



## Wetlands Australia 34: Disentangling the story of Big Marsh: an area of important but changing saltmarsh in the Port Phillip Bay Ramsar Site

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Nature Glenelg Trust recently completed a detailed investigation into Big Marsh – an important area of saltmarsh habitat within The Spit Nature Conservation Reserve, situated on the coast between Geelong and Melbourne. This reserve forms part of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site.

The project came about primarily as a result of ongoing concerns that a trend of declining quality of the saltmarsh habitat may be associated with the impact of 29 Mile Road on the hydrology and ecology of Big Marsh.



*Looking south, 29 Mile Road passes through the saltmarsh habitat of The Spit Nature Conservation Reserve. Big Marsh is to the right (the west) in this image. Photo: Mark Bachmann*

Big Marsh has long been recognised for its floristic diversity and value as feeding habitat for the Orange-bellied Parrot. Combine this with the fact that saltmarsh is now a threatened ecological community in its own right and the Ramsar status of the wider area, and this is an issue clearly worth a closer look. This is why Nature Glenelg Trust was invited by the Port Phillip and Westernport Catchment Management Authority to bring a fresh set of eyes and conduct a review of site eco-hydrology.

In summary, the impact of the road embankment and culverts constricting flows is just one of several issues we explored that are potentially driving the condition of the saltmarsh. Those other issues include the upstream diversion of a small freshwater stream, groundwater seepage from adjacent treatment lagoons in the Western Treatment Plant, grazing by livestock and sea level rise.

Despite the site being of modest size, the hydrological and ecological issues surrounding Big Marsh are complex, have accumulated over time and dynamically interact with each other. This means there are no simple solutions, as the relative impacts of these past changes are now difficult, but we also think not impossible, to disentangle.

The goodwill shown by a wide range of people and organisations – including the main land managers: Parks Victoria, Melbourne Water and other neighbouring landholders, who have an interest in Big Marsh, has been tremendous, as we've worked cooperatively together to investigate the issues and identify potential options for improving future site condition. A number of steps have now been proposed to begin the process of eco-hydrological recovery.

## Further information

If you are interested to learn more, please refer to Taylor *et al* (2020), or visit [Nature Glenelg Trust](#) for future updates.

Taylor B., Bachmann M., Farrington L. and Roberts, T. (2020) [Eco-hydrological Investigation and Restoration Planning for Big Marsh. The Spit Nature Conservation Reserve, Port Phillip Bay \(Western Shoreline\) and Bellarine Peninsula Ramsar Site](#). Report to Port Phillip and Westernport Catchment Management Authority. NGT Consulting – Nature Glenelg Trust, Mumbannar, Victoria.



*Assessing catchment modifications (artificial drains and diversions) upstream of Big Marsh. Photo: Mark Bachmann*

