



Department of Primary Industries

OUT12/25856

23 OCT 2012

Ms Belinda Scott
Infrastructure Projects
NSW Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Ms Scott

**Macquarie River to Orange Pipeline Project –
Orange Drought Relief Connection (10_0235)
Response to exhibition of Environmental Assessment (EA)**

I refer to your letter of 17 August 2012 to the Department of Primary Industries (DPI) in respect to the above matter and to discussion with Greg Paine of the Business Services Division of DPI on 15 October 2012 on matters arising from initial advices from Fisheries NSW. The following advices are now made.

NSW Office of Water

The NSW Office of Water advises that it supports the project based on consideration of the comments and inclusion, on any proposed consent, of the conditions detailed in Attachment A.

For further information please contact Tim Baker, Planning and Assessment Coordinator (Dubbo office) on 6841 7403 or at: Tim.Baker@water.nsw.gov.au.

Fisheries NSW

Fisheries NSW makes the advices and recommended conditions for any proposed consent detailed in Attachment B.

For further information please contact David Ward, Fisheries Conservation Manager-Greater Darling (Tamworth office) on 6763 1255 or at: david.ward@dpi.nsw.gov.au.

Crown Lands

Several parcels of Crown land and Crown waterway are affected by the proposal. Crown Lands advises that it does not object to the proposal provided the matters as detailed in Attachment C are incorporated as conditions to any proposed approval.

For further information please contact Louise Harcombe, Natural Resource Management Project Officer (Orange office) on 6391 4310 or at: Louise.Harcombe@lands.nsw.gov.au.

Agriculture NSW

Agriculture NSW advises that it has no objections or comment in respect to the proposal.

For further information please contact Mary Kovac, Resource Management Officer (Dubbo office) on 68811250 or at: Mary.Kovac@industry.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Phil Anquetil', with a large, stylized initial 'A'.

Phil Anquetil
Executive Director Business Services

Attachment A

Macquarie River to Orange Pipeline Project – Response to exhibition of Environmental Assessment Comment by NSW Office of Water

Comment

- The Macquarie-Bogan Unregulated and Alluvial Water Sharing Plan commenced on 4 October 2012. This plan has implications to the proposed water extraction by this project through the establishment of access and trading rules. The gazetted version of this plan has some minor amendments to the draft considered within the environmental assessment (EA) with the most relevant amendment being the inclusion of an additional clause (cl 81(2)(viii)) which enables the inclusion of specific access rules for any access licence used for the Macquarie to Orange Pipeline Project. The proponent is also referred to Clauses 53(2) and 53(3) which replaces clauses referred to within the EA.
- The proponent will be required to transfer the required Water Access Licences under the *Water Management Act 2000* prior to extraction from the proposed off-take structure.
- The proposed works include installation of the off-take structure within the banks of the Macquarie River and a number of watercourse crossings for the pipeline installation. The Office of Water supports the proponent's intention to conduct all activities within 40m of a watercourse consistently with the "*Guidelines for Controlled Activities on Waterfront Land*". These are available at: <http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx>.
- The EA utilised a sensitivity analysis to address the issue of uncertainty in the accuracy of low flow modelling at the pump site. This sensitivity analysis focused on the ability to access a volume of water however the issue of obtaining accurate data to trigger commence to pump volumes remains. The relatively new upstream gauge at Dixons Long Point (421192) has had 12 flow gaugings since its installation in 2011 with flow volumes ranging from 142ML/d to 3048ML/d. There is therefore a lack of flow data for the flow ranges related to the proposed commence to pump trigger. A key recommendation is therefore the need to improve the rating curve prior to commencement of operations and/or the need to adopt a higher flow trigger to protect low flows until sufficient data has been obtained.
- Uncertainty in the low flow modelling highlights the need to consider the water quality and ecological considerations in this flow regime. The combination of low flows and high temperatures can lead to potentially anoxic conditions and the development of blue-green algae blooms. It is recommended monitoring for these characteristics are incorporated into the Operation Environment Management Plan and pumping strategies developed to minimise exacerbation of these issues.
- The NSW Office of Water supports the proposal in the EA to develop a Construction Environment Management Plan and an Operation Environment Management Plan. It is requested NSW Office of Water be consulted in preparation of these documents. Key areas of interest to the Office include:
 - (i) works within 40m of watercourses including watercourse crossings and off-take installation. The high velocity and potential debris and rock movement in the Macquarie River during high flows represents a significant risk to stability of the off-take structure.
 - (ii) scour valve management and related water storage and management
 - (iii) water extraction protocols including metering, monitoring and annual reporting
 - (iv) improving accuracy of gauging data for flows related to commence to pump trigger.

Recommended conditions to any proposed approval

1. The proponent is to obtain relevant licensing under the *Water Management Act 2000* from the NSW Office of Water before commencing any works which extract surface water.

2. The proponent is to prepare a Construction Environment Management Plan and Operation Environment Management Plan in consultation with and to the satisfaction of the NSW Office of Water prior to commencement of relevant activities.
3. Prior to commencement of extraction from the proposed off-take structure the proponent is to improve the accuracy of the rating curve at the Dixons Long Point Gauging Station (421192) to the satisfaction of the NSW Office of Water. In the interim a higher commence to flow trigger may be adopted in consultation with the NSW Office of Water.
4. The design of waterway crossings for pipeline installation and for off-take installation is to be included within the Construction Environmental Management Plan. These designs are to be prepared in accordance with NSW Office of Water's *"Guidelines for Controlled Activities on Waterfront Land"*.

End Attachment A

Attachment B

Macquarie River to Orange Pipeline Project – Response to exhibition of Environmental Assessment Comment by Fisheries NSW

Fisheries NSW note that the proposal has received considerable attention from recreational fishing groups concerned about impacts on threatened species such as the Trout Cod, which is listed as "endangered" under the NSW *Fisheries Management Act 1994* and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*). It is also noted that the EA had been placed on exhibition without amendment to address deficiencies advised by Fisheries NSW at the time, and conveyed in this Department's letter dated 9 July 2012.

While the operating rules for water extraction are unlikely to cause a significant impact upon threatened species or populations (as listed under the abovementioned Acts) historically known to be present within the upper Macquarie River, Fisheries NSW remains concerned in regards to the ecological impacts of reduced flows on the downstream aquatic and threatened species habitat (between the backed up waters of Burrendong Dam to Gardiners Hole), and the ecological impacts of proposed increases in flows within Summer Hill Creek. No justification via a detailed analysis or literature review has been undertaken to support the general conclusions of the impacts reported in the EA on aquatic and threatened species habitat.

In order to now address these issues, and consistent with the Director General's requirements of 24 March 2011 (in relation to ecological impacts), Fisheries NSW recommend that any approval for the subject project be subject to the following conditions:

1. A Management Framework is to be developed that includes an Operational Adaptive Management Strategy (AMS) to monitor and manage the aquatic ecological impacts during the operation of the pipeline. The development of this strategy is to include the establishment of a River Monitoring Committee. The role of the River Monitoring Committee will be to oversee the preparation, implementation, monitoring and review of the AMS in order to address, but not be limited to, the following issues:
 - (i) Fish diversity and abundance (community assemblage) monitoring within the off-take and outside the off-take to gauge the effectiveness of the filter screens and operating efficiency during the operational phase of the pipeline, particularly during the breeding period of listed threatened fish species.
 - (ii) Fish diversity and abundance (community assemblage) monitoring, both within Summer Hill Creek, and downstream between the off-take structure and Burrendong Dam to determine whether any changes to fish assemblages are occurring as a result of altered hydrology during the operational phase of the pipeline.
 - (iii) Riparian and aquatic vegetation (fish habitat) monitoring, both within Summer Hill Creek, and downstream between the off-take structure and Burrendong Dam to determine whether any changes to vegetation assemblages are occurring as a result of altered hydrology during the operational phase of the pipeline.

Where monitoring is required within the AMS, protocols must include rigorous experimental designs to allow for thorough statistical analysis, including adequate numbers of control sites, replication and consideration of temporal changes where relevant. Performance indicators or predictions of impacts will also need to be incorporated to determine whether an impact has occurred and to test the significance of the impact and/or to measure the success of flow rules, habitat rehabilitation or compensation works. The indicators or hypotheses should be quantitative and include predictions of expected change. The AMS should also outline what remedial actions will be taken if predicted adverse impacts are exceeded.

2. Detailed Construction Environmental Management Plans (CEMPs) are to be provided to Fisheries NSW for review and comment prior to the construction of the off-take structure, and are to outline:
 - (i) details of the dredging footprint
 - (ii) construction details of coffer dams
 - (iii) translocation protocols for fish when dewatering the site
 - (iv) erosion and sedimentation control plans
 - (v) blockages to fish passage and how they are to be managed
3. Detailed Construction Environmental Management Plans (CEMPs) are to be provided to Fisheries NSW for review and comment regarding the construction of proposed pipeline waterway crossings, and which outline:
 - (i) details of the footprint and damage to aquatic or riparian vegetation
 - (ii) construction details of coffer dams where required
 - (iii) erosion and sedimentation control plans
 - (iv) construction methods for the crossing
 - (v) blockages to fish passage and how they are to be managed
 - (vi) site rehabilitation.
4. A construction notification system must be in place for any pipeline waterway crossings to ensure that Fisheries NSW are notified prior to construction activities occurring within waterways.

End Attachment B.

Attachment C

Macquarie River to Orange Pipeline Project – Response to exhibition of Environmental Assessment Comment by Crown Lands

- Should on-ground works at the location of the off-take structure on the Macquarie River be required prior to the formal establishment of the intended easement, separate approval will be required under the *Crown Lands Act 1989*.
- The EA appears to have omitted consideration of Crown Road reserves in section 2.4.2 (detailing considerations under the *Roads Act 1993*).
- There is to be no negative impact on Crown land during the construction phase from drainage, overflow or contaminated waste or the like.
- There are to be no negative impacts (e.g. noise, dust, smell) on the use, function and environmental features on Crown land following completion of construction.
- Bush fire protection measures within Crown land associated with the development will require consultation with the district office of Crown Lands prior to any action.
- The development is not to rely on the Crown land for biodiversity offsets that may be required by the planning authority without prior approval.
- The proposed development is not to adversely impact the gazetted reserve purpose of any parcel of Crown land involved.
- The proposed development should not utilise a Crown road for access without the accepted transfer to local council control.
- Development within Crown land should not restrict current or future access to the Crown land by the public, Crown Lands, emergency services or other Crown land managers.
- Creek crossings should be given particular attention to ensure the Crown waterway is not adversely impacted in any way. Where open trenching methods are chosen, this method should only occur on ephemeral streams, and at such time when the creek bed is dry. Restricted timeframes should be applied to prevent undue riparian damage from any temporary coffer dam construction.
- Where creek crossings are required over permanent waterway, the pipeline is to be installed using trenchless techniques to prevent any disturbance to the bed of the creek or adjoining bank environment, as described in Section 7.3 of the EA.
- Where the pipeline follows the creek bank and a diversion wall is erected, continuous monitoring of the disturbance should occur until such time as the revegetation has established to provide a stable environment.
- Construction compounds and associated footprints should not be established on any Crown land associated with this project without prior approval.
- Restoration works should include long term monitoring of weeds and erosion with a proactive management strategy for the 20 metre wide easement.
- All revegetation on Crown land is to be undertaken using endemic species only.
- To address the proposed loss of 250 hollow-bearing trees within the project area, there should be an associated establishment of nest boxes in nearby appropriate vegetation as part of the environmental management strategy.
- Where there is to be vegetation removal on Crown land, in particular the removal of large trees with hollows, and endangered ecological community species, the felled timber is to remain within the Crown land parcel to provide habitat and an agreed number of nest boxes are to be installed. There is to be ongoing liaison and negotiation with the local Crown Lands office in this regard.

End Attachment C
