# **Summary of Shah Deniz Stage 2 Environmental and Social Management**

September 2017

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# 1. SD2 SCOPE

The Shah Deniz (SD) Contract Area lies approximately 100km southeast of Baku (refer to Figure 1). Full Field Development (FFD) of the SD Contract Area is being pursued in stages under the terms of a Production Sharing Agreement (PSA) between the State Oil Company of the Azerbaijan Republic (SOCAR) and a consortium of Energy Companies (SDC).

The SD Stage 1 development, which commenced production in 2006, includes a fixed platform with drilling and processing facilities limited to the separation of gas and liquids and two marine export pipelines to transport gas and condensate to onshore reception, gas-processing and condensate facilities at the Sangachal Terminal.

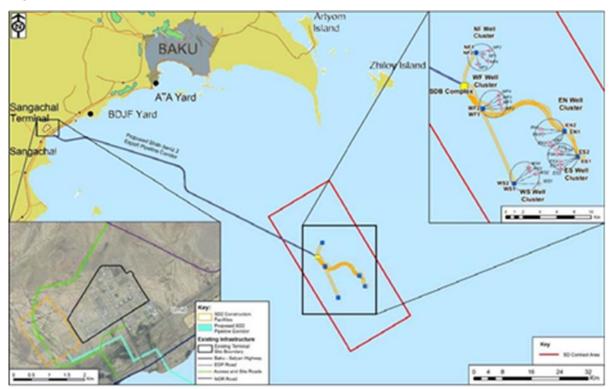
The SD2 Project represents the second stage of the SD field development. It will add:

- A fixed platform complex, denoted SD Bravo (SDB), that includes 2 new bridge linked platforms:
  - A Production and Risers platform; and
  - Quarters and Utilities platform
- Subsea manifolds, associated well clusters and flowlines. The subsea development incorporates a total of 26 wells, drilled using mobile drilling rigs (M ODU);
- New subsea gas and condensate export pipelines to the onshore terminal facilities and a dedicated monoethylene glycol (MEG) import pipeline from the Terminal to the platform complex;
- Debottlenecking projects; and
- Onshore processing facilities for the SD2 Project within an expansion area at the Sangachal Terminal.

The scope of the SD2 Project includes the design and construction of the gas export compression, metering and associated utilities at the Terminal, but for purposes of the Environmental and Socio-Economic Impact Assessment (ESIA) does not include the work involved in a separate project to expand the capacity of the existing South Caucasus Pipeline, which transports gas from the Terminal to its customers. The South Caucasus Pipeline expansion forms part of the larger integrated project, but is covered by a separate ESIA.

Figure 1 shows the location of the offshore and onshore SD2 facilities, the approximate well locations, subsea infrastructure layout and the routing of the subsea pipelines between the platform complex and the Terminal. The location of the construction yards where the platform complex has been constructed (known as the BDJF and ATA yards) are also shown.

Figure 1 SD2 Project Locations



#### 2. ESIA PROCESS

The PSA sets out that petroleum operations shall be undertaken "in a diligent, safe and efficient manner in accordance with the Environmental Standards to minimise any potential disturbance to the general environment, including without limitation the surface, subsurface, sea, air, lakes, rivers, animal life, plant life, crops, other natural resources and property". The SD2 ESIA was approved by the Ministry of Ecology and Natural Resources (MENR) in October 2014. The ESIA has been conducted in accordance with the legal requirements of Azerbaijan as well as BP Azerbaijan's Health, Safety, Security and Environment (HSSE) Policy. The ESIA process (illustrated in Figure 2) constitutes a systematic approach to the evaluation of a project and its associated activities throughout the project lifecycle.

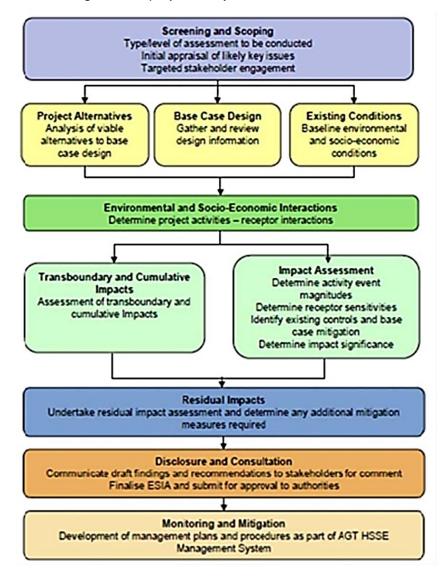


Figure 2 SD2 ESIA Process

The Methodology and associated ESIA chapters can be found on the BP website.

# 3. STAKEHOLDER ENGAGEMENT

Stakeholder consultation has been an important element of the ESIA process, ensuring that the opinions of potentially affected people and interested parties are solicited, collated and documented.

The stakeholder engagement and consultation process has:

- Made use of the consultation framework and methods established for other BP projects in Azerbaijan;
- Been developed with reference to accepted international guidance on expectations of ESIA consultation and disclosure;
- Considered the extent of consultation and disclosure previously undertaken, linked to expansion of the Sangachal Terminal over the past ten years;
- Incorporated lessons learned from prior consultation programmes; and
- Primarily involved the Ministry of Ecology and Natural Resources as the ESIA approving authority. Other national state bodies (such as the Ministry of Culture and Tourism, on cultural heritage aspects) have been involved during the planning and completion of supporting studies as and when required, as well as the general public. Engagement processes involved regular meetings, workshops and surveys with communities and stakeholders near the terminal and a wide range of other individuals, organisations and groups.

The draft ESIA report was made widely available in English and Azerbaijani, and comments on it were collated and analysed with responses provided where relevant.

The project follows a Public Consultation and Disclosure Plan that outlines the objectives of consultation, the process for identifying and consulting stakeholders, roles and responsibilities, and the process for lodging and responding to grievances.

The project continues its stakeholder engagement activities by meeting with the adjacent communities, fishermen and other interested parties. This engagement includes providing information on construction activities and progress, providing survey and monitoring data (including on noise and vibration monitoring), performing livelihood surveys, and responding to any quest ions. Grievances are logged and responded to in a timely manner.

#### 4. ENVIRONMENTAL AND SOCIAL MANAGEMENT

The SD2 Construction Phase Environmental and Social Management System (ESMS) has been developed and includes the following:

- The commitments register that BP has produced listing all the commitments within this ESIA that are to be implemented during the construction phase;
- A legal register of legislation applicable to the SD2 Project;
- An Environmental and Social Management and Monitoring Plan (ESMMP) which is reviewed and updated as needed as part of a process of continuous improvement;
- A schedule of monitoring, inspection and audit of environmental performance that includes checking that the main construction and installation contractors are meeting the expectations set out in the ESMMP; and
- Implementation of an action tracking system to monitor implementation of corrective actions to address findings from inspections and audits.

#### 4.1 Environmental and Social Management and Monitoring Plan

An ESMMP has been developed to document and direct SD2 Project Personnel and other internal stakeholders on how project environmental and social impacts shall be managed in order to conform to applicable SD2 ESIA commitments and other requirements and recommendations. The scope of the ESMMP includes construction, commissioning and transition to operational activities.

The objective of the ESMMP is to address:

- Conformance requirements;
- Roles and responsibilities of BP and the main construction and installation contractors;
- The actions needed to avoid and/or mitigate environmental and social impacts and to implement the commitments in the ESIA; and
- The assurance process that will be adopted to monitor and report environmental and social performance to include inspection, audit and monitoring programs.

#### 4.2 Individual Environmental and Social Management Plans

To support the ESMMP, environmental and social management plans have been developed to support the implementation of ESIA commitments and are used to define the roles and responsibilities of the construction contractors and BP teams. The management plans present the relevant commitments and confirm the link to the construction contractor procedures and processes. The management plans and a summary of their content is provided in Table 1. The detailed impact avoidance, mitigation and monitoring measures within each management plan are provided from Section 5 onwards.

Table 1 SD2 Environmental and Social Management Plans

Title of Plan	Issues Covered
Pollution Prevention and	
Pollution Prevention	<ul> <li>Energy efficiency (vehicle and equipment selection, maintenance);</li> </ul>
Management Plan	<ul> <li>Emissions and dust management (i.e. vehicle, equipment and generator emissions, dust management);</li> </ul>
	<ul> <li>Wastewater management (i.e. drainage, trench dewatering, hydrotest water disposal and use of chemicals in hydrotest water, vehicle and equipment washing);</li> </ul>
	<ul> <li>Sewage treatment and disposal, including sewage plant monitoring and oil water separator sampling;</li> </ul>
	<ul> <li>Chemical selection and management, and hazardous materials management;</li> </ul>
	<ul> <li>Contaminated land and water management; and</li> </ul>
	<ul> <li>Monitoring and reporting.</li> </ul>
Waste Management and Minimisation Plan	<ul> <li>Waste hierarchy (i.e. reduction at source, reuse, recycling, energy recovery, responsible disposal) and green procurement;</li> </ul>
	<ul> <li>Identification and classification of waste;</li> </ul>
	Waste register;
	<ul> <li>Waste handling (i.e. collection, segregation and container s, storage, treatment, transport and documentation, disposal); and</li> </ul>
	<ul> <li>Monitoring and reporting.</li> </ul>
	ural Heritage Management
Cultural Heritage Management and Monitoring Plan	<ul> <li>The protection of known archaeological resources (i.e. their location, legal status, protective buffers);</li> </ul>
org r iair	<ul> <li>Watching brief procedure for all ground-breaking activities;</li> </ul>
	<ul> <li>Archaeological chance finds procedure; and</li> </ul>
	<ul> <li>Monitoring and reporting.</li> </ul>
Restoration and Landscape Management Plan	<ul> <li>Topsoil and subsoil management (during onshore pipeline installation works and subsequent reinstatement);</li> </ul>
management ian	<ul> <li>Site restoration;</li> </ul>
	<ul> <li>Spoil management; and</li> </ul>
	<ul> <li>Monitoring and reporting.</li> </ul>
Ecological and Wildlife Management Plan	<ul> <li>Pre-construction ecological surveys and wildlife inspections;</li> </ul>
Management Flan	<ul> <li>Habitat and species protection during construction (i.e. translocation, traffic restrictions, code of conduct); and</li> </ul>
	<ul> <li>Monitoring and reporting.</li> </ul>
Socio-Economic and Wo	rkforce / Welfare
Community Engagement and	<ul> <li>Grievance mechanism;</li> </ul>
Nuisance Management	<ul> <li>Noise and vibration management;</li> </ul>
and Monitoring Plan	<ul> <li>Nuisances management and monitoring (i.e. artificial light from</li> </ul>
Ctalcabal	work areas, odours, pests and vermin);
Stakeholder Engagement Plan	<ul> <li>Stakeholder identification;</li> </ul>
.gg	<ul> <li>Stakeholder engagement programme;</li> </ul>
	<ul> <li>Social and environmental investment programme; and</li> </ul>
	<ul> <li>Monitoring and reporting.</li> </ul>

Title of Plan	Issues Covered
Employee Relations Management Plan	<ul> <li>Training and skill development activities;</li> </ul>
Wanagement Flan	* Grievance mechanism;
	* Demanning; and
	<ul> <li>Monitoring and reporting.</li> </ul>
Fishing Livelihood Management Plan*	* Livelihood Restoration Plan
Management Plan	<ul> <li>Communications Plan and Grievance Mechanism</li> </ul>
	Monitoring and reporting

#### Notes:

- The SD2 ESIA commitments associated with Spill Prevention, Response, Notification and Close
  Out Actions are captured within the Pollution Prevention Management Plan. The three SD2 ESIA
  commitments associated with Traffic and Transportation Management are addressed in the
  contractor HSE plans.
- 2. The Fishing Livelihoods Management Plan has been disclosed on the Asian Development Bank website.

#### 4.3 Construction and Installation Contractor Environmental and Social Management

The construction and installation contracts for SD2 detail the environmental and social requirements to be met by the contractors and are aligned with the SD2 ESIA commitments; but also go beyond the ESIA commitments to provide more instructional and detailed requirements to support ESIA commitment implementation. The environmental and social requirements of the contracts are also included in SD2 Environmental and Social Compliance Registers which are used to track the compliance requirements and supporting management and monitoring tasks.

Where applicable, the Environmental and Social Management Plans have been shared with the relevant construction contractors. In addition, the construction contractors are required to prepare their own site specific environmental and social plans. To support routine management of the construction contractors' environmental and social performance, the construction contractors are required to report environmental and social metrics, incidents, site observations, and evidence of self-verification (e.g., inspection reports, spill exercise reports, grievances received and responded to) to BP. This contractor-supplied information, along with monthly SD2 Environmental and Social Compliance Register assessment, including completion of Observation and Records checklists, provides a thorough and detailed quarterly report on the implementation of the SD2 environmental and social requirements.

#### 4.4 Monitoring and Reporting

Monitoring and reporting is undertaken in accordance with defined policy and plans and includes:

- Deck drainage and wash water, garbage disposal unit effluent and grey water treatment effluent, oily water, fuel usage records;
- Volume of drilling fluids and cuttings discharged and Water Based Muds ((WBM) fluid properties;
- Waste and emissions volumes:
- Drilling/ workover/cementing/testing chemicals;
- Rig chemicals reporting;
- Seabed Remotely Operated Underwater Vehicle (ROV) monitoring;
- Noise and vibration monitoring; and

Cultural heritage watching brief.

#### 4.5 Environmental Monitoring Programme

BP's Azerbaijan-Georgia-Turkey (AGT) Region has implemented an Environmental Monitoring Programme (EMP) designed to provide a consistent, long-term set of data, with the objective of ensuring an accurate picture of potential impacts on the surrounding environment, so that they can be managed and mitigated as effectively as possible.

The EMP follows a 10-year schedule and detailed monitoring plans are prepared for the next 3 years, with outline planning for the following 7 years. This approach allows a progressive and systematic modification of the programme to take into account the results and conclusions of the programme to date.

Offshore marine monitoring can be separated into the following categories:

- Baseline surveys to provide a general understanding of the physical, chemical and ecological parameters at a particular location before development commences. Any unusual or sensitive ecological features, which might affect the design of a development, can also be identified;
- Post-drill surveys completed following drilling operations in order to assess the impact of drilling discharges on the surrounding environment;
- Routine environmental monitoring surveys to provide an assessment of the impact of AGT Region operations, aiding responsible environmental management; and
- Regional surveys completed to permit the identification and type of environmental changes and trends that occurs over time. Sampling is undertaken at locations remote from AGT Region activities, providing information on changes in the terrestrial and marine environment that have resulted from natural processes, or other third-party activities. This helps to distinguish potential impacts resulting from AGT Region activities from natural background environmental changes and other anthropogenic sources.

Offshore marine monitoring has been conducted as part of the SD Contract Area development, with the primary focus being the benthic environment as sediments and their associated biological communities are widely considered to be the source of the most reliable indicators of ecological status and impact. Periodic water quality sampling is also undertaken.

In terms of onshore terrestrial operations, effort has focused on environmental monitoring in the vicinity of the ST in the form of terrestrial ecosystem monitoring, bird surveys, ambient air quality monitoring, and groundwater and surface water quality monitoring. In addition, nearshore fish monitoring and biomonitoring has been conducted within Sangachal Bay and future surveys will be conducted in accordance with the 10-year schedule.

The environmental monitoring programme has been expanded for the SD2 Project, to integrate operational monitoring of key discharges carried out by the AGT Region. This will allow a more complete understanding of the potential impacts of AGT Region operations. The aim of regular monitoring is to establish an understanding of trends over time, taking into account results of concurrent regional surveys and initial baseline data. Combined with operational discharge monitoring, this approach provides a robust basis for assessing the impact of SD2 Project operations, and for comparing the observed impact with that predicted in the ESIA.

#### 4.6 Operational Phase ESMS

BP will operate the SD2 facilities using an Operations Phase Environmental and Social Management System (ESMS) and will be based on the 'plan-do-check-act' cycle. The BP Operations Phase ESMS will be developed prior to commencement of SD2 operations and transition plans will be developed to assist with the movement from the construction to the BP Operations Phase ESMS.

Similar to the BP Construction Phase ESMS, the primary functions of the BP Operations Phase ESMS will be to operate SD2 Project facilities in accordance with the ESIA commitment s and applicable legal and regulatory standards and BP policy.

The SD2 Operations Phase ESMS will:

- Regularly assess the environmental and social aspects and impacts of its activities;
- Develop objectives and targets to address any significant aspects;
- Appropriately resource and train staff; and
- Monitor and audit the success of its actions in addressing the significant impacts.

The operations commitments included within this ESIA will be implemented through the operations phase ESMS.

# 5. POLLUTION PREVENTION MANAGEMENT PLAN

#### 5.1 Roles and Responsibilities

Overall roles and responsibilities associated within monitoring and management relevant to this plan are provided below.

# 5.1.1 Contractor Responsibilities

An overview of the contractor responsibilities relating to pollution prevention management are as follows:

- Preparing and implementing a Pollution Prevention, Spill Response and Control Plan for BP approval, covering processes used to prevent pollution, maintain inventories of hazardous materials, ensure compliance with national legislation and identifies measures to control risks;
- Preparing a refuelling and hydraulic system filling procedure;
- Reporting spills and any HSE incidents;
- Reporting to the MENR spills that occur at the main construction and installation contractor's sites and from vessels they operate;
- Reporting STP effluent performance monitoring data monthly;
- Ensuring sewage is treated by a BP approved treatment plant with a valid discharge permit and appropriately storing sewage sludge prior to collection;
- Ensuring that containers, storage and handling areas for hazardous materials are
  protected by lined bunds with a capacity of 110% of the volume stored; that there
  are sufficient bunded areas to store incompatible materials separately; and that
  sites for bunded areas are selected to minimise the potential for surface water
  pollution;
- Recording details of on-site ozone depleting chemicals; and maintaining a detailed chemicals/hazardous materials inventory and corresponding Material Safety Data Sheets;
- Adhering to the Montreal protocol and minimise the usage of ozone depleting substances; and
- Reducing emissions by using modern, well maintained equipment.

#### 5.1.2 BP Responsibilities

Water quality monitoring will be undertaken within the wetland area during the pipeline construction works and operation of the STP.

For each survey, a 'Preliminary Report' will be prepared within 10 working days of sampling being completed and a 'Final Report' within 5 working days of completion of laboratory analysis to include the information provided in preliminary reports. A close out report at the end of construction activities summarising the key findings of the water quality surveys.

BP has processes and procedures in place that are designed to ensure all ESIA commitments are complied with, including reviewing and approving the plans, procedures and methodologies that the contractor submits for approval.

Each BP site advisor will be responsible for collating the following relevant to pollution prevention and spill prevention and response on a monthly basis:

- ESIA commitment compliance report, that include verification of commitment implementation, including inspection reports of site measures to prevent spills;
- Spill register to confirm conformance with spill reporting requirements;
- Sewage treatment effluent monitoring results;
- Oil water separator/open drain monitoring results;
- Emission estimates (calculated from paint and fuel usage and appropriate emission factors); and
- Number and volume of spills.

# 5.2 Spills / Emergency Response

The SD2 Project emergency response organisation at each delivery team/site/vessel is headed by an On-Scene Commander/Duty Manager who has overall responsibility for the safety of all personnel on the Project work site and is supported by a team comprising BP SD2 Project Team members and SD2 contractor representatives. If circumstances exceed the capabilities of the Contractor's emergency response organization, additional support is provided by the BP Baku IMT (Incident Management Team) resources.

All SD2 construction contractors are required to develop emergency/spill response plans, which will be reviewed and approved by BP and require the following types of processes to support implementation of the management of spill/emergency events:

- SIMOP plans;
- Spill/emergency drills;
- Spill/emergency training;
- Creation of spill/emergency response team; and
- Completion of tasks risk assessments that may require additional spill/emergency equipment and capability.

#### **5.3** Pollution Prevention ESIA Commitments

Table 2 provides a list of the ESIA commitments which are relevant.

#### Table 2 Pollution Prevention ESIA Commitments

#### SD 2 ESIA Commitments

The STP will be designed to treat domestic water (including grey and black water) to applicable performance and monitoring standards in ESIA.

Drainage within the refuelling facility will be routed to an oil water separator system. The refuelling facility oil water separators will be tested on a daily basis to confirm the total oil content is less than 19mg/l daily average and 10mg/l monthly average. Wastewater from the refuelling facility that does not meet the applicable discharge standards and separated oil will be collected by road tanker, handled as liquid waste and removed from site.

Wastewater from the vehicle wash facility will either be reused or discharged following treatment via an oil water separator. The vehicle wash facility oil water separators will be tested on a monthly basis to confirm the total oil content is less than 10mg/l. Wastewater from the vehicle wash facility that does not meet the applicable discharge standards and separated oil will be collected by road tanker, handled as liquid waste and removed from site

The drainage system within the construction camp and construction facilities area will be designed to:

Route wastewater from the vehicle wash and refuelling facilities for reuse or discharged after treatment using oil water separators. The oil water separators will be designed to treat wastewater from the vehicle wash facility to applicable oil water standards of 19 mg/l daily average and 10 mg/l monthly average. The separators will be tested on a daily basis to confirm

the total oil content daily and average standards are met. Wastewater from the vehicle wash and refuelling facilities that does not meet the applicable discharge standards will be collected by road tanker, handled as liquid waste and removed from site.

- Route canteen waste water to the STP via a dedicated system to separate fats, oil and grease to minimise potential fouling of the STP. The contents of the traps will be collected by road tanker, handled as liquid waste and removed from site.
- \* The open drains treatment system will be flushed using freshwater to remove any debris within the system prior to start up. Prior to flushing of the complete drainage system, water samples from all drainage sumps will be tested to confirm the oil content. If the oil content of the water in the sumps exceeds 19mg/l daily average, the contents of the sump will be collected by road tanker, handled as liquid waste and removed from site. If the total oil content of the water in the sumps is lower than 19mg/l daily average, the sump content will be discharged to the storm water drainage channels.

Plant and vehicles associated with the SD2 Project will be either refuelled at the new SD2 dedicated vehicle refuelling facility, or in the location they are operating using mobile fuel bowsers.

Hazardous fuels, oils and chemicals will be securely stored in clearly marked containers in a contained area to prevent pollution.

During reactivation of the vessels' fire-fighting foam systems will be tested. If vessels use

biodegradable alcohol resistant aqueous film foaming foam (AR- AFFF) or aqueous film foaming foam (AFFF) products they will be discharged to sea. Non-biodegradable foams will not be discharged but will be collected by road tanker, handled as liquid waste and removed from site.

Black and grey water generated at the construction yard(s) will be collected in on site sewer pipes and sumps and then either transferred by road tanker or by sewer pipes to a municipal sewage treatment plant for treatment and disposal. If the construction yard has an operational sewage treatment plant that discharges treated effluent to the environment, the yard operator will be responsible for agreeing the discharge standard with the MENR and maintaining the discharge permit conditions stipulated by the MENR.

Drainage water from areas in the construction yard(s) in which hazardous materials are stored and routinely used will be contained and will be collected by road tanker, handled as liquid waste and removed from site. If the yard operator has an agreement with the MENR for discharge of drainage from areas where hazardous materials are storage or used, they will be responsible for maintaining the discharge permit conditions stipulated by the MENR.

Depending on the availability of the system, black water will either be:

- Contained onboard for transfer to shore;
- Once onshore, black water will be managed in accordance with the existing AGT management plans and procedures;
- Or, black water will be treated to applicable MARPOL 73/78 Annex IV: Prevention of Pollution by Sewage from Ships standards: Five-day BOD of less than 50mg/l, suspended solids of less than 50mg/l (in lab) or 100mg/l (on board) and coliform 250MPN (most probable number) per 100ml. Residual chlorine as low as practicable.

Depending on the availability of the system, galley food waste will either be:

- Contained and shipped to shore for disposal; or
- Sent to vessel maceration units designed to treat food wastes to applicable MARPOL 73/78 Annex V: Prevention of Pollution by Garbage from Ships particle size standards prior to discharge.

Deck drainage and wash water will be discharged to sea as long as no visible sheen is observable. A refuelling procedure will be used during construction and commissioning activities at Sangachal Terminal vicinity for construction plant and vehicles which details the pre-checks, level indication monitoring, provision of temporary containment and drip trays, communication, training and spill kit requirements.

The dedicated refuelling area at the Terminal will be located within a bund capable of holding 110% capacity. The area will include lined concrete bunds, sized to contain 110% of the stored fuel capacity. Drainage within the refuelling facility will be routed to an oil water separator system

Stockpiles of subsoil located within the Sangachal Terminal vicinity will be appropriately shaped and compacted to avoid erosion and sedimentation of nearby open water courses or drains.

Site drainage and pollution hazards maps will be maintained that show potential sources of pollution (e.g. storage areas), pathways (e.g. drains) and receptors (e.g. the Caspian Sea) located within the Sangachal Terminal vicinity.

Designated areas within the Sangachal Terminal vicinity will be established away from watercourses for waste cement/concrete which will be contained and collected as a waste once solidified.

Sewage will be treated to comply with applicable project standards: pH (6-9), 5 day BOD of less than 20mg/l, total coliform <400MPN (Most Probable Number) per 100ml, COD of less than 100mg/l, suspended solids of less than 30mg/l and residual chlorine less than 1mg/l (used for irrigation) or less than 0.2mg/l (discharge to the environment).

Treated sewage will be used for irrigation or dust control (preferred option) within the vicinity of Sangachal Terminal.

Residual chlorine content of the sewage discharged from the treatment plant into the wadi will be measured daily.

Samples will be taken from the Sewage Treatment Plant discharge outlet and analysed weekly for pH and daily for BOD, total coliforms, COD and suspended solids against applicable project standards. Assurance monitoring will be completed monthly.

Results from effluent monitoring will be submitted to the MENR monthly.

Preference to use garnet for grit blasting which is inert, non-hazardous and suitable for disposal under EU legislation in a non-hazardous landfill.

Construction plant and vehicles will be modern and well maintained in accordance with the written procedures based on manufacturer's guidelines, applicable industry code, or engineering standard to ensure efficient and reliable operation.

Where practicable, mains electricity will be used instead of mobile generators as a power source.

Onshore construction plant and vehicles will be modern and well maintained in accordance with written procedures based on the manufacturer's guidelines, applicable industry code, or engineering standards to ensure efficient and reliable operation.

A Pollution Prevention Management Plan for the terminal construction and onshore pipeline installation will be prepared and implemented.

Quarterly surface water sampling will be completed within the wetland area for those parameters listed in Appendix 10G.

Cementing chemicals are of low toxicity (UK HONS "Gold" and "E" categories or equivalent toxicity to those chemicals previously approved for use).

The volume of cement used to cement jacket piles into position is calculated prior to the start of the activity. Sufficient cement is used to ensure that the piles are cemented securely while minimising excess cement discharges to the sea.

Support vessels will be subject to periodic performance reviews, the scope of which includes environmental performance indicators (The scope of environmental performance reviews are expected to include, but may not be limited to, the following: energy efficiency and diesel usage, sulphur content of diesel used, ballast water management, waste management, sewage treatment plant operation and management of bilge water).

#### Black Water:

- Onboard vessels samples will be taken from the sewage discharge outlet and analysed monthly for total suspended solids, thermotolerant coliforms and BOD. Water samples should meet the following sewage standards: five-day BOD of less than 50mg/l, suspended solids of less than 50mg/l (in lab) or 100mg/l (on board) and coliform 250MPN (most probable number) per 100ml. Residual chlorine will be as low as practicable.
- Daily visual checks will be undertaken when discharging from vessels to confirm no floating solids are observable.
- Vessel sewage sampling results, recorded daily observations and estimated volumes of treated black water discharged daily (based on POB).

Daily observations and estimated volumes of grey water and drainage discharged daily from vessels will be recorded.

A process will be established to promote the selection of hydraulic fluids used on the trenching equipment that has the best environmental performance.

### 6. WASTE MANAGEMENT AND MINIMISATION PLAN

### 6.1 Roles and responsibilities

Overall roles and responsibilities associated with monitoring and management relevant to this plan are described below.

# 6.1.1 Contractor responsibilities

An overview of the contractor responsibilities relating to waste management and minimisation are as follows:

- Waste minimisation (including targeting the effective use of resources), segregation and storage of waste in line with BP requirements, training of all personnel and reporting of waste quantities and types generated on each site;
- Preparation and implementation of Waste Management and Minimisation Plan for BP approval;
- Maintaining a:
  - Waste Register that includes waste classification information; location on site where waste will be generated; special handling instructions; and skip type;
  - Waste forecast for the next six months including the estimated quantity in cubic metres and tonnes generated each week for each waste type;
  - Record of waste transfer documentation together with other relevant information for the duration of the contract and for as long as required by local and applicable international regulations;
- Providing waste management training covering waste segregation and waste transfer documentation;
- Ensuring that waste conforms with BP's requirements for segregation, packaging or labelling;
- Ensuring that the following waste types are segregated into separate waste containers: wood; ferrous and non-ferrous metal; stainless steel; general, non-hazardous, non-recyclable; dried or completely cured paint; thinners; solid hazardous waste containing oil residues; solid hazardous waste with no oil residues; spoil classified as hazardous waste; used, filtered cooking oil; vegetation waste; electrical cables; paper and card; tyres; and printer waste;
- Ensuring that waste is not stored on site for more than a month without BP approval;
- Adopting BPs Waste Transfer Note (WTN) template and embedding the contractors company logo or symbol in the copies for routine use; ensuring that sufficient copies are available at all points of collection and transfer, and that relevant staff are trained in the correct use of the WTNs;
- Ensuring that all waste transfers are accompanied by a WTN; and that hazardous
  waste transfers are accompanied by the relevant waste passports and material
  safety data sheets;
- Ensuring that waste is not routed to any disposal site without prior approval from BP;

- Ensuring that wastes not suitable for discarding to skips are: suitably packaged to
  facilitate loading and permit safe onward handling; provided with secondary
  containment with a capacity of 110% of the primary container capacity, if the
  primary container is damaged or leaking; permanently labelled in English and Azeri
  with a description of the contents, known hazards, and a unique identification code
  that is referenced on the accompanying WTN; and appropriate segregation occurs
  for incompatible wastes;
- Reporting monthly on:
  - Waste quantities for each type collected (including WTN numbers);
  - Daily waste skip and container log confirming identification number, type and location of each waste container;
  - Waste register; and
  - Types, quantities, and location of waste being stored on each site for longer than one month.

# 6.1.2 BP responsibilities

The SD2 Environmental and Social Team are responsible for:

- Managing compliance of the construction contractors in relation to the waste management; and
- Coordination of requests from the construction contractors and BP SD2 Project Teams for waste management support.
- Preparation of detailed waste forecasts for the SD2 construction phase showing the projected waste arising.
- Preparation of monthly reports:
- Review and approval of:
  - Contractor's Waste Management Plan;
  - Special requests for waste disposal in BP-provided waste containers;
  - Contractor's preliminary assessment of waste classifications for waste not identified in the waste register;
  - Ensuring implementation of the AGT Region waste procedures at construction sites:
- Ensuring that waste items conform to the maximum specified dimensions and that exceptions are discussed with waste operations.

#### 6.2 Waste Management and Minimisation ESIA Commitments

Table 3 provides a list of the ESIA commitments relevant to waste management.

Table 3 Waste Management and Minimisation ESIA Commitments

#### **SD 2 ESIA Commitments**

Designated areas within the Sangachal Terminal vicinity will be established away from watercourses for waste cement/ concrete, which will be contained and collected as a waste once solidified.

Preference to use garnet for grit blasting which is inert, non-hazardous and suitable for disposal under EU legislation in a non-hazardous landfill.

Waste at the construction sites, construction yards and onboard the installation and HUC vessels will be segregated at source, stored and transported in fit for purpose containers.

Waste minimisation and management plans will be established for the onshore construction, installation and HUC phase and all waste transfers controlled and documented.

All waste generated during onshore platform and subsea infrastructure construction and commissioning activities will be managed in accordance with the existing AGT management plans and procedures.

Oily bilge water, tank sludge's, untreated oily water and waste oil will be shipped to shore for disposal in accordance with the existing AGT waste management plans and procedures.

All waste generated during platform installation and HUC will be managed in accordance with the existing AGT management plans and procedures.

Sewage sludge will be shipped to shore for disposal in accordance with the existing AGT waste management plans and procedures.

To support the ESMMP, environmental and social management plans will be developed by BP to present the SD2 Project environmental and social requirements by subject matter:

- Restoration and Landscape Management Plan;
- Waste Management and Minimisation Plan;
- Ecological and Wildlife Management Plan;
- Pollution Prevention Management Plan;
- Community Engagement and nuisance management and monitoring;
- Archaeology and Cultural Heritage Management;
- Spill Prevention, Response, Notification and Close Out Actions;
- Traffic and Transportation Management Plan; and
- Employee Relations Management Plan.

BP's and the main construction and installation contractor's procedures and plans will be used to collect and regularly report monitoring data to BP, including the following:

- Data (e.g. waste volumes, types and disposal, complaints received and resolved);
- Activities carried out (e.g. surveys, meetings with communities, site inspections and findings);
- Status of non-conformances identified during inspections;
- Environmental, social and cultural heritage issues arising in the course of the works (e.g. contaminated land discovered, archaeological finds and ecological issues); and
- Site observations and reports, from inspections and incidents such as spill events.

Waste generated during the SD2 Project will be managed in accordance with the existing BP AGT Region management plans and procedures.

Site specific Waste Management Plans will be prepared by BP and the main construction and installation contractors for the jacket, topside, subsea facilities and terminal construction.

Waste Management and Minimisation Plans will be developed and maintained to cover the duration of the SD2 Project's activities to match the anticipated waste streams, likely quantities and any special handling requirements

To support the Waste Management and Minimisation Plan, the main construction and installation contractors will receive waste management training covering:

- Identification of waste types and potential associated hazards;
- Waste segregation; and
- Waste transfer documentation (if involved in waste movement).

A schedule of internal audits will be developed to objectively monitor the performance of the waste management systems during the SD2 Project's activities and to ensure that all corrective actions and improvements are identified and implemented.

Waste streams will be segregated at source to permit reuse/recycling and to avoid contact between incompatible materials.

The segregation requirements will be clearly indicated by the use of containers with clear signage denoting the waste types that are suitable for the containers provided.

All waste transfers will be accompanied by individual Waste Transfer Notes (WTNs), confirming the waste type, quantity, waste generator, consignee, consignor (if different from the generator) and, in the case of hazardous wastes, both Waste Passports and, where required, Material Safety Data Sheet (MSDS) documentation.

A final visual inspection of all waste consignments will be made prior to transfer note sign-off and uplift.

Coloured copies of the waste transfer documentation together with other relevant information e.g. MSDS, Waste Passports, will be retained by the waste generator. All parties involved in transporting wastes will retain a copy of the waste transfer note.

Depending upon the nature of the waste and the approved method of recycling/disposal, wastes may be routed via the Central Waste Accumulation Area (CWAA), waste transfer station or similar facility, or alternatively may be routed directly to their final approved destination.

# 7. CULTURAL HERITAGE MANAGEMENT AND MONITORING PLAN

# 7.1 Roles and responsibilities

Overall roles and responsibilities associated within monitoring and management relevant to this plan are provided below.

#### 7.1.1 Contractor responsibilities

An overview of the contractor responsibilities relating to cultural heritage management and monitoring are as follows:

- Preparation of internal Archaeology and Cultural Heritage Management Plans and review the Plan annually to include details of finds and corrective actions;
- Complying with provisions outlined in the Cultural Heritage Management and Monitoring Plan (CHMMP) with regards to Chance Finds;
- Providing appropriate staff to receive training on identifying archaeological materials, deposits, and features, including the Chance Finds Procedures (CFP);
- Ensuring health and safety direction is provided to the Watching Brief programme team while they are on site;
- Providing the BP Site Environmental Advisor (SEA) a minimum of one-week advance notice before initiating an activity requiring watching brief;
- Responding to inquiries from the BP SEA as to the anticipated length of ground works requiring watching brief;
- Immediate reporting of Chance Finds; and
- Cooperating with BP and the Watching Brief programme team in resolving any Chance Finds, including:
  - Stopping ground works around a Chance Find until it is categorised;
  - o Excluding ground works around a Chance Find if so directed; and
  - Placing protective marking around a Chance Find, if so directed.

#### 7.1.2 BP responsibilities

The BP SEA at the SD2 onshore site and the marine and subsea site will:

- Support execution of the Watching Brief Programme;
- Coordinate responses to Chance Finds between the internal and external stakeholders, working with the Watching Brief Programme Cultural Heritage Lead or his designee;
- Support and coordinate daily Watching Brief process;

The SD2 Environmental and Social Team will:

- Ensure conformance with this CHMMP;
- Support execution of the Watching Brief Programme;
- Review and approve all communication with Ministry of Culture and Tourism (MoCT) and the Institute of Archaeology and Ethnography (IoAE);

- Ensure construction contractor support for execution of the Watching Brief programme;
- Ensure development and delivery of training programme regarding Watching Brief and Chance Finds process; and

# 7.1.3 Watching Brief Programme Responsibilities

The Watching Brief Programme (WBP) will comprise of Watching Brief Archaeologists, cultural heritage experts, and in-country specialists from the IoAE. IoAE will staff the day-to-day operations of the Watching Brief and provide local expertise regarding any Chance Finds.

#### 7.1.4 Cultural Heritage Managers

The Watching Brief will be managed by external consultants within their respective broader agreements with BP.

#### 7.1.5 Institute of Archaeology and Ethnography

IoAE is primarily responsible for management of the Watching Brief field operations, including recruitment, training and supervision of Watching Brief staff; management of the Watching Brief's logistical, materials, and equipment requirements; and regular reporting. Verification and monitoring

The performance monitoring for the WBP applies to BP and the Contractors. The BP SEA will prepare a monthly performance report of the WBP.

#### 7.2 Cultural Heritage Management and Monitoring ESIA Commitments

Table 4 provides a list of the relevant ESIA commitments.

Table 4 Cultural heritage management and monitoring ESIA Commitments

#### **SD 2 ESIA Commitments**

A watching brief, with representatives from the Institute of Archaeology and Ethnography (IoAE), will be maintained to identify any artefacts of archaeological importance and a chance finds procedure will be in place for construction and commissioning activities implemented within the Sangachal Terminal vicinity.

Any findings will be reported by Watching Brief Archaeologists immediately and any corrective measures required will be agreed within an archaeological specialist in liaison with the Ministry of Culture and Tourism and the Institute of Archaeology and Ethnography.

In the event archaeological resources are found during excavation work an assessment will be made by the archaeological watching brief on what controls and changes to the excavation work are required and whether work in the area needs to be suspended to allow for more detailed archaeological assessment of the area.

An Archaeology and Culture Heritage Management Plan will be prepared detailing how the SD2 Project will be managed in relation to potential cultural heritage impacts.

An Archaeology and Cultural Heritage Close Out Report will be issued to the MoCT and IoAE at completion of construction activities.

Data collected from previous surveys including 3D seismic and detailed bathymetry surveys and any further seabed surveys completed prior to pipeline and subsea infrastructure installation will be reviewed by a marine cultural heritage specialist to identify potential sites of cultural heritage value which lie within the area affected by the works.

In the event that a potential site is identified an assessment of the potential importance of the feature will be undertaken by a marine cultural heritage specialist.

Based on the importance of the feature, the pipeline and subsea infrastructure will be repositioned to avoid significantly impacting the feature.

To support the ESMMP, environmental and social management plans will be developed by BP to present the SD2 Project environmental and social requirements by subject matter: Archaeology and Cultural Heritage Management

BP's and the main construction and installation contractor's procedures and plans will be used to collect and regularly report monitoring data to BP, including the following:

- Data;
- Activities carried out;
- Status of non-conformances identified during inspections;
- \* Environmental, social, and cultural heritage issues arising in the course of the works; and
- Site observations and reports, from inspections and incidents such as spill events.

An archaeological watching brief will be implemented at the construction sites located within the vicinity of Sangachal Terminal during any clearance works in areas not previously surveyed during the Early Infrastructure Works.

#### 8. RESTORATION AND LANDSCAPE MANAGEMENT PLAN

#### 8.1 Roles and responsibilities

Overall roles and responsibilities associated within monitoring and management relevant to this plan are provided below.

#### 8.1.1 Contractor responsibilities

No contractor-specific responsibilities relating to ecological and wildlife management are included within the plan.

#### 8.1.2 BP responsibilities

With regard to restoration and landscape management, BP will review and approve the Spoil and Landscape Management Plan including the:

- Methodology proposed for the monitoring and management of potentially 3<sup>rd</sup> party previously contaminated materials to confirm it aligns to the ESIA commitments, specifically with regard to the acceptability criteria;
- Methodology and proformas for recording spoil generation, movement, re-use and disposal;
- Biorestoration/reinstatement plan; and
- Collate the records submitted by the contractor regarding injury potentially contaminated materials and submit to the MENR on an annual basis.

In addition, prior to demobilisation BP will:

- Conduct a review of the spill reporting and subsequent clean-up/remediation works submitted by the contractors; and
- Undertake a walkover survey of each construction site.

Reinstatement works will be completed for the following:

- Along the onshore pipeline right of way between the shoreline and the SD2 facilities at the terminal;
- Within the landfall area: and
- In the areas that have been disturbed by the SD2 construction works in the Terminal vicinity that are will not occupied by the SD2 onshore facilities.

Reinstatement works will not be undertaken at the ATA and BDJF fabrication yards.

#### 8.2 Restoration and Landscape Management ESIA Commitments

Table 5 provides a list of the relevant ESIA commitments.

Table 5 Restoration and Landscape Management ESIA commitments

#### **SD 2 ESIA Commitments**

All soil removed from the trench being excavated will be placed aside and stored so that it may be used for later reinstatement of the route, in order to maintain the environmental characteristics of the area.

All soils excavated from the pits will be placed aside and stored so that it may be used for later reinstatement of the route, in order to maintain the environmental characteristics of the area.

Stockpiles of subsoil located in the vicinity of Sangachal Terminal, will be appropriately shaped and compacted to avoid erosion and sedimentation of nearby open water courses or drains.

A construction corridor will be established along the SD2 Pipeline Corridor route and the perimeter of the corridor will be defined. Works outside this perimeter will be strictly controlled by BP in order to minimise the area of ground disturbed (in relation to onshore pipeline installation activities.

Surface soil layer removal and vegetation clearance near to the wetlands, rivers or stream banks will be minimised within the Sangachal Terminal vicinity.

Areas for laydown of soil or loose construction materials will be identified to minimise impacts to habitats and potential for erosion and sedimentation into watercourses or drains located within the Sangachal Terminal vicinity.

A Restoration and Landscape Management Plan will be prepared for Sangachal Terminal vicinity and will include details of the amount of spoil generated, reused, disposed of and the contamination potential of the spoil. The Plan will also cover details of restoration to restore all areas of disturbed land used on a temporary basis during the SD2 Project works to a condition which is similar to that at preconstruction.

An Ecological and Wildlife Management Plan, and Restoration and Landscape Management Plan will be prepared, and implemented, which defines the activities and actions to be taken to minimise the impact to local wildlife and habitats during the SD2 Project.

Stockpiles of subsoil located within the Sangachal Terminal vicinity will be appropriately shaped and compacted to avoid erosion and sedimentation of nearby open water courses or drains.

Analytical testing will be undertaken on excavated soil, surface or ground water encountered that is potential contaminated, based on visual assessment, at a frequency of 1 sample per 500m<sup>3</sup> to classify the material with regard to re-use and disposal options. Soil and water parameters to be tested and acceptability criteria handling of the soil are defined in the ESIA Appendix 10G.

If category type 2 soil/water is encountered within the Sangachal Terminal property boundary then the soil will either be handled in the same manner as material encountered outside of the Sangachal Terminal property boundary or classified as a waste and managed with existing BP AGT Region management plans and procedures.

Records (to include, analytical results, photographs, coordinates of the location encountered, action taken and quantities of material) of type 2 soil/water encountered will be maintained and reported to the MENR upon completion of the onshore pipeline construction.

Records will be maintained of all landscape management works implemented with the Sangachal Terminal vicinity.

The soil, surface water, groundwater or other materials will be relocated to an area that is of comparable environmental quality and function.

The relocation of the soil, surface water, groundwater or other materials to areas that are of comparable environmental quality and function will be undertaken in a manner that will not degrade the environmental further and will promote the natural degradation of contaminants.

The following details will be recorded in the event category 2 soil/water is encountered: contaminants detected, handling methods adopted to prevent further environmental degradation, location and quantity of contaminated material detected.

BP's and the main construction and installation contractor's procedures and plans will be used to collect and regularly report monitoring data to BP, including the following:

- Data (e.g. waste volumes, types and disposal, complaints received and resolved);
- Activities carried out (e.g. surveys, meetings with communities, site inspections and findings);
- Status of non-conformances identified during inspections;
- Environmental, social and cultural heritage issues arising in the course of the works (e.g. contaminated land discovered, archaeological finds and ecological issues); and site observations and reports, from inspections and incidents such as spill events

#### 9. ECOLOGICAL AND WILDLIFE MANAGEMENT PLAN

#### 9.1 Roles and responsibilities

Overall roles and responsibilities associated within monitoring and management relevant to this plan are provided below.

# 9.1.1 Contractor responsibilities

No contractor-specific responsibilities relating to ecological and wildlife management are included within the plan.

#### 9.1.2 BP responsibilities

With regard to ecological and wildlife management, BP will:

- Review and approve the Wildlife and Landscape Plan including the:
  - Procedures proposed for inspecting vegetation for wildlife prior to removal and the actions to be taken should wildlife be encountered;
  - Reporting requirements and associated proformas;
- Monitor the training provided by the contractor regarding ecological and wildlife management and identification of protected species; and
- Notify the MENR of any injury or mortality to any national or international protected species due to the project activities reported by the contractor.
- Design and implementation of the routine monitoring surveys under the EMP.
   Specific surveys relevant to ecology and wildlife are detailed in Section 9.2.

#### 9.2 Monitoring

A suite of monitoring surveys has been developed under the EMP. The surveys applicable to ecology and wildlife management are as follows:

- Sangachal Bird Survey
- Mammals and Herpetofauna Survey
- Wetland Survey
- Vegetation and Soil Stability

#### 9.3 Ecological and Wildlife Management ESIA Commitments

Table 6 provides a list of the ESIA commitments relevant to Ecological and Wildlife Management.

#### Table 6 Ecological and Wildlife Management ESIA Commitments

#### **SD 2 ESIA Commitments**

Vehicle movements during construction and commissioning activities within Sangachal Terminal vicinity will be restricted to defined access routes and demarcated working areas, unless in the event of an emergency.

Off-road driving will be prohibited during construction and commissioning activities within Sangachal Terminal vicinity, outside of designated areas unless specifically authorised.

A Wildlife Management Plan will be prepared for the duration of construction and commissioning activity works carried out within Sangachal Terminal vicinity.

An Ecological and Wildlife Management Plan will be developed for Sangachal Terminal vicinity and implemented to manage the relocation of any mammals, reptiles or any IUCN or Azerbaijan Red Data Book listed species encountered within the areas affected by the SD2 Project works.

An Ecological and Wildlife Management Plan, and Restoration and Landscape Management Plan will be prepared, and implemented, which defines the activities and actions to be taken to minimise the impact to local wildlife and habitats during the SD2 Project.

A construction corridor will be established along the SD2 Pipeline Corridor route and the perimeter of the corridor will be defined. Works outside this perimeter will be strictly controlled by BP in order to minimise the area of ground disturbed.

Surface soil layer removal and vegetation clearance near to the wetlands, rivers or stream banks will be minimised within the Sangachal Terminal vicinity.

Prior to removal, vegetation will be inspected to detect the presence of wildlife and activities ceased until appropriate action is taken to ensure any wildlife encountered is not harmed within the Sangachal Terminal vicinity.

Areas for laydown of soil or loose construction materials will be identified to minimise impacts to habitats and potential for erosion and sedimentation into watercourses or drains located within the Sangachal Terminal vicinity.

Checks for wildlife will be undertaken prior to backfilling of the onshore pipeline trench. Any reptiles and mammals in the trench will be removed.

BP's and the main construction and installation contractor's procedures and plans will be used to collect and regularly report monitoring data to BP, including the following:

- Data (e.g. waste volumes, types and disposal, complaints received and resolved);
- Activities carried out (e.g. surveys, meetings with communities, site inspections and findings);
- Status of non-conformances identified during inspections;
- Environmental, social and cultural heritage issues arising in the course of the works (e.g. contaminated land discovered, archaeological finds and ecological issues); and
- \* Site observations and reports, from inspections and incidents such as spill events

# 10. COMMUNITY ENGAGEMENT AND NUISANCE MANAGEMENT AND MONITORING PLAN

#### 10.1 Overall roles and responsibilities

SD2 Environment and Social team are responsible for ensuring all ESIA commitments relevant to the contractor are complied with, including reviewing and approving the plans, procedures and methodologies that the contractor submits for approval.

#### 10.1.1 Ambient noise monitoring

A variety of attended and unattended noise surveys will be carried out.

Noise monitoring is undertaken once per year at locations in the Sangachal Terminal vicinity including within local communities. The surveys are completed during both daytime and night-time.

Specific roles and responsibilities for noise monitoring are allocated as follows.

# Surveyor (in country):

- Carrying out (unaided) short term attended monitoring;
- Carrying out (with technical support) long-term unattended monitoring, construction plant monitoring and monitoring for complaints;
- Pro-forma reporting;
- Survey care and calibration management; and
- Local liaison with permitting and security staff, local logistics and planning of surveys.

#### Acoustics Specialist:

- Monitoring plan design and revision;
- Report reviews;
- Input to monthly reporting;
- Technical advice and liaison for contractor noise issues:
- Technical advice and liaison for complaints handling; and
- In country surveys where non-standard, or highly technical or project critical surveys are required.

#### SD2 Environmental and Social team:

- Liaison with:
  - SD2 Project Contractor to obtain description of works underway during noise surveys;
  - Terminal Operations to obtain operations data for period during noise surveys;
- Provision of any noise complaints received by the Terminal/Construction contractor for investigation;
- Liaise with the Site Environmental Advisor and the contractor to confirm reason for any exceedances recorded during noise surveys and actions required to reduce noise; and

Review of survey reporting.

# 10.2 Nearshore and offshore monitoring

A range of nearshore and offshore surveys will be carried out to assess the impact of construction, presence of finger piers and degree of benthic disturbance associated with the installation.

#### 10.2.1 Nearshore and offshore monitoring roles and responsibilities

BP roles and responsibilities are as follows:

- Monitoring scope design;
- Survey and reporting management; and
- Local liaison with permitting and security staff, local logistics and planning of surveys.

#### 10.2.2 Nearshore and offshore monitoring reporting

Survey reports will be prepared by the survey reporting contractor and their preparation managed by the BP team. The results of the surveys, recommendations made and action taken will be included within the relevant final survey report.

The results of the surveys, recommendations made and action taken will be included within the relevant final survey report.

# 10.2.3 Construction vibration monitoring

Vibration monitoring will be carried out to assess vibration levels due to construction works at the SD2 pipeline landfall site in accordance with bespoke trigger levels.

#### 10.2.4 Vibration monitoring roles and responsibilities

Specific roles and responsibilities for vibration monitoring are as follows.

Surveyor (in country):

- Carrying out (unaided) short term attended monitoring;
- Pro-forma reporting;
- Equipment care and calibration management; and
- Local liaison with permitting and security staff, local logistics and planning of surveys.

#### Acoustics Specialist:

- Monitoring plan design and revision;
- Advice, or, if required, attendance, to carry out diagnostic or exception monitoring;
- Report reviews;
- Technical advice and liaison for contractor vibration issues; and
- Technical advice and liaison for exception handling.

#### BP Marine and Subsea Environmental Advisor:

 Liaison with SD2 Project Contractor to obtain description of works underway during vibration surveys;  Provide details of equipment to be used in the landfall area prior to works commencing to the SD2 Environmental and Social Lead. Provide details of any changes to this equipment.

#### Site Safety Lead:

 Instruction to contractor to stop work in the event of unresolved vibration trigger exceedance.

#### SD2 Environmental and Social Lead:

- Review of survey reporting;
- Notify the acoustics specialist of equipment to be used in the landfall area; and
- Instruct mobilisation of cultural heritage specialist to site.

#### 10.2.5 Other relevant monitoring

Other monitoring that is conducted and is broadly relevant to nuisance management includes:

- Ambient Air Quality
- · Groundwater; and
- Surface water.

#### 10.2.6 Action triggers

**Construction work plans:** Quarterly reviews of construction work plans will be completed by BP to identify periods of construction activity likely to trigger noise complaints action monitoring, or periods of unavoidably high noise at sensitive receptors. Such events should be scheduled to minimise the impact at receptors.

**Residential receptors:** The Community Engagement and Nuisance Management Plan (CE&NMP) specifies criteria for determining when action should be taken with regard to different categories of construction noise at residential receptors identified.

**Construction traffic noise:** The CE&NMP sets out the criteria for determining when action should be taken with regard to construction traffic noise at residential receptors.

**Construction plant noise:** Action will be required when a complaint is received. Measurements will be taken by the relevant equipment /activity and the data will be sent to the acoustic specialist to compare the noise levels to those specified in the Code of Practice for Noise and Vibration Control on Construction and Open sites.

### 10.2.7 Reporting

**Construction noise and vibration reporting:** Results of construction noise and vibration monitoring will be provided externally at six-month intervals. More frequent reporting may be completed depending on the construction noise levels recorded and the number and nature of community complaints or concerns raised.

**Marine monitoring reports**: Survey reports will be prepared by the survey reporting contractor. The results of the surveys, recommendations made and action taken will be included within the relevant final survey report.

# 10.3 Community engagement

Community engagement will be led by the AGT Communications and External Affairs (C&EA) throughout the SD2 construction activities; it will focus on the communities in the vicinity of

Sangachal and will include complaints management, consultation meetings and focused engagement associated with specific project activities.

# 10.4 Community engagement and nuisance management and monitoring ESIA Commitments

Table 7 provides a list of the ESIA commitments that are relevant to community engagement and nuisance management and monitoring.

Table 7 Community engagement and nuisance management and monitoring ESIA Commitments

#### **SD 2 ESIA Commitments**

Under normal conditions, work areas will not be lit outside of working hours during onshore construction and commissioning activities unless for safety/security reasons.

Under normal conditions, all areas will not be lit outside of working hours unless for safety/security reasons.

The existing topography in the Pipeline Landfall Area will restrict the potential for light spill to occur to the shoreline and Sangachal Bay. A lighting strategy will be implemented at all locations, which will include measures to minimise light spillage and glare to the residents of local communities.

A lighting strategy will be implemented during onshore construction and commissioning activities, which will include measures to minimise light spillage and glare to the community. Measures will include use of lighting with cowls that can be angled towards the work area and where safe to do so turning off lights when not in use.

Onshore construction plant and vehicles will be modern and well maintained in accordance with written procedures based on the manufacturer's guidelines, applicable industry code, or engineering standards to ensure efficient and reliable operation.

All construction vehicles and mechanical plant equipment operated in the vicinity of Sangachal Terminal will be fitted with effective exhaust silencers.

Noisy plant operated in the vicinity of the Sangachal Terminal will be located as far as possible from sensitive receptors and where appropriate and practical will be located behind barriers (for example, site huts, acoustic partitions etc.) to provide shielding in order to reduce noise levels at sensitive receptors.

Continuous noise emitting machinery located in the vicinity of the Sangachal Terminal will be housed in a suitable acoustic enclosure.

Compressors operated in the vicinity of the Sangachal Terminal will be fitted with properly lined and sealed acoustic covers that are kept closed whenever in use and pneumatic percussive tools will be fitted with mufflers or silencers.

Onsite personnel of the Sangachal Terminal will be trained in how to minimise noise.

When selecting large plant that is used for extended periods within the Sangachal Terminal vicinity, preference will be given to plant that is compliant with EU Noise Directives 2000/14/EC and 2005/88/EC where possible

Where practicable, mains electricity will be used instead of mobile generators as a power source.

Where practicable, rotary drills and bursters actuated by hydraulic, chemical, or electrical power will be used for excavating hard or extrusive material in the Sangachal Terminal vicinity.

A noise monitoring programme will be established prior to and during terminal construction and commissioning and onshore SD2 export pipeline works and the results provided externally.

A noise monitoring programme will be established prior to and during construction works implemented in the vicinity of Sangachal Terminal, as part of the Nuisance Management Plan.

Noise monitoring will be undertaken at community receptors during construction activities implemented in the vicinity of Sangachal Terminal. If noise levels recorded indicate exceedance of the relevant noise limits (65dB Azim Kend, Masiv 3 and Umid and 70 dB Sangachal) the following will be undertaken:

The reason for the non-compliance will be established, where possible;

- Any action taken immediately following the survey will be recorded;
- If necessary recommendations will be made for further actions, which may include:
  - o Further surveys to identify the reason for the non-compliance;
  - Noise control recommendations including, for example:
    - Requirement for equipment maintenance;
    - Selection of alternative equipment; and
    - Screening of equipment.

A Community Engagement and Nuisance Management and Monitoring Plan will be implemented and maintained as a mechanism of communicating with the communities surrounding the Sangachal Terminal (i.e. Sangachal, Azim Kend, Masiv 3 and Umid) and responding to community grievances.

Where possible communities will be warned in advance of any particularly noisy activities to be undertaken within Sangachal Terminal vicinity; when unavoidable, noisy operations will be undertaken during normal daylight working hours.

The main construction and installation contractors will complete work plans detailing forecast activities at an agreed frequency. Should very noisy activities be identified the contractor will (following procedures set out in the relevant Community Engagement and Nuisance Management and Monitoring Plan) liaise with the affected communities warning them that a period of high noise will be experienced and the duration of the activity expected.

Results from noise monitoring surveys implemented in the vicinity of Sangachal Terminal will be provided to nearby communities through the community engagement process that will be managed by the construction contractor.

Prior to construction commencing within the Sangachal Terminal vicinity, a detailed assessment will be undertaken of all plant and vehicles proposed, and the construction programme to specifically identify the activities which result in the highest noise levels and their duration;

The majority of grit blasting and anti-corrosion painting of jacket and pile components will be undertaken in a paint shop with a fume extraction and grit recovery system in place. Grit blasting and anti-corrosion painting of sections which are too large are to be accommodated within a paint shop, will be undertaken within a temporary enclosure.

Marine installation operations will occur within an exclusion zone that will extend for 500m each side of the pipeline corridor. During installation, exclusion buoys will be placed around the lay-barge installation area to indicate that the area is an exclusion zone and to ensure that other vessels do not encroach upon the area of activity. As pipe-laying progresses, the exclusion buoys will be moved along the route.

Vehicle movements during construction and commissioning activities within Sangachal Terminal vicinity will be restricted to defined access routes and demarcated working areas, unless in the event of an emergency.

Off-road driving will be prohibited during construction and commissioning activities within Sangachal Terminal vicinity, outside of designated areas unless specifically authorised

Vehicles will travel during construction and commissioning activities at Sangachal Terminal vicinity at speeds that minimise dust and unpaved roads/tracks and road speeds will be established for different road surfaces.

Speed limits will be adhered to at all times in the Sangachal Terminal vicinity during onshore construction and commissioning activities

Construction activities will be suspended at Sangachal Terminal vicinity if excessive dust arises and measures will be taken to control ground prior to resuming activities.

Loose loads of all construction vehicles entering the construction sites within the site Sangachal Terminal vicinity will be covered

Drivers of onsite construction vehicles operated within the Sangachal Terminal vicinity will be provided with dust management training.

All unsurfaced roads located within the Sangachal Terminal vicinity will be regularly maintained to ensure the surface remains stable and compacted.

All hard standing areas (including paved roads) located within the vicinity of Sangachal Terminal will be regularly inspected to ensure areas are kept clean of dust and mud.

Quantity and duration of spoil exposure will be minimised as far as possible and ground disturbing activities will be sequenced to minimise the area disturbed at one time within the vicinity of Sangachal Terminal.

Dust management and suppression measures will be implemented within the Sangachal Terminal vicinity.

A wheel washing facility will be used at Sangachal Terminal to remove excessive mud from vehicles using unpaved roads, leaving the site and using the public highway

Fish population surveys will be undertaken one year prior to trenching activities, during trenching and once trenching has been completed

Pre and post trenching seabed surveys will be undertaken. Post trenching seabed surveys will be undertaken one and three years after completion of trenching activities. The surveys will include drop down video work to confirm seabed distribution

The frequency of pile driving will be gradually increased to minimise underwater noise impacts to marine species

It is planned to begin piling the jacket pin piles and foundation piles using vibration piling as far as practical prior to using impact piling to minimise underwater noise impacts to marine species

BP's and the main construction and installation contractor's procedures and plans will be used to collect and regularly report monitoring data to BP, including the following:

- Data (e.g. waste volumes, types and disposal, complaints received and resolved);
- Activities carried out (e.g. surveys, meetings with communities, site inspections and findings);
- Status of non-conformances identified during inspections;
- Environmental, social and cultural heritage issues arising in the course of the works (e.g. contaminated land discovered, archaeological finds and ecological issues); and
- Site observations and reports, from inspections and incidents such as spill events

#### 11. STAKEHOLDER ENGAGEMENT PLAN

#### 11.1 Roles and responsibilities

Overall roles and responsibilities associated within monitoring and management relevant to this plan are provided below.

#### 11.1.1 Contractor responsibilities

An overview of the contractor responsibilities relating to stakeholder engagement are as follows:

- The SD2 Construction Contractors will participate, at the request of BP, in BP led external engagement meetings as well as lead their own initiatives, prior to which they will inform BP; and
- The Construction Contractor will prepare a Community Interaction and Social Impact Management Plan, due to the lack of potential community interaction at the ATA and BDJF facility Saipem and Bos Shelf are not required to prepare a community engagement plan.

#### 11.1.2 BP responsibilities

BP's responsibilities, with respect to stakeholder engagement, include:

- Addressing any concerns originating from contractors' activities and related impacts;
- Ensuring that community liaison procedures and practices established by project contractors are adequate to fulfil the requirements of the project;
- Liaising with local communities on all other aspects of the project, including relocation and reinstatement of livelihoods;
- Incorporating all stakeholder engagement activities into the overall project management and environmental and social management systems;
- Developing internal reporting systems to communicate progress and results of stakeholder engagement to the senior management and staff members;
- Ensuring stakeholder engagement principles and processes are understood by all project staff members, contractors and consultants;
- Managing public participation meetings;
- Tracking commitments made during all meetings, through a commitments register;
- Managing BP external messages, including written materials (project brochure, grievance mechanism, social investment programme etc.);
- Coordinating with external consultants and contractors to ensure technical studies are summarised appropriately for all stakeholders;
- Coordinating with staff or external partners responsible for social investment;
- Supporting all project staff that may have interaction with stakeholders, especially those who may become aware of problems with local communities or other stakeholder groups; and
- Addressing and seeking to resolve all community complaints regarding the project.

#### 11.2 Stakeholder engagement programme

# 11.2.1 Initial engagement

The stakeholder engagement programme will be designed with the active participation of the stakeholders themselves. Stakeholders will be engaged in:

- Reviewing the potential impacts and opportunities of the SD2 Project at the local level;
- Agreeing measures to optimise the opportunities presented locally by the project;
- Defining mutually acceptable measures and criteria for the determination of impact mitigation and compensation; and
- Agreeing the process, agenda and timeframe for consultations.

#### 11.2.2 Public consultations

Public consultations will also be held to inform interested parties about progress in project development and the likely nature, scale and significance of expected impacts in the period ahead and the proposed measures for impact prevention and mitigation. The early consultations will identify opportunities to optimize project benefits at the local level and address community concerns and priorities in relation to project implementation.

#### 11.2.3 Construction and operations

The objective of stakeholder engagement during the construction and operations phase is to maintain links with all stakeholders to ensure that impact mitigation is being implemented as planned.

#### 11.3 Monitoring

Performance monitoring will be conducted to:

- Provide a basis for continuous improvement of stakeholder engagement outcomes and in the processes through which those outcomes are achieved;
- Provide information required by Azerbaijani government authorities, stakeholder and community groups to assess project performance against agreed stakeholder engagement objectives and operating standards; and
- Support longer-term relationship building with stakeholders and communities.

#### 11.4 Reporting

An end of Project report will be prepared. The report will review:

- The nature of the consultations and communications activities conducted;
- The levels of stakeholder and community participation;
- The issues discussed and outcomes; and
- The extent to which stakeholder issues, priorities and concerns are reflected in the adoption of corrective actions.

#### 11.5 Stakeholder engagement ESIA Commitments

Table 8 provides a list of the ESIA commitments that are relevant to stakeholder engagement.

#### Table 8 Stakeholder Engagement ESIA Commitments

#### **SD 2 ESIA Commitments**

Construction, Installation and HUC activities

A Community Engagement and Nuisance Management and Monitoring Plan will be implemented and maintained as a mechanism of communicating with the community and responding to community grievances.

Onshore Construction and Commissioning Activities

A Community Engagement and Nuisance Management and Monitoring Plan will be implemented and maintained as a mechanism of communicating with the communities surrounding the Sangachal Terminal (i.e. Sangachal, Azim Kend, Masiv 3 and Umid) and responding to community grievances.

Construction Phase Roles and Responsibilities: Construction Phase ESMS:

To support the ESMMP, environmental and social management plans will be developed by BP to present the SD2 Project environmental and social requirements by subject matter:

- Restoration and Landscape Management Plan
- Waste Management and Minimisation Plan
- Ecological and Wildlife Management Plan
- Pollution Prevention Management Plan
- Community Engagement and nuisance management and monitoring
- Archaeology and Cultural Heritage Management
- Spill Prevention, Response, Notification and Close Out Actions
- Traffic and Transportation Management Plan
- Employee Relations Management Plan

Construction Phase Roles and Responsibilities: Construction Phase ESMS

BP's and the main construction and installation contractor's procedures and plans will be used to collect and regularly report monitoring data to BP, including the following:

- Data (e.g. waste volumes, types and disposal, complaints received and resolved);
- \* Activities carried out (e.g. surveys, meetings with communities, site inspections and findings);
- Status of non-conformances identified during inspections;
- \* Environmental, social and cultural heritage issues arising in the course of the works (e.g. contaminated land discovered, archaeological finds and ecological issues); and
- Site observations and reports, from inspections and incidents such as spill events

A grievance procedure for managing all community complaints related to the recruitment process will be established. All employment-related grievances, including those associated with recruitment processes, will be recorded and reported, along with details of measures taken to resolve concerns raised.

Onshore Construction and Commissioning Activities

All received grievances associated with vehicle movements will be logged and appropriate corrective action determined in accordance with the Transportation and Traffic Management Plan

Pipeline Installation activities

An agreement will be reached with the developer and BP in relation to land access restrictions Construction, Installation and HUC activities

The main construction and installation contractors will complete work plans, detailing forecast activities at an agreed frequency. Should very noisy activities be identified the contractor (following procedures set out in the relevant Community Engagement and Nuisance Management and Monitoring Plan) will liaise with the affected communities warning them that a period of high noise will be experienced and the duration of the activity expected.

Onshore Construction and Commissioning Activities

Where possible communities will be warned in advance of any particularly noisy activities to be undertaken within Sangachal Terminal vicinity; when unavoidable, noisy operations will be undertaken during normal daylight working hours.

Onshore Construction and Commissioning Activities

Results from noise monitoring surveys implemented in the vicinity of Sangachal Terminal will be provided to nearby communities through the community engagement process that will be managed by the construction contractor.

Construction, Installation and HUC activities

Noise monitoring will be undertaken at community receptors during construction activities implemented in the vicinity of Sangachal Terminal. If noise levels recorded indicate exceedance of the relevant noise limits (65dB Azim Kend, Masiv 3 and Umid and 70 dB Sangachal) the following will be undertaken:

- The reason for the non-compliance will be established, where possible
- \* Any action that taken immediately following the survey will be recorded:
- If necessary recommendations will be made for further actions, which may include:
  - $\circ \qquad \text{Further surveys to identify the reason for the non-compliance}; \\$
  - Noise control recommendations including, for example:
    - Requirement for equipment maintenance:
    - Selection of alternative equipment; and
    - Screening of equipment.

#### Onshore Construction and Commissioning Activities

Once approved, oversized and heavy loads will be accompanied by front and back escort vehicles equipped with appropriate warning signage and/or lights as required.

#### Pipeline Installation activities

The following controls will be used to maintain community health and safety during onshore pipeline installation works: Warning signs will be attached to the security fence to inform members of the public about the hazard associated with the works and the presence of deep excavations

Platform & Pipelines Installation, Hook Up and Commissioning.

All working areas along the Right of Way will be clearly marked to ensure the safety of operations and the public.

#### Pipeline Installation activities

The following controls will be used to maintain community health and safety during onshore pipeline installation works: The period of time when the pipeline trench and any other excavated areas are left open will be minimised through the use of careful planning.

Onshore Construction and Commissioning Activities.

Under normal conditions, work areas will not be lit outside of working hours during onshore construction and commissioning activities unless for safety/security reasons.

#### Onshore Construction and Commissioning Activities.

A lighting strategy will be implemented during onshore construction and commissioning activities, which will include measures to minimise light spillage and glare to the community. Measures will include use of lighting with cowls that can be angled towards the work area and where safe to do so turning off lights when not in use.

#### Onshore Construction and Commissioning Activities

To minimise the number of vehicle movements associated with the SD2 Project during onshore construction works at the ST, buses will be used to transport the workforce using the Baku-Salyan Highway

#### Offshore Installation, HUC and Construction activities

A fishing livelihood baseline survey will be undertaken to gather additional information on small-scale fishing activities within Sangachal Bay and the nearshore environment prior to installation works. The survey will identify the location, status and ownership of any fishing gear that may be directly or indirectly impacted from construction works.

#### Offshore Installation, HUC and Construction activities

The results of the survey will be used to determine if a Small-Scale Fishing Management Plan should be prepared that will describe the process used to identify and agree compensation with fisherman who experience economic displacement as a direct result of the SD2 Project.

To reduce the impact associated with changes in community well-being, community engagement activities will be undertaken prior to the operation of the SD2 Project elevated flare, with the aim of providing information about non-routine flaring events to local residents.

Onshore Construction and Commissioning Activities

The Azerbaijan Ministry of Transport and the State Police will be notified in writing before the scheduled movement, and the exact time and date of the movement will be agreed.

#### 12. EMPLOYEE RELATIONS MANAGEMENT PLAN

#### 12.1 Roles and responsibilities

Overall roles and responsibilities associated within monitoring and management relevant to this plan are provided below.

#### 12.1.1 Contractor responsibilities

Contractors will be responsible for the industrial and employee relations of their employees. All contractors will have their own BP-approved Employee Relations Management Plan (ERMP) and Labour Management (LM) policies and procedures to include ESIA commitments listed below as well as:

- Manage their labour relations in a manner consistent with Company Vision and Values, the BP Code of Conduct;
- Ensure policies/procedures and practices are sound, fair and lawful;
- Ensure a workplace that is free of discrimination;
- Develop transparent and fair recruitment and demobilisation processes;
- Ensure consistent and reasonable working and rest hours;
- Develop comprehensive disciplinary and grievance procedures;
- Ensure that adequate staff communications occur between the main construction and installation contractors and their workforce to inform the workforce of project progress and expected completion dates;
- Conduct and report outcomes of regular strategic reviews as part of their risk mitigation process designed to identify potential Labour Management risks to the contract and broader Project;
- Have mechanisms in place which allow monitoring of trends within the workforce;
- Reporting against agreed metrics on a monthly basis;
- Ensure that all Sub-Contractors have standards and practices in place which are sound/fair/lawful and comply with BP's vision and values;
- Advise the BP on:
  - Any potential disruption and proposed plans to manage any such action;
  - Any interest being taken in the project by external parties; and
  - Any form of labour disruption.
- Develop Demobilisation plans;
- Notify BP and competent authorities of any breaches of employment requirements, such as detection of child or forced labour, physical abuse of workers, discrimination, etc.; and
- Ensure that women and men should benefit equally from the employment opportunities that will be created.

#### 12.1.2 BP Responsibilities

BP responsibilities include:

- The ERMP is endorsed, understood and followed;
- Ensure that Contractors' labour management data reporting processes are in place and facilitate the identification of trends and the development of supporting response actions;
- If required Employee relations interventions are agreed and implemented; and
- All relevant stakeholders within and outside the region are engaged whenever this is required.

# 12.1.3 Coordination, Monitoring and Evaluation

The principal means of labour management coordination, monitoring and evaluation will be via the Labour Management Forums (LMF) and Labour Management Committee (LMC). With respect to Agency Personnel, BP will:

- Ensure that a consistent approach is being applied to the management of all Agency Personnel across the Project;
- Ensure that all Agency Personnel are being managed in accordance with and complying with the BP Code of Conduct;
- Monitor the development and promotion of the National workforce in key positions and actively promotes appointment of the high potential staff in to the Company's organisation;
- Ensure consistency and alignment of people-related processes are achieved across the project, e.g. pay adjustments, issues management, demobilization plans.

Site specific Labour Management Forums (LMF) will be established by BP and regular meetings will occur between the BP project site management team and the main construction and installation contractors to discuss workforce welfare and related matters. The role of the LMFs are to undertake:

- A regular review of labour management performance and identify any trends;
- A review of work plans within the site for the next three to six months, discussing labour requirements and potential risks for labour management;
- Review the actions taken to mitigate the identified risks;
- Monitor the implementation of community development programme activities; and
- Discuss the results of statistical monitoring and the content of reports which have been submitted to BP

The LMC will be held quarterly to review the LMF data and identify any labour management initiatives or issues to be implemented consistently across the SD2 projects.

#### 12.1.4 Training and development

The Contractor and its sub-contractors must actively participate in and contribute to training and development programs for their National staff and develop and implement Training Management and Nationalisation Plans.

Main construction and installation contractors will conduct regular audits of its sub-contractors EMRP and Training Management Plan, providing the results of these audits to BP

#### 12.1.5 Monitoring

BP is to ensure the Contractor has a formal grievance procedure, which all employees are familiar with and are required and encouraged to comply with.

Contractors shall furnish to BP a plan which identifies how Contractors intend to manage all forms of industrial disputation. The plan shall include but not be limited to strikes, refusal to work, pickets, bans and limitations, damage to company property.

# 12.2 Reporting

The statistical reporting undertaken by Contractors to BP shall include the following:

- Labour movement into and out of its workforce;
- Employee terminations;
- Government interventions;
- Nationalisation plan KPIs;
- The number of job applications that have been received, accepted for interview and offered/accepted a position broken down by the following: job category, gender, age, the geographical origin of the applicant (the community name) and whether the applicant has any special needs due to a disability or other reason;
- The total percentage of local and non-local employment, broken down for each job category;
- The number of grievances that have been received, the actions taken to resolve the grievance and whether the grievance was resolved within 30 days;
- The number of hours that has been lost due to sickness or other reasons of absence (the reason of absence should be recorded); and
- The number of hours of training and skill development activities that have been received, broken down into each job category and a percentage of the workforce.

#### 12.2.1 Employee relations ESIA commitments

Table 9 provides a list of the ESIA commitments which are relevant.

#### Table 9 Employee relations ESIA Commitments

#### **SD 2 ESIA Commitments**

The main construction and installation contractors (including their sub-contractors) used by BP during the SD2 Project are required to develop and implement their own Employee Relations Management Plan (ERMP) which will include, as a minimum, the following:

- Project labour arrangements including the need to recruit new labour and potential sources of new workers;
- How the contractor will comply with the national requirements of Azerbaijan labour law;
- Details of a grievance mechanism that is available for use by the workforce;
- Training and development activities in the form of a Training Plan;
- Demobilisation and de-manning;
- A nationalisation programme;
- Cultural awareness and language familiarisation; and
- Statistical reporting and monitoring.

Site specific Labour Management Forums (LMF) will be established by BP and regular meetings will occur between the BP project site management team and the main construction and installation contractors to discuss workforce welfare and related matters. The role of the LMFs are to undertake:

- A regular review of labour management performance and identify any trends;
- A review of work plans within the site for the next three to six months, discussing labour requirements and potential risks for labour management;
- Review the actions taken to mitigate the identified risks;
- Monitor the implementation of community development programme activities; and
- Discuss the results of statistical monitoring and the content of reports which have been submitted to

The main construction and installation contractors and their sub-contractors will actively design and implement training and skill development programmes for their national staff.

Main construction and installation contractors will prepare and submit a Training Management Plan to BP on an annual basis which will include details of the training initiatives being undertaken in the next 12 months, and a summary of training activities completed in the past 12 months.

Main construction and installation contractors will conduct regular audits of its subcontractors EMRP and Training Management Plan, providing the results of these audits to BP.

Information will be provided to the local communities by the main construction and installation contractors on the nature and levels of employment required;

- At all times, the individual recruited will be the person who is most suited to the particular post, based on the applicant's abilities, qualification, experience and merit as measured against the job description and person specification;
- Measures will be implemented by the main construction and installation contractors to maximise employment as far as practical from the local communities, to achieve, or improve if practical, the local content percentages achieved for the previous ACG Phases 1-3, SD1 and SD2 EIW Projects;
- Where local employment falls below the local content percentage targets, the reasons for this noncompliance will be investigated by BP and practical measures will be developed to meet the local content percentages targets;
- A grievance procedure for managing all community complaints related to the recruitment process
  will be established. All employment-related grievances, including those associated with recruitment
  processes, will be recorded and reported, along with details of measures taken to resolve concerns
  raised; and
- A formal system of competency assurance will be implemented and records maintained of competency testing and training activities completed, with training certificates provided to workers who are eligible to receive them.

The following workforce monitoring information will be submitted by the main construction and installation contractors to BP on a monthly basis:

- \* The number of job applications that have been received, accepted for interview and offered/accepted a position broken down by the following: job category, gender, age, the geographical origin of the applicant (the community name) and whether the applicant has any special needs due to a disability or other reason;
- \* The total percentage of local and non-local employment, broken down for each job category;
- \* The number of grievances that have been received, the actions taken to resolve the grievance and whether the grievance was resolved within 30 days;
- \* The number of hours that has been lost due to sickness or other reasons of absence (the reason of absence should be recorded); and
- \* The number of hours of training and skill development activities that have been received, broken down into each job category and a percentage of the workforce

# 13. FISHING LIVELIHOODS MANAGEMENT PLAN (FLMP)

#### 13.1 Roles and responsibilities

Overall roles and responsibilities associated within monitoring and management relevant to this plan are provided below.

# 13.1.1 Contractor responsibilities

An overview of the contractor responsibilities relating to fishing livelihoods management are as follows:

- Avoiding and recording any fishing equipment encountered in the marine exclusion zone during marine survey work;
- Removal of fishing assets encountered in the marine exclusion zone, where possible;
- Implementing safety and other mitigation measures relevant to the FLMP;
- Providing regular reports on the implementation of FLMP non-financial restoration measures (if implemented by contractor);
- Directing fishing related grievances; and
- Implementing actions arising as a result of fishing related grievances as directed by the SD2 Environmental and Social Lead.

# 13.1.2 BP Responsibilities

BP's responsibilities, with respect to fishing livelihoods management, include:

- Ultimate responsibility for FLMP development and implementation;
- Liaising with construction contractors to confirm current and upcoming construction activities;
- Communicating any agreed actions arising as a result of fishing related grievances to construction contractors;
- Making key decisions regarding FLMP impact mitigation and compensation measures and their budget implications;
- Making key decisions regarding implementation of agreed corrective actions in project operations, communications and FLMP implementation;
- Oversight of agreed compensation payments and livelihood restoration measures;
- FLMP disclosure:
- Review of ongoing livelihood monitoring reporting, identify deficiencies and manage the implementation of corrective measures; and
- Preparation of quarterly FLMP implementation monitoring reports.

#### 13.1.3 Livelihood restoration plan

**Overview of livelihood restoration plan:** In conformance with BP policy and international best practice, the SD2 Project will offer affected fishermen compensation for loss of income and for loss of assets at full replacement cost and other assistance to help them maintain their incomes and livelihoods.

**Monitoring of livelihood restoration plan:** Ongoing monitoring of affected households' income and living conditions will be undertaken on a quarterly basis.

#### 13.1.4 Monitoring

Monitoring will be conducted on a regular basis to assess the effectiveness of the FLMP implementation. The indicators to be monitored and reported on include:

- Stakeholder engagement indicators;
- Input indicators; and
- Output indicators.
- FLMP grievances;
- · Compensation and livelihood restoration measures implemented; and
- Fishing household members employed by the SD2 Project.

# 13.1.5 Reporting

Implementation reporting: Quarterly monitoring reports will be produced, detailing:

- The number of compensation claims considered and compensation payments made;
- Grievances and how they have been resolved, and the number of Project-affected fishing households;
- Input and output performance indicators; and
- An analysis of the financial status of FLMP implementation, comparing compensation delivered against the budget available to implement the FLMP.

**Livelihoods reporting:** Quarterly monitoring reports will be produced, detailing:

- Statistical analysis of the data collected during the survey; and
- A narrative analysis of the data collected; emerging trends and issues; the effectiveness
  of project communications and compensation processes; and the need for corrective
  action in project operations and/or the FLMP implementation.

**Close out report:** Following completion of the quarterly livelihood surveys, the project will prepare a FLMP close out report.

#### 13.2 Fishing livelihoods ESIA Commitments

Table 10 provides a list of the ESIA commitments that are relevant to the FLMP.

#### Table 10 Fishing livelihoods ESIA Commitments

#### **SD 2 ESIA Commitments**

Fishing livelihood baseline survey will be undertaken to gather additional information on small-scale fishing activities within Sangachal Bay and the nearshore environment prior to installation works. The survey will identify the location, status and ownership of any fishing gear that may be directly or indirectly impacted from construction works.

The results of the survey will be used to determine if a Small-Scale Fishing Management Plan should be prepared that will describe the process used to identify and agree compensation with fishermen who experience economic displacement as a direct result of the SD2 Project