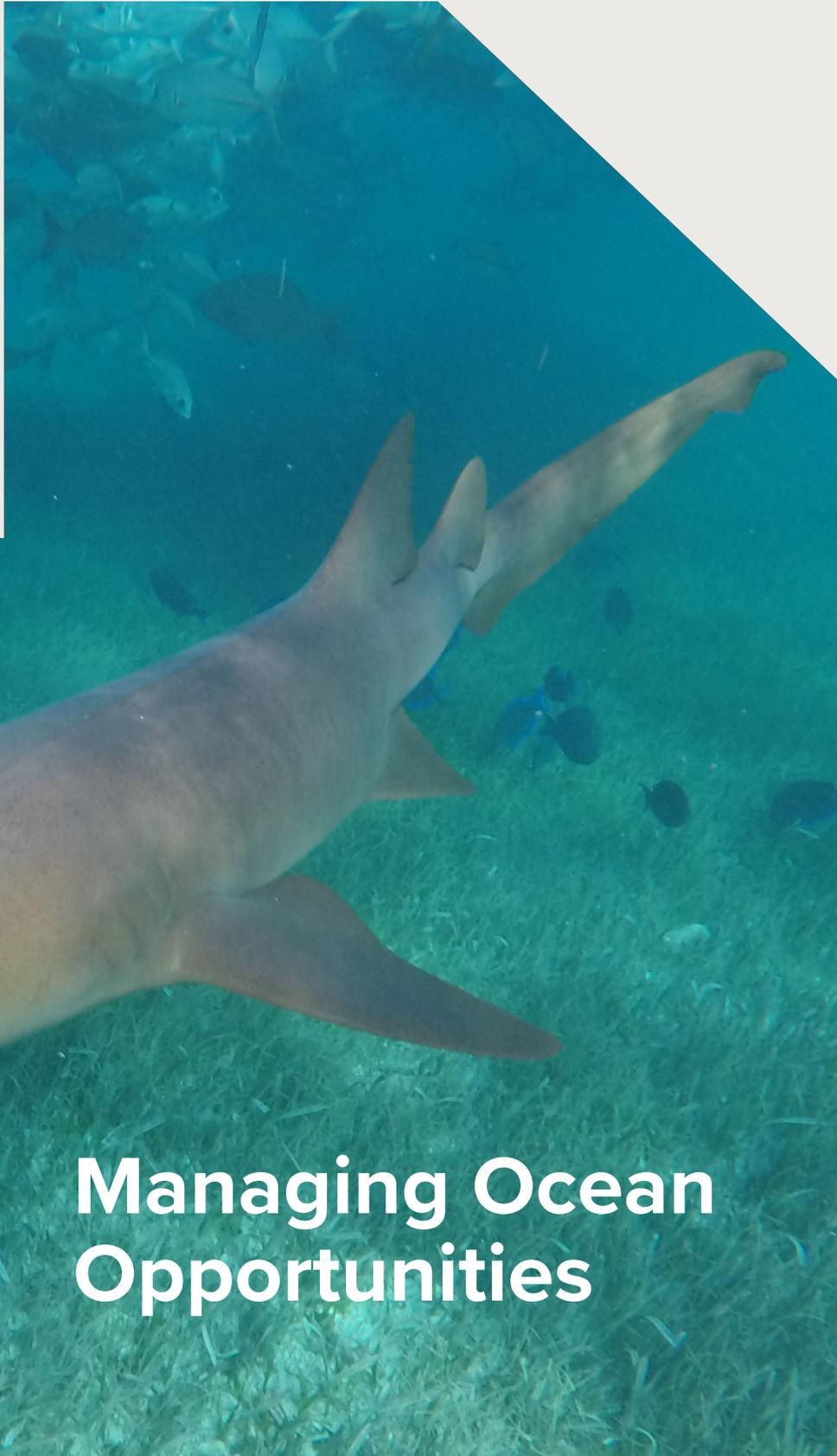


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Managing Ocean Opportunities

African Penguins Jackass Penguins (*Sphonniscus demersus*) - South Africa

Protecting our marine environment

Marine ecology is essential to the natural environment and increasingly recognised for its social, health and economic benefits. However, ocean habitats are facing multiple challenges, primarily driven by human activity.

We understand these ecosystems – the communities who rely on them, and the issues involved in maximising their inherent value. We have world-wide, practical experience of balancing both ecological and developmental needs. We understand the biodiversity performance standards required by regulatory and financial institutions and work closely with planning, design and infrastructure stakeholders to minimise the impacts of projects whilst capitalising on potential mitigation opportunities.

Local knowledge

working with regional legalisation

Global best practice

access to international experts

Project management

integrated teams delivering complete solutions

Green Turtle (*Chelonia mydas*)



Our cross-disciplinary team of coastal and marine environmental specialists includes environmental planners, engineers and chemists, hydraulic modellers, coastal geomorphologists, marine biologists and ecologists.

Consultancy services include:

- Seabed, inter-tidal and sub-tidal surveys and mapping
- Seabed sampling
- Marine mammal, bird, plankton, fish and benthic surveys
- GIS mapping
- Community and stakeholder consultations
- Protected species studies
- Ecological impact assessments
- Mitigation, monitoring and management plans – including climate change and environmental due diligence
- Licence and consent applications
- Species and habitat education
- Legislation advice
- Expert witness support
- Habitat enhancement plans
- Ocean plastic management plans
- Habitat resilience plans

“Highly proactive in ascertaining our needs; excellent on-going communications and ensuring that the project stuck to its schedule and delivered useful information”



Reducing ecological consequences of sewerage spills and building resilience into coastal habitats

Project: Swalecliffe Habitat Resilience Plan

Location: UK

Client: Southern Water

Expertise:
Environmental Management

Opportunity

An incident in 2013 resulted in raw sewage being pumped into a small brook which floods directly across a shingle beach and into a coastal area. Southern Water asked for our support to review the affected area, provide advice on mitigating the situation and reducing the ecological impacts of any future spills.

Solution

We began by undertaking specialist ecology surveys to clearly establish the baseline. The options we recommended to support the ecological resilience of the brook habitat included:

- Cleaning of the river bed
- Riparian works
- Reptile habitat enhancement
- Bird habitat enhancement

Outcome

We produced a Habitat Resilience and Enhancement Plan, to underpin the protection and support of essential habitats. It incorporated integrated ecological resilience strategies and investment in ecology and habitats, that focussed on supporting water quality amenity value, animal health and flora. Importantly, the plan will help to protect all the delicate habitats from future environmental hazards.

Protecting the food chain through an extensive intertidal study

Project: Hartlepool Intertidal Report

Location: UK

Client: Hartlepool Borough Council & Natural England

Expertise:
Intertidal Survey

Sanderline (*Calidris alba*)



Opportunity

Hartlepool Borough Council and Natural England commissioned us to complete an intertidal study to document which dominant marine species were present within the intertidal zone at the North Headland and Block Sands Area in Hartlepool. The survey was linked to Council plans to develop shoreline defence walls, and their concerns about the possible impact this could have on the surrounding environment.

Solution

The survey area was part of a European Marine site which had been designated for bird interests. To monitor the SSSI condition of the site, we carried out a survey of the intertidal areas to assess rocky shoreline biotopes and document the main species present. The survey identified 14 areas across the rocky intertidal coastline where mussels, invertebrates, marine isopods, and crustaceans were observed.

Outcome

Our survey showed the whole area was home to crustaceans and invertebrates, that were directly related to the feeding habits of the birds in the area. We concluded that 2 out of the 14 areas studied were considered important areas for feeding bird species. We successfully completed a detailed study of the intertidal area, ensuring that the client could move forward with the shoreline defence development with environmental sensitivity whilst protecting delicate biotopes.

Coral reef environment with Sergeant Major Fish (*Abudefduf saxatilis*)

Prioritising marine ecology alongside infrastructure in Queensland

Project: Marine Ecology Due Diligence

Location: Australia

Client: Confidential

Expertise:
Environmental Services Advisor

Opportunity

Queensland is home to more species of marine wildlife than any other Australian state. The tropical and subtropical waters are unique and include spectacular habitats, and endangered species. As part of a large energy infrastructure project, we were appointed to provide marine ecology due diligence. The overarching aim was to ensure that our client was able to follow the necessary procedures to protect the surrounding environment throughout the construction and beyond.

Solution

We undertook this project in the capacity of Environmental Standards advisor, monitoring the project via action and management plans with a responsibility for staff management. We assessed the impact of the project on endangered marine species and habitats, including sensitive species that may have contributed to critical habitats, which required specific assessment. We oversaw marine verification, and ensured that actions were taken to protect delicate habitats, whilst remaining in line with state and federal permits, as well as the client's own action plans, and environmental guidelines.

Outcome

We provided the client with valuable, specialist information, allowing them to successfully plan and implement their project whilst prioritising the protection of marine ecology and maintaining compliance with federal and state law.



Supporting the conservation of coral ecosystems on the Persian Gulf

Project: Compensatory Mitigation Plan

Location: United Arab Emirates

Client: Nawah Energy Company & Emirates Nuclear Energy Corp (ENEC)

Expertise: Environmental Services

Opportunity

With an increased demand for electricity, as well as a desire to be more environmentally aware, the UEA's first nuclear plant was commissioned to be built on the Persian Gulf coastline. However, this area is home to over 700 species of fish, 80% of which live on coral reef. The ENEC promotes sustainability and therefore developed an artificial reef to house the marine life and reduce environmental stress caused by the nuclear power plant. We were commissioned to support this Compensatory Mitigation Plan, to bring it up to international standards, prioritising the conservation of biodiversity in the area.

Solution

We compared the existing Compensatory Mitigation Plan against international lenders' standards to identify any additional factors that needed consideration and compensation. We then identified and evaluated potential strategies and created a shortlist related to bird species, habitats and other coastal options. We also designed a coral relocation plan to minimise the impact.

Outcome

The UEAs' first nuclear power plant is a project of long-term strategic importance, and will not only contribute the energy security for many years, but also help to reduce carbon emissions. However, it's crucial that the biodiversity of this area is also protected from heavy industrialisation. We helped support the protection and conservation of the coral species in the area. And the results from a recent survey of the area reveal that a diverse and abundant marine ecosystem has taken root at the breakwaters and artificial reef sites – the beginning of a complex marine community.

Responding to an EU challenge

Project: Confidential

Location: Cyprus

Client: Cypriot Government

Expertise:

Technical Marine Lead

Opportunity

A controversial decision to build a luxury development near a nature protection area, led to opposition from the European Commission. The EU asked the Cypriot Government to respect the Natura 2000 guidelines, and produce a conservation study to assess the impact of this development on the surrounding area. We were hired as Technical Marine Lead as part of this request to study and assess the impact of the potential development.

Solution

Our work for the Cypriot Government included studying and redrafting an official response to the EU's communication of opposition. We also undertook a review of the existing Environmental Impact Assessment documents, and drafted an assessment to help respond to concerns regarding the protection of marine species in the area.

Outcome

We provided a clear assessment on whether the development would impact the delicate marine ecosystem, with informed data and observations, incorporating the opinion and observations of the Bern Convention committee and Technical Witness reports. We provided the client with the appropriate methodologies, techniques and support to complete an Environmental Impact Assessment to the standards of the EU.



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