

Part 8: Conclusion

23. Conclusion and opportunities

23.1 OVERVIEW

The West Pilbara Iron Ore Project Stage 1 is an iron ore mining and export project that has been submitted to the EPA and DSEWPC for environmental assessment as two proposals:

- Mine and Rail (transport corridor) (EPA Assessment No 1767; EPBC Reference 2009/4706)
- Port (the subject of this document) (EPA Assessment No 1794; EPBC Reference 2009/5120)

The separation of the port proposal from the mine and rail proposal arose essentially from the longer time taken to confirm the port location. In accordance with the requirements of the State Government, the proposed deepwater port will be 'multi-user' and once created, will fall under the jurisdiction of the Dampier Port Authority. This PER/draft PER describes and evaluates the foreseeable first stage of development of the Anketell Point Port that provides for the interests of the State, API and other users. It seeks environmental approval under Part IV of the EP Act, Part 9 of the EPBC Act (Cwth) and the Sea Dumping Act (Cwth).

23.2 OPPORTUNITIES AND INITIATIVES

API considers that the Anketell Point Port proposal, with appropriate planning and coordination between government, community, Traditional Owners and industry, presents a good opportunity to provide environmental and community benefits. API has consulted widely and identified several substantial infrastructure related synergies that could be achieved were the project to proceed, as described in Section 4. A number of environmentally focussed opportunities have also been identified, some of which have been the subject of early discussions with the DEC. These opportunities include:

- *Lerista neviniae* research to improve understanding of the ecology, population genetics and habitat requirements of the species;
- Initiation of a cetacean monitoring programme to improve understanding of migration patterns and utilisation of Nickol Bay and surrounds. Assistance to the local community to develop land based whale monitoring and consider the feasibility of whale based eco-tourism. Other studies to improve understanding of marine noise on whale behaviour;
- Management of Dixon Island to maximise conservation values, including the implementation of long term feral predator control, weed control and ecological monitoring;
- Long term turtle monitoring on beaches in proximity to the project area (i.e. Dixon Island and Anketell Point Beaches) and management to maximise hatchling success;
- Long-term coral monitoring near Dixon Island and Delambre Island, to understand natural temporal variations; and
- Research into Pilbara coastal samphire taxonomy.

API will continue to liaise with the DEC and DSEWPC to firm up the detail of these initiatives as the environmental assessment of this proposal is progressed and the management framework for the multi-user port is defined.

23.3 CONCLUSION

API has completed substantial investigations and stakeholder consultation related to the proposal to develop a multi-user deepwater port at Anketell Point. This work has informed the Proposal design, enabled an assessment of potential environmental impacts and assisted in determining appropriate monitoring and management measures.

Though not without some unavoidable environmental impact, given responsible design and management during the construction and operations phases, this Proposal can be implemented consistent with the objectives of the EPA and without significant impact on matters of national environmental significance.

Should it be approved, implementation of the Proposal presents a number of opportunities for environmental and community enhancement that API would be determined to capitalise on, with government and stakeholder support where relevant.

24. Study team

The following have contributed to the preparation of the PER:

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- ENVIRON Australia Pty Ltd
- Ian Le Provost (technical editor)
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- MScience Pty Ltd
- Oceanica Consulting Pty Ltd
- Phoenix Environmental Sciences Pty Ltd
- Strategen Environmental Consultants Pty Ltd
- SVT Engineering Consultants
- Western Wildlife
- WorleyParsons Services Pty Ltd
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26. Abbreviations and acronyms

Table 26.1 sets out the abbreviations and acronyms used in this report.

Table 26.1 Abbreviations and acronyms

Shortened form	Full title
µg/L	microgram per litre
µg/m ³	microgram per cubic metre
µm	micron
AHD	Australian Height Datum
Ambient Air Quality NEPM	National Environmental Protection (Ambient Air Quality) Measure
ANZECC	Australian and New Zealand Environment Conservation Council
API	API Management Pty Ltd
ASA	Australian Shipowners Association
BoM	Bureau of Meteorology
CALM	Department of Conservation and Land Management
CAMBA	Chinese-Australia Migratory Bird Agreements
CD	chart depth
CEO	chief executive officer
cm/s	centimetre per second
CO ₂	carbon dioxide
CO ₂ -e	carbon dioxide equivalents
CSD	Cutter Suction Dredge
Cwth	Commonwealth
DAF	Department of Agriculture and Food, part of the Western Australian Government
DAFF	Department of Agriculture, Fisheries & Forestry, part of the Commonwealth Government
dB	decibel; the unit that describes the sound pressure and sound power levels of a noise source. It is a logarithmic scale referenced to the threshold of hearing.
dB(A)	an A-weighted noise level; i.e., a noise level that has been filtered in such a way as to represent the way in which the human ear perceives sound. This weighting reflects the fact that the human ear is not as sensitive to lower frequencies as it is to higher frequencies.
DEC	Department of Environment and Conservation, part of the Western Australian Government
DEWHA	Department of the Environment, Water, Heritage and the Arts, part of the Commonwealth Government (now DSEWPC – see below)
DIA	Department of Indigenous Affairs, part of the Western Australian Government
DLGRD	Department of Local Government and Regional Development
DMP	Department of Mines and Petroleum

Shortened form	Full title
DoIR	Department of Industry and Resources, part of the Western Australian Government
DoW	Department of Water, part of the Western Australian Government
DPI	Department for Infrastructure and Planning, part of the Western Australian Government
DSEWPC	Department of Sustainability, Environment, Water, Population and Communities (formerly DEWHA – see above).
EMS	environmental management system
EP Act	Environmental Protection Act 1986 (WA)
EPA	Environmental Protection Authority, part of the Western Australian Government
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)
ESD	Environmental Scoping Document
g/s	gram per second
Ga	giga-annum; one billion (10 ⁹) years
GJpa	gigajoule per annum
Gpa	gigalitre per annum
ha	hectare
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for Conservation of Nature
JAMBA	Japan-Australia Migratory Bird Agreement
km	kilometre
kL/day	kilolitre per day
km ²	square kilometre
kt	kilotonne
ktpa	kilotonne per annum
L _{A10}	the A-weighted noise level which is exceeded for 10% of the measurement period and is considered to represent the “intrusive” noise level.
L _{Aeq(Night)}	the equivalent steady state A-weighted sound level (“equal energy”) in decibels that, in a specified time period, contains the same acoustic energy as the time-varying level during the same period. It is considered to represent the “average” noise level. “Night” means the “average” night-time noise level.
LAU	local assessment unit
LC ₅₀	lethal concentration 50 (concentration in water having 50% chance of causing death to aquatic life)
LNG	liquefied natural gas
m	metre
m/s	metre per second
MARPOL (73/78)	International Convention for the Prevention of Marine Pollution from Ships, 1973 as modified by the Protocol of 1978
mg/cm ² /day	milligram per square centimetre per day
mg/L	milligram per litre

Shortened form	Full title
m ³	cubic metre
MFMP	Marine Fauna Management Plan
MJ/t	Megajoules per tonne
MSL	mean sea level
Mt	megatonne (one million tonnes)
Mtpa	megatonne per annum
NEPM	National Environmental Protection Measures
NERDC	National Energy Research and Demonstration Council
NTU	nephelometric turbidity unit
OEPA	Office of the Environmental Protection Authority
P1, P2, P3, P4	Priority Flora categories: Priority 1, Priority 2, Priority 3, Priority 4
PEC	Priority Ecological Community
PEMP	Project Environmental Management Programme
PER	Public Environmental Review
pers. comm.	Personal communication
PJ	Petajoule
PM ₁₀	particulate matter below 10 µm in aerodynamic diameter
PM _{2.5}	particulate matter below 2.5 µm in aerodynamic diameter)
Port B development	Cape Lambert Port B development
psu	Practical Salinity Units (equivalent to parts per thousand)
psu	practical salinity unit
ROKAMBA	Republic of Korea-Australia Migratory Bird Agreement
TDS	total dissolved solids
TEC	Threatened Ecological Community
THSD	Trailer Hopper Suction Dredge
tpa	tonne per annum
TSP	total suspended particulates
TSS	total suspended sediment
WA Government	Government of Western Australia
WAPC	Western Australian Planning Commission
WPIOP	West Pilbara Iron Ore Project, the name of the entire mine, rail and port project

