

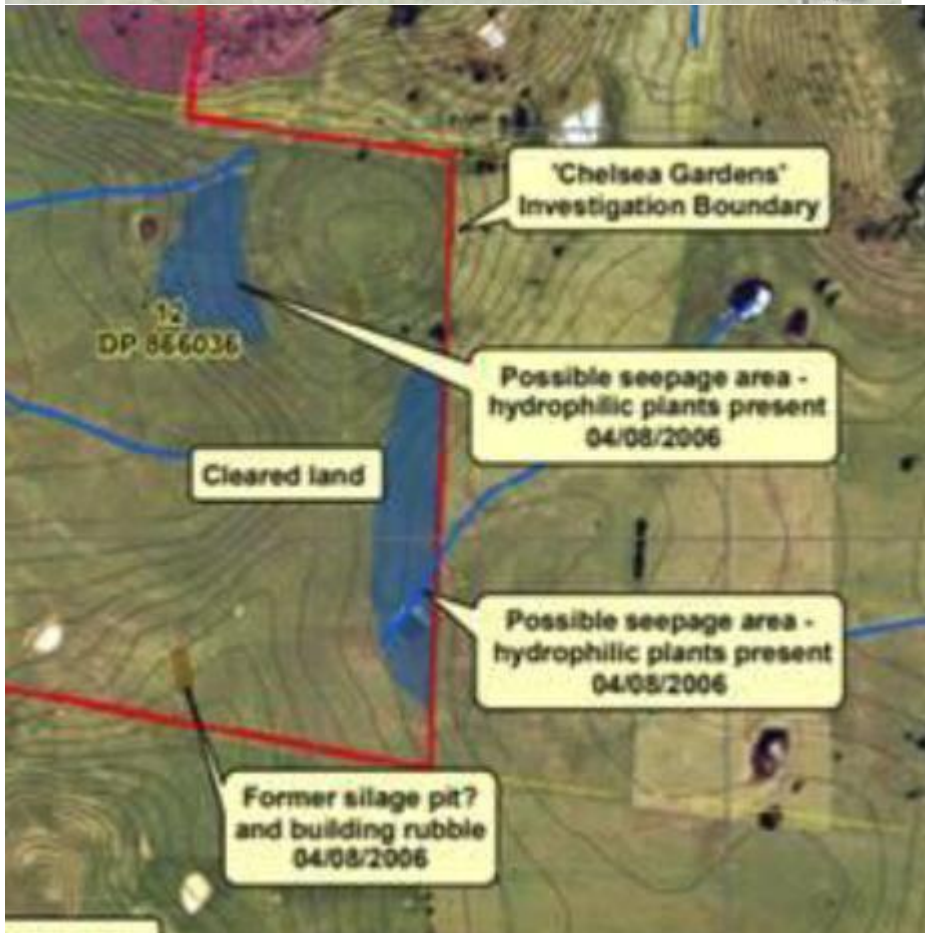
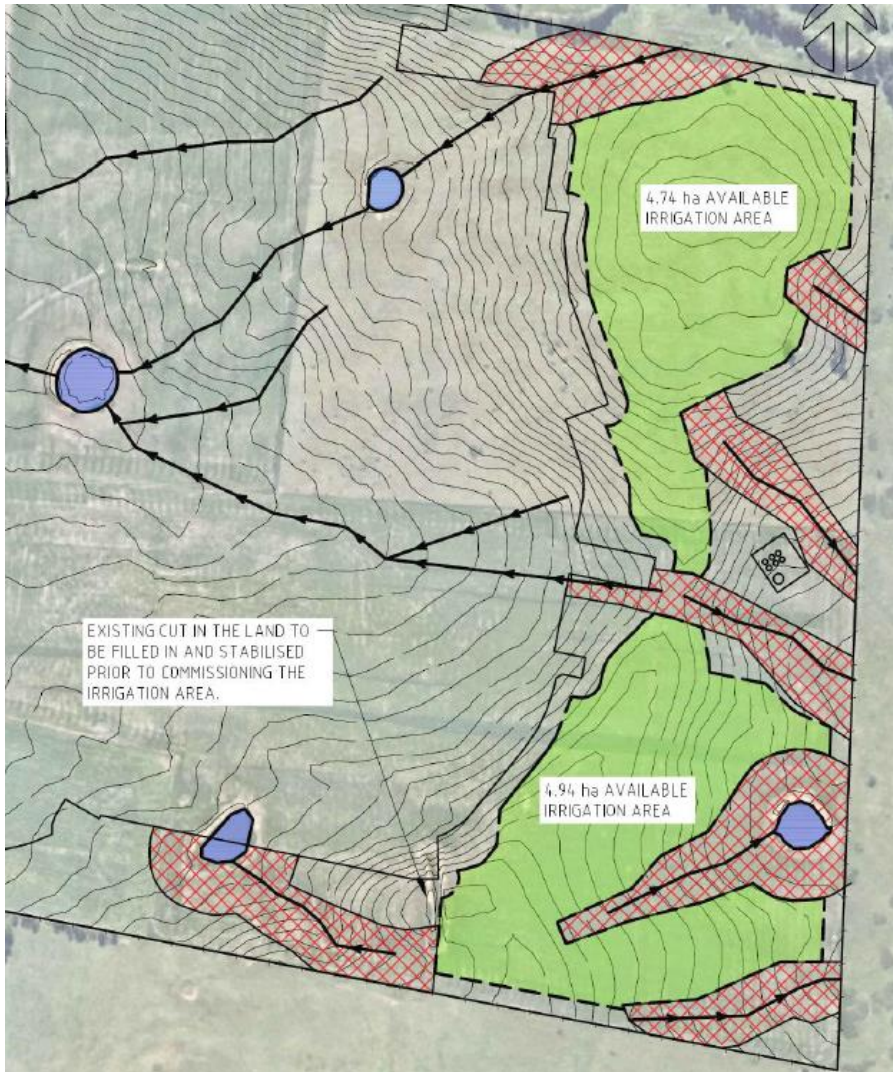
## **Response to Concerns Regarding LCA and Suitability of Proposed Effluent Irrigation Scheme**

SEEC provided a letter that contains an itemised response to DWA's concerns. Their primary response is that they consider adoption of the smaller scale (on-site) wastewater guidelines and standards to be appropriate for this site due to the fact that it is an interim solution for stage 1 only.

DWA acknowledged in our report that the interim nature of the Interim Wastewater Treatment System (IWTS) may influence how IPART, EPA and NSW Health assess the proposal. However, it remains inconsistent with normal practice for WICA schemes or in fact effluent irrigation schemes of this scale and nature. As such, there is some uncertainty on its acceptance.

Many of SEEC's responses then relate to justifying that their LCA is consistent with the aforementioned 'on-site' wastewater guidelines which DWA do not dispute. However, land application in this mode at this scale (a subject matter DWA are considered to hold expertise on) is a more complex process with more potential to create downslope and off-site impacts in comparison with a residential or small commercial system servicing a single premises.

The feedback on DWA's concerns regarding potential groundwater seeps is incorrect. The following screenshots clearly show the potential seep areas in question and their location within or immediately below the proposed irrigation areas.



Whilst not a major constraint under a beneficial reuse irrigation approach, the proposal in question will be heavily reliant on deep drainage and lateral seepage for 4-6 months of the year with ~70% of annual effluent volumes needing to move through the soil profile and seep either laterally to downslope waterways or through rock to recharge groundwater. DWA recognise that as an interim solution there may be some potential to deviate from a full beneficial reuse approach (this is something DWA have previously achieved at smaller scales), however, this is not normal practice at this scale and based on our experience, the current irrigation rates, areas and storage allowances may not be adequate to enable approval under WICA.

With regard to water balance modelling and reliance on plant water requirements, the position put forward by Truewater is not accurate and not consistent with the EPA (DEC, 2004) Effluent Irrigation Guidelines. In order to not require an Environment Protection Licence (EPL), the EPA guidelines require a scheme to achieve full beneficial reuse. This means irrigation rates and annual depths should be closely aligned with plant water requirements and deep drainage should not be increased beyond rates required for salt flushing from the soil profile. The EPA guidelines provide specific criteria for defining full and partial reuse schemes and how this needs to be demonstrated. The monthly water balance modelling undertaken as part of the SEEC LCA is not consistent with this approach.

The theory from Truewater that adoption of a beneficial reuse irrigation strategy is only required where production of a commercial crop or turf is proposed is not correct. I am sure the EPA could confirm this.

### **WICA and Sequencing of Development / Conditions of Consent**

A letter has been provided from Addisons (law firm) regarding WICA and the appropriateness of a condition of consent requiring the applicant to obtain WICA licences prior to issue of a Subdivision Works Certificate (SWC).

Their overall position is that

- a) this is unreasonable as it prevents all other subdivision works from proceeding;
- b) that the DA consent already issued by WSC forms the only approval to construct the sewerage infrastructure, IWTS and irrigation system
- c) that WICA only assesses the organisational capacity of an entity to provide water and sewerage services; and
- d) that it has not been required on other projects.

DWA's position remains that it is normal practice for any approvals required to construct subdivision services be obtained prior to SWC. This is normal practice for stormwater, roads, sewerage, water etc. Given the criticality of the IWTS and irrigation scheme to essential servicing of Stage 1, it is entirely reasonable to require this.

Given the duration of assessment of this development, DWA appreciate time pressures may warrant some flexibility. An additional option would be to

condition that no sewerage works may commence until the WICA licences have been obtained rather than tying WICA licences to the SWC. This is a question of risk for the Panel to consider.

It has been clearly established and accepted by both parties that no sewerage infrastructure can be built for Stage 1 prior to obtaining a WICA licence. It is prohibited under WICA for anyone other than WSC to build it without a WICA licence. The DA consent for the IWTS does not override this requirement and only provides consent for the land use activity. Addisons assertion that the IWTS has already been approved is not accurate.

It is abundantly clear from the WICA legislation itself in addition to the IPART guidelines and documentation that WICA licences do assess the sustainability and engineering aspects of **all sewerage infrastructure** not owned by WSC. This includes the sewerage reticulation, pump stations and rising main.

With regard to other projects, DWA acknowledged that it is not a 'hard and fast' rule but in the context of this development, there is inevitably risk associated with allowing the developer to proceed with subdivision works before it is confirmed that the IWTS and sewerage reticulation can be legally built and operated. It appears that the applicant is claiming that this is a risk borne entirely by them which is technically correct. They have provided a timeline in the addendum to the SEE that is reasonably showing they should have their WICA scheme approved for operation before their current timing for lot release (notably 6-12 months from Moss Vale STP being available).

It is noted that Bingara Gorge is an example project where water balance errors and other issues have caused both compliance and operational challenges for the WICA licence holders. A closer examination of Bingara Gorge would not be supportive of the Chelsea Gardens IWTS proposal.

*Notwithstanding, a condition requiring Ministerial approval to commence operation prior to issue of the first Subdivision certificate would prevent the applicant from proceeding with lot release until a suitable IWTS was approved, built and commissioned.*

Happy to discuss further

**BEN ASQUITH**  
Managing Director



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