



OUT12/9010

23 MAY 2012

Mr Chris Ritchie
Manager – Industry, Mining & Industry Projects
Department of Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Mr Ritchie

Re: MP10_0144 and MP10_0108 – Environmental Assessment – Proposed Shoalhaven Starches Gas Pipeline Project, Bomaderry.

Reference is made to your letters dated 16 April 2012 to Fisheries NSW and NSW Office of Water, both agencies within the Department of Primary Industries (DPI), seeking comment on the Environmental Assessment (EA) for the above project.

I now advise the following comments, which also include reference to the other respective agencies within DPI.

I note that a separate referral by your Department has been made to Resources and Energy, a division within the broader NSW Trade and Investment department. To simplify our responses, that agency has requested inclusion here of the advice that the proponent has applied for a pipeline licence under the *Pipelines Act 1967*. The pipeline has been assigned Pipeline Licence No.30. This licence will ensure the pipeline is designed, constructed, operated and maintained in conformity with Australian Standard *AS2885 Pipelines-gas and liquid petroleum*. This Standard is accepted as assuring high pressure natural gas pipelines conform to best practice.

I also suggest consideration, if not already undertaken, be given to the need for any wider referral of this application to NSW Trade & Investment.

Fisheries matters

DPI, through Fisheries NSW, is responsible for ensuring that fish stocks are conserved and that there is “no net loss” of key fish habitats upon which they depend. To achieve this, Fisheries NSW ensures that developments comply with the requirements of the *Fisheries Management Act 1994* (the aquatic habitat protection and threatened species conservation provisions in Parts 7 and 7A of the Act respectively) and the associated *Policy and Guidelines for Aquatic Habitat Management and Fish Conservation (1999)*.

It is noted that the proposed pipeline (as initially proposed) crosses part of Abernethys Creek and Mulgen Creek that drain to the Shoalhaven River. Potential impact upon water quality and aquatic habitats on the site is of particular interest.

Fisheries NSW has no objection to approval of the proposal as outlined in the Environmental Assessment and Annexures prepared by Cowman Stoddart Pty Ltd and dated March 2012 (including the Statement of Commitments and site plans) provided the following commitments are included as conditions of approval:

1. The proposed surface and groundwater management measures recommended for the site in Annexure 13 – Erosion and Sediment Control Management Plan by Allen, Price and Associates Pty Ltd (dated February 2012).
2. The commitment to use directional underboring for all waterway crossings.
3. The proposed management of Acid Sulphate Soils recommended for the site in Annexure 10a – Acid Sulphate Soil, Contamination and Geotechnical Investigation by Coffey Environments Pty Ltd (dated July 2011).

For any queries on fisheries related matters please contact Dr Trevor Daly on (02) 4478 9103 or 0408 487 083.

Office of Water matters

The Environmental Assessment has addressed a number of the issues previously raised by the Office in its letter to the Department dated 16 November 2011. Further detailed comments are included in Attachment A. For any queries on Office of Water matters please contact Janne Grose on 4729 8262.

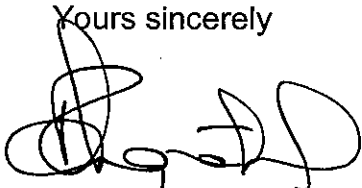
Crown Lands matters

Records indicate that the proposed alignment of the pipeline does not involve any Crown land or Crown roads. A further check will be required should the alignment change as a condition of any approval, or by amendment by the proponent, including the crossing of any major watercourses (the beds of which are Crown land). For any queries on Crown Lands matters please contact Karen Fowler on 4428 9107.

Other matters

There are no agricultural or forestry issues.

Yours sincerely



Phil Anquetil
Executive Director, Business Services

Environmental Assessment**Shoalhaven Starches Gas Pipeline Project – Comment by NSW Office of Water.****1. Watercourse Crossings.**

Reference is made to the Office of Water's submission of 16 November 2011 on the Test of Adequacy documentation. In this submission the Office of Water raised concern that the draft EA did not specify that directional drilling (underboring) be used at each waterway crossing. The EA confirms that Shoalhaven Starches commit to horizontal underboring to cross all watercourses (see section 3.2.3, page 24), and Section 7.4.1.1 (page 125) clarifies that watercourse crossings will not be made by open trenching. The Office of Water supports the use of horizontal underboring to cross all watercourses.

Section 7.4.1.1 notes the watercourses will require temporary vehicle crossings for machinery access (page 125) and the vehicle crossings will remain in place for the full rehabilitation period (page 137). The crossings are likely to be located in high scour /energy dissipation areas in relation to the existing bridges/culverts and this needs to be taken into consideration. The proposed vehicle crossings have the potential to cause greater impacts on the watercourses (including bed and bank instability) than the gas pipeline crossings which will be underbored and buried below the scour depth of the watercourses.

The temporary crossings should minimise cutting of the banks and the potential for erosion and should not compromise stream flow. Temporary crossings which disturb the bed and banks of watercourses can be problematic and it is suggested consideration be given to laying temporary gabion mattresses (or a similar solution) on the bed of the watercourses to minimise and mitigate disturbances to the bed. Once construction is completed the gabion mattresses should be removed and the watercourses rehabilitated to mimic natural systems. The Office of Water questions the need for the vehicle crossings to remain in place once the pipeline has been installed. It is recommended the vehicle crossings are rehabilitated immediately following the completion of construction.

The EA notes the monitoring program will include monitoring and maintenance of any bank stabilisation and stream bed and bank rehabilitation and the rehabilitation will be monitored until all the crossing sites are identified as stable by an independent suitably qualified certifier (see page 137). The Office of Water supports the inclusion of this monitoring.

2. Depth of pipeline at watercourse crossings.

The Office of Water previously advised scour calculations need to be undertaken to ensure the pipeline does not become exposed at the watercourse crossings and the depth of the underbore is well below any potential scour in the creek beds. The EA notes the scour depth at each watercourse crossing has been calculated (page 126) and indicates preliminary scour depth modelling has been undertaken but it recommends probabilistic modelling of scour depth as part of the detailed design of the gas pipeline (page 134). It is not clear when this additional modelling of scour depth is to be undertaken as the Shoalhaven Starches has lodged a concurrent major project and concept plan application and project is seeking approval to construct and operate the pipeline. Draft SOC 3.7 indicates water crossing construction method statements are to be prepared which call for design scour depth (page 211). It is recommended these method statements are prepared and submitted to the DP&I for endorsement prior to any construction near the watercourses commencing.

Section 3.2.3 of the EA notes the pipeline will be buried to a minimum depth of 2000 mm (2m) below the creek bed (page 24) and Section 7.4.1.1 notes this minimum depth of cover will increase

if scour is an issue at the crossings (page 125). The scour results presented in Table 27 of the EA are noted (see page 136). To prevent disturbance to the gas pipeline, the pipeline should be buried below the scour depth of the watercourses, particularly as Table 27 indicates the scour depths at waterway crossings 2, 3 and 4 are 2.3 m, 5.1 m and 3.4 m respectively. If the burial depth is only 2m this means there is a risk the pipeline will be exposed by scour unless the burial depth is increased. Draft SOC 3.7 (page 211) indicates the water crossing construction method statements call for designed scour depth and a safety margin. As noted above it is recommended these method statements are prepared and submitted to the DP&I for endorsement prior to any construction near the watercourses commencing.

3. Watercourse and Riparian Zone Assessment.

Section 7.4.1.1 states that “open trenching shall be stopped at the boundary of the core riparian zone watercourse” (page 125). A critical factor is the potential for scour to occur relative to trenching and this may require the underboring to extend beyond the CRZ depending on the crossing circumstances. The ninth dot point (on page 135) states the Category 3 waterways have no CRZ width requirements but it should be noted Category 3 watercourses do have a 10 m wide CRZ either side of the waterway. As a minimum, open trenching should be stopped at the 10m boundary of the CRZ for Category 3 watercourses in order to preserve bed and bank stability. The practicalities of underboring may require this setback to be wider. For the Category 2 waterway crossings, a 20m. wide CRZ plus a 10m. wide vegetated buffer is generally required either side of the waterway. Given the current land use and extent of grazing, trenching may stop at the edge of the 20m. wide CRZ (rather than the edge of the vegetated buffer) and then drilling from that point on.

4. Vegetation Management Plan.

Section 7.4.1.1 of the EA (see pages 133, 136) indicates a Vegetation Management Plan (VMP) is not considered necessary because the proposed pipeline route is mainly located along road reserves with little or no native vegetation but it recommends vegetation rehabilitation and maintenance should be addressed as part of the ESCP to ensure adequate rehabilitation of the CRZ for each watercourse. It is noted however, the ESCP recommends a VMP is prepared (see page 138 of the EA). Clarification is required on this point.

5. Wetland vegetation

The Office of Water previously suggested the EA provide further details on the native wetland vegetation near Bolong Road. Section 7.6.4 of the revised EA provides further details and indicates the area is “an unnatural wetland” and concludes it does not need to be avoided by the proposed gas pipeline (page 166).

6. Groundwater.

The Office of Water previously suggested the EA quantify the likely volumes of groundwater to be extracted to assess potential impacts. Section 7.4.1.3 of the EA provides the requested additional details.

7. Groundwater dependent ecosystems

The Office of Water previously suggested the EA include an assessment be undertaken at the local scale of any Groundwater Dependent Ecosystems (GDEs). Section 7.6.4 of the EA notes there are no natural communities along the proposed pipeline route and the wetland along the route is an artificial community.

8. Water Licence

The Office of Water previously suggested the EA address whether a water supply is required for the project and the EA provide details on the water supply source, volumes required etc and whether it is proposed to use groundwater or surface water as a water supply source during construction. Section 5.2.11 of the EA addresses this issue and states there will be no requirement to extract water

or groundwater along the pipeline route and a licence will not be required (see page 51). The inclusion of draft Statement of Commitments 3.10 (page 211 of the EA) is supported that “the Office of Water is to be consulted if groundwater dewatering is necessary during construction to determine if an approval is required”.

9. Draft Statement of Commitments - Table 39.

The Office of Water supports inclusion of the following draft Statement of Commitments (SOC):

1. Ecological Management:

SOC 1.8 - “local native plant species must be used to rehabilitate native riparian vegetation disturbed by the project”.

3. Surface and Groundwater management :

SOC 3.7 - “...all watercourse crossings are to be directionally bored:

- with entry and exit points sufficiently setback to allow for desired Category 2 riparian objectives to be met and
- which calls for designed scour depth and a safety margin”.

SOC 3.10 - “the Office of Water is to be consulted if groundwater dewatering is necessary during construction to determine if an approval is required”.

SOC 3.11 - “each watercourse is to be assessed to determine whether the soils are sodic or non-sodic within the flood liable land....”.

10. Rehabilitation:

SOC 10.6 - “local native plant species must be used to rehabilitate native riparian vegetation disturbed by the project”.

SOC 10.7 - “rehabilitation should include the rehabilitation of watercourse crossings and the rehabilitation phase should continue until all watercourse crossing sites are identified as stable by an independent suitably qualified certifier....”.

SOC 10.10 - the inclusion of this draft SOC is supported namely: “the monitoring program should include monitoring and maintenance of any bank stabilisation and stream bed and bank rehabilitation. The rehabilitation will need to be monitored until all crossing sites are identified as stable by an independent suitably qualified certifier” and “monitoring should also be undertaken for the rehabilitation of native riparian vegetation where native riparian vegetation has been removed as part of the project and rehabilitated following construction”.