



**Office of  
Environment  
& Heritage**

Your reference: 13/17470-1  
Our reference: DOC15/29024  
Contact: Miranda Kerr  
(02) 6022 0607

Mr Nathan Stringer  
Infrastructure Projects  
Department of Planning and Environment  
GPO Box 39  
SYDNEY NSW 2001

Dear Mr Stringer

**Re: Exhibition of Development Application for  
Wagga Wagga Water Treatment Plant Upgrade (SSD\_6284)**

I refer to your letter dated 21 January 2015 inviting comment from the Office of Environment and Heritage (OEH) regarding the Development Application to upgrade the Wagga Wagga Water Treatment Plant (WTP) (SSD\_6284).

OEH has reviewed the information included with your email. Comments and recommendations for conditions of approval in regard to mitigating the impacts of flooding and managing the impact of construction noise on threatened species are provided in Attachment A.

The Environmental Impact Statement assumes that the levee necessary to protect the proposed infrastructure will be developed prior to commencement of construction. Currently the levee is to be assessed separately under Part 5 of the *Environment Planning and Assessment Act 1979*. We consider that, without an adequate flood impact assessment as requested in our DGRs, approval of the WTP upgrade must be subject to conditions related to this levee upgrade. If approval is granted without this levee in place, we have concerns that its subsequent assessment may be compromised, particularly in relation to upstream flooding, resulting in potential changes to the WTP upgrade design.

We also recommend that development approval should be subject to conditions that minimise the impact of construction noise on the nearby colony of threatened Grey-headed Flying-fox (*Pteropus poliocephalus*).

If you have any questions regarding this matter, please contact Miranda Kerr, Regional Biodiversity Conservation Officer, on (02) 6022 0607 or [miranda.kerr@environment.nsw.gov.au](mailto:miranda.kerr@environment.nsw.gov.au).

Yours sincerely

 2/3/15

**PETER EWIN**  
**Senior Team Leader Planning**  
**South West Region**  
**Regional Operations Group**  
**Office of Environment & Heritage**

Encl: Attachment A – OEH comments and recommended conditions for the Wagga Wagga Water Treatment Plant upgrade  
Attachment B – OEH DGRs for the proposed Wagga Wagga Water Treatment Plant upgrade (SSD\_6284)

## **Attachment A:        OEH comments and recommended conditions for the Wagga Wagga Water Treatment Plant upgrade**

### **Flooding**

Riverina Water County Council (RWCC) is proposing to upgrade the site's existing flood protection levee from a 1 in 20 year levee to providing 1 in 100 year flood protection (page 71).

In our letter dated 19 December 2013 providing Director General's Requirements (DGRs) for the proposal (Attachment A), we recommended that an assessment of flood impacts of the levee upgrade to the 100 year ARI flood level (and the development of mitigation options where necessary) along with an assessment of other feasible options for flood protection of the site be incorporated into the Environmental Impact Statement (EIS).

However, evaluation of flooding issues in the EIS is based on the assumption that the proposed levee has been approved and construction has been completed prior to work commencing on the WTP upgrade. The EIS does not take into account the potential flood impact of a 100 year ARI flood level levee on adjacent areas that lie outside the levee system, including businesses situated on either side of Hammond Avenue in the East Wagga Industrial Area that have been recently flooded.

It is our understanding that detailed planning and community consultation required for progression of the proposed levee upgrade have not been finalised. As such we would suggest that without an adequate flood impact assessment as requested in our DGRs, approval of the WTP upgrade proposal be deferred until the levee upgrade proposal has been determined under Part 5 of the *Environment Planning and Assessment Act 1979* (EP&A Act). We have concerns that if the assessment of the levee occurs post approval of the upgrade, that this assessment may be compromised, particularly in relation to upstream flooding, because of potential changes to the WTP upgrade design if the 100 year ARI flood level cannot be guaranteed.

However, it is recognised that the two proposals are being addressed separately under the EP&A Act. If approval for the WTP upgrade cannot be deferred until the levee has been assessed and approved, we recommend that the upgrade be approved with the following conditions:

*Construction not commence until the levee to protect the proposed infrastructure from the 100 year ARI flood level has been assessed and constructed. The assessment of this levee upgrade should adequately address upstream flooding issues, including consultation with landholders potentially impacted by subsequent changes to flooding.*

### **Biodiversity**

In our letter dated 19 December 2013 providing DGRs for the proposal (Attachment A), we recommended that a protocol be prepared outlining measures for mitigating the impacts of construction on a nearby colony of the threatened Grey-headed Flying-fox (*Pteropus poliocephalus*) (GHFF).

A GHFF colony is known to occur within 100 m of the WTP site. The Flora and Fauna Assessment determined that construction works on the WTP site generating loud noise (such as pile driving) potentially impact the GHFF colonies during the breeding season from November to March. An appropriate mitigation measure is provided in Section 6.1 (page 32). However, the corresponding Construction Mitigation Measure in Table 7-1 of the EIS limits the winter construction timing safeguard to the river intake site only (page 149).



Flying-foxes can become habituated to regular disturbance, but are susceptible to impacts from machinery or equipment that produces sudden impacts or sudden loud sounds, particularly when associated with movement. Noise from two-stroke engines such as chainsaws and whipper snippers are known to disrupt roosting flying-foxes<sup>1</sup>. Due to the close proximity of the GHFF colony to the WTP site, we recommend the following condition of approval be included:

*All construction work generating loud noise is limited to between April and October to minimise impacts to the Grey-headed Flying-fox.*

We also recommend that the CEMP include a specific protocol for the management of impacts to the GHFF colony through the following condition:

*As part of the Construction Environmental Management Plan for the project, the proponent shall prepare and implement a protocol for mitigating impacts of construction on the Grey-headed Flying-fox prior to construction. The protocol must include, as a minimum:*

- *targeted survey for GHFF prior to construction by an appropriately qualified ecologist, including trees between the development site and the river and the known camp locations in riverine vegetation up to 500 metres to the east of the existing WTP.*
- *actions to be undertaken if GHFF are found in the vicinity of the development site, including, but not limited to: halting construction, consulting a fauna expert, monitoring the population during construction, and pre-construction liaison with animal welfare organisations to enable support if required.*
- *provision for ongoing monitoring during construction to ensure early detection of impact.*
- *additional measures for reducing impacts to GHFF, including screening.*
- *if required during detailed project planning, considering the location of flyways around identified flying-fox camps for construction of above-ground electrical transmission lines to minimise GHFF being electrocuted or colliding with powerlines.*

### **Aboriginal Cultural Heritage**

OEH recognises that the proponent has undertaken an Aboriginal Cultural Heritage Assessment in accordance with relevant regulatory processes and identified that no Aboriginal cultural heritage values/sites within the proposed activity area will be harmed. While an AHIMS database search identifies no known sites within the activity area, we consider it worth noting that the area defined by the EIS has also not been subject to a formal archaeological investigation.

Additionally, Aboriginal cultural heritage has been identified within close proximity to the activity area including a number of Declared Aboriginal Places, Aboriginal modified trees and artefact sites. The nearest recorded site is approximately 1.3 km from the eastern-most boundary of the activity area.

OEH also consider that indicative landscape features such as the Murrumbidgee River and Marshalls Creek increases the likelihood of sites existing within the proposed activity area and that there still remains potential for impacts on Aboriginal cultural heritage, particularly where soil disturbance and earthworks occur.

Activities associated with the WTP upgrade including river bank works for draft pipe installation, excavation for clarifiers, filters and other related structures, occur within archaeologically sensitive areas and have the capacity to cause harm to any potential subsurface ACH should it occur within that landscape.

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<sup>1</sup> SEQ Catchments (2012). *Management and restoration of flying-fox camps: guidelines and recommendations*. SEQ Catchments Ltd, Brisbane.

If any Aboriginal object is discovered and/or harmed in, on or under the land, the proponent must:

1. Not further harm the object
2. Immediately cease all work at the particular location
3. Secure the area so as to avoid further harm to the Aboriginal object
4. Notify OEH as soon as practical on 131 555, providing any details of the Aboriginal object and its location
5. Not recommence any work at the particular location unless authorised in writing by OEH.