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Our ref ER22685

Dear Ms Makin

**PLANNING PROPOSAL – SUTTON RD AND FAITHFULL ST,
GUNDAROO (PP-2013-01)**

I refer to your letter dated 13th November 2013 requesting comments on the planning proposal to rezone land at Sutton Rd and Faithfull St, Gundaroo from RU1 primary production to part RU5 village with a minimum lot size of 2000sqm and part R2 Low Density Residential with a minimum lot size of 5000sqm. The NSW Office of Water appreciates the opportunity to comment and requests the following comments be considered in finalising the proposal.

- The NSW Office of Water is supportive of reticulated sewer and water to adequately service the proposed lot sizes for the site. This would ensure water demands for both potable and non-potable requirements are maintained and mitigate impacts to the surrounding environment and water users.
- As shown in Attachment 1 the village of Gundaroo has a high density of groundwater bores. This indicates a strong demand for a water supply source to supplement rainfall collection. It is therefore recommended Council ensure the potential water demands for non-potable and potable purposes have the potential to be obtained from appropriately authorised sources with minimal potential for impact on water users and the environment. A reticulated water supply will reduce the potential for a proliferation of bores, reduce issues of pumping interference, and will improve security of water supply.
- A factsheet provided by NSW Office of Water titled "*How much water do I need for my rural property*" provides information on determining water requirements and can be accessed at the following link: <http://www.water.nsw.gov.au/Water-Licensing/Basic-water-rights/default.aspx> This factsheet indicates an annual non-potable demand of 200 000L to maintain 0.1ha of house garden in the southern tablelands.
- The proposal is recommending that the minimum buffer distance (or setback distance) between groundwater bores and effluent disposal areas to be between 15-50 m. No further details of anticipated groundwater impacts (contaminant modelling) were provided with the proposal. The proponent has determined that local groundwater levels range from 0.6m (test excavations TP6 and TP7) to 15m based on site investigations and local bore records.
- Effluent irrigation in areas where groundwater is shallow could pose a potential risk for contamination from direct infiltration of effluent into groundwater. The proponent identifies an area of 'vulnerable groundwater' and that effluent irrigation will be allowed within this area. In addition, it is recommended this area be extended to include the area around TP7 where shallow groundwater was encountered.
- It is recognised a number of dams exist on the site. Future subdivision layouts would need to consider the applicability of the Maximum Harvestable Rights Dam Capacity (MHRDC) for the land parcels comprising the dams. This may require modifications to the dam size to ensure it fits within the MHRDC for the land parcel it is situated on. Further detail on

MHRDC can be accessed at the following link: <http://www.water.nsw.gov.au/Water-Licensing/Basic-water-rights/Harvesting-runoff/default.aspx>

- It is recognised stormwater detention is proposed on individual lots. Where this may involve the use of dams to capture runoff each land parcel will need to be considered in terms of the MHRDC as referred to in the previous point. There is also a proposal for underground storage tanks for infiltration of stormwater. Due to the presence of shallow groundwater it is recommended further assessment be carried out on the long term feasibility of this approach with consideration of impacts on groundwater levels, groundwater quality and waterlogging.
- It is recognised a first and second order watercourse traverses the site. It is the second order watercourse which is characterised by an erosion gully. The NSW Office of Water advises future subdivision layouts and modifications to the watercourses such as detention basins, crossings and reshaping would need to address the "*Guidelines for Controlled Activities on Waterfront Land*". This may require the implementation of buffers to the banks of the watercourses and/or consideration of the ability to offset impacts due to the project. This would require further discussion with Office of Water staff. The CAA Guidelines can be accessed at the following link: <http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx>

Recommendations

The following are recommended:

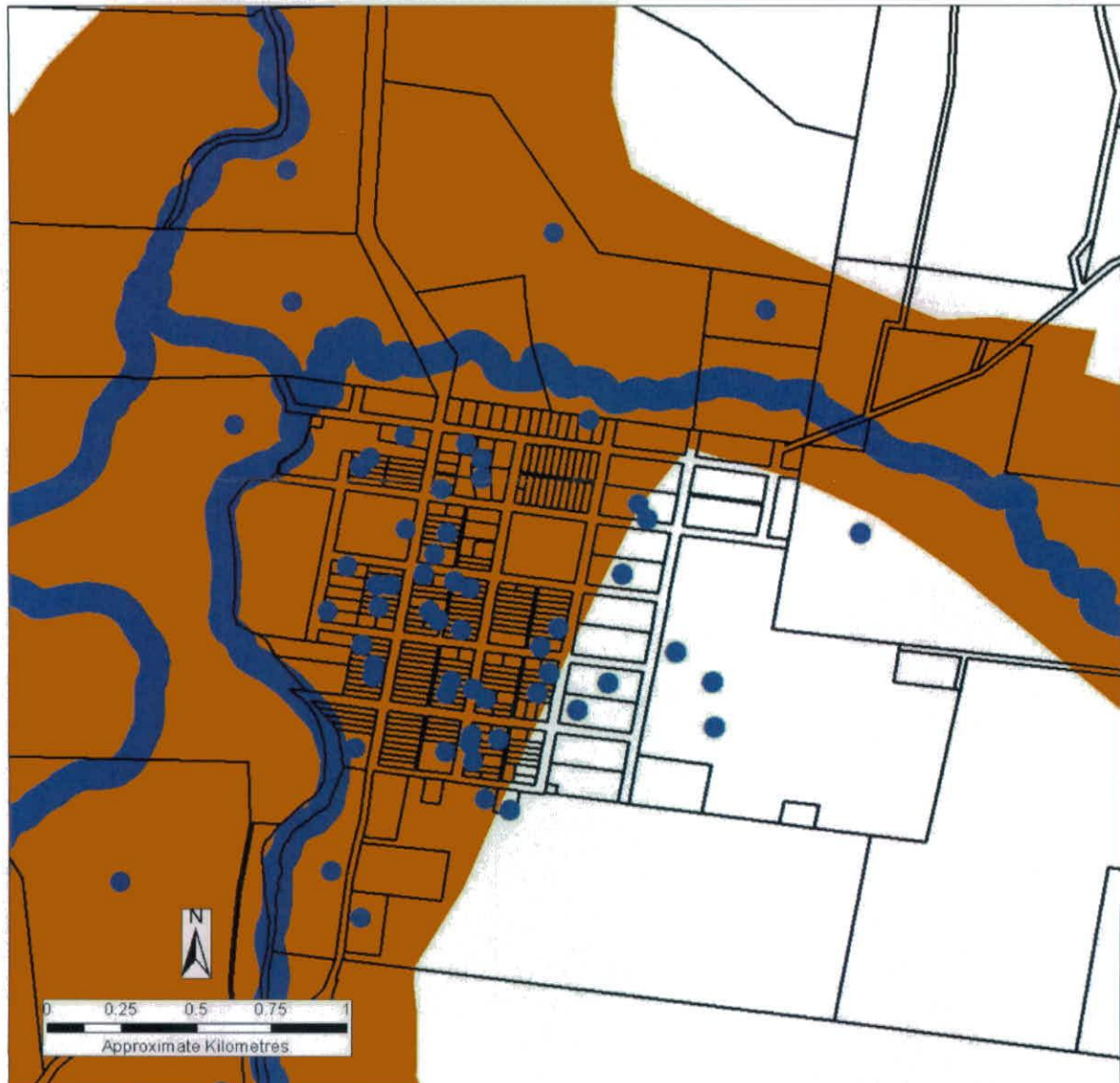
1. A minimum buffer distance of 250m between all existing and new domestic and stock bores and effluent irrigation areas or sewage disposal sites. This distance is stated within Clause 38(1a) of the *Water Sharing Plan for the Murray Darling Basin Fractured Rock Groundwater Sources 2011* and the "*On-site Sewage Management for Single Households* (Environment & Health Protection Guidelines, 1998)".
2. Effluent irrigation areas should not be sited over areas of shallow groundwater. Further, it is recommended the area identified by the proponent as 'vulnerable' be extended to include the area around TP7.
3. A monitoring bore be constructed by the proponent and water level and quality monitoring be undertaken by Council. This will be used to assess water level and quality impacts in future and to implement local impacts management should it be necessary.
4. In accordance with the "*Environment & Health Protection Guidelines On-site Sewage Management for Single Households (1998)*" the proponent should demonstrate that the on-site sewage application areas will not be inundated by a 1 in 100 year flood.
5. An alternative for the proponent to achieve the proposed lot sizes is consideration of the potential for reticulated off-site sewage disposal and reticulated groundwater supply from a single or multiple bores adjacent to the site.
6. Consideration of how the "*Guidelines for Controlled Activities on Waterfront Land*" can be applied for future subdivision requirements and the potential use and/or modification of the existing dams with respect to water licensing requirements.

Should you have any further queries in relation to this submission please do not hesitate to contact Tim Baker on (02) 6841 7403.

Yours sincerely



Mitchell Isaacs
Manager Strategic Stakeholder Liaison
16 December 2013



GUNDAROO VILLAGE

Environmentally Sensitive Areas - Sensitive Water Resources & Groundwater Bores

This land use decision-making tool is based on information produced by the NSW Office of Water and does not represent other NSW Government agency information.

This information should be used as a guide only and scale must be taken into consideration when used with cadastral information.

- Legend**
- Local Government Boundary
 - Local Government Area 5km buffer
 - Major freshwater habitats (40m buffer either side for bed & bank stability; protection of riparian vegetation & connectivity of habitat)
These areas should be excluded from development.
 - Moderately High Groundwater Vulnerability.
Developments with the potential for significant contamination of groundwater sources (such as intensive animal agriculture) would not be considered appropriate in these locations.
 - High Groundwater Vulnerability.
Developments with the potential for significant contamination of groundwater sources (such as intensive animal agriculture) would not be considered appropriate in these locations.
 - Groundwater Bores

Environmentally Sensitive Areas Sensitive Water Resources

Data Source	Data Codes
Vulnerable Riparian Areas	All codes + 40m buffer either side of high bank
Groundwater vulnerability	High and Moderately High
Kingsford Wetlands Data	

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