

WINGECARRIBEE SHIRE COUNCIL		
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13 JUL 2012		
OFFICER	ACTION	INFO
<u>C. Hewat</u>		



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Ref: 12116-a1
 Your Ref: LUA12/0380

The General Manager
 Wingecarribee Shire Council
 DX 4961
 BOWRAL

Attention: Graeme Hewat

FAX RECEIVED	
DATE <u>13/7/12</u>	TIME <u>11.0</u>
ACTION	
OFFICER	
RECORDS	<u>OL</u>
CLERK	

Dear Sir

Subject: Sydney Drinking Water Catchment SEPP
DA No LUA12/0380; Lots 2 & 3 DP 607486, Lot, 1, 2, 3, 4, 5, 6, 7 & 8 DP 1044854
71-73 Old Hume Highway, Braemar

I refer to your letter received 13 June 2012 requesting the concurrence of the Chief Executive under *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011* with a proposal for a 251-lot urban residential subdivision on the above land.

It is noted that this development application is identical to an earlier DA (LUA11/0766) previously assessed by the Sydney Catchment Authority (SCA), except for some slight changes to layout design in the northeast corner to allow for a road. These minor changes would not have any additional water quality impact.

The subject property, which has been inspected by the SCA, is located within the Warragamba catchment which forms part of Sydney's water supply.

The Statement of Environmental Effects incorporating a range of other studies prepared by Smyth Planning, a Stormwater Quality Assessment including a conceptual Soil and Water Management Plan and a Flood Impact Assessment both prepared by Southeast Engineering & Environmental have been considered in the assessment of the application.

The following is noted in relation to the proposed development:

- The proposed development is not staged and will comprise 251 sewerred residential lots, ranging in size from 412 to 954 square metres, on both sides of Nattai Rivulet (notwithstanding the fact that the Stormwater Quality Assessment report refers to various stages). Should the development be staged or the layout change the proposal shall be referred back to the SCA for its concurrence assessment. It should be noted that a neutral or beneficial effect on water quality assessment would have to be undertaken for each stage of a staged development.
- The subdivision is closely linked to a large 131-lot residential subdivision immediately to the north (LUA 11/0767).
- The site has previously been partially developed as an industrial subdivision and includes a number of buildings in the south-west corner that will have to be demolished as part of the development.
- There is evidence of some localised lead contamination of soils in the vicinity of the existing dwelling on existing Lot 3 DP 607486, with the contamination report recommending additional soil investigation under the existing slab following demolition of the dwelling.

- The existing box culvert crossing of Nattai Rivulet is proposed to be retained, but upgraded with additional culverts to provide flood-free access to the eastern side of the watercourse.
- The large bio-retention stormwater quality systems proposed for the development are located above the 5% AEP flood level of Nattai Rivulet but within 40 metres of the watercourse. As such these require a Controlled Activity approval under the *Water Management Act 2000* by the NSW Office of Water. Should such an approval require changes to these stormwater management structures, details of the proposed changes shall also be re-referred to the SCA for its approval.
- The proposed bio-retention systems will initially be constructed as sediment basins during the construction phase of the development.
- The concurrence conditions for this development application are essentially identical to the earlier DA (LUA11/0766) for which the SCA provided concurrence advice except that references to the proposed subdivision plan are different.

Based on the SCA's site inspection and the information provided, the proposed development has been assessed by the SCA as being able to achieve a neutral or beneficial effect on water quality provided appropriate conditions are included in any development consent and are subsequently implemented. The Chief Executive would therefore concur with Council granting consent to the application, subject to the following conditions:

General

1. The lot layout and staging of the subdivision shall be as shown on a Plan Showing Proposed Lot Layout and Road Widths prepared by LandTeam Australia Pty Ltd (Dwg. 203177-MP1; Issue B; dated 10/5/2012). Any revised lot layout or staging of the subdivision shall be agreed to by the Sydney Catchment Authority.

Reason for Condition 1 - The Sydney Catchment Authority has based its assessment under the State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 on this version of the subdivision.

Wastewater Management

2. There shall be no on-site wastewater management system on any of the proposed lots and all lots shall be connected to Council's sewerage system.

Reason for Condition 2 - To ensure that all wastewater generated on each lot is disposed of and treated via Council's sewerage system so as to ensure a sustainable neutral or beneficial effect on water quality over the longer term.

Sewer Mains and Sewage Pump Station

3. The hydraulic capacity of sewer mains and any submains serving this and other nearby subdivisions shall be checked to ensure they can accommodate the additional wastewater load generated by the subdivisions, and where necessary shall be upgraded.
4. Any sewage pump station required as part of this development shall have a minimum emergency storage volume equivalent to at least 3 hours peak wet weather flow, and shall include a permanent standby pump and emergency power generation unit to ensure continuity of operation in the event of pump or power failure.

Reason for Conditions 3 & 4 - To ensure that the design and operation of the sewerage system is undertaken in a way that reduces the risk of sewage overflows and the pollution of the site, ground and surface waters, including the Nattai Rivulet, so as to ensure a sustainable neutral or beneficial effect on water quality over the longer term.

Contaminated Soil

5. Follow-up soil investigation shall be undertaken on the site of the existing dwelling that was identified as exhibiting localised lead contamination in a Preliminary Contamination Site Investigation prepared by Morse McVey & Associates (dated 3 February 2006). Should wider lead contamination be identified a Remediation Action Plan shall be prepared consistent with the *Managing Land Contamination Planning Guidelines – SEPP 55 Remediation of Land* (DUAP & EPA 1998).

Reason for Condition 5 – To ensure the remediation of any contaminated soil is managed in a manner that will not cause any detrimental impact on surface and ground water quality.

Roads and Watercourse Crossing

6. All subdivision roads shall be sealed and otherwise constructed in accordance with Council's engineering standards, and all stormwater structures and drainage works associated with the roads shall be wholly included in the road reserve or within suitably defined easements.
7. Any new or upgrade of the subdivision road crossing of Nattai Rivulet shall:
- be a suitable and properly engineered bridge or large box culvert
 - be designed such that the bridge or box culvert and its abutments will not change or otherwise interfere with flood flows up to the 1% AEP level and will not result in erosion
 - be constructed in a manner that does not cause pollution in Nattai Rivulet
 - be designed consistent with the guidelines *Environmental Practice Manual of Rural Sealed and Unsealed Roads* (ARRB Transport Research Ltd, 2002)
 - ensure the banks under and adjacent to a bridge or culvert and any abutments are armoured with riprap underlain by geotextile fabric, with the design, repose angle, sizing, nature and extent of the riprap such that there is no scouring, and the riprap is to be consistent with *Rock Riprap Design Guidelines* located at <http://www.ourwater.vic.gov.au/data/assests/pdf/file/0014/10184/1991GuidelinesforstabilisingWaterways6RockRiprap.pdf>, and
 - meet any requirements for controlled activities under the *Water Management Act, 2000* issued by the NSW Office of Water.

Reason for Conditions 6 & 7 – To ensure that the proposed subdivision roads and associated infrastructure have a sustainable neutral or beneficial impact on water quality.

Stormwater Management

8. All stormwater management measures as specified in the Stormwater Quality Assessment prepared by Southeast Engineering & Environmental (Issue B; dated 6/12/11) shall be implemented, in particular as elaborated or varied in the following conditions.
9. Stormwater runoff from the subdivision roads shall be collected via a series of pits and pipes and directed to five bio-retention systems, four located along the western side of Nattai Rivulet and one on the eastern side, as shown on the Knox Site WQ Layout plan in the Stormwater Quality Assessment report prepared by Southeast Engineering & Environmental (Issue B; dated 6/12/11).
10. One or more appropriately sized vortex-style gross pollutant traps (CDS or SCA approved equivalent) shall be installed at the stormwater inlet to each bio-retention system.
11. The five bio-retention systems shall include the following specifications:

- the bio-retention systems on the western side of Nattai Rivulet shall have (from south to north) minimum filter areas of 300, 200, 100, and 100 square metres, while the bio-retention system on the east side of the Rivulet shall have a minimum filter area of 550 square metres
 - the bio-retention systems shall be located no closer to Nattai Rivulet than indicated in the Knox Site WQ Layout plan
 - the external walls of the bio-retention systems shall be engineered and constructed in a manner that ensures these will not be eroded or otherwise impacted by flood flows
 - the bio-retention system design shall be consistent with Chapter 6 of *WSUD Engineering Procedures: Stormwater* (Melbourne Water 2005) and *Adoption Guidelines for Stormwater Biofiltration Systems* (FAWB 2009)
 - include a filter depth above the underdrain of 800mm
 - include an extended detention depth 400mm
 - utilize a filter media consisting of a clean sandy loam with a median particle size diameter 0.5mm and an orthophosphate concentration of less than 50mg/kg
 - incorporate underdrains
 - be planted with appropriate deep-rooted moisture-tolerant vegetation (grass is not appropriate vegetation)
 - ensure all discharge and overflow from the bio-retention systems is directed to Nattai Rivulet via armoured discharge points, such that discharge does not cause erosion
 - the discharge outlets to Nattai Rivulet shall be consistent with the requirements of any Controlled Activity approval under the *Water Management Act (2000)* from the NSW Office of Water
 - all bio-retention systems shall be protected from vehicular damage by bollards, guard rails, fences, slotted kerbs or similar permanent structures, with signs to be erected to advise of their nature and purpose in water quality management, and
 - all bio-retention systems shall be protected by sediment and erosion control measures during any construction and post-construction phase until the ground surface is revegetated or stabilised.
12. An Operational Environmental Management Plan (OEMP) detailing the responsibilities for the inspection, monitoring and maintenance of all stormwater management structures, including pits, pipes, gross pollutant traps, bio-retention systems and any other stormwater structures and drainage works (excluding those on the residential lots) shall be developed in consultation with the Sydney Catchment Authority prior to the issuance of a Subdivision Certificate.

Future Dwellings

13. There shall be a public positive covenant under Section 88E of the *Conveyancing Act 1919*, the prescribed authority being the Sydney Catchment Authority, placed over all lots requiring that:
- all future dwellings shall have rainwater tanks with a minimum total capacity of 10,000L above any volume required for mains top-up
 - roofs and gutters shall be designed so as to ensure all rainwater is captured in the rainwater tanks
 - the rainwater tanks shall be plumbed to toilets, laundry and other areas for non-potable use including use for gardens, and
 - rainwater tank overflow shall be directed to a raingarden located on the lot.

14. There shall be a public positive covenant under Section 88E of the *Conveyancing Act 1919*, the prescribed authority being the Sydney Catchment Authority, placed over all lots requiring that:
- a 5 square metre raingarden shall be located on each lot so as to capture and treat all stormwater runoff from the lot, including rainwater tank overflow
 - the raingarden design shall be consistent with Chapter 6 of *WSUD Engineering Procedures: Stormwater* (Melbourne Water 2005) and *Adoption Guidelines for Stormwater Biofiltration Systems* (FAWB 2009)
 - the raingarden shall have a minimum filter area of 5 square metres, a minimum filter depth above an underdrain of 0.5 metres, a filter media consisting of a clean sandy loam, an extended detention depth of 0.25 metres, and be planted with appropriate deep-rooted water-tolerant plants (grass is not appropriate vegetation)
 - all discharge and overflow from the raingarden shall be directed to the stormwater drainage system
 - the raingarden shall be protected from vehicular or other damage by fences, posts, slotted kerbs or similar permanent structures
 - the raingarden shall be protected by sediment and erosion control measures during any construction and post-construction phase until the ground surface is revegetated or stabilised, and
 - no development shall take place within one metre of the raingarden once constructed.
15. An owner's Operational Environmental Management Plan (OEMP) detailing the responsibilities for the inspection, monitoring and maintenance of their stormwater collection and treatment system, including gutters, rainwater tanks and raingardens shall be developed in consultation with the Sydney Catchment Authority and provided to each future owner of the lot.
16. Any variation to stormwater management measures shall be agreed to by the Sydney Catchment Authority.

Reason for Conditions 8 to 16 - To ensure stormwater runoff from the subdivision, associated infrastructure and future dwellings is appropriately designed, maintained and managed to ensure an overall and sustainable neutral or beneficial impact on water quality over the longer term.

Other

17. Conditions 2 to 7, 9 to 12 and 15 above shall be carried out prior to the issuance of the Subdivision Certificate.

Reason for Condition 17 – To ensure there is an overall and sustainable neutral or beneficial impact on water quality during all stages of the proposed development.

Construction Activities

18. A Soil and Water Management Plan (SWMP) shall be prepared by a person with knowledge and experience in the preparation of such plans, for all works proposed or required as part of the subdivision, including the demolition of existing buildings, the subdivision roads, infrastructure and augmentation of the existing crossing of Nattai Rivulet. The Plan shall be based on the conceptual SWMP prepared by Southeast Engineering & Environmental, and shall meet the requirements outlined in Chapter 2 of NSW Landcom's *Soils and Construction: Managing Urban Stormwater* (2004) manual - the "Blue Book". The SWMP shall be developed in consultation with the Sydney Catchment Authority prior to the commencement of construction.

19. Effective erosion and sediment controls shall be installed prior to any construction activity including site access, and shall prevent sediment or polluted water leaving the site or entering any natural or artificial drainage system including particularly Nattai Rivulet. The controls shall be regularly maintained and retained until works have been completed and groundcover established.

Reason for Conditions 18 & 19 – To manage adverse environmental and water quality impacts during the construction phase of the development so as to minimise the risk of erosion, sedimentation and pollution within or from the site during this phase.

Subsequent Development Applications

Any subsequent applications for dwellings and/or other developments on the proposed lots will be subject to the provisions of the *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011* (the SEPP) and will need to be assessed according to the Neutral or Beneficial Effect (NorBE) test in relation to the potential effect of the development on water quality.

Under Clause 11 of the SEPP, Council must provide the SCA with a copy of its determination of the application within 10 days after the determination is made. The SCA also requests that Council provide it with a copy of the final approved Plan of Subdivision.

If you wish to discuss this matter further please contact Dr Bob Banens on 4724 2458.

Yours sincerely

 12/07/12

GREG GREENE
A/Manager Planning and Assessments