



Office of Environment & Heritage

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Our reference: DOC18/140110
Contact: Chris Page
4224 4180

Deana Burn
Planner, Industry and Key Sites
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001
E-mail: deana.burn@planning.nsw.gov.au

Dear Ms Burn

RE: Long Bow Point Golf Course, Additional SIS & Water Quality Investigations (SSD 8046)

Thank you for consulting us regarding the additional investigations received in support of the Long Bow Point Golf Course state significant development application (DA). Our most recent comments were provided to Shoalhaven City Council on the previously revised Species Impact Statement (SIS) and water quality studies in May 2016, prior to the DA being called-in as state significant development (SSD). Our advice to Council at that time concluded that the revised SIS and water cycle management study were not sufficient to address our Director General's Requirements (DGRs).

We have now reviewed the additional information provided, which comprises an SIS addendum, revised integrated water management plan and supporting documents. It is our understanding that as the proposal is now SSD, OEH concurrence for development likely to significantly affect threatened species is no longer required in accordance with s79B(2A) & (3) (now repealed) of the Environmental Planning & Assessment (EP&A) Act 1979.

Comments on these studies are provided below:

General

- The high conservation value and environmental sensitivity of Lake Wollumboola has been well established in earlier investigations and is recognised in planning strategies, including the NSW Government agency report *Joint Submission Report on Environmental Sensitivity of Lake Wollumboola* (Scanes et al, 2013), the Illawarra Shoalhaven Regional Plan (2015) and preceding planning related strategies.
- There are a number of studies needing to be progressed as a result of the over-arching Gateway Determination for the Planning Proposal for the Halloran Trust lands. Several studies are critical to inform catchment functioning and land use suitability. In particular, a key hydro-geomorphic study that aims to define the extent of the Lake's catchment boundaries is underway. Another study, yet to commence, needs to specifically identify potential alternative golf course sites located outside of the Lake Wollumboola catchment.
- We therefore reiterate our previous advice that the full extent of the impact of the development and its ongoing management on the lake's environmental attributes cannot be established until these broader detailed studies for the planning proposal are completed. The fullest understanding of the

environmental impact of the development and its ongoing management on the long-term health of Lake Wollumboola must underpin any development that proceeds within the catchment. This is consistent with our advice to Council on the golf course DA (May 2016) and our advice to the Department on the West Culburra Concept Plan SSD (July 2017).

Biodiversity

- The conclusions of likely impact of the proposal on species deemed 'affected' by the golf course development are not based on adequate observations and evidence. As such, having reviewed the available information in the SIS Addendum in conjunction with the earlier reports, we conclude that a significant impact on some threatened species cannot be ruled out at this stage.
- There remain shortcomings with the revised SIS and supporting information in meeting the OEH DGRs. Survey effort for some threatened fauna species, including Glossy Black-Cockatoo and other forest owls, is inadequate. We consider there are also limitations to the orchid survey data presented in the SIS Addendum report (such as timing and duration, no use of reference populations and insufficient justification to not include numerous other threatened orchid species on the target list).
- The principles of "avoid, mitigate and offset" and the issue of "feasible alternatives" as referenced in the DGRs correspondence, whilst addressed in the SIS Addendum, have not been fully demonstrated. The report states that "cleared areas have been utilised as much as possible when planning for the proposed development" (Section 5.4). However, taking account of the two areas of the site that are already cleared, comprising approximately 8.41 hectares in total, the golf course footprint utilises 3.53 hectares (42%) of this cleared land. The golf course footprint requires the clearing of 35.7 hectares of existing vegetation. The proponent does not provide a detailed justification/feasibility for not utilising the residual 4.88 hectares of cleared land based on the avoid principle.
- The proponent has not described the full suite of mitigation measures they intend to adopt. Instead they suggest that they will deal with these post-approval. This approach is contrary to normal process as it does not allow an informed decision to be made on the extent and significance of impact. Furthermore, no formal mechanism for the suggested conservation offset has been presented. We maintain that any offset must be a legally binding agreement to secure its conservation and management in perpetuity and that the proponent needs to commit to this upfront.

Water Quality

- The radon testing undertaken by OEH in respect of Lake Wollumboola is currently being independently reviewed, and we will provide an addendum to this reply once completed later in March. This independent review will determine the scientific robustness of the study and enable the informed assessment of potential impacts on threatened species such as shorebirds and migratory waders using habitat in and around the Lake.
- Previous water quality comments made in our letter dated May 2016 have not been addressed in the updated package of documents, including the Martens MUSIC model review report (Dec 2017). This report only provides a critique of the OEH radon testing, and does not attempt to address limitations and flaws in the Integrated Water Management Plan report described in our 2016 comments. Until these comments are appropriately addressed, we do not believe an adequate or realistic assessment of the risk posed to Lake Wollumboola has been completed.
- The understanding of hydrogeology and groundwater which underpins the modelling work completed by Martens is limited, appears inaccurate and is therefore not sufficient to enable a detailed understanding of the potential groundwater impacts to Lake Wollumboola. Until the detailed

groundwater study is completed, the impacts from the proposed golf course on the Lake cannot be fully assessed.

- We have, however, conducted a preliminary review of the MUSIC modelling and whilst this outlines that the neutral or beneficial effect (NorBE) principle can be achieved in theory, we do not accept that nutrient and sediment exports from the proposed golf course development will be less than current exports from this predominantly vegetated site.
- Given the sensitivity of the receiving environment, and the highly conceptual nature of the water quality modelling, it is suggested that the precautionary principle be applied. There is a high likelihood that results achieved in the modelling may not translate to actual performance of the infrastructure on the ground, initially and/or particularly in the longer term (and the ongoing maintenance costs are likely to be excessive for any golf course operator). Implications for a sensitive receiving environment as described in Scanes et al. 2013 are likely to be highly detrimental.

Further detailed comments on the additional biodiversity and water quality studies can be supplied upon request. As mentioned above, findings from the independent peer review of OEH groundwater radon testing of the Lake are considered critical and will be supplied in late March once completed.

We recommend that a more robust base of technical groundwater information and implications upon threatened species be established prior to the application being determined. The independent peer review of groundwater testing, available in late March, will be critical in this regard. The implications of study findings about potential alternative golf course sites located outside of the Lake Wollumboola catchment are also important.

Please do not hesitate to contact Chris Page, Senior Team Leader, Planning (Illawarra), on 4224 4180 or chris.page@environment.nsw.gov.au should you wish to discuss this matter further.

Yours sincerely


13.03.2018
MICHAEL SAXON
Director, South East Region
Regional Operations Division

cc: Graham Towers, Team Leader Southern Region, Department of Planning & Environment

