



## Department of Primary Industries

OUT14/29634

Mr Mark Brown  
Key Sites and Social Projects  
NSW Department of Planning and Environment  
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Dear Mr Brown,

**North Ryde Station Urban Activation Precinct (SSD\_5093)  
Response to exhibition of Environmental Assessment**

I refer to your letter and email dated 5 August 2014 requesting advice from the Department of Primary Industries (DPI) in respect to the above matter.

Comment by NSW Office of Water

The NSW Office of Water (Office of Water) has reviewed the Environmental Impact Statement (EIS) and provides the following recommendations and detailed comments at Attachment A. Recommended Conditions of Approval are found in Attachment B.

- Further consideration is required of the proposed treatment of the creek/riparian area along the western boundary of the M2 site (which may be Porters Creek).
- There is inconsistency in the proposed riparian corridor widths for Porters Creek. It is recommended that the riparian corridor widths be 30 m each side of Porters Creek, consistent with the North Ryde Station Precinct DCP (2013).
- Should greater than 3 ML per annum of groundwater be likely to be intercepted at any stage of the life of the project, then further consideration is required of water licensing requirements and potential impacts to high probability groundwater dependent ecosystems.

For further information please contact Janne Grose, Planning and Assessment Coordinator (Penrith office) on 4729 8262 or at [janne.grose@water.nsw.gov.au](mailto:janne.grose@water.nsw.gov.au).

Future referrals

Please note the responsible position within the Department of Primary Industries for seeking comment on State Significant development matters is the Land Use

Planning Coordinator in the Policy, Legislation and Innovation Division. The addresses for referring such matters are:

(i) Electronic referrals, to: [landuse.enquiries@dpi.nsw.gov.au](mailto:landuse.enquiries@dpi.nsw.gov.au)

(ii) Hard copy referrals by post, to:

Land Use Planning Coordinator  
Department of Primary Industries  
Policy, Legislation and Innovation  
GPO Box 5477  
Sydney NSW 2001

(iii) Deliveries, to: Level 48, MLC Centre. 19 Martin Place. Sydney.

Yours sincerely



Kristian Holz  
**Policy, Legislation and Innovation**

## Attachment A

### North Ryde Station Urban Activation Precinct (SSD\_5093) Response to exhibition of EIS Additional comments by NSW Office of Water

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#### Watercourses and Riparian Land

##### Porters Creek

Reports accompanying the North Ryde Station Precinct Concept Plan (MP11-0030) indicate Porters Creek is located in the northern vegetated area of the M2 site, for example:

- North Ryde Station Precinct Part 3A and SSS Application - Preliminary Environmental Assessment Plan (dated 30 Nov 2010) (see Section 6.5.2, page 46).
- North Ryde Station Precinct Part 3A and SSS Application - Civil Engineering Investigation (dated Nov 2010) (see Section 9, page 14).

Appendices N and O accompanying the M2 site EIS, imply Porters Creek also extends along the western boundary of the M2 site, for example see:

- Phase 1 Contamination Report (Appendix N) - see Appendix B – site drawings – M2 site features Drawing 2).
- Remediation Action Plan (Appendix O) - see Section 3.2 on page 4; Section 4.2 on page 8 and Appendix A – site drawings – M2 Site features, Drawing No. 2).

It is unclear why previous studies for NRSP have not identified the existence of Porters Creek along the western boundary. It is requested that further details are provided (including photos, scaled plan etc) to verify if the creek is located along the western boundary and if so, details should be provided on the extent and condition of the creek and the proposed management and rehabilitation of the corresponding riparian corridor.

Section 6.1.3 of Appendix J makes reference to a proposed 2.4 m drainage easement on the western boundary (page 31) and Drawing No C-0-6-00 in Appendix F shows a proposed stormwater pipe along the western boundary. Details are required to determine whether a drainage easement / stormwater pipe is proposed to replace Porters Creek.

##### Riparian Corridor width

The DGRs issued on 19 May 2014 for SSD-5093 require a VMP to be prepared in accordance with Section 8.6 of the North Ryde Station Precinct (NRSP) DCP (2013). The NRSP DCP outlines the riparian corridor width is to be 30 metres wide on either side of the creek (measured from top of bank) in the following controls:

- “5. The VMP is to ensure the rehabilitation and regeneration of the Porters Creek vegetated riparian corridor (being 30 metres wide on either side of the creek measured from top of bank), taking into account Council's priority creek rehabilitation works.*
- 7. A 30m buffer is to be provided from the top of the nearest bank of Porters Creek to any future development.”*

The EIS indicates the site specific VMP (Appendix K) is in accordance with the requirements of the DCP (see Table 19, page 60). Based on information included in Appendix K and Appendix J, it is unclear if it is proposed to establish a 10 m wide, or a 30 m wide riparian corridor along either side of Porters Creek, for example:

- Appendix J notes a 30 m vegetated buffer from the top of bank of Porters Creek is required as per the North Ryde Station Precinct DCP (see Section 5, page 28).
- Appendix J shows a 10 m wide riparian corridor is to be provided along either side of the creek (see Figure 11, page 32).
- Appendix J notes building envelopes will be set back 30 m from top of bank but it also states vegetation will be rehabilitated to minimise impacts on the recommended vegetated

riparian buffer of 10m (see Section 6.2).

- Appendix J refers to a 30 m creek buffer (see Table 7).
- Appendix K refers to a 10 m riparian area (see Section 3.1.2).

Figure 11 in Appendix J shows a 10 m wide riparian buffer along the creek. It is recommended any figures which show the proposed 10 m wide riparian buffer are amended and replaced by a scaled plan which locate:

- Porters Creek,
- top of bank,
- remnant vegetation to be retained,
- a 30 m wide riparian corridor either side of the creek (measured from top of bank),
- any proposed works within the riparian corridor (including the retaining wall and timber boardwalk).

It is recommended that the riparian corridor widths be 30 m each side of Porters Creek, consistent with the North Ryde Station Precinct DCP (2013), and managed in accordance with the NSW Office of Water's Guidelines for Controlled Activities on Waterfront Land (2012).

#### Culvert upgrade

Appendix R notes at the entrance of the M2 site, Porters Creek passes through a large round culvert (Section 7.3.1, page 32). Appendix D notes the culvert is to be removed and replaced as part of the proposed works (page 3). It is recommended the design of the culvert be consistent with the NSW Office of Water's Guidelines for Watercourse Crossings on Waterfront Land, in particular includes a combination of elevated dry cells and recessed wet cells to facilitate the movement of aquatic, riparian and terrestrial fauna.

#### Environmental management measures

Environmental management measure (C1) in Section 9 of the EIS requires works to be undertaken in accordance with the VMP (page 95). It is therefore important that Appendix J (VMP) and Appendix K are amended so that the riparian corridor width in these documents is consistent with the NRSP DCP (2013) and the DGRs.

Environmental management measure (C8) in the EIS requires the riparian areas to be clearly delineated (page 96). It is important the correct width is delineated. To avoid confusion it is suggested the project includes the following management measure to outline the riparian width to be established:

- *A vegetated riparian corridor is to be established along Porters Creek being 30 metres wide on either side of the creek (measured from top of bank) in accordance with the North Ryde Station Precinct DCP (2013).*

It is suggested the following management measure is included for the design of the culvert upgrade:

- *the culvert design is to include naturalised bases and a combination of elevated dry cells and recessed wet cells to facilitate the movement of aquatic, riparian and terrestrial fauna.*

#### Groundwater

Section 10.12 of Appendix M notes that groundwater at the site is at relatively deep levels but excavations may intercept the perched groundwater table (page 14). It indicates estimates of inflow are difficult to assess and a better assessment could be made at the excavation stage. It also notes that allowance should be made for possible buoyant forces that may act upon the basements unless drainage of seepage or groundwater is provided.

#### Licensing and quantification of expected inflows

If groundwater is likely to be intercepted or extracted, depending on the volumes encountered and the duration of pumping, an authorisation may be required from the Office of Water in relation to construction excavation and dewatering activities.

Currently, temporary construction dewatering activities remain licensable under Part 5 of the *Water Act 1912*. A licence for temporary construction dewatering activities may be required for the take of groundwater associated with the proposed dewatering to construct the basements if take will exceed 3 ML per year. The Office of Water can advise on the need for an authorization once information is available on the expected groundwater inflows.

A key requirement of the licence application will be to provide a clear prediction of the total volumes of groundwater likely to be dewatered, as well as detailed justification and explanation of methodologies to support that prediction. Details of water management and disposal during dewatering operations will also be required to support the application for dewatering authorisation from Office of Water.

The Office of Water recommends that the proposal ensure that adequate construction methods will be used to permanently seal any subsurface voids to levels above the seasonal water table (including perched aquifers).

If permanent or semi-permanent extraction of groundwater is unavoidable, the proponent must obtain a water access licence to cover the volume of ongoing take of groundwater over 3 ML per year.

Standard Conditions of Approval likely to be applied to a Part 5 licence under the *Water Act 1912* authorising temporary dewatering are provided for information at Attachment B. Section 11 of Appendix M notes for detailed design purposes further geotechnical investigations for the proposed development should be carried out (page 18). These investigations should include details on:

- the proposed basement level;
- groundwater level, including perched groundwater levels. Note that this may require construction of “nested wells” at the same locations but separately screened in the two aquifers to enable confirmation of whether the two are indeed separate groundwater systems; and
- estimates of proposed groundwater inflow.

#### Groundwater Dependent Ecosystems

The Office of Water notes that:

- Sandstone Ridgetop Woodland occurs in the northern parts of the study area and occurs along Porters Creek,
- the local groundwater within the M2 site is expected to flow in a northern direction towards Porters Creek (see Section 4, page 9),
- Appendix O notes there is potentially a hydraulic link between the groundwater and Porters Creek (see Section 7.2, page 21), and
- The Department of Primary Industries (2012) Risk Assessment Guidelines for Groundwater Dependent Ecosystems – Volume 3, Appendix 9, lists Sydney Sandstone Ridgetop Woodland as a high probability of being a GDE.

If greater than 3 ML per year of groundwater is likely to be intercepted, then further consideration should be given to the potential impacts on this high probability groundwater dependent community, in consultation with the Office of Water.

**End Attachment A**

## **Attachment B**

### **North Ryde Station Urban Activation Precinct (SSD\_5093) NSW Office of Water – Recommended Conditions of Approval**

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#### **Riparian Land:**

1. The extent of the riparian zone is to be measured horizontally landward from top of bank of the watercourse and is to be a minimum 30 metres wide on either side of Porters Creek in accordance with Section 8.6 of the North Ryde Station Precinct DCP (2013).
2. Management of waterfront land and riparian corridors shall be in accordance with the NSW Office of Water *Guidelines for Controlled Activities on Waterfront Land (2012)*.
3. A permanent physical barrier, (such as bollards, logs, a fence, pathway, road etc), to prevent inadvertent damage to the riparian zone is to be placed at the landward extent of the riparian zone.

#### **Groundwater:**

#### **RECOMMENDED CONDITIONS OF APPROVAL FOR CONSTRUCTION DEWATERING**

**These terms do not represent any form of authorisation  
for the extraction of groundwater**

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#### **General**

1. An authorisation shall be obtained from NSW Office of Water for the take of groundwater as part of the activity. Groundwater shall not be pumped or extracted for any purpose other than temporary construction dewatering at the site identified in the development application. The authorisation shall be subject to a currency period of 12 months from the date of issue and will be limited to the volume of groundwater take identified in the authorisation.
2. The design and construction of the building must prevent any take of groundwater after the authorisation has lapsed by making any below-ground levels that may be in contact with groundwater watertight for the anticipated life of the building. Waterproofing of below-ground levels must be sufficiently extensive to incorporate adequate provision for reasonably foreseeable high water table elevations to prevent potential future inundation.
3. Construction methods and material used in and for construction shall be designed to account for the likely range of salinity and pollutants which may be dissolved in groundwater, and shall not themselves cause pollution of the groundwater.

#### **Prior to excavation**

4. Measurements of groundwater levels beneath the site from a minimum of three monitoring bores shall be taken. These measurements should be included in a report provided to the NSW Office of Water in support of the dewatering licence application, along with a schedule and indicative level predictions for the proposed ongoing water level monitoring from the date of consent until at least two months after the cessation of pumping shall be included in the report.
5. A reasonable estimate of the total volume of groundwater to be extracted shall be calculated and a report provided to the NSW Office of Water. Details of the parameters (e.g. permeability predicted by slug-testing, pump-testing or other means) and calculation method shall be included in the report submitted to the NSW Office of Water in support of the dewatering licence.

6. A copy of a valid development consent for the project shall be provided in the report to the NSW Office of Water.
7. Groundwater quality testing shall be conducted on a suitable number of samples using a suitable suite of analytes and completed by a NATA-certified laboratory, with the results collated and certificates appended to a report supplied to the NSW Office of Water. Samples must be taken prior to the substantial commencement of dewatering, and a schedule of the ongoing testing throughout the dewatering activity shall be included in the report. Collection and testing and interpretation of results must be done by suitably qualified persons and NATA certified laboratory identifying the presence of any contaminants and comparison of the data against accepted water quality objectives or criteria.
8. The method of disposal of pumped water shall be nominated (i.e. reinjection, drainage to the stormwater system or discharge to sewer) and a copy of the written permission from the relevant controlling authority shall be provided to the NSW Office of Water. The disposal of any contaminated pumped groundwater (sometimes referred to as "tailwater") must comply with the provisions of the *Protection of the Environment Operations Act 1997* and any requirements of the relevant controlling authority.
9. Contaminated groundwater (i.e. above appropriate NEPM 2013 investigation thresholds) shall not be reinjected into any aquifer without the specific authorisation of the NSW Environment Protection Authority (any such discharge would be regulated through a licence issued under the *Protection of the Environment Operations Act 1997* [POEO Act]). The reinjection system design and treatment methods to remove contaminants shall be nominated and a report provided to the NSW Office of Water. The quality of any pumped water that is to be reinjected must be compatible with, or improve the intrinsic or ambient groundwater in the vicinity of the reinjection site.

#### During excavation

10. Engineering measures designed to transfer groundwater around the basement shall be incorporated into the basement construction to prevent the completed infrastructure from restricting pre-existing groundwater flows.
11. Piping, piling or other structures used in the management of pumped groundwater shall not create a flooding hazard. Control of pumped groundwater is to be maintained at all times during dewatering to prevent unregulated off-site discharge.
12. Measurement and monitoring arrangements to the satisfaction of the NSW Office of Water are to be implemented. Monthly records of the volumes of all groundwater pumped and the quality of any water discharged are to be kept and a report provided to the NSW Office of Water after dewatering has ceased. Daily records of groundwater levels are to be kept and a report provided to the NSW Office of Water after dewatering has ceased.
13. Pumped groundwater shall not be allowed to discharge off-site (e.g. adjoining roads, stormwater system, sewerage system, etc) without the controlling authority's approval and/or owners consent. The pH of discharge water shall be managed to be between 6.5 and 8.5. The requirements of any other approval for the discharge of pumped groundwater shall be complied with.
14. Dewatering shall be undertaken in accordance with groundwater-related management plans applicable to the excavation site. The requirements of any management plan (such as acid sulfate soils management plan or remediation action plan) shall not be compromised by the dewatering activity.

15. The location and construction of groundwater extraction works that are abandoned are to be recorded and a report provided to the NSW Office of Water after dewatering has ceased. The method of abandonment is to be identified in the documentation.
16. Access to groundwater management works used in the activity is to be provided to permit inspection when required by the NSW Office of Water under appropriate safety procedures.

Following excavation

17. All monitoring records must be provided to the NSW Office of Water after the required monitoring period has ended together with a detailed interpreted hydrogeological report identifying all actual resource and third party impacts.

END OF RECOMMENDED CONDITIONS OF APPROVAL FOR CONSTRUCTION  
DEWATERING

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**End Attachment B**