

## ANNEX 17: BIODIVERSITY WILDLIFE MANAGEMENT PLAN

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## PRINOS OFFSHORE DEVELOPMENT PROJECT

### BIODIVERSITY & WILDLIFE MANAGEMENT PLAN

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<b>PRINOS OFFSHORE DEVELOPMENT PROJECT BIODIVERSITY &amp; WILDLIFE MANAGEMENT PLAN</b>	
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# 1 INTRODUCTION

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This Management Plan outlines the mitigation measures and commitments and shapes the responsibilities, monitoring, auditing and implementation schedule in relation to Biodiversity and Wildlife during the construction and operation phase of the Project.

For the construction phase the Contractor is required to prepare its own specific Environmental and Social Management and Monitoring Plan (ESMMP) and especially the topic specific Biodiversity and Wildlife Management Plan setting out how it intends to meet and comply with specific Project commitments and mitigation measures and in line to Energean's HSE Policy and Standards. This Management Plan shall act as a reference from which the Contractor shall prepare a Biodiversity and Wildlife Management Plan.

For the operation phase Energean will apply mitigation measures as outlined in this Management Plan. This Management Plan shall act as a reference from which Energean shall prepare a Biodiversity and Wildlife Management Plan for the operation plan.

The ESMS Framework Document provides an explanation of the linkage between Energean HSE Policy and the Monitoring Plans.

# 2 SCOPE OF THE PLAN

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This Management Plan has been prepared to outline the mitigation measures necessary to ensure that negative impacts to environment and health & safety, focused in general construction issues for the onshore construction site for the pipeline fabrication, as a result of Project activities (only for construction phase) are prevented or, if this is not possible, reduced in terms of its magnitude and significance.

The objectives of the Management Plan are to ensure that any construction work in the pipeline fabrication onshore construction site undertaken complies with the Energean's HSE Policy, national legislations, best international practice and all relevant EBRD PRs, in order to avoid all potential damages to environment and to ensure the highest practicable level of health & safety.

More specifically this Management Plan aims at the following targets:

- Outlining how ENERGEAN will monitor and review Contractor's performance during construction;
- Defining Contractor's roles and responsibilities;
- Ensuring environmental protection of the highest achievable level;
- Ensuring a high standard in work conditions;

- Assisting the Contractor:
  - ⇒ In identifying the possible hazards that relate to the work process and to assume appropriate measures for the reduction of risks; and
  - ⇒ in preventing possible environmental damages or damages to third parties properties
- To anticipate and prevent possible damage of property belonging to third parties, caused by construction procedures; and
- To ensure environmental protection of the highest achievable level.

This Management Plan is related to the following documents:

- ENERGEAN HSE Management Plan;
- ESMMP;
- Waste management plan;
- Pollution Prevention Management Plan;
- Emergency response plan;
- Stakeholder Engagement Plan (SEP);
- Biodiversity or Ecological and Wildlife management plan;
- Traffic management plan;
- Oil spill response plan;
- Chance finds procedure for cultural heritage; and
- HSE MS.

## 3 ROLES AND RESPONSIBILITIES

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### 3.1. CONSTRUCTION PHASE

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#### 3.1.1. ENERGEAN'S ROLES & RESPONSIBILITIES

The roles and responsibilities of ENERGEAN's personnel in respect to this Management Plan, during the Construction Phase are:

- The Project Manager supervises the implementation of this Management Plan;
- The HSE Manager is responsible for the implementation of the provisions of this Management Plan and for assisting the Contractor in applying them; and
- The Construction Supervisor will assist the HSE Manager when required.

ENERGEAN will provide environmental documentation (ESIA, Approved Environmental Terms, Management Plan, ecological surveys) to Contractor, in order to finalize his Biodiversity and Wildlife Management Plan. Before the commencement of the construction ENERGEAN's Project Manager will communicate this Management Plan to the Contractor. The assessment of Contractor's Biodiversity and Wildlife Management Plan will be made by

the HSE Manager with the assistance of the Construction Supervisor.

### 3.1.2. Contractor's roles and responsibilities

The Contractor will be responsible for any adverse ecological impacts arising from the onshore and offshore activities and for putting in place any necessary measures to avoid or, if not possible, mitigate them. In general the Contractor will be responsible for:

- Elaborate and implement a Biodiversity and Wildlife Management Plan;
- Assignment of the responsible persons;
- Communicate the Management Plan to workers and subcontractors;
- Ensure compliance;
- Support ENERGEAN in monitoring program; and
- Reporting.

The Contractor must comply with all national, EU and international regulations and EBRD Performance Requirements with regard to biodiversity and wildlife protection.

Specific duties have to be assigned, for this reason and more specifically:

- The Site Manager is responsible for:
  - ⇒ Understanding ENERGEAN's HSE policy and HSE Management Plan;
  - ⇒ Implementing the Management Plan;
  - ⇒ Ensuring the compliance of subcontractors to the Management Plan;
  - ⇒ Ensuring employee training on this Management Plan; and
  - ⇒ Ensures that all workers know how to implement the mitigation measures
- The Project Engineer is responsible for:
  - ⇒ Understanding ENERGEAN's HSE policy and HSE Management Plan;
  - ⇒ HSE issues for his section of the project/work;
  - ⇒ Implementing the Management Plan;
  - ⇒ Briefing and training the personnel on the provisions of this Management Plan; and
  - ⇒ Supervising the subcontractors' compliance to this Management Plan
- The HSE Coordinator is responsible for:
  - ⇒ Controls the subcontractors' compliance to this Management Plan;
  - ⇒ Provides clarified instructions for the secure and proper execution of the Management Plan; and
  - ⇒ Is informed for any accident and participates in their investigation, and suggests measures to avoid their repetition.

## 3.2. OPERATION PHASE

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The responsible person from ENERGEAN will be the Operation Manager. ENERGEAN will be responsible for:

- Communicate the Management Plan to workers;
- Ensure compliance;
- Implement effective monitoring; and
- Reporting.

## 4 PROJECT STANDARDS

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This Management Plan is in line with national and EU legislation, international regulations and EBRD requirements.

More specifically:

- National legislation:
  - ⇒ Law 4014/11, on the protection of environment
  - ⇒ Law 3937/11, on biodiversity conservation
- European legislation:
  - ⇒ Directive 2013/30/EEC, on safety of offshore oil and gas operations
- EBRD requirements:
  - ⇒ PR1 – Assessment and management of environmental and social impacts and issues
  - ⇒ PR6 - Biodiversity conservation and sustainable management of living natural resources
- International Regulations:
  - ⇒ International Convention for the Prevention of Pollution from Ships (MARPOL)
  - ⇒ Agreement on the conservation of cetaceans in the Black Sea, Mediterranean Sea and contiguous Atlantic (ACCOBAMS)
  - ⇒ Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention)
  - ⇒ International Petroleum Industry Environmental Conservation Association (IPIECA) guidelines, for invasive species
- ENERGEAN's standards:
  - ⇒ HSE Policy
  - ⇒ HSE Management Plan

## 5 IMPLEMENTATION SCHEDULE

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## 5.1. CONSTRUCTION PHASE

During the construction phase, the implementation schedule for the Management Plan is:

Activity	Timeline / milestone
Assignment of Contractor's and Energean's responsible person	Prior to contract
Coordination and arrangement with Marine Mammal Observer	Prior to contract
Coordination for visual monitoring of avifauna	Prior to contract
Contractor prepare procedures of Biodiversity and Wildlife Management	Two months prior to construction
Competent Authorities elaborate an official site survey	Prior to construction
Definition of onshore construction site footprint and boundaries	Immediate after contract
Development of logging plan for the onshore construction site	Two months prior to construction
Establishment of communication line between the Contractor and competent Authorities	Prior to construction
Communicate the Management Plan to employees	Prior to construction
Monitoring of construction activities by a Marine Mammals Observer of the Contractor	During construction
Reporting to Energean and competent Authorities	During construction, in case of significant findings

## 5.2. OPERATION PHASE

During the operation phase, the implementation schedule for the Management Plan is:

Activity	Timeline / milestone
Assignment of Energean's responsible person	Prior to commissioning
Contractor prepare procedures of Biodiversity and Wildlife Management	One month prior to commissioning
Reporting to competent Authorities	During operation, in case of significance findings

## 6 MITIGATION & MANAGEMENT CONTROLS

## 6.1. CONSTRUCTION PHASE

The following mitigation measures and management controls shall apply, during the construction period:

Measure / commitment	Responsible	Means of verification
<b>Clearance of onshore construction site</b>		
Identification of onshore construction site boundaries	Contractor (HSE Coordinator)	Marking of site's boundaries prior to clearance
Debris will be stored along the outside edge of worksites in clear areas.	Contractor (HSE Coordinator)	Development of a logging plan
<b>Pollution prevention</b>		
Litter and other waste material have to be stored and disposed of appropriately in order to minimize a potential risk of damaging or polluting habitats and species	Energean (HSE Manager)	As per Waste Management plan and Pollution Prevention Management Plan
Application of all oil spill response measures	Contractor (HSE Coordinator)	As per Oil Spill Response Plan
No water discharges will be conducted on any of the water bodies, without appropriate authorization from the competent public authorities	Contractor (HSE Coordinator)	Obtain of authorizations
<b>Marine Mammals</b>		
Support vessel will have at least one experienced marine mammal observer (MMO) onboard and will have two if 24 hour operations are expected. Construction will not commence during periods of darkness or poor visibility (such as fog) unless MMOs are equipped with night vision binoculars. A pre-construction search will be conducted by the MMO. Construction (including conductor driving) will not commence if marine mammals detected within 500m of the activity or until 20 minutes after the last visual detection.	Contractor (HSE Coordinator)	Marine mammal observation log
<b>Reinstatement of onshore construction site</b>		
After ending the onshore construction works, the area of work shall be reinstated	Contractor (HSE Coordinator), supervised by Energean (HSE Manager)	Development of a Reinstatement Plan

## 6.2. OPERATION PHASE

The following mitigation measures and management controls, during operation phase, shall apply:

Measure / commitment	Responsible	Means of verification
<b>Pollution prevention</b>		
Litter and other waste material have to be stored and disposed of appropriately in order to minimize a potential risk of damaging or polluting habitats and species	Energean (HSE Manager)	As per Waste Management plan and Pollution Prevention Management Plan
Application of all oil spill response measures	Energean (HSE Manager)	As per Oil Spill Response Plan
<b>Marine Mammals</b>		
Delaying the start of drilling in case of marine mammals presence	Energean (HSE Manager)	Marine mammal observation log

## 7 MONITORING APPROACH AND LIST OF MONITORING PROCEDURES

### 7.1. CONSTRUCTION PHASE

The following monitoring procedures, during construction phase, will be applied:

Measure / commitment	Monitoring Parameter	Responsible	Periodicity
Marine ecology inspection	Benthic analysis	Contractor (HSE Coordinator)	Monthly
Monitoring of marine water quality	Turbidity / Suspended solids Oil and grease	Contractor (HSE Coordinator)	Weekly
Monitoring of sensitive marine fauna	Presence of marine mammals and birds – visual monitoring	Contractor (HSE Coordinator)	Continuous
Identification and reporting of leakage events	Number of leakage events caused during the construction	Contractor (HSE Coordinator)	Continuous

Monitoring parameters for waste, wastewater and pollution prevention will follow the provisions of relevant Management Plan.

## 7.2. OPERATION PHASE

The following monitoring procedures, during operation phase, will be applied:

Measure / commitment	Monitoring Parameter	Responsible	Periodicity
Monitoring of marine water, seabed morphology, integrity of the pipelines and marine ecology at direct interference (within 500 m)	Physicochemical analysis of seawater and benthos.  Analysis of benthic communities  Visual inspection	Contractor (HSE Coordinator)	Every 12 months for sample analysis  Every 3 years for visual inspection
Identification and reporting of leakage events	Number of leakage events caused by the activity	Contractor (HSE Coordinator)	Continuous

## 8 TRAINING REQUIREMENTS

Prior to the construction site mobilization Energean's Project Manager will communicate this Management Plan to the Contractor.

With the commencing of works, the Contractor's HSE Coordinator informs the personnel of the site about this Management Plan. The HSE Coordinator may provide to them a copy of this Management Plan, ENERGEAN HSE Plan, ENERGEAN HSE Management Plan, approved ESIA, approved Environmental Terms any other document that could be considered as important for this Management Plan.

The most important elements of training, in respect to this Management Plan is:

- Training on application of all mitigation measures;
- Information material for marine mammals of the area;
- Training on observation of marine mammals;
- Information material for most important avifauna species; and
- Training on observation of most important avifauna species

## 9 AUDITING & REPORTING

The following auditing and reporting will take place:

Audit / report	Parameter / indicator	Periodicity
Satisfactory implementation of mitigation measures for general construction management	100% implementation	Monthly
Non-compliance report	Non-compliance	When occur
Report on marine mammals observation and actions taken	Species (individuals) and location	When occur