

**Submission  
No 58**

**INQUIRY INTO ADEQUACY OF WATER STORAGES IN  
NSW**

**Name:** Mr Stephen Hicks

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To the committee

I ask that the committee consider the Stockton sandbeds as a possible source of water under circumstances of low storage levels for the Lower Hunter water network. To this end I request the committee to order an independent investigation of Stockton sandbeds to consider whether their removal from Hunter Water's supply options was acceptable.

The Stockton sandbeds were previously considered the emergency water supply option for Newcastle. Their use for emergencies only was based on the situation of most of the sandbed below sea level, which over time would mean salt water intrusion would be certain and the supply would be contaminated, however for a severe water shortage event the contamination would be justifiable.

The advantage of having a one off emergency provision became apparent when Hunter Water removed Stockton sandbeds as an emergency option, and this in conjunction with a change in their water security criteria was seen as reason to build Tillegra dam. The removal of Stockton sandbeds was done in a rather arbitrary way, with no public consultation, indeed no reporting in the local tabloid, it simply manifest as stated reduction in the secure yield, which was used to try and justify Tillegra dam.

Given that Hunter Water engaged in some rather unseemly behaviour to attempt to push through the dam, it is not beyond credibility that the removal of Stockton sandbeds as a supply option was done purely for propaganda purposes, and had no solid basis in scientific fact.

I would thus encourage the committee to review the document attached, labeled "manageddocument" which is a report into the Stockton sandbeds which was produced by Hunter Water and the consultants SKM. The report indicates that some salt water intrusion is occurring from Tilligerry Creek due to the drainage of agricultural land next to the Creek. However the vast bulk of the aquifer is free water. Furthermore no issues occur in regard to salt intrusion from the ocean. In fact fresh water is moving seaward at a rather rapid rate. This implies that considerable water could be removed from the aquifer without rapid intrusion of salt water from the ocean. The Tilligerry Creek salt intrusion could be best managed by changing drainage channels into the Creek. In total the report actually shows the sandbed would be very resilient to intrusion, however the authors are more concerned with the issues involved with drainage than with the overall viability of the sandbeds, presumably because such viability is obvious.

Further to this issue, I also note that the preferred site of any emergency desalination plant is located on the Stockton peninsula, adjacent to the aquifer, and that a combined desalination water bore project could have remarkable advantages under drought

conditions in that the bore project would come online relatively quickly, providing cover for the construction of a desal plant, which the desal plant could be used to refill the aquifer, and under the unfortunate circumstance of salt intrusion, it could desalinate and restore the aquifer to a fresh water state.

I therefore ask that the committee obtain all the water data for the Stockton sandbeds, and then commission a consultant to review the assumptions made by Hunter Water in removing the sandbeds as an emergency option. Further to this it would prudent to begin works on a pilot bore pump station and desal plant. Such plants are relatively cheap, in the order to \$5 to 10 million. Such preparation would vastly improve water security.

Yours Sincerely

Stephen Hicks