

Environmental Health Referral Response - unsewered land

Application Number:	DA2019/1378
Responsible Officer	Catriona Shirley
Land to be developed (Address):	Lot 79 DP 752017 , 79 Kumarna Street DUFFYS FOREST NSW 2084

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 has been requested to comment on the proposed development. The matters to be assessed include, wastewater, noise and light.

Wastewater

The wastewater report and plans prepared by SOWDES dated 25 October 2019 and referenced as 0030616 was submitted with the development application. The plans propose a domestic aerated wastewater treatment system which treats wastewater to a secondary level and a pump tank from a stable. The wastewater report proposes subsurface disposal area comprised of a raised conventional bed with the introduction of 200mm of loam topsoil at 15m in length and 4m in width.

The proposal is for a 6 bedroom development and stable with two staff amenities rooms. The development is proposed to be on tank water. The proposal suggests an expected litres per day (LPD) of 1200. Based on the number of bedroom and the two amenities rooms in the stable Environmental Health believes that the expected LPD should be 2825. This is based on a conservative approach that the 6 bedrooms may have 2 persons per bedroom at 120LPD per person for developments serviced by tank water.

There is a lack of information on the amenity rooms in the stables therefore an additional 60LPD is to be included for the amenities rooms.

There is no information on horse washing in the stables and as such a conservative approach has been based on the document Horse property developments in the Sydney water catchment by the Sydney catchment authority which states "A five minute horse wash uses approximately 80 litres of water for each horse, and one hour of stall washing using a high pressure cleaner (such as a 'Gerni') uses approximately 600 litres of water." Therefore with 8 stables with a conservative approach of each horse at maximum capacity having one wash a day and a stall wash once a week an additional 685LPD + 640LPD.

Therefore the residence is expected to generate 1440LPD based on 6 bedrooms on tank water. The stable is expected to generate 1385LPD. This makes the expected LPD as 2825. The wastewater report proposes 1200LDP Environmental Health which is insufficient.

The document Horse property developments in the Sydney water catchment by the Sydney catchment authority also states "In exceptional circumstances where treatment is proposed in a commercial

package treatment plant, the SCA may consider permitting the co-mingling and treatment of the two wastewater streams. This will be assessed on a case-by case basis, and an Operational Environmental Management Plan (OEMP) must be prepared and submitted as part of the development application.” Currently the development proposes commingling of wastes in a domestic treatment system. This is not supported by Environmental Health and the development proposal should either demonstrate a separation of wastes with two separate treatment systems or the use of a commercial treatment system with justification on why the one system is being used to treat all wastes.

The wastewater report lists the disposal area soil type as a sandy clay loam with a Design Load Rating (DLR) of 30 for conventional or absorption trenches.

The bed design is 15m x 4m based on an LPD of 1200. The LDP assessment the minimum sizing for the conventional bed should be two beds at 11.8m x 4m each or a total of 23.5m x 4m.

I also note that no area has been designated as a reserve area to be set aside should the primary area fail. Reserve areas are especially important for disposal areas that are sub surface and have an expected life span before they fail.

Bore hole 1 is the closest bore hole to the disposal area as such the soil depth and soil profile should be based this. The bore hole terminated at 700mm and the proposal recommends importing 200mm of topsoil. As such the pressure compensating drippers are to be placed on 20-40mm below current ground level which gives sufficient soil depth below for absorption.

Finally in Shadow diagram 3pm 21st June by Prebuilt referenced as P00.08 the disposal area is shaded. As conventional beds and raised conventional beds predominantly dispose of wastewater through evapotranspiration which is hindered by limited exposure to sunlight. A more suitable disposal area may be where one of the northern horse paddocks are located pending soil depths. This may require one of the paddocks to be used only for effluent disposal.

Light

The stables arena has significant lighting however this can be covered with condition of consent that the lighting complies with Australian standard AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting.

Noise

The statement of Environmental effects dated December 2019 by Hogan Planning town planning consultant's talks briefly on noise during the construction phase of the development. But fails to address noise generated from the ongoing use of the site. As the development proposal stands noise is not likely to cause a significant issue as long as the development remains for residential use. Further noise assessment would be required for a commercial premise.

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.