

RECORD OF BRIEFING

SYDNEY WESTERN CITY PLANNING PANEL

### **BRIEFING DETAILS**

BRIEFING DATE / TIME	Monday, 29 March 2021, 10:00am – 11:00am
LOCATION	Teleconference Call

## **BRIEFING MATTER(S)**

PPSSWC-2 – Hawkesbury City Council – DA0508/18 – 374 Freemans Reach Road Freemans Reach 2756 – Extractive Industry - Sand extraction and processing facility, associated site works, ancillary office, fencing, landscaping and remediation works

#### **PANEL MEMBERS**

IN ATTENDANCE	Justin Doyle (Chair), Greg Britton, and Angus Gordon
APOLOGIES	Jeff Organ and Judy Clark
DECLARATIONS OF INTEREST	None

#### **OTHER ATTENDEES**

COUNCIL ASSESSMENT STAFF	
OTHER	Mellissa Felipe – Panel Secretariat

## **KEY ISSUES DISCUSSED**

- 1. The Panel queries whether the flood assessment confuses the Average Recurrence Interval (ARI) and Annual Exceedance Probability (AEP) terms, but otherwise on a preliminary reading see the flooding assessment as generally sufficient to assess the proposal, having regard to the observations made below.
- 2. The Flood Risk Management Plan (FRMP) seems to suggest that the operational area would be inundated on average once every 3 years, and during a 1 in 5-year event flood event or greater. In that context, the hazard category for the operational area would be expected to be H5 H6 (Section 3.5, Figure 1). However taking into account the potential encounter probability of larger floods occurring during the proposed 10 year operational life it appears to the Panel, on its preliminary assessment that, a 25 to 30-year ARI flooding event might reasonably be allowed for in the flood assessment, in which case the hazard category for the operational area would be H6.
- 3. The consequence of adopting the H6 category of hazard may be that associated infrastructure (including buildings on the property) should be designed commensurate with that level of risk, noting the potentially severe consequences of a failure of flood planning in that regard.

- 4. In Section 3.7 of the Flood Risk Management Plan (FRMP), reference is made to an inspection of the site following the February 2020 flood which was estimated to have been equivalent to a 1 in 7.4 year 'AEP' flood event (this should be stated as an 'ARI event', not an AEP event). Damage which is reported to have been observed on site was negligible. It was then concluded in the FRMP that since the flood had a similar 'frequency' to the site operational period (7.4 years vs. 10 years), the February 2020 flood event is almost equivalent to the largest flood that would be expected to occur during the extractive operations, and that therefore there would be minimal flood damages on site during the operational period. The Panel questions the soundness of that reasoning. Much rarer floods can possibly occur over the 10-year life, leading to greater damage. The risk of the potential encounter probability of larger events does not appear to be addressed.
- 5. Subject to final determination, the Panel saw the relatively small scale of alteration to the topography of the site as unlikely to increase the likelihood of flooding in the area. However in accordance with the above comment some further consideration needs to be given to the effect of flooding on the proposed infrastructure associated with the proposed development.
- 6. In Section 5.5 of the FRMP, it is stated that a mitigation measure for potential flooding water quality hazards (to reduce Total Suspended Solids [TSS]) is the addition of a flocculant to the dredge pool/treatment basin/sedimentation basin when inundation by flooding is anticipated. The use of gypsum (calcium sulfate) or alum (aluminum sulfate) is proposed as the flocculant. The flooding water quality impact assessment has not considered the potential environmental impacts of the use of flocculants, which is a relevant consideration noting the frequency at which the site is expected to be subject to flooding over the 10 year life of the operation. In particular, the analysis suggests that the dredge pond is expected to flood some 20 times applying the anticipated average.
- 7. The assessment does not appear to address the stabilisation of the sand bund which "protects" the dredged pond from the regular ingress of river waters. As the analysis indicates this bund is expected to be overtopped some 20 times on average during the life of the project there does not appear to be sufficient detail as to how the bund is to be stabilised.
- 8. The Panel saw a potential risk for sand escaping from the premises during a flooding event, and/or a collapse of the downstream sides of the dredge pond. Either of these two potential outcomes could adversely affect downstream properties and so the panel would like the assessment to consider whether a condition is appropriate to require the operator to be responsible for remediating any such incident.
- 9. Having regard to the comments made above, clarification is specifically required before the DA is presented for determination with respect to the following matters:
  - a. Justification is required for the return period flood event proposed to be adopted for design of the sand processing infrastructure where not protected by the stacked sandstone block walls (such as the office building).
  - b. Provision should be made for a flood water quality impact assessment in relation to the proposed use of gypsum or alum as flocculants, noting the frequency of inundation of the site.
  - c. The proposed method of stabilisation of the surface of the bund that is to be constructed along the southern edge of the extraction pit.
  - d. Whether a condition is required to address escaping sand, or pit wall collapse affecting downstream properties during a flood event.

# **TENTATIVE PANEL MEETING DATE:** N/A