



TS/AC
14673
9 October 2015

Mr Alan Stoneham
General Manager
Penrith City Council
601 High Street
PENRITH NSW 2750

Attention: Gavin Cherry - Principal Planner

Dear Sir

**EAST LAKE LANDSCAPING WORKS
JORDAN SPRINGS EAST LAKE**

JBA has prepared this Statement of Environmental Effects (SEE) to Penrith City Council (Council) on behalf of Maryland Development Company in support of a Development Application (DA) for the provision of landscaping surrounding the approved East Lake at Jordan Springs Village 5 (the site) and the landscape embellishment of a local park.

This report describes the site, its environs, the proposed development, and provides an assessment of the proposal in terms of the relevant matters for consideration under Section 79C(1) of the *Environmental Planning and Assessment Act, 1979* (EP&A Act). It should be read in conjunction with the following supporting documentation appended to the report:

- Landscape Plans prepared by Clouston Associates (**Attachment A**);
- Pre-DA Minutes prepared by Penrith Council (**Attachment B**);
- Engineering Drawings submitted as part of the previous East Lake Sediment Basin DA (for reference) (**Attachment C**);
- Jordan Springs Village 5 approved Subdivision Plans under DA14/0935 (for reference) (**Attachment D**);
- Jordan Springs Village 5 Bushfire Protection Assessment, prepared by Eco Logical (**Attachment E**);
- Supplementary Arboricultural Impact Assessment Report, prepared by Fiddlehead Landscape Design Pty Ltd (**Attachment F**);
- Erosion and Sediment Control Plan prepared by Jacobs (**Attachment G**);
- Stormwater Management Strategy prepared for the Village 5 Subdivision (**Attachment H**); and
- Stormwater Management Strategy for East Lake, submitted as part of the previous East Lake Sediment Basin DA (**Attachment I**);
- Waste Management Plan (**Attachment J**).

1.0 BACKGROUND

1.1 Previous DAs

This DA must be considered within the context of the other key DA's for Jordan Springs already lodged / approved by Council. Of particular importance to the subject DA are the following:

- proposed riparian channel construction and associated earthworks – DA13/0065;
- permanent trunk sewer EIS – DA12/0910;
- riparian Corridor subdivision – DA11/1088;
- Village Lake DA/EIS - DA10/0851;
- subdivision that connects with Main Street - DA 10/0208;
- the town Square, main street, and southern entry boulevard landscaping and embellishment DA - DA10/0680; and
- the Village 5 subdivision of Jordan Springs – DA14/0935, under which the site is proposed to be subdivided from the Village 5 super lot (Lot 3997, DP1179646).

1.2 East Lake DA14/1497

Of particular importance to this DA is the previous DA14/1497, which sought to make permanent the temporary sediment basin approved under DA13/0065. DA14/1497 was approved on 7 April 2015, and specifically sought the following:

- Conversion of the existing "dirty" runoff channels from Villages 2 and 5 to Overland Flow Paths.
- Installation of rock linings at the south-western entrance to East Lake, as well as between the outflow of East Lake and the adjoining Regional Park. Additionally, the proposed works on the outflow of East Lake will involve the creation of a spillway, which joins the existing channel.
- Planting of macrophytes for the purposes of water treatment and soil stabilisation.
- Removal of an existing temporary pipe currently flowing into the south of the basin.
- Formalisation of the outflow path for the lake, through the installation of a box culvert of four cells.
- Local regrading and filling works to the immediate north of the lake so as to prevent ponding.

This DA seeks to provide for the permanent landscaping works surrounding the lake approved under DA14/1497.

1.3 Concurrence and Referrals

The application will be Integrated Development under Section 91 of the EP&A Act as a controlled activity permit issued by NSW Office of Water, which is required under Section 91 of the *Water Management Act, 2000* as the development proposes to undertake work on 'waterfront land'.

Clause 44 of *Sydney Regional Environment Plan No. 30 – St Marys* (SREP 30) applies to land adjacent to the Regional Park. Given the proposal involves works to the existing temporary basin which abuts the Regional Park, referral of this DA to the Director-General of National Parks and Wildlife for comment is required.

1.4 Pre-Lodgement Advice

A pre-lodgement meeting was held with Council on 14 May 2014 in which plans of the proposed landscaping were provided to Council for their comment. A full copy of the pre-DA minutes of Council has been provided at **Attachment B**, and **Table 1** below provides commentary on each of the issues raised by Council.

Table 1 – Analysis of pre-DA commentary of Council

Issue	Response
<i>Planning Requirements</i>	
<p>The statement of environmental effects should specifically address the following:</p> <ul style="list-style-type: none"> Western Precinct – Precinct Plan Western Precinct – Development Control Strategy Western Precinct – Planning Agreement Commitments Sydney Regional Planning Policy No. 30 – St Mary's 	The mentioned documents have been assessed under this SEE at Section 4.1 .
The Development Application is to include proposed finished ground levels which sufficiently demonstrate compliance with accessible gradient and access ramp requirements with NCC/BCA and DDA	The proposed finished ground levels have been included as part of the landscape plans, to demonstrate the proposed gradients by comparison to the facilities included (Attachment A).
<p>The application will also require referral and discussion at Council's access committee. Previous comments raised from this committee (concerning Village 4 – Park) are replicated below:</p> <ul style="list-style-type: none"> Accessible picnic tables Incidental seating Seats with arms The size of trees Seating along the pathway Location of pathways Inclusive play space – wheelchair friendly, side by side pathways, accessible design principles Barbecue area provisions Stormwater implications on sandstone wall Part of the sandstone wall to be removed – people with disabilities could find it difficult to sit on – sections in such a way so that seating top extends – varied heights because some people prefer higher seating if they have ambulatory difficulties Visibility of children 	The raised issues have all been incorporated in the proposed design. Please see SEE and Landscape Plans for further discussion.
The concept plan is to be amended to exclude indications of subdivision lot lines within the residue allotments around the lake. These lots have not been approved for residential development as yet and the plan submitted for landscape embellishment should not pre-empt a development outcome for these sites.	This has been undertaken, and is included in the Landscape Plans (Attachment A).
The provision of shade structures should be indicated noting that Council does not support Core10 finishes.	Shade structures have been incorporated into the proposed design, which are demonstrated within the submitted plans (Attachment A).
View corridors towards the lake between the residue allotments are to be preserved and landscaping is to specifically compliment and reinforce the importance of these views.	Views between the residue allotments and the lake have been an integral part of the overall landscape design. See provided Landscape Plans (Attachment A) and Section 4.3 .
The plan is to specifically consider ways to ameliorate the interface between the residue lots and the lake. Screen landscaping will need to consider future views to the lake from any development on these residue allotments with careful consideration of landscaping and fencing around these allotments.	Landscaping has been proposed which clearly delineates between the public open space surrounding the lake, and the private areas of each of the residue allotments. However, opportunities for view corridors to the lake from any future dwellings on the residue allotments have been preserved. Future Development Applications at the residue allotments will determine the exact treatment of any future dwellings towards the park and also address aspects such as CPTED.
A concept stormwater drainage plan and indicative planting / furniture plan is required (further detail with the construction certificate) is to be submitted.	Concept Plans have been provided as part of this DA. Further information will be provided as part of the Construction Certification process.
The retention of existing trees is encouraged and it is noted that the plans submitted have specifically sought to retain as many existing trees as possible. Any proposed tree removal should be addressed by way of addendum to previous Flora and Fauna Reporting (or a new Flora and	This has been undertaken. See Attachment F for Flora and Fauna Report Addendum.

Issue	Response
<i>Fauna Statement submitted)</i>	
<i>Clear unimpeded sight lines are to be provided from the road reserve to the kick-about and play areas.</i>	An analysis of the visibility of the kick-about and play areas from the road reserve has been undertaken as part of the Landscape Plans.
<i>Consideration should be given to marker points (distance markers for runners using the loop pathway)</i>	These have been included in the Landscape Plans (Attachment A).
<i>Seating around the loop path is to be provided having specific regard to the access committee comments above and the site conditions / opportunities</i>	Noted.
<i>The landscape concept plan should include details of proposed planting, indicative specie quantities, irrigation measures, edging, pathway treatments and the like.</i>	These details have been included in the Landscape Plans (Attachment A).
<i>The Statement of Environmental Effects is to outline how the design requirements concerning vehicular access (RFS and Council maintenance vehicles) conditioned by Council as part of the Village 5 – Lake approvals have been incorporated into the embellishment design.</i>	See Section 3.1 of SEE.
Parks and Landscape Requirements	
<i>A deed of agreement is required to be entered into covering the transfer and maintenance of all intended public spaces and is to include the street trees up until their transfer as noted above.</i>	This has been undertaken separate of this DA.
<i>The play space equipment should be reflective of the site and native fauna of the area.</i>	This has been undertaken as part of the design process. Please see Landscape Plans.
<i>Incorporation of some accessible play facilities are to be detailed on the plans (noting that a separate all abilities playground has been approved elsewhere within the precinct).</i>	The proposed park will include tactile equipment for children with disabilities. The play areas are accessible for prams and wheel chairs.
<i>Any proposed water play equipment is to be indicated on the plans and schedule of equipment and servicing requirements are to be addressed within the statement of environmental effects.</i>	The only proposed water play equipment at the site will be the Water Pump and Wier, which will require only minimal maintenance. This has been further outlined at Section 3.6 .
<i>Seating is to incorporate arms and back rests.</i>	This has been undertaken, and is demonstrated in the Landscape Plans (Attachment A).
Engineering Requirements	
<i>Details of site drainage are to be provided by way of a concept stormwater drainage plan.</i>	This has been provided. See Section 4.4 and Attachment G .
<i>Design contours, cross sections and finished surface levels are to be shown.</i>	This has been undertaken, and is included in the Landscape Plans (Attachment A).
<i>All batter slopes are to be a maximum of 1 in 5 (vertical to horizontal)</i>	Batter slope information has been provided as part of the Landscape Plans, which demonstrate a maximum gradient of 1:5 (Attachment A).
<i>The viewing deck is to be constructed to withstand water inundation. Specifications are to accompany the development application.</i>	Specifications of the viewing deck have been provided as part of the Landscape Plans (Attachment A).
<i>The top water level for the following ARI events are to be shown on all plans and sections:</i> <ul style="list-style-type: none"> ■ 1% AEP (1 in 100 year) ■ 5% AEP (1 in 20 year) ■ Permanent operational water level 	This has been undertaken, and is included in the Landscape Plans (Attachment A).
<i>Details of the extent and depth of inundation of the emergency overflow weir are to be shown on plans and sections.</i>	These details have been provided, which show the maximum extent of inundation at the eastern edge of the site during maximum flood levels (Attachment A).
<i>In accordance with the RFS requirements, details of fire truck access to the permanent water level of the basin are to be shown.</i>	See Section 3.1 of SEE.
<i>A boat ramp to permit access to the water body for maintenance purposes is to be provided.</i>	This has been undertaken, and is included in the Landscape Plans (Attachment A).

2.0 SITE ANALYSIS

2.1 Site Location and Context

The site forms part of the St Marys site, or Jordan Springs as it is now more commonly known. The two terms are used interchangeably within this SEE. The site which is the subject of this application is referred to as East Lake and Village 5 Park, and is contained within the southern portion of Village 5, adjoining the Regional Park. The site is located at the easternmost “Water Management Basin Lake”, indicated by way of a blue asterisk in **Figure 1** below. The site is located approximately 1.4km east of The Northern Road, and approximately 5km north-east of Penrith City Centre.



Figure 1 – Overall Jordan Springs Map
Source: Western Precinct Plan

2.2 Ownership and Legal Description

The legal owner of the site is Maryland Development Company, which is the joint venture company that was established by ComLand and Lendlease development to develop the St Marys site. The site is being developed by Lendlease as part of the overall Jordan Springs development.

The legal description of the site is currently Lot 3997 within DP1179646. The site has been approved by Council, but not yet registered to be subdivided under DA14/0935 to form new Lots 5246 (the East Lake site) and 5132 (the Village 5 Park site). Subdivision Plans have been provided for reference at **Attachment D**, however until such a time that the approved subdivided allotments are registered, the legal description of the site will remain as Lot 3997 in DP1179646.

2.3 Site Description

The East Lake site currently comprises only the sediment basin, which was approved under DA14/1497 (approved by Council 7 April 2015).

The site is located along the eastern boundary of the Jordan Springs Western Precinct between Callistemon Circuit, Bungendore Circuit, Greenwood Parkway and Lakeside Drive, as shown in **Figure 2**. The land is 65,571m² in area and is irregularly shaped. The temporary basin has already been largely filled with water, as shown below.

As discussed at **Section 2.2** above, the site is divided into two approved but not yet registered allotments, being Lots 5132 and 5246 (see **Attachment D** and **Figure 2**).

The wider Village 5 comprises greenfield development at various stages of completion as part of the Jordan Springs site. The land generally slopes from north-west to south-east, with a common boundary with the Regional Park at the north and east.



Figure 2 – Aerial Photograph

Source: Nearmap and JBA

2.4 Existing Site Conditions

Flora and Fauna

Flora and fauna within the Western Precinct (including the site) has been well documented under numerous Ecological Assessments and Surveys undertaken as part of the development of the Western Precinct as a whole (chiefly the Western Precinct Biodiversity Assessment) and more specifically in relation to the various development stages and works to date. These assessments

have been completed by numerous consultants representing a large variety of agencies and organisations under both Federal and State process over a prolonged period.

Cumberland Ecology has previously assessed the impact of the wider Village 5 development, including the East Lake site, in regards to the flora and fauna species and ecological communities located at the site.

However, as the proposed works include the removal of some vegetation surrounding the site, a separate addendum has been provided to the abovementioned report which specifically assesses the proposed landscaping works (see **Attachment F**).

Indigenous Heritage

An Archaeological Assessment of Indigenous Heritage Values in the Western Precinct (Jo McDonald, 2008) forms part of the adopted WPP. As discussed in the Archaeological Assessment, site surveys have identified a total of 39 surface archaeological sites, with almost 250 artefacts recorded within the wider Western Precinct. Within Jordan Springs, about 130 ha of land has been previously identified as having had moderate to very high potential for containing intact archaeological evidence (i.e., being within Zones 1, 2 or 3 in the Archaeological Assessment / WPP).

As outlined in the Aboriginal Heritage Report submitted with DA 14/0935, seven salvage areas within the Western Precinct are identified by the Archaeological Assessment / WPP as requiring archaeological salvage works prior to development taking place. Permits allowing testing and salvage excavations of Aboriginal objects or places on the site have been issued by the Director General of the Department of Environment Climate Change and Water (DECCW) under Section 90 of the *National Parks and Wildlife Act 1974* (NPW Act) (AHIP No.10996059). The wider Stage 5 site coincides with one (WP6) of the 7 target subsurface investigation sites recorded across the Western Precinct. Sub-surface investigations within location WP6 uncovered a total of 3,233 cultural lithics.

Salvage works in WP6 have completed and completion of the excavation fulfilled Condition 2(a) of the AHIP. The archaeological investigations were undertaken in accordance with the terms of the AHIP relating to Aboriginal Objects. No further archaeological investigations are required at the site.

European Heritage

In relation to non-indigenous heritage, there are four heritage items listed under SREP 30 located within the Western Precinct (Sites 9, 14, 15 and 16). A comprehensive Archaeological Assessment of these four heritage items was undertaken as part of the preparation of the WPP, prepared by Casey & Lowe Pty Ltd. None of the four heritage items are located within or are in the vicinity of the subject site.

2.5 Surrounding Existing and Future Development

The East Lake site is predominantly surrounded by woodland zoned as Regional Park to the east. To the north of the site is the residential portion of Village 5 which is currently within the early stages of construction. To the east is Village 2 and to the south is Village 4.

The site adjoins Greenwood Parkway to the west and Lakeside Parade to the south. Greenwood Parkway is a major loop road within Jordan Springs which links Villages 2, 3 and 5 to Lakeside Parade. To the north lies proposed Lots 5247 and 5248, and to the west lies proposed Lots 5249 and 5250, registration of which will occur imminently following approval under DA14/0935 (see **Attachment D**). These allotments will be developed as integrated housing, as part of future DA(s).

The Village Centre of Jordan Springs is located some 700m west of the site (see **Figure 1**). Following the development of the Western Precinct in accordance with the WPP, the site will be surrounded by:

- urban residential development comprising predominately single dwellings to the north-west and south-west; and

- Regional Park to the south-east.

The adjoining 900Ha Regional Park, which is to be established under the *National Parks and Wildlife Act 1974* as a reserve, is of strategic importance to the State government and Office of Environment and Heritage.

3.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

This DA seeks approval for the provision of landscaping and embellishment works within the area surrounding the permanent East Lake. Specifically, this proposal includes the following:

- landscaping of the park area including native canopy tree planting;
- minor works to the approved shared pathway;
- children's play space and play equipment;
- picnic facilities;
- internal/street path linkages and connections to cycle/pedestrian links; and
- landscape embellishments and macrophyte areas.

Landscape Drawings prepared by Clouston Associates have been provided at **Attachment A**.

3.1 Landscaping Works

The proposed works form part of the overall landscaping and open space network envisaged throughout the St Mary Western Precinct Plan, which will provide for the active and passive recreational needs of residents. This overall space provision comprises a total of 19.46Ha, which includes:

- 8.8Ha of Active Open Space; and
- 10.5Ha of Passive Open Space.

To ensure that the above required space is delivered, the open space within the Western Precinct was divided under the plan into a series of open space areas, strategically located throughout Jordan Springs so as to enable 500m walking distance from the vast majority of properties to open space. This overall open space masterplan has been reproduced from the Western Precinct Plan at **Figure 3**.

The open space which is the subject of this Development Application is identified under the Western Precinct Plan as "Open Space to Corridors C". Under the Western Precinct Plan approximately 0.5Ha is to be provided as open space within the location.

The proposal complies with this minimum approximate area, with the proposed kick-about area and play area comprising approximately 0.5Ha in itself. Further turfed areas are provided surrounding the lake at various points, which have been provided in addition to the required minimum.

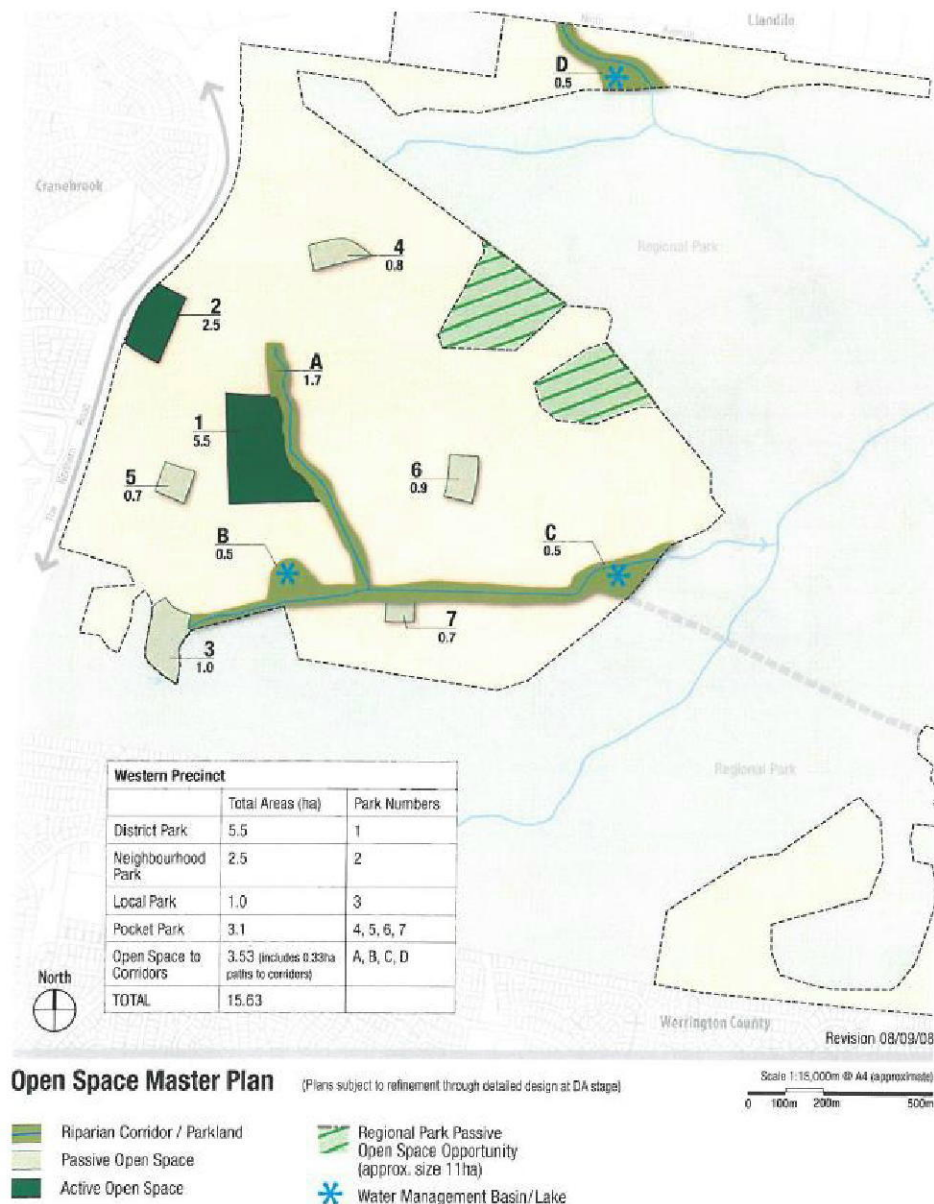


Figure 3 – Open Space Master Plan – Western Precinct Plan

Landscaping works form the key element of this DA, being the removal of existing low significance vegetation, and the planting of additional vegetation to complement the higher significance vegetation which is proposed to be retained. The proposal includes the provision of tree planting throughout the site, East Lake embankment planting, low level screen planting adjacent to the residue allotments, some macrophyte and long grass planting, and the provision of turf. An assessment of the proposed tree removal has been provided at **Attachment F**, and a discussion of the proposed flora and fauna impact has been undertaken at **Section 4.2** of this SEE.

3.2 Pathway Works

Although the internal shared path which surrounds the East Lake has been previously approved under the East Lake DA14/1497 (see **Section 1.2**), this DA seeks to build upon the initial pathway in providing an integrated network for the use of residents and visitors. Specifically, the proposed pathway works include:

- minor adjustments to the shared pathway to avoid native vegetation at the site and to improve pedestrian and cyclist safety;

- the provision of a 'discovery trail' through the Play Space for the use of children;
- the provision of a series of shared paths and footpaths for the use of the community, to provide connections to the surrounding areas; and
- embellishment of the existing approved and new pathways including distance markers and the like.

3.3 Children's Play Space

An inclusive children's play space has been included at the northern edge of the site. This includes a range of activities, including some accessible activities which draw on the natural context of the site adjoining the Regional Park. Further design detail has been provided as part of the Landscape Plans at **Attachment A**.

3.3.1 Water Play Equipment

As part of the proposed playground, a 'water pump and wier' system has been proposed to provide a water based recreational activity for children using the recreational space. Council has requested that a schedule of equipment, as well as the maintenance requirements of such equipment be provided as part of the SEE for reference.

A specific final water pump has not been selected at this stage of the design process, which will be the subject of further detailed design at the Construction Certificate stage. However, the proposed water pump will be of a 'turn wheel' design, similar to that illustrated at **Figure 4** below.

Ongoing maintenance requirements of the proposed water pump will be minimal, and in line with other such water pump systems throughout play areas in Sydney. Further detailed information will be provided as part of the 'maintenance manual' at the Construction Certificate stage.



Figure 4 – Potential water pump play equipment design
(Note: Final detailed design subject to change)
Source: Kaiser & Kuhne Freizeiterate

3.4 Kick About Park

The proposal includes establishment and embellishment of a recreational park, which is referred to as the 'Kick About' Park. The park will be landscaped, turfed and will include a small grassed area that will be used as a kick about play area. Sections and indicative illustrations of the works are shown on the Landscape Plans (**Attachment A**).

The proposal also includes the provision of a picnic shelter, and other similar furniture.

3.5 Vehicle Access – Council and RMS

Access for Council vehicles to the Gross Pollutant Trap (GPT) on site has been provided at the western edge of the site, between two of the residual allotments. Access will also be provided to the basin for the purpose of a static water supply for firefighting purposes along the eastern boundary of the site. Both of these access areas have been integrated into the overall design of the landscaping for the site. Specific measures of integrating these conditioned pathways include the following:

- The use of consistent pathway treatments along the access pathways and throughout the site.
- The use of the RFS access pathway as a shared pathway as part of the activities available at the site.
- The provision of a pedestrian access link between the GPT Access Point and the East Lake.

4.0 ASSESSMENT OF PLANNING ISSUES

The following is our assessment of the environmental effects of the proposed development. The assessment includes only those matters under section 79C(1) of the EP&A Act that are relevant to the proposal.

The key planning issues associated with the proposed development are as follows:

- compliance with environmental planning instruments;
- flora and fauna impact;
- safety and security;
- water cycle management;
- accessibility;
- heritage impact;
- contamination;
- site suitability;
- social and economic impacts; and
- public interest.

4.1 Compliance with Environmental Planning Instruments

The DA's consistency and compliance with the relevant statutory plans and policies is located in **Table 2** below. Issues which require further discussion have been undertaken within the following sections of this environmental assessment.

Clause 4 of the *Sydney Regional Environmental Plan No. 30 – St Marys* (SREP 30) details the relationship between SREP 30 and other environmental planning instruments. This includes noting that the Penrith Local Environmental Plan does not apply to the site. Accordingly only state policies, SREP 30 and the Western Precinct Plan apply to the site, which have been assessed below.

Table 2 – Compliance of proposal against SREP 30 (St Marys), and the Western Precinct Plan

Control	Comment	Compliance
Sydney Regional Environmental Plan No. 30 – St Marys		
3. Aims of this plan	<p>The proposed landscaping meets the aims of the plan in that it:</p> <ul style="list-style-type: none"> ■ forms part of the overall development of Jordan Springs, providing a large recreation space for the use of the community which will form as a local focal point within St Marys; ■ achieves desirable environmental and social outcomes at the site and within the 	✓

Control	Comment	Compliance
	<p>region (see Section 4.9); and</p> <ul style="list-style-type: none"> delivers recreational facilities which will meet the needs of current and future residents. 	
6. Development Structure	The proposed landscaping is located in the area noted on the structure plan as 'indicative location for drainage basins'.	✓
27. Open Space and Recreation	The proposal facilitates the creation of opportunities for both active and passive recreation through the provision of numerous recreational facilities for the use of residents and visitors to the area. As discussed above at Section 1.1 , these facilities are accessible and useable by the community. Additionally, the works emphasise the focal point of the East Lake body of water, and has been designed to maintain important view corridors throughout the area.	✓
28. Watercycle	The proposed landscaping has been designed to avoid any situation where flood levels inundate useable areas of the park, as demonstrated on the plans and sections provided at Attachment A .	✓
30. Transport	The proposed landscaping works will provide recreational facilities for local residents which will mitigate the need for residents to travel long distances by private car to access such facilities.	✓
31. Urban Form	By way of its design, the site is demonstrated to be clearly a public space, with a lack of barriers to entry, a clear visibility and strong pathways demonstrating such a role. Adjoining private spaces, such as the residual allotments will be clearly delineated as such by way of landscaping treatment adjacent to the lot boundaries.	✓
40. Urban Zone	<p>The proposal is consistent with objectives of the Urban Zone as it will:</p> <ul style="list-style-type: none"> support the development of Jordan Springs for residential purposes through providing important recreational facilities for the use of residents and visitors; facilitate the maintenance of a high level of vegetation at the site, and will plant additional complementary species in addition to that existing; and will not have a negative impact on the biodiversity or conservation within the Regional Park. <p>Development for the purposes of 'parks' is permissible within the Urban Zone.</p>	✓
44. Consultation with National Parks and Wildlife Service	The consent authority must not grant consent for development adjoining the Regional Park zone unless it has referred a copy of the DA to the Director-General of National Parks and Wildlife. Given the proposed works are within the East Lake site, a copy of this DA must therefore be referred to National Parks and Wildlife for Comment.	✓
52. Tree Preservation	Consent is sought from Council for the removal of a number of trees at the site. This has been further discussed at Section 4.2 .	✓
53. Items of Environmental Heritage	The proposal will not affect any heritage items within the Western Precinct.	✓
Western Precinct Plan (WPP)		
Part 4 – Framework Plan and Environmental Management Strategies	<p>The proposed development complies with the envisaged development at Part 4 of the WPP, including the following specific issues:</p> <ul style="list-style-type: none"> The proposal provides for additional recreation space in an area noted as part of a 'riparian corridor'. The delivery of a parklands for recreation and play. The provision of pedestrian and cycle links through the site, including the provision of a shared path along the alignments depicted at Figure 16 of the WPP. Provision of high quality recreational open space in the area noted at 'Riparian Corridor / Parkland' at Figure 18 of the WPP. Achieves the intended role of the Eastern Basin Park (C) by way of: <ul style="list-style-type: none"> providing a node at the western edge of the Jordan Springs site to complement other local parks; capitalising on the visual and recreational potential of the East Lake stormwater basin; and interacts well with the centre, with strong linkages to surrounding areas. 	✓
4.9.1 Landscape and Open Space Network	Proposal complies with minimum 0.5Ha area to be provided at the space, in accordance with 'Open Space to Corridors Area C'. See Section 3.1 above for further discussion.	✓
Part 5 – Development	The proposal is consistent with the "Open Space Water" character envisaged for the	✓

Control	Comment	Compliance
Control Strategy	water bodies provided as part of the stormwater management measures. The proposed landscaping has been designed to integrate well with the 'hard' and 'soft' edges of the approved detention basin.	
5.3.1 Landscape Characters		
5.3.2 Landscape Presentation	The site will provide a mix of a suburban presentation and a natural presentation, to reflect the location of the site as an interface between the suburban development to the west, and the Regional Park to the east. Further discussion regarding the preservation of vegetation has been provided at Section 4.2 .	✓
5.3.3 Public Domain Materials and Treatments	The proposed landscaping works include the provision of a range of street furniture items which include seats, bins and picnic tables. These items use a consistent design language throughout the site. Footpaths have been designed to a high quality, using hard wearing materials.	✓
5.3.5 Lighting	The DCS states that lighting is to be provided along major cycle routes and pedestrian access paths for night time usage. This has not been provided for safety and security reasons, and further commentary has been provided at Section 4.3 .	See Section 4.3
5.4 Character Areas	The site is best classified as a 'Parkland Node' under Table 3 of the DCS. The proposal is consistent with the desired character for 'Parkland Node' sites in that it: <ul style="list-style-type: none"> facilitates the potential for future increased density residential sites to be developed which provide passive surveillance towards the park; uses the strategic positioning of vegetation to preserve view corridors across the site; and delivers the envisaged neighbourhood park at the site. 	✓

Environmental Protection and Biodiversity Conservation Act, 1999

The Commonwealth environmental assessment of the development of the St Marys site was contemplated under the (now repealed) Commonwealth *Environment Protection (Impact of Proposals) Act, 1974 (EPIP Act)* with certification provided under the *Environmental Reform (Consequential Provisions) Act, 1999*.

As the St Marys project as a whole was assessed under the EPIP Act, no further assessment in relation to Commonwealth threatened species and ecological communities is required under the *Environmental Protection and Biodiversity Conservation Act, 1999*.

Water Management Act, 2000

The proposal involves works within 'waterfront land' as defined under the *Water Management Act, 2000*. Accordingly, a Controlled Activity Approval is required to be obtained.

State Environmental Planning Policy No. 55 – Remediation of Land

The St Marys Western Precinct has been subject to extensive investigation and remediation throughout the 1990s. The Environmental Protection Agency (EPA), now DECCW, has been involved throughout this process and an EPA accredited Site Auditor issued Site Audit Statements for the St Mary's development site in accordance with SEPP 55.

The Western Precinct is covered by the following Site Audit Statements:

- Part Western Sector covered by SASs CHK001/1; and
- Part Southern West Sector covered by SASs CHK001/1, 001/6 and 001/7.

The information presented in the remediation and validation reports for these sectors has been used to develop a Contamination Management Plan for the Western Precinct which is included in the adopted WPP. The majority of the precinct, including the subject site, has been assessed by the site auditor to pose a negligible risk to the public or the environment with regard to chemical contamination or explosive ordnance.

The Contamination Management Plan for the Western Precinct provides a framework for identifying and addressing any source of chemical contamination or potentially explosive ordnance and to ensure a safe working environment. Although it was recognised that explosive ordnance may be uncovered during the proposed earthworks for the site, the Site Auditor considered that was

unlikely that these would pose a serious danger to the work force engaged to undertake the earthworks. This was provided that appropriate procedures for the safe handling and disposal of this material were followed. On this basis, and as the proposed works only involve minimal earthworks, the site is considered suitable for the proposed development in accordance with SEPP 55.

Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River

Sydney Regional Environmental Plan No 20 (SREP 20) applies to the site, which is located within the catchment of the Hawkesbury-Nepean River system. The proposed land use of the site as a park will not have any adverse impact on the system in a regional context, and accordingly the development is consistent with the aim of SREP 20.

4.2 Flora and Fauna Impact

In addition to that undertaken as part of the Jordan Springs Village 5 development, a Supplementary Arboricultural Impact Assessment Report has been prepared by Fiddlehead Landscape Design Pty Ltd, and provided at **Attachment F**. This report provides a further specific Arboricultural Assessment of the East Lake site only, and assesses 33 trees at the site in respect of the amended landscape design.

Of these 33 trees, 8 trees have been identified for protection and 24 trees will require removal. One tree (Tree 78) has already been removed. Of the trees which have been proposed to be removed, five have a low to medium landscape significance and the remainder have a low tree significance.

Overall, the Flora and Fauna Assessment Addendum provides for minor amendments which will facilitate the provision of further significant vegetation, and the proposal only requires the removal of low or low-medium significance trees.

In addition, supplementary vegetation of varying heights and types will be planted throughout the East Lake site, including the provision of 7 additional mature trees within the Village 5 Park. This vegetation will provide for a landscaped setting of both the park and East Lake. Landscaping surrounding the East Lake has been divided into three distinct typologies, being:

- the planting of low shrubs and clear trunked trees in selected areas at the top sections of the banks, which are inundated infrequently;
- the planting of low shrub species near the lower sections of the bank, which are more frequently inundated; and
- the planting of macrophytes at the base of the batters as part of the overall water treatment system.

This landscaping will facilitate the delivery of a pleasant, shaded environment surrounding the lake, which has also been designed to avoid any adverse impacts arising from inundation from peak stormwater periods of the East Lake itself.

4.3 Safety and Security

The proposed landscaping has been designed with safety and security being a key element shaping the proposal. Specific safety and security measures which have shaped the development include:

- the use of open grassed areas, clear trunked trees and low shrubs wherever view corridors exist between the residue allotments;
- consideration of the fall zones of all equipment within the playground area;
- testing of the tree types to ensure that visibility of a person within the vegetation is maintained (see **Attachment A**);
- generous spacing of play equipment to ensure visibility; and

- the maintenance of trees and removal of unsound trees at the site to ensure the maintenance of visibility and minimise the chance so limb drop.

Provision 5.3.5 of the DCS is noted, which states that *“major cycle routes and pedestrian access paths are to be lit for night time usage”*. The proposal does not include the provision of lighting, which potentially results in a non-compliance with the above provision, depending on whether the paths passing through the site are classified as ‘major cycle routes and pedestrian access paths’. We also understand that it has been Council’s preference during pre-DA meetings that lighting not be provided to this area. Irrespectively, this is an acceptable solution due to the following:

- This control is typically applied to the footpaths and cycle paths adjacent to roads, which are likely to be used by people at all times of day travelling to and around Jordan Springs. The ‘main shared path’ through Jordan Springs it eh through the Riparian Corridor adjoining the site, which is lit. As the East Lake site does not constitute part of this ‘main path’, lighting of the East Lake pathways is not ideal. The landscaping surrounding the East Lake does not provide any connection between places, rather is a destination in itself. Accordingly, there is no need to provide lighting at night, when the park is not likely and expected to be used.
- Due to the obscured nature of the East Lake landscaping area by the surrounding dwellings, if the park were to be lit and used at night there would be limited visibility from the surrounding public domain. It is therefore seen as the preferred solution to avoid providing lighting within the park to avoid people using the park at night.
- Surrounding streets, including Lakeside Parade, Greenwood Parkway, Callistemon Circuit and Bungendore Circuit will continue to be lit. These will be a far safer route for pedestrians and cyclists to take at night due to their visible nature and the fact that they will receive passive surveillance from houses surrounding. Accordingly, use of these roads and the footpaths adjacent should be encouraged.
- The proposal continues to achieve the objective of the provision in that pedestrian and cyclist traffic safety is ensured, by deterring users from the park at night when visibility of the parklands is lower.

Accordingly, it is not seen as a suitable application of the control under the DCS in this case, and not providing lighting at the site is a superior outcome in regards to safety and security of the site.

4.4 Water Cycle Management

The Water, Soils and Infrastructure Report prepared by SKM details the hydrological modelling and water quality of the site once the residential development is complete. Details of the stormwater development which will be employed to meet the above modelling and water quality requirements have been detailed in the Stormwater Management Strategy prepared by J. Wyndham Prince, and Stormwater Management Report prepared by Jacobs, which are included at **Appendices H and I** respectively.

The site is already used as a permanent basin, and the proposed works will not directly affect the basin, comprising only landscaping works surrounding the basin. The existing basin sufficiently meets the stormwater requirements of Jordan Springs, as detailed in the amended reports. A copy of the Stormwater Drainage Concept Plan for the East Lake Earthworks has been provided at **Attachment G**, which is relevant to the proposed landscaping works.

The proposed landscaping works have been located so as to minimise any impacts in a flood event, and flood levels have been demonstrated on the landscape concept plans. However the works themselves will not adversely affect the stormwater performance of the lake itself.

4.5 Accessibility

All paths around the site have been designed to grades to allow accessibility and will be designed to comply with AS1428. A purpose-built park for children with disabilities is located nearby at the

Northern Oval. However, the proposed park will include tactile equipment for children of all abilities. The play areas are accessible for prams and wheel chairs, as are all internal pathways.

4.6 Heritage Impact

Indigenous Heritage

An Aboriginal Archaeological Assessment has been undertaken by Godden Mackay Logan (GML) Heritage Consultants in relation to the wider Stage 5 subdivision, which was submitted with DA13/0935. This Assessment builds upon an extensive amount of studies and investigations previously undertaken on the St Marys site.

As noted in **Section 2.4**, an Aboriginal Heritage Impact Permit (No. 10996059) has been issued by DECCW under Section 90 of the National Parks and Wildlife Act 1974 which covers the site, including along with all 39 archaeological sites scattered across the Western Precinct.

Salvage excavation of the site (WP6) was undertaken and completed in July and August 2011 fulfilling Condition 2(a) of AHIP#10996059. The OEH was notified in writing of the completion of this excavation (letter, 29 August 2011, Ms Lou Ewins), which fulfilled Condition 2(b) of AHIP#10996059. GML confirmed in their letter under DA14/0935 that Lendlease may commence development works within the Village 5 area (WP6) with no further archaeological constraints or requirements.

European Heritage

As stated in **Section 2.4**, there are 4 heritage items listed under SREP 30 located within the Western Precinct (Items 9, 14, 15 and 16). None of these four heritage items are located in the vicinity of the site, consequently, the proposed works are unlikely to have any impact on these items.

4.7 Contamination

As discussed in the WPP, the St Mary's Precinct has been subject to extensive investigation and remediation, where necessary, throughout the 1990s. The Environmental Protection Agency (EPA), has been involved throughout this process and an EPA accredited Site Auditor issued Site Audit Statements for the St Mary's site.

Nevertheless, in order to ensure the appropriate management of any sub-surface contamination that may be encountered during future works in the Western Precinct, a Contamination Management Plan (CMP) has been adopted by the Council as part of the WPP. The CMP outlines the measures to be undertaken should contamination and/or explosive ordnance material be uncovered during the proposed works.

No further Site Audit Statements are required to be issued in relation to the development of the subject land.

4.8 Waste Management

The proposed development comprises only the landscaping works for the East Lake, and will not produce an excessive amount of waste either in construction or through ongoing use. However, for reference of Council a Waste Management Plan has been provided as part of this DA at **Attachment J**.

4.9 Site Suitability

The site is suitable for the proposed development in that:

- the proposed landscaping works were envisaged during the development of the stormwater basin under DA14/1497, which included a Condition of Development Consent that a future landscaping DA be lodged for the site within 12 months of the East Lake basin approval;
- the use of the site for recreational purposes is envisaged throughout SREP 30 and the Western Precinct Plan;

- the proposed recreational area will provide additional services to residents and visitors to the area, as part of the ongoing development of Jordan Springs and St Marys; and
- the landscaping will provide a strong transition between the suburb of Jordan Springs and the Regional Park to the east.

4.10 Social and Economic Impacts

The proposed development will have significant positive social impacts in regards to the delivery of highly demanded recreational space, which caters to a range of active and passive activities, in the Jordan Springs community. The proposed parklands will include accessible activities, running markers and the like to ensure a high quality useable recreation space is provided which can be used by all.

The proposed development will also have positive economic impacts by way of enabling the future development of the residue lakeside allotments in the future. By providing high quality landscaping under this DA, these residue allotments will be able to be developed in the future in such a manner which capitalises on the adjoining parkland by way of balconies, large windows and the like.

Additionally, construction crews at the lake will also be likely to patronise local shops in Jordan Springs, providing a short term boost to the local economy. In the longer term, this short term boost will continue be replaced by long term patronage from residents throughout Jordan Springs and surrounding suburbs.

4.11 Public Interest

The proposal will have a large scale tangible public benefit in that it will enable the provision of high quality public open space within Jordan Springs, which allows residents and visitors a pleasant environment to interact with and enjoy the East Lake, and provides for a range of recreational activities through the site.

The proposed landscaping will integrate the lake with the surrounding boundaries, and act as a transition point between Jordan Springs and the Regional Park. The design of the landscaping will also enable existing and future dwellings passive surveillance of the park, as well as preservation of important view corridors towards the East Lake.

Accordingly, the proposal is seen to be within the interest of the general public.

5.0 CONCLUSION

The proposed development is permissible with consent under *Sydney Regional Environmental Plan No. 30 – St Marys*, and is consistent with the future recreational space envisaged at the site under the Western Precinct Plan.

The proposal comprises the provision of a high quality area of landscaped open space within Jordan Springs, which will contribute to the continued growth of the community and provide opportunities for residents and visitors to the site to enjoy and interact with the East Lake.

In light of the merits of the proposal and in the absence of any significant adverse environmental, social or economic impacts, we recommend that the application be approved subject to standard conditions of consent. Should you have any queries about this matter, please do not hesitate to contact me on 9956 6962 or tsmith@jbaurban.com.au.

Yours faithfully



Tim Smith
Junior Urban Planner