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www.waternsw.com.au
ABN 21 147 934 787

10 February 2021

Our Ref: 19141-a4
Your Ref: 20/0227

Peter Malloy
Senior Town Planner
Wingecarribee Shire Council
PO Box 141
MOSS VALE NSW 2577

Dear Mr Malloy

Subject: Sydney Drinking Water Catchment SEPP
DA No 20/0227; Lot 3 DP 706194, Lot 12 DP 866036; 141 Yarrawa Road and 32 Lovelle Street, Moss Vale – Part A: Stage 1 Subdivision

I refer to Council's NSW Planning Portal referral of amended plans and documentation submitted to Council in relation to a proposal for a 178-lot urban subdivision and Concept Master Plan for a 1,200-lot urban subdivision on the above land. Further amended information was received on 8 February 2021. Water NSW has previously provided advice to Council on this development application on 7 November 2019, 17 April and 29 May 2020.

Water NSW acknowledeges Council's previous request (received 18 September 2019) to provide separate comments on the detailed subdivision proposal (Stage 1) – Part A and the concept master plan – Part B.

Water NSW notes that that the reason for this amendment is that the Moss Vale Sewage Treatment Plant (STP) and connecting sewerage network does not have adequate capacity to treat wastewater generated from Stage 1 of this subdivision until a capacity upgrade of the STP is commissioned in the 2023-24 financial year.

Noted is a separate Development application, DA 21/0772 submitted to Water NSW for an interim wastewater treatment solution in the form of a Package Wastewater Treatment System (PWTS) combined with surface irrigation of treated effluent. Water NSW will assess both applications for concurrence under the provisions of the *State Environmental Planning Policy (Sydney Drinkng Water Catchment) 2011*.

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

Water NSW considered the following documents in addition to documentation previously submitted as part of the orginal application and previous amendments:

- Statement in support of Addendum to Development Application prepared by Premise (dated 16 November 2020)
- Context Plan for Temporary On-Site Wastewater Treatment System and Detail and Elevation Plan of Proposed On-Site Wastewater Treatment Plant prepared by John M. Daly & Associates Pty Ltd (dated 10 November 2020), and
- Statement of Revised Wastewater Management Strategy prepared by Premise (dated 9 February 2021).

It is noted that Stage 1 of the subdivision is proposed to be further staged as follows:

- Stage-1A comprising proposed Lots 1101 to 1180, part Lot 1181 and Lot 1182
- Stage-1B consisting of proposed Lots 1201 to 1255 and part Lot 1181, and

- Stage-1C consisting of proposed Lots 1301 to 1341, part Lot 1181 and Lot 1183 (residual lot).

Based on the site inspection and the information provided, Water NSW is satisfied that the Stage 1 of the proposed development can achieve a neutral or beneficial effect on water quality provided appropriate conditions are included in any development consent and are subsequently implemented.

Water NSW concurs with Council granting consent to the application subject to the attached conditions (Part A – Stage 1). This advice replaces the previously provided advice to Council on 29 May 2020.

Any subsequent applications for future stages of the subdivision, dwellings and/or other developments on the proposed lots will be subject to the provisions of *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 Water NSW with a copy of its determination of the application within 10 days of the determination. Water NSW also requests that Council provide it with a copy of the final approved Plan of Subdivision for Stage 1 development.

If you wish to discuss this matter further please contact Miles Ellis at environmental.assessments@waternsw.com.au.

Yours sincerely

GIRJA SHARMA
Catchment Assessments Manager

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Water NSW Amended Concurrence Conditions – Stage 1 (Part A)
DA No 20/0227; Lot 3 DP 706194, Lot 12 DP 866036; 141 Yarrawa Road and 32 Lovelle Street, Moss Vale

General

1. The lot layout and staging of Stage 1 of the subdivision shall be as specified in the Statement of Environmental Effects prepared by Urbis (dated 23 July 2019) and shown on the Proposed Subdivision Plans (Job No. 1429; Dwg. No DA02; Sheets 1 and 2 of 2, Revision G, dated 10/03/2020) prepared by Civil Development Solutions. No revisions to lot layout or staging of the subdivision that will have any impact on water quality, shall be permitted without the agreement of Water NSW.

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

Wastewater Management

2. For Stage 1, lots shall be connected via a reticulated sewer network and sewage pump station to a Package Wastewater Treatment System (PWTS), as an interim measure, described in DA21/0772 on Lot 1183 and as shown and described on the Context Plan for Temporary On-Site Wastewater Treatment System and Detail Plan and Elevation of Proposed Temporary On-site Wastewater Treatment Plant (Ref: 18001S1; Sheet No. 2, Rev. C and Sheet 4, Rev.D, both dated 10.11.2020) prepared by John. M. Daly & Associates Pty Ltd.

3. Council shall not issue Subdivision Certificates for relevant substages of the subdivison until the corresponding stages of the Package Wasetwater Treatment System (subject to DA 21/0772) as shown in the following table have been constructed and commissioned and Council has received the certification from the installers and approved the corresponding stages under the *Local Government Act 1993*.

Subdivision Stage	Corresponding PWTS Stage
1A	1
1B	2
1C	2

4. As soon as there is sufficient capacity within the Moss Vale Sewage Treatment Plant and sewer network to accommodate the wastewater from Stage 1 of the subdivision, all lots in Stage 1 shall:
   - be connected to Council's reticulated sewerage network, and
   - be disconnected from the Package Wastewater Treatment Plant and irrigation system on the proposed Lot 1183.

Reason for Conditions 2 to 4 - To ensure that wastewater generated from future development on lots in the subdivision can be treated in a a sustainable manner such that a neutral or beneficial effect on water quality is achieved over the longer term.

Sewer Pumping Station

5. The sewage pumping station, denoted SPS 1 on the Context Plan for On-Site Wastewater Treatment System (Ref. 180001S1; Sheet 2 of 4, Issue C, date 10.11. 2020) prepared by John M. Daly & Associates Pty Ltd shall:
    - have the electrical switchgear and access points associated with the sewage pump station located above the 1% Annual Exceedance Probability (1 in 100 year) flood level
    - have a minimum emergency storage volume equivalent to at least 3 hours peak wet weather flow
    - be designed with sufficient hydraulic and volumetric capacity to collect and transfer all wastewater generated by relevant stages of the subdivision
    - have an appropriate emergency storage capacity to accommodate wet weather flow
    - have a permanent standby pump and access to an emergency power generation unit to ensure continuity of operation in the event of pump or power failure
    - have an alarm system to trigger when the pump fails or when the system is reaching its capacity to ensure sufficient residual capacity for emergencies such as power failure or pump malfunction, and
    - have an appropriate bunding around the sewage pump station to divert run-on away from the sewage pump station and prevent any overflows reaching natural drainage system or stormwater drains.

Reason for Condition 5 – To ensure that the design and operation of the sewerage infrastructure is undertaken in a way that minimises the risk of sewage overflows to ensure a sustainable neutral or beneficial effect on water quality over the longer term.

Subdivision and Access Roads

6. The subdivision roads shall be located and constructed as shown on the General Layout and Engineering Plans (Project No. 19-34; Plans 001, 200 to 206, Sheets 01 to 07 of 07, Rev A, dated 11/07/2019) prepared by Orion Consulting. The roads shall be sealed and otherwise constructed in accordance with Council's engineering standards.

7. All stormwater structures and drainage works associated with the proposed subdivision roads shall be wholly included in a road or drainage reserve or within suitably defined easements.

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

Stormwater Management

8. All stormwater management measures as specified in the Integrated Water Cycle Management Report - Revison 2 (dated 5 March 2020) and shown on the Engineering Plans (Project No. 19-34; Plans 001, 200 to 206, Sheets 01 to 07 of 07, Rev A, dated 11/07/2019) prepared by Orion Consulting, shall be incorporated in the final stormwater drainage plans prior to issuance of a Construction Certificate for Stage 1A of the subdivision and to be approved by Council. The stormwater management measures shall include:
    - pits, pipes, swales and inlet filter baskets
    - ponds and a lake, and
    - two bioretention basins.

9. Two bioretention systems shall be located and constructed in Stage 1A, as shown on the Basin Layout Plan and Basin Sections and Details Plan (Project No. 19-34; Plan Nos. 404 and 405; Rev. A, dated 11/07/2019) both prepared by Orion Consulting. The bioretention basins shall also:
    - be located offline along the edge of the riparian zone of Whites Creek but above the 2% Annual Exceedance Probability (1 in 50 year) flood level
    - be designed consistent with Adoption Guidelines for Stormwater Biofiltration Systems Version 2 (Payne *et al*, 2015, Melbourne, CRC for Water Sensitive Cities)
    - be planted with appropriate deep-rooted, moisture-tolerant vegetation protected by rock mulch (grass and turf is not appropriate vegetation and organic mulch is not suitable) once 80% of the lots within the catchment area draining to each of the basins is developed
    - direct all discharge and overflow to the proposed on-site detention Lake C via armoured discharge points such that discharge does not cause erosion
    - be accessible from a road or driveway by machinery to facilitate cleaning, monitoring and maintenance of the structures
    - ensure the discharge outlets are consistent with the requirements of any Controlled Activity Approval under the *Water Management Act* (*2000*) from the Natural Resources Access Regulator (NRAR)
    - be permanently protected from vehicular damage by bollards, fences, castellated kerbs or similar structures
    - erect signage at prominent publilc or other access points on each basin advising of the purpose and nature of the basin in water quality management, and
    - be protected by sediment and erosion control measures during any construction and post-construction phase until the ground surface is revegetated or stabilised.

10. No changes to stormwater treatment and management that will have any impact on water quality, shall be permitted without the agreement of Water NSW.

11. A suitably qualified stormwater consultant or engineer shall certify in writing to Water NSW and Council prior to the issuance of a Subdivision Certificate for Stage 1A that all stormwater management structures have been installed as per these conditions of consent and are in a functional state.

12. A Stormwater Operational Environmental Management Plan for each stage of the subdivision (Stages 1A, 1B and 1C) shall be prepared in consultation with Water NSW and Wingecarribee Shire Council by a person with knowledge and experience in the preparation of such plans. Each Plan shall be prepared prior to the issuance of a Subdivision Certificate for that stage of the subdivision. Each Plan shall be provided to Council when the management and maintenance of the stormwater management measures is handed over to Council. Each Plan shall:
    - include details on the location, description and function of stormwater management structures such as pits, pipes, inlet filter baskets, interallotment drainage, swales, bioretention basins, ponds, lake, and any other stormwater structures and drainage works
    - outline the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all stormwater management structures, before and after handing over to Council, including the frequency of such activities
    - identify the individuals or positions responsible for inspection and maintenance activities, before and after handing over to Council, including a reporting protocol and hierarchy

- outline the detailed requirements and measures for the protection of all stormwater structures from future upstream construction works i.e. construction of dwellings on future lots, and
- include checklists for recording inspections and maintenance activities.

13. All stormwater treatment devices shall be monitored, maintained and managed as per the Stormwater Operational Environmental Management Plan.

Reason for Conditions 8 to 13 – To ensure that the stormwater quality management measures and structures for the proposed subdivision have a sustainable neutral or beneficial impact on water quality over the longer term.

Riparian Revegetation of the Drainage Reserve

14. A riparian revegetation planting program of the drainage reserve on proposed Lot 1182 shall be undertaken prior to the issuance of the Subdivision Certificate for Stage 1C as specified in the Landscaping Concept Plans (Project No. 18.06; Dwg. Nos. L-SD-04, L-SD-15, L-SD-16; Rev. A, dated 12/07/2019) prepard by Arterra. The revegetation program shall:
    - use a mixture of locally-native trees, shrubs, groundcovers and grass species
    - have the trees and shrubs planted at 3-metre spacings and have tube stock, staked and protected to ensure a higher survival potential, and
    - have a further round of planting, if 6 months after planting less than 50% of plantings have become established.

Reason for Condition 14 – To ensure that appropriate measures are taken to offset the water quality impact of the increased intensity of the proposed development so as to have a sustainable neutral or beneficial effect on water quality and be sustainable over the longer term.

Construction Activities

15. Soil and Water Management Plans (Project No. 19-34; Plans 100, 101, Rev A, dated 11/07/2019) prepared by Orion Consulting shall be updated, in consultation with Water NSW, for all works required for each stage of the subdivision by a person with knowledge and experience in the preparation of such plans. The Plans shall:
    - meet the requirements outlined in Chapter 2 of NSW Landcom's Soils and Construction: Managing Urban Stormwater (2004) manual
    - be prepared prior to the issuance of a Construction Certificate for each stage in consultation with Water NSW and be to the satisfaction of Council, and
    - include measures including sedimentation basins to prevent sediment or polluted water leaving the construction site or entering any natural drainage lines or stormwater drain.

16. A suitably qualified, certified professional shall oversee the implementation of the Soil and Water Management Plan for each stage of the subdivision. No works shall commence until effective erosion and sediment controls have been installed. The controls shall:
    - be regularly inspected, maintained and retained until works have been completed, and
    - have ground surface stabilised or groundcover re-established.

Reason for Conditions 15 & 16 – 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.

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Subject: Sydney Drinking Water Catchment SEPP
DA No 20/0227; Lot 3 DP 706194, Lot 12 DP 866036; 141 Yarrawa Road & 32 Lovelle Street, Moss Vale – Part B: Concept Master Plan

Water NSW notes that there is no indicative staging plan or sequencing of future stages beyond Stage 1 submtted with this Concept Master Plan Development Application.

Water NSW reiterates its previous comments provided to Council in relation to the Draft Development Control Plan for Chelsea Gardens – Coomungie, in that land in the north east of the Concept Master Plan (zoned for 2000 square metres minimum lot size) is very steep and poses a very high erosion hazard and risk to water quality from development.

Water NSW supports the incorporation of Integrated Water Cycle Management into the design of the Concept Master Plan with stormwater quality measures considered along with on-site detention, flood control and integration into areas of public open space.

Water NSW reviewed the following documents in its assessment of the application:

- Concept Master Plan Report and Landscape Concept Plans both prepared by Arterra Design Pty Ltd (both dated 11 July 2019)
- Preliminary Geotechnical Investigation Report prepared by Douglas and Partners (dated February 2019)
- Land Capability Assessment Report prepared by Harvest Scientific Services (dated 11 October 2006)
- Integrated Water Cycle Management Study prepard by Orion Consulting (dated 5 March 2020)
- Sewer Network – Development Assessment Report prepared by Cardno (dated 12 July 2019), and
- Public Submissions received by Council during the advertising period.

Based on the site inspection and the information provided, Water NSW is satisfied that the proposed development is likely to achieve a neutral or beneficial effect on water quality provided appropriate conditions are included in any development consent and are subsequently implemented.

Water NSW concurs with Council granting consent to the Concept Master Plan application subject to the attached conditions being addressed in future stages of the master plan.

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

Water NSW would appreciate receiving a copy of any consent issued in respect to this application. If you wish to discuss this matter further, please contact Miles Ellis via email at environmental.assessments@waternsw.com.au

Yours sincerely

Girja Sharma

GIRJA SHARMA
Catchment Assessments Manager

Water NSW Ref: 19141-a4

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Water NSW Concurrence Conditions – Concept Master Plan (Part B)
DA No 20/0227; Lot 3 DP 706194, Lot 12 DP 866036; 141 Yarrawa Road & 32 Lovelle Street, Moss Vale

General

1. The development shall progress as described and shown on the Figures 1 and 88 of the Concept Master Plan Summary Report prepared by Arterra Design Pty Ltd (dated 11 July 2019).

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

Wastewater

2. There shall be no on-site wastewater management associated with subdivision proposals in Stages 3 to 5 of the subdivision.
3. Once the planned upgrade of capacity if the Moss Vale Sewage Treatment Plant is commissioned, all lots in the subdivision shall be connected to Council's reticulated sewerage system.

Reason for Conditions 2 & 3 - 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

Stormwater

4. Integrated Water Cycle Management incorporating Water Sensitive Urban Design measues shall be incorporated into future subdivision and/or development post-Stage 1 in accordance with the stormwater quality improvement strategy describe in Section 8 of the Integrated Water Cycle Manegement Report prepared by Orion Consulting (dated 5 March 2020).

Reason for Condition 4 – To ensure that the stormwater quality management measures and structures for the proposed subdivision have a sustainable neutral or beneficial impact on water quality over the longer term.

Erosion Hazard

5. Future development, including roads, should be avoided on land with slopes greater than 20%. Any future development proposals on slopes greater than 20% shall be supported by a comprehensive geotechnical engineering assessment detailing measures to reduce the risk of erosion, including land stability, from development on those slopes.

Reason for Condition 5 – To prevent development on land with very high to extreme erosion risk so as to have a sustainable neutral or beneficial impact on water quality over the longer term.