Environmental Health Referral Response - unsewered land

Application Number:	DA2020/0707

Date:	18/02/2021
Responsible Officer	Maxwell Duncan
Land to be developed (Address):	Lot 6 DP 749791 , 113 Orchard Street WARRIEWOOD NSW 2102

Reasons for referral

This application seeks consent for development upon unsewered land.

And as such, Council's Environmental Health and Protection officers are required to consider the likely impacts.

Officer comments
General Comments

Environmental Health have been requested to provide comment on how the proposed development will manage on-site sewage within the property as the property is unsewered. The development seeks to construct a horse arena, stable and other alts and ads.

As part of this referral the statement of environmental effects referenced as KN Planning Pty Limited Ref: KN482, master plans referenced as Tony Mclain Archiect Project no 2820 and waste water report referenced as on-site wastewater management report for: 113 Orchard Street, Warriewood, NSW REF-19-8578-A have been reviewed.

- Council's records indicate that currently the property is serviced by a septic tank which generates primary treated effluent to absorption trenching for disposal.

- The proposed disposal area appears to be in a bushed area away from borehole location which provides limited solar exposure and may have a different soil profile to the current borehole location.

- The proposed effluent disposal buffers are not consistent with Environment & Health Protection Guidelines On-site sewage management for single households which recommends 12 meters if area up-gradient and 6 meters if area down-gradient of property boundary for absorption systems. The waste water report displays a buffer of 3m and 3.5m which is insufficient separation for effluent disposal. If Australian Standard 1547-2012 is to be used for setback distances then sufficient justification is to be provided on the proposed buffers in accordance with Table R1 & R2 in Australian Standard 1547-2012.

-The wastewater report recommends a design load rating (DLR) for soil is 15mm/Day based on a sandy clay loam. Based on borehole soil types this would be incorrect however the proposal appears to propose removing 1000mm of soil and importing a sandy loam with a DLR of 15mm/Day.

- The Litres Per Day (LPD) would be determined by washdown, urine and manure generated by the total number of horse stalls present. The proposed 353.26LPD is satisfactory.

- The permissible slope for beds is generally 10%. As the site is 19% slope there is a proposal to install a retaining wall to reduce the slope of the disposal area. This will require specialised impermeable barriers lining the retaining wall and trenching underneath the retaining wall to prevent effluent seepage

and run-off.

- The provided report and SEE advise that septic tank will be disconnected from the dwelling and be utilised for the stables. There is no indication in the provided documentation on what sewage management system will be replacing the existing system for the dwelling. Environmental Health will require this upfront to make a determination.

Proposal's sizing appears acceptable for management of wastes from the stable. Setback distances from the property boundary is too small with insufficient justification for a reduced buffer. Wastes from Stables and Dwellings need to be treated separately Environmental Health need to be certain on how wastewater from the dwelling will be treated and disposed on a constrained site that is being further burdened with additional development.

Recommendation

REFUSAL

Additional comments 18/02/2020

The applicant has submitted an additional wastewater report for the proposed development by Enviro Engineers Australia referenced as REF-2101178.1-A and dated 8 February 2021. The proposal is for the decommissioning of the existing septic tank, installation of an Aerated Wastewater Treatment System (AWTS) to a subsurface drip irrigation field split into two separate areas in the south-east corner of the block and directly north of the residence.

The proposal is to connect wastes from both the dwelling and the stables into the AWTS. This practice is not supported by Environmental Health. Wastes from stables must not co-mingle with human wastes and must be treated in a separate treatment system (usually a septic tank) with a separate subsurface disposal method as per the document "horse property developments in the Sydney drinking water catchment" by the Sydney catchment authority.

For the purpose of assisting with additional report submissions the proposed LPD generation from the stable is satisfactory and separately the proposed LPD from the dwelling is satisfactory.

Reference is made to the land application area of sub-surface drip irrigation. The footprint of the drip irrigation field is considerably larger than the originally proposed conventional bed. The conventional bed is refenced in all existing plans and is inconsistent with the current wastewater proposal and potential impact it may cause to other consultant reports and plans provided. All plans referencing the conventional beds are to be amended in line with the final wastewater proposal. Further input from biodiversity may be required for the potential impact of effluent on existing native vegetation.

The effluent disposal area is adequately sized and a reduction can be applied when the LPD from the stables is separated from the AWTS. However the effluent disposal area for the stables will need to be indicated on any future wastewater reports submitted with the development.

The applicant is recommended to contact the Environmental Health department of Council prior to any further wastewater report submissions for the development application.

Recommendation

REFUSAL

The proposal is therefore unsupported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

Recommended Environmental Health and Protection Conditions:

Nil.