

PHILLIP ISLAND CONSERVATION SOCIETY INC



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The Phillip Island Conservation Society acknowledges and pays respect to the regions first people, the Bunurong and Boon Wurrung, part of the Kulin Nation, who are the traditional custodians of these lands and waters.

PICS Introduction

The Phillip Island Conservation Society (PICS) was formed in 1968 – one of the first grass-roots conservation societies in the nation - with the mantra “save wildlife today for tomorrow”. A PICS guiding principle is to recognise that Phillip Island’s unique environment is part of Western Port, a UNESCO biosphere reserve encompassing a Ramsar wetland of international significance.

Since that time we recognise that our state and our region have come a long way in conservation. Indeed, Phillip Island conservationists have helped to create the iconic and world class Penguin Parade and PICS has continued to be a voice for the preservation and enhancement of Phillip Island’s and Western Port’s natural assets. This has occurred at the community level, with government agencies and at planning and environmental hearings.

In November 2019, the PICS committee endorsed “PICS the next 50 years”, setting out its guiding principles, key aspirations and key challenges.

The Guiding Principles include:

- Conserve, enhance and restore Phillip Island’s native fauna and flora with climate change in mind, whilst educating the wider community.
- Ensure Phillip Island is protected from over and inappropriate development and tourism that is not ecological sustainable.
- Conserve and protect the marine environment ecosystem around Phillip Island.

Overview of PICS response

PICS strongly supports the development of sustainable energy and the climate emergency declared by the Bass Coast Shire Council. PICS is also a foundation member of Totally Renewable Phillip Island. [Totally Renewable Phillip Island](#)

PICS believes that offshore energy has the opportunity to make significant contributions to our energy needs. At the same time the introduction of offshore energy needs to be carefully managed and adverse impacts on the environment need to be minimised.

In particular the specific location of turbines, the method of construction and operation that are selected need to result in the minimisation of harm to the marine environment and to sea birds. The cumulative effects of construction and operation of wind farms across the identified areas need to be fully studied and assessed.

We have outlined our views on some concerns below.

Impact on marine life

Offshore wind farms can negatively affect marine life including fish and mammals (whales, seals and dolphins) both during construction and operation stages. The physical presence of turbines, the noise during construction, the underwater noise as well as boat and helicopter traffic can disturb mammals causing them to avoid wind farms.

Under the EPBC Act humpback whales are classified as vulnerable and southern right whales are classified as endangered. As they are both classified as Cetacean's under EPBC Act Division 3, it is an offence to kill, injure, take, trade, keep, move or interfere with a cetacean.

Monitoring marine mammals living and moving is very difficult. Fortunately, the traditional visual surveys from ships and aircraft are being supplemented or replaced by new, more accurate technologies such as acoustic monitoring by stationary data loggers, remotely controlled video monitoring and tagging of individuals with satellite transmitters.

Mammals are very dependent of their hearing systems that are used for several purposes: communication between other individuals of the same species, orientation, finding prey and echolocation. Marine sound impacts navigation, communications and avoiding predators. The behavioural response by marine mammals to noise includes modification of normal behaviour, displacement from the noisy area, masking of other noises, and the impossibility of acoustically interpreting the environment.

The consequences from this disturbance could cause problems of viability of individuals, increased vulnerability to disease, increased potential for impacts due to cumulative effects from other impacts such as chemical pollution combined with stress induced by noise (Greenpeace, 2005).

The risks of an offshore wind project must always be regarded as not acceptable if they may adversely affect the population levels of species occurring or migrating through the proposed area. This is particularly so for nurseries and other sensitive marine locations. Hence, some areas of the oceans may not be suitable for any human development projects, due to specific sensitivity and/or importance for the life and survival of certain species. (Sea Shepherd Australia 2022).

We believe the offshore wind farm developers need to develop a comprehensive noise management plan including the cumulative effects of noise and includes marine monitoring that is reviewed and monitored on an ongoing basis.

The noise management plans need to cover the cumulative noise impact from the entire farm of turbines operating at full capacity. Limited research exists for the cumulative impact of noise and given the proposed scale off shore in Gippsland further research is needed in this area of impact.

Construction noise: marine impact

Considerable and unacceptable noise can occur during the construction phase of off shore wind turbines. Pile-driving techniques used during construction include using a hammer and anvil systems to drive monopoles deep into the sea bed. This technique leads to impulsive noise that can be harmful to marine life. In addition this technique includes the use of international ships using foundations manufactured overseas.

An alternative construction technique includes the use of concrete gravity foundations and tower which are constructed on land and floated out to the required location and then lowered on top of the seabed. This technique uses local manufacturing and can also add economic benefits to the local communities.

The use of suction bucket jackets also avoid pile driving as a pressure difference forces the buckets into the sea bed.

As a result;

- PICS does not support noise intensive pile-driving installation techniques;
- PICS does support the use of gravity-based foundations that are manufactured locally floated out and lowered on top of the seabed at the desired location.

The use of gravity-based foundations can also create new habitats, which are colonised by algae and benthic community. This further availability of food may attract new species of fish and subsequently mammals. This change could be neutral or even positive to mammals.

In selecting appropriate sites care also needs to be given to the specific location to avoid the need for excessive preparation works such as levelling of the seabed or dredging.

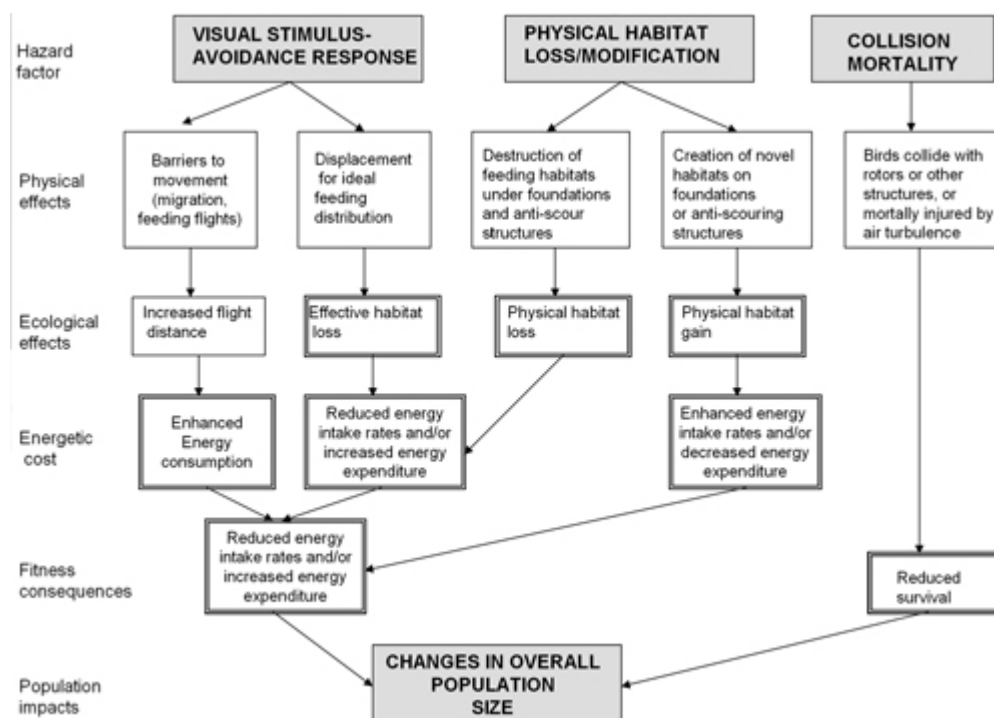
Impacts on sea birds

The influence of offshore wind farms on birds can be summarised as follows:

- Collision risk;
- Short-term habitat loss during construction phase;
- Long-term habitat loss due to disturbance from wind turbines installed and from ship traffic during maintenance;
- Barriers to movement in migration routes; and
- Disconnection of ecological units.

The relationships between offshore wind farms and bird impacts must be analysed by gathering information about avoidance responses, energetic consequences of habitat modification and avoidance flight, and demographic sensitivity of key species.

Flow Chart of Hazards Factors to Birds by Offshore Developments.



Note: Boxes with a solid frame indicate measurable effects, boxes with a double frame indicate processes that need to be modelled.

Source: Fox et al. (2006), courtesy of the British Ornithologists' Union

Collisions have the most direct effect on bird populations. In poor visibility conditions, large numbers of terrestrial birds could collide with offshore wind farms, attracted by their illumination. At the same time Information about bird mortality at offshore wind farms is very scarce due to the difficulty of detecting collisions and the difficulty in recovering dead birds at sea.

Nevertheless, the impacts of marine wind farms are higher on sea birds (resident, coastal and migrant) than on onshore birds.

The most relevant impact and potential of great concern is to Orange Bellied and Swift Parrots (critically endangered and migratory across the very Gippsland water ways).

Significant concerns exist for other migratory birds of international significance and particularly Shearwaters. In addition to identifying optimal locations consideration should be given to turning off wind turbines during high risk times such as when Shearwaters are migrating. The proposed location for the wind farms are also near to Ramsar Listed wetland needs to be carefully and fully considered.

Detailed assessments need to be undertaken for impacts of all bird species that are listed as threatened under the EPBC Act.

Next steps

PICS urges careful consideration of the issues raised in this submission and looks forward to future opportunities to have input into the design and assessment of proposed offshore energy generation.

Yours Sincerely



Jeff Nottle

President

References:

Smith, T., OAM, (2022). *Renewable energy yes – but not at any cost. A Discussion on offshore wind development in Gippsland.*

Sea Shepherd Australia. *Position on Offshore Wind Farm Development in Australia –updated September 2022: A Focus on Gippsland, Victoria*