

Eastern Treatment Plant Tertiary Upgrade

Improving the Marine Environment

Melbourne Water understands that the current impact of the Eastern Treatment Plant (ETP) on the marine environment at Boags Rocks needs to be improved, which is why Melbourne Water is applying for a works approval to upgrade the ETP to include advanced tertiary processes.

Once the ETP Tertiary Upgrade is complete, the plant will represent best practice for large scale treatment and discharge to the open marine environment. In many respects ETP will be world leading, post the upgrade.

Our detailed technological trials, found that the best option to improve our impact on the marine environment was to use the advanced tertiary treatment process. Many benefits for the marine environment have been found using this process.

Benefits to the Marine Environment from Advanced tertiary treatment

Plume visibility – the upgrade will have the ability to remove suspended soils, colour meaning that the water discharged at Boags Rocks will be similar in colour to water that comes from your tap.

Litter – the filtration process will remove all litter from the discharge, preventing it from being discharged into the ocean.



Foam – the treatment process will remove foam and reduce any residual foam forming potentially to a level comparable to tap water.

Oil and grease – Tertiary treatment will reduce the fat, oil and grease in the water discharged and address the risk of the formation of small “fat balls” that are occasionally found near the discharge point.

Odour – Advanced tertiary treatment will significantly reduce odour through a combination of ozone oxidation and biological media filtration. Removing the foam also reduces the risk of odour.

Mixing Zone outcomes – Advanced Tertiary treatment will build on the benefits of the Ammonia Reduction Project which has been implemented at ETP. The additional ammonia polishing provided by the advanced tertiary process ensures that even the most ammonia sensitive species are protected.

Disinfection – Advanced tertiary treatment will provide enhanced disinfection effectiveness and will further reinforce the “very good” microbiological water quality classification in the vicinity of the outfall.

Benefits of not building an outfall

An outfall extension has:

- An additional capital cost of approximately \$400 million
- Significant construction impacts which will have an environmental impact
- The potential to facilitate a small habitat area for Neptune’s Necklace and Bull Kelp immediately adjacent to the site by moving the discharge point
- The potential to lessen the impetus for recycling, and
- The potential to become a ‘redundant asset’ if recycling opportunities are fully realised over time.

Tertiary treatment upgrade without an outfall has:

- Capital cost of \$380 million
- Addresses the aesthetic and amenity impacts in the marine environment
- Improves the aesthetics of treated water to improve its acceptability to recycled water customers
- Further reduces ammonia concentration in the discharge to protect the most ammonia sensitive species
- Further reduces public health risks under peak wet weather flow conditions to recreational users of beach around Boags Rocks
- Removes all litter, foam and suspended solids from the discharge
- Improves marine environment outcomes so only a very small mixing zone is required, and
- Facilitates increased recycling development over time which will continue the trend of declining flows and loads to the environment at Boags Rocks, reinforcing the environmental gains.

Weighing up the potential benefit of an outfall extension against the costs associated with it, Melbourne Water believes that the benefits do not justify the costs, from a social, economic or environmental perspective.

For more information on the ETP Upgrade Works Approval process or to make a submission please visit www.epa.vic.gov.au and look under ‘Community Consultation’.

For more information

Please call 131 722.