25 March 2019

Ms Elizabeth Makin
Strategic Planning Manager
Yass Valley Council
PO Box 6
YASS NSW 2582

Dear Liz,

PLANNING PROPOSAL (PP.2018.04) – 2090 SUTTON ROAD, SUTTON

I refer to the letter dated 18 March 2019 from Ms Vicki Chatfield, Natural Resources Access Regulator to Yass Valley Council providing comments and recommendations on the above planning proposal. Given the previous work carried out by Soil and Water, we have been asked to respond on behalf of the applicant.

Our response below is structured to directly address NRAR's recommendations.

CONFIRM THE POTABLE AND NON-POTABLE WATER DEMANDS AND THE VIABILITY OF SUPPLIES TO MEET THIS DEMAND AND QUALITY. THE IMPACTS OF EXTRACTING THE WATER ON ADJACENT USERS AND THE ENVIRONMENT WOULD ALSO NEED TO BE ADDRESSED TO CONFIRM THE VIABILITY.

We understand that the client intends for each lot to independently provide potable and non-potable water requirements. This will principally be through roof catchment and tank storage. The amount of potable and non-potable water required to support a household varies depending on the type and size of garden, number of occupants and occupancy patterns and water usage patterns. Many households in rural areas provide all potable and non-potable water requirements through roof catchment and tank storage. Therefore, it is potentially a viable water supply for these purposes.

There are also several measures which can be employed to increase the viability of roof catchment and tank storage as the primary water supply. These include mandating minimum roof catchment areas (dwelling and sheds); mandating minimum tank storage requirements; and mandating water saving water fixtures throughout all dwellings. Another key water efficiency measure is requiring each new dwelling to install Aerated Wastewater Treatment Systems which enables the beneficial re-use of treated effluent for garden irrigation. For a 4-bedroom household this can deliver an estimated 219,000 litres of treated effluent for garden irrigation per year, thus reducing the annual non-potable water requirement by a commensurate amount.

The Land Capability Report (*Lot 5 DP 838497 Land Capability Assessment,* Version 4, 29 May 2018, Soil and Water) assessed the potential impacts associated with the provision of non-potable supply to each new dwelling lot. It considered it would be unlikely that each lot (or many) would install a groundwater bore to provide non-potable water given the small size of lots (therefore limited need for non-potable water) and cost to install/operate. The requirement for a 250-metre buffer between bores and effluent disposal areas also makes this option infeasible for many of the smaller lots. The installation of a surface water storage (dam) on each, or some, of the lots would also generally be prohibited as the Harvestable Right attributable to each newly created lot would be inadequate for a feasible dam storage to be constructed.

The augmentation of roof catchment and tank storage water supply with groundwater and/or surface water dams on the larger lots is a viable proposition provided the minimum 250 metre buffer from effluent disposal and/or Harvestable Rights provisions can be met.

The suite of measures to provide a viable non-potable water supply to each dwelling lot will be detailed as part of the Development Application process.

ADDITIONAL ACCESS TO RIPARIAN RIGHTS NOT BE FACILITATED BY THIS PLANNING PROPOSAL AND WATER SUPPLY BE MANAGED BY ON-SITE OR RETICULATED SUPPLIES.

To prohibit the creation of additional Riparian Rights along the Yass River the entire riparian zone will be included within one of the larger lots. This will result in no net change to the number of Riparian Rights along the Yass River frontage.

WHERE NECESSARY PLAN THE LOT LAYOUT TO ENABLE A 250M BUFFER BETWEEN BORES AND EFFLUENT DISPOSAL AREAS. THE USE OF A BUFFER LESS THAN 250M INCREASES THE RISK OF ACCESSING CONTAMINATED WATER. THE USE OF A RETICULATED WATER SUPPLY SYSTEM WILL ASSIST IN MITIGATING THE REQUIREMENT FOR INDIVIDUAL LANDHOLDER BORES AND HENCE POTENTIAL CONLICT WITH THIS BUFFER DISTANCE. ADEQUATE MAINTENANCE OF ON-SITE EFFLUENT MANAGEMENT SYSTEMS WILL BE REQUIRED TO MITIGATE IMPACTS TO THE SURFACE WATER AND GROUNDWATER SYSTEMS.

The client proposes that potable and non-potable water supply for new dwelling lots be provided through roof catchment and tank storage. The installation of individual bores on smaller lots is considered unlikely given the limited need for additional water (over and above that provided by roof catchment and tank storage), difficulty in meeting the 250 m buffer requirement and cost of construction and operation. Larger lots may augment tank supply through bore/surface water storage (dam) providing the 250m buffer from effluent disposal areas and/or Harvestable Rights provisions can be met.

The Land Capability Report originally recommended a 50m buffer which is the upper end of the 15-50m buffer distance range provided in the Australian Standard (AS 1547:2012). For comparison, the Sydney Catchment Authority Guidelines have a buffer distance of 100 m and they are generally more conservative than other guidelines. The application of this reduced buffer was considered justified as the majority of the site is not mapped as groundwater vulnerable in Council LEP mapping and the groundwater systems which underly the area are generally low transmissivity, low yielding with water bearing zones located relatively deeply.

As the proposal now involves the provision of non-potable and potable water requirements through individual roof catchment and tank storage, with potential augmentation with surface

water storage (dams) and/or groundwater (bores) on larger lots, the application of the 250-metre buffer between effluent disposal activities and groundwater bores is feasible.

The location of effluent disposal activities in relation to existing or new bores will be considered at the Development Application stage when effluent disposal areas can be identified for each of the proposed new dwelling lots in conjunction with identifying building envelopes. Individual onsite effluent management practices will be further detailed (including maintenance requirements) in subsequent On-Site Sewage Management Reports (OSSM) provided for each dwelling lot at the time of Development Application for dwelling construction.

REVIEW THE YASS INTEGRATED WATER CYCLE MANAGEMENT STRATEGY (IWCMS) TO ENSURE THE PROPOSED MANAGEMENT OF WATER AND SEWERAGE FOR THIS PLANNING PROPOSAL IS CONSISTENT WITH THAT DOCUMENT.

The proposed management of water and sewerage is not inconsistent with the Yass IWCMS. Proposed provisions to manage impacts to water quantity (no additional riparian rights and additional groundwater access limited by bore buffer requirements) and water quality (on-site effluent management in accordance with Australian Standards and Council requirements including secondary treatment systems with disinfection on all new dwelling lots) are consistent with IWCMS.

We note that YVC is planning on reviewing the current IWCM strategy and the Development Application stage can consider any changes to ensure the development remains consistent with the strategy.

FUTURE SUBDIVISION REQUIREMENT WILL NEED TO ENSURE THE DAM SIZES ON NEWLY CREATED LOTS ARE CONSISTENT WITH THE MHRDC. THIS MAY REQUIRE ALTERING THE DAM CAPCITY OR OBTAINING RELEVANT APPROVALS AND LICENSES UNDER THE WATER MANAGEMENT ACT 2000.

The NSW Harvestable Right Policy requires that each newly created lot comply, which means any lot inheriting a dam will need to have adequate Harvestable Right to cover the dam capacity. This means if the dam is 1 megalitre in size the lot needs to be in excess of 11 hectares. Dams constructed for erosion control purposes are exempt from inclusion in this calculation and can remain without modification or further action. Where the lot is insufficient in size to cover the dam capacity and it is not an exempt dam, then the dam will be modified or removed to comply, or a surface water entitlement will be purchased on the water market to cover the shortfall.

The applicant will undertake a Harvestable Rights Dam Assessment at the Development Application stage to determine what action (if any) is required to regularise the existing dams post subdivision.

Yours sincerely

John Franklin *M App Sc, BSc*
Director