Catchment Management Authority
Hunter-Central Rivers

Contact: Peggy Svoboda
Ph: (02) 4964 9308
Fax: (02) 4964 9307
Email: peggy.svoboda@cma.nsw.gov.au

Our ref:

Mr Glenn Snow
Manager – Rail & Ports
Infrastructure Projects
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001
Attn: Swati Sharma (swati.sharma@planning.nsw.gov.au)

Dear Mr Snow,

Subject: MP10_0203 Newcastle Port Corporation – Capital Strategic Dredging Project, South Arm, Hunter River

I refer to your correspondence seeking comments from the Hunter-Central Rivers Catchment Management Authority (CMA) on the Environmental Impact Statement (EIS) for the above proposal. The CMA has reviewed the EIS and provides the following comments for inclusion in the document:

- **Hunter-Central Rivers Catchment Management Authority**
  - Indicate that 'CMA' stands for 'Hunter-Central Rivers Catchment Management Authority' rather than 'Catchment Management Area';
- **Cumulative effect of dredging in the Hunter estuary on Coastal Saltmarsh**
  - The CMA notes that it has been documented that the cumulative impact of dredging in the Hunter River estuary has increased the tidal prism. The resulting increase of tidal inundation over saltmarsh areas has resulted in loss of saltmarsh to mangrove colonization in areas of the Hunter Estuary, especially since the 1950s (Herbert 2007, Umwelt 2002, Williams et al 2000).
  - The EIS states that *given the relatively small scale of the works, there would be virtually no effect on tidal planes in the estuary as a result of the proposed dredging* but does not consider the cumulative impact of dredging on the environment of the Hunter estuary especially with regard to the hydrology of the islands and the landward migration of mangroves into coastal saltmarsh Endandered Ecological Community (EEC).
  - Given the strategic nature of the dredging proposal, it would be an ideal opportunity as a part of the assessment of this proposal for Newcastle Port Corporation to initiate implementation of Strategy #4 of the Hunter Estuary Coastal Zone Management Plan (BTM BTM 2009):
    - Strategy #4 - *Develop an integrated predictive numerical model of the Hunter Estuary, incorporating hydrodynamics, water quality and sediment transport processes as necessary.*
      - *4.6 The model will be used to prepare a dredging Environmental Management Plan for the Port of Newcastle to determine the cumulative environmental impacts of dredging and associated activities on the Hunter Estuary and recommend estuary wide management measures.*

- **Hunter-Central Rivers Catchment Action Plan**
  - Assess the proposal's consistency with the Hunter-Central Rivers Catchment Action Plan (CAP) which is an over-arching, whole of State Government regional natural resource management strategy especially with regard to the cumulative effect of dredging in the Hunter estuary and the following specific strategies and outcomes of the CAP:
    - Governance and Planning
      - 1.1: Consider and assess cumulative and long term impacts on natural resources and ecosystem services in decision making and landuse planning.
    - Biodiversity
      - 6.1: Protect and improve habitat connectivity, quality and condition;
      - 6.3 (g) The direct, combined and cumulative effects of threatening processes are considered and addressed through effective land use planning and decision making;
      - 6.4 (e) Species and places covered by international conventions including World Heritage, Ramsar and JAMBA are protected, promoted and managed according to these agreements and to provide biodiversity benefits to the region (Brereton *et al* 2010).
    - Estuaries and Marine
      - 8.2 Protect and manage estuarine and marine habitats and connectivity.
    - Aligned NSW Natural Resource Management Targets for Biodiversity especially with regard to the cumulative effect of dredging in the Hunter estuary:
      - By 2015 there is an increase in native vegetation extent and an improvement in native vegetation condition.
      - By 2015 there is an increase in the number of sustainable populations of a range of native fauna species.
      - By 2015 there is an increase in the recovery of threatened species, populations and ecological communities
      - By 2015 there is an improvement in the condition of important wetlands, and the extent of those wetlands is maintained.
      - By 2015 there is an improvement in the condition of estuaries and coastal lake ecosystems.

- **Climate Change and Sea Level Rise**
  - The EIS states that *sea level rise is unlikely to impact the hydrology of the Hunter River to any great extent*. Current predictions anticipate a sea level rise of 90cm by 2100 (NSW Chief Scientist 2012). A rise of this level would significantly change the hydrology of the Hunter River estuary and the environment in which the berths are to be constructed. Issues include inundation of the development as a result of the combined forces of a major flood event, sea level rise and coastal setup. Also, increased tidal inundation of existing intertidal areas will favour the establishment of mangroves over areas that are currently coastal saltmarsh which is an Endangered Ecological Community (EEC) (Herbert 2007).
  - The saltmarsh EEC in the Hunter estuary is crucial habitat for migratory shorebirds and covered by international treaties with Japan, China and South Korea (Brereton et al 2010). The situation in the estuary is reaching a critical point at which the saltmarsh EEC is in danger of not being able to survive in its own right or provide the habitat support for significant protected fauna.

If you require further information please do not hesitate to contact Peggy Svoboda at 49649308.

Yours faithfully

Cal Cotter
for
Fiona Marshall
General Manager
21 May 2013

References:

Brereton, R., and Taylor-Wood, E., 2010, Ecological Character Description of the Kooragang Component of the Hunter Estuary Wetlands Ramsar Site. Report to the Department of Sustainability, Environment, Water, Population and Communities (SEWPAC), Canberra.

BMT WBM Pty Ltd (2009) Hunter Estuary Coastal Zone Management Plan (Hunter Estuary Management Plan). Report for Newcastle City Council, Port Stephens Council, Maitland City Council and NSW Department of Environment and Climate Change.

Herbert. C. (2007) Mangrove proliferation and saltmarsh loss in the Hunter Estuary. The Whistler 1:38-45. (www.hboc.org.au).

Hunter-Central Rivers Catchment Management Authority (CMA) (2013) Hunter-Central Rivers Catchment Action Plan 2013-2023. Report for NSW Government. CMA, Paterson NSW.

NSW Chief Scientist and Engineer (2012) Assessment of the science behind the NSW Government's sea level rise planning benchmarks

Umwelt (Australia) Pty Ltd (2002) Shifting Sands at Stockton Beach. Report prepared for Newcastle City Council, NSW Australia.

Williams, R.J., Watford, F.A. and Balashov. V. (2000) Kooragang Wetland Rehabilitation Project: History of Changes to Estuarine Wetlands of the Lower Hunter River. NSW Fisheries Final Report Series No 22.