

6 February 2015

The Secretary
Department of Planning and Environment
23-33 Bridge Street,
Sydney NSW 2000

ATTENTION: NATASHA HARRAS, TOWN PLANNER, METROPOLITAN PROJECTS

Dear Natasha,

SSD5093 – North Ryde Station UAP: M2 Site Response to EPA Submission

We write on behalf of UrbanGrowth NSW to provide a response to the EPA submission on the abovementioned Development Application for State Significant Development dated 10 December 2015. The following matters were raised:

- Water quality
- Contaminated land
- Sewerage management
- Future development

Each of these matters is addressed with a response below and should be read with reference to **Attachment A**.

1. Water quality

The EPA has requested an assessment of the impact of any stormwater discharges during construction and post construction on the receiving environment. Particular concerns are raised in relation to the potential impacts on Porters Creek and Land Cove River.

The stormwater drainage system designed for the M2 Site incorporates the treatment of stormwater runoff to meet proposed water quality targets. The designed stormwater network also ensures that all overland flows from the 100 year ARI storm are captured within the pipe network, upstream of the Wicks and Waterloo Road intersection, before discharging to Porters Creek.

The concept stormwater design for the M2 Site redirects stormwater runoff to streetscape bioretention and in-ground treatment devices before entering the stormwater network within the road reserve. DRAINS and MUSIC models have been developed by Robert Bird Group, consultant engineers to demonstrate that the performance of the stormwater system satisfies the requirements of the City of Ryde DCP and the North Ryde Station Precinct DCP.

The Integrated Water Management Plan submitted with the SSDA was based on the following guidelines and reports:

- Landcom WSUD Guidelines;

- City of Ryde Stormwater Management Technical Manual (DCP 2014);
- Cardno Flood Analysis Report (2014); and
- Hydrology, Flooding and WSUD Report, North Ryde Station Precinct, Storm Consulting (2012).

In accordance with Section 4.4 of the North Ryde Station Precinct DCP 2013: Stormwater Management, the following Stormwater Management objectives are outlined:

- a) *Provide for a Precinct-wide approach to stormwater management;*
- b) *Reduce stormwater discharge; and*
- c) *Improve stormwater quality and minimise water consumption through implementation of water sensitive urban design measures.*

A water sensitive urban design (WSUD) approach has been adopted for the site to mitigate any water quality issues on downstream receiving environments. WSUD management principles that have been adopted for the site include:

- Safe conveyance of stormwater;
- Water quality treatment of runoff, in order to minimise adverse impacts on downstream waterways;
- Source control; and
- Incorporating stormwater management measures into the streetscape.

Prior to construction commencing, a Water Management Plan, including erosion and sediment control measures, is to be implemented in accordance with the City of Ryde's specifications (Ryde DCP 2014), and the Landcom guideline *Managing Urban Stormwater: Soils and Construction* (The Blue Book).

The recommendations from the Stormwater Management Plan for the implementation of quality management measures are to be implemented before construction activities commence.

The EPA recommends information on the management of the treatment train structures (streetscape bio-retention) and who will be responsible and the funding arrangement for on-going management.

Water quality treatment devices that are proposed in the public domain do require regular maintenance. A detailed maintenance plan is to be developed following final selection of the treatment devices to be installed. An indicative maintenance plan was submitted with the stormwater management plan and civil drawings, that includes the following management measures:

Bio-retention

- Routine inspection (3-6 monthly and after heavy rain), cleaning and maintenance of the bio-retention systems. Check inlets and overflow structures/drainage pipes for scour and sediment. Removal of litter, debris and sediment;
- Inspection of filter media porosity (3-6 monthly and after heavy rain).

- Check for accumulation of impermeable layer. Remove sediment and scarify;
- Over time, the filter media will accumulate fine sediments. The filter media should be replaced when its infiltration capacity is reduced due to binding. Typically, filtration media should be replaced every 5-7 years.

Stormwater360 Enviropods

- In accordance with the manufacturer's technical manual and owner's manual;
- Periodic (6 monthly) inspection, cleaning and removal of any gross pollutants and coarse sediment that is deposited in the device.

Urban Growth proposes a VPA including the embellishment and dedication of public domain areas across the M2 Site to Ryde Council. The management measures will be the subject of further discussions with Council, with the objective being to maintain quality measures within the public domain, as part of the integrated water management of the site.

2. Contaminated land

The EPA have raised the potential gas migration as a result of the Ports Creek Landfill at North Ryde. Advice has been sought from Douglas Partners on this issue and whether it should be addressed as part of the Remediation Action Plan.

Advice from Contamination consultants for the project provided at **Attachment A** has found that the former Porters Creek landfill site is located approximately 300m from the development area on the M2 Site to the north east of the site. The former Porters Creek Landfill operated as a municipal waste depot between about 1969 and 1985, and subsequently as a Council construction material transfer and holding facility.

The geotechnical investigations of the M2 Site have found that the sub-surface profile would provide an effective barrier against significant landfill gas migration. The investigations did not identify any indications of landfill gas, such as methane, which is detectable through odour.

Douglas Partners advice concludes that the potential for landfill gas from the former Porters Creek Landfill to migrate to the M2 Site is low. Notwithstanding this conclusion, this potential will be further investigated as part of the on-going environmental investigations of the site.

3. Sewerage management

The EPA recommends that information be provided by the Proponent on whether any additional loads as a result of developing the site will impact on the environmental performance of the sewage system, including sewage pumping systems. The EPA identifies a concern with sewerage overflows from existing pumping systems and potential for water pollution.

UrbanGrowth NSW has received a Notice of Anticipated Requirements from Sydney Water for the Section 763 Certificate. These requirements have informed the civil design proposal. The issue of the Section 73 certificate is dependent on works being completed in accordance with these requirements.

The development is located within the Wicks Road Carrier catchment which discharges to the West Lane Cove Submain. Sydney Water have indicated that the Wicks Road Carrier has capacity to service approximately 250 dwellings. Amplification of the existing system is therefore required be

required to service the ultimate development. No indication has been provided by Sydney Water that the development will result in overflows in the existing sewerage pumping system with the implementation of their requirements.

The requirements from Sydney Water indicate that the development will be serviced by a Low Infiltration sewer system, which must be designed in accordance with the *Technical Specifications for Low Infiltration Sewer Systems* and the *Sewage Code of Australia* to plan, design and construct the sewer. The Sydney Water technical Specification for Low Infiltration Systems, provide that:

“Reduced inflow and infiltration in the sewer system will result in reduced potential for wet weather overflows, reduced treatment costs and improved treatment plant performance”.

4. Future Development

The EPA submission recommends the DPE ensure these matters are adequately addressed in the Ryde DCP, and if not see to have the DCP amended. This is a matter for the DPE and the City of Ryde.

We trust this response adequately addresses the matters raised. Should you have any questions please do not hesitate to contact Sarah Houston or myself on 8233 9953 or mdonaldson@urbis.com.au.

Yours sincerely,



Murray Donaldson
Director Planning

cc. Mark Girgis, Senior Development Manager, UrbanGrowth NSW MGirgis@urbangrowth.nsw.gov.au

Attachment A: Response to EPA Submission, prepared by Douglas Partners