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Soil and Land Conservation Consulting

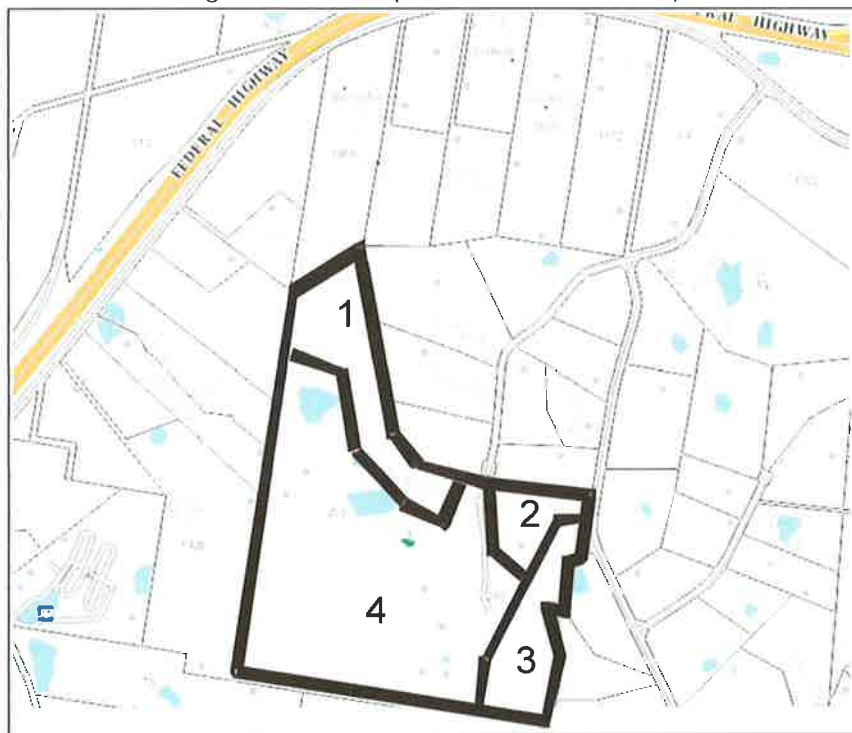
Non-potable Water Supply for Proposed Four Lot Subdivision of Lot 3, DP 1074706 202 Goolabri Drive, Sutton Palerang Shire Council

Introduction

A four lot subdivision is proposed for the above property (see fig 1). The total area of the land to be subdivided is 94.5ha. The land is gently undulating, and supports a vegetation cover of open eucalypt woodland and intervening areas of pasture. The lot drains to Yass River via minor drainage lines then MacLaughlins Creek.

The lot sizes will be 15.5ha, 7.2ha, 8.4ha and 63.3ha respectively. Lot 4 contains a golf course and holiday cabins along with a dwelling. Lot 1 contains an existing dwelling. Lots 2 and 3 have no dwelling. This report outlines how the non-potable water supply for the subdivision will comply with both NSW Office of Water (NOW) and Palerang Council controls (as defined in Palerang DCP for Rural Zones, 2008).

Fig 1: site location (from NSW LPG Six Viewer)



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Soil survey and assessment for forestry, agriculture, urban development; land degradation assessment;
catchment planning; soil conservation advice and planning; farm planning; land capability mapping
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NSW OW Controls

Surface Water

The harvestable right (HR) is the surface water storage volume (ML) which can be retained without the need for a licence. NSW OW will not issue a licence for dams which exceed the harvestable right of the new lots unless an additional water entitlement has been purchased from within catchment (the catchment is defined in the Murrumbidgee Catchment water sharing plan as Yass 11). The HR is calculated by lot size (ha) X .07 (the HR factor for the region). As such, the HR for each lot is 1.09ML, 0.50ML, 0.59ML and 4.43ML respectively. There are seven existing dams on the site (see table 1 and fig 2). The two large dams are covered by surface water licence 40SL070636.

Table 1: existing dams (dam numbers refer to fig 2; volumes calculated in accordance with Farm Dams Assessment Guide, DLWC 1999)

Dam no.	Surface area (m ²)	Estimated Depth (m)	Volume (ML)	Notes
1	245	2	0.20	
2	220	2	0.18	
3	630	2.5	0.63	
4	890	2.5	0.89	
5	720	2.5	0.72	
6				Not applicable, already licensed
7				Not applicable, already licensed

Groundwater

Groundwater in the region is managed under the *Water Sharing Plan for Fractured Rock Aquifers in the Murray Darling Basin*, established under the Water Management Act (2000). There is a licensed bore located on proposed lot 4 (40BL187469).

Council Controls

Palerang Council's DCP for Rural Zones (2008) requires that there is the potential for a dam site capable of storing .75ML or a bore pumping at least .5l/sec, for each subdivision lot. Dams also require a catchment area of 8ha to give reliability to surface water storage. Additionally, the water supply arrangement needs to accord with NSW OW surface water and groundwater controls. Palerang Council has shown some flexibility with these controls as long as it is possible to provide at least .75ML annually to a site.

This subdivision

Lot 1

There are no dams on the lot at present. The HR of 1.09ML would permit a dam to be constructed on one of the three catchments draining towards the main creek from the east side, and which range between 6 and 10ha in area. Alternatively, the lot would be able to install a basic landholder rights bore.

Lot 2

Lot 2 has a HR of 0.50ML and contains dam 1 with a volume of 0.20ML. The lot has inadequate HR for a 0.75ML dam and the catchment running through the lot has an area of only 4.5ha. As such the best option for non-potable water supply is a basic landholder rights bore. However, the dam can be retained intact as it does not exceed the lots HR.

Lot 3

Lot 3 has a HR of 0.59ML and contains dam 2 with a volume of 0.18ML. The lot has inadequate HR for a 0.75ML dam and the catchment running through the lot has only an area of only 3.5ha. As

such the best option for non-potable water supply is a basic landholder rights bore. However, the dam can be retained intact as it does not exceed the lot's HR.

Lot 4

Lot 4 has dams 3, 4 and 5, with an estimated total volume of 2.24ML. Dams 5 and 6 have a surface water licence. As such, the harvestable right of 4.43ML is not exceeded by the three unlicensed dams.

As there is more than adequate water storage already on the lot, it is not necessary to nominate which dam provides the non-potable water supply.

Once the new lot title is registered, the new lot details will be provided to NSW Office of Water to permit the surface and groundwater licenses to be amended.



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fig 2: subdivision layout and dam location

