

# **Specialist Marine Acoustic Services**

Blue Planet Marine (BPM) specialises in monitoring, assessing and conducting research into underwater noise. Focusing on marine megafauna, our services include:

- Ambient underwater noise assessment and monitoring
- Expert advice, assessment, monitoring and research on the potential effects of anthropogenic noise on marine mammals and other marine fauna
- Studies on marine mammal behavioural responses to anthropogenic noise

### **LOCAL EXPERTISE**

With offices in Australia and New Zealand, BPM works throughout Australian, NZ, Asian, South Pacific, sub-Antarctic and Antarctic marine environments. We provide industry, research, government and non-government organisations with quality and up-to-theminute advice and services.

## **MONITORING AND ASSESSMENT**

BPM has undertaken a variety of acoustics projects for a range of organisations and marine environments, BPM is highly experienced in acoustic monitoring and assessment. Our work includes: measuring ambient (background) underwater noise; monitoring source levels of noise from dredging, pile driving and seismic operations; providing assessments and expert advice on potential effects of noise on marine megafauna; designing acoustic monitoring plans to ensure compliance with relevant legislation; and developing proposed environmental permit conditions.

- Mitigating impacts of anthropogenic noise on marine mammals
- Marine Fauna Observers (MFO)
- Fixed and towed Passive Acoustic Monitoring (PAM) systems
- Acoustic Fauna Observers (AFO)

### **MITIGATION**

Our team is vastly skilled in the design and application of mitigation activities relating to underwater noise. We can work with you to investigate and determine appropriate mitigation regimes for your project and to implement, monitor and ground-truth them in-situ. We are highly experienced in: reviewing international best practice regarding acoustic mitigation techniques; determining mitigation distances for marine megafauna based upon known sound source levels; monitoring marine megafauna mitigation zones for compliance with environmental requirements; assisting in the validation of sound propagation models; and the provision of Passive Acoustic Monitoring (PAM) systems.



Anadarko Apache AWE Bechtel BHP Chevron

Department of Conservation Dredging International Gladstone Port Corporation

Hess Inpex

Jan De Nul

MED / NZP&M

NZOG

OMV

Petrobas Schlumberger

STOSS

**TGS Nopec** 

Todd Energy Trans-Tasman Resources

WesternGeco

Woodside





#### **RESEARCH**

In order to remain current with the latest active in marine acoustic research. Over the last 10 years, we have worked on or led a wide range of acoustic monitoring projects both in Australian and internationally. Our input has ranged from: survey design, implementation, data analysis and reporting to the supply of fieldwork personnel; HSE advice; project management; vessels; skippers; marine fauna We've worked extensively with a variety of academic institutions on marine acoustics research programmes, including the Behavioural Response of Australian Humpback whales to Seismic Surveys (BRAHSS) project.

### **TAILORED SERVICE**

At BPM we understand the importance of tailoring our services and systems to each project. This includes to the species likely to be present and the specific marine environment.

## **QUALITY, SAFETY AND ENVIRONMENT**

All of BPM's work is subject to our QSE system, which is modelled on ISO 9001, AS/NZS 4801

#### Side bar images:

(Top) Monitoring ambient noise around harbour dredging operations to assess potential impacts of anthropogenic noise on marine mammals.

triangulation) to detect vocalising marine mammals and transmit information by radio to an acoustic operator.

(Bottom) BPM MMO and PAM Team members.

technology, techniques and knowledge, BPM is observers; PAM systems and other equipment.



and ISO 14001.





(Middle) Fixed hydrophone buoy used (in





CONTACT

**David Paton** P.O. Box 919

Jamison Centre,

Australia

Canberra, ACT 2614

+61 (0)431 664 472

davePaton@blueplanetmarine.com

www.blueplanetmarine.com