Paul Smith

Senior Environmental Engineer,

Upper Hunter Shire Council

psmith@upperhunter.nsw.gov.au

**Review Comments: - DA 163/2017 – 150 Gundy Road Scone**

Dear Paul,

I refer to your request to review comments made by Martens on Peer Review by Dr Banks dated 30th March 2022 :-

Despite supposed “re modelling” there is **still little data to fulfil fundamental questions** of the key points in the Determination PPS doc are

1. Salinity is a known constraint and is affecting immediately surrounding lands, which warrants a precautionary approach within the catchment
2. There are fundamental differences between the Council and Proponent on salinity. Council’s position, informed by an independent review and advice from the Department of Indust Saline Support Unit, is that the model provided by the applicant is not the correct model – it needs to be salinity modelling
3. Accordingly, there is not sufficient information for the Panel to be confident and satisfied that onsite and offsite salinity impacts are minimised and mitigated.

***Updated Groundwater Modelling***

It is not clear what data has been used , nor the outputs achieved other than comments that are made which are not supported by detailed evidence in this report .

1. Inclusion of most recent catchment soil survey data. ( sect 4.2)
	* no comparative data as to what the remodelling soil data included has shown to improve situation and the spatial area used across the entire catchment. It is assumed that only the subdivision data was used and not the entire catchment.
2. Inclusion of additional groundwater bore observational data for areas external to the site.(4.3)
	* No evidence of what the expanded data inclusion resulted in
	* With highly saline groundwater at or just below the surface in the lower landscape, even minor variation ( increase) will have significant impact
3. Amendments to groundwater recharge taking account of potentially increased site runoff arising from the proposed development. (4.4)
	* Net increase in annual flow is reported to have increased markedly in this modelling run. **That would indicate change to offsite salinity**
	* **The impact of increased recharge due to garden watering, leakage and increase recharge due to changes in roading has not been taken into account .**
4. Consideration of longer-term climate variability on modelling outcomes. (4.5)
	* If the modelling was still only done on the area of the development high in the catchment , then the impact of long term climate scenario is very unlikely to be detected. The whole of the catchment needs to be looked at , not just the development area.

***Areas affected by salinity***

There seems to be poor understanding of the salinity process in the catchment

1. EM mapping of the site clearly shows that there is very high salinity within the development in the lower area at a relatively shallow depth. The topsoil is non saline ( as expected) but the subsoil has already a high salt store, which can be readily mobilised .
2. Increase in recharge and development will induce salinity within the development.
3. There is more than ample evidence of salinity immediately adjacent to the site in the Aged Care area, housing and the Scone High School.

***Local salinity situation ( not within this report)***

The behaviour of the following, gives evidence to a significant salinity issue that will not take much additional landscape change to dramatically change the situation for the worse

1. Monitored bores at the Aged Care Facility are not in drainage line, hence reflet groundwater situation better, and not runoff directly
	1. Peizometer 2 dramatically increase in height and salinity concentration after rainfall. There is a period of reduced EC for short period of time after rain , which indicates very good connection of groundwater
	2. The piezometers were installed to monitor a known salinity issue
2. High School Ovals and Ag Plot
	1. Ovals are non functional
	2. Ag plot is no longer in use with stock agisted elsewhere
	3. Major change in species to salt tolerant species on site.
3. Increasing tree death to residents gardens downstream of the development
4. Infrastructure damage to roads, service station and substation.
5. Major tree death and vegetation change adjacent to highway , and on the Scone golf course below the road.

So there is no recognition that there is a very serious salinity situation below the proposed development and that the proposed development may make situation significantly worse . My comments previously made are repeated

**AN Comments on Salinity Report \_ February 202**2

* **My numerous review responses to this development have NOT been addressed, and there is insufficient information to allow development , even in a precautionary manner.**

Regards

Allan Nicholson

Principal Salinity Officer

Basin Salinity Program | Water I Department of Planning, Industry and Environment
**M** 0448 413 154  |  **E****Allan.Nicholson@dpie.nsw.gov.au**
Wellington Research Station, 6582 Mudgee Rd ( P.O.Box 123) Wellington , NSW 2820
[www.dpie.nsw.gov.au](http://www.dpie.nsw.gov.au/)

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