The National Outfall Database will rely on community engagement as it seeks to develop and refine the ability of citizen science data to gather effective data on sewage outfalls along the Australian coastline.

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# What I can do to help?

If your group would like work with us in developing a regular monitoring program around sites that you use consistently then this will help deliver a NOD that is up to date, informative and with the most potential for government and community use. Sites distant from treated sewage outfalls are also important as they provide a baseline against which we can compare affected areas.



"The National Outfall Database (The NOD) will provide data to assist government and the community to understand which sewage outfalls around Australia have the greatest potential to impact the health and environment of local communities. " National Outfall Database

For further information:

nod.org.au

cleanocean.org

nespmarine.edu.au

admin@cleanocean.org

0428 495 374

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National Environmental Science Programme



Courtesy of Warren Reid Photography

# National Outfall Database

For the first time Australia will have a publicly accessible National Outfall Database (NOD), developed by Clean Ocean Foundation in collaboration with all States and the Northern Territory. This project is supported by the National Environmental Science Program - Marine Biodiversity Hub.

Information on Australia's (estimated) 144 sewerage outfalls requires consolidation and validation to provide a clear understanding of their potential impacts for governments and coastal communities. The National Outfall Database will collect this information and provide a single access point for decision makers, water authorities and local communities.

The publically accessible NOD will facilitate the tracking of waste water treatment performance and pollution loads discharged into the ocean environment, that together with receiving environment characteristics will identify areas with the potential for improvement.

Clean Ocean Foundation is developing the NOD to provide policy makers with detailed comparative information to help prioritise outfall reform that would benefit local communities. The NOD may also assist in the identification of opportunities for waste water recycling. Waste water recycling has been estimated to have a potential worth of more than 2.5 billion dollars annually<sup>\*</sup>.

### What will Clean Ocean Foundation do?

Information on outfall flows, pollutant levels and loads will be drawn from sewage treatment companies and state regulatory authorities. This data will be assessed for quality, and cross-checked with community knowledge of ocean conditions in a manner that is complimentary to existing programs.

A database mapping function will be developed to enable regional assessments of pollution loads per capita (accounting for industrial loads where possible), regional comparisons, and the risk of impacts on sensitive marine life, protected areas, and areas subject to multiple pressures.

The National Outfall Database will rely on community engagement. It will provide opportunities for local communities to participate in water quality monitoring and data collection as well as providing an additional source of quantitative information on sewage impacts.

The Clean Ocean Foundation will work cooperatively with the States and NT to ensure that the data presented is accurate and scientifically valid. Scientific literature will be used to address particular issues regarding potential health and environmental impacts of sewage outfalls, particularly in areas of recreational water use.

The Clean Ocean Foundation will work with the Australian community, in particular recreational water users to help identify potential health and environmental issues associated with treated sewage outfalls on the Australian coastline. The aim is to get community involvement from our citizen scientists and water users to understand water quality issues and become a part of the solutions developed.

#### Why does Australia need the NOD?

Good policies and decisions about waste water issues require the best available scientific information to prioritize development to benefit the community and the environment. We can all be a part of the discovery and understanding of the impacts of sewage if we are well informed.

## Who will benefit?

Communities will have the opportunity to become engaged and informed of the potential impacts of treated sewage outfalls, they can learn about sewerage systems and treatment levels designed to protect the ocean environment. They will have the opportunity to contribute to this knowledge in an effective and collaborative manner.

Water Authorities will benefit from further engaging with their community. The NOD will improve shared understanding about current sewerage infrastructure, its benefits in treating waste water, also the constraints and inform planning priorities.

Pressures on the marine environments can be reduced through nationally consistent and comparable scientific information on outfalls from which policy makers can prioritize decisions on sewerage system developments and possibly outfall reforms.

Water treatment suppliers and recycled water users will have access to detailed information on the location and composition of waste water streams for recycling for industrial, agricultural or residential development.

# When will this happen?

This project will be delivered over a four year time frame, with continuing outflow performance data.

From early 2016 NOD will begin work with interested parties and community groups to develop and refine suitable low cost citizen science techniques to monitor outfalls for material with recognized environmental and/ or health consequences.

Collection of existing data, analysis, standardisation and peer-review should allow a full set of results to be published for use by policy makers, managers and interested communities in 2017.



National Outfall Database