

**ATTACHMENT**  
MPRA submission of 22 February 2007 –  
Yannarie Solar Salt Proposal - Environmental Review and Management  
Programme (ERMP)



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The Chairman  
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*Attention: Dr Sue Osborne*

### **YANNARIE SOLAR SALT PROPOSAL – ENVIRONMENTAL REVIEW AND MANAGEMENT PROGRAMME (ERMP)**

The Marine Parks and Reserves Authority (MPRA) provides the following comments on the Straits Salt Pty Ltd Yannarie Solar Project. We note these comments are necessarily at a high level given the limited resources available to the Authority to conduct detailed analysis of the potential impacts of the proposal.

The Exmouth Gulf area has been identified as significant for its ecological and biodiversity values. The eastern side of the Exmouth Gulf has been identified by the Marine Parks and Reserves Selection Working Group (MPSRWG) as a candidate area for reservation. The MPSRWG report (1994) recommends “...*that the nearshore waters on the eastern and south-western sides of Exmouth Gulf be considered for reservation for the protection of mangal habitat, prawn and fish nursery areas, turtle and dugong feeding areas, and coastal marine fauna and flora...*”.

The Exmouth Gulf has also been identified in the Department of Fisheries Draft Fisheries Management Plan for the Gascoyne Region as significant for fisheries and as such it recommends the Exmouth Gulf as a future Fish Habitat Protection Area.

The Yannarie Solar proposal directly alienates the MPSRWG report candidate marine conservation area for this region and effectively eliminates any opportunity of securing those marine conservation values within that region. The proposed project will have a major impact, either direct or indirect, on the marine and terrestrial environments of the Exmouth Gulf. As such, the MPRA does not support the project and has serious concerns with the following aspects of the proposal:

#### **1. Impact on Mangrove, Seagrass and Algal Communities**

Clearing for infrastructure will result in the loss of regionally significant arid zone mangrove communities, seagrass, macroalgae and algal mats. These communities provide important fauna habitat and are key primary producers, particularly important in providing nitrogen to an otherwise nitrogen-limited ecosystem. The scale of the project is such that potentially the major portion of this habitat on the eastern side of Exmouth Gulf will be destroyed. The permanent loss of a significant proportion of

these key primary producers will modify the existing habitat and change nutrient flows into the Gulf.

#### 2. Impact on important habitat for marine fauna

Through the construction and operation of the proposed salt field, it is likely that the permanent loss and modification of habitats will have detrimental impacts on important marine fauna. The Gulf ecosystem provides a habitat for marine fauna, including whales, sharks, fish, marine turtles and dugongs. Many species are ecologically significant and protected under the *Environmental Protection and Biodiversity Act*. The shallow waters and banks act as a nursery and feeding ground for fish and prawn species and the area has been identified as internationally significant habitat for five species of migratory shorebirds.

#### 3. Alteration of Natural Drainage

The proposed modifications to the landforms through construction of infrastructure such as salt crystalliser ponds and retaining walls will alter the natural hydrology patterns and nutrient flows from the supratidal flats and hinterland into the Gulf. The implications of these changes are largely unknown but given their scale are likely to have a very significant effect on water quality and ecosystems reliant on groundwater.

#### 4. Inadequate Disposal of Bitterns

The ERMP does not adequately address the storage and disposal of the toxic bitterns as a by product of salt production. There is a very high probability these will be released through natural storm processes and in any case they pose a major future disposal problem. The release of bitterns either intentionally, or as a result of natural processes, is likely to have a significant negative impact on the ecology of the Gulf and it is unacceptable that this matter has been simply left as a future problem.

#### 5. Impacts of Pumping Seawater

The proposed extraction of large quantities of seawater from the Gulf for use in the salt extraction process could entrap large volumes of larvae and plankton in the evaporation ponds with unquantified effects on the remaining ecosystems of the Gulf. In addition, the enhanced sedimentation from seawater pumping at Naughton Creek may affect mangrove and algal mats.

#### 6. Introduction of Marine Pests and Spillages from Bulk Carriers

There is a risk of introducing marine pests from vessel hulls and ballast discharge, as well as spillages from bulk carriers entering the Exmouth Gulf, which would both be detrimental to the marine environment. In addition, the fuel requirements of the pumping stations have the potential to pose a significant risk to the environment from spillage.

#### 7. Impacts of Dredging

Proposed dredging and ship and barge movements may potentially result in loss of benthic primary producer habitat through increased turbidity and sedimentation.

#### 8. Impact on Fisheries Industry

Exmouth Gulf is host to a major commercial prawn trawl fishery, a pearl oyster fishery and a growout industry. These commercial and aquaculture industries are

economically significant and environmentally sustainable and are dependant on existing water quality remaining stable in the Gulf.

9. Exposure of Acid Sulphate Soils

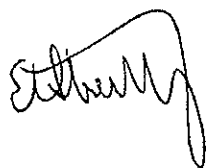
Disturbance to the soil for site preparation and construction of infrastructure is likely to expose Acid Sulphate soils which would potentially impact the surrounding marine environment.

The MPRA is strongly of the view that the scale and environmental impact of the proposal is unacceptable. It is not appropriate to have a 10 million tonne per annum solar saltfield, in excess of 41,000 hectares, located in the environmentally important and internationally significant Exmouth Gulf.

The MPRA is fully supportive of the submission on the ERMP made by the Department of Environment and Conservation as the lead agency responsible for management of Western Australia's marine conservation reserves.

Thankyou for the opportunity to provide comments on this matter.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Eric Streitberg', written in a cursive style.

Mr Eric Streitberg  
CHAIR  
MARINE PARKS AND RESERVES AUTHORITY

22 February 2007

08/09/08

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*Attention: Dr Sue Osborne*

#### **YANNARIE SOLAR SALT FARM PROPOSAL (ASSESSMENT 1521)**

The Marine Parks and Reserves Authority (MPRA) provides the following comments on the revised proposal for the proposed Yannarie Solar Salt farm project. We note that these comments are necessarily at a high level given the limited resources available to the MPRA to conduct a detailed analysis of the documents in the timeframe provided.

The Department of Environment and Conservation's (DEC) Nature Conservation Division have consulted with the MPRA on the revised proposal and supplementary reports and the MPRA are fully supportive of the submission and recommendations of DEC as the lead agency responsible for management of WA's marine parks and reserves.

The MPRA acknowledges that the proponent has attempted to address various concerns raised in the first round of public submissions. However, the concerns raised by the MPRA in our submission of 22 February 2007 remain (copy attached). Please reconsider these as part of this submission.

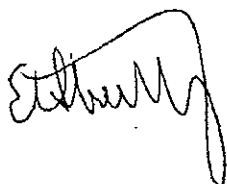
Despite the reduction in the proposed project footprint the MPRA believe the potential risk to the significant conservation and biodiversity values of the Exmouth Gulf area remains high and various potential environmental impacts remain uncertain.

The Exmouth Gulf has been identified as an area of high conservation value and international significance and the eastern portion has been recommended by the Marine Parks and Reserves Selection Working Group (MPRSWG) for reservation as a marine conservation reserve. Currently the ecosystem type found in this area of the Exmouth Gulf is not represented in the formal reserve system and this proposal eliminates any opportunity of securing this ecosystem and the marine fauna and flora it supports, in the future.

The MPRA will not support the proposal until proper assessment is undertaken of the nature and distribution of the marine ecological and conservation values of the candidate

marine area in the Exmouth Gulf, and until such time as the proponent can demonstrate what the potential long term impacts may be to those marine values.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Eric Streitberg". The signature is fluid and cursive, with a prominent loop at the end.

Eric Streitberg  
CHAIR  
MARINE PARKS AND RESERVES AUTHORITY

20 March 2008