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8 September 2015

Department of Primary Industries - Water
Level 11, 10 Valentine Avenue
Paramatta NSW 2150

Attention: Janne Grose

VIA EMAIL: janne.grose@dpi.nsw.gov.au

Dear Janne,

RE: Brickworks Proposed Lightweight Concrete Aggregate Facility – 780 Wallgrove Road, Horsley Park: Response to Comments Received on Draft Soil and Water Report

As part of the consultation process with stakeholders required by the Secretary's Environmental Assessment Requirements (SEARs), the draft Soil and Water Report (SWR) prepared by AT&L was submitted to DPI Water for review and comment.

A written response was received from DPI Water on 4 September 2015 outlining several items where further information or clarification was required. The following is an item by item response to the issues raised in the letter. Please also refer to the updated SWR and accompanying civil drawings.

1. Potential Surface Water Impacts

DPI Water Comment:

The SWR indicates that prior to construction commencing diversions will be constructed to divert clean stormwater away from exposed soils and development areas (see section 8.2.1, page 19). In terms of mitigating potential surface water impacts, the proposed sediment/stormwater detention basin should only collect dirty runoff water from the site for treatment prior to discharge to Eastern Creek. Confirmation is sought as to whether all clean water runoff will also be diverted away from the development area and the sediment /stormwater detention basin during the operation of the project.

AT&L Response:

- There are no upstream clean water catchments to be diverted around the development site in the **operational phase**. All runoff from the development site would be considered "dirty" and must go to the basin for treatment prior to release into Eastern Creek. This is because the vast majority of the site is either impervious (roofs, pavements) or exposed earth (stockpiles). There may be small localised areas of landscaping within the site (e.g. batters) but it would not be practical to separate these flows from surrounding runoff.

- Section 8.2.1 of the SWR refers to localised diversions around areas of disturbed soils (i.e. where active excavations are taking place) during the **construction phase.** These diversions ensure that relatively

'clean' water from upstream parts of the site does not erode the excavated surface and accumulate sediment unnecessarily. All water will ultimately still end up in the sediment basin prior to discharge to Eastern Creek.

2. Surface and Stormwater Management Systems

DPI Water Comment:

The SEARs require an assessment of potential impacts on riparian areas. The SWR indicates the western portion of an existing dam on the site is located within 20 m of the bed of Eastern Creek. It would appear the existing dam is proposed to be dewatered and removed and a new permanent sediment / stormwater detention basin is to be constructed at the location of the existing dam (Appendix A). The SWR needs to clarify this.

Where the existing dam has encroached closer than 20 m to Eastern Creek (as measured from the top of bank), this area should be rehabilitated with riparian vegetation to assist mitigate impacts on the riparian corridor. It is recommended the EIS/SWR includes details on this.

The SWR notes a small portion of the proposed detention basin will be located within the outer 50 % of the Eastern Creek riparian zone and it makes reference to NSW Office of Water Controlled Activity Guidelines which permits a 50% encroachment provided it is offset with an equivalent riparian area (see Sections 3.2.2 and 4.3.5, pages 4 and 9).

The SWR needs to include details on the total area that the detention basin encroaches into the riparian corridor.

The General Arrangement Plan (Drawing No. C03) shows a 'vegetation rehabilitation area' adjoining the riparian corridor but it is unclear if this is meant to be the riparian offset area (Appendix A). The SWR / EIS needs to clarify where the proposed riparian offset area is to be located and include details on the total area of the proposed riparian offset area.

It is suggested the SWR/EIS includes a scaled current air photo of the site which overlays:

- *the top of bank*
- *the 20 m and 40 m riparian setback widths (measured from top of bank)*
- *the proposed works which encroach into and are adjacent to the riparian corridor*
- *the riparian offset area (the offset area should be an equivalent area connected to the riparian corridor)*

As part of the SSD proposal, the DPI Water recommends consistency with the Guidelines for Controlled Activities on Waterfront Land (DPI 2012), available online at www.water.nsw.gov.au/water-licensing/approvals/controlled-activity

The site provides an opportunity to provide a corridor to link between Eastern Creek and remnant vegetation surrounding Prospect Reservoir. It is suggested the EIS considers potential options for providing a corridor linkage.

AT&L Response:

- The existing dam is to be dewatered and removed. This was previously mentioned in Section 3.2.1 of the SWR but additional commentary has been added to Sections 4.2.7 and 4.3.5 for clarification.

- Two new permanent sediment basin/detention basins are to be constructed within the vicnity of the existing dam but with less encroachment into the riparian zone than under the current scenario. Proposed Basin No.2 encroaches only 550m² into the 40m riparian corridor and is fully outside of the 20m riparian corridor. Refer to Drawing C03.

- The riparian offset area (4685m²) proposed to the north of the basins is much larger in comparison to the encroachment.

- Rehabilitation of riparian vegetation is proposed in the area where the existing dam is to be removed. This will comprise a total of approx. 5,000m², of which 2,000m² is outside the 40m riparian corridor (i.e. an additional offset).

- Drawing C03 has been updated to show an aerial photo overlay, top of bank and riparian corridor alignments, revegetation areas etc. as requested.

- We do not believe there is an opportunity to connect the Eastern Creek corridor to the Prospect Resevoir remnant vegetation due to the existing and proposed industrial operational area (including high numbers of heavy vehicle movements) located between these two locations. Refer to ecological report prepared by Travers Ecology.

3. Surface and Stormwater Management Systems

DPI Water Comment:

The SEARs require a detailed water balance including a breakdown of water supplies and details of any water licensing requirements. The SWR indicates 40kL/day of water will be sourced from the OSD basin for dust suppression (Section 9.4, page 22).

The Harvestable Right for the 85 hectare site is 6.8 ML. Under the Farm Dams Policy a 6.8 ML dam can be constructed on the site without the need for a license. According to Section 9.4 the OSD basin will be 6000kL in size (or 6 ML) but Sections 6.2.2 and 7.3.1.3 indicate the capacity of the detention basins is 6700m3 (or 6.7 ML). Provided the OSD does not exceed the harvestable right of 6.8 ML, a license will not be required from the DPI Water.

AT&L Response:

- Section 9.4 of the SWR has been updated to 6.7ML. This is less than the 6.8ML limit quoted by DPI Water. However it should be noted that the primary function of the basin is not for water harvesting – the basin size has been calculated based on detention and water quality treatment requirements.

- The 40kL/day is an approximation of potential water demand for dust suppression. The actual amount will depend on rainfall and operational requirements.

4. Groundwater

DPI Water Comment:

The SEARs require an assessment of potential impacts of the proposal on groundwater and groundwater dependent ecosystems. The SWR indicates that based on historical data groundwater levels on the site are well below (10m+) the proposed bulk earthworks and minimal dewatering (if any) would be required (see pages 4 and 23). Based on the Bulk Earthworks Cut/Fill plan (Drawing No C04) the maximum depth of excavation is 3.5 m below the existing surface level. It is recommended the EIS includes further assessment of the groundwater site conditions within the areas of maximum excavation as shown in red on Drawing No. C04.

If groundwater is likely to be intercepted or extracted, depending on the volumes encountered and the duration of pumping, an authorisation may be required from the DPI Water in relation to construction excavation and dewatering activities. If groundwater is anticipated to be encountered, the proponent should provide advice on the likely inflows (in consultation with DPI Water if necessary).

AT&L Response:

- A geotechnical investigation report of the proposed development site has been prepared by Douglas Partners is now available (#84821.00 June 2015).

- The field investigation included monitoring of groundwater levels in boreholes taken around the proposed development site as summarised in Section 4 of the Geotechnical Report.

- The results are summarised in Section 5.2 of the Geotechnical Report. The shallowest depth that groundwater was uncovered was 3.8m at Borehole 4. Groundwater depths at other boreholes ranged up to 12m depth.

- The two shallowest results were at Boreholes 1 and 4 (3.9m and 3.8m depth respectively) although this water is expected to be seepage from a perched water table, rather than an underlying aquifer. In any case only filling is proposed in these locations, no excavation. Finished surface levels will be approx. 5m above the groundwater surface here.

- At the locations where the deepest excavations are taking place (at Boreholes 7, 9 and 10) the depth of groundwater is significantly deeper. The finished ground levels will still be at least one metre above groundwater.

- Section 9.6 of the SWR has been updated based on the information contained within the Douglas Partners report.

Should you have any questions on the responses above, please don't hesitate to contact the undersigned.

Yours sincerely,

Simon Haycock
Senior Civil Engineer/Project Manager