



TotalEnergies EP South Africa B.V.

ENVIRONMENTAL AND SOCIAL IMPACT
ASSESSMENT (ESIA) FOR THE OFFSHORE
PRODUCTION RIGHT AND ENVIRONMENTAL
AUTHORISATION APPLICATIONS FOR BLOCK
11B/12B - REF NO: 12/4/13 PR

Draft Environmental and Social Impact Assessment Report



CHAPTER 8

REPORT NO: 41105306-358669-10 SEPTEMBER 2023



TotalEnergies EP South Africa B.V.

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) FOR THE OFFSHORE PRODUCTION RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATIONS FOR BLOCK 11B/12B – REF NO: 12/4/13 PR

Draft Environmental and Social Impact Assessment Report

PUBLIC

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8 ENVIRONMENTAL AND SOCIAL SCREENING OF POTENTIAL IMPACTS

Screening is a process involving the determination of whether an individual proposal (project, programme, policy, etc.) requires further environmental assessment and, if so, what level of detail this assessment should entail [(Sadler, 1996) in: (DEAT, 2002)].

As part of the ESIA process, environmental and social screening of the potential impacts associated with the Project activities was undertaken. Potential sources of impacts, called impact-producing factors (IPFs), were identified and allocated to the various phases of the Project, and a category of unplanned events, as appropriate. The potential receptors which the IPFs could interact with were then identified and are presented in Table 8-1.

Building on from this, an aspects and impacts register, for each of the Project phases, has been developed, to further elaborate on the impacts identified through the initial screening for potential interactions (see Table 8-2 to Table 8-3).

Where identified potential impacts are deemed to be of negligible significance, these impacts have been screened out. Table 8-4 lists the impacts deemed insignificant and provides the motivation for excluding them from the assessment.

The impacts identified as significant have been subjected to a detailed assessment as outlined in Sections 9 and 10.

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8.1 ENVIRONMENTAL AND SOCIAL INTERACTION MATRIX

This section presents the environmental and social matrix applicable to the proposed Project. The potential receptors which the IPFs could interact with during normal operations and unplanned events were identified and are presented in Table 8-1.

Table 8-1— Environmental and Social Impact Matrix

Receptors			hysion iron		t		Bi	olog	ical I	Envii	onm	ent		E	cond	omic	Con	ditio	ns				Socia	l Co	ndit	tions	•		
IPFs	Atmosphere / Air Quality	Climate	Water Quality	Underwater Sound Levels	Sediment Quality	Important Marine Features Including Corals	Benthic Communities	Plankton, Fish and Other Fishery Resources	Marine and Coastal Birds	Marine Mammals	Sea Turtles	MPAs and Other Areas of Conservation Interest	Biodiversity	Maritime Navigation	Commercial Fisheries	Artisanal Fisheries and Related Activities	Tourism and Recreation	National Government	Employment & Business Opportunities	Population and Demography	Household Livelihood, incl. Fisheries	Community Health, Safety and Security	Public Infrastructure & Services / Municipal Land Uses	Vulnerable Groups	Maritime and Archaeological Heritage	Intangible Cultural Heritage	Landscape and Seascape	Social Environment	Human Rights
1 NORMAL OPERA			\\/all	Deill	ina																								
1.1 Exploration and Mobilisation and	Appr	aisai	vveii	ווווט	irig																								
demobilisation of	•	•	•	•				•	•	•	•	•	•	•	•	•	•									•	•		
drilling unit																													
Well drilling	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•						•	•		•	•	•		
Well flow testing	•	•	•				•	•	•			•					•					•				•	•		
Vertical seismic profiling				•					•	•	•			•	•	•					•								

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Receptors			hysi viron		t		Bi	ologi	ical E	nvir	onm	ent		E	cond	omic	Con	ditio	ns				Socia	I Cor	ndit	ions	•		
IPFs	Atmosphere / Air Quality	Climate	Water Quality	Underwater Sound Levels	Sediment Quality	Important Marine Features Including Corals	Benthic Communities	Plankton, Fish and Other Fishery Resources	Marine and Coastal Birds	Marine Mammals	Sea Turtles	MPAs and Other Areas of Conservation Interest	Biodiversity	Maritime Navigation	Commercial Fisheries	Artisanal Fisheries and Related Activities	Tourism and Recreation	National Government	Employment & Business Opportunities	Population and Demography	Household Livelihood, incl. Fisheries	Community Health, Safety and Security	Public Infrastructure & Services / Municipal Land Uses	Vulnerable Groups	Maritime and Archaeological Heritage	Intangible Cultural Heritage	Landscape and Seascape	Social Environment	Human Rights
Well plugging and abandonment				•			•	•						•	•	•													
1.2 Survey and Data	Coll	ectic	n Ac	tivitie	es																								
Bathymetry and sonar surveys				•				•		•	•																		
Seafloor sampling surveys							•																		•				
Metocean surveys							•			•				•	•	•													
1.3 Production																													
1.3.1 Production and	d App	orais	al We	ell Dr	illing																								
Mobilisation and demobilisation of drill unit	•	•	•	•				•	•	•	•	•	•	•	•	•	•		•	•	•	•				•	•		
Well drilling	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	•	•	
Well flow testing	•	•	•				•	•	•			•					•					•				•	•		



Receptors			hysi viron		t		Bi	iolog	ical	Envi	ronm	ent		E	cond	omic	Con	ditio	ns				Socia	l Co	ndit	tions	3		
IPFs	Atmosphere / Air Quality	Climate	Water Quality	Underwater Sound Levels	Sediment Quality	Important Marine Features Including Corals	Benthic Communities	Plankton, Fish and Other Fishery Resources	Marine and Coastal Birds	Marine Mammals	Sea Turtles	MPAs and Other Areas of Conservation Interest	Biodiversity	Maritime Navigation	Commercial Fisheries	Artisanal Fisheries and Related Activities	Tourism and Recreation	National Government	Employment & Business Opportunities	Population and Demography	Household Livelihood, incl. Fisheries	Community Health, Safety and Security	Public Infrastructure & Services / Municipal Land Uses	Vulnerable Groups	Maritime and Archaeological Heritage	Intangible Cultural Heritage	Landscape and Seascape	Social Environment	Human Rights
Vertical seismic profiling				•					•	•	•			•	•	•					•								
Well plugging and abandonment				•			•	•						•	•	•			•	•				•				•	
1.3.2 Construction																													
Subsea production system			•	•		•	•	•	•			•	•	•	•	•			•	•	•		•	•	•	•	•	•	
Subsea production pipeline and riser			•	•		•	•	•	•			•	•	•	•	•			•	•	•		•	•	•	•	•	•	
F-A Platform modifications			•	•				•	•						•	•			•	•	•		•	•	•	•	•	•	



Receptors			hysion		t		Bi	olog	ical I	Envii	onm	ent		E	cond	omic	Con	ditio	ns				Socia	l Co	ndi	tions	;		
IPFs	Atmosphere / Air Quality	Climate	Water Quality	Underwater Sound Levels	Sediment Quality	Important Marine Features Including Corals	Benthic Communities	Plankton, Fish and Other Fishery Resources	Marine and Coastal Birds	Marine Mammals	Sea Turtles	MPAs and Other Areas of Conservation Interest	Biodiversity	Maritime Navigation	Commercial Fisheries	Artisanal Fisheries and Related Activities	Tourism and Recreation	National Government	Employment & Business Opportunities	Population and Demography	Household Livelihood, incl. Fisheries	Community Health, Safety and Security	Public Infrastructure & Services / Municipal Land Uses	Vulnerable Groups	Maritime and Archaeological Heritage	Intangible Cultural Heritage	Landscape and Seascape	Social Environment	Human Rights
1.3.3 F-A Platform O	pera	tion																											
Operation and maintenance of gas field, subsea infrastructure, F-A Platform	•	•	•	•					•					•			•	•	•	•	•	•	•	•		•	•	•	
1.3.4 Decommission	ing																												
Mobilisation and demobilisation of drill unit	•	•	•	•				•	•	•	•	•	•	•	•	•		•	•	•	•	•				•	•		
Decommissioning of deepwater infrastructure (e.g. subsea production system)			•	•			•	•					•	•	•	•			•	•	•		•	•				•	



Receptors			hysion		t		Bi	iolog	ical I	Envii	onm	ent		E	cond	omic	Con	ditio	ns				Socia	l Coi	ndit	ions	;		
IPFs	Atmosphere / Air Quality	Climate	Water Quality	Underwater Sound Levels	Sediment Quality	Important Marine Features Including Corals	Benthic Communities	Plankton, Fish and Other Fishery Resources	Marine and Coastal Birds	Marine Mammals	Sea Turtles	MPAs and Other Areas of Conservation Interest	Biodiversity	Maritime Navigation	Commercial Fisheries	Artisanal Fisheries and Related Activities	Tourism and Recreation	National Government	Employment & Business Opportunities	Population and Demography	Household Livelihood, incl. Fisheries	Community Health, Safety and Security	Public Infrastructure & Services / Municipal Land Uses	Vulnerable Groups	Maritime and Archaeological Heritage	Intangible Cultural Heritage	Lands cape and Seascape	Social Environment	Human Rights
Retrieval of shallow water infrastructure (e.g. riser)			•	•	•		•						•						•	•	•		•	•				•	
Well plugging and abandonment				•			•	•						•	•	•			•	•				•				•	
1.4 Onshore support	activ	/ities	and	com	pone	ents																							
Establishment of logistics base within Mossel Bay port																		•	•	•	•		•	•			•	•	
Mobilisation and demobilisation of specialised, support and supply vessels	•	•	•	•				•	•	•	•		•	•	•	•	•	•				•	•	•		•	•		



Receptors			hysion		t		Bi	olog	ical E	Envir	onm	ent		E	cond	omic	Con	ditio	ns				Socia	l Co	ndit	ions			
IPFs	Atmosphere / Air Quality	Climate	Water Quality	Underwater Sound Levels	Sediment Quality	Important Marine Features Including Corals	Benthic Communities	Plankton, Fish and Other Fishery Resources	Marine and Coastal Birds	Marine Mammals	Sea Turtles	MPAs and Other Areas of Conservation Interest	Biodiversity	Maritime Navigation	Commercial Fisheries	Artisanal Fisheries and Related Activities	Tourism and Recreation	National Government	Employment & Business Opportunities	Population and Demography	Household Livelihood, incl. Fisheries	Community Health, Safety and Security	Public Infrastructure & Services / Municipal Land Uses	Vulnerable Groups	Maritime and Archaeological Heritage	Intangible Cultural Heritage	Landscape and Seascape	Social Environment	Human Rights
Helicopter flights	•	•		•				•	•	•	•						•		•			•				•	•		
2 UNPLANNED EV																													
Accidental loss of																													
equipment								•		•	•				•	•													
Accidental hydrocarbon spills and releases due to pipeline rupture or leak, vessel accident or	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•				•	•		•		•	•		•
bunkering																													
Well blowout	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•				•	•		•		•	•		•
Accidental SPS and (Trawling) vessel accident																					•	•							



Receptors			hysi viron		t		В	iolog	jical	Envi	ronm	ent		E	Con	omic	Con	ditio	ns				Socia	I Co	ndit	ions	•		
IPFs	Atmosphere / Air Quality	Climate	Water Quality	Underwater Sound Levels	Sediment Quality	Important Marine Features Including Corals	Benthic Communities	Plankton, Fish and Other Fishery Resources	Marine and Coastal Birds	Marine Mammals	Sea Turtles	MPAs and Other Areas of Conservation Interest	Biodiversity	Maritime Navigation	Commercial Fisheries	Artisanal Fisheries and Related Activities	Tourism and Recreation	National Government	Employment & Business Opportunities	Population and Demography	Household Livelihood, incl. Fisheries	Community Health, Safety and Security	Public Infrastructure & Services / Municipal Land Uses	Vulnerable Groups	Maritime and Archaeological Heritage	Intangible Cultural Heritage	Landscape and Seascape	Social Environment	Human Rights
ssel collision																					•	•							

^{• :} indicates a potential interaction between an IPF and a receptor.



ASPECTS AND IMPACTS REGISTERS 8.2

Aspect and Impact Registers have been developed for the proposed Project to present the IPFs and their potential impact on identified receptors during normal operations (see Table 8-2) and unplanned events (see Table 8-3). For each of the Project phases, activities will potentially have impacts on the physical environment, the ecology and biodiversity, social and economic conditions. These potential impacts are the focus of the specialist assessment to understand the significance thereof on the receptors and identify appropriate mitigation measures to minimise the severity of the impact where avoidance is not possible.

Table 8-2 - Aspect and Impact Register: Normal Operations

No.	Project Activity / Phase / IPF	Aspect	Potential Impact
1	Exploration and App	oraisal Well Drilling	
1.1	Mobilisation and	Air emissions due to exhaust gases	Atmospheric pollution potentially resulting in impacts on community health (onshore)
	demobilisation of drilling unit	GHG emissions due to exhaust gas emissions	Contributions to global climate change
	3	Increased underwater noise levels due to vessel transit and movement	Disturbance to marine fauna
		Light emissions from drilling unit	Disturbance/behavioural changes to marine fauna and injury/death to seabirds; degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages
		Presence and/or movement of drill rig	Injury or death to seabirds; increased seabird exposure to predators; introduction/spread of alien invasive species leading to reduced biodiversity; degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages
		Routine discharges to sea	Reduced water quality resulting in physiological effects and/or mortality of marine fauna
		Discharge of ballast water	Introduction/spread of alien invasive species leading to reduced biodiversity
1.2	Well drilling	Air emissions due to exhaust gases	Atmospheric pollution potentially resulting in impacts on community health (onshore)
		GHG emissions due to exhaust gas emissions	Contributions to global climate change
		Increased underwater noise levels due to drilling platform thrusters and support vessel and tugboat movements	Disturbance/physical injury to hearing/behavioural changes to marine megafauna, fish, turtles and avifauna;
		Physical disturbance of seafloor sediments due to the well drilling activities and placement of infrastructure	Loss of benthic habitat and disturbance/mortality of marine epifauna and infauna; damage and destruction to palaeontological heritage resources; and the degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages
		Maritime safety zones	Loss of access to fishing grounds and catch per unit effort, potential negative impact on mariculture
		Reduced water quality due to drill cuttings and other discharges to sea	Changes in benthic community structure and resulting impacts on infauna and epifauna; impacts of elevated turbidity on pelagic marine biota and light penetration; reduced fisheries catch; degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages
1.3	Well flow testing	Air emissions due to non-routine flaring	Atmospheric pollution potentially resulting in impacts on community health (onshore)
		Increased GHG emissions due to non-routine flaring	Contributions to global climate change
		Reduced water quality due to oil/produced water discharges to sea	Physiological injury or behavioural disturbance to marine fauna
		Light emissions due to non-routine flaring	Disturbance to pelagic marine fauna; changes in the degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages
1.4	Vertical seismic profiling	Increased underwater noise levels due to airgun arrays	Disturbance/behavioural changes to marine megafauna and avifauna
1.5	Well plugging and abandonment	Physical presence of seafloor infrastructure and discharge of residual cement due to well plugging and abandonment activities	Disturbance and destruction of benthic environments and marine epifauna and infauna
		Maritime safety zones	Loss of access to fishing grounds and catch per unit effort, negative impact on mariculture
2	Survey and Data Co	ollection Activities	
2.1	Bathymetry and sonar surveys	Increased underwater noise levels due to multi-beam echo-sounding, single beam echo-sounding and sub-bottom profiling	Disturbance/behavioural changes to marine fauna due to interference with biologically important sounds, i.e. communication, echolocation, etc.; physical injury to hearing in marine mammals and sea turtles

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No.	Project Activity / Phase / IPF	Aspect	Potential Impact
2.2	Seafloor sampling surveys	Physical disturbance of seafloor sediments	Disturbance of benthic environments and marine epifauna and infauna; damage to palaeontological heritage resources
2.3	Metocean surveys	Physical presence of seafloor infrastructure due to metocean anchor buoys	Disturbance and destruction of benthic environments and marine epifauna and infauna; damage and destruction to palaeontological heritage resources; and the degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages
		Maritime safety zones	Loss of access to fishing grounds and catch per unit effort
3	Production		
3.1	Production and App	oraisal Well Drilling	
3.1.1	Mobilisation and demobilisation of drill unit	As per Section 1.1 in Table 8-2	As per Section 1.1 in Table 8-2
3.1.2	Well drilling	As per Section 1.2 in Table 8-2	As per Section 1.2 in Table 8-2
3.1.3	Well flow testing	As per Section 1.3 in Table 8-2	As per Section 1.3 in Table 8-2
3.1.4	Vertical seismic profiling	As per Section 1.4 in Table 8-2	As per Section 1.4 in Table 8-2
3.1.5	Well plugging and abandonment	As per Section 1.5 in Table 8-2	As per Section 1.5 in Table 8-2
3.2	Construction		
3.2.1	Subsea production system, subsea	Physical disturbance of seafloor sediments due to the construction and placement of subsea infrastructure	Loss of benthic habitat and disturbance/mortality of marine epifauna and infauna; disturbance, damage or destruction of palaeontological and maritime heritage resources; degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages
	production pipeline and riser	Increased underwater noise levels	Disturbance/physical injury to hearing/behavioural changes to marine megafauna and avifauna
	p.poo aaoo.	Light emissions from construction activities	Disturbance to pelagic marine fauna
		Maritime safety zones	Loss of access to fishing grounds and catch per unit effort, potential negative impact on mariculture
3.2.2	F-A Platform modifications	Increased noise and light emissions from construction activities	Disturbance/behavioural changes to marine fauna and injury/death to seabirds; degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages
3.3	F-A Platform Opera	tion	
3.3.1	Operation and	Air emissions due to exhaust gases and flaring at F-A Platform	Atmospheric pollution potentially resulting in impacts on community health (onshore)
	maintenance of gas field, subsea	Increased GHG emissions due to exhaust gas emissions	Contributions to global climate change
	infrastructure, F-A Platform	Increased noise and light emissions from F-A Platform operations	Disturbance/behavioural changes to marine fauna and injury/death to seabirds; degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages
		Routine discharges to sea; flowlines pigging	Increased predator-prey interactions; physiological effects and/or mortality of marine fauna
		Presence of subsea infrastructure	Changes in benthic community structure and resulting impacts on infauna and epifauna
		Presence of shallow riser	Injury or death to seabirds; increased seabird exposure to predators
		Maritime safety zones	Loss of access to fishing grounds and catch per unit effort, potential negative impact on mariculture
		Royalties and taxes generated through the Project will accrue to the national government	Increased revenue to fund the national budge



No.	Project Activity / Phase / IPF	Aspect	Potential Impact		
3.4	Decommissioning	ning			
3.4.1	Mobilisation and demobilisation of drill unit	As per Section 1.1 in Table 8-2	As per Section 1.1 in Table 8-2		
3.4.2			Physical disturbance of seafloor sediments due to the discharge of residual impurities and contaminants resulting in disturbance and destruction of benthic environments and marine epifauna and infauna; and the degradation and disturbance to intangible cultural heritage including sense of place and ancestral/spiritual linkages		
3.4.3	Retrieval of shallow water infrastructure (e.g. riser)	Physical disturbance of seafloor sediments due to the retrieval of subsea infrastructure	Disturbance of benthic environments and marine epifauna and infauna; changes in benthic community structure; degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages		
		Pigging of production pipeline and flushing and cleaning of subsea infrastructure	Physical disturbance of seafloor sediments due to the discharge of residual impurities and contaminants resulting in disturbance and destruction of benthic environments and marine epifauna and infauna		
3.4.4	Well plugging and abandonment	As per Section 1.5 in Table 8-2	As per Section 1.5 in Table 8-2		
4	Onshore support ac	tivities and components			
4.1	Establishment of logistics base within the Mossel Bay port	Increased spending on local goods, services and labour	Increased economic activity and employment leading to positive impacts on household livelihoods; negative impacts associated with possible project-induced in-migration and on social environment		
		Increased fresh water requirements	Increased pressure on water resources in the municipal area resulting in increased pressure on public infrastructure and service provision		
		Routine disposal of waste at licensed waste disposal facilities	Potential mismanagement of waste leading to environmental pollution and increased risk to community health		
4.2	Movement of specialised, support and supply vessels (Mossel Bay, Cape Town and/or Gqeberha)	Air emissions due to exhaust gases	Atmospheric pollution potentially resulting in impacts on community health (onshore)		
		Increased GHG emissions due to exhaust gas emissions	Contributions to global climate change		
		Increased ambient and underwater noise levels	Disturbance/physical injury to hearing/behavioural changes to marine megafauna and avifauna		
		Increased maritime traffic	Decreased activities of small-scale and recreational fishers; delays/schedule impacts on non-Project vessels; and disruption of local tourism and recreation activities; injury or mortality to seabirds; degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages		
		Increased spending on local goods, services and labour	Increased economic activity and employment leading to positive impacts on household livelihoods; negative impacts associated with possible project-induced in-migration and on social environment		
		Routine discharges to sea	Reduced water quality resulting in physiological effects and/or mortality of marine fauna		
		Discharge of ballast water	Introduction/spread of alien invasive species leading to reduced biodiversity		
4.3	Helicopter flights	Air emissions due to exhaust gases	Atmospheric pollution potentially resulting in impacts on community health (onshore)		
		Increased GHG emissions due to exhaust gas emissions	Contributions to global climate change		
		Increased ambient air noise levels due to helicopter flight paths	Disturbance/physical injury to hearing/behavioural changes to marine megafauna and avifauna; disruption of local tourism and recreation activities		



Table 8-3 – Aspect and Impact Register: Unplanned Events

No.	Project Activity / Phase / IPF	Aspect	Potential Impact
1.1	All phases	Accidental loss of equipment to sea	Obstruction or damage to fishing gear; injury or destruction to marine fauna due to ingestion of pollution or entanglement
		Vessel collision	Potential loss of life
		Accidental hydrocarbon spills and releases due to vessel accident or bunkering	Reduced water quality resulting in physiological effects and/or mortality of marine fauna; reduced fishery catch and negative impact on household livelihoods; disruption of local tourism and recreation activities; degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages
1.2	Exploration, appraisal and production well drilling	Well blowout	Reduced water quality resulting in physiological effects and/or mortality of plankton, benthic fauna, fish, seabirds, turtles, marine mammals and coastal environment; reduced fishery catch and negative impact on household livelihoods; disruption of local tourism and recreation activities; degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages
1.3	Operation and maintenance of gas field, subsea infrastructure, F-A Platform	Production pipeline rupture	Reduced water quality resulting in physiological effects and/or mortality of marine fauna; reduced fishery catch and negative impact on mariculture; negative impact on household livelihoods; disruption of local tourism and recreation activities; degradation and disturbance to intangible cultural heritage, including sense of place and ancestral/spiritual linkages
1.4		Accidental SPS and (Trawling) vessel accident	Potential loss of life; negative impact on household livelihoods

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8.3 SCREENING OUT OF INSIGNIFICANT IMPACTS

Where identified potential impacts are deemed to be of negligible significance, these impacts have been screened. **Table 8-4** lists the impacts deemed insignificant and provides the motivation for excluding them from the assessment.

The impacts identified as significant have been subjected to a detailed assessment as outlined in Chapters 9 and 10.

Table 8-4 – Screening out of insignificant impacts

No.	Potential Impact	Reason Screened Out
1	Possibility of Project-induced in- migration	Due to the specific nature of the Project (relatively low local job creation potential, cyclical nature of expat deployment), the specialised nature of work required and the offshore location of the development plus its distance from shore, it is not expected that there will be any significant direct project-related population change.
2	Pressure on public infrastructure and services	Due to the specific nature of the Project (relatively low local job creation potential, cyclical nature of expat deployment), the specialised nature of work required and the offshore location of the development plus its distance from shore, it is not expected that there will be any significant direct Project-related population change. The possibility of increased pressure on public infrastructure and services is therefore deemed to be low.
3	Impacts on municipal land uses	The offshore location of the bulk of the development will minimise spatial impacts on the MBLM. Onshore impacts will likely consist of a Project laydown area and the use of the Port of Mossel Bay as a logistical support base. TEEPSA will probably use the PetroSA support facilities at the port.
4	Impacts to submerged prehistoric archaeological sites or material.	Block 11B/12B lies below the maximum sea level depth at which submerged prehistoric sites or materials can be expected. Although the portions of the pipeline route options/riser nearest to the F-A platform are located in water less than 120 m deep, the likelihood of submerged cultural material being encountered or recorded during construction is extremely low.
5	Impacts to recorded historical wrecks, unknown historical wrecks or maritime debris.	There are no recorded historical shipwrecks within Block 11B/12B.
6	Economic impact of increased marine traffic.	While the proposed activities may alter the normal course of marine traffic, the economic impact of this is negligible.
7	Impact on air quality as a result of emissions from marine survey vessels	Emission contributions from marine survey vessels have been calculated to be extremely low and will occur infrequently over short periods of time.



No.	Potential Impact	Reason Screened Out	
8	Potential mismanagement of waste leading to environmental pollution onshore and increased risk to community health	Waste generated by the Project that cannot be reused or recycled will be disposed onshore at licensed waste disposal facilities in accordance with a Project-specific waste management plan. The volumes of waste generated by the project will be relatively small and the disposal of waste will be fully traceable to ensure correct disposal.	
9	Increased pressure on water resources in the municipal area	Limited volumes of fresh water will be required during well drilling activities, for water supply, cement and mud preparation. During the Construction Phase, minimal fresh water would be required to support supply bases and ports. During the Production and Decommissioning Phases, no water will be required as the F-A Platform is self-sufficient, generating its own potable water. Freshwater will be supplied via supply vessels and will be supplemented by seawater desalination.	



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