

OIL SPILL IMPACTS ON WESTERNPORT BIRD SPECIES

An investigation into the impacts of potential oil spills on Westernport Bay's bird species amplify fears that the Port of Hastings development carries unacceptable risks to the bay's birdlife.

A new report from Birdlife Australia shows that even a single, relatively small oil spill in Westernport Bay would put critically important shorebird foraging and roosting habitat as well as federally-listed bird species and Little Penguins at high risk of short-and long-term impacts.

The key concerns highlighted by Birdlife Australia relating to the proposed expansion of the Port of Hastings include:

- An increased risk of oil spills and impacts from vessel wash.
- The potential for a single oil spill to have serious short and long-term impacts on migratory shorebird populations in Westernport is of great concern. The bay is one of the most important shorebird sites in Victoria, shorebirds are under considerable existing pressure throughout their range and their populations are known to be declining.
- Typically penguins are the birds most affected by oil spills. Little Penguins are at high risk of oiling and subsequent death from oil spills at McHaffies Reef.
- Seabirds foraging in the waters of Lower North Arm would be at high risk of oiling from spills at either Long Island Point jetty or McHaffies Reef. It is likely that large numbers of these birds would die. Large numbers of swans and ducks would also be at high risk of

partial oiling. Hooded Plover on the northern beaches of Phillip Island are also susceptible to oil spills, particularly from spills at McHaffies Reef.

- Vessel-generated waves can impact on the productivity of seagrass beds and erode shorelines, impacting on foraging resources for birds such as swans, ducks and shorebirds.
- Land reclamation, dredging and the disposal of dredge spoil are likely to impact on the productivity of seagrass beds and benthic fauna, which would then impact on foraging resources for aquatic birds, such as waterfowl and fishers.

The current risk of oil spill impacts was identified as a major threat at sites along the western coastline of French Island, at Hastings and Long Reef in 2011.

The 270km² of intertidal mudflats of Westernport Bay that provide foraging resources for thousands of shorebirds and waterbirds are at high risk of extensive, long-term contamination from any oil spill.

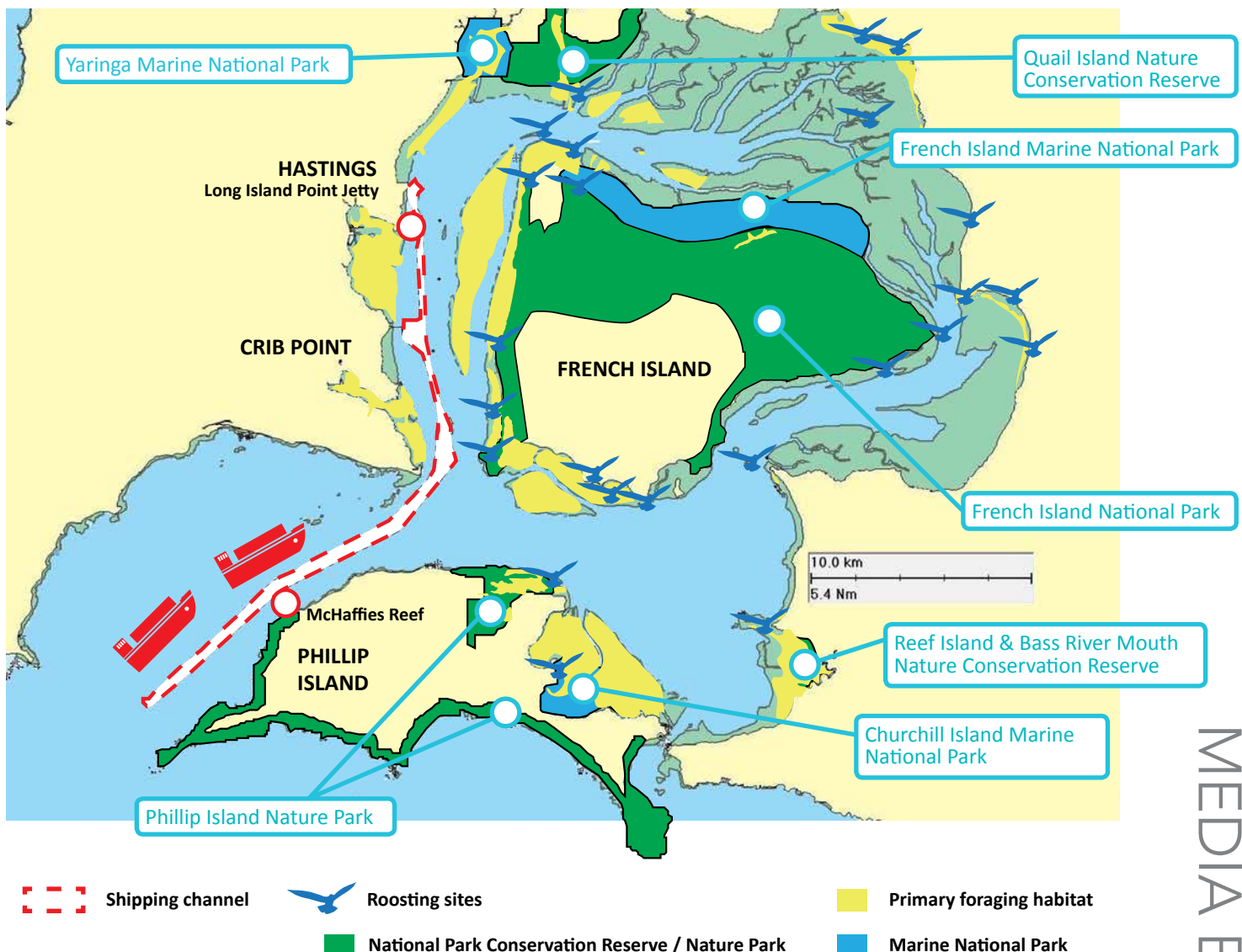
Westernport is a site of international significance for aquatic birds and listed under the Ramsar Convention and other international bird treaties. Its extensive intertidal mudflats and wetlands regularly support more than 10,000 migratory shorebirds and 10,000 waterfowl, including 32 bird species listed under the Environment



Red-necked Stint. Photo: Dean Ingwersen

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Protection and Biodiversity Act (EPBC).

The Victorian National Parks Association, in collaboration with the Westernport and Peninsula Protection Council, commissioned expert research in response to the Napthine Government's plans to transform the Port of Hastings into an international container port. The new port would drastically increase the level of shipping traffic, heighten the risk of oil spills and require extensive dredging and some land clearing of Westernport Bay.

The proposed expansion of the Port of Hastings will require federal approval under the EPBC Act because Westernport Bay contains Ramsar-listed wetlands and a number of federally-listed bird and marine species. These

bird species include the Eastern Curlew, Red-necked Stint, Orange-bellied Parrot, Fairy Tern and Double-banded Plover.

This new report, Impact of proposed Port of Hastings expansion on the birdlife of Western Port, is part of a series of expert reports commissioned by the VNPA into the impacts of oil spills in Westernport Bay. The first report was released in 2013, and has now been followed by this Birdlife report and another investigating the impacts of oil spills on the bay's seagrass, mangrove and saltmarsh habitats.

MEDIA BACKGROUNDER

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Eastern Curlew flock in flight.

Photo: Dean Ingwersen

WESTERNPORT BIRD DECLINES

Previous research and surveys have shown that the populations of most groups of aquatic birds have declined over the past 37 years, and that the total aquatic bird population has declined significantly.

There are a number of existing threats to bird populations that have contributed to this decline, including predation by foxes, cats and Black Rats, as well as the historical loss of seagrass beds.

CLIMATE CHANGE

Sea-level rise associated with climate change will also lead to losses of both foraging and roosting sites. Modelling has shown that virtually all (99.83%) of the high tide roost sites will be inundated, with eight of the 14 sites having limited or no capacity for natural migration inland.

BIRDLIFE SANCTUARY

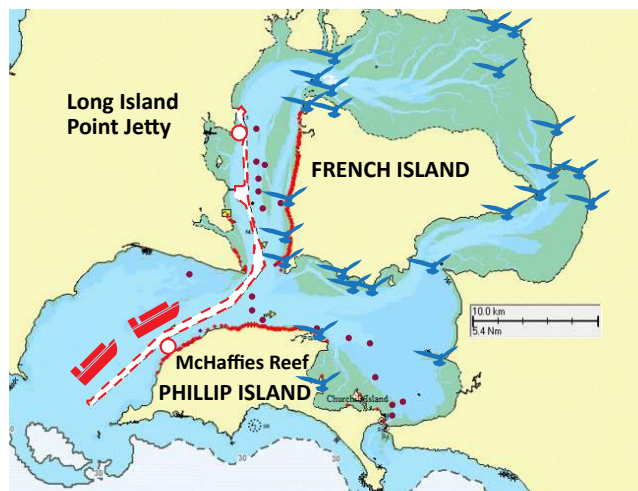
Westernport regularly supports more than one per cent of the world's population of the **Eastern Curlew**¹, **Red-necked Stints** and **Pied Oystercatchers**, small numbers of the critically endangered **Orange-bellied Parrot** and declining numbers of the vulnerable **Fairy Tern**.

The most extensive primary foraging habitat for shorebirds and waterbirds (by area) occurs on the western, north-western and south-western shorelines of French Island, the western shoreline of Westernport (including Hanns Inlet and Hastings Bight), Middle Spit and the north-eastern coast of Phillip Island.

Seagrass is an important driver of productivity in the Westernport ecosystem and the extent and health of seagrass beds is thought to influence the population dynamics of many aquatic birds.

KEY FINDINGS

These findings indicate levels of concern about the potential risk to birdlife under each oil spill scenario. It is primarily an assessment of short-term risk because the oil spill modelling considers the movement of oil in the first two weeks of a spill and not the potential for contamination over the longer term.



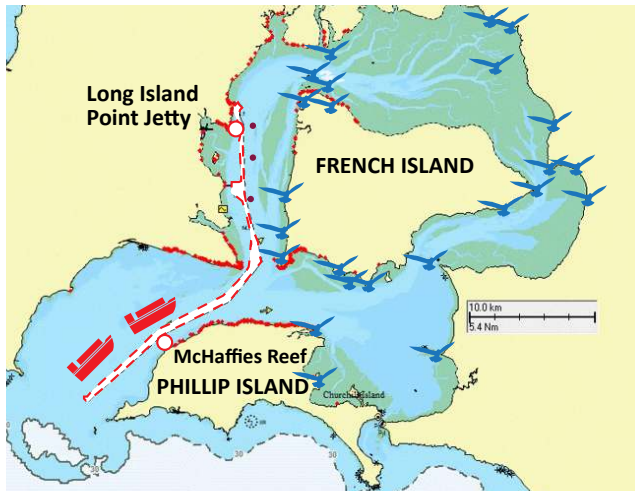
- A diesel spill from Long Island Point Jetty would put seabirds such as cormorants and grebes foraging in the waters of Lower North Arm at high risk of oiling. It is likely that large numbers of these birds would die if not taken to rehabilitation centres quickly. Large numbers of swans and ducks would also be at high risk of partial oiling. This would have a range of impacts including the need for birds to increase their intake of food to reduce the risk of hypothermia.

- Projections of oil spill hitting the shoreline
- How a projected oil spill would move through the channel and pushed around by winds and tides

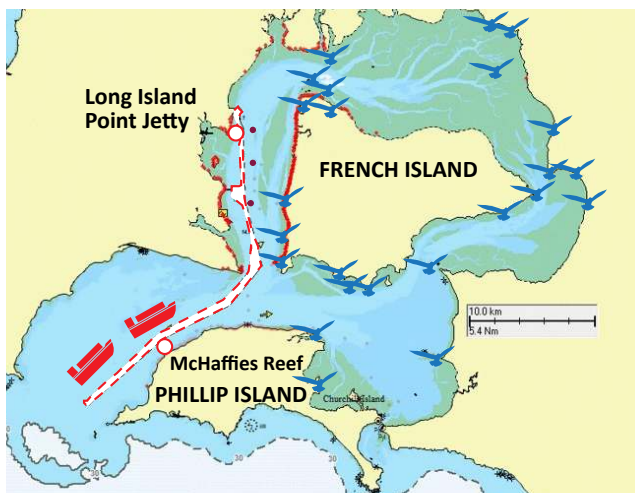
Note: Fully animated modelling can be seen at www.savewesternport.vnnpa.org.au

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- A heavy fuel oil spill at McHaffies Reef in summer and winter would pose a high risk to shorebird foraging and roosting habitat near Middle Spit and along the western and north-western coastline of French Island, including Barrallier Island. It would also pose a high risk to seabirds foraging in Lower North Arm, the Confluence Zone, the Western Entrance Segment and the Rhyll Segment, and to Little Penguins in the waters and on the beaches of Summerland Peninsula. A heavy fuel oil spill at McHaffies Reef in winter or summer would also affect resident Hooded Plover on the northern beaches of Phillip Island. These are important breeding areas for Hooded Plovers, so an oil spill in spring or summer may have a large impact on their breeding success.



- A heavy fuel oil spill at Long Island Point Jetty in summer and winter would pose a high risk to important shorebird foraging and roosting habitat in the vicinity of Long Island Point, Middle Spit and along the western and north-western coastline of French Island, including Barrallier Island.

- Shorebirds that continue to forage in intertidal areas after a summer spill of heavy fuel oil would be at high risk of ingesting contaminated food that may have lethal or sub-lethal impacts. Species at risk include the **Red-necked Stint**, **Eastern Curlew**, **Curlew Sandpiper**, and **Crested Tern**.
- It is likely that any oil spill will lead to the loss of mangroves along the western shoreline and the western and north-western coastline of French Island (Kirkman 2013), leading to the loss of mangrove-associated invertebrates. This may impact on foraging resources for large wading birds, particularly in the intertidal areas near Watson Inlet.

Impacts from increased vessels in Westernport

- Given the strong link between the loss of seagrass beds in Westernport in the late 1970s and early 1980s, and the decline in a number of aquatic birds in Westernport including Black Swan and a number of fishers, any loss of seagrass beds (e.g. through reclamation, increased turbidity, erosion, oil spills) associated with the proposed expansion of the Port of Hastings is of concern.
- Of major concern is the potential for vessel-generated waves to have erosion impacts on Middle Spit and important shorebird foraging and roosting sites along the western shoreline of French Island and at Long Island Point. Any loss of the high tide roost at Long Island Point through erosion would impact on **Eastern Curlew** and **Red-necked Stint** populations.

Impacts of land reclamation and dredging

- It is highly likely that waterfowl (particularly Black Swan) and fishers would be affected by any decrease in the extent and productivity of seagrass beds associated with dredging and disposal of dredge spoil.
- Seagrasses are renowned for their inability to be regrown or restored, so any reduction in the extent and productivity of seagrass beds is likely to lead to a decline in a number of aquatic birds in Westernport including Black Swan and a number of fishers.

References

1. Throughout this background, underlining of a species name indicates that the species is listed under the Commonwealth Environment, Protection and Biodiversity Conservation Act 1999.