

Our Ref: 405062_LEO_038.doc

17 July 2007

Major Development Assessment
Department of Planning
GPO Box 30
SYDNEY NSW 2001

Attention: Paul Weiner

Dear Paul

**PROPOSED DREDGING OF OYSTER LEASE AND OPERATION OF SAND STOCKPILE –
OYSTER LEASE # 80-178 AND LOTS 59, 101, 123, 124, 125 DP 753207, LOT 12 DP 816473,
2 – 6 RODMAY ST, TUNCURRY – PROVISION OF ADDITIONAL INFORMATION ON
AMENDED PIPELINE ROUTE**

We refer to the above and to a request by the Department for additional information, detailed in an email from Howard Reed (16 July 2007). The information requested is provided below, in accordance with the Department's queries.

The exact route of the proposed pipeline and a description of its location with respect to tidal limits

The route of the pipeline was provided in a map attached to our previous correspondence of 11 July 2007. With respect to its 'exact' location, the pipe will be submerged in shallow water (up to 1.3 m depth), within a variable distance of the shoreline, given that there are areas of the bed that are deeper than others. In general, the pipeline will be within 30 – 40 m of the river bank, with the alignment of the pipe being kept as straight as possible, to reduce pipe length. As there is no detailed hydro-survey of the pipeline route in this area of the river, the position as plotted on the map is approximate. It is therefore not possible to provide the exact final location of the pipeline, which will be determined as it is laid in the field at time of commissioning. It is the intention, however, to locate the pipeline in the approximate position indicated on the map. Notwithstanding, based on field investigations, the pipe will be placed at a depth below the level of low tide. The pipeline will therefore be permanently inundated with water.

Confirmation that the pipeline will be placed on the surface of sediments, rather than buried

As for the first section of the pipeline from the dredge area, the pipeline will be placed on the surface of the bed. It is not intended to bury the pipeline.

A more-detailed description of the submerged benthic communities along the revised pipeline route and the likely impacts on these of the pipeline

The benthos along the amended section of the pipeline route is characterised by a patchy, sparse distribution of seagrass (*Zostera* and *Halophila* sp.), which is dependent on depth and light penetration of the water, and softness and depth of substrata. The amount of seagrass coverage in this section of the pipeline route varied from approximately 20 – 30 % cover down to zero cover. In general, however, the majority of the pipeline route in this area is devoid of seagrass. This is due to the stagnant nature of the water in this section of the river, which is on the opposite side of the river to the main flow channel (western side) and being located on the inside of a broad bend on the river. Tidal and river flow velocities are consequently very low, resulting in conditions (low nutrient, relatively high turbidity) that are not conducive to seagrass growth. The entire length of this section of the pipeline route is quite shallow, with maximum depths of approximately 1.3 m, though more generally 0.5 – 1 m. Water clarity in this section of the Wallamba River is low due to high suspended sediment loads, most likely entrained by wind-wave stirring given the large fetch to the prevailing southerly winds.

Substrata consisted mainly of silty, mud along the channel near the study site. Shell debris, and occasional crab and ghost shrimp burrows were the only evidence of macro-invertebrate life. In general, there area of the proposed amended route is not highly productive with respect to benthic communities (due to the poor quality and low density of seagrass coverage) and is predominantly comprised of non-vegetated soft substrate areas. No Threatened species listed under the *Fisheries Management Act 1994* are likely to occur in this area, as there is little habitat to support any of these species.

With respect to impact of the amended pipeline route on benthic communities, these are assessed as being similar in nature to the rest of the pipeline route. Impacts of the pipeline would include:

- Dredge pipe impact, as the pipe will lie on the substrate, temporarily smothering any seagrass and entrances to burrows directly underneath the dredge pipe;
- Noise and vibrations associated with the transfer of the spoil by pipe to the spoil site may cause caving in of nearby burrows; and
- Pollution or spills caused by accidental breaks in the dredge pipe, smothering flora and fauna or water contamination by oil pollution associated with the dredge. These impacts can easily be avoided and managed through the implementation of the Environmental Management Strategy.

Assessment of these impacts of the pipeline were provided in the EA and accompanying Aquatic Ecology Report (Appendix G of EA) which indicated that the impacts were minimal and manageable, given the lack of habitat for any Threatened species. These impacts are readily transferable to the amended pipeline route, given the similar physical and biotic environments of the existing pipeline route, although in general, the seagrass coverage and therefore benthic habitat decreases significantly to the north. The temporary smothering of ghost shrimp burrows located directly beneath the dredge pipe was considered to be a short term, low impact result of the pipeline. Ghost shrimps would be able to recolonise adjacent areas and establish new burrows. Further, given the known recolonising attributes of *Zostera* and *Halophila* sp. it was

determined that any seagrass impacts would be short term and would be readily regenerated following removal of the dredge pipeline.

A more-detailed discussion of any proposed mitigation measures to offset any anticipated impacts on the benthos

Anticipated impacts on the benthos are minimal and manageable. With respect to mitigating impacts of the dredge pipeline, these were addressed in the Aquatic Ecology Report (Appendix G of EA) and are relevant to the amended pipeline route, which is located in habitats similar to the rest of the pipeline. Mitigation suggested in the aquatic ecology report with respect to minimising impacts of laying the dredge pipe on the bed of the Wallamba River are as follows:

- Lay the dredge pipe to the spoil site only on high tide to minimize the possibility of the watercraft damaging seagrass and the substrate; and
- Devise a dredge plan to minimize mechanical failures, spills and leakages, and to deal with any breaks or blockages in the pipeline during the dredge process.

The dredge plan would be detailed in the Environmental Management Strategy prepared for the project.

Interaction of the tides and the pipeline (eg scouring and sedimentation);

There is no interaction between tidal flow in the estuary and the pipeline that would lead to any adverse impacts suggested by the Department, such as scouring and sedimentation. These issues have not been raised by any Government Agencies for the first section of dredge pipe located on the bed of the Wallamba River between the dredge area and previous proposed location of the pipeline landfall. There are no additional reasons that these should be an issue for the project due to the decision to extend the dredge pipe a further 900 m upstream on the bed of the Wallamba River. This is due to the tidal and river flow velocities decreasing markedly north of the previous pipeline landfall at the saltmarsh, due to the morphology of this section of the river (as discussed above) and evidenced by the poor quality seagrass habitat.

The pipeline will be located below low tide level and be permanently inundated. It will therefore not restrict tidal or fluvial flows in the river and therefore, will not initiate any scouring or sedimentation of the bed surface, given that it will be located on the bed, where flow velocities throughout the water column are lowest. Further, the location of the amended pipeline route is on the margins of the flow path in the river, being located on the inside bend of the river (where velocities are lowest) and outside of the main flow channel located against the western bank of the Wallamba River.

Interaction with recreational use of the estuary (particularly boating and fishing)

There were no issues raised by any Government Agencies for the first section of dredge pipe located on the bed of the Wallamba River between the dredge area and previous proposed location of the pipeline landfall with respect to recreational boating and fishing. Notwithstanding, the amended pipeline route will be located in an area outside of the main channel for recreational boating, in a non-trafficable area. As

indicated in the EA, the location of the submerged pipeline will be appropriately signalled, based on consultation with Maritime NSW. The pipeline is not located in an area that is regularly accessed by recreational fishers. Impacts of the pipeline on recreational boating and fishing will therefore be negligible.

Opportunities to straighten the 3x angled section of the route in the north (ie to either a curved alignment across the cleared land, or else extending the submarine section further north to align with the east-west section).

The 'right angles' in the pipeline are not literally right angles, rather, they have been drawn that way schematically. There is a minimum curve radius for the pipeline of several metres which will allow it to curve around corners or bends within the alignment which the pipeline follows. Therefore, the change in direction is not an issue operationally. There is therefore no need to amend the pipeline route over and above what has been suggested as an amendment.

Summary

Based on information provided in this letter, the EA and accompanying Aquatic Ecology Report, it has been demonstrated that the amended pipeline route is benign in impact. It does not impact on any Threatened species or Threatened species habitat, it does not adversely affect hydrodynamics of the Wallamba River, nor does it affect recreational use of the Wallamba River. As the impacts of the proposed amended route are minimal and manageable, it is submitted that the amended route provides the best opportunity for minimising the environmental impact of the project, while maintaining the project's feasibility.

We trust that this information is sufficient for the Department to move forward and prepare a report for the Minister's determination. We note that the Department has forwarded the proposal onto DECC for comment. This referral is of concern to us, given that the proposed amended location of the pipeline is located in the river and therefore assessment of its impacts would fall outside of the DECC's jurisdiction. In addition, we have previously indicated our dissatisfaction to the responsiveness of the DECC to respond to your referrals. We see this latest referral as another potential assessment processing delay. We trust that the Department will request a prompt response from the DECC so that assessment of the EA is not delayed further.

We would appreciate if you would confirm the position of the Department with respect to responses provided by Orogen in respect of issues raised by other Agencies in their advice to the Department, in particular issues raised by NSW Fisheries. As you would appreciate, it is important that we are made aware of this, given the contrary nature of our responses to the issues raised by some of the Agencies.

We would also appreciate if you would confirm the timing of preparation of a report for the Minister in respect of this Major Project Application. Should you require any further information, please do not hesitate to contact the undersigned.

Yours faithfully

Orogen Pty Ltd

A handwritten signature in black ink, appearing to read 'Meleo', written in a cursive style.

DR JUSTIN MELEO
Project Director