

Our Ref: L11457

Email: john.halleen@rpsgroup.com.au
Date: 4 December 2013

Gary Williams
 Principal Environmental Planning Officer
 Environmental Planning Branch
 Office of the Environmental Protection Authority
 Locked Bag 10
 EAST PERTH WA 6892

Office of the Environmental Protection Authority	
File:	
06 DEC 2013	
<input type="checkbox"/> For Information	
<input type="checkbox"/> For Discussion	
<input type="checkbox"/> For Action	
<input type="checkbox"/> Dir. AC	Response please:
<input type="checkbox"/> Dir. Bus Ops	<input type="checkbox"/> GM Signature
<input type="checkbox"/> Dir. SPPD	<input type="checkbox"/> Dir for GM (copy to GM)
<input type="checkbox"/> Dir. Strat Sup	<input type="checkbox"/> Dir Signature (copy to GM)
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Dear Gary

SECTION 38 OF THE ENVIRONMENTAL PROTECTION ACT 1986 REFERRAL: COCKBURN CENTRAL WEST AND IMPACT ON EPP LAKE

Further to the Office of the Environmental Protection Authority (OEPA) letter 23 November 2013, please accept enclosed a formal referral for the partial infilling and redevelopment works across a portion of a lake protected under the *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992* (EPP Lake) on Lot 9504 Beelias Drive.

The proposed partial infilling and redevelopment works of the EPP Lake is required to accommodate future planned development in accordance with the Cockburn Central West Structure Plan. The proposal summary is outlined in the table below.

Table 1: Project Summary Description

Project Component	Proposal Characteristic
Site Location	
Site location	City of Cockburn – Lots 1, 53 and 55 North Lake Road, Lot 54 Poletti Road and Lots 54, 804 and 9504 Beelias Drive, Cockburn (Figure 1)
EPP Lake	Occurring over parts of Lot 9504 Beelias Drive and Lots 5 and 8 (Figure 2)
Development Works	
Total area of Development Area within EPP Lake boundary	<ul style="list-style-type: none"> • 0.45 ha – directly impacted • 1.37 ha – subject to stormwater treatment design and landscaping (Figure 2)
Total area of Development Area within Resource Enhancement wetland boundary	1.99 ha (Figure 2)
Development Commencement	Early 2014 onwards
Land Use Zoning	
MRS; City of Cockburn TPS	Zoned "Urban"; Regional Centre
Cockburn Central Structure Plan	The Structure Plan proposes roads and mixed use development within the EPP Boundary (Figure 3)

Cockburn Central West Modified Structure Plan

The Cockburn Central West Modified Structure Plan which proposed to retain a portion of the EPP Lake and Resource Enhancement Wetland was endorsed by the City of Cockburn at its November 2013 meeting (Figure 3).

Key principles guiding the Cockburn Central West Modified Structure Plan include:

- integration of the wetland as part of the community
- achieve the required dimensions of the required recreational elements
- integrate the regional recreational facility as part of the new community
- maximise public interaction with a diversity of green open spaces
- establish strong pedestrian accessibility
- deliver the objectives of Directions 2031 and Activity Centres policies
- leverage the significant government investment in the southern suburbs railway
- extend the principle east-west streets from town centre and create interconnected internal streets
- extend intensity of development by adequately addressing Midgegooroo Avenue
- create a vibrant city centre through the provision of a critical mass of people, businesses and attractions.

Wetland Concept Plan

As a component of the Cockburn Central West Modified Structure Plan, LandCorp in collaboration with the City of Cockburn developed a draft Wetland Concept Plan (Figure 4). The Wetland Concept Plan designates the following stormwater and landscaping treatments:

- contamination / run-off
 - stormwater will be filtered through the use of bio filtration swales located around the periphery of the wetland, nutrients are removed by filtration through the use of native wetland vegetation and uptake by plant biomass
 - once treated through the bio filtration swales, water will infiltrate and only overtop the swales and flow into the main body of the wetland through rock weirs in larger rainfall events (greater than the 1 in 1 year ARI)
- flood events / submerge habitat
 - non-rain event – wetland will contain water/groundwater all year round, as it currently does. Bio filtration Swales on the periphery of the wetland are intended to be dry for a majority of the year

- 1:1 year rain event – all stormwater will initially enter the bio filtration swales which are designed to store, treat and infiltrate the 1 in 1 year event. the common rainfall events will not flow into the wetland core
- 1:5 year rain event – will flow into the wetland core once capacity in the bio filtration swales is exceeded; it is anticipated the event will infiltrate within 1.5 days
- 1:100 year rain event – will flood the entire extent of the wetland boundary, is anticipated to recede within four days
- enhancement to the wetland
 - revegetate degraded areas, protect existing flora and fauna by removing weeds, preventing uncontrolled access by people, traffic and bikes, remove rubbish and increase community access and appreciation of the wetland
 - wetland swales will provide additional habitat with local native wetland species, typically found on the periphery of wetlands will be planted in the bio-filtration swales, providing habitat, refuge and water quality treatment
 - key design criteria of the wetland design will be for it to continue and operate in perpetuity.

Wetland Management Approval Requirements

Consistent with the EPA's Public Advice on the previous Section 38 approval LandCorp will be finalising to the satisfaction of the City of Cockburn (on advice from Department of Water) the following:

- Wetland Management Plan
- Local Water Management Strategy.

Wetland Management Plan

LandCorp as the proponent will be required (as a subdivision condition) to revegetate and landscape the retained wetland as outlined in the Concept Plan. LandCorp will be required to maintain the wetland for a period of time, approximately two years following construction (to be confirmed with the City of Cockburn). The wetland will be landscaped and functioning to an agreed level prior to hand over to the City of Cockburn who will assume long-term management responsibility.

Water Management

Local Water Management Strategy (LWMS) has been finalised in support the Structure Plan application. The LWMS will present details on the wetland concept designs, landscaping and stormwater management designs and design criteria.

Urban Water Management Plan (UWMP) will be required as a condition of subdivision. The UWMP provides all the final detailed engineering and landscaping plans for the stormwater management system and wetland design. It includes final monitoring locations and time frames.

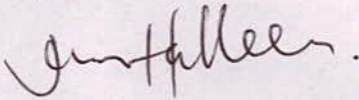
Consultation

The Cockburn Central West Structure Plan was advertised for a three-week period and subject to extensive community review in particular in regards to the wetland. Key advisory departments including the Department of Parks and Wildlife (Karen Sanders) and the Department of Water (Brett Dunne) were consulted during the modification to the Structure Plan. LandCorp has also met with the Wildflower Society and the Cockburn Wetlands Education Centre to discuss the key modifications to the Structure Plan.

Should you have any questions or concerns, please do not hesitate to contact the undersigned or Matt Bradley at LandCorp (Senior Development Manager on 9482 7554).

Yours sincerely

RPS



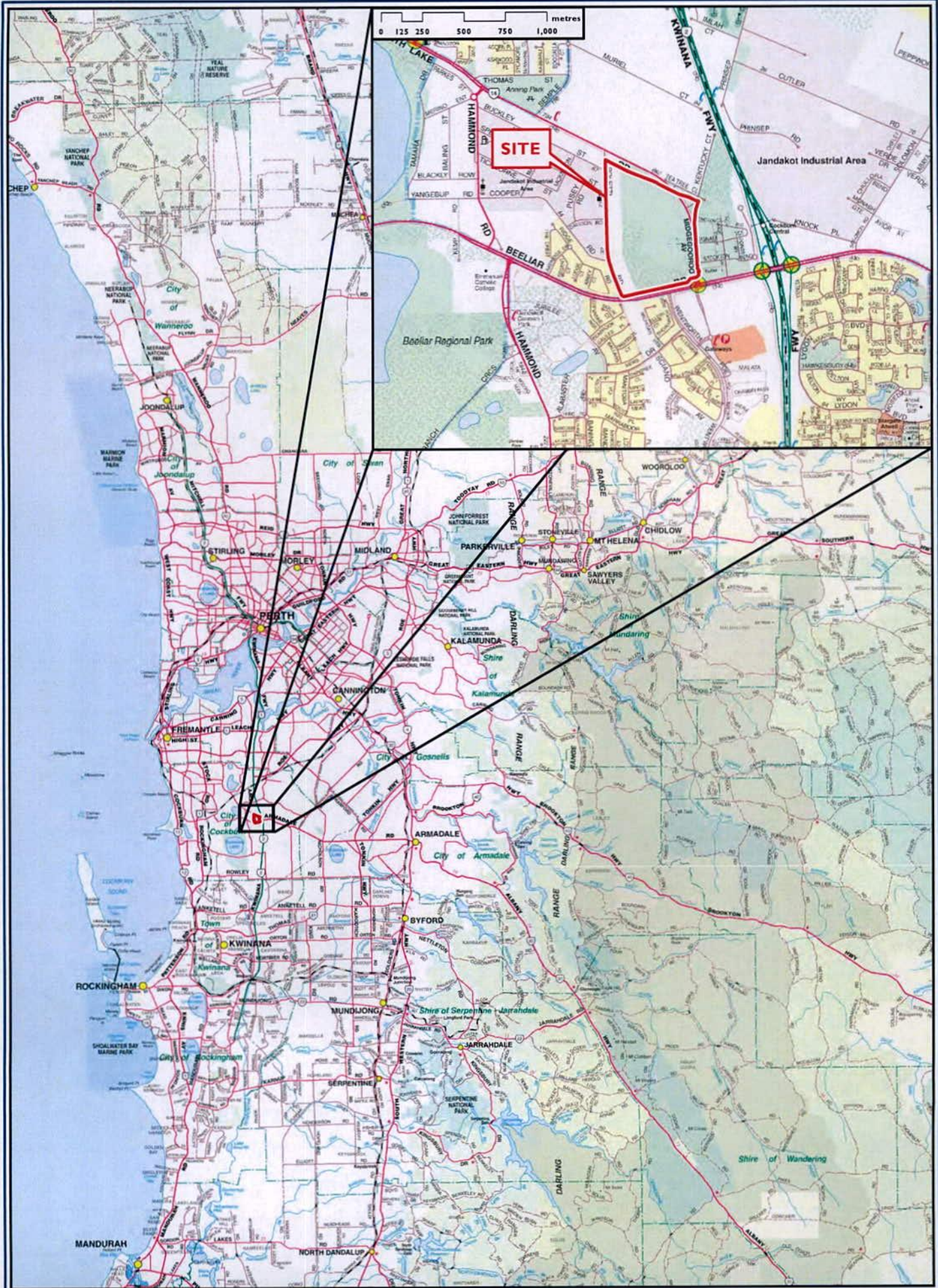
JOHN HALLEEN

Technical Director

enc: *Figures*

S.38 referral – Cockburn Central Structure Plan impacting on Environmental Protection (Swan Coastal Plain Lakes) Policy 1992 (EPP Lake)

cc: Matt Bradley, LandCorp





LEGEND

- Site Boundary
- EPP Wetland Area
- EPP Lake Boundary

Geomorphic Wetland Mapping

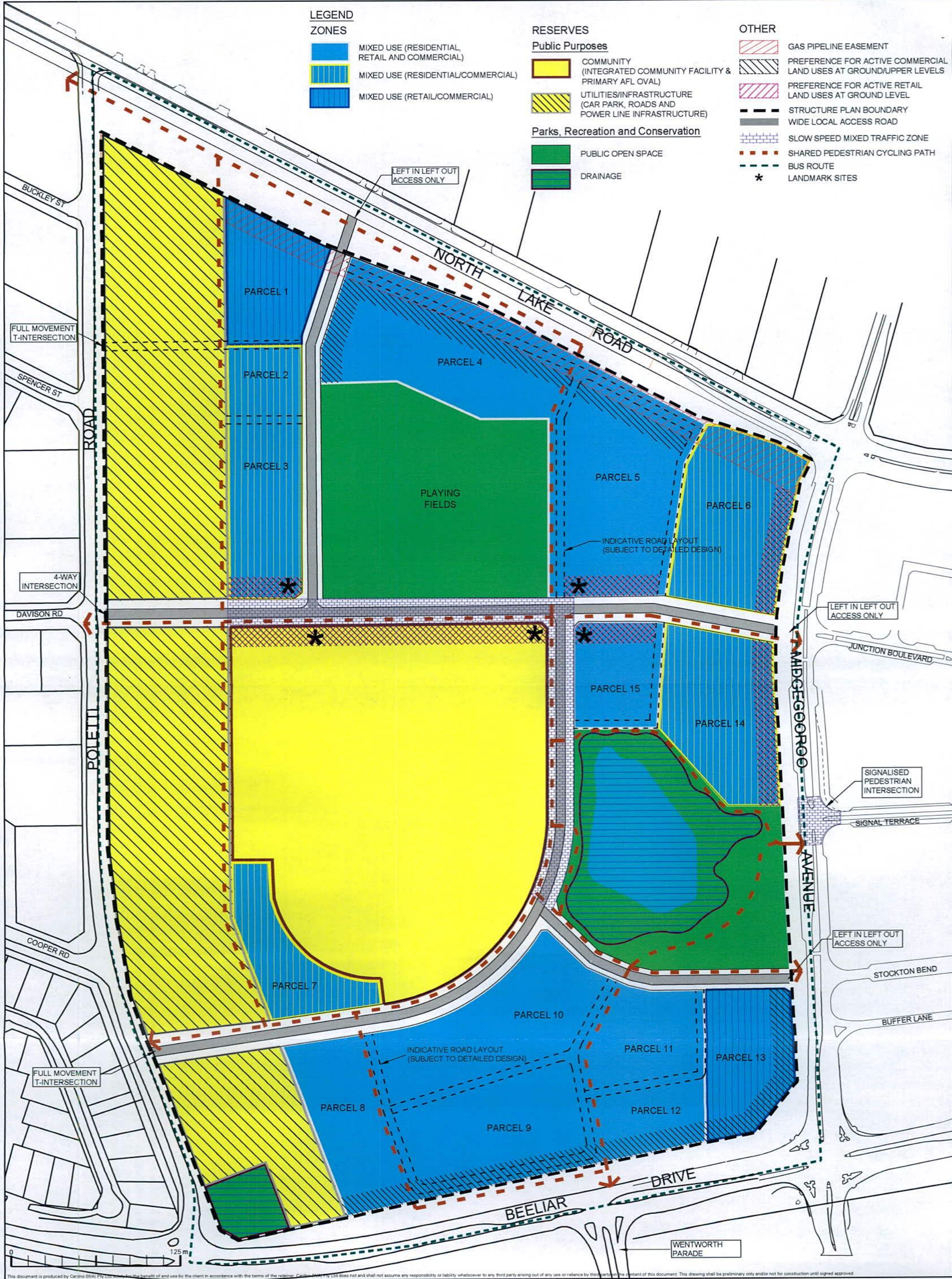
- Resource Enhancement
- Multiple Use

Job Number: L11457
 Doc Number: 002
 Date: 29.11.13
 Scale: 1:3,000 @ A3
 Drafted by: MA
 Source: Cadastre & Orthophoto - Landgate, 2013 Wetlands - DEC, 2013 EPP Lakes - DEC 1992

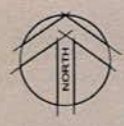


Figure 2

Wetlands Mapping



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Cockburn Central West - Northern stormwater outlet pipe and water energy suppression area
Boardwalks, lookout and wetland information signage

JUNCTION BOULEVARD

Rock stabilised weir to accommodate overflow in storm events higher than 1:1

Boardwalk / Lookout

Cockburn Central East - Stormwater outlet pipe and water energy suppression area

Expression of ground water / localised wetland with surrounding filtration zones

Possible Community Facilities

Boardwalk with interpretive signage and art

Anticipated Retained Vegetation
Cockburn Central East - Stormwater outlet pipe and water energy suppression area

AFL PLAYING FIELD

WETLAND

Cockburn Central West - Southern stormwater outlet pipe and water energy suppression area

SUBURGENT EXCESSIVE DRAIN

MIDDEGOOROO AVENUE

Recreational Space (Not for signage)

Rock stabilised weir to accommodate overflow in storm events higher than 1:1

Soil berm dividing the wetland and 1:1 drainage areas. Berms will provide refuge for flora and fauna species that require dry areas.

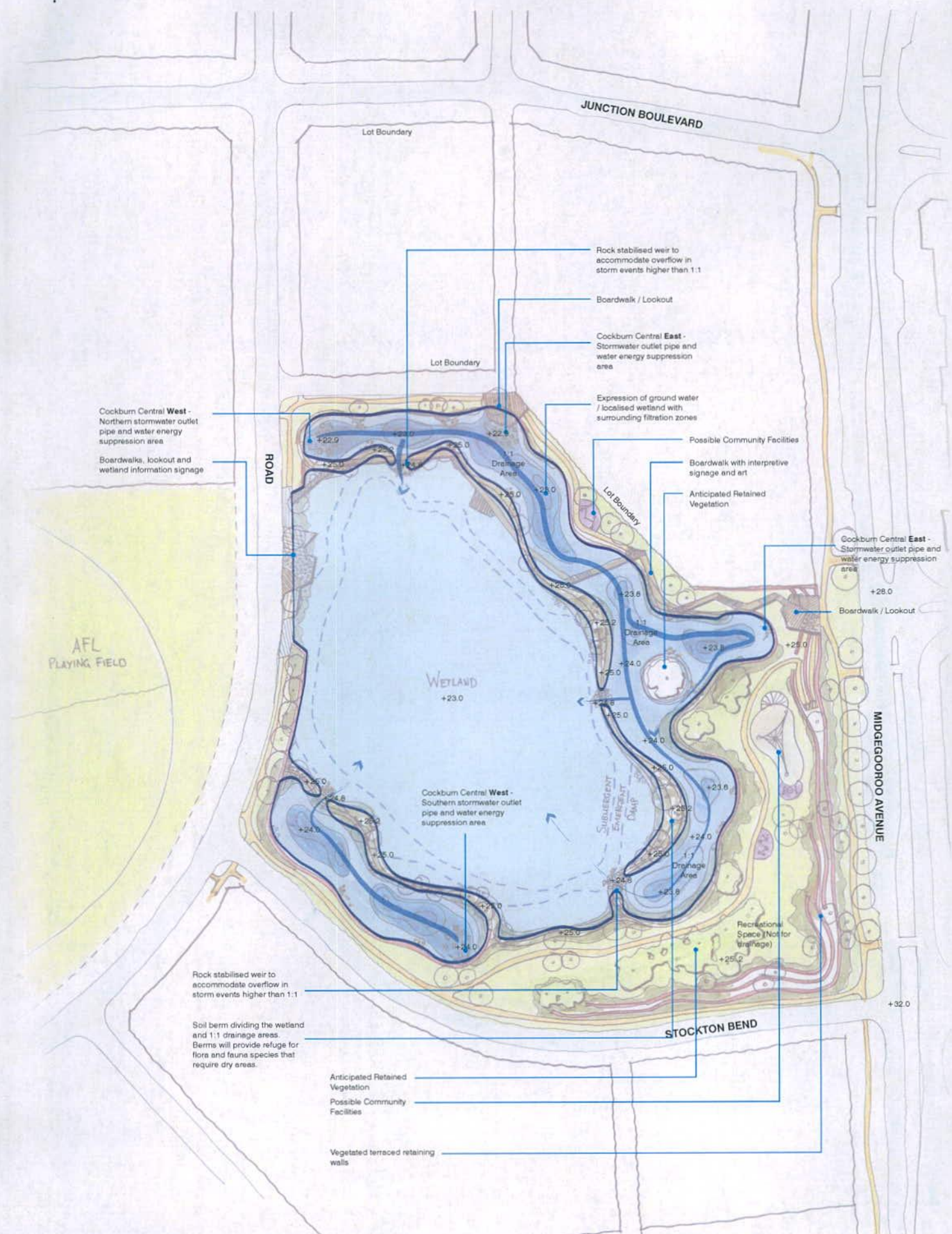
STOCKTON BEND

Anticipated Retained Vegetation
Possible Community Facilities

Vegetated terraced retaining walls

DRAFT CONCEPT ONLY
Subject to further design, study, engineering input, survey and council approval.

SPOT HEIGHTS
All spot heights noted on the plan are from the existing survey. Proposed contouring and spot heights require further engineering input.



Cockburn Central West - Northern stormwater outlet pipe and water energy suppression area
Boardwalks, lookout and wetland information signage

Rock stabilised weir to accommodate overflow in storm events higher than 1:1

Boardwalk / Lookout

Cockburn Central East - Stormwater outlet pipe and water energy suppression area

Expression of ground water / localised wetland with surrounding filtration zones

Possible Community Facilities

Boardwalk with interpretive signage and art

Anticipated Retained Vegetation

Cockburn Central East - Stormwater outlet pipe and water energy suppression area

Boardwalk / Lookout

Cockburn Central West - Southern stormwater outlet pipe and water energy suppression area

Recreational Space (Not for drainage)

Rock stabilised weir to accommodate overflow in storm events higher than 1:1

Soil berm dividing the wetland and 1:1 drainage areas. Berms will provide refuge for flora and fauna species that require dry areas.

Anticipated Retained Vegetation

Possible Community Facilities

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Environmental Protection Authority

**EPA REFERRAL
FORM
PROPONENT**

Referral of a Proposal by the Proponent to the Environmental Protection Authority under Section 38(1) of the *Environmental Protection Act 1986*.

PURPOSE OF THIS FORM

Section 38(1) of the *Environmental Protection Act 1986* (EP Act) provides that where a development proposal is likely to have a significant effect on the environment, a proponent may refer the proposal to the Environmental Protection Authority (EPA) for a decision on whether or not it requires assessment under the EP Act. This form sets out the information requirements for the referral of a proposal by a proponent.

Proponents are encouraged to familiarise themselves with the EPA's *General Guide on Referral of Proposals* [see Environmental Impact Assessment/Referral of Proposals and Schemes] before completing this form.

A referral under section 38(1) of the EP Act by a proponent to the EPA must be made on this form. A request to the EPA for a declaration under section 39B (derived proposal) must be made on this form. This form will be treated as a referral provided all information required by Part A has been included and all information requested by Part B has been provided to the extent that it is pertinent to the proposal being referred. Referral documents are to be submitted in two formats – hard copy and electronic copy. The electronic copy of the referral will be provided for public comment for a period of 7 days, prior to the EPA making its decision on whether or not to assess the proposal.

CHECKLIST

Before you submit this form, please check that you have:

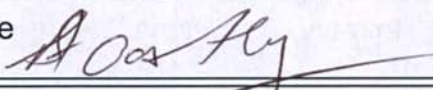
	Yes	No
Completed all the questions in Part A (essential).	x	
Completed all applicable questions in Part B.	x	
Included Attachment 1 – location maps.	x	
Included Attachment 2 – additional document(s) the proponent wishes to provide (if applicable).	x	
Included Attachment 3 – confidential information (if applicable).		x
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping but excluding confidential information.	x	

Following a review of the information presented in this form, please consider the following question (a response is optional).

Do you consider the proposal requires formal environmental impact assessment?		
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not sure
If yes, what level of assessment?		
<input type="checkbox"/> Assessment on Proponent Information	<input type="checkbox"/> Public Environmental Review	

PROPONENT DECLARATION (to be completed by the proponent)

I, SUSAN ANITA OOSTHUIZEN, (full name) declare that I am authorised on behalf of LANDCORP (being the person responsible for the proposal) to submit this form and further declare that the information contained in this form is true and not misleading.

Signature 	Name (print) <u>SUSAN OOSTHUIZEN</u>
Position <u>MANAGER ACTIVITY CENTRES</u>	Company - LandCorp
Date <u>4/12/2013</u>	

PART A - PROPONENT AND PROPOSAL INFORMATION

(All fields of Part A must be completed for this document to be treated as a referral)

1 PROPONENT AND PROPOSAL INFORMATION

1.1 Proponent

Name	LandCorp
Joint Venture parties (if applicable)	
Australian Company Number (if applicable)	
Postal Address (where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State)	Level 6 Wesfarmers House 40 The Esplanade PERTH WA 6000
Key proponent contact for the proposal: <ul style="list-style-type: none">• name• address• phone• email	<ul style="list-style-type: none">• Susan Oosthuizen• As above• 9482 7558• Susan.Oosthuizen@landcorp.com.au
Consultant for the proposal (if applicable): <ul style="list-style-type: none">• name• address• phone• email	<ul style="list-style-type: none">• John Halleen• 38 Station Street, Subiaco WA 6008• 9211 1111• john.halleen@rpsgroup.com.au

1.2 Proposal

Title	Cockburn Central Structure Plan impacting on <i>Environmental Protection (Swan Coastal Plain Lakes) Policy 1992 (EPP Lake)</i> .
Description	Cockburn Central development impacting on EPP Lake.
Extent (area) of proposed ground disturbance.	EPP Lake area – 1.82 ha Resource Enhancement wetland (UFI 6659) area – 1.99
Timeframe in which the activity or development is proposed to occur (including start and finish dates where applicable).	Bulk earthworks anticipated to commence in 2014.
Details of any staging of the proposal.	Single stage
Is the proposal a strategic proposal?	No
Is the proponent requesting a declaration that the proposal is a derived proposal? If so, provide the following information on the strategic assessment within which the referred proposal was identified: <ul style="list-style-type: none">• title of the strategic assessment; and• Ministerial Statement number.	No
Please indicate whether, and in what way, the proposal is related to other proposals in the	No. The EPA in 2012 previously approved a s. 38 referral to

region.	amendment this EPP Lake to facilitate stormwater drainage from the existing Cockburn Central development (referral A504682).
Does the proponent own the land on which the proposal is to be established? If not, what other arrangements have been established to access the land?	WAPC owned. Project is supported by WAPC – LandCorp is appointed as the Development Manager for the project.
What is the current land use on the property, and the extent (area in hectares) of the property?	Wetland area historically used for agricultural purposes (watering area for cattle), currently unmanaged.

1.3 Location

Name of the Shire in which the proposal is located.	City of Cockburn
For urban areas: <ul style="list-style-type: none"> • street address; • lot number; • suburb; and • nearest road intersection. 	<ul style="list-style-type: none"> • 9504 Beelias Drive • Lot 9504 • Cockburn Central • Midgegooroo Ave and Beelias Drive
For remote localities: <ul style="list-style-type: none"> • nearest town; and • distance and direction from that town to the proposal site. 	
Electronic copy of spatial data - GIS or CAD, geo-referenced and conforming to the following parameters: <ul style="list-style-type: none"> • GIS: polygons representing all activities and named; • CAD: simple closed polygons representing all activities and named; • datum: GDA94; • projection: Geographic (latitude/longitude) or Map Grid of Australia (MGA); • format: Arcview shapefile, Arcinfo coverages, Microstation or AutoCAD. 	Enclosed?: Yes

1.4 Confidential Information

Does the proponent wish to request the EPA to allow any part of the referral information to be treated as confidential?	No
If yes, is confidential information attached as a separate document in hard copy?	

1.5 Government Approvals

Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.	No								
Is approval required from any Commonwealth or State Government agency or Local Authority for any part of the proposal? If yes, please complete the table below.	Yes								
<table border="1"> <thead> <tr> <th>Agency/Authority</th> <th>Approval required</th> <th>Application lodged Yes / No</th> <th>Agency/Local Authority contact(s) for proposal</th> </tr> </thead> <tbody> <tr> <td>City of Cockburn and the WAPC</td> <td>Local Structure Plan</td> <td>Yes (endorsed by the City of Cockburn in November 2013)</td> <td> <ul style="list-style-type: none"> • Roberto Colalillo (City of Cockburn) </td> </tr> </tbody> </table>	Agency/Authority	Approval required	Application lodged Yes / No	Agency/Local Authority contact(s) for proposal	City of Cockburn and the WAPC	Local Structure Plan	Yes (endorsed by the City of Cockburn in November 2013)	<ul style="list-style-type: none"> • Roberto Colalillo (City of Cockburn) 	
Agency/Authority	Approval required	Application lodged Yes / No	Agency/Local Authority contact(s) for proposal						
City of Cockburn and the WAPC	Local Structure Plan	Yes (endorsed by the City of Cockburn in November 2013)	<ul style="list-style-type: none"> • Roberto Colalillo (City of Cockburn) 						

			<ul style="list-style-type: none"> • Paul Sewell (Department of Planning)
City of Cockburn and the WAPC	Subdivision Approval	No	
City of Cockburn	Development Application	No	

PART B - ENVIRONMENTAL IMPACTS AND PROPOSED MANAGEMENT

2. ENVIRONMENTAL IMPACTS

Describe the impacts of the proposal on the following elements of the environment, by answering the questions contained in Sections 2.1-2.11:

- 2.1 flora and vegetation;
- 2.2 fauna;
- 2.3 rivers, creeks, wetlands and estuaries;
- 2.4 significant areas and/ or land features;
- 2.5 coastal zone areas;
- 2.6 marine areas and biota;
- 2.7 water supply and drainage catchments;
- 2.8 pollution;
- 2.9 greenhouse gas emissions;
- 2.10 contamination; and
- 2.11 social surroundings.

These features should be shown on the site plan, where appropriate.

For all information, please indicate:

- (a) the source of the information; and
- (b) the currency of the information.

2.1 Flora and Vegetation

2.1.1 Do you propose to clear any native flora and vegetation as a part of this proposal?

[A proposal to clear native vegetation may require a clearing permit under Part V of the EP Act (Environmental Protection (Clearing of Native Vegetation) Regulations 2004)]. Please contact the Department of Environment and Conservation (DEC) for more information.

(please tick) Yes

If yes, complete the rest of this section.

No

If no, go to the next section

2.1.2 How much vegetation are you proposing to clear (in hectares)?

EPP Lake area – 0.45 ha

2.1.3 Have you submitted an application to clear native vegetation to the DEC (unless you are exempt from such a requirement)?

Yes

No

If yes, on what date and to which office was the application submitted of the DEC?

2.1.4 Are you aware of any recent flora surveys carried out over the area to be disturbed by this proposal?

Yes No

If yes, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If no, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

Flora report previously provided to OEPA.

2.1.5 Has a search of DEC records for known occurrences of rare or priority flora or threatened ecological communities been conducted for the site?

Yes No

If you are proposing to clear native vegetation for any part of your proposal, a search of DEC records of known occurrences of rare or priority flora and threatened ecological communities will be required. Please contact DEC for more information.

2.1.6 Are there any known occurrences of rare or priority flora or threatened ecological communities on the site?

Yes No

If yes, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

2.1.7 If located within the Perth Metropolitan Region, is the proposed development within or adjacent to a listed Bush Forever Site? (You will need to contact the Bush Forever Office, at the Department for Planning and Infrastructure)

Yes No

If yes, please indicate which Bush Forever Site is affected (site number and name of site where appropriate).

2.1.8 What is the condition of the vegetation at the site?

Very Good to Degraded (Figure 6).

2.2 Fauna

2.2.1 Do you expect that any fauna or fauna habitat will be impacted by the proposal?

(please tick) Yes

If yes, complete the rest of this section.

No

If no, go to the next section.

2.2.2 Describe the nature and extent of the expected impact.

The Structure Plan proposes to partially infill and re-develop/landscape a portion of the EPP Lake and therefore, result in a loss of the following broad fauna habitat types:

- Thick scrub in the emergent to damp zone consisting of *Melaleuca preissiana* over Closed Tall Scrub over Sedgeland over Open to Closed Herbland
- Low Open Forest of *Melaleuca preissiana* and *Banksia littoralis* over shrubland and herbland

However, due to the degraded nature of this vegetation within the wetland, it is not considered likely that any significant fauna would use these habitats.

There is the potential for temporary impacts during construction works to the following vegetation units:

- Submergent wetland area consisting of shallow permanent water with reeds and herbs
- Grassland and sedgeland of *Ehrharta calycina* and *Baumea juncea*
- Open Shrubland over Sedgeland over Closed Herbland in the emergent zone.

A Wetland Management Plan will be prepared and finalised to the satisfaction of the City of Cockburn as a condition of subdivision. The Wetland Management Plan will define the rehabilitation objectives, methodology and completion criteria for re-vegetation of the wetland consistent with the wetland concept plan.

2.2.3 Are you aware of any recent fauna surveys carried out over the area to be disturbed by this proposal?

Yes

No

If yes, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If no, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

Fauna report previously provided to OEPA.

2.2.4 Has a search of DEC records for known occurrences of Specially Protected (threatened) fauna been conducted for the site?

Yes

No (please tick)

2.2.5 Are there any known occurrences of Specially Protected (threatened) fauna on the site?

Yes

No

If yes, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

2.3 Rivers, Creeks, Wetlands and Estuaries

2.3.1 Will the development occur within 200 metres of a river, creek, wetland or estuary?

(please tick)

Yes

If yes, complete the rest of this section.

No

If no, go to the next section.

2.3.2 Will the development result in the clearing of vegetation within the 200 metre zone?

Yes

No

If yes, please describe the extent of the expected impact.

Development will occur within 200 m of the EPP Lake consistent with the approved Local Structure Plan and the 'Urban' and 'Regional Centre' approved land uses under the MRS and TPS.

2.3.3 Will the development result in the filling or excavation of a river, creek, wetland or estuary?

Yes

No

If yes, please describe the extent of the expected impact.

2.3.4 Will the development result in the impoundment of a river, creek, wetland or estuary?

Yes

No

If yes, please describe the extent of the expected impact.

2.3.5 Will the development result in draining to a river, creek, wetland or estuary?

Yes

No

If yes, please describe the extent of the expected impact.

2.3.6 Are you aware if the proposal will impact on a river, creek, wetland or estuary (or its buffer) within one of the following categories? (please tick)

Conservation Category Wetland	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure

Perth's Bush Forever site	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Environmental Protection (Swan & Canning Rivers) Policy 1998	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
The management area as defined in s4(1) of the <i>Swan River Trust Act 1988</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Which is subject to an international agreement, because of the importance of the wetland for waterbirds and waterbird habitats (e.g. Ramsar, JAMBA, CAMBA)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure

2.4 Significant Areas and/ or Land Features

2.4.1 Is the proposed development located within or adjacent to an existing or proposed National Park or Nature Reserve?

Yes No **If yes**, please provide details.

2.4.2 Are you aware of any Environmentally Sensitive Areas (as declared by the Minister under section 51B of the EP Act) that will be impacted by the proposed development?

Yes No **If yes**, please provide details.

The Environmentally Sensitive Area is associated with Resource Enhancement wetland UFI 6659

2.4.3 Are you aware of any significant natural land features (e.g. caves, ranges etc) that will be impacted by the proposed development?

Yes No **If yes**, please provide details.

2.5 Coastal Zone Areas (Coastal Dunes and Beaches)

2.5.1 Will the development occur within 300metres of a coastal area?

(please tick)

Yes

If yes, complete the rest of this section.

No

If no, go to the next section.

2.5.2 What is the expected setback of the development from the high tide level and from the primary dune?

2.5.3 Will the development impact on coastal areas with significant landforms including beach ridge plain, cusped headland, coastal dunes or karst?

Yes

No

If yes, please describe the extent of the expected impact.

2.5.4 Is the development likely to impact on mangroves?

Yes

No

If yes, please describe the extent of the expected impact.

2.6 Marine Areas and Biota

2.6.1 Is the development likely to impact on an area of sensitive benthic communities, such as seagrasses, coral reefs or mangroves?

Yes

No

If yes, please describe the extent of the expected impact.

2.6.2 Is the development likely to impact on marine conservation reserves or areas recommended for reservation (as described in *A Representative Marine Reserve System for Western Australia*, CALM, 1994)?

Yes

No

If yes, please describe the extent of the expected impact.

2.6.3 Is the development likely to impact on marine areas used extensively for recreation or for commercial fishing activities?

Yes

No

If yes, please describe the extent of the expected impact, and provide any written advice from relevant agencies (e.g. Fisheries WA).

2.7 Water Supply and Drainage Catchments

2.7.1 Are you in a proclaimed or proposed groundwater or surface water protection area?

(You may need to contact the Department of Water (DoW) for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

Yes No **If yes**, please describe what category of area.

2.7.2 Are you in an existing or proposed Underground Water Supply and Pollution Control area?

(You may need to contact the DoW for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

Yes No **If yes**, please describe what category of area.

2.7.3 Are you in a Public Drinking Water Supply Area (PDWSA)?

(You may need to contact the DoW for more information or refer to the DoW website. A proposal to clear vegetation within a PDWSA requires approval from DoW.)

Yes No **If yes**, please describe what category of area.

2.7.4 Is there sufficient water available for the proposal?

(Please consult with the DoW as to whether approvals are required to source water as you propose. Where necessary, please provide a letter of intent from the DoW)

Yes No (please tick)

2.7.5 Will the proposal require drainage of the land?

Yes No **If yes**, how is the site to be drained and will the drainage be connected to an existing Local Authority or Water Corporation drainage system? Please provide details.

2.7.6 Is there a water requirement for the construction and/ or operation of this proposal?

(please tick) Yes **If yes**, complete the rest of this section.

No **If no**, go to the next section.

2.7.7 What is the water requirement for the construction and operation of this proposal, in kilolitres per year?

2.7.8 What is the proposed source of water for the proposal? (e.g. dam, bore, surface water etc.)

2.8 Pollution

2.8.1 Is there likely to be any discharge of pollutants from this development, such as noise, vibration, gaseous emissions, dust, liquid effluent, solid waste or other pollutants?

(please tick) Yes **If yes**, complete the rest of this section.
 No **If no**, go to the next section.

2.8.2 Is the proposal a prescribed premise, under the Environmental Protection Regulations 1987?

(Refer to the EPA's *General Guide for Referral of Proposals to the EPA under section 38(1) of the EP Act 1986* for more information)

Yes No **If yes**, please describe what category of prescribed premise.

2.8.3 Will the proposal result in gaseous emissions to air?

Yes No **If yes**, please briefly describe.

2.8.4 Have you done any modelling or analysis to demonstrate that air quality standards will be met, including consideration of cumulative impacts from other emission sources?

Yes No **If yes**, please briefly describe.

2.8.5 Will the proposal result in liquid effluent discharge?

Yes No **If yes**, please briefly describe the nature, concentrations and receiving environment.

2.8.6 If there is likely to be discharges to a watercourse or marine environment, has any analysis been done to demonstrate that the State Water Quality Management Strategy or other appropriate standards will be able to be met?

Yes No **If yes**, please describe.

2.8.7 Will the proposal produce or result in solid wastes?

Yes No **If yes**, please briefly describe the nature, concentrations and disposal location/ method.

2.8.8 Will the proposal result in significant off-site noise emissions?

Yes

No

If yes, please briefly describe.

2.8.9 Will the development be subject to the Environmental Protection (Noise) Regulations 1997?

Yes

No

If yes, has any analysis been carried out to demonstrate that the proposal will comply with the Regulations?

Please attach the analysis.

2.8.10 Does the proposal have the potential to generate off-site, air quality impacts, dust, odour or another pollutant that may affect the amenity of residents and other "sensitive premises" such as schools and hospitals (proposals in this category may include intensive agriculture, aquaculture, marinas, mines and quarries etc.)?

Yes

No

If yes, please describe and provide the distance to residences and other "sensitive premises".

2.8.11 If the proposal has a residential component or involves "sensitive premises", is it located near a land use that may discharge a pollutant?

Yes

No

Not Applicable

If yes, please describe and provide the distance to the potential pollution source

2.9 Greenhouse Gas Emissions

2.9.1 Is this proposal likely to result in substantial greenhouse gas emissions (greater than 100 000 tonnes per annum of carbon dioxide equivalent emissions)?

Yes

No

If yes, please provide an estimate of the annual gross emissions in absolute and in carbon dioxide equivalent figures.

2.9.2 Further, if yes, please describe proposed measures to minimise emissions, and any sink enhancement actions proposed to offset emissions.

2.10 Contamination

2.10.1 Has the property on which the proposal is to be located been used in the past for activities which may have caused soil or groundwater contamination?

Yes No Unsure **If yes**, please describe.

2.10.2 Has any assessment been done for soil or groundwater contamination on the site?

Yes No **If yes**, please describe.

2.10.3 Has the site been registered as a contaminated site under the *Contaminated Sites Act 2003*? (on finalisation of the CS Regulations and proclamation of the CS Act)

Yes No **If yes**, please describe.

2.11 Social Surroundings

2.11.1 Is the proposal on a property which contains or is near a site of Aboriginal ethnographic or archaeological significance that may be disturbed?

Yes No Unsure **If yes**, please describe.

2.11.2 Is the proposal on a property which contains or is near a site of high public interest (e.g. a major recreation area or natural scenic feature)?

Yes No **If yes**, please describe.

2.11.3 Will the proposal result in or require substantial transport of goods, which may affect the amenity of the local area?

Yes No **If yes**, please describe.

3. PROPOSED MANAGEMENT

3.1 Principles of Environmental Protection

3.1.1 Have you considered how your project gives attention to the following Principles, as set out in section 4A of the EP Act? (For information on the Principles of Environmental Protection, please see EPA Position Statement No. 7, available on the EPA website)

- | | | |
|--|---|-----------------------------|
| 1. The precautionary principle. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. The principle of intergenerational equity. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. The principle of the conservation of biological diversity and ecological integrity. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Principles relating to improved valuation, pricing and incentive mechanisms. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. The principle of waste minimisation. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

3.1.2 Is the proposal consistent with the EPA's Environmental Protection Bulletins/Position Statements and Environmental Assessment Guidelines/Guidance Statements (available on the EPA website)?

- Yes No

3.2 Consultation

3.2.1 Has public consultation taken place (such as with other government agencies, community groups or neighbours), or is it intended that consultation shall take place?

- Yes No

If yes, please list those consulted and attach comments or summarise response on a separate sheet.

The Cockburn Central West Structure Plan was advertised for a three week period and subject to extensive community review in particular in regards to the wetland. Key advisory departments including the Department of Parks and Wildlife (Karen Sanders) and the Department of Water (Brett Dunne) were consulted during the modification to the Structure Plan. LandCorp has also met with the Wildflower Society and the Cockburn Wetlands Education Centre to discuss the key modifications to the Structure Plan.

The Office of the EPA, the Department of Water and the Department of Parks and Wildlife has been briefed and informed in regards to the Cockburn Central Structure Plan and the rationale for the impact on the EPP Lake and Resource Enhancement wetland.