) and *Eucalyptus tereticornis* (Forest Red Gum), which are consistent with the dominant canopy species of the Cumberland Plains Woodland community – an endangered ecological community (EEC) pursuant to the Threatened Species Conservation Act 1995
- Open forest vegetation on-site comprises 0.73 hectares and is dominated by *Melaleuca decora*, which is consistent with the dominant canopy species of the Shale Gravel Transition Forest - an endangered ecological community (EEC)
- Forest vegetation on-site comprises 0.35 hectares and is dominated by *Casuarina glauca* (Swamp Oak), which is consistent with the dominant canopy species of the Swamp Oak Floodplain Forest - an endangered ecological community (EEC)
- No threatened species of plants occur on site and none are expected to occur
- Other vegetation in proximity of buildings are introduced and non-indigenous species
- There are few tree hollows and there is no substantial fallen timber remaining as habitat for wildlife.
- Over 80 flora species were recorded on-site, 30 were exotic (2 of which are declared noxious weeds), and 53 species which were native

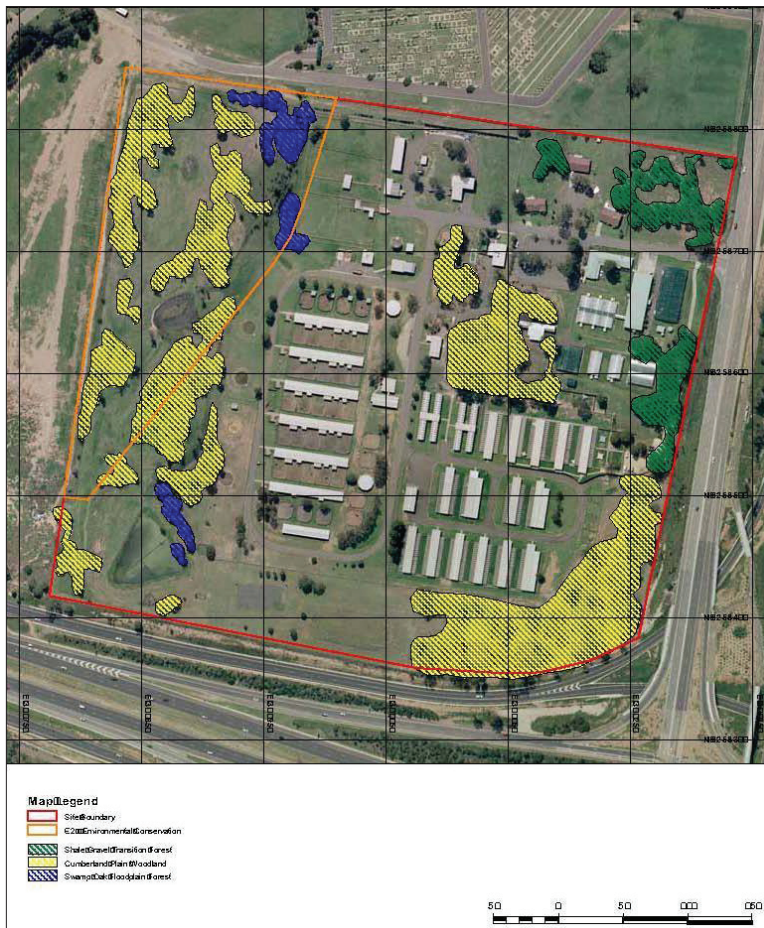


Figure 27 - Ecological Communities on the Site

With regard to fauna survey results it is noted that a total of 34 fauna species were recorded on the subject site, including 4 frog, 26 bird, 2 mammal and 2 reptile species. The fauna species observed on the subject site were largely common urban birds, such as the Magpie-lark (*Grallina cyanoleuca*), Australian Raven (*Corvus coronoides*) and the Noisy Miner (*Manorina melanophala*) and a number of common frog species like Common Eastern Froglet (*Crinia signifera*) and Striped Marsh Frog (*Limnodynastes peronii*).

Only one threatened fauna species was recorded on the subject site. Large-footed Myotis (*Myotis macropus*) was recorded from a single recording on the Anabat unit.

The site generally offers poor habitat for fauna as the vegetation is low in density and the vegetation structure is simple with low complexity. Evidence of European Rabbit (*Oryctolagus cuniculus*) is found within the back paddock along the western and southern boundaries of the subject site. Some level of control of rabbits is currently been undertaken on the subject site.

The remnant vegetation on the subject site is much altered from its original condition and form, with the regular maintenance of the understorey limiting the development of the shrub and ground strata.

Since the understorey is mown, there is little opportunity for the establishment of threatened forbs and shrubs and little protection for ground-dwelling or ground-foraging fauna. The canopy connection across the site is low and patches of remnant areas of vegetation are separated by large, cleared areas of grass and/or outhouses and enclosures.

6.8.2 Impact Assessment

The proposal provides for development across the entire site. This requires the removal of all EEC existing on the site

Based on survey and literative data, condition of habitat, and current management practices, there is however no anticipated impact upon threatened fauna..

The following table summarises the impacts of the development upon the EEC's present on-site:

Table 19: Areas of Vegetation to Cleared, Retained and Revegetated

Vegetation Communities	Total Area on site (Ha)	Area to be cleared (Ha)
Shale Gravel Transition Forest	0.73	0.73
Swamp Oak Floodplain Forest	0.35	0.35
Cumberland Plain Woodland	4.01	4.01
Total Area of vegetation on site	5.10	5.10

6.8.3 Design Concept Justification

The proposed clearing of the site is the result of analysis of the two feasible options for conservation of biodiversity related to this site: In situ conservation and offsetting.

In Situ conservation was the default approach considered initially for this site, however its flaws in this case are significant and include:

- The retained community would be relatively small (ie between 4-6 hectares) and have high maintenance costs due to high edge to area ratios (weed control), and small size making it difficult to maintain as a self-sustaining community
- The absence of connectivity to larger woodland communities due to surrounding land uses, limits the scope for improvement to local biodiversity, and of little value with regard to regional biodiversity
- The community exists in a degraded form and would require significant investment and management resources to bring it up to a suitable standard and maintain it thereafter
- The public benefit and value of the site is heavily weighted towards its unique and strategic position astride the M4 and M7, two of the most significant transport routes in the metropolitan region – which has been reflected in the recent rezoning of the whole site to IN1 General Industrial under the SEPP (WSEA) 2009
- The conservation of 27% of the site' development potential in such circumstances is not considered to be in the public interest, particularly where "offset" options are available and have merit.

The second option considered was offsetting. Offsets can be divided into two approaches: land purchase (ie to achieve a suitable offset ratio) and vegetation management, or, Biobanking.

A Biobanking Assessment Report has been prepared by Cumberland Ecology and is annexed to the Flora & Fauna Assessment at Appendix K. This assessment includes a Credit Report prepared in accordance with DECCW's "Biobanking Assessment Methodology and Credit Calculator Operational Manual" (March 2009). This assessment reveals that the total number of credits on the subject site is 76 (CPW 60, SOFF 5, SGTF 11). Relatively speaking this is not a large number of credits, compared to development sites in Western Sydney have credits assessed to be in the 100s or even 1000s.

In this case Biobanking appears to provide the superior outcome for the following reasons:

- Offset ratios are unclear and difficult to apply objectively. Furthermore offset "sites" are unlikely to offer a neat fit to the ratios that will be necessary, thereby potentially resulting in an unreasonable burden upon future development in the MEP.
- The retirement of Biodiversity credits can occur under the formal Biobank Scheme. This scheme involves the assessment of Biodiversity credits and the trading of those credits in an open market environment. The dealing in credits enables an efficient and accurate assessment of liability, and offers the ability to purchase at market value the necessary credits from a range of registered holders of such credits.
- Biobank registered sites, are likely to be larger in area and possess regionally significant numbers of credits and thus be of significant regional value. The notional transfer of the modest number of credits occurring on the MEP site (assessed at 76) to another larger regional site, offers the potential to consolidate regional biodiversity values in appropriate positions where community scale and edge ratios are far superior to those possible on the MEP site.
- The Biobank Scheme offers greater accessibility and flexibility as no land purchase and management is necessarily involved

Whilst this scheme offer an objective approach for offsetting loss of biodiversity, the availability of credits for "purchase" is a relevant consideration in the progress of the MEP development. Progress has been made to assess what is coming up onto the biobanking market. This review and research has been undertaken in consultation with DECCW. The following quote by Cumberland Ecology however summarises the current position:

"Whilst no credits are available at present for Cumberland Plain woodland, Shale Gravel Transition Forest and Swamp Oak Floodplain Forest, the option to purchase the appropriate credits appears to be imminent. The current risks with the Biobanking pathway of offsetting is firstly, that there is no information at present regarding how much credits will cost. This is simply due to the novelty of the scheme. Despite this, the condition to retire credits can still be incorporated into the statement of commitments to guarantee that credits are purchased and retired prior to commencement of development on the subject site."

Such a commitment is included in Section 7 of this report.

On this basis it can be concluded that the biodiversity values present on the site have been properly evaluated, options considered, and a process identified which conserves biodiversity in a manner consistent with the public interest.

6.9 Aboriginal Heritage & Archaeology

6.9.1 Preliminary

An Assessment of Aboriginal Heritage, including consultation and field survey work with 5 local Aboriginal groups, has been undertaken over the site. The report has been prepared with regard to the Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation, including accompanied field survey and reports from the representatives of the following five (5) local Indigenous community groups:

- > Deerubbin LALC
- > Darug Tribal Aboriginal Corporation
- > Darug Custodian Aboriginal Corporation
- > Darug Land Observations
- > Darug Aboriginal Cultural Heritage Assessments

6.9.2 Predictive Assessment of Potential Archaeological Deposits

The report assessed the “predictive” basis for assessments of Aboriginal cultural values and the likely archaeological deposits on the site. This assessment revealed the following:

- > 46% of the site (10.49Ha) has suffered high land use impacts; 42% (9.47Ha) moderate land use impacts; and only 12% (2.8Ha) low land use impacts
- > the Cumberland Plain is an aggrading environment where artefact deposit are typically buried over time
- > assessment of land use impact is an important tool in assessing the potential for “in situ” artefact finds
- > the presence of surface artefacts are not strongly linked to likelihood of finding sub-surface deposits
- > the area on the south-east part of the site has been found to have suffered the least disturbance over time



Figure 28 - Map showing Areas of Disturbance on Site

6.9.3 Field Survey Results

As a result of the field survey work in conjunction with local Indigenous representatives, a total of seven surface artefacts being located in six (6) deposits on-site. No Aboriginal scarred trees were found on-site. These finds suggests, in the context of a low level of surface visibility (due to grass covering and leaf litter), that there is a:

"...high likelihood of further artefacts occurring here is relatively undisturbed condition"

The artefacts founds recorded as follows:

Table 20: Summary of Finds – Aboriginal Artefacts

Site Name	Site type	Topography	Raw Material	Type	Artefact Dimension	Land Use impact zone
Q1	Open site	HS	Silcrete	Distal flake	22 x 10 x 15	L
Q2	ISF	HS	Quartz	Flake	10 x 12 x 9	L
Q3	ISF	HS	Silcrete	Angular fragment	30 x 20 x 12	M
Q4	ISF	HS	Silcrete	Distal flake	12 x 13 x 7	L
Q5	ISF	HS	Chert	Distal flake	13 x 10 x 5	L
Q6	ISF	HS	Silcrete	Angular fragment	27 x 27 x 23	L



Figure 29 - Artefacts Found On Site

6.9.4 Assessment of Archaeological Significance or Potential

Figure 25 above indicates where there is “good potential” for archaeological finds (ie Zone 1 or the areas of least disturbance), “moderate potential” (ie Zone 2), and “low potential” (ie Zone 3 or the areas of most disturbance).

It is also noted that the site contains two regionally significant resources of high cultural value landscapes being:

- The remnants of a first order stream, on the eastern periphery of the site
- Shale hillslopes

However due to past actions land clearing etc, it is concluded that these site do not warrant conservation, but do warrant being a part of an archaeological mitigation programme within the development. The cultural, public and scientific significance of the sites have been assessed by the consultants and the local Aboriginal community representatives to be:

Cultural: (summary of conclusions of Aboriginal groups' correspondence):-

- Support the finding and recommendations of the consultants
- Reinforce the value of the parts of the site which had suffered least disturbance and are associated with former creek environments (Zone 1)
- Do not oppose the development proceeding subject to appropriate supervision and monitoring of top soil removal
- Further consultation with Aboriginal groups is warranted to determine procedure for reburial and further investigations on-site

Public:-

- is assessed as being generally low on the basis of their poor surface manifestations. Open sites are extremely difficult to appreciate by a lay-public due to the “invisibility of the evidence present

Scientific:-

- A ranking of archaeological potential is made based on landuse mapping, localised disturbance and the predictive model.

6.9.5 Recommendations

With regard to site redevelopment and further investigations that are warranted the assessment includes the following recommendations:

- *Several small areas are identified as having higher archaeological value (Zone 1) although these are not assessed as having overall conservation value. The entire study area should be considered to be developable (on archaeological and Indigenous heritage grounds);*
- *An Aboriginal Heritage Management Plan should be devised based on the results of this investigation and the views of the Aboriginal groups. This AHMP will identify a meaningful management strategy for Indigenous heritage within the subject land. The AHMP should develop a salvage programme based on the salvage of a target area in the east paddock (zone 1 and where three of the six sites were identified);*
- *The development of the AHMP should involve the Aboriginal community and regulators, and the Aboriginal community should be involved in the salvage excavations;*
- *Zones 2 and 3 have low archaeological potential and should be considered as developable, with no requirement for further archaeological investigation in these areas;*
- *Once the AHMP has been agreed upon and the research methodology approved for a salvage locations, a sign-off from DECC NSW should be sought in accordance with Part 3A development conditions (in the manner of a ‘whole of development Section s87/90 Permit’ under the usual heritage procedures as defined by the NPW Act 1974 as amended).*

6.10 Heritage

6.10.1 Preliminary

An assessment of the site's European heritage and archaeological potential has been undertaken. This assessment was undertaken with regard to the NSW Heritage Manual "Assessing Heritage Significance". Field survey and observations, as well as literature reviews, were undertaken to understand the significance of the site, and to record any areas of significance and to provide a sound basis for recommendations to yield a statement of significance of the site, provide recommendations for further investigations (where warranted) and the undertaken of development works.

6.10.2 Historical Occupation and Land Use since 18th Century

The site was part of an original land grant of 60 acres made to William Brown in 1818, which in 1831 was subsumed into the adjoining much larger landholding of William Minchin, which was in excess of 1,000 acres. While the Minchinbury Estate was associated with early wine-making, the subject site appears to have not been used for this purpose and was most likely used for grazing purposes.

In October 1941 the Commonwealth Government acquired 483 acres (195,463 hectares) for the establishment of an Army Camp, with £12,112 the price paid for the whole land, of which the subject site was at its most northerly end.

Whilst the establishment of the Camp soon after led to the development of numerous buildings and formed roads, including military huts, administration buildings, a post office, electricity supply, and a hospital block, it is clear from historical sources that the greatest proportion of the camp was located outside of the site area, typically to the south in the location of the former Wonderland amusement park (on the southern side of the present M4 Motorway).

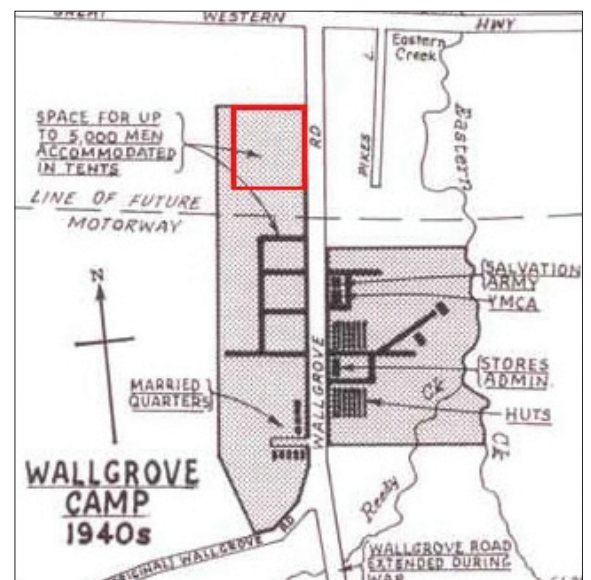


Figure 30 - Area Resumed by Commonwealth in 1941

There is no record of any permanent structures which were notable elements of the Camp being erected upon the subject land. An initial report that the site had been part of an Army Grenade range (see DASCEM report in Appendix F) this has been investigated by consultants who have consulted Department of Defence records, undertaken field surveys, and reviewed aerial photography, and conclude that the grenade range was in fact not on the site at all.

By the 1950s the Wallgrove Army Camp was modified and reused as the Wallgrove Migrant Hostel, one of a number of hostels around Sydney for new post war migrants, many of whose first experiences of life in Australia was of the Wallgrove Camp. A 1952 sketch of the Wallgrove Camp reveals that the subject land was not in fact used as part of the Hostel. The majority of the former Camp and Hostel is now occupied within the Wonderland site and the M4 / Wallgrove Road roadworks, with no direct evidence of the past use of those sites.

By 1978 the Commonwealth Government had resolved to establish a new animal quarantine station on the subject land, which was developed and operational by 1980. In 1980 the Station comprised 591 rabies proof dog kennels in twenty individual blocks, 144 cat cages in two blocks and 90 prefabricated stables in six separate rows – with associated exercise yards and covered round-yards. Other facilities of the animal quarantine station included three larger open yards with an associated crush for emergency group quarantine accommodation. Special features include an air-conditioned surgery within the animal compound, a block of six temperature controlled horse stables and a special horse crush. The prefabricated stable walls were constructed of laminated wood covered with metal. The Station included an administrative building, services buildings, an amenities block and horse grooms accommodation as well as three houses for senior staff. In 1981 a Queen Bee quarantine facility was erected on the site. In 1998 plant quarantine facilities were developed on the site, which included an additional brick administration building, a shed, and several greenhouses.

It has been concluded by Cityplan Heritage that the establishment of the quarantine station and its use has resulted in the removal of any relics or remains of the former (Army Camp or Migrant Camp use) on the site.

Two potential relics have however been located at the southern periphery of the site. In Area A, pieces of fencing wire were photographed, set into trees at a consistent height of approximately one metre. In Area B the presence of some broken asphalt slabs and a pole set into cement along with the remains of cement posts containing large pieces of blue metal aggregate were lying in a bushy patch of uneven ground in the southwest boundary area of the site.

The consultants recommend that further archaeological recording be undertaken of these two locations. This has been included as a draft Commitments in Section 7.

6.10.3 Statement of Significance

The heritage significance of the site can be summarised as follows:

- the significance of the site is related to its former use as part of the Wallgrove Army camp during the 1940s-1970s, however the site has been altered so that there is no provide evidence of a particular association.
- There is no relationship of the site to a significant person or persons
- The social value of the site has been largely compromised by the removal of all previous structures associated with the Army Camp or Migrant hostel
- The buildings and structure present on the site present no architectural or technological value, no relationship to local culturally significant values or past use of the site
- The evidence suggests that the subject site may at best been typically used for temporary "tent" accommodation

6.10.4 Conclusion

The areas of the site where the quarantine station has been established is considered to have low potential to yield information on the former Army Camp use of the site, and the existing quarantine station buildings have low heritage value. The unused "back paddock" areas, particularly along the southern boundary with the M4 warrants further investigation, however field surveys have revealed little direct evidence. The recommendations of the report are:

- The observed relics should be further investigated to ascertain what if any relationship they have with the former Army Camp, and recommendations made prior to their removal (where required)
- Photographic recording of existing structure prior to their demolition
- Appropriate Heritage Interpretation can be achieved either on-site or within an internet site, or contribution to local collections of the study, follow-up archaeological studies, and recording of the site

6.11 Waste Management

6.11.1 During Construction

Waste management during construction can be adequately addressed as part of the documentation associated to the works proceeding. It is a commitment of this Concept Plan that a Waste Management Plan prepared in accordance with current industry best practice, be prepared prior to the commencement of any construction or demolition works on-site, and it be adhered to during construction.

6.11.2 Operational Phase

The site offers excellent access to regional road networks and therefore can be anticipated to most attractive to logistics or warehousing type operators, or others who will take advantage of the potential landmark qualities of the site. In this context it is considered unlikely that future development will locate on this site which will generate significant waste or emissions (for example arising from processing facilities). It is noted that hazardous or offensive industries or storage establishments are not permitted on this site.

At this Concept Plan level the matter of waste management can be reasonably left to the project/development application phase where impacts can be properly assessed and quantified and measures proposed to ensure compliance.

/// 7 DRAFT STATEMENT OF COMMITMENTS



7 DRAFT STATEMENT OF COMMITMENTS

No.	What	Commitment	Who	When
General				
1.	Compliance with approvals, reports, guidelines etc	<p>1.1 Compliance with Concept Plan Future developers on the site must comply with all conditions of consent, and be generally consistent with this Concept Plan.</p> <p>1.2 Future Development to be consistent with the Urban Design Guidelines Future development will be assessed with regard to compliance with the objectives and development controls outlined in the Urban Design Guidelines prepared by EDAW AECOM Relevant provisions refer to:</p> <ul style="list-style-type: none"> > Site Planning > Access, Manoeuvring and Car Parking > Building Configuration > Landscaping > Stormwater Management <p>1.3 Future Development to be consistent with the Water Sensitive Urban design (WSUD) Report Future development will be assessed with regard to compliance with the objectives and development controls outlined in the WSUD Report contained in Appendix G to this report.</p> <p>1.4 Future Development to be consistent with the Sustainability Report Future development will be assessed with regard to compliance with the objectives and development controls outlined in the Sustainability Report contained in Appendix J to this report.</p>	Afteron Ltd & successors in title, future developers	Ongoing
2.	Commitment to minimise harm to the environment	<p>2.1 Minimise Harm to the Environment Afteron will implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction of the development.</p>	Afteron Ltd & successors in title, future developers	Ongoing

No.	What	Commitment	Who	When
Environmental Protection				
3.	Soil and Water	<p>3.1 Sediment & Erosion Control During construction, all reasonable measures will be undertaken to minimise soil and erosion control and discharge of sediment from site to downstream land.</p> <p>Plans will be prepared for approval of the relevant consent authority in accordance with Part R of the Blacktown Development Control Plan 2006; and Managing Urban Stormwater: Soils & Construction (Landcom).</p> <p>Regular checking and maintenance will be undertaken to maintain effectiveness of measures.</p> <p>3.2 Salinity A Salinity Assessment and Management Plan will be prepared for approval by the Director General prior to commencement of works on-site, and adhered to during works on-site.</p> <p>3.3 Stormwater Management Stormwater Management Plan (SMP) for the MEP, consistent with the WSUD strategy, will be prepared for approval by the Director General to address the detail design parameters for civil engineering design of the proposed basins, and during subdivision works and drainage works. This plan will also be implemented during the development of individual sites.</p> <p>Runoff to be controlled on-site and treated to satisfy relevant BCC and industry standards, achieving the following outcomes:</p> <p>A. Runoff water quality will be treated on-site to satisfy or exceed the following pollutant reduction targets:</p> <ul style="list-style-type: none"> ➤ Gross Pollutants – 90% ➤ Total Suspended solids (TSS) – 85% ➤ Total Phosphorus (TP) – 65% ➤ Total Nitrogen (TN) – 45% <p>B. On-site detention will be provided to ensure there is no increase in peak flows or flooding in either catchment for runoff from events of 1,2,5,10, 20 or 100 year annual recurrence interval (ARI)</p> <p>Trunk runoff infrastructure to be designed and maintained to industry and authority standards for an agreed period prior to dedication to Council – in the event of subdivision of the site.</p> <p>3.4 Contamination A targeted Phase 2 Environmental Site Assessment shall be undertaken and submitted for approval by the Director-General. Where contaminants are identified which warrant remediation, a Remediation Action Plan (RAP) shall be prepared and remediation undertaken and validated, prior to the commencement of works on-site.</p>	Afteron Ltd & successors in title, future developers	Plans to be submitted for consent authority approval, and measures to be implemented prior to commencement of construction.

No.	What	Commitment	Who	When															
Environmental Protection																			
4	Waste Management	4.1 Waste Management Plan A Waste Management Plan for each project/development application shall be prepared for the approval of the relevant consent authority prior to the commencement of any works on-site, and adhered to at all times during construction or demolition works.	Afteron Ltd & successors in title, future developers	Prior to works commencing															
5.	Construction impacts upon Adjoining Land	5.1 Protection of Adjoining Property Reasonable measures will be implemented during construction to protect and minimise damage to adjoining property. Where damage does occur this damage is to be rectified at the developers expense and to the satisfaction of the adjoining landowner.	Afteron Ltd & successors in title, future developers	During construction															
6.	Biodiversity	6.1 Retirement of Biobanking Credits The biobanking liability of 76 credits (as determined in the Biobanking Assessment Report prepared by Cumberland Ecology, dated November 2009), shall be satisfied to the satisfaction of DECCW	Future developers	Prior to clearing of any vegetation on-site.															
7	Air quality	7.1 Air Quality Commitment During construction all trucks entering and leaving the site will have their loads covered. Dust on-site will be minimised in accordance with a dust management strategy to be submitted for approval to the relevant consent authority with the relevant application.	Afteron Ltd & successors in title, future developers	During construction															
8	Noise control	8.1 Restriction on Working Hours Construction work that generates noise that is audible from adjoining properties, will be limited to standard construction hours of 7am to 6 pm Monday to Fridays, and 7am to 1pm Saturdays, no work is permitted on Sundays and Public holidays. 8.2 Noise limits for operations Permitted operating hours for the Minchinbury Employment Park will be 24 hours 7 days per week subject to compliance with the following noise goals: <table><tr><th>Receiver</th><th>Daytime (dBA)</th><th>Night (dBA)</th></tr><tr><td>Eskdale St</td><td>54</td><td>43</td></tr><tr><td>Pikes Lane</td><td>48</td><td>44</td></tr><tr><td>Cemetery – Oakside Drive</td><td>50</td><td>N/A</td></tr><tr><td>Cemetery – Melville Drive</td><td>50</td><td>N/A</td></tr></table>	Receiver	Daytime (dBA)	Night (dBA)	Eskdale St	54	43	Pikes Lane	48	44	Cemetery – Oakside Drive	50	N/A	Cemetery – Melville Drive	50	N/A	Future developers & site occupants	During construction and ongoing
Receiver	Daytime (dBA)	Night (dBA)																	
Eskdale St	54	43																	
Pikes Lane	48	44																	
Cemetery – Oakside Drive	50	N/A																	
Cemetery – Melville Drive	50	N/A																	

No.	What	Commitment	Who	When
Environmental Protection				
9	Construction Traffic	9.1 Construction Traffic Plan A plan shall be prepared which details anticipated traffic movements onto and from the site during construction works. Included in this plan will be estimate numbers, frequency, and measures to ensure the operation of Wallgrove Road is not compromised, and that suitable environmental standards are satisfied. The plan shall be to the satisfaction of Blacktown City Council and the RTA. Works shall comply with the approved Construction Traffic Plan.	Future developers	During construction
Sustainability and Greenhouse Gas				
10.	Demand for Potable water	10.1 Use of Water Saving Devices Demand for mains potable water in the Minchinbury Employment Park will be minimised through: <ul style="list-style-type: none"> ► use of water efficient appliances and fixtures in developments ► investigation of the feasibility of connecting the site to regional recycled water network ► landscaping that is predominantly comprised of native species that require little if any ongoing irrigation 10.2 Collected Rainwater shall be Reused to reduce Demand Future development/project applications shall be accompanied by details of rainwater collection devices and suitable reticulation systems to ensure that rainwater is a viable substitute for potable water supply for toilets and landscaping, and other uses as is determined to be practicable.	Future developers & site occupants	In documentation of future development and ongoing
11	Building Design	11.1 Sustainability Report Sustainable building design shall be considered during the development/project application stage. Separate sustainability reports detailing sustainable building design initiatives used in the detail design for projects, including estimates of greenhouse gas emission savings, shall be provided for approval of the relevant authority with individual development/project applications	Future developers	In documentation of future development and ongoing
Servicing of site				
12.	Provision of water, sewer, electricity, and telecommunication services to site	12.1 Infrastructure Services to be Provided Designs for augmentation and extension of trunk services (as required and outlined in the Infrastructure Strategy contained in Appendix C) shall be prepared and approval sought from relevant authorities, including Sydney Water, Integral Energy, and Telstra (and others as required). These services, including new pipes and conduits shall be constructed in accordance with authority requirements and specifications, and are subject to appropriate negotiations being undertaken with adjoining and other affected property owners.	Afteron Ltd & successors in title	Prior to release of first subdivision certificate or Occupation Certificate whichever occurs first
13.	Upgrade existing intersection with Wallgrove Road	13.1 Construct Signalised Intersection Prepare a detailed design and obtain approval from the RTA for the signalising of the existing intersection with Wallgrove Road. The intersection shall be constructed in accordance with the terms and specifications of the applicable road authority (RTA), and include allowance for: <ul style="list-style-type: none"> ► Co-ordination of phasing between the 3 local intersections ► Extensions to the right turn waiting bay in the Wallgrove Road median. 	Afteron Ltd & successors in title, future developers	Signals to be operational prior to occupation of the first new building on the site.

No.	What	Commitment	Who	When
Heritage and Archaeology				
14	Aboriginal Heritage	14.1 Aboriginal Heritage Management Strategy An Aboriginal Heritage Management Strategy to be prepared by a suitable qualified and experienced consultant to address the recording and removal (where required) of the six (6) finds, as well as the management of ongoing community involvement during the development, and establishing an undiscovered finds policy to be adhered to in future development. This strategy shall be submitted to NSW National Parks and Wildlife Service for approval.	Afteron Ltd & successors in title, future developers	Strategy to be agreed by NPWS prior to commencement of works on-site.
15	Heritage	15.1 Archaeological Assessment Undertake a targeted archaeological assessment of the two locations identified in the Heritage Assessment Report contained in Appendix M. This shall include archaeological recording and assessment and the making of appropriate recommendations regarding removal (where required). Relics to be removed in accordance with statutory requirements and approvals (where required). 15.2 Heritage Interpretation Strategy Preparation of a Heritage Interpretation Strategy for the site generally in accordance with the City Plan Heritage report (Appendix M). Recommendations of the Strategy to be implemented 15.3 Photographic Record of Existing Development Undertake a photographic survey of all buildings and landscape elements prior to demolition works commencing in accordance with NSW Heritage Office guidelines.	Afteron Ltd & successors in title, future developers	Survey, assessments and strategy to be agreed by NSW Heritage Office (DoP) prior to commencement of works on-site.
Contributions to Local and State Infrastructure				
16.	Contributions to Regional Transport Infrastructure	16.1 Voluntary Planning Agreement Offer and enter into a VPA with the Minister for Planning to enable monetary contributions are made towards costs of upgrading of relevant state funded transport infrastructure.	Afteron Ltd & successors in title	Prior to release of first subdivision certificate or Occupation Certificate whichever occurs first
17.	Providing facilities to encourage alternative modes of transport	17.1 Construct Pedestrian/Cycleway Obtain approval from relevant authorities (RTA and Council) and construct a shared pedestrian/cycleway from the intersection of the Great Western Highway to the site along Wallgrove Road (western side) – or other links agreed between the developer and those authorities. 17.2 Construct New Bus Stops in Wallgrove Road Negotiate with Busways, RTA, Blacktown City Council to construct bus stops on both sides of Wallgrove Road near to the site entry that can be accessed by the existing bus service that passes the site.	Future developers	In documentation of future development and ongoing

No.	What	Commitment	Who	When
Contributions to Local and State Infrastructure				
18.	Dedicate internal road system and communal drainage infrastructure to Council	<p>18.1 Construct and Dedicate Public Roads to Blacktown City Council In the event of subdivision of the site into multiple titles, the internal road network shall be constructed to Council engineering standards and approved design. Internal road network shall be subdivided and dedicated as public roads at no cost to Council.</p> <p>18.2 Construct and Dedicate Public Drainage Infrastructure to Blacktown City Council In the event of subdivision of the site into multiple titles, the drainage system within roadways and drainage basins shall be constructed to Council engineering standards and approved design. The detention basins and drainage reserves (as applicable) shall be subdivided and dedicated at no cost to Council.</p>	Afteron Ltd & successors in title	Simultaneously with the Issue of a Subdivision Certificate
19.	Regional Rainwater Harvesting Scheme	<p>19.1 Provision of infrastructure suitable to contribute towards Regional Rainwater Harvesting The Minchinbury Employment Park will include provision for runoff collection infrastructure if the harvesting scheme proceeds. Prior to preparation of detailed public domain and infrastructure plans for the site, formal feedback will be sought from Sydney Water regarding the specifications and civil design requirements to implement the system on-site. (it is anticipated this will include a collection system and on-site storage reservoirs to be constructed at the same time as individual developments occur)</p>	Afteron Ltd & successors in title, Future developers	Prior to submission of development/ project application for infrastructure and public domain works
Signage				
20.	Signage Strategy	<p>20.1 Signage Strategy A signage strategy providing for private and public signage within the Minchinbury Employment Park shall be prepared for approval by the Director-General. To include siting and design guidelines (eg. heights, locations, content, themes, materials, public domain signage). Compliance with the strategy to form part of this Concept Plan. Signage strategy to be to Council's satisfaction.</p>	Future developers	Prior to release of first Occupation Certificate or subdivision certificate, whichever occurs first.

/// 8 CONCEPT PLAN JUSTIFICATION & CONCLUSION



/// 8 CONCEPT PLAN JUSTIFICATION & CONCLUSION

8.1 Conclusion

The Minchinbury Employment Park is a major development in Western Sydney located at the intersection of the M4 and M7 Motorways. It will have an estimated capital investment of \$60 million and provide direct employment for 300 people once operational.

The site and proposal has been considered in light of relevant environmental data and issues, infrastructure, and the state and regional planning context. This analysis reveals no outstanding environmental issue that cannot be mitigated or managed to an acceptable level of performance. Importantly the analysis highlights the key merit of the Concept Plan which unlocks the development potential of a site uniquely suited to employment development in a location that is consistent with the Metropolitan Strategy, subregional plan, the Employment Lands for Sydney Action Plan, and SEPP (WSEA) 2009. As a Concept Plan it is an appropriate vehicle to determine developable and non-developable areas, and establish “envelope” development controls to guide future development. Providing certainty to future development in both timing and outcome, encourages investment, and contributes to job growth and economic activity in the Western Sydney Employment Area.

The Concept Plan resolves the following key site development issues:

- Vehicle access to the site will be via a new signalized intersection which will ensure traffic generated by the development does not unreasonably interrupt existing traffic flows along Wallgrove Road and the performance of nearby intersections
- Previous land uses and environmental constraints have not rendered the site unsuitable for its intended employment purpose
- Biodiversity credits on the site are modest and unsuitable to retain on-site and the optimal conservation outcome is achieved through offsetting those credits to more appropriate locations in the region
- All relevant urban services are within close proximity to the site and these can be connected without significant delay

- Sustainability will be facilitated through Design Controls and the provision of infrastructure to facilitate runoff water harvesting
- Landmark positions have been identified on-site where development will be required to achieve a high standard of aesthetic appearance befitting the high degree of exposure of the site

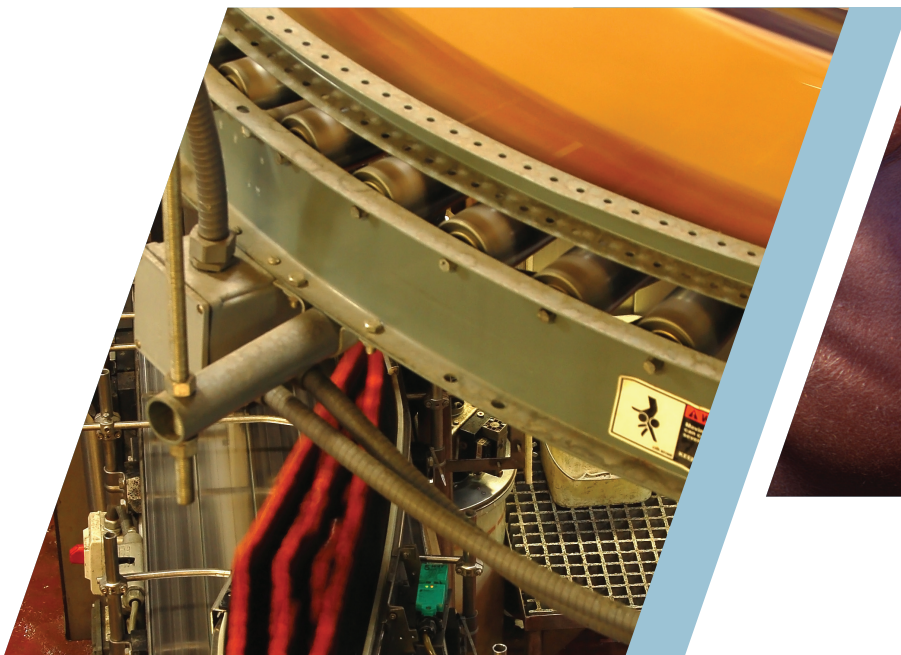
With regard to social, economic, and environmental impacts, and statutory considerations, approval of the Concept Plan for the Minchinbury Employment Park is in the public interest and a sound planning decision.

8.2 Proposed Orders

Further to the approval of the Concept Plan, the proponent is seeking the determination of the environmental assessment requirements pursuant to section 75P of the EP & A Act 1979, for subsequent project or development applications within the MEP:

- Determine that, notwithstanding the provisions of any applicable environmental planning instrument, that no further Development Control Plan or Precinct Plan, is required to be approved, prior to the determination by a consent authority of a project or development application in the MEP
- Determine that a proposal for bulk earthworks, infrastructure (including roads) or civil works, where the capital investment exceeds \$5 million, or the subdivision of any part of the MEP into 3 or more lots, are Major Projects to which Part 3A of the EP & A Act 1979 applies.

/// APPENDICES



Afteron Ltd
Level 12 / 225 George Street
Sydney NSW 2000

