



# Merimbula Big Game & Lakes Angling Club Inc

**Established 1936**

Planning Secretary - NSW Department of Planning, Industry and Environment  
Mayor - Bega Valley Shire Council  
Chief Executive Officer - Bega Valley Shire Council

Dear Sirs,

## **RE: Merimbula Sewerage Treatment Plant Upgrade and Ocean Outfall Environmental Impact Statement**

The Merimbula Big Game & Lakes Angling Club Inc (MBGLAC) is pleased to provide the following in response to the public consultation process currently underway for the Merimbula Sewerage Treatment Plant Upgrade Project.

In summary we wish to draw the Secretaries attention to the following significant deficiencies in the proposal contained within the EIS with the resulting consequences of irresponsible conservation practices and a heightened risk to the marine environment.

### **1/ No investment in additional reuse options**

In spite of obligations to consult throughout the EIS process, and as recent as November 2020 during a meeting where the community introduced willing participants (farmers) to invest in receiving treated water from the sewerage treatment plant (STP) and an undertaking from the conveners that consultation would take place, there is no evidence this has occurred. The EIS has been presented based solely on design options canvassed back in 2013.

The recommended solution falls well short of a demonstration of the reuse focus contained throughout the report and the rhetoric from Council.

The Secretaries Environmental Assessment Requirements have not adequately been addressed with this proposal, in particular in regard to the Environmental Impact Statement and the feasible options analysis, the Assessment of Key Issues and the acceptable levels of impact and Consultation and the demonstration of response to these inputs.

In the Attachment, we further articulate our concerns regarding the recommended solution.

### **2/ Insufficient detail provided to support the "North Short" diffuser location**

In relation to project options, the Secretaries Environmental Assessment Requirements (SEARS) require "The description must contain sufficient detail to enable an understanding of why the preferred alternative to and options(s) within the project were selected"



The simple reference EIS p. 4.32 to a Project Team and Council meeting during October 2019 and selecting the North Short option mainly on economic not environmental grounds falls far short of the Secretaries requirements. Cost should not be a determinant of proper environmental outcomes.

### **3/ Insufficient Operational Risk Mitigation Provided**

There is, no discussion of remediation strategies should monitoring determine the “unlikely” negative consequence of operation.

The community has a right to know what is required to be undertaken to mitigate and remediate the heightened risk of chemical discharge. This applies to both short term and long term risk mitigation and reinstatement.

### **4/ Project Scope**

The scope for this project is based on a position reached by Council and its team some 10 years ago.

The science and the community’s expectations have moved well forward over those 10 years, with climate change and conservation practices now at the forefront of every decision we make for our future.

In spite of the Secretaries revised SEARs the EIS has failed to address these enhanced requirements and environmental obligations. As expected by the SEARs all options should be considered, and given the 10 year period this warrants ALL options to be reviewed in the context of TODAY, with our heightened understandings of our environment and community based requirements and expectations.

We refer in particular to alternate disposal methodologies; the North-Long diffuser site, deep well injection and tertiary filtration (micro plastics).

The projects construction budget is problematic as we are reminded continuously by the Mayor in his public discussions of this project. There are further lower cost options, likely to be available if they were thoroughly investigated through this latest EIS process, including significant reuse, leading to far less discharge, therefore less risk to environment and potentially requiring far less outfall infrastructure.

If council do intend to go forward with the 75% discharge model then the lower risk environmental option (given the long term impacts to the environment) is the North Long location as evidenced by the dispersion modeling and reinforced by the risk discussion in the Water Quality Report Appendix E.



There also exists an operational risk issue not discussed in regard to the costs of remediation of the marine environment should the risks discussed be realised during operation and the committed environmental monitoring program.

Further test work, scoping and revision of the EIS is critically required.

We are available at anytime to further clarify our concerns and thank all on behalf of our pristine environment and concerned community.

Regards

A handwritten signature in black ink, appearing to be 'P. Haar', written over a light grey rectangular background.

Peter Haar  
President MBGLAC  
Phone 0417021066  
phaar@bigpond.net.au

PO BOX 76, Merimbula NSW 2548

ABN 20168385442

Email; [admin@mbglac.com.au](mailto:admin@mbglac.com.au) Website; [www.mbglac.com.au](http://www.mbglac.com.au)

<https://www.facebook.com/mbgalac>

## **Attachment**

### **MBGLAC Detailed Response to EIS**

*MBGLAC's primary concern is that the Artificial Reefs and the environs of Merimbula Bay are not impacted in any way by the proposed STP upgrade and ocean outfall and it supports a 100% target for the reuse of treated effluent.*

The broader environment and conservation is also very important. The recent severe drought, severe bushfires and broader climate change inevitabilities all contribute to a responsibility of a focus on water security in this decade. Our lobbying within SWAMP and our presentations to BVSC, and the joint EPA, BVSC project staff meeting, all has represented our consistent position.

As late as Nov 2020 commitments were corresponded that reuse would be further investigated – the EIS contains no evidence of this.

### **Current Proposal and Operational Commitments**

#### **1/ Additional Reuse Options**

We are being asked to respond to an EIS that has as its basis 2010 to mid 2019 decisions and processes.

As recent as December 2020 our agricultural industry and their consultants presented a preparedness to invest in reuse to Council and the EPA. The Agricultural consultants made it quite clear that a 'home' for effluent can be found. "The more water, the stronger the farms." The EPA pointed out that it issues licenses to authorise discharges that do not pollute and maintain economic and environmental values.

In spite of all sorts of undertakings from the meeting with the EPA Council staff and Councilors in 2020 there is no evidence that AECOM were instructed to investigate with new eyes the opportunities of reuse.

Mayor Russell Fitzpatrick Sapphire FM, Thursday 26 August, "*State Government will only meet 25% of the project costs, council has some funds set aside. Major component of the project is the Pipeline*". This is seen by the Mayor as the key issue. So why has AECOM not been instructed to look at reduced cost options? In particular farmers who were prepared to invest. Budget must not lead to a solution that poses greater risk to the environment

We consider this represents a complete failure of process, rather than a failure of the EIS in itself.

An alternate method of reuse is Deep Aquifer Injection. Following groundwater investigative work in 2002-4 a substantial paleochannel was recognized. This palaeochannel was formed by erosion of bedrock by the Pambula River during a period of low sea level that extended until about 120,000 years ago (see Appendix D Figure 6). In the Tertiary sea levels rose and Tertiary deposits occur at slightly higher elevations, slightly inland (south-west) of the

current beach. Sea levels then fell and the Tertiary sediments were exposed, weathered, and partially eroded.

The pre-Tertiary palaeo-valley eroded in bedrock may be over 90 m in depth and is in-filled with a complex sequence of both partially consolidated/weathered Tertiary material, and unconsolidated Holocene soils.

Investigations into the “deep” aquifer injection disposal option have been limited to one geophysical study involving resistivity imaging and test drilling of one pilot bore (60m).

The EIS concludes: Further investigations involving long term pump tests, hydro-chemical studies and modeling are required. Council costs for these studies have not been determined, nor included in cost estimates prepared for this current EIS. We note that this work has not been done and this EIS is deficient in this respect.

## **2/ Diffuser Location - Habitat and Marine Impacts**

Preliminary analysis undertaken on behalf of BVSC in the development of the Merimbula effluent management strategy suggested that the optimum depth of the discharge point is around 40 metres (Manly Hydraulics Laboratory Report 2418 dated 17 November 2015).

This was again confirmed in the Councils Planning Report to support an application for State Significant Infrastructure Merimbula STP Upgrade and Ocean Outfall, 20 April 2016.

Multi criteria analysis attended by BVSC representatives and members of the consultant Project team on 30 October 2019 concluded the North-Long alignment was deemed to be marginally more favourable than the North-Short alignment; however it had increased cost and construction/maintenance risks due to extended length and increased depth. MBGLAC asks; how does cost determine a correct environmental outcome?

The EIS Figure 10-9 shows the North Short diffuser location is sited near the vortex (center) of a Merimbula Bay size current eddy (generated from the East Australian Current (EAC) between Long Point and Haycock Point). This is an area of reduced current flow and so effluent constituents including heavy metals would accumulate at the location of the diffuser. Refer Computer generated modeling (Appendix Q). This modeling also clearly indicates the benefits of the North Long dispersion site located at 40m depth and under the influence of the EAC.

As noted in Appendix E p. 92-93 there is a risk of bioaccumulative metals to demersal fish species foraging over the sandy seabed habitat within the mixing zone. Research by Elgin has indicated that the main demersal fish species that inhabits the sandy bottom of Merimbula Bay is the southern blue spotted flathead. This is confirmed by MBGLAC Citizen Science DPI BRUV monitoring of the nearby Artificial Reefs. Southern Blue Spotted Flathead are the key target species for recreational angling in Merimbula Bay. Appendix G p.138 Elgin states: *Further sampling would need to be undertaken of the diffuser site to provide more confidence around describing the level of fish diversity and abundance typical at that*

*location*. This has not been done. We note that Option 2, North Long, at 40 m depth lies within the south flowing EAC and this greatly reduces metals accumulation.

### **3/ Operational Risks**

An operational risk matter of accidental release of high levels of chemicals and its impact on the environment that may be exacerbated by decommissioning the 17ML holding pond. Surely it can be roofed (tented) to prevent bird droppings as is common practice in the agriculture and mining industry. The proposal to use only a (2.3/2.7ML?) holding tank is an initiative that has far less scope for storage and remediation.

As part of operational licence requirements, it is expected that water quality monitoring of marine and estuarine waters would need to be undertaken as a key performance indicator of environmental compliance. A preliminary monitoring program is provided in Appendix E, Section 8 that identifies proposed water quality monitoring locations, monitoring frequency, indicators and an outline of contingency actions. Is there a commitment to make these results public? Costs to undertake this monitoring are significant. Are they in the operations budget?

### **4/ Other Issues**

Council undertook Dye Dispersion testing during 2017 and these results are not included in the EIS. Whether these tests informed EIS decisions is unknown. Given the investment in this testing, not having this data included in the EIS makes the EIS far from complete.

There is potential for microplastic pollution from ocean outfall treated wastewater disposal; see Appendix G p.149-150. There is no current data from the Merimbula STP that indicates whether microplastics are present in influent flowing into, or out of the plant and therefore, whether they are likely to pose a risk to the receiving environment. If they are present, a combination of government and community initiatives to minimise the input of microplastics into the sewerage system along with filtration capability in the STP itself are measures that are expected to reduce the risk of microplastics in the treated wastewater and discharge into Merimbula Bay.

Correspondence with NSW Department of Primary Industries in May 2019 indicated that it is currently working in association with University of Newcastle and University of Sydney to collect and characterise microplastics in the marine environment, including trophic transfer and their potential to act as vectors for other pollutants (Carbery *et al.*, 2018 and Cole *et al.*, 2011). This EIS should recommend further study of potential microplastic pollution and its remediation.