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**The Committee Manager**  
**Standing Committee on Environment and Planning**  
**Parliament House, Spring Street**  
**EAST MELBOURNE VIC 3002**

**Response by Michael Hardiker to AGL's proposed plan to import, process and pipe dangerous methane gas from enormous LNG tankers in Westernport's wetlands?**

I am a passionate environmental educator and conservationist who has recently semi- retired from the teaching profession but have spent most of my teaching career advocating for and raising awareness to environmental issues. I am acutely aware of the threats facing different eco-systems not only Victoria, but in other states of Australia. These threats arise for a variety of reasons; namely, habitat fragmentation, climate change, inappropriate fire regimes, invasive species, native forest logging, unsustainable hunting of native wildlife, population growth and land-use intensification which also includes **inappropriate development**. I have been involved in numerous campaigns to help mitigate these threats and educate students', such as 350.Org, TeachWild, BushBlitz, and conservation work in threatened grasslands on the Western Basalt Plains in St Albans. Towards the end of my career, I had the opportunity to take part in a biodiversity audit of the Simpson Desert with a group of other teachers and scientists while undertaking a camel trek across the desert.

I have always been a passionate advocate for protecting marine ecosystems, partly because I have owned a holiday house on the shores of Western Port Bay and over the years have worked tirelessly to protect the marine foreshore in front of the property from the threats I have outlined. This involved collecting marine debris (mainly plastic) and mitigating erosion by revegetating the foreshore with mangroves. This work also involved monitoring wetland bird species and carrying out marine flora and fauna audits on a regular basis. While teaching students in Y7-10, I was involved in carrying out marine debris surveys with TeachWild around Westernport Bay (Phillip Island) and Williamstown and also led a group of Environmental Science students on an 'Ecosystems at Risk' study tour of the Great Barrier Reef, where surveys on Crown of Thorn starfish and coral degradation were carried out.

I believe that AGL's dirty gas proposal to import, process and pipe dangerous methane gas from enormous LNG tankers in Westernport's wetlands will increase Victoria's climate pollution and poses unacceptable threats to biodiversity and marine ecological systems. The clearing of wetlands, dredging of the Bay floor, chemical and petroleum leaks and spills, local noise and light pollution, disruption to marine life and the introduction of damaging marine pests all pose unacceptable threats on the marine environment.

If the energy giant AGL gets their way, Westernport Bay will change from a wetland sanctuary to one of Australia's biggest gas import terminals, located at Crib Point. Up to 40 massive Liquefied Natural Gas (LNG) tanker ships would pass through the narrow entrance to the Bay each year. At nearly 300 metres in length, these hulking ships are the size of 20

adult Humpback whales lined up head to tailfin. Once they enter the shallow waters, these huge ships would dock at AGL's new Floating Storage and Regasification Unit (FSRU), a 290-metre long gas plant permanently moored at Crib Point across from Phillip Island. Ruining the view is just the beginning of this project's disastrous impact on the unique and diverse local environment. During transport, the LNG is stored as a liquid at minus 161 degrees. Turning it back into a gas involves warming it up by sucking in seawater. After processing, this water – which now contains chlorides – it is discharged back into the bay about 7 degrees cooler than it went in. Scientists do not yet fully know how that will damage local marine life.

Once it is processed, the gas is piped to Melbourne. AGL is proposing to plough through 60 kilometres of Victoria's most fertile farmland and market gardens to run a pipeline all the way to Pakenham. To top it off, AGL's dirty project is inconsistent with their own Greenhouse Gas Policy. AGL even made recent commitments to lead in the transition to a clean energy future and called for more national and international action to limit global warming to less than 2 degrees. The fact is, Australia already produces more than enough gas for its own use. But since 2015 the big energy companies have been exporting it overseas through a huge terminal at Gladstone in Queensland.

The gas market is so complex that AGL now wants to import gas from overseas to Victoria where they can get a higher price for it. The way the market works, they could even be selling us back our own gas (from Bass Strait) that has been piped to Queensland, converted to LNG, and shipped overseas, then imported back to Westernport Bay. It is on any assessment utterly ridiculous as AGL's dirty gas plan will increase Victoria's climate pollution. It will pump 130-160 petajoules of gas per year into Victoria, almost doubling the amount of gas flowing into the state, likely reversing the shift of industry and households away from gas and weakening the move to renewable energy. It involves importing gas produced by fracking, which has much higher local environmental impacts in the places where the fracking occurs; and increases the carbon pollution of gas consumption, because the gas being brought into Victoria will have been liquefied, transported long distances, re-gasified and then stored, with each step consuming energy and adding to fugitive emissions. This means that this gas is 20 percent more polluting than gas sourced from Victoria. The latest information from the US Energy Information Administration shows that the US energy grid has decreased its emissions from non-fossil fuel sources by almost as much as by gas. Despite the shale boom, non-carbon energy sources have now overtaken any other single source of fossil fuel in supplying energy to the US grid. While the 1990's 'race to gas was responsible for the largest cumulative amount of avoided greenhouse emissions in Britain since 1990, the situation is different now. Planned and rapid coal-to-renewables is now the responsible path. Gas will only have a very small role to play in the near term, but the science is clear. The role of gas needs to be a significantly declining one, not a growing one, if we are to avert the worst impacts of climate change so that our future is safe and sustainable.

There are important impacts that this proposed development will have on threatened species in Westernport Bay. Westernport Bay is an internationally listed ecosystem, recognised under the Ramsar Convention as a unique tidal bay and wetland with important ecological values. It is home to a number of threatened species listed under the Flora and Fauna Guarantee Act (Vic) 1988 and the Environment Protection and Biodiversity Conservation Act (Cth) 1999 such as **Southern Right Whale; Humpback Whale; Far Eastern Curlew; Curlew Sandpiper; Fairy Tern; Orange-**

**bellied Parrot; Swift Parrot; Great White Shark; Mangrove Goby; Australian Grayling; two species Ghost Shrimp, southern brown bandicoot and coastal saltmarsh.** I have deep concerns over the threats to the habitat and welfare of these species caused by the construction and operation of the FSRU and pipeline. There are also concerns concerning marine impact associated with this project. These include the discharge of up to 450,000,000 litres per day of cold sea water into Westernport Bay and the discharge of up to 450,000,000 litres per day of chlorinated water. There is also risks to the ecosystem as small marine life may get sucked into the heat exchanger as it operates on the facility. There is the possibility that marine pests will be introduced into the bay as was the case when the **Northern Pacific Seastar** was introduced when water was discharged from the ballast of ships that entered **Port Phillip Bay**. The significant increase in shipping through Western Port Bay, increases the incidences of these discharges as well as increasing the incidence of vessel strikes with marine mammals and marine noise. The potential for fuel spills and the impact this may have on marine life is something we cannot ignore. While undertaking research projects at the Phillip Island Penguin Park with TeachWild, I witnessed first-hand the impact that marine debris often discarded from ships that enter the bay has on marine fauna such as seals and shearwaters. I carried out many necropsies on dead shearwaters and seals and observed many birds and mammals that had either ingested marine debris or entangled themselves' in marine waste that had been presumably discarded from container ships. I have also seen the decline in mangrove ecosystems due to harvesting in the early part of the century but more recently the decline in seagrass ecosystems that once existed in abundance around Westernport Bay, largely due to the impacts that pollution from shipping has on the bay. VNPA has undertaken extensive shipping oil spill modelling which shows the complexities and trends in movement in the Bay in addition to the impacts on bird life, on mangroves, and on seagrass. Studies were carried out on the impact on two species of Ghost Shrimp, both of which are considered likely to be present in low numbers in suitable habitat, about which there is extremely limited knowledge.

Perhaps most importantly, this proposed development undermines the spirit of the Ramsar Convention. The *Convention on Wetlands of International Importance especially as Waterfowl Habitat* (also known as the Ramsar Convention) entered into force in Australia in December 1975. The Convention encourages the designation of sites containing representative, rare or unique wetlands, or wetlands that are important for conserving biological diversity – particularly for migratory birds. The Convention provides a framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. Australia has 66 sites designated as Wetlands of International Importance. 12 of these sites are in Victoria and include places like the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula, the Gippsland Lakes, **Western Port**, the Kerang Lakes, Gunbower Forest and Barmah National Park. A recent parliamentary inquiry report into whether there is an effective regime to manage Victoria's Ramsar sites and protect them from decline found that:

- 31% of the 281 management actions listed in the Department of Environment Land Water and Planning's Ramsar management system database, have not commenced despite most Ramsar management plans being developed in 2014; 63% percent of activities have commenced and 6% have been completed.
- Many management plans have not been updated to adhere with the management principles for Ramsar sites.

- There are data gaps and potential for improvement in data coordination.
- At 10 of the 12 Ramsar sites there are outdated Ecological Character Descriptions (important for establishing limits of acceptable change for all critical components, processes and systems).
- There are inadequate funding arrangements to maintain long-term Ramsar management programs for implementation, monitoring, evaluation, reporting and improvement.
- At 10 of the 12 Ramsar sites, there is a lack of compliance with the Convention's requirement to update Ramsar Information Sheets which are important for assessing the status and trends of Wetlands of International Importance regionally and globally. This poor oversight and management record is compounded by imminent plans to build a new large scale Liquid Natural Gas (LNG) Import Terminal Facility (i.e. an LNG port) in Western Port Bay, one of our most precious Ramsar wetlands.

Westerport Bay is of international significance as a Ramsar site. It is **absolutely vital** that the Government carefully considers the recommendations of the recent Public Accounts and Estimates Committee parliamentary inquiry; particularly, the need to establish long-term funding for Ramsar site management so that monitoring programs can be maintained, to protect our international reputation as well as migratory birds and other species.

It is absolutely vital that the Government carefully considers the recommendations of the recent Public Accounts and Estimates Committee parliamentary inquiry **to stop large scale development in Ramsar wetlands, such as this proposed AGL Liquid Natural Gas (LNG) Import Terminal Facility (i.e. an LNG port) in Westernport Bay. This development must not go ahead in such an environmentally sensitive wetland ecosystem. We will become the laughing stock of the world if this is allowed to proceed and it is tantamount to Donald Trump unwittingly convincing the Scottish government to ignore the SSSI designation of a rare strand of shifting sand dunes, the fifth largest dune system in all of Britain so that he could build a luxury golf course in an area recognized for its unique ecological and scenic importance or Boris Johnston proposing to build an international airport over the Hoo peninsula in the Thames estuary on the Kentish coast which is one of the most important wetland habitats for wetland birds in all of Europe .**

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