



12 Commitments Register

12 COMMITMENTS REGISTER

12.1 Introduction

INPEX is committed to adopting management controls which will protect the environmental values of the areas in which the Ichthys Gas Field Development Project (the Project) will operate. These management controls are described and discussed in the various chapters of this draft environmental impact statement (Draft EIS), in particular in Chapter 7 *Marine impacts and management*, Chapter 8 *Terrestrial impacts and management*, Chapter 9 *Greenhouse gas management* and Chapter 10 *Socio-economic impacts and management*. They are also discussed in the provisional environmental management plans included as annexes to Chapter 11 *Environmental management program*.

To assist regulatory agencies, stakeholders and INPEX employees and contractors, Table 12-1 of this chapter provides a list of the Project's key environmental commitments. The commitments are listed by the following areas of focus:

- 1 general
- 2 receiving environment monitoring
- 3 alteration of marine habitats
- 4 drilling discharges
- 5 accidental marine hydrocarbon spills
- 6 naturally occurring radioactive materials (NORMs)
- 7 underwater noise and blast emissions
- 8 marine pests
- 9 marine megafauna
- 10 dredging, trenching and associated earthworks
- 11 soil erosion
- 12 acid sulfate soils
- 13 alteration to surface water and groundwater
- 14 vegetation clearing
- 15 alteration of terrestrial habitats
- 16 creation of breeding habitat for biting insects
- 17 introduced species
- 18 bushfire prevention
- 19 dust emissions
- 20 greenhouse gas and air emissions
- 21 onshore spills and leaks
- 22 wastes
- 23 liquid discharges
- 24 social integration

- 25 housing, social infrastructure and services
- 26 onshore traffic
- 27 marine traffic
- 28 heritage
- 29 airborne noise
- 30 visual amenity
- 31 commercial fishing
- 32 public safety
- 33 business opportunities, employment and training
- 34 decommissioning.

For the purposes of describing the environment in which the Project will operate, the development area can be divided into three main components:

- the offshore development area—this consists of the Ichthys Field in the Browse Basin off the north-west coast of Western Australia and its associated infrastructure, together with the gas export pipeline route from the field to the mouth of Darwin Harbour
- the nearshore development area—this consists of the gas export pipeline route from the mouth of Darwin Harbour south through the Harbour to the pipeline shore crossing on the west side of Middle Arm Peninsula; the waters around Blaydin Point in the East Arm where the product loading jetty, the module offloading facility, and the navigation channel will be constructed; and the dredge spoil disposal ground approximately 15 km north of Darwin Harbour
- the onshore development area—this consists of the onshore processing plant at Blaydin Point, the associated administration area and the onshore pipeline corridor from Blaydin Point to the pipeline shore crossing on the west side of Middle Arm Peninsula.

The phases of the Project described for each commitment are indicated in the register. These are design, construction, production drilling, precommissioning, commissioning, operations and decommissioning. In some cases the commitment will be relevant to “all phases” of the Project.

12.2 Key environmental commitments

Table 12-1 presents the key commitments for the Ichthys Gas Field Development Project.

Table 12-1: Key commitments for the Ichthys Gas Field Development Project

No.	Commitment (Action)	Phase(s)	Area	Reference
1	General			
1.1	The Ichthys Project’s Health, Safety and Environmental Management Process will align with the requirements of <i>AS/NZS ISO 14001:2004, Environmental management systems—Requirements with guidance for use</i> and <i>AS/NZS 4801:2001 Occupational health and safety management systems—Specification with guidance for use</i> .	All phases	All areas	Chapter 11, Section 11.2
2	Receiving environment monitoring			
2.1	Wastewater discharge monitoring will be undertaken in the nearshore environment to confirm modelling predictions for wastewater dispersion.	Operations	Nearshore	Chapter 7, Section 7.3.4 Chapter 11, Section 11.4; Annexe 10, Section 4
2.2	A Darwin Harbour water quality monitoring program will be developed and implemented to determine if Project wastewater discharges are adversely impacting on water quality in the Harbour.	Operations	Nearshore	Chapter 7, Section 7.3.4 Chapter 11, Section 11.4; Annexe 10, Section 4
2.3	A marine sediments and bio-indicators monitoring program will be developed to determine if construction activities undertaken in acid sulfate soils have resulted in changes in pH and in the bio-availability of heavy metals in adjacent marine sediments.	Construction	Nearshore Onshore	Chapter 7, Section 7.3.2 Chapter 8, sections 8.2.2 and 8.6 Chapter 11, Section 11.4; Annexe 6, Section 4; Annexe 10, Section 4; Annexe 11, Section 4
2.4	Dredge-plume monitoring will be undertaken within Darwin Harbour and in the waters around the offshore dredge spoil disposal location.	Construction	Nearshore	Chapter 11, Section 11.4; Annexe 6, Section 4
2.5	A Reactive Coral Monitoring Program will be developed for the monitoring of the Channel Island coral community during dredging activities.	Construction	Nearshore	Chapter 7, Section 7.3.2 Chapter 11, Section 11.4; Annexe 6, Section 4
2.6	A coral monitoring program will be developed to document the effect of increased turbidity and sedimentation on corals due to dredging activities.	Construction	Nearshore	Chapter 7, Section 7.3.2 Chapter 11, Section 11.4; Annexe 6, Section 4
2.7	A soft-bottom benthos monitoring program for the offshore spoil disposal ground will be developed to determine the effects of dredge spoil disposal on soft-bottom benthos.	Construction	Nearshore	Chapter 7, Section 7.3.3 Chapter 11, Section 11.4; Annexe 6, Section 4
2.8	A soft-bottom benthos monitoring program will be developed to document the effects of increased suspended sediment loads and sedimentation on soft-bottom benthos communities in zones that could potentially be affected by dredging.	Construction	Nearshore	Chapter 7, Section 7.3.2 Chapter 11, Section 11.4; Annexe 6, Section 4
2.9	An intertidal sedimentation monitoring program will be developed to assess the effects on intertidal ecosystems of sedimentation from dredging.	Prior to construction Construction	Nearshore	Chapter 7, Section 7.3.2 Chapter 11, Section 11.4; Annexe 6, Section 4
2.10	A groundwater quality monitoring program will be developed to determine if activities in the onshore development area adversely impact on groundwater quality.	Operations	Onshore	Chapter 8, sections 8.2.3 and 8.6 Chapter 11, Section 11.4; Annexe 10, Section 4; Annexe 11, Section 4
2.11	Work will be undertaken in collaboration with the SERPENT ¹ project to determine the impacts of production drilling discharges on epibenthic macrofauna in the offshore area.	Production drilling	Offshore	Chapter 11, Section 11.4; Annexe 10, Section 4
2.12	Air-quality monitoring will be undertaken to confirm modelling predictions.	Operations	Onshore	Chapter 8, Section 8.4.3 Chapter 11, Section 11.4

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
2.13	Airborne noise monitoring will be undertaken to confirm modelling predictions.	Construction Operations	Onshore	Chapter 10, Section 10.3.10 Chapter 11, Section 11.4
2.14	A Marine Pests Monitoring Program will be developed for the nearshore development area. This will be developed in consultation with the relevant agencies.	Construction Operations	Nearshore	Chapter 7, Section 7.3.9 Chapter 11, Section 11.4; Annexe 13, Section 4
2.15	A Weed Monitoring Program will be developed to monitor the distribution and abundance of listed weeds species in the onshore development area.	Construction Operations	Onshore	Chapter 8, Section 8.3.4 Chapter 11, Section 11.4; Annexe 15, Section 4
2.16	A Vegetation Rehabilitation Monitoring Program will be developed and periodic surveys of rehabilitated areas will be undertaken to determine the level of success of rehabilitation programs.	Construction Operations	Onshore	Chapter 8, Section 8.3.1 Chapter 11, Section 11.4; Annexe 15, Section 4
2.17	A Mangrove Health Monitoring Program will be developed to assess the potential effects of Project activities on mangrove health.	Construction Operations	Nearshore Onshore	Chapter 8, Section 8.2.3 Chapter 11, Section 11.4; Annexe 10, Section 4
3	Alteration of marine habitats			
3.1	Flowlines and the gas export pipeline will be laid directly on to the seabed, without trenching in most areas, to minimise the disturbance of seabed habitats.	Construction	Offshore	Chapter 7, Section 7.2.1
3.2	Concrete weight coating will be used on the gas export pipeline to reduce the need for rock dumping or trenching in deep offshore waters, and to minimise the disturbance of seabed habitats.	Construction	Offshore	Chapter 7, Section 7.2.1
3.3	Antifouling paints used on offshore and nearshore infrastructure will be selected in accordance with regulatory-authority requirements.	Construction Operations	Offshore Nearshore	Chapter 7, sections 7.2.1, 7.2.3 and 7.3.4
3.4	Anchoring plans and procedures for construction vessels involved in dredging and pipelay activities will be developed to avoid sensitive seabed habitats, in consultation with the Darwin Port Corporation (DPC) and the harbourmaster.	Construction	Nearshore	Chapter 7, Section 7.3.1 Chapter 10, sections 10.3.8 and 10.3.9 Chapter 11, Annexe 6, Section 3.1.2; Annexe 9, sections 3.3 and 4.2
3.5	The dredging vessels will be equipped with appropriate global positioning system (GPS) equipment and other navigational aids to ensure that dredging will occur only in the specified dredge footprint.	Construction	Nearshore	Chapter 7, Section 7.3.1 Chapter 11, Annexe 6, Section 3.1.2
3.6	The central processing facility (CPF) and the floating production, storage and offtake (FPSO) facility will be removed from the infield location at decommissioning.	Decommissioning	Offshore	Chapter 7, Section 7.2.1 Chapter 11, Annexe 5, Section 3.1
4	Drilling discharges			
4.1	Procedural controls for preventing the accidental release of synthetic-based muds (SBMs) will be developed and implemented as part of a separate assessment under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cwth).	Prior to commencement of production drilling	Offshore	Chapter 7, Section 7.2.2 Chapter 11, Annexe 10, Section 3.4
4.2	Water-based muds (WBMs) will be used instead of SBMs in the upper-hole sections of production wells.	Production drilling	Offshore	Chapter 7, Section 7.2.2 Chapter 11, Annexe 10, Section 3.4
4.3	SBMs will be recovered after use and returned onshore for reuse or disposal.	Production drilling	Offshore	Chapter 7, Section 7.2.2 Chapter 11, Annexe 10, Section 3.4
4.4	The percentage by dry weight of SBMs released on drill cuttings will be restricted to 10% or less per well.	Production drilling	Offshore	Chapter 7, Section 7.2.2 Chapter 11, Annexe 10, Section 3.4

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
4.5	The use of cuttings driers or other management options will be investigated to reduce SBMs on cuttings.	Production drilling	Offshore	Chapter 7, Section 7.2.2 Chapter 11, Annexe 10, Section 3.4
5	Accidental marine hydrocarbon spills			
5.1	The Project oil spill contingency plan (OSCP) will be revised prior to the commencement of construction and will be periodically reviewed (and updated as required) through the life of the Project.	All phases	Offshore Nearshore	Chapter 7, sections 7.2.4 and 7.3.5
5.2	As part of its OSCP, INPEX will have the capability to initiate real-time oil-spill fate and trajectory modelling so that any spill can be monitored and responses optimised.	All phases	Offshore Nearshore	Chapter 7, sections 7.2.4 and 7.3.5
5.3	Each component of the infrastructure in the offshore development area, including the gas export pipeline, will be designed to meet the oceanic, climatic and seismic conditions of the area.	Design	Offshore Nearshore	Chapter 7, sections 7.2.4 and 7.3.5
5.4	The FPSO will be constructed with a double-sided hull.	Design	Offshore	Chapter 7, Section 7.2.4
5.5	The design of the CPF and the FPSO will include engineering controls to prevent spills during refuelling, for example by using level devices and locating overflows from tanks and drainage systems appropriately.	Design	Offshore	Chapter 7, Section 7.2.4
5.6	Subsea equipment will be reviewed for potential snagging and dropped-object damage and appropriate measures will be taken as required to reduce risk to as low as reasonably practicable (ALARP).	Design	Offshore	Chapter 7, Section 7.2.4
5.7	In accordance with industry standards, blow-out preventers will be in place for each production well during drilling. They will be capable of withstanding pressures higher than those likely to be encountered.	Production drilling	Offshore	Chapter 7, Section 7.2.4
5.8	Measurement-while-drilling techniques will be in place during drilling operations to measure well paths, true vertical depth, bottom-hole location and orientation of directional drilling systems, and to transmit information to the surface for real-time pore-pressure monitoring.	Production drilling	Offshore	Chapter 7, Section 7.2.4
5.9	A well control manual will be maintained, providing guidance on the response required in the unlikely event of a subsea well failure.	Production drilling	Offshore	Chapter 7, Section 7.2.4
5.10	Stability and protection of the gas export pipeline will be achieved by the most appropriate construction technique, such as the addition of concrete coating, burial of the pipeline below the seabed and, where necessary, the placement of rock berms or armouring over the pipeline.	Design Construction	Offshore Nearshore	Chapter 7, sections 7.2.4 and 7.3.5
5.11	Hydrostatic testing of the gas export pipeline will be undertaken prior to the introduction of hydrocarbons.	Precommissioning	Offshore Nearshore	Chapter 7, Section 7.2.4
5.12	A precautionary zone will be defined and implemented for the gas export pipeline. This will be done in consultation with the regulatory authorities. The zone will be identified on marine navigation charts.	Operations	Offshore Nearshore	Chapter 7, sections 7.2.4 and 7.3.5
5.13	Periodic internal inspections of the gas export pipeline will be undertaken to assess its integrity.	Operations	Offshore Nearshore	Chapter 7, sections 7.2.4 and 7.3.5
5.14	Trading tankers will be subject to vetting procedures that will review the technical, operational and maintenance practices on each tanker prior to it being chartered.	Operations	Offshore Nearshore	Chapter 7, sections 7.2.4 and 7.3.5
5.15	Offloading operations will be monitored by a terminal representative on board the trading tanker.	Operations	Offshore Nearshore	Chapter 7, sections 7.2.4 and 7.3.5

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
5.16	All valves and transfer lines will be checked for integrity before use, and offloading operations will be continuously monitored.	Operations	Offshore	Chapter 7, Section 7.2.4
5.17	A collision detection system will be in place for the CPF and FPSO.	Operations	Offshore	Chapter 7, Section 7.2.4
5.18	Appropriate spill response equipment will be available on the CPF, the FPSO, and the supply and pipelay vessels as well as at the onshore and nearshore facilities. Regular pollution response exercises will be undertaken.	Construction Operations	Offshore Nearshore Onshore	Chapter 7, sections 7.2.4 and 7.3.5
5.19	Visual monitoring of hoses, couplings and the sea surface will be undertaken during refuelling operations.	Construction Operations	Offshore Nearshore	Chapter 7, sections 7.2.4 and 7.3.5
5.20	Radio contact will be maintained between refuelling vessels and the offshore facilities or other vessels when refuelling activities are being undertaken.	Construction Operations	Offshore	Chapter 7, Section 7.2.4
5.21	During product loading, radio contact will be maintained between the support vessel and the jetty, and collision prevention procedures will be implemented.	Operations	Nearshore	Chapter 7, Section 7.3.5
5.22	Dry-break, breakaway couplings or similar technology will be installed and used where practicable during refuelling operations.	Construction Operations	Offshore	Chapter 7, sections 7.2.4
5.23	Maintenance, integrity testing and inspection programs will be undertaken on flowlines and condensate loading hoses.	Operations	Offshore	Chapter 7, Section 7.2.4
5.24	A maintenance and inspection program will be in place for product loading arms.	Operations	Nearshore	Chapter 7, Section 7.3.5
5.25	An emergency shutdown interface will be in place between vessels and the onshore gas plant.	Design Operations	Nearshore Onshore	Chapter 7, Section 7.3.5
5.26	The jetty structure is being designed according to Australian Standard AS 4997:2005, <i>Guidelines for the design of maritime structures</i> (taking cyclones into account). The jetty loading arms will be designed to allow them to be tied down in the event of a cyclone.	Design Operations	Nearshore	Chapter 7, Section 7.3.5
5.27	Approach speeds to the berth will be monitored by a speed-of-approach laser system and the data will be transmitted to the vessel pilot.	Design Operations	Nearshore	Chapter 7, Section 7.3.5
5.28	Sections of the subsea pipeline in Darwin Harbour will be trenched and impact-protected by rock dumping over the trench, to mitigate risks from anchor damage and ship grounding. The extent of the trenching and rock dumping will be dependent on the outcomes of the final quantitative risk assessment (QRA).	Design Construction	Nearshore	Chapter 7, Section 7.3.5 Chapter 10, Section 10.3.14
6	Naturally occurring radioactive materials (NORMs)			
6.1	Process equipment will be designed to restrict the potential for scale formation and scale-inhibition chemicals will be used if required.	Design Operations	Offshore	Chapter 7, Section 7.2.5 Chapter 11, Annexe 16, Section 3.4
6.2	Should scale be found to contain NORMs, a procedure will be developed for their storage and handling requirements. NORMs disposal will be determined on a case-by-case basis and will be discussed with the relevant regulatory authorities. The selected disposal method will minimise the potential for environmental impact.	Operations	Offshore	Chapter 7, Section 7.2.5 Chapter 11, Annexe 16, Section 3.4
7	Underwater noise and blast emissions			
7.1	A cetacean management plan and supporting documentation will be developed and their prescriptions will be implemented.	All phases	Offshore Nearshore	Chapter 7, sections 7.2.6, 7.2.9 and 7.3.10 Chapter 11, Section 11.3; Annexe 4, Section 3

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
7.2	A piledriving and blasting management plan and supporting documentation will be produced and their prescriptions will be implemented.	Construction	Nearshore	Chapter 7, sections 7.3.1 and 7.3.7 Chapter 10, sections 10.3.10 and 10.3.14 Chapter 11, Section 11.3; Annexe 12, Section 3
7.3	Fauna “observation zones” will be designated for areas where vertical seismic profiling (VSP) activities are to be carried out. Procedures for cetacean observation will be developed to ensure that seismic profiling will not be carried out if cetaceans are observed within the observation zones.	Production drilling	Offshore	Chapter 7, Section 7.2.6 Chapter 11, Annexe 4, Section 3.1.1
7.4	A “soft-start” procedure will be implemented for VSP activities, to afford whales or other sensitive marine fauna the opportunity to leave the area before being exposed to the full intensity of underwater noise. This procedure requires the VSP acoustic source to commence at the lowest power setting, gradually increasing in power over a 20-minute period.	Production drilling	Offshore	Chapter 7, Section 7.2.6 Chapter 11, Annexe 4, Section 3.1.1
7.5	Confined blasting methods will be used, with micro-delays between charges to reduce peak pressure levels of each blast in the surrounding waters.	Construction	Nearshore	Chapter 7, Section 7.3.7 Chapter 11, Annexe 12, Section 3.1
7.6	Only the minimum required charge will be used for nearshore blasting operations.	Construction	Nearshore	Chapter 7, Section 7.3.7 Chapter 11, Annexe 12, Section 3.1
7.7	Fauna protection zones will be developed for nearshore blasting. The extent of these zones will be determined once detailed geotechnical investigations have been completed and further information from drill-and-blast contractors has become available.	Construction	Nearshore	Chapter 7, Section 7.3.7 Chapter 11, Annexe 12, Section 3.1
7.8	Trained marine fauna observers on board small vessels will survey fauna protection zones prior to the commencement of blasting. Blasting activities will be suspended if marine megafauna (e.g. cetaceans, dugongs, turtles or crocodiles) are observed to enter the fauna protection zone. Detonations will only occur if the fauna protection zone is observed to be free of marine megafauna for a period of at least 20 minutes.	Construction	Nearshore	Chapter 7, Section 7.3.7 Chapter 11, Annexe 12, Section 3.1
7.9	Marine blasting activities will only be undertaken in daylight hours in benign sea conditions. This will enable observers to detect marine traffic, recreational water-users or large marine animals within the safety exclusion zone and will make it easier to identify the animals.	Construction	Nearshore	Chapter 7, Section 7.3.7 Chapter 10, Section 10.3.14 Chapter 11, Annexe 12, Section 3.1
7.10	The possibility of using passive or active acoustic monitoring to identify submerged marine animals within marine-blasting fauna protection zones will be evaluated. If practicable, these methods are likely to be used to complement vessel-based surveys prior to the commencement of blasting activities.	Construction	Nearshore	Chapter 7, Section 7.3.7 Chapter 11, Annexe 12, Section 3.1
7.11	Should fish be killed as a result of blasting activities and float to the surface of the water, they will be retrieved in order to minimise the possibility of scavenging seabirds and other predators being injured by subsequent blasts	Construction	Nearshore	Chapter 7, Section 7.3.7 Chapter 11, Annexe 12, Section 3.1
7.12	Piledriving activities are planned to be undertaken during daylight hours only. Night-time piledriving would only be required if Project construction activities were to fall significantly behind schedule.	Construction	Nearshore	Chapter 7, Section 7.3.7 Chapter 10, Section 10.3.10 Chapter 11, Annexe 12 Section 3.2

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
7.13	An observation zone with a radius of 100 m will be designated at the commencement of piledriving activities. This area will need to be confirmed as being clear of cetaceans, dugongs, turtles and crocodiles for 10 minutes prior to the start of operations.	Construction	Nearshore	Chapter 7, Section 7.3.7 Chapter 11, Annexe 12 Section 3.2
7.14	Piledriving will commence with a “soft-start” procedure, where activities are gradually scaled up over a 5-minute period. This will provide an opportunity for any sensitive marine fauna to leave the area before being exposed to the full intensity of underwater noise.	Construction	Nearshore	Chapter 7, Section 7.3.7 Chapter 11, Annexe 12 Section 3.2
7.15	A permit-to-work (or similar) system will be implemented to ensure that areas where blasting and piledriving activities are occurring, or will occur, are clearly identified and that management measures are in place prior to work commencing.	Construction	Nearshore	Chapter 7, Section 7.3.7 Chapter 11, Annexe 12, sections 3.1 and 3.2
8	Marine pests			
8.1	Quarantine management plans and supporting documentation will be developed and their prescriptions will be implemented in accordance with the requirements of the Australian Quarantine and Inspection Service (AQIS), the Northern Territory’s Department of Regional Development, Primary Industry, Fisheries and Resources (DRDPIFR), and the DPC.	Construction Operations	Offshore Nearshore Onshore	Chapter 7, sections 7.2.8 and 7.3.9 Chapter 8, Section 8.3.4 Chapter 11, Section 11.3; Annexe 13, Section 3
8.2	INPEX will ensure that vessels engaged in Project activities comply with the biofouling requirements of the regulatory authorities.	Construction Operations	Offshore Nearshore	Chapter 7, sections 7.2.8 and 7.3.9 Chapter 11, Annexe 13, Section 3.2
8.3	Vessels engaged in Project work will be subjected to a biofouling risk assessment which may result in hull inspections or cleaning.	Construction Operations	Offshore Nearshore	Chapter 7, sections 7.2.8 and 7.3.9 Chapter 11, Annexe 13, Section 3.2
8.4	Relevant Project vessels will be required to maintain satisfactory records of antifouling management, hull-cleaning actions and ballast-water exchange.	Construction Operations	Offshore Nearshore	Chapter 7, sections 7.2.8 and 7.3.9 Chapter 11, Annexe 13, Section 5.1
8.5	Opportunistic inspections using remotely operated vehicle (ROV) film footage will be undertaken of submerged surfaces of offshore infrastructure to search for the presence of introduced species.	Operations	Offshore	Chapter 7, Section 7.2.8 Chapter 11, Annexe 13, Section 4
9	Marine megafauna			
9.1	A cetacean management plan and supporting documentation will be developed and their prescriptions will be implemented.	All phases	Offshore Nearshore	Chapter 7, sections 7.2.6, 7.2.9 and 7.3.10 Chapter 11, Section 11.3; Annexe 4, Section 3
9.2	Procedures for avoiding interactions between cetaceans and vessels or helicopters will be developed and implemented.	All phases	Offshore Nearshore	Chapter 7, sections 7.2.6, 7.2.9 and 7.3.10 Chapter 11, Annexe 4, Section 3.1.2
9.3	A range of options for reducing the risks of marine fauna entrainment by trailing suction hopper dredgers will be explored in consultation with the dredging contractor. Practicable options that could be effective in reducing risks will be incorporated as management controls into the final dredging management plan.	Construction	Nearshore	Chapter 7, section 7.3.10 Chapter 11, Annexe 6, Section 3.1.1
10	Dredging, trenching and associated earthworks			
10.1	A dredging and dredge spoil disposal management plan and supporting documentation will be developed and their prescriptions will be implemented.	Construction	Nearshore	Chapter 7, sections 7.3.1, 7.3.2 and 7.3.3 Chapter 11, Section 11.3; Annexe 6, Section 3

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
10.2	If mangrove tree deaths result because of sedimentation from the dredging program (and are not attributable to natural causes or activities external to the Project), rehabilitation of the affected areas will be undertaken after the completion of dredging activities through a combination of natural recruitment, facilitated natural recruitment and active planting.	Construction	Nearshore	Chapter 7, Section 7.3.2 Chapter 11, Annexe 6, Section 4.3.2
10.3	Periodic inspections will be conducted in East Arm, where sediment accumulation could potentially impact upon the operability of infrastructure such as the East Arm Wharf berths, the Hudson Creek export facilities, and the East Arm boat ramp. Any unacceptable levels of sediment accumulation that occur in these areas will be removed at the end of the dredging program, or earlier if the operability of these facilities is affected.	Construction	Nearshore	Chapter 10, Section 10.3.5 Chapter 11, Annexe 6, Section 4.2.2
10.4	INPEX will undertake periodic bathymetric surveys of the spoil disposal ground outside Darwin Harbour to confirm sediment deposition depths and patterns.	Construction	Nearshore	Chapter 7, Section 7.3.3 Chapter 10, Section 10.3.5 Chapter 11, Annexe 6, Section 4.2.1
10.5	The final dredging program will be designed so that any changes to the current dredging methodology will not result in significant changes to the predicted environmental and social impacts described in this Draft EIS.	Design Construction	Nearshore	Chapter 4, Section 4.4.3
11	Soil erosion			
11.1	A vegetation clearing, earthworks and rehabilitation management plan and supporting documentation will be produced and their prescriptions will be implemented.	Construction Operations	Onshore	Chapter 8, sections 8.2.1, 8.3.1, 8.3.2 and 8.3.4 Chapter 11, Section 11.3; Annexe 15, Section 3
11.2	A liquid discharges, surface water runoff and drainage management plan and supporting documentation will be produced and their prescriptions will be implemented.	Construction Operations	Offshore Onshore	Chapter 8, sections 8.2.1 and 8.2.3 Chapter 11, Section 11.3; Annexe 10, Section 3
11.3	Surface-water drains and discharge points throughout the onshore development area will be designed to minimise erosion.	Design	Onshore	Chapter 8, Section 8.2.1 Chapter 11, Annexe 10, Section 3.1
11.4	Erosion protection infrastructure (e.g. silt fencing, contouring, and sediment ponds) will be installed to ensure that sediment is contained within the onshore development area as far as is practicable.	Construction	Onshore	Chapter 8, Section 8.2.1 Chapter 11, Annexe 10, Section 3.5
11.5	If soil erosion is evident, exposed surfaces at the affected area will be stabilised with mulched vegetation, dust suppressants or slope-stabilisation products.	Construction	Onshore	Chapter 8, Section 8.2.1 Chapter 11, Annexe 10, Section 3.5
11.6	Large-scale vegetation clearing and earthworks will preferentially be undertaken in dry-season conditions. Should clearing and earthworks be required to be undertaken during the wet season, adequate erosion and sedimentation control measures will be implemented to avoid any possible impacts.	Construction	Onshore Nearshore	Chapter 8, Section 8.2.1 Chapter 11, Annexe 10, Section 3.5; Annexe 15, Section 3.3
12	Acid sulfate soils			
12.1	An acid sulfate soil (ASS) management plan and supporting documentation will be developed and their prescriptions will be implemented.	Construction	Onshore Nearshore	Chapter 8, Section 8.2.2 Chapter 11, Section 11.3; Annexe 1, Section 3
12.2	Onshore facilities will be designed to minimise excavation of ASSs.	Design	Onshore Nearshore	Chapter 8, Section 8.2.2 Chapter 11, Annexe 1, Section 3.1

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
12.3	If excavation of ASS is unavoidable, further testing to determine management and disposal options will be undertaken. Disposal options for ASSs include dumping at an offshore disposal ground; treatment of the ASSs with neutralising agents and reuse of the treated ASS as fill material; or treatment of the ASSs with neutralising agents followed by disposal of the treated ASS material off site.	Design Construction	Onshore Nearshore	Chapter 8, Section 8.2.2 Chapter 11, Annexe 1, Section 3.2
13	Alteration to surface water and groundwater			
13.1	A liquid discharges, surface water runoff and drainage management plan and supporting documentation will be produced and their prescriptions will be implemented.	Construction Operations	Onshore	Chapter 8, sections 8.2.1 and 8.2.3 Chapter 11, Section 11.3; Annexe 10, Section 3
13.2	Culverts will be installed to maintain natural tidal flows underneath the causeway between Blaydin Point and Middle Arm Peninsula.	Construction Operations	Onshore	Chapter 8, Section 8.2.3 Chapter 11, Annexe 10, Section 3.1
13.3	Numerous surface water drains will be constructed around the perimeter of the onshore development area, which, where applicable, will distribute fresh water to mangrove areas.	Design Construction Operations	Onshore	Chapter 8, Section 8.2.3 Chapter 11, Annexe 10, Section 3.1
13.4	Some areas on Blaydin Point will remain uncleared or unsealed, which will allow for some groundwater recharge by rainfall.	Design Construction Operations	Onshore	Chapter 8, Section 8.2.3 Chapter 11, Annexe 10, Section 3.1
14	Vegetation clearing			
14.1	A vegetation clearing, earthworks and rehabilitation management plan and supporting documentation will be produced and their prescriptions will be implemented.	Construction Operations	Onshore	Chapter 8, sections 8.2.1, 8.3.1, 8.3.2 and 8.3.4 Chapter 11, Section 11.3; Annexe 15, Section 3
14.2	Areas to be cleared will be clearly identified prior to work commencing. Clearing boundaries will be marked in the field and on site plans, and a register of clearing activities will be maintained.	Construction	Onshore	Chapter 8, Section 8.3.1 Chapter 11, Annexe 15, sections 3.3 and 5.2
14.3	The vegetation-clearing footprint for the onshore development area will be minimised during the design of the onshore facilities, subject to constructibility and safety operating requirements.	Design	Onshore	Chapter 8, Section 8.3.1 Chapter 11, Annexe 15, Section 3.1
14.4	All disturbance, including personnel and vehicle movement, will be contained within the designated onshore development area to avoid impacts to surrounding vegetation. Some additional clearances may be required around the perimeter of the site to allow for appropriate firebreaks.	Construction Operations	Onshore	Chapter 8, Section 8.3.1 Chapter 11, Annexe 15, Section 3.3
14.5	Temporarily disturbed areas such as those in the vicinity of the pipeline shore crossing and the onshore pipeline corridor, as well as areas around the plant that do not need to remain cleared, will be rehabilitated following the completion of construction activities.	Construction Operations	Onshore	Chapter 8, Section 8.3.1 Chapter 11, Annexe 15, Section 3.3
14.6	Some topsoil will be stockpiled from cleared areas for future use in rehabilitation.	Construction	Onshore	Chapter 8, Section 8.3.1 Chapter 11, Annexe 15, Section 3.3
14.7	Cleared vegetation will be mulched and stockpiled on site boundaries. Where possible, the mulch will be used both for rehabilitation and for soil stabilisation to prevent erosion. Cleared vegetation that cannot be reused will be disposed of off site. No stockpiled vegetation will be burned.	Construction	Onshore	Chapter 8, Section 8.3.1 Chapter 11, Annexe 15, Section 3.3

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
15	Alteration of terrestrial habitats			
15.1	A vegetation clearing, earthworks and rehabilitation management plan and supporting documentation will be produced and their prescriptions will be implemented.	Construction Operations	Onshore	Chapter 8, sections 8.2.1, 8.3.1, 8.3.2 and 8.3.4 Chapter 11, Section 11.3; Annexe 15, Section 3
15.2	Major clearing activities will be undertaken in such a manner as to allow animals to move into remaining surrounding vegetation.	Construction	Onshore	Chapter 8, Section 8.3.2 Chapter 11, Annexe 15, Section 3.3
15.3	“High-risk” entrapment areas (e.g. deep trenches or pits) will be constructed with sloping egress ramps to allow trapped animals to escape. Targeted inspections will be undertaken of these areas and any animals which have been unable to escape will be removed and released.	Construction	Onshore	Chapter 8, Section 8.3.2 Chapter 11, Annexe 15, Section 3.3
16	Creation of breeding habitat for biting insects			
16.1	Natural drainage will be maintained around roads by installing drains and/or culverts, particularly in intertidal areas such as the causeway between Blaydin Point and Middle Arm Peninsula.	Design Construction Operations	Onshore	Chapter 8, Section 8.3.3 Chapter 11, Annexe 10, Section 3.1
16.2	Surface water drainage channels throughout the onshore development area will be designed to minimise the creation of breeding habitat for biting insects. Drains will be kept free of vegetation.	Design Construction Operations	Onshore	Chapter 8, Section 8.3.3 Chapter 11, Annexe 10, sections 3.1 and 3.7
16.3	Regular inspections will be carried out for mosquito larvae in high-risk areas and controls will be implemented as required.	Construction Operations	Onshore	Chapter 8, Section 8.3.3 Chapter 11, Annexe 10, Section 4
16.4	Temporary sedimentation systems will be designed to minimise their potential to become breeding habitat for biting insects.	Design Construction	Onshore	Chapter 8, Section 8.3.3 Chapter 11, Annexe 10, Section 3.1
17	Introduced species			
17.1	Quarantine management plans and supporting documentation will be developed and their prescriptions will be implemented in accordance with AQIS, DRDPIFR and DPC requirements.	Construction Operations	Offshore Nearshore Onshore	Chapter 7, sections 7.2.8 and 7.3.9 Chapter 8, Section 8.3.4 Chapter 11, Section 11.3; Annexe 13, Section 3
17.2	A vegetation clearing, earthworks and rehabilitation management plan and supporting documentation will be produced and their prescriptions will be implemented.	Construction Operations	Onshore	Chapter 8, sections 8.2.1, 8.3.1, 8.3.2 and 8.3.4 Chapter 11, Section 11.3; Annexe 15, Section 3
17.3	Topsoil containing high densities of weed seeds will not be used in rehabilitation.	Construction	Onshore	Chapter 8, Section 8.3.4 Chapter 11, Annexe 15, Section 3.3
17.4	Infestations of listed weeds will be controlled in the onshore development area and along the access road from Wickham Point Road.	Construction Operations	Onshore	Chapter 8, Section 8.3.4 Chapter 11, Annexe 15, Section 3.2
17.5	Machinery used for earthmoving and vegetation-clearing will be cleaned and inspected prior to commencement of work at the onshore development area to identify any attached material that should be removed for quarantine reasons.	Construction	Onshore	Chapter 8, Section 8.3.4 Chapter 11, Annexe 13, Section 3.3
17.6	A temporary washdown area for earthmoving and vegetation-clearing vehicles will be built for the construction phase.	Construction	Onshore	Chapter 8, Section 8.3.4 Chapter 11, Annexe 13, Section 3.1

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
17.7	A temporary dedicated “quarantine-approved premises” (QAP) area will be provided for on Blaydin Point during the construction phase. The QAP will be designed to meet AQIS requirements.	Construction	Onshore	Chapter 8, Section 8.3.4 Chapter 11, Annexe 13, sections 3.1 and 3.3
17.8	Inspections of incoming vessels and modules will be undertaken in accordance with AQIS standards.	Construction Operations	Onshore	Chapter 8, Section 8.3.4 Chapter 11, Annexe 13, Section 3.2
18	Bushfire prevention			
18.1	A bushfire prevention management plan and supporting documentation will be produced and their prescriptions will be implemented.	Construction Operations	Onshore	Chapter 8, Section 8.3.5 Chapter 11, Section 11.3; Annexe 3, Section 3
18.2	Firebreaks will be established around Project infrastructure which borders woodlands. Advice will be sought from the Northern Territory’s Bushfires Council on firebreak requirements for Blaydin Point.	Construction Operations	Onshore	Chapter 8, Section 8.3.5 Chapter 11, Annexe 3, Section 3.2
18.3	A firefighting capability will be available and strategically located firefighting stations will be established at the onshore Project site.	Construction Operations	Onshore	Chapter 8, Section 8.3.5 Chapter 10, Section 10.3.3 Chapter 11, Annexe 3, Section 3.2
18.4	Firefighting equipment will be available on site at all times, along with accessible supplies of water.	Construction Operations	Onshore	Chapter 8, Section 8.3.5 Chapter 11, Annexe 3, sections 3.1, 3.2 and 3.3
18.5	Grassy vegetation in the onshore development footprint will be controlled to reduce available fuel loads and prevent wildfire. Control methods may include slashing and spraying.	Construction Operations	Onshore	Chapter 8, Section 8.3.5 Chapter 11, Annexe 3, Section 3.2
18.6	Cleared vegetation will be stockpiled in designated areas, away from potential ignition sources.	Construction	Onshore	Chapter 8, Section 8.3.5 Chapter 11, Annexe 3, Section 3.3
18.7	An internal “hot work” permit system will be implemented for cutting, welding and any other work considered to have a high potential to start a fire.	Construction Operations	Onshore	Chapter 8, Section 8.3.5 Chapter 11, Annexe 3, Section 3.2
18.8	Designated smoking areas will be established for all phases of the Project and receptacles for cigarette butts will be provided.	All phases	Onshore	Chapter 8, Section 8.3.5 Chapter 11, Annexe 3, Section 3.2
19	Dust emissions			
19.1	A dust management plan and supporting documentation will be produced and their prescriptions will be implemented.	Construction	Onshore	Chapter 8, Section 8.4.2 Chapter 11, Section 11.3; Annexe 7, Section 3
19.2	Monitoring of dust generation and the effectiveness of management controls will be regularly undertaken.	Construction	Onshore	Chapter 8, Section 8.4.2 Chapter 11, Annexe 7, Section 4
19.3	Dust suppression techniques will be applied where necessary to protect vegetation health, worker health and amenity. This may include spraying from water trucks, irrigation, or stabilisation and revegetation of cleared areas that are no longer needed as soon as practicable during construction.	Construction Operations	Onshore	Chapter 8, Section 8.4.2 Chapter 10, Section 10.3.11 Chapter 11, Annexe 7, Section 3.2
19.4	On-site roads required for the operations phase will be sealed during the construction phase.	Construction	Onshore	Chapter 8, Section 8.4.2 Chapter 10, Section 10.3.11 Chapter 11, Annexe 7, Section 3.1

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
19.5	Multiple handling of soil or rock materials will be minimised.	Construction	Onshore	Chapter 8, Section 8.4.2 Chapter 11, Annexe 7, Section 3.2
19.6	Loads in all trucks transporting soil, aggregate or other dust-generating materials to and from the onshore development area will be wetted down to reduce dust.	Construction	Onshore	Chapter 8, Section 8.4.2 Chapter 11, Annexe 7, Section 3.2
20	Greenhouse gas and air emissions			
20.1	An air emissions management plan and supporting documentation will be produced and their prescriptions will be implemented.	Operations	Onshore	Chapter 8, Section 8.4.3 Chapter 11, Section 11.3; Annexe 2, Section 3
20.2	A detailed greenhouse gas management plan and supporting documentation will be produced and their prescriptions will be implemented prior to commissioning.	Commissioning Operations	Onshore Offshore	Chapter 9, Section 9.5 Chapter 11, Annexe 8, Section 3
20.3	A commissioning plan will be developed to minimise and manage flaring during the commissioning phase.	Precommissioning	Onshore Offshore	Chapter 8, Section 8.4.3 Chapter 11, Annexe 2, Section 3.2
20.4	Greenhouse gas management offset targets will be defined once there is greater certainty in the legal and legislative framework around the Commonwealth Government's Carbon Pollution Reduction Scheme and once the technical and economic risks associated with offset options are assessed.	Prior to commissioning	Onshore Offshore	Chapter 11, Annexe 8, Section 2
20.5	Open-cycle gas turbines will be designed to achieve a low-NO _x (low nitrogen oxides) outcome.	Design	Onshore	Chapter 8, Section 8.4.3 Chapter 11, Annexe 2, Section 3.1
20.6	Residual hydrocarbons and hydrogen sulfide (H ₂ S) will be removed from the emission stream by acid gas removal unit (AGRU) incinerators. In the unlikely event that the AGRU incinerators are shut down, exhaust gases (including H ₂ S and residual hydrocarbons) will be hot-vented through gas turbine exhaust stacks to facilitate the safe dispersion of gases.	Design	Onshore	Chapter 8, Section 8.4.3 Chapter 11, Annexe 2, Section 3.1
20.7	Easily accessible sampling points will be provided on major emission points such as turbines and AGRU exhausts.	Design	Onshore	Chapter 8, Section 8.4.3 Chapter 11, Annexe 2, Section 3.1
20.8	Valves will be installed in the process system to allow for inventory isolation.	Design	Onshore Offshore	Chapter 8, Section 8.4.3 Chapter 11, Annexe 2, Section 3.1
20.9	Process monitoring systems and alarms will be installed to monitor flaring events and process upsets.	Design	Onshore Offshore	Chapter 8, Section 8.4.3 Chapter 9, Section 9.9.1 Chapter 11, Annexe 2, Section 3.1; Annexe 8, Section 3.1
20.10	Dry gas seals will be used on the main refrigerant compressors.	Design	Onshore Offshore	Chapter 8, Section 8.4.3 Chapter 11, Annexe 2, Section 3.1; Annexe 8, Section 3.1
20.11	Waste-heat recovery units or heat-recovery steam generators will be installed wherever waste heat can be economically utilised.	Design	Onshore Offshore	Chapter 8, Section 8.4.3 Chapter 9, Section 9.9.1 Chapter 11, Annexe 2, Section 3.1; Annexe 8, Section 3.1

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
20.12	Boil-off gas from liquefied natural gas (LNG) storage tanks and LNG offtake tanker loading operations will be recovered by boil-off gas recompression systems and directed to the fuel-gas supply.	Design	Onshore	Chapter 8, Section 8.4.3 Chapter 9, Section 9.8.1 Chapter 11, Annexe 2, Section 3.1
20.13	Boil-off gas from butane and propane storage tanks will be recovered by butane and propane recovery systems.	Design	Onshore	Chapter 8, Section 8.4.3 Chapter 11, Annexe 2, Section 3.1
20.14	The ground and tankage flares will be designed to minimise the generation of particulates (smoke).	Design	Onshore	Chapter 8, Section 8.4.3 Chapter 10, Section 10.3.11 Chapter 11, Annexe 2, Section 3.1
20.15	The condensate storage tanks will be fitted with floating roofs.	Design	Onshore	Chapter 8, Section 8.4.3 Chapter 11, Annexe 2, Section 3.1
20.16	Consideration will be given to installing flare-gas recovery on all offshore flare systems.	Design	Offshore	Chapter 9, Section 9.9.1 Chapter 11, Annexe 8, Section 3.1
20.17	Selection of turbines will be based both on the Project's power requirements and on their operating efficiencies in high ambient temperatures.	Design	Onshore Offshore	Chapter 9, Section 9.9.1 Chapter 11, Annexe 8, Section 3.1
20.18	Combined-cycle gas turbines will be investigated as an alternative to open-cycle gas turbines for power generation.	Design	Onshore	Chapter 9, Section 9.9.1 Chapter 11, Annexe 8, Section 3.1
20.19	The base case is to use aeroderivative turbines for all offshore applications.	Design	Offshore	Chapter 9, Section 9.9.1 Chapter 11, Annexe 8, Section 3.1
20.20	Recovery of cargo tank vapours is being considered.	Design	Offshore	Chapter 9, Section 9.9.1 Chapter 11, Annexe 8, Section 3.1
21	Onshore spills and leaks			
21.1	An onshore spill prevention and response management plan and supporting documentation will be produced and their prescriptions will be implemented.	Construction Operations	Onshore	Chapter 8, Section 8.6 Chapter 11, Section 11.3; Annexe 11, Section 3
21.2	Onshore facilities will be designed and constructed in such a way that spills and leaks can be constrained or isolated, particularly in areas where there is an elevated risk of spill.	Design Operations	Onshore	Chapter 8, Section 8.6 Chapter 11, Annexe 11, Section 3.1
21.3	Material safety data sheets (MSDSs) will be available on the facilities to aid in the identification of appropriate spill clean-up and disposal methods.	Construction Operations	Onshore	Chapter 8, Section 8.6 Chapter 11, Annexe 11, Section 3.2; Annexe 16, Section 3.2
21.4	Chemicals and hazardous substances used during all phases of the Project will be selected and managed to minimise the potential adverse environmental impact associated with their transport, transfer, storage, use and disposal.	Construction Operations	Onshore	Chapter 7, sections 7.2.5 and 7.3.6 Chapter 8, sections 8.5.2 and 8.6 Chapter 11, Annexe 11, Section 3.2; Annexe 16, Section 3.2
21.5	Spill response materials and equipment (including personal protective equipment) will be available during all phases and will contain equipment to combat both chemical and hydrocarbon spills.	Construction Operations	Onshore	Chapter 8, Section 8.6 Chapter 11, Annexe 11, Section 3.2

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
21.6	Personnel who routinely handle hazardous materials or wastes (e.g. refuelling personnel, pump operators, mechanics, and stores personnel) will receive training in handling, transporting and storing hazardous materials or wastes; in reporting and documentation requirements; and in spill clean-up techniques and practices.	Construction Operations	Onshore	Chapter 8, Section 8.6 Chapter 11, Annexe 11, Section 3.2
21.7	During construction of the onshore facilities, appropriate temporary containment facilities will be utilised for the storage of chemicals, fuel and hazardous waste until permanent infrastructure is in place.	Construction	Onshore	Chapter 8, Section 8.6 Chapter 11, Annexe 11, Section 3.3
22	Wastes			
22.1	A waste management plan and supporting documentation will be developed and their prescriptions will be implemented.	All phases	Offshore Nearshore Onshore	Chapter 7, sections 7.2.5 and 7.3.6 Chapter 8, sections 8.5.1 and 8.5.2 Chapter 11, Section 11.3; Annexe 16, Section 3
22.2	Waste minimisation will be included in the tendering and contracting process.	Construction	Offshore Nearshore Onshore	Chapter 7, sections 7.2.5 and 7.3.6 Chapter 8, Section 8.5.1 Chapter 11, Annexe 16, Section 3.2
22.3	Sufficient space will be provided on the FPSO and CPF and at the onshore facility to allow for the segregation and storage of wastes.	Design	Offshore Onshore	Chapter 7, Section 7.2.5 Chapter 8, Section 8.5.1 Chapter 11, Annexe 16, Section 3.1
22.4	Chemicals and hazardous substances used during all phases of the Project will be selected and managed to minimise the potential adverse environmental impact associated with their disposal.	All phases	Offshore Nearshore Onshore	Chapter 7, sections 7.2.5 and 7.3.6 Chapter 8, sections 8.5.2 and 8.6 Chapter 11, Annexe 11, Section 3.2; Annexe 16, Section 3.2
22.5	During the early construction phase, appropriate temporary containment facilities will be available for storing waste until permanent infrastructure is in place.	Construction	Onshore	Chapter 8, Section 8.5.1 Chapter 11, Annexe 16, Section 3.3
22.6	All solid-waste receptacles (e.g. skips and bins) will have covers and be fit for purpose and in good condition. This will prevent scavenging animals from gaining access to putrescible wastes.	Construction Commis- sioning Operations	Onshore	Chapter 8, sections 8.3.2, 8.3.4 and 8.5.1 Chapter 11, Annexe 16, Section 3.2
22.7	All hazardous liquid wastes will be stored over a bund in leakproof sealed containers.	All phases	Onshore	Chapter 8, Section 8.5.2 Chapter 11, Annexe 16, Section 3.2
22.8	Only approved and licensed waste contractors will be engaged for waste disposal.	All phases	Onshore	Chapter 7, sections 7.2.5 and 7.3.6 Chapter 8, Section 8.5.1 Chapter 11, Annexe 16, Section 3.2
22.9	Waste will be stored in the designated waste stations and appropriately segregated into hazardous waste and non-hazardous waste, and, where possible, into recyclable or reusable hazardous waste and recyclable or reusable non-hazardous waste. In the event of the discovery of any unidentified wastes, these will be treated as hazardous waste and stored accordingly.	All phases	Onshore Offshore	Chapter 7, Section 7.2.5 Chapter 11, Annexe 16, Section 3.2

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
22.10	A baseline calculation of annual waste volumes will be undertaken in the first year of full steady operations (both LNG trains) and total waste reduction targets will be identified for subsequent years.	Operations	Offshore Onshore	Chapter 11, Annexe 16, Section 2
22.11	Non-hazardous solid wastes (with the exception of food scraps) and hazardous wastes will be retained on board vessels and offshore facilities, and transported to the mainland for disposal.	All phases	Offshore	Chapter 7, Section 7.2.5 Chapter 11, Annexe 16, Section 3.2
22.12	In the offshore environment, food scraps from construction, supply and supporting vessels will be disposed of in accordance with the requirements of the <i>Protection of the Sea (Prevention of Pollution from Ships) Act 1983</i> (Cwlth).	All phases	Offshore	Chapter 7, Section 7.2.5 Chapter 11, Annexe 16, Section 3.2
22.13	The amount of sands and sludge disposed of overboard will be kept to a minimum and will only be so disposed of with the approval of the relevant regulatory authorities.	Operations	Offshore	Chapter 7, Section 7.2.5 Chapter 11, Annexe 16, Section 3.4
22.14	In the offshore environment, food scraps from the FPSO and CPF will be disposed of in accordance with the requirements of Clause 222 of the Petroleum (Submerged Lands) Acts Schedule: Specific Requirements as to Offshore Petroleum Exploration and Production (2005).	Operations	Offshore	Chapter 7, Section 7.2.5 Chapter 11, Annexe 16, Section 3.2
22.15	All hazardous and non-hazardous solid wastes generated in the nearshore development area, including food scraps, will be retained on board vessels and transported to onshore facilities for disposal in accordance with the <i>Marine Pollution Act</i> (NT).	All phases	Nearshore	Chapter 7, Section 7.3.6 Chapter 11, Annexe 16, Section 3.2
23	Liquid discharges			
23.1	A liquid discharges, surface water runoff and drainage management plan and supporting documentation will be produced and their prescriptions will be implemented.	All phases	Nearshore Onshore	Chapter 7, sections 7.2.3 and 7.3.4 Chapter 8, Section 8.6 Chapter 11, Section 11.3; Annexe 10, Section 3
23.2	Liquid discharge monitoring of the combined outfall on the product loading jetty will be undertaken to confirm modelling predictions and to periodically monitor levels of pollutants in the combined outfall.	Commissioning Operations	Nearshore Onshore	Chapter 11, Annexe 10, Section 4
23.3	Hydrodynamic modelling of hydrotest water plumes from the gas export pipeline will be undertaken prior to the commissioning phase, to predict the dispersion of pollutants into the offshore marine environment.	Precommissioning	Offshore	Chapter 7, Section 7.2.3 Chapter 11, Annexe 10, Section 3.6
23.4	Hydrotest management plans and supporting documentation will be developed prior to precommissioning for approval under the relevant legislation.	Precommissioning	Offshore Nearshore	Chapter 7, sections 7.2.3 and 7.3.4 Chapter 11, Annexe 10, Section 3.6
23.5	A chemical selection process will be developed and will include consideration of the potential for ecotoxicity.	All phases	Offshore Nearshore Onshore	Chapter 7, sections 7.2.3 and 7.3.4 Chapter 11, Annexe 10, Section 3.6
23.6	Process modules will be precommissioned off site, if practicable, to minimise the discharge of hydrotest water.	Precommissioning	Offshore Nearshore	Chapter 7, sections 7.2.3 and 7.3.4 Chapter 11, Annexe 10, Section 3.6
23.7	During dewatering of the gas export pipeline, treated water will be discharged at the offshore facility.	Precommissioning	Offshore	Chapter 7, Section 7.2.3 Chapter 11, Annexe 10, Section 3.6

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
23.8	Wellhead valves will be designed to minimise the volumes of subsea control fluids released.	Design	Offshore	Chapter 7, Section 7.2.3 Chapter 11, Annexe 10, Section 3.1
23.9	Water-soluble, low-toxicity hydraulic fluids will be selected to control open-loop subsea control valves.	Commissioning Operations	Offshore	Chapter 7, Section 7.2.3 Chapter 11, Annexe 10, Section 3.2
23.10	Sewage wastes will be macerated to diameters less than 25 mm prior to discharge from the CPF and FPSO in accordance with Clause 222 of the Petroleum (Submerged Lands) Acts Schedule: Specific Requirements as to Offshore Petroleum Exploration and Production (2005). The discharge will take place through submerged caissons.	Commissioning Operations	Offshore	Chapter 7, Section 7.2.3 Chapter 11, Annexe 10, Section 3.2
23.11	Construction vessels, supply vessels and the mobile offshore drilling unit (MODU) will adhere to the following prescriptions laid down by the <i>Protection of the Sea (Prevention of Pollution from Ships) Act 1983</i> (Cwlth) and the <i>Marine Pollution Act</i> (NT): <ul style="list-style-type: none"> • Sewage will not be discharged within three nautical miles of land. • Only treated sewage (macerated to fragment diameters less than 25 mm) will be discharged between three and twelve nautical miles of land. • Untreated sewage may be discharged beyond 12 nautical miles of land. 	All phases	Offshore Nearshore	Chapter 7, sections 7.2.3 and 7.3.4 Chapter 11, Annexe 10, Section 3.3
23.12	Antifouling paints containing tributyltin compounds (TBTs) will not be used on any Project vessels or equipment in accordance with the prescriptions of the International Maritime Organization's International Convention on the Control of Harmful Anti-fouling Systems on Ships and the <i>Protection of the Sea (Harmful Anti-fouling Systems) Act 2006</i> (Cwlth).	All phases	Offshore Nearshore	Chapter 7, sections 7.2.1, 7.2.3 and 7.3.4
23.13	Oil-in-water concentrations of produced water will meet the regulatory requirements of less than 30 mg/L during each period of 24 hours as prescribed by Clause 29 of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cwlth). This will be monitored continuously by an online analyser to ensure compliance.	Commissioning Operations	Offshore	Chapter 7, sections 7.2.3 and 7.2.4 Chapter 11, Annexe 10, Section 3.2
23.14	Oil-in-water concentrations from the bilge discharges of construction and supply vessels, including the MODU, will meet the regulatory requirements of <15 mg/L in accordance with Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78) and the Marine Pollution Regulations (NT).	All phases	Offshore Nearshore	Chapter 7, Section 7.2.4 Chapter 11, Annexe 10, Section 3.3
23.15	Vetting procedures for condensate tankers will be developed and implemented, ensuring that ballast-water tanks are segregated from fuel and product tanks.	All phases	Offshore Nearshore	Chapter 7, Section 7.2.3 Chapter 11, Annexe 10, Section 3.7
23.16	The wastewater outfall diffuser will be designed to optimise near-field dispersion of the discharged wastewater.	Design	Nearshore	Chapter 7, Section 7.3.4 Chapter 11, Annexe 10, Section 3.1
23.17	Drainage at the onshore development area will be designed to isolate areas that could be exposed to hydrocarbon contamination. Wastewater from these areas will be directed to an oily-water treatment system.	Design Operations	Nearshore Onshore	Chapter 7, Section 7.3.4 Chapter 11, Annexe 10, Section 3.1

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
23.18	An on-site treatment facility will be used to treat sewage from the onshore development area during the operations phase, and will produce high-quality wastewater.	Operations	Onshore	Chapter 7, Section 7.3.4 Chapter 11, Annexe 10, Section 3.1
23.19	Wastewater streams will be sampled at appropriate frequencies and selected water quality parameters will be documented.	Operations	Onshore	Chapter 7, Section 7.3.4 Chapter 11, Annexe 10, Section 4
23.20	Maintenance practices during the operations phase (e.g. drainage of hydrocarbons from tanks and equipment) will avoid discharge of hydrocarbons to the oily-water treatment system.	Operations	Onshore	Chapter 7, Section 7.3.4 Chapter 11, Annexe 10, Section 3.2
24	Social integration			
24.1	INPEX personnel representing the Project will be expected to exhibit professional behaviour standards as required by INPEX's Code of Conduct. Through the Project induction, all Project personnel will be informed of the expectation that they will respect the Darwin community at all times and behave accordingly.	Construction Operations	Onshore Offshore Nearshore	Chapter 10, Section 10.3.1
24.2	Project personnel will be subject to random drug and alcohol testing.	Construction Operations	Onshore Offshore Nearshore	Chapter 10, Section 10.3.1
24.3	The accommodation village will include a number of restaurants, licensed premises and a range of social and recreational facilities for the benefit of the residents.	Construction	Onshore	Chapter 10, Section 10.3.1
24.4	A code of conduct for the accommodation village residents will be developed and implemented.	Construction	Onshore	Chapter 10, Section 10.3.1
24.5	An ongoing Stakeholder Communication Plan has been developed; this will create an avenue where the broader community can raise Project-related social issues and other matters.	Construction	Onshore	Chapter 2, Section 2.2 Chapter 10, Section 10.3.1
25	Housing, social infrastructure and services			
25.1	An accommodation village will be constructed to house the greater part of the construction workforce.	Construction	Onshore	Chapter 10, Section 10.3.2
25.2	An accommodation strategy is being developed to address accommodation solutions for short-term visitors during the construction phase and for managers and other personnel during the operations phase. This will include the requirements for periodic maintenance campaigns.	Construction Operations	Onshore	Chapter 10, Section 10.3.2
25.3	A first-aid capability will be available at the onshore facility during both the construction and the operations phases. In addition, a similar first-aid capability will be available at the accommodation village during the construction phase.	Construction Operations	Onshore	Chapter 10, Section 10.3.3
25.4	INPEX will work in conjunction with the Northern Territory Police, Fire and Emergency Services in order to plan effectively for any major emergencies.	Construction Operations	Onshore	Chapter 10, Section 10.3.3
25.5	A firefighting capability will be available and strategically located firefighting stations will be established at the onshore Project site.	Construction Operations	Onshore	Chapter 8, Section 8.3.5 Chapter 10, Section 10.3.3 Chapter 11, Annexe 3, Section 3.2
25.6	Fire-protection systems at the onshore Project site for the operations phase will be designed to enable INPEX personnel to handle fires capably until external help arrives.	Construction Operations	Onshore	Chapter 10, Section 10.3.3

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
25.7	Appropriate quantities of water will be stored and made available for firefighting purposes during both the construction and operations phases at the onshore Project site.	Construction Operations	Onshore	Chapter 10, Section 10.3.3
25.8	An emergency response plan will be developed and emergency response teams will be established at the onshore Project site for both the construction and the operations phases of the Project.	Construction Operations	Onshore	Chapter 10, Section 10.3.3
25.9	The onshore facilities will be self-sufficient in meeting their power generation requirements during operations.	Operations	Onshore	Chapter 10, Section 10.3.3
25.10	Temporary ablution blocks and sewage systems will be in place at the onshore Project site to meet sewage management requirements during the construction phase.	Construction	Onshore	Chapter 10, Section 10.3.3
25.11	Permanent sewage treatment facilities will be installed at the onshore Project site for the operations phase of the Project.	Operations	Onshore	Chapter 10, Section 10.3.3
25.12	Waste-disposal facility capabilities for the construction and operations phases at the onshore Project site will be addressed during the detailed-design phase of the Project; this will be done in consultation with relevant local government authorities.	Design	Onshore Offshore	Chapter 10, Section 10.3.3
25.13	Ongoing consultation will be undertaken with local government, the Department of Planning and Infrastructure (DPI) and the Power and Water Corporation (PWC) in order to plan effectively for the provision of scheme water for Project requirements at the onshore Project site.	Design	Onshore	Chapter 10, Section 10.3.3
25.14	Development of the accommodation village will be undertaken in consultation with local government, the DPI and PWC in order to plan effectively for the provision of the required power, water, sewerage infrastructure and waste management facilities and avoid burdening existing infrastructure.	Construction	Onshore	Chapter 10, Section 10.3.3
26	Onshore traffic			
26.1	A traffic management plan and supporting documentation will be produced and their prescriptions will be implemented.	Construction	Onshore	Chapter 10, sections 10.3.4 and 10.3.10 Chapter 11, Section 11.3; Annexe 14, Section 3
26.2	The Project will work in conjunction with the DPI to identify any proposed road projects that may need to be brought forward or upgrades that may need to be undertaken to assist in reducing potential pressure on existing road systems.	Prior to Construction	Onshore	Chapter 10, Section 10.3.4 Chapter 11, Annexe 14, Section 3.2
26.3	Bus transport from the accommodation village or designated pick-up areas will be provided for the majority of the construction personnel.	Construction	Onshore	Chapter 10, Section 10.3.4 Chapter 11, Annexe 14, Section 3.2
26.4	Designated routes for travel from quarries, the accommodation village, the Darwin central business district, airport and East Arm Wharf will be set for the Project. The selection process for the routes will give consideration to minimising disturbance to local traffic and will be communicated to all relevant personnel.	Construction	Onshore	Chapter 10, Section 10.3.4 Chapter 11, Annexe 14, Section 3.2

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
27	Marine traffic			
27.1	INPEX will undertake periodic bathymetric surveys of the dredge spoil disposal ground outside Darwin Harbour to confirm sediment deposition depths and patterns.	Construction	Nearshore	Chapter 7, Section 7.3.3 Chapter 10, Section 10.3.5 Chapter 11, Annexe 6, Section 4.2.1
27.2	An application will be made to the relevant government and regulatory agencies to implement safety exclusion zones and restricted navigation zones for the offshore and nearshore facilities. These zones will be gazetted on navigation charts.	Operations	Offshore Nearshore	Chapter 10, Section 10.3.5
27.3	An application will be made to the relevant government and regulatory agencies to send out a "Notice to Mariners" on the location of offshore infrastructure and the gas export pipeline. These notices will be promulgated through the Australian Maritime Safety Authority.	All phases	Offshore Nearshore	Chapter 10, Section 10.3.5
27.4	Shipping traffic schedules during the construction and operations phases will be developed in consultation with the DPC to minimise the impacts of marine traffic on Darwin Harbour.	Construction Operations	Nearshore	Chapter 10, Section 10.3.5
27.5	An application will be made to the relevant government and regulatory agencies to implement safety exclusion zones and restricted navigation zones around LNG, LPG and condensate tankers, and around selected construction vessels such as dredging and pipelay vessels.	Construction Operations	Offshore Nearshore	Chapter 10, Section 10.3.5
28	Heritage			
28.1	Heritage management plans and supporting documentation will be produced and their prescriptions will be implemented.	All phases	Onshore Nearshore	Chapter 10, sections 10.3.8 and 10.3.9 Chapter 11, Section 11.3; Annexe 9, sections 3 and 4
28.2	A Larrakia Heritage Management Committee (LHMC) will be established. It will be made up of representatives of the Larrakia people and INPEX and will have a standing agenda.	Prior to construction Construction Operations	Onshore	Chapter 10, Section 10.3.8 Chapter 11, Annexe 9, Section 3.1
28.3	Prior to commencement of construction, Aboriginal sites in the onshore development area will be divided into two categories: those which will receive full protection from disturbance and those which may need to be removed.	Prior to construction	Onshore	Chapter 10, Section 10.3.8 Chapter 11, Annexe 9, Section 3.2
28.4	In the case of an Aboriginal heritage site which may have to be moved, INPEX will request permission to do so from both the LHMC and the Heritage Branch of the Northern Territory's Department of Natural Resources, Environment, the Arts and Sport (NRETAS). If permission is granted to remove the site, advice will be sought from the traditional custodians on the correct procedures to be adopted for its removal.	Prior to construction Construction	Onshore	Chapter 10, Section 10.3.8 Chapter 11, Annexe 9, Section 3.2
28.5	Where the external boundary of an Aboriginal heritage site is 10 m or closer to any proposed construction activity, flagging, temporary fencing or similar will be erected 5 m from the site boundary and appropriate signage will be put in place if required by the Larrakia people. The boundary demarcation will be removed when the risk of disturbance no longer exists.	Construction	Onshore	Chapter 10, Section 10.3.8 Chapter 11, Annexe 9, Section 3.3

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
28.6	Daily toolbox meetings, job hazard analyses, permit systems or similar will be implemented on site prior to the commencement of vegetation-clearing or construction activities. These will be undertaken to ensure that work areas are clearly identified before operations commence to avoid accidental disturbance to heritage sites either inside or outside the heritage site boundaries.	Construction	Onshore	Chapter 10, Section 10.3.8 Chapter 11, Annexe 9, Section 3.3
28.7	Anchor management plans will be developed to allow the safe anchoring of vessels undertaking pipelay, dredging and piledriving activities in the vicinity of any nearshore heritage or sacred sites.	Construction	Nearshore	Chapter 7, Section 7.3.1 Chapter 10, sections 10.3.8 and 10.3.9 Chapter 11, Annexe 6, Section 3.1.2; Annexe 9, sections 3.3 and 4.2
28.8	Monitoring will be undertaken for Aboriginal heritage sites. This will involve inspections by Larrakia representatives prior to and during the construction phase and during the commissioning and operations phases. Photographic records will be maintained for each of the sites.	All phases	Onshore	Chapter 10, Section 10.3.8 Chapter 11, Annexe 9, Section 5
28.9	To minimise disturbance, a 100-m-radius controlled zone will be established around all known Catalina flying-boat wrecks.	Construction	Nearshore	Chapter 10, Section 10.3.9 Chapter 11, Annexe 9, Section 4.2
28.10	To minimise disturbance, a 100-m-radius controlled zone for the wreck of the SS <i>Ellengowan</i> will apply (based on the intersection of latitude 12°32'16.3"S and longitude 130°52'06.3"E on the Port of Darwin 1:50 000 map sheet AUS 26).	Construction	Nearshore	Chapter 10, Section 10.3.9 Chapter 11, Annexe 9, Section 4.2
28.11	To minimise disturbance, a 100-m-radius controlled zone for the wreck of the coal hulk <i>Kelat</i> will apply (based on the intersection of the lines of latitude 12°29'55.4"S and longitude 130°52'40.2"E on the Port of Darwin 1:50 000 map sheet AUS 26).	Construction	Nearshore	Chapter 10, Section 10.3.9 Chapter 11, Annexe 9, Section 4.2
28.12	Accurate differential GPS (dGPS) locations of all wrecks near the nearshore development area will be obtained prior to the commencement of construction.	Construction	Nearshore	Chapter 10, Section 10.3.9 Chapter 11, Annexe 9, Section 4.2
28.13	Before dredging commences, Catalina flying-boat wrecks will be inspected to determine the current levels of sedimentation; records of these inspections will be kept.	Construction	Nearshore	Chapter 10, Section 10.3.9 Chapter 11, Annexe 9, Section 5
28.14	During the construction and operations phases, INPEX will periodically assess sediment conditions of Catalina wrecks near to the shipping channel and in consultation with NRETAS determine whether any remedial action is required to address impacts should they arise.	Operations	Nearshore	Chapter 10, Section 10.3.9
28.15	The World War II historical sites located on Blaydin Point are not listed and do not require approval to disturb; however INPEX will consult with the Heritage Branch of NRETAS before disturbing the sites, and all sites will be surveyed and recorded.	Prior to construction	Onshore	Chapter 10, Section 10.3.9 Chapter 11, Annexe 9, Section 4.2
29	Airborne noise			
29.1	A piledriving and blasting management plan and supporting documentation will be produced and their prescriptions will be implemented.	Construction	Nearshore Onshore	Chapter 7, sections 7.3.1 and 7.3.7 Chapter 10, sections 10.3.10 and 10.3.14 Chapter 11, Section 11.3; Annexe 12, Section 3

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
29.2	Blasting operations will only be undertaken during daylight hours and adequate notice will be provided to communities which could be affected by the sound or activities (e.g. Darwin Harbour users, the City of Palmerston, and the Darwin Liquefied Natural Gas plant at Wickham Point).	Construction	Nearshore Onshore	Chapter 10, sections 10.3.10 and 10.3.14 Chapter 11, Annexe 12, Section 3.1
29.3	Smaller staggered blasts will be used for onshore blasting to minimise ground vibration and noise levels.	Construction	Onshore	Chapter 10, Section 10.3.10 Chapter 11, Annexe 12, Section 3.1
29.4	Piledriving activities are planned to be undertaken during daylight hours only. Night-time piledriving would only be required if Project construction activities were to fall significantly behind schedule.	Construction	Nearshore Onshore	Chapter 7, Section 7.3.7 Chapter 10, Section 10.3.10 Chapter 11, Annexe 12, Section 3.2
29.5	Buses will be utilised for transporting the majority of workers to and from site to reduce the total number of vehicles on the roads and therefore noise emissions.	Construction	Onshore	Chapter 10, Section 10.3.10 Chapter 11, Annexe 14, Section 3.2
29.6	Noise mitigation measures will be incorporated into the design and construction of the ground flare to reduce noise emissions.	Design	Onshore	Chapter 10, Section 10.3.10
30	Visual amenity			
30.1	The lighting design for the onshore and nearshore infrastructure will be selected with consideration of the visual impact to the community while meeting personnel safety requirements.	Design	Nearshore Onshore	Chapter 10, Section 10.3.11
30.2	The ground flares will be shielded to reduce light emissions.	Design	Onshore	Chapter 10, Section 10.3.11
30.3	The ground and tankage flares will be designed to minimise the generation of particulates (smoke).	Design	Onshore	Chapter 8, Section 8.4.3 Chapter 10, Section 10.3.11 Chapter 11, Annexe 2, Section 3.1
30.4	Dust suppression techniques will be employed where necessary to protect vegetation health, worker health and amenity. This may include spraying from water trucks or irrigation; it may also include stabilisation and revegetation of cleared areas that are no longer needed as soon as practicable during the construction phase.	Construction	Onshore	Chapter 8, Section 8.4.2 Chapter 10, Section 10.3.11 Chapter 11, Annexe 7, Section 3.2
31	Commercial fishing			
31.1	An application will be made to the relevant government and regulatory authorities to implement a safety exclusion zone with a radius of 500 m around surface and subsurface equipment in the offshore development area. This safety zone will be gazetted under the <i>Offshore Petroleum and Greenhouse Gas Storage Act 2006</i> (Cwlth), and will appear on Australian navigation charts.	All phases	Offshore	Chapter 10, Section 10.3.12
31.2	An application will be made to the relevant government and regulatory authorities to implement a precautionary zone around the offshore pipeline in consultation with the relevant regulatory authorities. The locations of the offshore infrastructure and pipeline will be gazetted on navigation charts.	Construction Operations	Offshore	Chapter 10, Section 10.3.12

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
31.3	A precautionary zone will be applied within 200 m of the gas export pipeline in the nearshore development area, prohibiting dropping or dragging an anchor, or performing an action that could damage the pipeline (according to Section 66(5) of the <i>Energy Pipelines Act</i> (NT)).	Construction Operations	Nearshore	Chapter 10, Section 10.3.12
32	Public safety			
32.1	A safety exclusion zone for marine traffic and other recreational water users will be established and enforced during nearshore blasting activities. Public notices will be issued prior to blasting, to inform recreational water-users in any blasting area. INPEX will advise the community of the date, time and duration of the blasting activities and the boundaries of the safety exclusion zone.	Construction	Nearshore	Chapter 10, Section 10.3.14 Chapter 11, Annexe 12, Section 3.1
32.2	Notice will be given to the Northern Territory's Department of Lands and Planning and the Darwin Port Corporation advising vessel operators of any change to marine traffic conditions because of marine blasting activities.	Construction	Nearshore	Chapter 10, Section 10.3.14 Chapter 11, Annexe 12, Section 3.1
32.3	Blasting operations will only be undertaken during daylight hours and adequate notice will be provided to communities which could be affected by the sound or activities (e.g. Darwin Harbour users, the City of Palmerston, and the Darwin Liquefied Natural Gas plant at Wickham Point).	Construction	Nearshore	Chapter 10, sections 10.3.10 and 10.3.14 Chapter 11, Annexe 12, Section 3.1
32.4	Public access to the onshore development area will be restricted during construction.	Construction	Onshore	Chapter 10, Section 10.3.14 Chapter 11, Annexe 12, Section 3.1
32.5	Smaller staggered blasts will be carried out to minimise vibration and noise levels. The correct "maximum instantaneous charge" and blast-hole sizes will be used to minimise flyrock generation.	Construction	Onshore	Chapter 10, sections 10.3.10 and 10.3.14 Chapter 11, Annexe 12, Section 3.1
32.6	Public risk will be managed in accordance with the <i>National standard for the control of major hazard facilities</i> (2002) and the <i>National code of practice for the control of major hazard facilities</i> (1996) prepared by the National Occupational Health and Safety Commission and issued by Safe Work Australia.	Operations	Onshore	Chapter 10, Section 10.3.14
32.7	Marine exclusion zones will be established around the jetty and product tankers. The extent of the marine exclusion zones will be established in consultation with the DPC.	Operations	Nearshore	Chapter 10, sections 10.3.5 and 10.3.14
33	Business opportunities, employment and training			
33.1	INPEX will develop a communication engagement plan to support the key principles of the supplier relationship program and the Industry Participation Plan objectives.	All phases	Onshore	Chapter 10, Section 10.4.2
33.2	INPEX will support targeted training programs to further develop a local skilled construction labour force. This will include specific Aboriginal programs in the region.	Construction	Onshore	Chapter 10, Section 10.4.3
33.3	INPEX will explore and make use of successful training and development programs, infrastructure and initiatives to build the general labour capability with LNG skills in the region.	Construction Operations	Onshore	Chapter 10, Section 10.4.3
33.4	When sourcing additional Project resources, contract employers will give preference to suitable local applicants with the relevant skills, qualifications and work history.	Construction	Onshore	Chapter 10, Section 10.4.3

Table 12-1: Key commitments for the Ichthys Gas Field Development Project (continued)

No.	Commitment (Action)	Phase(s)	Area	Reference
34	Decommissioning			
34.1	Decommissioning plans and supporting documentation will be produced and their prescriptions will be implemented in consultation with the Commonwealth and Northern Territory governments.	Prior to decommissioning	Offshore Nearshore Onshore	Chapter 7, Section 7.2.1 Chapter 11, Section 11.3; Annexe 5, Section 3
34.2	When the Ichthys Field has reached the end of its useful life, the reservoirs will be permanently isolated, necessary well equipment will be removed, and the wells will be plugged and abandoned in accordance with Clause 514 of the Petroleum (Submerged Lands) Acts Schedule: Specific Requirements as to Offshore Petroleum Exploration and Production (2005).	Decommissioning	Offshore	Chapter 11, Annexe 5, Section 3.2
34.3	The CPF and the FPSO will be removed at the end of the useful life of the Ichthys Field.	Decommissioning	Offshore	Chapter 11, Annexe 5, Section 3.2

¹ The SERPENT (Scientific and Environmental ROV Partnership using Existing iNdustry Technology) project is a global collaborative project hosted by the DEEPSEAS group of the Ocean Biogeochemistry and Ecosystems Group at the National Oceanography Centre in Southampton, UK.