

19th September 2007

Referrals Section (EPBC Act)
Approvals and Wildlife Division
Department of the Environment and Water Resources
GPO Box 787
Canberra ACT 2601
Fax: 02 6274 1789
Email: epbc.referrals@environment.gov.au

Comments on Referral 2007/3686 - Northern Pipeline Interconnector

The Mary River Catchment Coordination Association (MRCCA) is a long-standing Integrated Catchment Management body with considerable proven expertise in and knowledge of water management issues in the Mary Catchment. The MRCCA validly represents local community interests with respect to impacts on Matters of National Environmental Significance resulting from the removal of water from the Mary River Catchment via the proposed Northern Pipeline Interconnector.

The MRCCA recommends that the NPI stage 2 receives close scrutiny under the EPBC Act and is evaluated in the full context of cumulative impacts of four intrinsically connected proposals affecting the Mary River Catchment - the NPI Stage 1, NPI Stage 2 and the proposed Traveston Crossing Dam Stages 1 and 2. These proposals are likely to have significant impacts on listed threatened species, threatened migratory species and wetlands protected by the Ramsar convention.

The proposed Northern Pipeline Interconnector (NPI) is the means by which the 'strategic reserve' of 150000 ML/year can be removed from the Mary Basin as per the Water Resource (Mary Basin) Plan 2006. The NPI is also an integral part of the proposal to dam the Mary River at Traveston Crossing - simply because it provides the means of transporting the water from the proposed dam to it's stated economic end-use (urban water supply for South-East Queensland).

Neither of these related decisions (creating an arbitrary additional 150000ML/annum 'reserve' of unallocated water available for out-of-basin transfer, or damming the river at Traveston Crossing) have support from the Community Reference Panel appointed as part of the formulation of the Water Resource Plan, nor from the Technical Advisory Panel appointed to advise on the environmental implications of the plan. The MRCCA certainly does not support either of these aspects of the plan.

The Commonwealth is responsible under the EPBC Act to ensure that the cumulative impacts of these related staged developments (NPI Stage 1 & 2, Traveston Crossing Stage 1 & 2), are properly assessed in context with each other. They are very evidently integral components of the one overarching action, namely building new infrastructure to transfer an additional large amount of water out of the Mary Basin.

A more detailed submission on specific areas of concern with respect to MNES, in particular, locations in the catchment affected by the NPI stage 2 (particularly listed threatened species) follows this letter. The MRCCA is happy to assist in any way by providing good local technical knowledge of environment and biodiversity issues in the Mary River Catchment.

Yours sincerely,



Harry Jamieson
Chair
MRCCA

*The MRCCC gratefully acknowledges the support of
the Caloundra, Cooloola, Kilkivan, Maroochy, Maryborough, Noosa, Tiaro and Woocoo Shires,
the Burnett Mary Regional Group, the National Landcare Programme, the Australian Government Water Fund,
the Department of Environment and Water, the Australian Government Envirofund,
the Department of Main Roads, the Gambling Community Benefit Fund, Toshiba Pty. Ltd. and Powerlink.*

DONATIONS TO THE MARY CATCHMENT PUBLIC FUND ARE TAX DEDUCTIBLE

Specific Comments on Referral 2007/3686 - Impact on Matters of National Environmental Significance in the Mary River Catchment.

The Role of the MRCCA

The Mary River Catchment Coordination Association (MRCCA) is a community association formed in 1993 as a representative body of community, industry and government interests involved in natural resource management in the Mary River Catchment. The MRCCA is composed of 21 interest sectors from across the Mary River Catchment.

The MRCCA prepared a Catchment Strategy, which was endorsed by the State Government in 1997, which provides strategic direction to improve the sustainability of the Mary River Catchment. In 2000 the MRCCA and the Queensland State Government conjointly prepared Australia's first Catchment Rehabilitation Plan, the "Mary River & Tributaries Rehabilitation Plan" which provides the guiding framework for on-ground improvement of river health in the catchment.

The MRCCA received the Queensland Rivercare award in 1999, 2003 and 2007, the Catchment Landcare award in 2003, and the National Rivercare award in 2004 for the success in implementing these policies in an active partnership with landholders, community, industry and government in the catchment.

The MRCCA expects to maintain an ongoing role as a stakeholder body in the management of water resources and river health issues in the Mary River Catchment and seeks to assist in the appropriate assessment of EPBC related matters in the Mary Catchment.

With respect to this referral, the MRCCA considers that the proposal as outlined in the Initial Advice Statement has clear potential for significant impacts on **listed threatened species**, and when viewed in the context of being an integral part of a suite of proposed actions impacting on the Mary River Catchment, has potential for significant impacts on **threatened migratory species** and the **Ramsar wetlands of the Great Sandy Strait Marine Park**.

The NPI stage 2 in context with a larger suite of proposed actions in the Mary Catchment

There are 4 intrinsically connected water resource development proposals (from 2 proponents) that the MRCCA maintains have Federal implications under the EPBC Act in the Mary River Catchment. These are the NPI Stage 1 and Stage 2 and the proposed Traveston Crossing Dam Stages 1 and 2. The Commonwealth is responsible under the Act to ensure that the cumulative impacts of all these staged developments of the one over-arching action (building new infrastructure to facilitate a large new transfer of water out of the Mary Basin) are properly assessed in context with each other.

With respect to the NPI Stage 2 – the Noosa Water Treatment Plant (WTP) at Lake Macdonald handles all the water that is abstracted from the Mary Catchment by Noosa Shire for urban water supply – either directly from the Lake Macdonald storage on Six Mile Creek or via the pipeline from the Mary River at the Goomong pump station (operated by Veolia). The Noosa WTP has a nominal capacity of around 45ML/day – which sets the upper limit on how much water can be supplied to the NPI stage 2 from current water infrastructure. Even if Noosa provided its total capacity to the NPI, the pipe would only need to be of sufficient diameter to handle a flow of 45ML/day. The NPI stage 2 proposes to put in place a pipe with a diameter of >1200mm –sufficient for a flow of many times this amount. This is clear evidence that the NPI stage 2 is not a discrete proposal, but an integral part of a larger proposal to transfer large quantities of additional water from the Mary Catchment.

Extending the NPI proposal as far as Lake Macdonald makes no economic sense if it is not intended to extract these significant new quantities of water from the Mary Catchment. The total impacts of this clearly intended new level of water abstraction and transfer need to be assessed under the EPBC Act.

Risks associated with pipeline works in the vicinity of Lake Macdonald

Lake Macdonald is home to Australia's largest infestation of *Cabomba caroliniana*, an aquatic weed of National Significance, and the fringes of the lake and its tributaries also host Australia's largest infestation of *Hygrophila costata*, a Class 1 pest plant. Both plants pose a significant risk to in-stream and riparian biodiversity, and are notoriously difficult to control once established.

The chance of transporting propagules of either of these plants to other streams along the pipeline route during construction and maintenance activities is high, and the adverse consequences for biodiversity in any infected habitats are severe and extraordinarily difficult and expensive to mitigate.

Lake Macdonald is also home to the Gerry Cook Fish Hatchery – the longest established Mary River Cod breeding facility, and a crucial component of the Mary River Cod Recovery Plan. The breeding stock at the hatchery are in a tenuous state following recent storm damage, and it is imperative that stock are not put at risk through accidents or changes in water quality associated with the construction and operation of the pipeline and associated infrastructure, or changes to the management of Lake Macdonald.

Impacts on listed species in Six Mile Creek

The stretch of Six Mile Creek between Lake Macdonald and the Mary River has well documented high ecological values and provides significant habitat for Mary River Cod, Queensland Lungfish and the Giant Barred Frog. The importance of this area is specifically recognized in the Mary Basin Water Resource Plan, although there are no environmental flow schedules in the WRP to protect this important area.

The downstream effects of varying levels of water abstraction from Six Mile Creek have been extensively studied by Noosa Council and as part of the formulation of the Mary Basin WRP. The conclusion of these studies is that the maximum sustainable yield from Six Mile Creek at Lake Macdonald is 5000 ML/year, (Water Studies Pty Ltd 1998) although this level of extraction has been exceeded at times in the past. This is the level of allocation from Lake Macdonald currently written into the WRP, and any attempt to extract additional unallocated water from Six Mile Creek via Lake Macdonald beyond this level would have deleterious effects on MNES downstream.

Impacts on listed species in the Mary River

The Noosa WTP also accesses water directly from the Mary River via a pipeline from the Goomong pump station. Water allocations for this pipeline are delivered from Borumba Dam, on Yabba Creek, on the western side of the Mary Catchment.

Any additional water made available from Borumba Dam to the NPI via this existing pipeline involves an increase in the supplemented flow from Borumba Dam, down Yabba Creek and down the main trunk of the River as far as the pump station at Goomong pocket. Any increased abstraction from run-of-the river flows to service the NPI would also then result in reduced flows downstream of the pump-station. In any case, increased abstraction leads to a change in freshwater flows between Borumba Dam and the river mouth., with most impact being in Yabba Creek and the reach of the river between Goomong Pocket and the mouth of Amamoor Creek..

The area of the catchment in the vicinity of Goomong pocket currently provides breeding habitat for the Queensland Lungfish (DEW SPRAT database), important deep hole habitat for Mary River Cod (Mary River and Tributaries Rehabilitation Plan 2001) and recorded habitat for the Mary River Turtle (DEW SPRAT database). This part of the river may also be important for the recently identified (Thomson et al 2006) white-faced snapping turtle *Elseya albagula*. There are no environmental flow objectives or monitoring points of any kind relating to this section of the river or Yabba Creek in the Water Resource Plan.

The problem with increased supplemented flow from Borumba dam is related in part to water quality problems. Borumba dam does not have a multi-level offtake, and releases are often significantly colder and much lower in oxygen than ambient stream conditions in the river. There have been significant recent fish kills in Borumba dam and in the main trunk of the river downstream (August 2007) that may be attributed in part to these effects.

It may be possible to plan the abstraction of water from the river in such a way to reduce the adverse effects on flow regimes, such as maximizing the amount of water taken during high-flow events and minimizing the amount of water taken during low flow regimes. The extent to which this could reduce adverse impacts on the hydraulic and water quality requirements of the EPBC listed species in this part of the catchment would need detailed study – and the precautionary principle should prevail.

Cumulative impacts of the NPI and associated proposals on listed species, threatened migratory species and Ramsar wetlands.

The NPI can be viewed as an integral part of the combined suite of new water infrastructure plans for South East Queensland which is intended to significantly increase the amount of water transferred from the Mary Catchment.

The Mary Basin Water Resource Plan offers no protection at all to listed species against changes in flow regimes immediately downstream of any of the infrastructure from which the NPI sources water supply. Specifically, there are no environmental flow schedules for Six Mile Creek, Obi Obi Creek, Yabba Creek or for the Mary River upstream of Fisherman's Pocket – all reaches that provide critical habitat for listed MNES species. Map 1 shows a map of the catchment illustrating the points where the NPI will draw water supply relative to Fisherman's Pocket, the nearest point where any environmental flow objectives are set.

Catchment modelling during the formulation of the Mary Basin WRP indicated that these infrastructure plans would result in major changes in flow patterns in the river (such as significantly reducing the size and pattern of flushing flows). The effect of this is clearly seen in the woeful environmental flow objectives written into schedule 6 of the Mary Basin WRP legislation (pp62-65). As an example, at Fisherman's pocket (more than 30km downstream of any of the points where the NPI can draw water from the Mary), the schedule outlines an objective to 'minimize the extent' by which the Average Proportional Flow Deviation (APFD) statistic exceeds 2.1. The APFD is an integrative statistic measuring the disturbance in flow patterns from their natural state. An APFD of more than 2 represents a profoundly disturbed streamflow regime. It also states an objective to 'minimize the extent' by which the magnitude of ARI 1.5 flow events in the river (regular flushing flows) are reduced below 42% of their natural state. These flow patterns are a vital component of ecosystem function in the river, and are likely to be crucial to the survival of the unique threatened aquatic species that have survived in this river to date. Writing these sorts of damaging flow objectives into the legislation is clear evidence of planning for a level of abstraction that is clearly not environmentally sustainable under the definitions contained in the National Water Initiative.

It is also likely that the reduced flows and altered flow patterns in the river could further change the saltwater/freshwater regime in the Great Sandy Strait Marine Park Area from its natural state. Changes to the salinity regime in Hervey Bay have already been reported by Ribbe (in press) as a result of reduced freshwater inflows at the current level of water infrastructure development in the Burnett and Mary systems. If this is the case, then the NPI will also contribute to further impacts on threatened migratory species and on the Ramsar wetlands of the Great Sandy Strait. The impacts of this proposed level of flow disturbance in the Mary on estuarine conditions in the Great Sandy Strait have not yet been investigated

The legal scope of the plan also finishes at the Mary River Barrage (the tidal limit), and it does not in any way protect estuarine processes in the Great Sandy Marine Park beyond this point. As a consequence, compliance with the Mary Basin WRP is not sufficient of itself to protect MNES in the Mary River and the Great Sandy Strait potentially impacted by the suite of infrastructure developments of which the NPI is an integral part.



References

Mary River Catchment Coordinating Committee (2001) Mary River and Tributaries Rehabilitation Plan – Implementation Edition.

Queensland Government. Water Resource (Mary Basin) Plan 2006. SL192/2006

Ribbe, J (in press) A study into the export of saline water from Hervey Bay, Australia. Estuarine, Coastal and Shelf Science.

Simpson R & Jackson P. The Mary River Cod Recovery Plan. Queensland Department of Primary Industries, Fisheries Group

Thomson, S., Georges, A. and C. Limpus, (2006). A New Species of Freshwater Turtle in the Genus *Euseya* (Testudines: Chelidae) from Central Coastal Queensland, Australia. *Chelonian Conservation and Biology*. 5(1):74-86.

Species Profile and Threats Database. Department of Environment and Water Resources

Water Studies Pty Ltd (1998) Summary Report – Lake Macdonald Water Supply, Water Quality and Catchment Studies. Prepared for Noosa Council.