

Devil Creek Gas Supply Pipeline and Sales Gas Pipeline Operations Environment Plan

Activity Overview

Santos operates the onshore Devil Creek Gas Plant (DCGP), located approximately 10 km inland from Gnoorea Point and 45 km south west of Karratha, Western Australia (WA). Hydrocarbons are transported to the DCGP from the offshore Reindeer Field via the Devil Creek Gas Supply Pipeline (DCG Supply Pipeline) and to the Dampier to Bunbury Natural Gas Pipeline (DBNGP) via the Devil Creek Sales Gas Pipeline (DC Sales Gas Pipeline).

The section of the DCG Supply Pipeline in WA state jurisdiction and the DC Sales Gas Pipeline are collectively referred to as the Devil Creek Facilities (**Figure 1**).

The offshore Reindeer Field is proposed to continue operations whilst there are sufficient hydrocarbons. However, the Reindeer field is now approaching end of field life, at which time production will cease at the Reindeer Well Head Platform (WHP). Following cessation of production, the DCG Supply Pipeline will be put into preservation under a revision to the existing in-force Operations Environment Plan.

This will take place ahead of a future decision on whether to proceed with decommissioning or to re-purpose the DCG Supply Pipeline for Carbon Capture and Storage (CCS) at the depleted Reindeer Field. Activities planned during the operations and preservation phase are outlined on Page 2 and typically include infrequent and short duration vessel and land-based inspection, monitoring, maintenance and repair (IMMR) activities.

If the CCS project proceeds, the DCG Supply Pipeline will be brought back into services to transport CO₂ for storage, rather than being decommissioned. Proposed activities beyond preservation are subject to separate government environmental approvals and consultation.

Consultation and Feedback

All petroleum activities in WA land and waters must have an Environment Plan (EP) accepted by the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) before any activities can take place.

Under WA government regulations, Santos is required to consult with relevant authorities and other relevant interested persons and organisations that may be affected by proposed activities. Input from relevant authorities, persons and organisations is used for the development of EPs, which are then assessed by DEMIRS. Santos meets this requirement by undertaking consultation in two phases:

- **Preliminary consultation** to understand values and sensitivities and confirm consultation expectations of relevant persons; and
- **Consultation** of relevant persons on the specific activities.

This factsheet has been issued to support preliminary consultation for the five-year revisions of the Operations EPs and updates to include cessation of production activities. Activity specific consultation is planned to commence on **28 June 2024**, with the consultation period closing on **29 July 2024**. More details on consultation and providing feedback can be found on the back page of this factsheet.

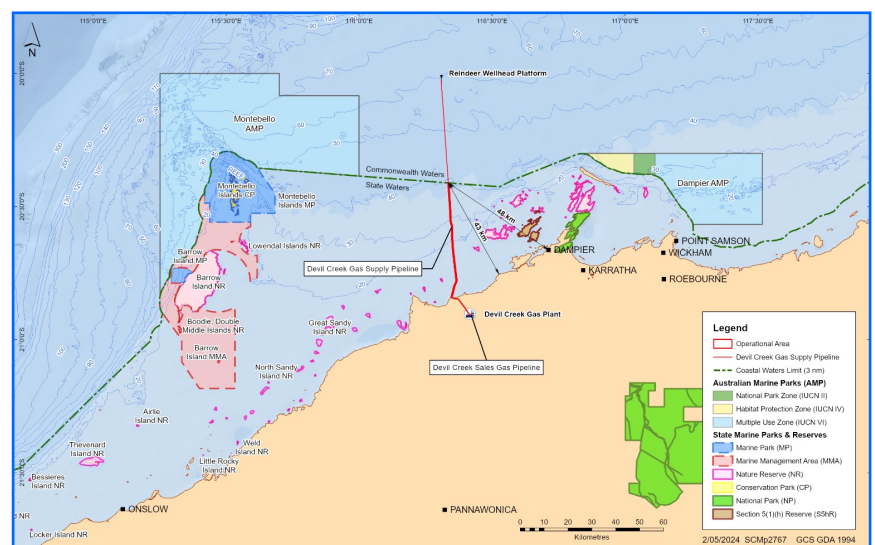


Figure 1. Devil Creek facilities activity location.

Activity Description

Activity details	
Timing	The DCG Supply Pipeline and DC Sales Gas Pipeline are currently producing in the operations phase and are anticipated to enter a cessation of production (preservation phase) between 2024 and 2026, subject to matters such as field performance and economics.
Duration	The duration of ongoing operations and the timing of cessation of production (preservation phase) will be dependent on Santos' decision-making for decommissioning or re-purposing the DCG Supply Pipeline for CCS. A 5-year EP is being sought from DEMIRS, which will include both operations and cessation of production phases of the activity.
Water depth	The water depth is approximately 38 m at the deepest point at the Commonwealth/ State boundary.
Planned activities	<p>Operations phase activities:</p> <ul style="list-style-type: none"> • Transportation of hydrocarbons from the Reindeer Field through the DCG Gas Supply Pipeline to the DCGP, and then through the DC Sales Gas Pipeline to the DBNGP. • Suspension of operations activities (prior to cessation of production) including, flushing and purging the pipelines and process equipment of any residual hydrocarbons. • Pipeline IMMR, including activities such as: <ul style="list-style-type: none"> • Pipeline and pipeline corridor inspection (e.g pigging and other integrity inspections and surveys), maintenance, modification, removal, repair, replacement • Marine growth/debris removal and corrosion control • Cathodic protection monitoring and integrity inspections • Onshore pipeline corridor IMMR, vegetation clearance, and associated sediment disturbance • environmental monitoring/sampling (e.g. sediment sampling) <p>Cessation of Production (Preservation Phase) activities:</p> <ul style="list-style-type: none"> • The pipelines will remain filled with treated seawater or gas • Pipeline and pipeline corridor inspection, maintenance, modification, removal, repair, replacement including activities such as: <ul style="list-style-type: none"> • Pipeline and pipeline corridor inspection (e.g pigging and other integrity inspections and surveys), maintenance, modification, removal, repair, replacement • Marine growth/debris removal and corrosion control • Cathodic protection monitoring and integrity inspections • Onshore pipeline corridor IMMR, vegetation clearance, and associated sediment disturbance • environmental monitoring/sampling (e.g. sediment sampling)
Vessels	Typically, a single vessel would be used to conduct IMMR activities during the life of the EP. However, depending on the nature and location of a repair activity, additional vessels may be required.
Aircraft	No use of aircraft is required for activities associated with the DCG Supply Pipeline.

<p>Description of the natural environment</p>	<p>Offshore</p> <ul style="list-style-type: none"> • The operational area does not intercept any marine protected areas, the closest being the Montebello Australian Marine Park (AMP) and the Dampier AMP, which are located approximately 37 km and 56 km respectively from the nearest boundary of the operational area. • The seabed of the operational area is mostly soft sediments that support sparse benthic (living on the seafloor) and epibenthic (living on the surface of sediments) organisms such as infauna (living within the sediment). Habitats include submerged hard substrate such as pavement and high relief reef areas that provide attachment points for sessile epifauna as well as perches and hiding places for mobile epifauna. The operational area also contains small patches of macroalgae and as well as small seagrass. • The operational area includes Biologically Important Areas (BIAs) for protected marine species that include seabirds, whales, turtles and sharks. • No Key Ecological Features (KEFs) intercept the operational area associated with the DCG Supply Pipeline corridor. The closest KEFs to the operational area are the Ancient Coastline at 125 m Depth Contour (located 89 km north from the closest edge of the operational area), and Glomar Shoals (79 km north-east), both of which are not overlapped by the Environment that May Be Affected (EMBA) or the operational area. <p>Onshore</p> <ul style="list-style-type: none"> • The DCGP onshore pipelines reside within the Littoral, Cheerawarra and Horesefalt land systems, which are defined as coastal mudflats, clay plains and sandy coastal plains. Shoreline habitat types found within the regional area include mangroves, sandy beaches, intertidal and subtidal zones and rocky shorelines. • Vegetation within the onshore operational area includes two communities that are on the WA list of priority ecological communities (PECs): <ul style="list-style-type: none"> • Roebourne Plains coastal grassland with gilgai microrelief on deep cracking clays; and • Stony Chenopod associations of the Roebourne Plains.
<p>Operational Area</p>	<p>The operational area is defined as:</p> <ul style="list-style-type: none"> • An area 250 m either side of the State waters section of the DCG Supply Pipeline (from the State waters limit to the shoreline line at Gnoorea Point); • An area 50 m buffer either side of the onshore section of the DCG Supply Pipeline (from Gnoorea Point to the DCGP); and • An area 50 m buffer either side of the DC Sales Gas Pipeline (from the DCGP to the DBNGP).
<p>Exclusion zone</p>	<p>No exclusion zones are associated with either the DCG Supply Pipeline or the DC Sales Gas Pipeline.</p>
<p>Petroleum production licences</p>	<p>Pipeline Licence TPL/20 (DCG Supply Pipeline - State waters component) Pipeline Licence PL81 (DCG Supply Pipeline onshore component) Pipeline Licence PL86 (DC Sales Gas Pipeline between DCGP and DBNGP)</p>

Activity Purpose and Approvals



Image 1. Typical vessel used for IMMR activities.

The in-force *Devil Creek Gas Supply Pipeline and Sales Gas Pipeline Operations Environment Plan (Onshore and State Waters)* details the environmental management measures implemented by Santos for operation of the DCG Supply Pipeline and DC Sales Gas Pipeline.

Activities proposed to be managed under a revision of the EP are described in the Activity Description table in the previous section.

The preservation phase will begin when the offshore Reindeer Facility is no longer producing, and the DCG Supply Pipeline has been flushed,

cleaned and then filled with a preservation product to preserve the pipeline ahead of a future decision on decommissioning or CCS.

Vessel-related activities will be undertaken during operations and preservation phases.

IMMR activities conducted on the DCG Supply Pipeline will be infrequent and of relatively short duration. Inspections will generally involve a vessel travelling along the route of the pipeline using towed acoustic instruments or may involve using a Remotely Operated Vehicle (ROV) launched and recovered from the vessel. Typically, vessels will be within the Operational

Area for approximately 30 days per year depending on the IMMR requirements.

The *Petroleum Pipelines (Environment) Regulations 2012 (WA)* and *Petroleum (Submerged Lands) (Environment) Regulations 2012 (WA)* require a licence holder to have an EP accepted by DEMIRS before any petroleum activity can commence. An accepted revision of the Operations EP must be in place to enable the cessation of pipeline operations.

Defining the Environment Area for Proposed Activities

Santos has undertaken an initial assessment to identify the environmental, social, economic, and cultural values and sensitivities that may be affected by impacts and risks of proposed activities.

To do this we have considered the totality of the areas where activity impacts and risks may occur.

These areas are summarised in **Table 1**. The widest extent of these areas is called the Environment that May Be Affected (EMBA), which for this activity is the combined EMBA for the modelled potential worst-case hydrocarbon spill scenarios (rupture of the DCG Supply Pipeline and vessel collision releasing marine diesel oil at the sea surface). The consolidated EMBA is illustrated in **Figure 2**.

Oil spill EMBA's are defined by overlaying a great number (usually hundreds) of individual, computer simulated, hypothetical hydrocarbon spill events into a single map. Each simulation run starts from the same location (release point) but each run will be subject to a different set of wind and weather conditions derived from historical data. The use of advanced and sophisticated models enables us to present all the areas that could be affected.

While the modelled EMBA represents the theoretical spatial extent that could be contacted by the worst-case spill event(s), an actual spill event is more accurately represented by a single simulation run, resulting in a much smaller spatial extent impacted by the spill.

Often, one or more simulation runs are selected to be representative of the 'worst-case' based on the nature and scale of the activity and the local environment.

Please see the **NOPSEMA Spill Modelling Video** for more information on oil spill modelling

and why it is required for the preparation of EPs

It is noted that there is no EMBA developed in this manner for the onshore pipeline component. Rather, the Operational Area within which the planned activities occur has been used to identify relevant persons.

Table 1. Environment area for proposed activities

Environment Area
<p>Operational Area</p> <p>Operational area for the DCG Supply Pipeline and DC Sales Gas Pipeline Operations EP (Onshore and State waters) is as per the current operations and is defined as:</p> <ul style="list-style-type: none"> • An area 250 m either side of the State waters section of the DCG Supply Pipeline (from the State waters limit to the shoreline line at Gnoorea Point); • An area 50 m either side of the onshore section of the DCG Supply Pipeline (from Gnoorea Point to the DCGP); and • An area 50 m either side of the DC Sales Gas Pipeline (from the DCGP to the DBNGP).
Environment that May Be Affected (EMBA)
<p>The spatial extent of activity impacts (e.g., light, noise) and risk (e.g. hydrocarbon spill).</p>

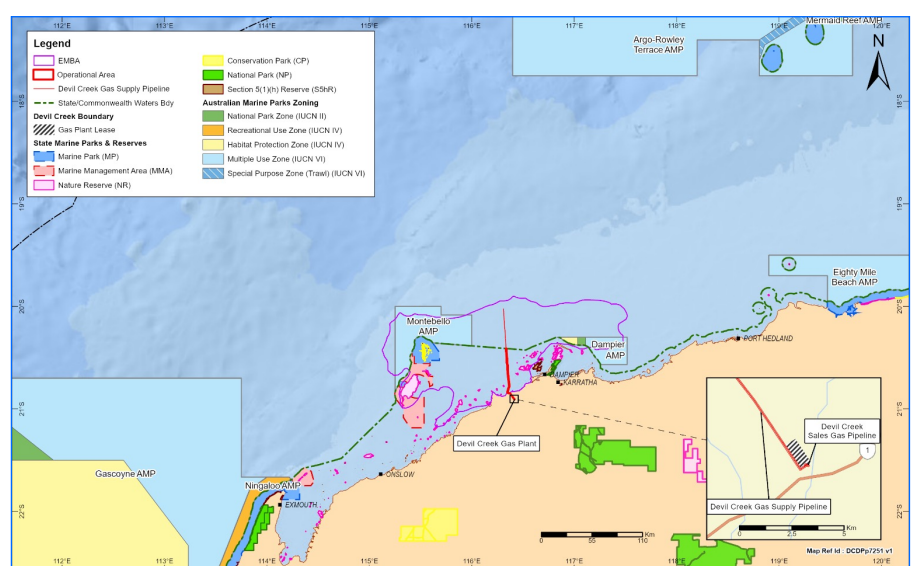


Figure 2. Operational Area and EMBA.

Santos has undertaken a review of publicly available information to identify environmental, social, economic, and cultural features and/or values that may be affected by activity impacts and risks. The outcomes of this review are summarised in **Table 2**.

Table 2. Environmental, social, economic and cultural features

Feature	Description	Within Operational Area	Within EMBA	Public Information Review
Aboriginal Heritage	Registered Aboriginal heritage sites protected under the: <ul style="list-style-type: none"> • <i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)</i> • <i>Aboriginal Heritage Act 1972 (WA)</i> 	No	Yes	Barrow Island, Montebello Islands, Dampier Archipelago, and the adjacent foreshores have a long history of occupancy by Indigenous communities. A single National Heritage place (Dampier Archipelago, including Burrup Peninsula) is located 12 km from the operational area. There is one registered Aboriginal Heritage site (<i>Aboriginal Heritage Act 1972 (WA)</i>) within the operational area. However, the EMBA overlaps with 55 registered Aboriginal Heritage sites and 41 lodged Aboriginal Heritage sites.
Biologically Important Areas	Biologically important areas (BIAs) are spatially defined areas where aggregations of individuals of a species are known to display biologically important behaviour such as breeding, foraging, resting or migration.	Yes	Yes	The operational area includes Biologically Important Areas (BIAs) for protected marine species that include seabirds, whales, turtles and sharks.

Table 2. Environmental, social, economic and cultural features ... continued

Feature	Description	Within Operational Area	Within EMBA	Public information review
Cultural Heritage	Registered cultural sites under the: <ul style="list-style-type: none"> • <i>Underwater Cultural Heritage Act 2018</i> (Cth) • <i>Maritime Archaeology Act 1973</i> (WA) 	No	Yes	There are no known sites of shipwrecks, sunken aircraft or other types of underwater cultural heritage within the operational area. The closest known historic shipwreck is the Dampier which is located approximately 10.7 km west of the operational area (located within the EMBA). Little is known about the history of this wreck. There are a total of 11 known shipwrecks located within the EMBA.
Defence	Designated defence activity areas	No	Yes	The operational area does not intersect any designated defence activity areas, however the EMBA overlaps with the North-Western Exercise Area (NWXA).
Energy Industry	Petroleum and Carbon Capture and Storage activities	No	Yes	Several offshore petroleum projects and exploration activity is present within the region.

Table 2. Environmental, social, economic and cultural features ... continued

Feature	Description	Within Operational Area	Within EMBA	Public information review
Fishing	Commercial fishing	Yes	Yes	Several WA and Commonwealth managed fisheries overlap the operational area and EMBA. Three Commonwealth fisheries overlap the operational area: the Western Tuna and Billfish Fishery, the Southern Bluefin Tuna Fishery, and the Western Skipjack Tuna Fishery. WA state managed fisheries active within the operational area include the Pilbara Fish Trawl (interim) Managed Fisheries, Nickol Bay Prawn Managed Fishery, Mackerel Managed Fishery, Marine Aquarium Fish Managed Fishery and the Specimen Shell Managed Fishery.
	Indigenous, subsistence or customary fishing	Yes	Yes	Traditional Australian Indigenous fishing in WA waters predominately occurs within inshore tidal waters and there is likely to be traditional fishing occurring within the nearshore operational area and in the surrounding EMBA.
	Recreational fishing	Yes	Yes	Recreational fishing may occur within the operational area and is known to occur within the EMBA.
Key Ecological Features	Key Ecological Features (KEFs) are elements of the Commonwealth marine environment that are considered to be of regional importance for either a region's biodiversity or its ecosystem function and integrity.	No	No	No KEFs intercept the operational area associated with the DCG Supply Pipeline corridor. The closest KEFs to the operational area are the Ancient Coastline at 125 m Depth Contour (located 89 km north from the closest edge of the operational area), and Glomar Shoals (79 km north-east), both of which are not overlapped by the EMBA or the operational area. The operational area does not intersect any threatened ecological communities.

Table 2. Environmental, social, economic and cultural features ... continued

Feature	Description	Within Operational Area	Within EMBA	Public information review
Protected Areas (nearest Commonwealth and Territory)	Australian Marine Park (AMP)	No	Yes	The operational area does not intercept any marine protected areas. The closest protected areas are the Montebello Australian Marine Park (AMP) and the Dampier AMP, which are located approximately 37 km and 56 km respectively from the nearest boundary of the operational area. The EMBA overlaps both these AMPs.
	Western Australian Marine Parks and Marine Management Areas	No	Yes	There are no Western Australian Marine Parks or Marine Management Areas located within the operational area. The EMBA overlaps the following WA State Marine Parks and Marine Management Areas: <ul style="list-style-type: none"> • Montebello Islands Marine Park. • Barrow Island Marine Park. • Barrow Island Marine Management Area.
Shipping	Shipping routes	Yes	Yes	The DCG Supply Pipeline resides between two shipping fairways. The first runs parallel to the offshore pipeline approximately 20 km to the east. The other crosses the offshore pipeline at approximately 57 km from the mean low water mark and runs in a south-west to northeast direction. Additional shipping routes are located within the wider region, and it is expected that local vessel traffic will pass through the area.

Table 2. Environmental, social, economic and cultural features ... continued

Feature	Description	Within Operational Area	Within EMBA	Public information review
Tourism	Marine and coastal tourism	Yes	Yes	A number of tourism activities are known to occur within the operational area and EMBA. These are primarily associated with the Montebello AMP, Dampier AMP and Eighty Mile Beach Marine Park. Specific tourism activities in these areas include recreational diving, fishing, snorkelling, cruises and the Gnoorea Point Campground.
Towns / Communities	Dampier	No	No	Dampier is the nearest town and is approximately 48 km southeast of the operational area at the Commonwealth/ State boundary and 40 km northeast of the sales gas pipeline at the DCGP.

Activity Impacts and Risk Management

We have summarised in **Table 3** the potential environmental impacts risks and associated management measures for the proposed activity. These aspects will be risk-assessed within the EP on a case-by-case basis.

Table 3. Activity impacts and risk management

Potential activity impacts	
Interaction with terrestrial fauna and flora	
<p>Description of risks</p> <p>During the operational life of the activity, planned interactions with terrestrial fauna and flora may occur from the following activities:</p> <ul style="list-style-type: none"> • Non-routine, but planned, excavations within the onshore component of the operational area. • Non-routine, but planned, vegetation clearing within the onshore component of the operational area. 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Obtain a native vegetation clearing permit if required. • Project execution plan for excavation activities and vegetation clearing related to that excavation activity. • Management of excavation activities.
Acoustic disturbance to fauna	
<p>Description of risks</p> <p>Potential impacts from noise emissions may occur from the following sources:</p> <ul style="list-style-type: none"> • IMMR activities of the subsea infrastructure (e.g., use of ROV, single beam echo sounder (SBES), multibeam echo sounder (MBES), sidescan sonar (SSS), autonomous underwater vehicle (AUV), diving operations marine growth cleaning, pigging, modification and replacement of components). • Support vessel activities during IMMR activities (e.g., vessel engines, thrusters and other machinery). • Onshore drones or land-based vehicles. 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Procedure for interacting with marine fauna incorporating the requirements of Environment Protection of Biodiversity Conservation Act (EPBC) Regulations (Part 8) for interacting with cetaceans. • Prestart Requirements.

Table 3. Activity impacts and risk management ... continued

Light emissions	
<p>Description of risks</p> <p>Light emissions in the marine environment will occur as a result of:</p> <ul style="list-style-type: none"> • Safety and navigational lighting. • ROV operational lights. • No nighttime maintenance/operations activities are planned for the onshore section of the pipelines but may be required for emergency work. There are no lights along the onshore gas supply pipeline, so there is no light glow on Forty Mile Beach. 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Lighting will be used as required, for safe work conditions and to meet navigational requirements. • Premobilisation review and planning of lighting on vessels prior to IMMR activities commencing.
Atmospheric emissions	
<p>Description of risks</p> <p>Potential impacts from atmospheric emissions may occur in the operational area due to the following operations:</p> <ul style="list-style-type: none"> • Combustion emissions from support vessel operations. • Accidental release of ozone-depleting substances in closed-system rechargeable refrigeration systems. • High pressure blasting (garnet or a similar product) of the onshore section of the pipeline (if an area needed to be excavated) for IMMR activities resulting in the release of particulate matter to the air. 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Vessel's planned maintenance system. • Fuel oil quality meets The International Convention for the Prevention of Pollution from Ships MARPOL requirements. • International Air Pollution Prevention Certification (IAPP). • Waste incineration management.

Table 3. Activity impacts and risk management ... continued

Seabed and benthic habitat disturbance	
<p>Description of risks</p> <p>Disturbance to the seabed and benthic habitats could potentially occur as a result of the following activities:</p> <ul style="list-style-type: none"> • Vessel anchoring (non-routine). • Cleaning of subsea infrastructure. • Sedimentation as infrastructure is placed or relocated on the seabed for operational requirements or IMMR activities. • Temporary subsea storage of equipment (e.g., ROV basket or clump weight). • Subsea maintenance and repair activities (e.g., diving, drone survey activities, ROV operations, cutting, welding, pigging, installation, replacement or modification of subsea equipment, freespan rectification and stabilisation etc.). • Creation of artificial habitat because of the physical presence of infrastructure (and from currents altered by the presence of subsea infrastructure). 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Planned subsea and offshore maintenance. • Dropped object prevention procedures. • Dropped object recovery. • Anchoring and equipment deployment management.

Table 3. Activity impacts and risk management ... continued

Physical presence and interaction with other users	
<p>Description of risks</p> <p>Potential interactions with other users may occur as a result of:</p> <ul style="list-style-type: none"> • Pipeline maintenance works (may affect visual amenity and vehicle traffic). • Vessels supporting offshore pipeline operations. • The onshore section of the DCGP is buried parallel to a public access road (Forty Mile Beach Road). Interactions with terrestrial users in the operational area are unplanned. 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Navigational charting of infrastructure. • Navigational lighting and aids. • Seafarer certification. • Constant bridge watch on support vessels. • Stakeholder consultation.
Operational discharges	
<p>Description of risks</p> <p>Planned discharges from vessels to the marine environment include:</p> <ul style="list-style-type: none"> • Deck drainage. • Cooling water. • Bilge water. • Ballast water. • Desalination brine. <p>Other discharges associated with planned maintenance and operations include:</p> <ul style="list-style-type: none"> • Discharges from cathodic protection systems on subsea pipelines. • Discharges from maintenance activities (e.g., releases during repair of infrastructure, leak testing, fabric maintenance). • Paint and chemicals from cleaning, inspection and repair of infrastructure and pipeline. • These volumes are small, residual amounts and are not measurable. 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Sewage treatment system. • Oily water treatment system. • Waste (garbage) management plan. • Deck cleaning product selection procedure. • Chemical selection procedure. • Pipeline flushing prior to opening of the subsea system.

Table 3. Activity impacts and risk management ... continued

Potential activity risks	
Unplanned introduction of invasive marine species (IMS)	
<p>Description of risks</p> <p>Introduction of invasive marine species (IMS) may occur due to:</p> <ul style="list-style-type: none"> • Biofouling on vessels and external/internal niches (such as sea chests, seawater systems). • Biofouling on equipment that is routinely submerged in water (such as ROVs). • Discharge of high-risk ballast water. • Cross-contamination between vessels. 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Implementation of the management controls in the Santos Invasive Marine Species Management Plan (IMSMP). • Anti-foulant system. • Ballast water management plan.
Unplanned interaction with marine fauna	
<p>Description of risks</p> <p>There is the potential for vessels or equipment (e.g., ROV) involved in operational activities to interact with marine fauna, including potential strike or collision potentially resulting in severe injury or mortality. Fauna strike may also occur from drone collision, during take-off and landing.</p>	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Constant bridge watch on support vessels. • Procedure for interacting with marine fauna. • Constant bridge watch. • Marine fauna protection available on the vessel for use on ROV.
Unplanned release of solid objects	
<p>Description of risks</p> <p>Solid objects, such as those listed below, can be accidentally released to the marine environment, and potentially impact on sensitive receptors:</p> <ul style="list-style-type: none"> • Non-hazardous solid wastes, e.g., paper, plastics and packaging. • Hazardous solid wastes, e.g., batteries, fluorescent tubes, medical wastes, and aerosol cans. • Equipment and materials, e.g., hard hats, tools or infrastructure parts. 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Vessels Planned Maintenance System. • Dropped Object Prevention Procedure. • Garbage management. • Dropped Object Recovery.

Table 3. Activity impacts and risk management ... continued

Unplanned hazardous liquid release to the marine environment (non-hydrocarbon)	
<p>Description of risks</p> <p>Causes for accidental liquid releases (other than diesel and condensate spills) include:</p> <ul style="list-style-type: none"> • Transferring, storing or using bulk products. • Mechanical failure of equipment. • Hose or hose connection failure or leak. • Lifting – dropped objects damaging liquid vessels (containers). • ROV operations. 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Dropped object prevention procedure. • Hazardous Chemical Management Procedure. • General Chemical Management Procedure. • Refuelling and chemical transfer procedure. • Vessel spill response plans [Shipboard Oil Pollution Emergency Plan (SOPEP) / Shipboard Marine Pollution Emergency Plan (SMPEP)]. • ROV inspection and maintenance procedures.
Unplanned subsurface release of treated seawater from the DCG Supply Pipeline	
<p>Description of risks</p> <p>Unplanned release of seawater treated with oxygen scavenger and biocide (preservation fluid) may occur as a result of:</p> <ul style="list-style-type: none"> • Pipeline rupture caused by an integrity or corrosion issue, dropped object or anchor drag. • The maximum credible spill scenario as a result of a full pipeline rupture is the release of approximately 13,000 m³ of preservation fluid. 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • DEMIRS accepted safety case. • Planned subsea and offshore maintenance. • Inspection and corrosion monitoring. • Navigational charting of infrastructure. • Anchoring and equipment deployment management.
Unplanned terrestrial flora and fauna interactions	
<p>Description of risks</p> <p>Terrestrial flora and fauna interaction could occur due to:</p> <ul style="list-style-type: none"> • Potential fauna strikes due to vehicle inspections of pipeline corridor. • Erosion caused by access to onshore operational area or presence of the pipeline. • Potential for contribution to the spread of weed species, or interactions with protected flora species. • Potential fauna strike during drone use for pipeline inspections. • Potential fire may cause mortality or injury to fauna, vegetation and habitat damage. 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Protected Marine Fauna Interaction and Sighting Procedure. • Management of excavation activities. • Permit to work system. • Elimination of vehicle use for pipeline inspections and maintenance. • Incident Response Plan. • Change management procedure.

Table 3. Activity impacts and risk management ... continued

Unplanned subsurface release of hydrocarbon from the DCG Supply Pipeline	
<p>Description of risks</p> <p>Sources of risk from a major hydrocarbon releases may occur as a result of:</p> <ul style="list-style-type: none"> • Pipeline rupture caused by an integrity or corrosion issue, dropped object or anchor drag. • The maximum credible spill scenario as a result of a full pipeline rupture is the release of 121.4 m³ of reindeer condensate over 3.75 hours. 	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Dropped object prevention procedures. • Navigational charting of infrastructure. • Inspection of hydrocarbon containing equipment. • Testing and maintenance of emergency shutdown systems and shutdown/safety valves. • DEMIRS accepted safety case. • Inspection and corrosion monitoring. • Incident response plan detailing the requirements for preparedness and response to emergencies and crises to protect people and the environment. • Anchoring and equipment deployment management. • In the event of a hydrocarbon spill, an activity specific Oil Pollution Emergency Plan (OPEP) will be implemented to mitigate environmental impacts. The OPEP sets out environmental protection priorities and appropriate response measures for a range of spill scenarios. The OPEP is developed in accordance with National and State marine pollution plans.

Table 3. Activity impacts and risk management ... continued

Unplanned surface release of diesel from a vessel collision or bunkering	
<p>Description of risks</p> <p>The maximum credible spill scenario as a result of a vessel collision is the release of 325 m³ of marine diesel oil.</p>	<p>Compliance with the following key management measures</p> <ul style="list-style-type: none"> • Navigational charting of infrastructure. • Navigation lighting and aids. • Seafarer Certification. • Refuelling and chemical transfer procedure. • Vessel spill response plan (SOPEP / SMPEP). • Support vessel positioning. • In the event of a hydrocarbon spill, an activity specific OPEP will be implemented to mitigate environmental impacts. The OPEP sets out environmental protection priorities and appropriate response measures for a range of spill scenarios. The OPEP is developed in accordance with National and State marine pollution plans.

Consultation

Consultation provides Santos with an opportunity to receive feedback from authorities, persons and organisations whose functions, interests or activities may be affected by proposed petroleum activities.

This feedback helps us to refine or change the management measures we plan to use to address any potential activity impacts and risks. Santos' objective for proposed activities is to reduce environmental impacts and risks to a level that is as low as reasonably practicable (ALARP) and acceptable over the life of the activity.

Consultation also helps us to identify values and sensitivities where information is not publicly available, such as spiritual and cultural connection to land and sea country, as well as to receive first-hand feedback on commercial and recreational fishing, tourism and local community activities and interests.

Providing feedback

You may be a relevant person if, for example, you have spiritual or cultural connections to land and sea country in accordance with Indigenous tradition that might be affected by our activity, or if you otherwise carry out recreational or commercial fishing, tourism or other activities that might be affected by our proposed activity, or if you are part of a local community that might be affected by our proposed activity.

If you consider that you may be a relevant person, please contact us by **28 June 2024** to allow Santos time to initiate consultation with you, so you can tell us how you would like to be consulted throughout the consultation process or if you need additional information. The consultation period for this EP closes on **29 July 2024**.

The merits of relevant person feedback provided through the consultation process will be considered during EP development, with a summary of responses summarised and included in the EP submitted to DEMIRS for assessment. Please let us know if you would like your personal/organisational details or any part of your feedback to remain private and we will ensure this remains confidential to DEMIRS.

More information about how community members can participate in environmental approvals for activities proposed in Commonwealth waters has been published in a [brochure](#) by DEMIRS.

Contact

E: offshore.consultation@santos.com

T: 1800 267 600

[santos.com/offshoreconsultation](https://www.santos.com/offshoreconsultation)