



Learmonth Pipeline
Fabrication Facility

Social Impact Assessment

Prepared for:
Subsea 7

May 2019

● people ● planet ● professional

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Executive Summary

Subsea 7 Australia Contracting Pty Ltd is proposing to develop the Learmonth Pipeline Fabrication Facility, located 35 km from Exmouth town site in the Gascoyne region of Western Australia (WA). The proposed development was referred to the WA Environmental Protection Authority (EPA) under Part IV, Section 38 of the *Environmental Protection Act 1986 (EP Act)*. The EPA determined to assess the project at a level set at Public Environmental Review (PER) and Social Surroundings is deemed a preliminary key environmental factor for the review. The purpose of this Social Impact Assessment is to fulfil the requirements of the PER and assess potential impacts relevant to Social Surroundings.

The Project involves the construction and operation of a subsea pipeline bundle fabrication facility at Heron Point, where completed bundles are launched via dedicated tracks into the shallows at Heron Point, before being towed through the Exmouth Gulf and taken to offshore oil and gas fields.

360 Environmental Pty Ltd was commissioned by Subsea 7 to undertake a Social Impact Assessment (SIA) for the proposed Project. The objective of the SIA is to identify the key social risks, opportunities and impacts as a result of the implementation of the Project. The results of the SIA will assist in analysing, monitoring and managing social consequences of the Project and guide stakeholder engagement.

The SIA process involved three main steps:

- a) **Social Scan** – a high level review of the social characteristics, trends, and emerging issues within the affected communities;
- b) **Social Risk Rating**– identification and ranking of the potential social risks and impacts on affected communities and outlines the mitigation measures for each identified significant social risk or impact as well as opportunity realisation; and
- c) **Social Impact Assessment** – assessment and discussion of the significance of potential social impacts (positive or negative) and proposed mitigation measures.

The results of the SIA are summarised in the table below which identify the key social risks and opportunities of the Project after implementing mitigation measures.

SOCIAL RISKS	SOCIAL OPPORTUNITIES
Project approval process (disgruntled wider community, activism and community divide). High-medium Risk.	Increased demand for supporting industries (increased revenue and contract opportunities, economic contributions to local industry and Gascoyne). High-medium positive Opportunity.
The 'physical presence of the Fabrication Facility', 'bundle tow traverses World Heritage Area' and the 'implementation of	Increased demand for employees (impacts include increased employment opportunities for local community and

SOCIAL RISKS	SOCIAL OPPORTUNITIES
exclusion zones during bundle tow in the Gulf' all ranked as a medium level of risk. Impacts associated with these risks were restricted access both onshore and offshore during bundle tows and visual amenity. Medium Risk.	businesses). High-medium-positive Opportunity.
Relationship with Custodians of the land strained (impacts include an unsatisfactory agreement for the custodians of the land). Medium Risk.	Scientific research (provides increased knowledge of existing environment at Heron Point and within the Gulf). Medium-positive Opportunity.
	Increased demand for skills and tradesmen (impacts include training and employment opportunities; upskilling of local workforce). Medium-positive Opportunity.

The SIA determined that although the Project poses a risk of wider community divide through public opposition to the development, the opportunities it presents for long-term sustainable employment, economic growth and upskilling and of the wider (and directly impacted) community of Exmouth is invaluable. Subsea 7 has undertaken significant community and stakeholder engagement to identify public concerns and priorities and used this information to understand potential environmental impacts and develop appropriate mitigation measures. Overall it is expected that the Project will have a positive social contribution to Exmouth, Gascoyne and WA. Subsea 7 intend to be an integral part of uplifting the Exmouth community and their large support from local government and industry at their Wick operations in Scotland, is evidence of this (Appendix D). The EPA's Social Surrounds objective '*to protect social surroundings from significant harm*' will be met.

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1 Introduction

Subsea 7 Australia Contracting Pty Ltd (Subsea 7) is proposing to develop the Learmonth Pipeline Fabrication Facility (Fabrication Facility / the Project) at Heron Point - approximately 35 km south of the Exmouth townsite and 2.5 km south east of the Learmonth Airport. The Project is adjacent to the western shoreline of the Exmouth Gulf to the east of the Exmouth-Minilya Exmouth Rd and within the Shire of Exmouth locality (Figure 1).

Subsea 7 is a world-leading seabed-to-surface engineering, construction and services contractor to the offshore energy industry. Subsea 7 operates throughout the world and has operated in Australia and New Zealand for the past 40 years working with all major oil and gas operators.

The purpose of this Social Impact Assessment (SIA) is to provide supporting information to the Social Surroundings scopes of work required as per the EPA's Environmental Scoping Document (ESD). This SIA will provide context for the community profile in which the Project sits and the potential social impacts as a result of its implementation.

1.1 Project Overview

The Project involves the construction and operation of a pipeline fabrication facility, in order to build pipeline bundles for the offshore oil and gas industry. A pipeline bundle, co-locates a number of services (e.g. gas lines, communication lines, water lines) within a single pipeline bundle. It is constructed onshore before being launched and towed offshore to the relevant gas field. The destination of the bundle can be anywhere from the fields located in deeper waters off the Exmouth coast, right up to the Timor Sea, as determined by the client.

The onshore component of the proposal includes the construction of a fabrication shed, where the bundles will be constructed, a storage area where the bundle materials will be stored prior to use, and two (~10 km long) bundle tracks along which each bundle will be constructed and then launched. Site facilities will include a laydown area, canteen, change room facilities, offices, workshops, diesel generators and diesel storage tanks (Figure 2).

The Project will include the construction of a bundle launchway (380 m long x 15 m wide), crossing the beach and extending into the shallow subtidal zone at Heron Point, to facilitate the launch of each bundle. The onshore Project Envelope is 470 ha with a clearing and disturbance footprint of 177 ha (Figure 1). The component materials, such as pipes, carrier pipes, towheads and other smaller component items and consumables, will be delivered to the Project site from a range of domestic and international locations. The majority of the permanent materials will be transported from other WA ports to site. Where possible, Subsea 7 will look to utilise local industry to support operations.

The offshore envelope includes a predetermined bundle tow route. The bundle will be towed in an off-bottom configuration to the Bundle Parking Area within which tow reconfiguration may occur before continuing out of the Exmouth Gulf towards the North-West shelf gas field in a surface tow configuration. It is proposed that an average of two bundles will be launched per year (a maximum of three) (Figure 1). During a bundle launch, the marine vessel spread will include a leading tug(s), trailing tug, a marine support vessel and guard / watch vessels.

The Project is located partially on Lots 233 (P219618) and 1586 (P72986) and zoned Rural under the Shire of Exmouth Town Planning Scheme No. 4 (TPS 4). The Exmouth Gulf Pastoral Station underlies Lots 233 and 1586. A scheme amendment has been submitted to the Shire of Exmouth seeking a modification to TPS 4 to rezone the Project area as 'Special Use Zone'. An initial motion to proceed with this proposal was approved by the Shire on the 10th October 2017, however, this amendment proposal became redundant when the Shire adopted a new planning scheme (TPS4). Since the new scheme was adopted, a second scheme amendment was proposed and subsequently endorsed by the Shire and Council on the 28th March 2019. This scheme amendment is currently in process.

It is proposed that during the construction phase (9-12 months) an estimate of 50 personnel may be employed at the site. Subsea 7 will source this construction workforce locally as far as possible. During operations (estimated to be 40 yrs in this assessment) an average of 70-80 personnel are required on site during bundle construction activities. Subsea 7 aims to maintain a local workforce, whereby those working on the site are residing in the Exmouth township. Subsea 7 operates one other bundle site in Wick, Scotland. At this site, approximately 95% of the workforce, and 100% of the management team, are local to Wick, or the nearby area. This has been achieved through training and education of the local workforce, or alternatively encouraging a workforce to relocate to the town. Subsea 7's aim is to achieve the same in Learmonth / Exmouth. There is no plan, or intention, to conduct typical FIFO operations for this site.

Road access to the project will be from Exmouth town (there will be no accommodation facilities at the Project) 35 km south along the Exmouth-Minilya Road towards Learmonth and left via a newly proposed access road onto the fabrication facility site. Following traffic investigations, it is proposed that a basic right turning lane will be constructed for vehicles travelling north along the Exmouth-Minilya Road to ease any potential for traffic congestion and improve safety (GHD 2017).

1.1.1 Site Selection

Learmonth was selected as the most appropriate site for the Project development as it was the only Western Australian site that met the specific physical requirements for successful bundle launch and tow operations. The site required a relatively flat 10 km inland strip along the coast to enable bundles to be launched. Ocean conditions need to be relatively calm and shallow (initially) and sheltered from large wave action and swells – Exmouth Gulf provides these conditions. Additionally, the site required to be within a

reasonable distance to existing facilities (towns, airports, local workforce and transportation routes), as well as offshore field developments. The Exmouth region provides these necessary infrastructures. A full and detailed Site Selection Report is provided in the PER for further information (Subsea 7 2019).



Legend

- Project Envelope
- Tow Route
- Offshore Operations Area
- Bundle Parking Area
- Major Roads
- Local Roads

- CADASTRAL BOUNDARY SOURCED FROM LANDGATE 2018
- LOCALITY MAP SOURCED FROM LANDGATE 2007
- AERIAL PHOTOGRAPHY SOURCED FROM ESRI 2019
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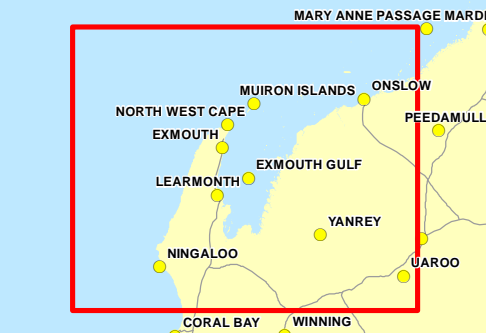
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LOCALITY MAP



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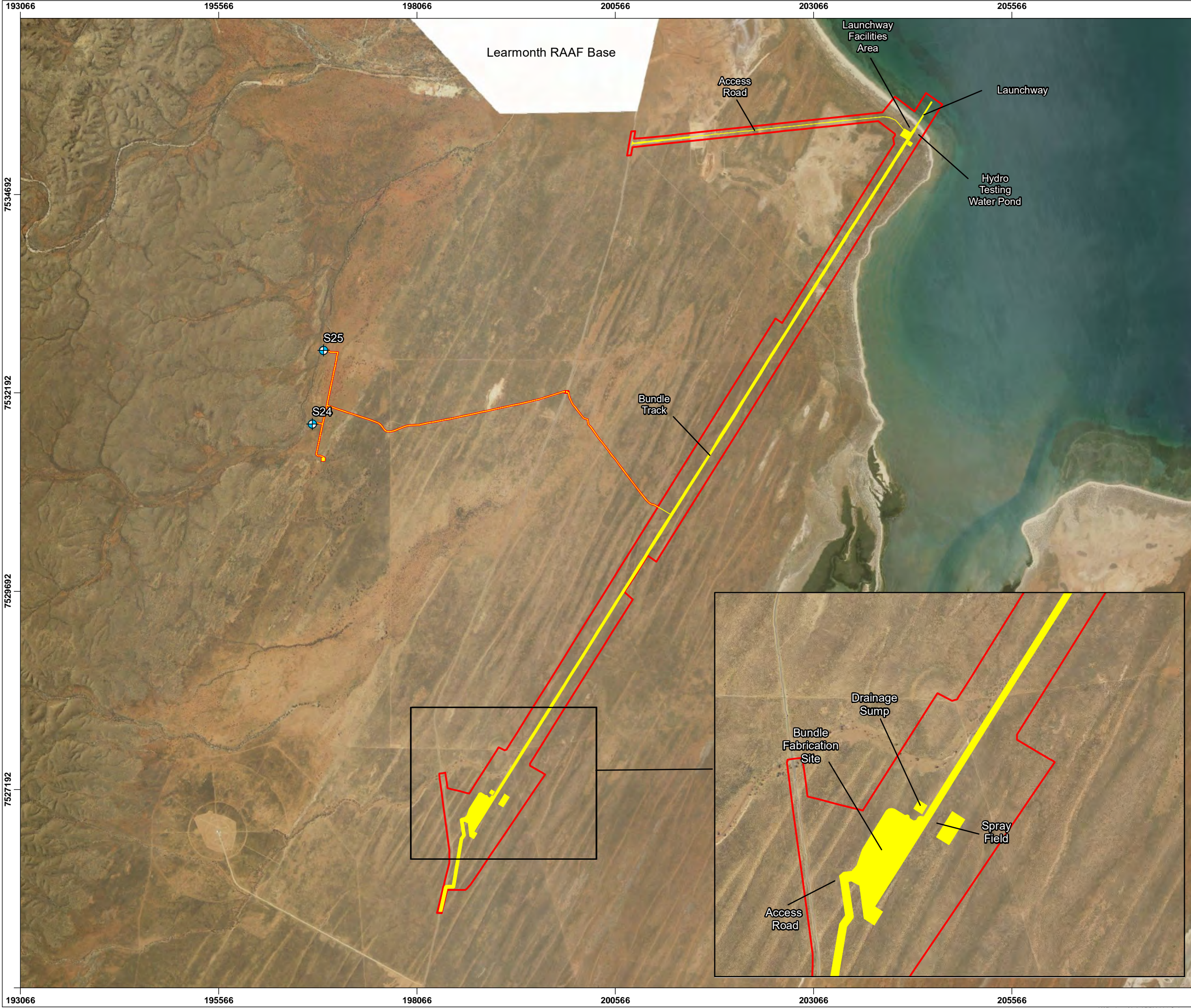
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Facility

Social Impact Assessment

Figure 1 Project Location



- Legend**
- Project Envelope
 - Development Footprint
 - ⊕ Groundwater Bores

- LOCALITY MAP SOURCED LANDGATE 2017
- IMAGERY SOURCED LANDGATE 2018
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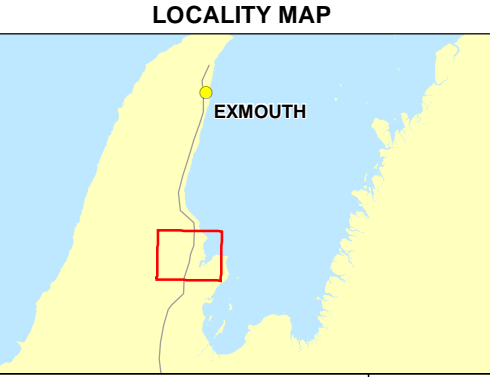
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Learmonth Fabrication Facility

Social Impact Assessment

Figure 2 Site Layout

1.2 Scope

The scope of the SIA is to identify the baseline social setting of the 'social area of influence' (or impact area) and identify the social impacts as a result of the development of the Fabrication Facility.

1.3 Objectives

The objective of this SIA is to identify and understand the social impacts as a result of implementing the Fabrication Facility. The results will be used to a) inform the Social Surrounds scope of work required for the EPA's PER; b) used to aid in ongoing effective stakeholder engagement and c) inform appropriate social impact management and mitigation measures in the future.

1.4 Guiding

The approach taken to understand and assess the impacts of the Fabrication Facility on the Exmouth region is in reference to international leading practice including:

- International Association for Impact Assessment (IAIA) specifically the *International Principles for Social Impact Assessment 2003* (Vanclay 2003) and *Social Impact Assessment: Guidance for Assessing and Managing the Social Impacts of Projects* (Vanclay et al. 2015); and
- International Finance Corporations (IFC) *Performance Standards on Environmental and Social Sustainability 2012*;

The IAIA guideline defines SIA as being “the process of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions” (Vanclay et. al. 2015).

According to the IAIA principles, social impacts are changes to one or more of the following:

- People's way of life - that is, how they live, work, play and interact with one another on a day-to-day basis;
- Their culture - which is their shared beliefs, customs, values and language;
- Their community - it's cohesion, stability, character, services and facilities;
- Their political system – the extent to which they are able to participate in decisions that affect their lives and the level of democratisation that is taking place;
- Their environment - which includes the quality of their physical environment such as air, noise, water, soil and hazard or risk;
- Their health and wellbeing - including physical mental and social wellbeing;

- Their personal and property rights – whether people are economically affected, such as employment and business development opportunities or loss of these opportunities; and
- Their fears and aspirations – their perceptions about their safety, their fears about the future of their community and their aspirations for their future and the future of their children.

2 Social Impact Assessment Process

The three main steps of the SIA process are:

- d) **Social Scan** – a high level review of the social characteristics, trends, and emerging issues within the affected communities (Appendix A);
- e) **Social Risk Rating**– identification and ranking of the potential social risks and impacts on affected communities and outlines the mitigation measures for each identified significant social risk or impact as well as opportunity realisation (Appendix B); and
- f) **Social Impact Assessment** – assessment and discussion of the significance of potential social impacts (positive or negative) and recommended management measures.

In practice, an adaptive approach should be taken throughout the SIA process. This should be in accordance with the guiding principles (as outlined in Section 1.3), to respond to changes in development, social context or available knowledge throughout the life of the proposed Learmonth Pipeline Fabrication Facility. This adaptive approach throughout the life of the Project cycle is illustrated in Figure 3 below.

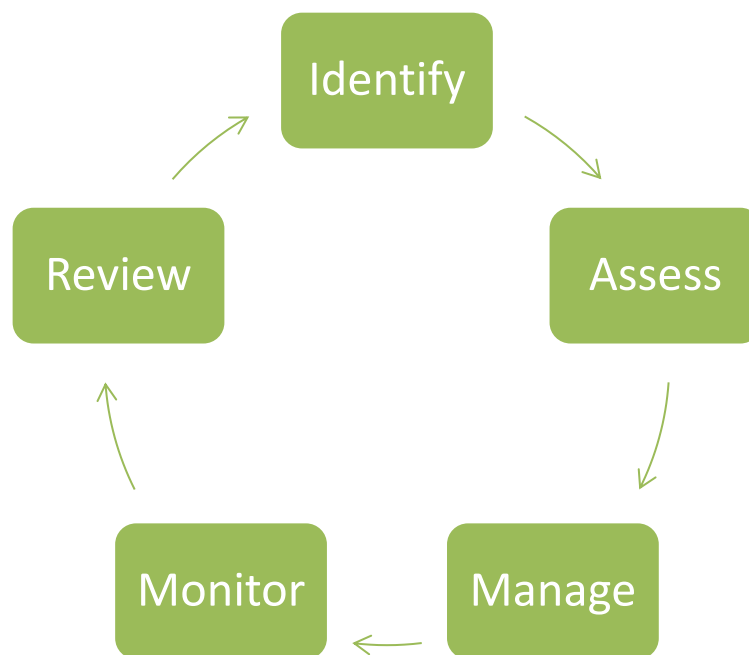


Figure 3: An Adaptive Approach to the Social Impact Process Cycle

2.1 Social Scan (Screening and Scoping)

This first step in SIA involved a high-level analysis of the context, scope and scale of the proposed Learmonth Fabrication Facility (Appendix A). The purpose of screening is to define the impact assessment requirements; identify and assess potential risks to the community that could arise due to the Project; and inform early decision making.

The screening was undertaken using a tool that incorporated the IAIA (2003; 2015) and IFC (2012) principles and standards and addressed the following areas:

- Social and cultural resources;
- Public services and recreation;
- Visual impacts;
- Local economy;
- Social infrastructure and services; and
- Community values, lifestyle and amenity.

Scoping defines the detail of the assessment based on potential interactions with relevant receptors and stakeholders. Scoping focuses the impact assessment on material issues and allows any aspects considered non-material to be scoped out. Scoping also determines the area of influence for the activity and the duration and frequency of impacts. The scoping process was undertaken in consultation with Subsea 7.

Appendix A provides the screening/scoping document which illustrates the screening process whereby a number of potential impact scenarios were posed for various social aspects. If the response to the scenario was null (i.e. the development of the Fabrication Facility has no potential impact on the particular social aspect) then the potential impact was scoped out of the next step (i.e. there was no further discussion in the social impact assessment). The screening process identified potential negative impacts that might result from the Fabrication Facility. For each negative answer, a probability and significance value were determined, and the item was transferred to the next step (i.e. it was discussed further in the social impact assessment). The screening process also allowed the identification of potential positive impacts or opportunities as a result of the Project. For each positive answer, a probability and significance value were determined and all positive answers were transferred to the social impact assessment for further discussion.

It is recommended that subsequent social scans be conducted at regular intervals throughout the life of the proposed project, or in the event of significant changes to the context (e.g. any further major project developments, regulatory change or economic change) or changes in the nature/scale of proposed activities.

2.2 Social Impact Assessment

The second step in the SIA, (once the results of the screening/scoping process were established), a risk assessment was undertaken for each identified potential impact or opportunity (Appendix B). The significance of an impact is determined by the level of risk to the affected community that it represents. Risk is a function of the likelihood of an impact occurring and the magnitude (significance) of the potential consequences should it occur.

2.2.1 Risk Assessment Methodology

The following methodology was used to determine the significance of risks:

- Social baseline studies and early stakeholder engagement were undertaken to understand social setting and community expectations;
- Baseline studies were used to identify potential (positive and negative) social risks (and impacts) from Project implementation;
- The significance of the potential impacts was established by assigning a consequence and likelihood (probability) score to 'initial' risks. Mitigation/control measures were then applied, and a resultant 'residual' risk score was given;
- Potential adverse social impacts with a residual 'medium' to 'high' risk rating were considered significant, while those with minor ratings were considered insignificant. It is recommended that social impact management is required for all significant social impacts with the goal of reducing their risk rating;
- For potential adverse impacts, the mitigation hierarchy was applied. This means that opportunities to *avoid* the adverse impact should be considered first. If the impact cannot be avoided, then opportunities to *minimise* the impact should be identified and *management or mitigation* measures should be applied to ensure impacts area maintained at acceptable levels; and
- Social opportunities were also ranked, and management measures were applied to ensure the continuation/improvement of the opportunities.

2.3 Social Impact Management

An important third step in social impact assessments is developing management measures for each of the identified high and high-medium 'residual' social risks. Subsea 7 will implement these management measures together with the community stakeholder groups to minimise and monitor social impacts throughout the life of the Project.

Ongoing management, mitigation and monitoring requirements will ensure that adverse impacts are acceptable and positive opportunities are realised and maintained. Management and mitigation measures, particularly those relating to compensation,

indigenous communities and cultural heritage, will be culturally appropriate and consistent with relevant international standards and frameworks. Subsea 7 has commenced negotiations to enter into an Indigenous Land Use Agreement (ILUA) with the Gnulli Native Title Claimant Group (Gnulli NTCG). The ILUA is a voluntary but legally binding agreement about the use and management of land and water and meets the requirements of the commonwealth *Native Title Act 1993*.

Management measures will be communicated to stakeholders and key stakeholders will be entrenched in a stakeholder engagement strategy. The management of social impacts will be updated on an as needs basis or in responses to feedback or unexpected changes in the context of the Project.

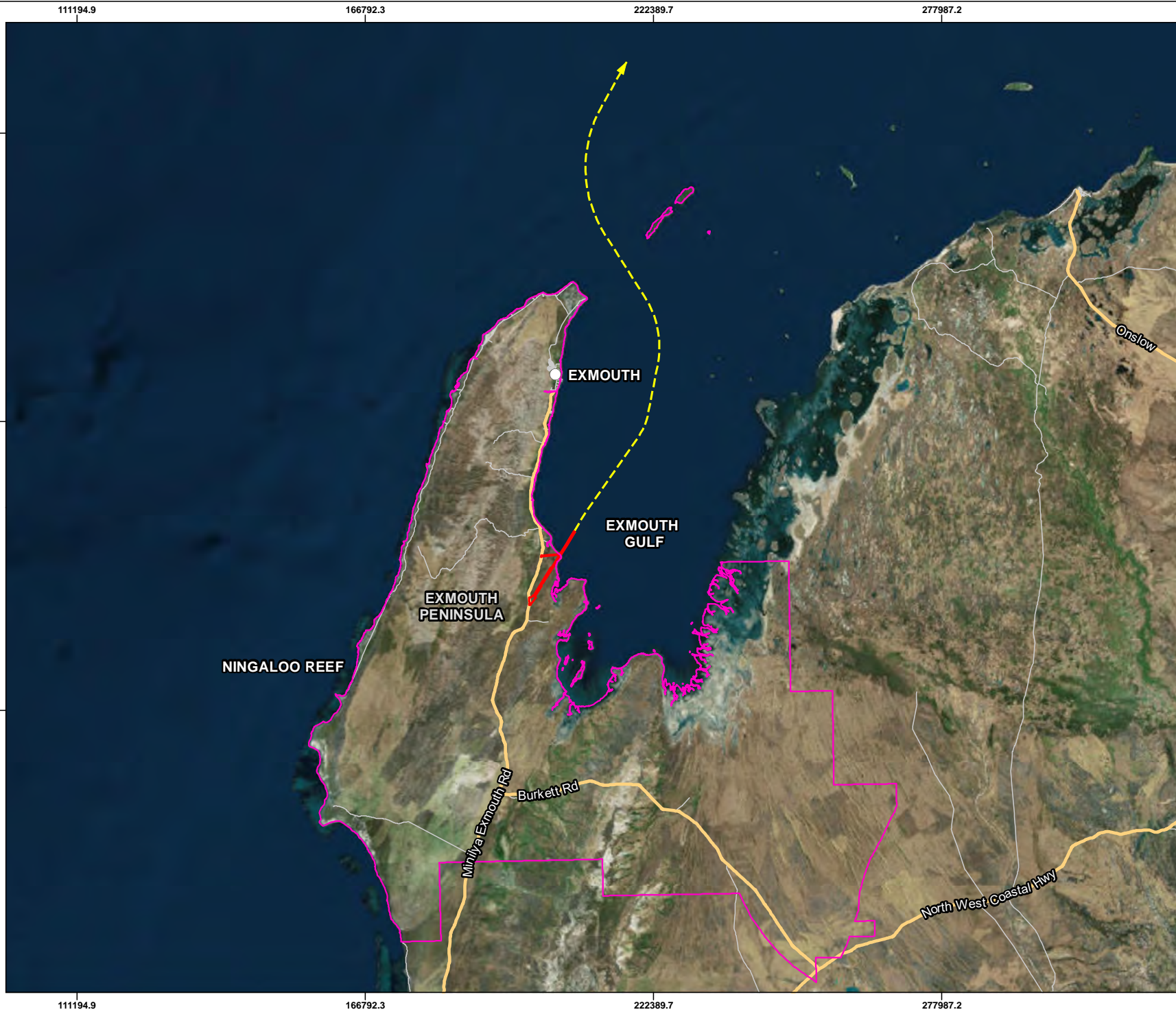
3 Social Setting

The nature of SIA is a process of ongoing management rather than an end product. Part of that process is identifying the preliminary 'social area of influence' of the Project, likely impacted and beneficiary communities (nearby and distant), and stakeholders (Vanclay *et al.* 2015). The 'social area of influence' used in this SIA is the Shire of Exmouth Local Government Authority (LGA) boundary (Figure 4). This Exmouth LGA been selected since the Project will have an impact on employment, industry and commercial sectors within the wider Exmouth locality.

The Shire of Exmouth is situated 1,270 kilometres north of Perth, on the tip of the North West Cape in Western Australia and covers an area of 650,300 ha.

It is noted that part of this Project traverses the Ningaloo Coast World Heritage Area (WHA) and National Heritage Place and is a popular tourist destination for both domestic and international tourists. Therefore, the area of social influence may have some temporary impacts (positive and/or negative) on a wider network of people outside of the Shire of Exmouth.

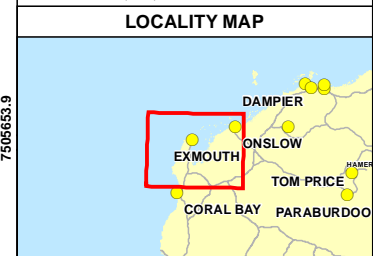
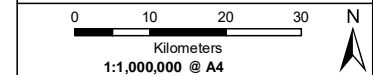
Subsea 7 has undertaken various social 'baseline studies' to understand how the Project will interact within the social context of the Exmouth LGA. This has included an Economic Impact Assessment, this Social Impact Assessment, Landscape Visual Impact Assessment and significant community engagement. Subsea 7 arranged three community engagement sessions in 2017. The intent of these engagements was to introduce the Project to the local community, establish a better understanding of local community priorities, seek feedback on any concerns relating to potential environmental or social impacts and develop a distribution list for future Proposal updates (currently with 76 members). Using these baseline studies, potential social risks and impacts have been determined and discussed in Section 4.



- Legend**
- Project Envelope
 - Tow Route
 - Social Area of Influence (Shire of Exmouth LGA)
 - Major Roads
 - Local Roads

- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS
- LOCALITY MAP SOURCED LANDGATE 2017
- AERIAL PHOTOGRAPHY SOURCED ESRI 2018
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Social Impact Assessment

Figure 4
Social Area of Influence

3.1 Population and Demographics

The Exmouth Local Government Area (LGA)¹ statistical area was used from the Australian Bureau of Statistics (ABS) 2016 Census data to determine demographic information in Exmouth (ABS 2016a). This was compared to the Gascoyne² statistical area to understand Exmouth's setting within a wider regional context (ABS 2016b).

Table 1 provides a summary of the population and demographics of the shire of Exmouth locality. Over the past decade the population within the Shire of Exmouth has increased by approximately 32 percent (2,063 persons in 2006 to 2,728 in 2016) (ABS 2006; 2016a). Every year, during the cooler winter months (May – August) the resident population in Exmouth triples due to the number of visitors (Shire of Exmouth 2018).

¹ The Exmouth (S) Local Government Area, Code LGA53360 (LGA)

² Code 51102 (SA3)

Table 1: Key Statistics for Shire of Exmouth LGA (ABS 2016a and 2016b)

SHIRE OF EXMOUTH		GASCOYNE WA
POPULATION-AGE-GENDER-ETHNICITY		
Population	<ul style="list-style-type: none"> ● 2,728 ● Median age 37 	<ul style="list-style-type: none"> ● 9,485 ● Median age 38
% Aboriginal	<ul style="list-style-type: none"> ● 2% 	<ul style="list-style-type: none"> ● 13.4%
Gender	<ul style="list-style-type: none"> ● 52.4% male ● 47.6% female 	<ul style="list-style-type: none"> ● 52.7% male ● 47.3% female
The most common countries of birth	<ul style="list-style-type: none"> ● Australia 74.6% ● England 4.8%, ● New Zealand 2.0%, ● Germany 1.4%, ● USA 1.2% ● and Philippines 1.1%. 	<ul style="list-style-type: none"> ● Australia 68.9% ● England 3.8%, ● New Zealand 2.0%, ● Vietnam 1.6%, ● Philippines 1.0% ● Germany 0.8%.
Languages spoken at home	<ul style="list-style-type: none"> ● English only 86.3% ● German 0.8% ● French 0.8% ● Tagalog 0.8% ● Italian 0.4% and ● Filipino 0.3% 	<ul style="list-style-type: none"> ● English only 77.6% ● Vietnamese 2.2% ● Tagalog 0.6% ● Mandarin 0.6% ● Portuguese 0.6% ● German 0.6%
Religion	<ul style="list-style-type: none"> ● No Religion 45.4% ● Catholic 16.1% ● Anglican 15.3% ● Not stated 11.6% ● Christian, nfd 3.1% 	<ul style="list-style-type: none"> ● No Religion 36.8% ● Catholic 21.4% ● Not stated 15.0% ● Anglican 13.6% ● Christian, nfd 2.3%

	SHIRE OF EXMOUTH	GASCOYNE WA
	<ul style="list-style-type: none"> No Religion, so described was the largest religious group reported overall (51.3%) 	<ul style="list-style-type: none"> Christianity was the largest religious group reported overall (53.4%)
EDUCATION		
Highest level of educational attainment of people aged 15 and over	<ul style="list-style-type: none"> 12.7% Year 12 24.7% Certificate III or IV 8.5% Advanced Diploma or Diploma. 	<ul style="list-style-type: none"> 13.0% Year 12 18.9% Certificate III or IV 6.5% Advanced Diploma or Diploma.
% of population attending an educational institution	<ul style="list-style-type: none"> 28.5% 	<ul style="list-style-type: none"> 25.9%
% of population in a tertiary or technical institution	<ul style="list-style-type: none"> 9.8% 	<ul style="list-style-type: none"> 7%
EMPLOYMENT AND INCOME		
Labour force participation	<ul style="list-style-type: none"> 1,469 in the labour force. 58.0% full-time 29.5% part-time 4.2% unemployed 	<ul style="list-style-type: none"> 4,517 in the labour force 61.1% full time 24.8% part-time 5.8% unemployed
The most common occupations	<ul style="list-style-type: none"> Technicians and Trades Workers 20.0%, Professionals 14.5%, Managers 13.7%, Labourers 12.5%, Community and Personal Service Workers 12.0%. 	<ul style="list-style-type: none"> Managers 17.9%, Technicians and Trades Workers 15.9%, Labourers 14.6%, Professionals 13.0%, and Clerical and Administrative Workers 11.8%.

	SHIRE OF EXMOUTH	GASCOYNE WA
Major industries of employment	<ul style="list-style-type: none"> ● 7.2% Accommodation ● Engineering Design and Engineering Consulting Services 6.2%, ● Supermarket and Grocery Stores 5.3%, ● Local Government Administration 5.0% and ● Hospitals (except Psychiatric Hospitals) 3.3%. 	<ul style="list-style-type: none"> ● 6.7% Accommodation. ● Supermarket and Grocery Stores 4.2%, ● Local Government Administration 4.1%, ● Hospitals (except Psychiatric Hospitals) 3.5% and ● Other Non-Metallic Mineral Mining and ● Quarrying 3.1%.
Median weekly personal income	\$816	\$717
Median weekly household income	\$1,650	\$1,337
HOUSING		
Median weekly rent	\$300	\$200
Average household size	2.5 people	2.4 people
Tenure (of occupied private dwellings)	<ul style="list-style-type: none"> ● 22.2% owned outright, ● 29.0% owned with a mortgage ● 41.6% rented. 	<ul style="list-style-type: none"> ● 27.4% owned outright, ● 22.4% owned with a mortgage ● 43.5% were rented.

3.2 Employment

A key finding from the public consultation process in the Shire of Exmouth's Strategic Community Plan 2030 was the need for greater fulltime employment opportunities. Additionally, the community would like to see in the next ten years a stronger and more diverse local economy enabling yearlong employment opportunities (Shire of Exmouth 2018).

Currently, the highest employing industries in Exmouth are accommodation and light engineering and construction (ABS 2016a).

3.3 Regional and Local Economy

Western Australia's economy has significantly expanded over the past decade due to the investment-driven resources boom. The Pilbara region has been the lead driver of WA's economy, accounting for a quarter of Western Australia's Gross State Product (GSP). The South-West, WA's most populated regional area, was the next largest regional economy, accounting for five per cent of the State's economic output, with the remaining regional areas generating similar levels of economic output. ACIL Allen estimates the Gascoyne region was the State's smallest regional economy, accounting for just 0.3 per cent of WA's GSP (\$809.5 million) (ACIL Allen 2019).

The mining sector is the Gascoyne's largest industry, accounting for 22.3 per cent (\$247.2 million) of the Gascoyne's Gross Value Added (GVA). This includes the contribution of the oil and gas extraction sector which is classified as part of the mining industry. A notable aspect of the of the Gascoyne region's economy is the extent to which it has been unable to capture a share of the economic benefits of the significant offshore petroleum industry which operates in the waters to its north (ACIL Allen 2019). The Gascoyne is geographically located closest to the Carnarvon Basin which hosts billions of dollars' worth of oil and gas production platforms and subsea infrastructure. However, the Pilbara and Kimberley regions support this industry, with extensive petroleum support services available at most major towns to the east of Exmouth. Thus, investments have bypassed the Gascoyne region and its economy (ACIL Allen 2019; SGS Economics & Planning [SGS] 2012).

The town of Exmouth was founded around the defence industry. However, since the Ningaloo Coast being inscribed into the World Heritage listings and improved access to the remote region - tourism has now become the largest industry and major economic contributor in the Shire. Eco-tourism is expected to experience significant growth (Shire of Exmouth 2018). In September 2017 Exmouth opened the Ningaloo Centre, a \$32 million project that features the Ningaloo Aquarium, three visitor galleries, visitor services and conference facilities. The Centre aims to provide a growth platform for the tourism industry by attracting important meetings, conferences, exhibitions (Shire of Exmouth 2018).

Hospitality, accommodation and retail also account for a large proportion of Exmouth's economy and job market (SGS 2012). Other key industries include fishing, aquaculture, pastoralism and mining.

Exmouth is also the major settlement in the North West Cape of WA and the largest service centre between Carnarvon and Karratha. The Shire aims to double the population in the medium term to establish an autonomous economy. Growth in tourism, increased population and the expansion of the mining and aquaculture industries is likely to drive demand for retail, commercial, administrative and trades services in the Shire (SGS 2012).

3.3.1 Tourism

Tourism is Exmouth's major economic contributor with eco-tourism experiencing significant growth (Shire of Exmouth 2016). The seasonal nature of Exmouth's population fluctuates with the peak tourist seasons (peaking at approximately 6,000 people), with the town attracting a mix of intrastate, interstate and international visitors for holidays and recreational purposes (Shire of Exmouth 2016). The majority of visitors to the Shire of Exmouth are from within Australia (79%). The majority of visitors to the Coral Coast are from WA (87%) followed by interstate (7%) and international (6%) (Tourism WA 2018a, 2018b).

Exmouth is recognised by the State government as one of the 10 key cruise shipping ports in Western Australia (Tourism WA 2018c). The Ningaloo WHA's natural assets places the Shire as a prominent tourist destination with its unique 'range to reef' natural landscapes. The Ningaloo WHA, Ningaloo Marine Park and Cape Range National Park provides opportunities for hiking, camping, fishing, diving, and marine wildlife tours.

The Shire of Exmouth provided a list of local business operators (registered 2018-2019 members of the Ningaloo Visitors Centre). Of the listed 165 businesses, 38 were categorised as tour operators. Subsea 7 identified 18 businesses as locally-based and likely to periodically operate within Exmouth Gulf and the Offshore Operations Area. The identified tour operations included:

- Humpback whale watching tours;
- Whale shark or Humpback whale snorkelling tours;
- Fishing charters;
- SCUBA and snorkelling tours; and
- Light aircraft tours.

There are 15 tour operators, licensed to operate within the Ningaloo Marine Park, undertaking Whale shark and Humpback whale swim tours. All operations occur within Ningaloo Marine Park, with the majority to the west of the North West Cape and within the northern portion of Ningaloo Marine Park. There are also 5-10 whale-watching operators who operate within Exmouth Gulf (A Hogstrom pers comm. 2019).

3.3.2 Mining and Petroleum

The Shire of Exmouth is located in the Northern Carnarvon Basin which is underlain by sedimentary rocks. The Exmouth area bedrock comprises mostly of Tulki Limestone which contain sections of high-grade limestone. Exmouth Sandstone also occurs in the central south of the Shire and provides basic raw materials such as aggregates, gravel, sand and clay. It is likely that the limestone resources will result in future proposals to allow mining (Shire of Exmouth 2016).

Oil and gas production in the Shire is the largest mining activity in the region; with the majority of oil production carried out on Floating Production Storage and Offloading (FPSO) (Gascoyne Development Commission [GDC] 2010). Full scale oil production in Exmouth began in 2006 with Woodside's Enfield FPSO project. The majority of these activities are carried out in Commonwealth waters and therefore the share of economic benefits is not captured in the Gascoyne's economy (GDC 2018a; ACIL Allen 2019). Exmouth plays an important 'supporting services' role for the oil and gas sector, however the current supply-chain inputs to major projects is limited. Working towards the expansion of supply-chain opportunities within the mining sector and capturing a greater share of capital and expenditure in the local economy will drive economic growth in the region (GDC 2018a).

According to the GDC, future opportunities for the region include limestone production, business development to support and facilitate the growth of major offshore oil and gas deposits and the Exmouth Deepwater Wharf (GDC 2018a). Currently, Exmouth merely plays a supporting role in the oil and gas industry operating within the Carnarvon Basin – by providing accommodation and services for residential and FIFO workers, as well as limited supply chain inputs to major projects. Therefore, to drive economic growth in the Exmouth region, there needs to be a focus on expanding these supply chain opportunities and seize a greater share of capital, operational and maintenance expenditure in the local economy (GHD 2018a).

3.3.3 Fishing and Aquaculture

The fishing and aquaculture industry in Exmouth have included fish farming and trawling since the 1960's. Commercial fishing is regulated by the Department of Primary Industry and Regional Development (DPIRD) who maintain a district office in Exmouth to ensure sustainable stock and spawning levels. Commercial fishing activities are controlled within the Exmouth Gulf and are also limited to the 'general use zone' within the Ningaloo Marine Park (State Waters). Commercial fishing within the Gulf can be broken down into three main users:

- Collector;
- Charter; and
- Commercial.

Collectors gather aquarium species including fish species, coral, sponges, shells and seahorses / puffer fish. Stakeholder community engagement indicated that charter businesses (tour operators) target four main fish species - Permit (or Snubnose dart) (*Trachinotus blochii*), Bonefish (*Albula vulpes*), Barramundi (*Lates calcarifer*) and Giant trevally (*Caranx ignobilis*) (Subsea 7 2019). Engagement with the Western Australian Fishing Industry Council (WAFIC) (November 2018) identified another commercial operation, the Exmouth Beach Seine Fishery. Information on the Project was provided to the licensee, via WAFIC, and no additional queries were raised. During stakeholder engagement, a local recreational fly-fishing operator, Ningaloo Fly Fishing, was identified as using the Bay of Rest area.

Commercial fishing (Exmouth Gulf Prawn Fishery) targets Banana, King, Tiger and Endeavour prawns (Subsea 7 2019). The Exmouth Gulf Prawn Fishery is one of the largest trawl fisheries in WA with a catch range between 771 to 1,456 tonnes per year over the past 11 years (since 2006). The commercial catch for 2016 was a total of 822 tonnes (Gaughan and Santoro 2018). Trawling is only permitted between 17:00 hours and 08:00 hours during the prawn season; except when Banana prawns are obtainable and daylight trawling can occur during this time. Trawl duration in this fishery is generally between one and three hours. Trawling ceases for 3 to 5 days around the period of the full moon each month when prawns tend to bury themselves in sediment making trawling less economical. The average trawl speed is 3.5 to 4 knots (Kangas et al. 2006a). The offshore Proposal area overlaps with the current trawling areas.

Small-scale aquaculture occurs in Exmouth which supports the pearl production industry in the north-west. Pearl production is only carried out on a small scale in Exmouth Gulf. Two sites are zoned for Aquaculture purposes within the Shire with various proposals in the past having been assessed by the EPA. Exmouth is ideally situated to facilitate aquaculture developments with its proximity to healthy water and land environments; it is recognised by the Department of Fisheries and GDC as a frontrunner for future sustainable aquaculture industries (Shire of Exmouth 2016).

It is understood that charter fishing operations occur extensively on both the western and eastern sides of the North West Cape. Activities are understood to occur throughout a large area, including the Muiron Islands, Thevenard Island, many of the islands and shoals in Exmouth Gulf and further north east off the coast of Onslow, and north to the Montebello Islands (Subsea 7 2019).

3.3.4 Pastoralism

Pastoralism is the primary land use in the Gascoyne region with the industry being founded on wool, but due to significant downturn in the markets, pastoralists diversified their incomes through tourism, cattle, sheep, goats and horticulture (GDC 2010). The pastoral industry's production value in the Gascoyne was valued at \$30 million in 2015 (GDC 2018b).

3.4 Health, Safety and Education

The Exmouth Community Health Service is the single primary health facility servicing the Shire of Exmouth. In 2009, Exmouth Hospital became a Multi-purpose Service (MPS), enabling the provision of additional services to the community including top quality hospital care and treatment. In 2015 the facility was renamed Exmouth Health Service after being redeveloped. The redeveloped Exmouth Health Service constitutes an emergency department, six inpatient beds and three residential aged care beds (WA Country Health 2018).

A key finding in the Exmouth Shire's Strategic Community Plan 2030 was that the Exmouth community valued a safe and inclusive community the most (Shire of Exmouth 2018). Tackling the issues of substance abuse is a priority for the Exmouth community and the establishment and leadership of a Local Drug and Alcohol Program (LDAP) is a key measure in addressing this issue (as well as monitoring crime statistics and LDAP strategies).

Exmouth is serviced by one School, Exmouth District High School which caters for approximately 455 students from kindergarten to Year 12. The Central Regional TAFE located in Exmouth provides tertiary education in 25 qualifications to around 250 students each year. Training courses are offered for art, retail, hospitality, marine, IT tourism, business administration, education and more. 28.5% of the Shire's population was attending an educational institution and 9.8% of the population was enrolled in a tertiary or technical institution (ABS 2016a).

3.5 Community Facilities and Services

Exmouth is the gateway to the Ningaloo World Heritage Area including the Ningaloo Marine Park and the Cape Range National Park. The town's unique setting creates a contrasted 'reef to range' experience, where the Cape Range meets the waters of the Ningaloo Coast. This unique natural landscape supports an array of outdoor activities including camping, hiking, boating, snorkelling, fishing and four-wheel driving.

Learmonth Airport, south of Exmouth, is the primary airport servicing the Gascoyne region. The airport has experienced exponential throughput since the 2000s due to employment related travel supporting the oil and gas industry (Shire of Exmouth 2018). The major defence facilities in the Exmouth area is the Naval Communication Station Harold E. Holt (including the Navy Pier), Learmonth Royal Australian Airforce (RAAF) Base and the Learmonth Solar Observatory.

The local community is also supported by a number of recreational facilities and community services. These include a 50 m pool, three sports ovals, squash, tennis and hard courts, skate park, rifle range, motor cross track, bowling greens, golf course and club, yacht club, recreation centre, Go Kart track, walking and biking trails, Exmouth Game Fishing Club facility, and three boat ramp facilities (Exmouth Boat Harbour, Bundegi Beach, Tantabiddi

Boat Ramp). The Exmouth Shire also has 170 km of sealed roads and 300 km of unsealed roads, including roads through the National Parks (Shire of Exmouth 2018).

The Ningaloo Visitor Centre services tourists whilst the new Ningaloo Centre in town features visitor galleries, visitor services and conference facilities and has the potential to attract valuable events, meetings, conferences and exhibitions (Shire of Exmouth 2018).

3.6 European History, Heritage Values and Recreation

Dutch sailors made the first recorded landing on the Ningaloo Coast in 1618 near the tip of the North West Cape. Since then, pearl farmers visited the region from Broome and a number of pastoralists operated sheep stations along the coastline.

In 1942, during World War II, the US Navy established a submarine base under the code name Operation Potshot and soon became a refuelling facility for submarines. Operation Potshot included the establishment of a landing field on the western shore of Exmouth Gulf. In the 1950s, this became the Learmonth RAAF base. The Potshot Monument has now been established as a historical attraction (Ningaloo Visitors Centre 2018a).

In 1963, an agreement between the United States (US) and Australian government led to the establishment of the Harold E. Holt Very Low Frequency (VLF) communication station at the tip of the North West Cape. As a result, the town of Exmouth was established to support the operations of the facility (Ningaloo Visitor Centre 2018a). In 1992 the US and Australian defence force military presence was withdrawn. This triggered the development of the town and Ningaloo Coast as an eco-tourism destination, with tourism still being the largest driver of the Shire's economy.

Other historical attractions within the Shire include the Solar Observatory, the Navy Pier, the Wreck of SS "Mildura" (a cattle ship from the Kimberley region wrecked during a cyclone in 1907), and the Vlaming Head Lighthouse (Figure 5).

The Ningaloo Coast WHA (Reference 1369) was inscribed on the World Heritage List on 1 November 2011 under criteria (vii) and (x), as follows:

- Criterion (vii) contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance; and
- Criterion (x) contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation (DEWHA 2010).

The Ningaloo Coast WHA is 604,500 ha and includes the Ningaloo Marine Park, Cape Range National Park and Learmonth Air Weapons Range.

The Ningaloo Coast is also listed as National Heritage Place and covers approximately 710,000 ha, comprising Ningaloo Marine Park, Muiron Islands Marine Management Area

(including the Muiron Islands), Jurabi Coastal Park, Bundegi Coastal Park, Cape Range National Park, Learmonth Air Weapons Range and portions of Exmouth, Ningaloo, Cardabia, Warroora, Gnarlaloo and Quobba pastoral leases.

The Ningaloo Marine Park ranks seventh on the world's list of coral reef biodiversity 'hotspots' and second in terms of the number of species found within a limited range (Shire of Exmouth 2018). The Ningaloo Reef is Australia's largest and most accessible fringing reef system; the shallow waters of the reef combined with the deep offshore waters creates a diverse habitat for a variety of corals, fish species and mega marine fauna (whale sharks, humpback whales, dugongs, turtles and manta rays) (Ningaloo Visitor Centre 2018b).

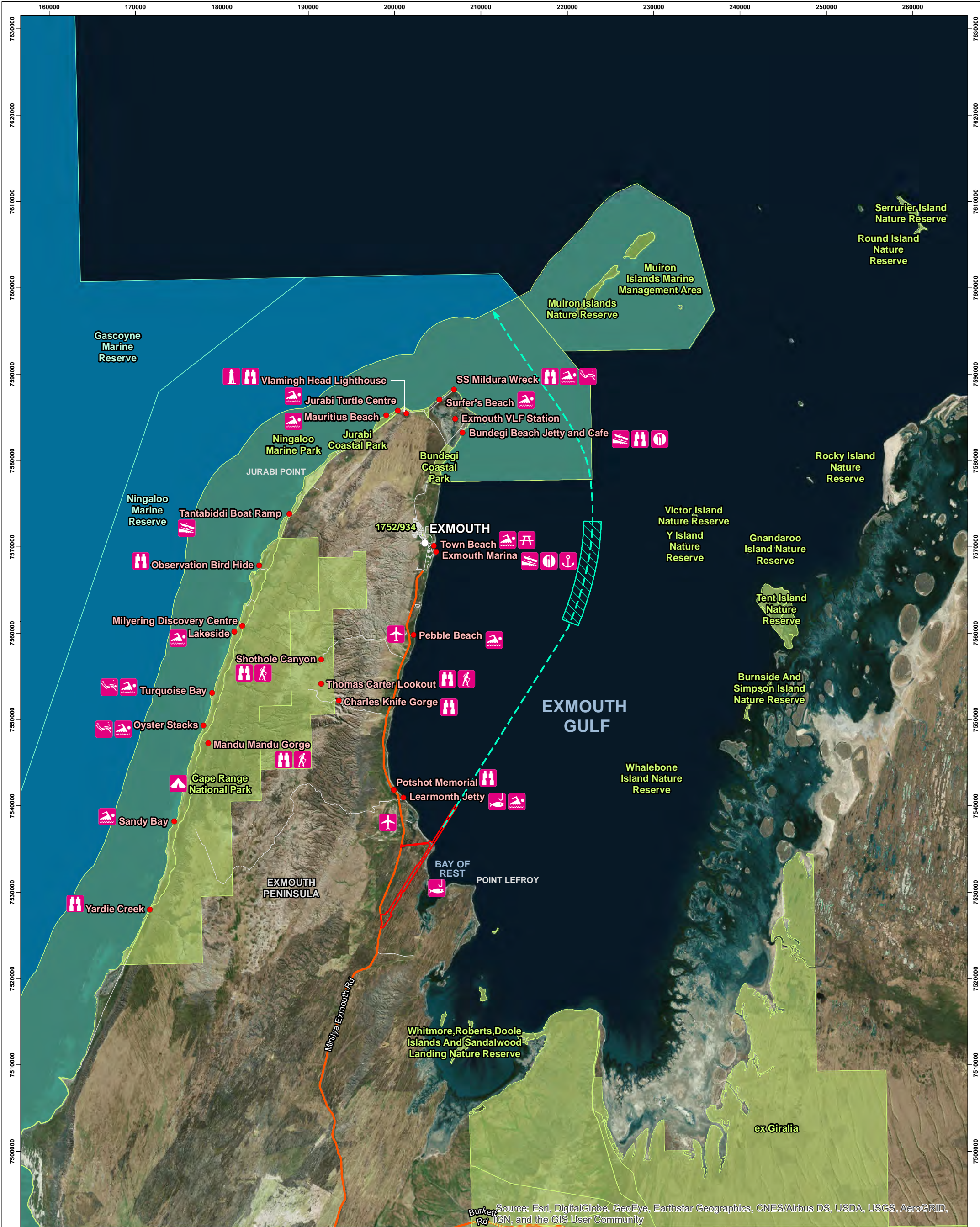
The Cape Range National Park provides numerous walking trails through the canyons and valleys, including Vlaming Head, Mandu Mandu Gorge, Yardie Creek Gorge Trail, Charles Knife Canyon, Badjirrajirra Loop Trail and Shothole Canyon (Figure 5).

The coastline within the Shire and along the Ningaloo Reef boasts numerous pristine beaches, attracting many leisure seekers. As Ningaloo is a fringing reef many of these beaches provide easy access to numerous snorkelling and kayaking spots. Surfing is also a popular recreational activity in the Exmouth region at locations such as Dunes, The Bommie, Wobiri Access and Muiron Islands. The diverse coral and fish life along the Ningaloo Coast and within Exmouth Gulf make for world class diving at spots such as Exmouth Navy Pier, Muiron Islands, Lighthouse Bay, and various spots along the Ningaloo Reef. Fishing attracts large numbers of tourists to the Shire of Exmouth as the seascape provides an ideal fishing destination with the continental shelf only kilometres from shore. Ningaloo is regarded by many anglers as Australia's premier fishing destination (Ningaloo Visitors Centre 2018b). Gamex is Western Australia's premier fishing event held in March every year by the Exmouth Game Fishing Club, the event offers diverse and productive fishing and is high on the towns social calendar with supporting events and educational sessions (Ningaloo Visitors Centre 2018b).

Another significant annual event for the town is the Ningaloo Whale Shark Festival where community groups, artists, stallholders and volunteers join for festivities and entertainment. Whale sharks travel to Ningaloo Marine Park between March to July every year, with individuals sometimes remaining until early August (DPaW 2013, DoF 2011). The whale sharks attract an abundance of tourists for the opportunity to swim with the world's largest fish. Whale watching is another attraction for the Ningaloo Coast and Exmouth Coast, and more recently, the opportunity to swim with humpback whales. Exmouth sees the highest density of humpback whales in the Southern Hemisphere during their annual 11,000 km migration to Antarctica (June to November) (Ningaloo Visitor Centre 2018b).

During Subsea 7's extensive stakeholder engagement process, recreational users indicated the regular use of the Heron Point and Bay of Rest areas. Heron Point is used for camping, fishing and four-wheel driving along the beach area; the public also use the

beach along the Bay of Rest to launch boats. It is noted that the area around Heron Point and the Bay of Rest is not a gazetted camping site, and is therefore not managed. However, continued access to these areas is important to recreators and a key priority for Subsea 7.



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Subsea 7
Learmonth Bundle Site
Landscape and Visual Impact
Assessment

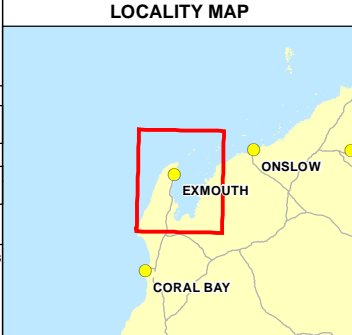
Figure 5 Recreational Values

Legend

- Major Roads
- Roads
- Onshore Infrastructure
- Offshore Infrastructure
- Tow Route
- Bundle Laydown
- Sensitive Receptors and Valued Places
- DBCA Managed Lands
- DBCA Managed Waters
- Commonwealth Marine Reserves
- Places of Interest

Notes
ZTV calculated based on:
- Onshore: 10m maximum building height placed on highest ground elevations throughout Project Envelope

0 2 4 6 8 10 Kilometers 1:400,000 @ A4			
PROJECT ID		DATE	
2061		6/05/2019	
CREATED	CHECKED	APPROVED	REVISION
JJR	HT	HT	0
HORIZONTAL DATUM AND PROJECTION GDA 1994 MGA Zone 50			
N NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS LOCALITY MAP SOURCED LANDGATE 2017 ELEVATION FROM GEOSCIENCE AUSTRALIA STRM DATA AERIAL PHOTOGRAPHY SOURCED ESRI 2018 (© Western Australian Land Information Authority 2018)			



3.7 Aboriginal Heritage

In Australia the *Native Title Act 1993* provides for the recognition and protection of native title rights of Aboriginal people. The registered Native Title Claim over the Exmouth region is the Gnulli WC 1997/028 (DAA 2018). The Gnulli native title claim covers approximately 82,708 square kilometres of land and sea in the Yamatji Region. It lies in the Shires of Ashburton, Carnarvon, Exmouth and Upper Gascoyne. In Western Australia, the Aboriginal Heritage Act 1972 (AH Act 1972) protects places and objects customarily used by, or traditional to, the original inhabitants of Australia. A register of such places and objects is maintained under the Act however all sites are protected under the Act whether they are registered or not.

The Exmouth Peninsula provides important insight into the early indigenous inhabitants of the region. Many records of early human inhabitants in parts of Australia have been drowned due to the post-glacial return of the sea over the broad coastal areas - that were once exposed during the last glacial maximum around 25,000 years ago (DoEE 2019). However, Exmouth's close proximity to the continental shelf during the harsh conditions of the last ice age meant that it was always near to marine resources. Additionally, the steep landscape of the Cape Range protected ancient sites from rising sea levels and the limestone geology has preserved historical evidence from otherwise acidic environments (DoEE 2019). Archaeological deposits in the rock shelters of the Cape Range demonstrate Aboriginal people had a comprehensive understanding and knowledge of edible and non-edible marine resources between 35,000 and 17,000 years ago (DoEE 2019). The rock shelters of Exmouth peninsula also provide the best evidence in Australia for the use of marine resources during the Pleistocene, including their uses as food and for personal adornment (DoEE 2019). Shell beads found at Mandu Mandu Gorge provides the earliest evidence of creation and personal ornaments in Australia and shows significant creative and technical achievement (DoEE 2019).

The Gnulli Native Title Claimant stretches from Wooramel River to North West Cape and Exmouth Gulf, and is comprised of three groups - The Ingaarda-Teddei, The Baiyungu and The Thalanyji peoples (SJC Consultants 2019). Anthropologists place the Ingaarda-Teddei, as occupying land south of the Gascoyne River and the Baiyungu and Thalanyji peoples living north of the Gascoyne. Several historical accounts (e.g. Steffano Manuscript) of the region provide an indication of the ways of life for the three indigenous inhabitant groups of the North West Cape (SJC Consultant 2019). Their staple diet being fish caught by the men, using nets (made from grass trees) or spears and sometimes using stone-walled tidal traps. Women foraged for various plant foods and seeds and were responsible for collecting water and firewood (carried in wooden bowls and large sea shells). Their diets were supplemented by turtles, mainly their eggs, digging in sand for shell fish and very occasionally dugong (SJC Consultant 2019). Anthropological accounts of the North West Cape peninsula told of 'coast-frequenting people', venturing out to sea on rafts of mangrove sticks and living amongst mangroves on the eastern shore of the Gulf

(SJC Consultant 2019). The Bay of Rest, south of Heron Point, has been noted as an important place for the Gnulli members. Historical accounts tell of three occasions of large gatherings of Aboriginal people occurred – two of which included the two clans of Yinigudira or Western Thalanji for a feast of turtles. The third gathering included both groups as well as thirty eastern Thalanji people who sailed from the east side of the Gulf. This gathering consisted of about 160 men, women and children at the Bay of Rest (SJC Consultants 2019).

Department of Planning, Lands and Heritage (DPLH) records show two previous heritage surveys have been carried out in the vicinity of Heron Point; Martinick (1993) and Morse and Jackson (2001). The Martinick (1993) survey covered the proposed footprint for a similar pipeline fabrication project, located to the north and east of the Development Envelope. The Morse and Jackson (2001) survey examined the site of the Cape Seafarms Project between Wapet Creek and Point Heron.

A desktop review of the Department of Planning, Lands and Heritage (DPLH) Aboriginal Heritage Inquiry System (AHIS) identified no Registered Aboriginal sites and 4 lodged Aboriginal Sites partially within or adjacent to the Proposal's development envelope (Table 2) (DPLH 2019).

Table 2: Aboriginal Heritage Sites within the Vicinity of the Site (DPLH 2019)

SITE ID	NAME	STATUS	TYPE	DISTANCE FROM SITE (~M)
26259	Field Site 1	Lodged	Artefacts / Scatter, Shell	Partially within extent of the Site
26260	Field Site 2	Lodged	Artefacts / Scatter, Shell	687
26268	CSF Isolated Find	Lodged	Other: 3 Isolated artefacts	280
26261	Field Site 3	Lodged	Artefacts / Scatter, Shell	20

Subsea 7 has had ongoing engagement with the Yamatji Marlpa Aboriginal Corporation (YMAC), acting for the Gnulli Native Title Claim Group (Gnulli NTCG) throughout the development of the Proposal. On 12 December 2017 Subsea 7 obtained an Infrastructure Heritage Agreement with YMAC, acting for the Gnulli NTCG. The agreement sets out the process for managing potential impacts on heritage as a result of the implementation of the Project. In accordance with the agreement, two Aboriginal heritage surveys were undertaken for sites of archaeological and ethnographic significance, with representatives of the Gnulli NTCG (SJC Consultants 2018; 2019). The first survey was undertaken in March 2018 for the purposes of the groundwater and stygofauna monitoring bore network. No sites of archaeological significance were recorded by the heritage survey team (SJC Consultants 2018). However, minor adjustments to the locations of three bores and various tracks were requested on the basis of avoiding densely vegetated areas and dune

crests. The three bores were relocated approximately 30-50m and the relevant tracks realigned to avoid dense vegetation. The heritage survey team also identified concerns regarding dust management and reiterated the importance of staged and minimal clearing (SJC Consultants 2018). Subsequently, Gnulli NTCG representatives selected by the Gnulli working party monitored and observed the vegetation clearing for the groundwater and stygofauna works.

The second Aboriginal heritage survey took place in early February 2019 surveying the Proposal's development envelope and discussion of associated activities. No archaeological or ethnographical sites, as defined under Section 5(a), (b) or (c) of the AH Act 1972, were recorded within the survey area (SJC Consultants 2019). The area is said to be important as a breeding and nesting area for Emus and several varieties of edible plants and foods occur in the region, though none were recorded during the heritage surveys (Steve Corsini pers comm. 2019).

Whilst no sites were recorded during the survey, the heritage survey team identified several matters for consideration during operations, including:

- The possibility of artefacts to emerge in the more mobile soils once clearing works commence allowing wind to blow sand away;
- Maintaining public access to Heron Point;
- Maintaining public access to the Bay of Rest lagoon;
- Impacts to terrestrial wildlife, particularly emus; and
- Potential impacts on marine life (Steve Corsini pers comm. 2019).

Additionally, a tree, identified as the 'Dinner Time Tree' within the Proposal envelope, was noted as having cultural importance for the group and requested that it not be disturbed (Figure 3). Subsea 7 has marked the location of the tree and will ensure it is not disturbed during operations.

4 Potential Social Impacts of the Fabrication Facility

4.1 Population and Demographics

It is estimated the proposed Fabrication Facility will have a Project life of approximately 40 years. The construction phase will take approximately 9 - 12 months with an estimated average of 50 personnel (75 at peak) required to undertake the work. These personnel will be employed locally from the Exmouth locality wherever possible. There will be no accommodation facilities on the site during the life of the Project and thus all employees will be residential in Exmouth. The decommissioning phase will have a similar workforce (50) for a period of approximately six months.

During a bundle build (operations phase), the average number of personnel required on site will be in the vicinity of 70-80. During peak periods of a bundle build, up to 120 people may be required. As discussed previously, these personnel will be employed locally from the Exmouth locality. Subsea 7 has committed to training and upskilling of the local workforce through apprenticeship programs and industry recognised training to maintain a local workforce. As an indication of Subsea 7's aim, their existing bundle site in Wick, Scotland, sources approximately 95% of their workforce locally, and 100% of the management team.

It is expected that the majority of the workforce for all phases will be sourced from the existing local Exmouth population. However, it can also be expected that some future employees and their families will relocate to Exmouth. If the maximum number of personnel required on site is 80 personnel (with an average Australian household of 2.6 people) and they all relocate to Exmouth, this will result in a maximum 7.6 % rise in the population (current population is 2,728 in Exmouth) (ABS 2016a; 2016c). However, this population increase estimate is conservative and is likely to be lower.

Given the nature of Exmouth's existing fluctuating population (where the population triples [300 %] between May – August), it is not expected that the minimal increase in population will have significant impacts on community facilities and public services. In fact, this potential increase in the local residential population with sustainable long-term employment is a priority for the Exmouth community (Shire of Exmouth 2018; SGS 2012). A stabilised population increase could lead to community growth, investment, increased expenditure in the local tourism and hospitality industries and stable participation in community initiatives.

4.2 Employment

An economic impact assessment of the Project was undertaken to model the economic contribution to the project on the Gascoyne Region and to Western Australia over the study period 2017-18 to 2052-53 (ACIL Allen 2019). The study found that the Proposal

makes an important economic contribution to Western Australia and the Gascoyne Region. Two scenarios were modelled for the Project - 'baseline' and 'upside'. The baseline expectations for the project and the potential upside if it is able to capture a significant share of the market.

ACIL Allen estimates that the Project will directly support an average of 40 full time equivalent (FTE) employees (58 in upside scenario) per year over the study period, while a further 149 FTE (285 in upside scenario) positions per year on average will be indirectly created as a consequence of the project. Overall, ACIL Allen estimates that an average of 189 (344 in upside scenario) FTE employees will be supported by the Project each year over the study period.

Subsea 7 has committed to employing locally in Exmouth therefore providing increased employment opportunities for the community and subsequently aligning itself to the Exmouth's Strategic Community Plan 2030.

4.3 Regional and Local Economy

The ACIL Allen (2019) economic impact assessment showed a net positive impact to the Gascoyne Region of \$9.3 million per annum over the study period (2017/18 to 2052/53) and thus the Project would make an important economic contribution to WA and the Gascoyne (ACIL Allen 2019).

Under the baseline scenario, ACIL Allen estimated that the Proposal will directly contribute \$742.2 million to the State's economy (in GVA terms) over the study period, averaging \$20.6 million per annum. The level of activity is in turn expected to generate a further \$880.7 million indirectly to the WA economy (an average of \$24.5 million per annum), resulting in a total contribution of \$1.62 billion over the study period at an average of \$45.1 million per annum. When these values are compared to the Shires annual revenue for the 2017/2018 period (approximately \$13 million) it is 60% higher and indicates a significant contribution to the regional economy.

Approximately 70 per cent of the project's economic contribution will be in the Gascoyne region, with the Project expected to contribute \$1.14 billion to the Gascoyne economy over the life of the Project, at an average of \$31.7 million per annum (ACIL Allen 2019).

The planning process for the proposed Learmonth site has been guided by Subsea 7's facility at Wick (Scotland), which has operated for 40 years and produced 81 bundles to date. Wick and Exmouth share many characteristics. Both towns are considered remote and, in the past, relied heavily on few industries for economic development and both towns are adjacent or within tourism precincts. The towns are also similar in they are both geographically located near oil and gas industries but have struggled to secure or develop a service support industry. Both towns also have an available workforce that can be trained and upskilled for the purposes of the fabrication of bundles.

Workers employed at the Wick site are offered a variety of industry recognised training opportunities to increase their capabilities and to facilitate career development. Subsea 7 has also provided local school leavers opportunities to undertake apprenticeship training to facilitate becoming tradesmen at Wick. Since 2001, Subsea 7 has offered a graduate training program that provides graduate engineers with on-site experience over a 3-6 month period during fabrication phases. Subsea 7 is committed to developing similar opportunities at the Learmonth site in collaboration with the Central Regional TAFE in Exmouth.

The operations at the Wick site generate a large amount of work for a number of local industries. Such as local fabricators being awarded contracts to provide components for the bundles, local civil contractors are employed to maintain or improve parts of the site, haulage contractors move pipes and bundle components, electrical contractors receive major contracts for upgrades and local hotels benefit from an influx of contractors employed during the bundle fabrication phases. The Wick site contracts with up to 218 local businesses. Whilst it is too early to determine these exact local contributions, it is expected that the Learmonth Project will have similar indirect effects for local industries in Exmouth and the Gascoyne (ACIL Allen 2019). Additionally, submissions from local industry, chamber of commerce and the local the council at Wick were provided to outline the support and positive impacts of Subsea 7's bundle site in Wick, Scotland (Appendix D). These submissions outline the positive contributions of the Wick site including employment opportunities, investment in town facilities (harbour, rail infrastructure) and Subsea 7's commitment to environmental sustainability within its operations.

Subsea 7 has communicated with local stakeholders on the types of skills, employment and contract opportunities available once the Project is in operation and will offer these to locally owned businesses as a preference (Appendix C). economy'. Subsea 7 has also engaged extensively with the Exmouth business community, including the Shire, the Exmouth Chamber of Commerce and Industry, and the Gascoyne Development Commission. The feedback has been overwhelmingly positive, with the Proposal seen as offering a tangible opportunity to diversify the local economy that is currently heavily reliant on seasonal tourism.

4.3.1 Tourism

It is not expected that the offshore components of the Project and operations will significantly impact tourism in Exmouth. Tour operations within Exmouth Gulf will be able to operate during a bundle tow. A maximum of three bundles will be launched per year, it is estimated that each bundle launch will take approximately 48 hours to complete its launch and tow through the Gulf. This is approximately 144 hours per year. Therefore, the bundle launch and associated marine vessel spread will be operational for a maximum of 1.64 % of the year in the Gulf. It is noted that pipeline bundles are an alternative to conventional pipeline solutions for the oil and gas industry. In recent history, traditional pipelay vessels and their pipe support barges / vessels have occupied the Exmouth Gulf

for extended durations to perform pipelaying operations. Utilising bundles as an alternative technology has the potential to reduce oil and gas construction vessel activity overall in the Exmouth Gulf.

During a bundle launch an exclusion zone will be setup to ensure safety of the operation. This will be a 500 m zone extending from the Bundle, as it progresses along the tow route. The exclusion zone will progress relative to the bundle position, and the approximate timings of this exclusion zone are as follows:

- The launch area adjacent to Heron Point will have the exclusion zone in place for ~36 hours per launch;
- The off-bottom tow to the parking area will have the exclusion zone in place for ~6 hours per launch;
- The parking area will have the exclusion zone in place for ~12 hours per launch; and
- The surface tow area (through the WHA) will have an exclusion zone in place for ~6 hours per launch.

The exclusion zone equates to a total of 60 hours per bundle launch and tow, an estimated 180 hours per year (2.05%). Tour operators and recreators will still be able to depart from Exmouth Marina and travel to Ningaloo Reef unhindered. Travel to or from the Muiron Islands will not be prohibited during launch and tow operations. There will be a short (6 hours) window when the bundle will be exiting Exmouth Gulf from the bundle parking area where all vessels on the water and in the vicinity will be required to operate their vessel safely. Vessels may need to detour up to 10 km for access to the Muiron Islands. It should be noted that only up to three bundles will be launched per year and thus a low potential for operators to have to detour.

Bundle launches will not occur during the humpback whale migration period as a twelve-week marine fauna block out period will be enforced during August to November. The majority of Humpback whale watching tours operate during these months only (A Hogstrom pers comm. 2019). Therefore impacts to whale-watching tourism in the Gulf is not expected.

Consultation with the DBCA stated that the whale shark season runs from March to August and tours operating mostly on the western side of the peninsula (away from bundle operations) (A Hogstrom 2019, pers. comm). Given the low number of bundle launches, the relatively short duration of bundle launch activities, notification of the public prior to a bundle launch and the commitment of no bundle launches between August and October (inclusive), significant impacts to tour operators and tourism activities are not expected.

Subsea 7 has also developed a marine fauna management plan which outlines mitigation and monitoring measures for marine fauna during bundle tows. For example, a marine fauna observer will be onboard during tows and the use of a 'spotter plane' during March

to July to identify location of any Whale sharks within Ningaloo Marine Park and allow avoidance and finally the bundle tow will be at the surface through the marine park to minimise impacts to the seabed (Subsea 7 2019).

A Landscape Visual Impact Assessment (LIVA) was undertaken from eight vantage points across the Exmouth region to assess impacts to the landscape and visual amenity (360 Environmental 2019). The LVIA determined that negligible impacts are expected to the nationally and internationally significant areas of the Exmouth Peninsula (e.g. the Ningaloo World Heritage Area and Commonwealth Marine Reserve), as activities in these areas will not persist for any significant amount of time and are similar to existing impacts in the area (large vessel operations). Based on information provided by Subsea 7, it is expected that the marine vessel spread and the bundle itself will enter and exit the World Heritage Area (including the Ningaloo Marine Park) within approximately 4 hours, per launch.

The onshore components of the Project and operations will be visible from several locations along the Exmouth- Minilya Road. However, due to travellers speeds and the facility being mostly off axis of the direction of travel visual impacts are not expected to be significant. Additionally, the nature of the landscape of the onshore facility is linear dunes which obscure the Project area. The most noticeable impact of the onshore Project was to receptors at Heron Point and Schofield Shoal from the launchway area. Stakeholder engagements revealed that fishing charters use this area for flyfishing. However impacts are not considered significant as launches will only occur three times a year and therefore temporary. For most of the year, the launchway is consistent with other visual impacts such as the Learmonth Jetty. Access to the Heron Point offshore area will be restricted for up to 1.23% of the year (an exclusion zone will be in place at Heron Point for 36 hours per launch), coinciding only with bundle launch operations (360 Environmental 2019). Given the temporary nature of bundle launch and tow activities (2.05% per year), the overall low visual impact and minimal interference with tour operators, impacts for tourism will not be significant.

4.3.2 Mining and Petroleum

The GDC identified that since the majority of oil and gas production activities off the North West Shelf and Carnarvon Basin occur in Commonwealth waters, the share of economic benefits is not captured in the Gascoyne's economy. And the current supply-chain inputs to major oil and gas projects is limited for Exmouth; so expanding supply-chain opportunities and capturing a greater share of capital and expenditure in the local economy will be important for economic growth in the region (GDC 2018a).

ACIL Allen's (2019) economic impact assessment suggests that whilst supply chains in the region are well-established, the proposed Project provides an important opportunity for the Gascoyne region and its businesses to capture a share of the State's energy industries, which have previously excluded the Gascoyne region, despite sitting in close geographic proximity to the offshore gas fields. Subsea 7's fabrication facility in Wick, Scotland creates a large amount of work for a number of local industries (e.g. local

fabricators, civil contractors, haulage contractors, electrical contractors). The Wick site contracts up to 218 local businesses. Whilst it is very early in the planning process, it is expected that the Learmonth Fabrication Facility will generate similar opportunities for Exmouth and the Gascoyne region.

Subsea 7's proposed Learmonth site is located within a reasonable distance to necessary facilities such as a town, an airport and key transportation routes. The Project represents an opportunity for the Gascoyne region to take advantage of a number of its natural advantages such as its proximity to the oil and gas industry, suitable geography and topography.

Subsea 7's goal is for the Learmonth site to become a long-term facility that can continue to operate on an ongoing basis.

4.3.3 Fisheries and Aquaculture

Impacts to commercial fisheries, fishing charters and aquaculture businesses are not expected to be significant as a result of bundle launch and tows. As discussed in Section 4.3.1., a 500 m exclusion zone will be implemented during a bundle launch to ensure safety of the operation. Commercial operations within Exmouth Gulf (fishing, tours, other oil and gas related activities) will be able to continue outside of the exclusion zone. Charter operators will still be able to depart from Exmouth Marina and travel to Ningaloo Reef unhindered. Travel to or from the Muiron Islands will be unaffected, except for during a short (6 hours) window when the bundle will be exiting Exmouth Gulf from the bundle parking area. All vessels on the water and in the vicinity will be required to operate their vessel safely. Vessels will need to detour up to 10 km for access to the Muiron Islands.

Commercial fishing operators will have advanced notice of a bundle launch and will be able to schedule activities to avoid the bundle tow route (as required). Notification of a proposed launch will be announced via a Temporary Notice to Mariners and supplementary notifications with the support of AMSA. Notification will also be directly sent to all commercial and recreation operators via a mailing list, to which any public stakeholder may register. Details of the launch and exclusion zones will be advertised in local media and public noticeboards.

The Exmouth Gulf prawn fishery occurs across approximately 300 square nautical miles, so the area affected during a bundle launch is negligible. The proposed area of bundle operations overlaps with only a very small component (~6%) of this area. The Exmouth Gulf Prawn Fishery operators identified that the key area of concern is the prawn nursery area in the eastern part of Exmouth Gulf. Given the small area of seabed disturbance during a bundle launch (comparative to the fished area), the absence of impacts to the prawn nursery habitat, and the low frequency of offshore operations, the Proposal was considered to represent a low risk to the prawn fishery (Subsea 7 2019). Impacts to the unvegetated soft sediment habitat within the Offshore operations area (Off Bottom Tow) will be minor, short-term and infrequent given an average of two (maximum of three)

bundle launches per year. Therefore, the Project, including the chain footprint and turbidity, will not significantly impact commercial or aquaculture fishing activities (MBS Environmental 2018; RPS 2019).

Ningaloo Fly Fishing has raised specific concerns regarding the Proposal. Subsea 7 has been unable to meet the operator directly. It is understood that primarily concerns relate to reduced access to the Bay of Rest and impacts to visual amenity due to the presence of the launchway across the beach. Access to the Bay of Rest will be maintained and the impacts to visual amenity are expected to be negligible for the majority of the year.

Given the above, the bundle tow not have any significant impacts to commercial and recreational fishing operations/businesses and tourism activities.

4.3.4 Pastoralism

Subsea 7 has engaged with the Pastoral lease holder of the Exmouth Gulf Station as the Project Envelope intersects a portion of the lease area (92 ha out of 91,607.04 ha). A Land Use Agreement has been obtained and is valid for the term of the Pastoral lease.

The Project occupies an insignificant portion (0.1%) of the pastoral lease area and the site will be fenced off to prevent interactions with livestock. Subsea 7 will implement weed control and dust management during operations and ensure employees adhere to designated tracks to minimise any land degradation on the surrounding Pastoral lease. The Project is not expected to have significant impacts on pastoralism in the Exmouth region.

4.4 Health, Safety and Education

It is not expected that the Project will negatively impact the health, safety and education of the Exmouth region. The nature of the workforce of the Project will be locally sourced and the expected population increase (7.6%) is not significant; therefore, health and education facilities are not likely to be burdened by an increased population. Subsea 7 regards safety with the highest priority and will have rigorous occupational health and safety procedures and first aid trained personnel to minimise workplace incidents that require medical services. The Project facility will be fenced off for safety and a security gate installed to prevent unauthorised access to the site.

Subsea 7 will develop an apprenticeship program in partnership with the Central Regional TAFE to develop pathways for school leavers to work the Fabrication Facility. Additionally, upskilling of the workforce at the site through training and education will be implemented to improve skills and career progression.

Subsea 7 aim to be an integral part of uplifting the Exmouth community not only through employment but also through investing in community programmes, education and community facilities. It is expected that the baseline environmental studies undertaken for the Project will contribute to the scientific knowledge of the region.

4.5 Community Facilities and Services

The overall 'reef to range' experience of Exmouth will not be significantly impacted by the Project. The onshore Project area is located on the opposite side to the reef side of the peninsula and not within the Cape Range. The bundle tow will traverse the Ningaloo Marine Park three times a year, occupying the area for a total of 36 hours (0.4%) a year. The visual impact assessment determined an overall low visual impact of the Project to surrounding receptors (360 Environmental 2019). Additionally, the Project is consistent with existing surrounding developments such as the Learmonth Jetty, RAAF base, naval communication station, prawn trawling and large marine vessels in the Gulf.

The nature of the fabrication facility does not require the use of government or community services and facilities. The Project will result in increased traffic on the Exmouth-Minilya Road for material deliveries to the site. A traffic study was undertaken to determine the increased traffic volumes as a result of the Project and any recommended road safety measures (GHD 2017).

The study determined the need for double road trains and prime movers with extendable trailers (capable of carrying 24 m pipe sections) will be using the public Minilya-Exmouth Road, Burkett Road and North West Coastal Highway during traffic campaigns. The expected route of these trucks will be from Dampier Port, along North West Coastal Highway, Burkett Road and Minilya-Exmouth Road. Traffic forecasts indicate that an additional 10 truck movements (one way) including four double road trains and six extendable trailers, together with three additional pilot vehicles (one way). The total additional daily traffic based on the proposed transport campaign modelled is therefore 13 vehicles per day (vpd) (one way) for up to 32 days and 26vpd two way.

The traffic management assessment report recommended that only an additional basic right turning lane at the Minilya-Exmouth / Site Access Intersection was required to manage the increased traffic. Subsea 7 will communicate with the Shire and Main Roads WA in regards to trucking operations as required. It has been estimated the twenty light vehicles will be required on site during operations; to reduce traffic from the site to Exmouth town, Subsea 7 will operate buses to transport the core workforce.

It is possible for an increase in population in Exmouth (~7.6%) as a result of the Project and occasionally external personnel may need to be brought to site for their specialised trades. This could lead to an increased usage of community facilities (e.g. gyms, swimming pools, golf courses, restaurants). However, it is not expected that a slight increase in population will overburden existing community facilities and public services and with a pre-existing population of 2,728 that fluctuates by triple in the peak tourist season; it is not expected to be a significant impact. It is also expected that an increase in a stable population increase in Exmouth can provide community benefits such as increased expenditure, investment, use of facilities and stable participation in community initiatives, which is a priority for the Shire (Shire of Exmouth 2018).

4.6 European History, Heritage Values and Recreation

4.6.1 History

The Project will not interfere nor significantly impact on the European History of the Exmouth region, including historical sites such as Potshot, Solar Observatory, the Navy Pier, the Wreck of SS “Mildura” and the Vlaming Head Lighthouse.

4.6.2 Heritage Values

When assessing the significance of impacts of the Project on the Ningaloo World Heritage Area (WHA), the visual impact of the bundle tow was considered. This is because Ningaloo was listed based on the following criterion - *‘superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance’*.

A LVIA was commissioned to determine these impacts using eight vantage points to capture the construction, operations and decommissioning phase of the project (360 Environmental 2019). The estimated time the bundle and associated vessels will take to travel through the Ningaloo World Heritage Area is approximately 4 hours. This equates to 12 hours per year (0.27 % visual amenity impact per year). Additionally, the bundle tow operations are not exclusive to existing impacts in these areas (vessels, visible prawn trawlers, heavy lift crane vessels and FPSO vessels etc.).

A viewshed analysis from the Vlaming Head Lighthouse was undertaken (this vantage point has uninterrupted views of the sea across the WHA and is a popular tourist destination). During the assessment from this vantage point, the proposed bundle tow impacts are consistent with existing impacts evident from this location such as other vessels operating in the vicinity, the Harold. E. Holt Naval Communication Station (significantly more visually impacting) and offshore oil platforms visible from this location towards the north west of the peninsula. Given the temporary, short term nature of the bundle tow, with up to three bundle tows a year and a 0.27 % visual amenity impact, the Project is not likely to impact the natural beauty or aesthetic importance of the WHA.

Another criterion for the Ningaloo WHA is its *‘important and significant natural habitats for in-situ conservation of biological diversity including threatened species’*. During the tow route through the Ningaloo WHA the chains hanging beneath the bundle will not be in contact with the seabed and therefore no impacts will occur to benthic communities and their habitat. The bundle tow will not occur during the peak humpback whale southern migration period (a twelve-week marine fauna block out period will be enforced) and thus will not interfere with their migratory patterns or tourism operators. Additionally, support vessels will accompany the bundle tow with trained marine fauna observers (MFOs) on-board to locate and report on marine fauna species within the tow route path. During the bundle tow, operations will adhere to the Marine Fauna Management Plan and a ‘spotter’ plane spotter will fly overhead to spot mega marine fauna such as whale sharks. The speed

of the tow vessels will be approximately 5-6 knots (maximum 8 knots) during the surface tow through the WHA which will allow marine fauna to avoid the tow vessels and Bundle. Avoidance measures will be taken, as required, to avoid marine fauna strike.

Negligible impacts are expected to the nationally and internationally significant areas of the Exmouth Peninsula. Out of the 604,500 ha WHA, a maximum of 2,540 ha will be occupied (by an enforced exclusion zone) during a bundle tow. Additionally, activities in these areas will not persist for any significant amount of time and are similar to existing impacts in the area (large vessel operations).

4.6.3 Recreation

Offshore Activities and Amenity

The Ningaloo Coast WHA and Exmouth Gulf are used for recreational fishing, boating, kayaking and scuba diving. A maximum of three bundles will be launched per year, it is estimated that each bundle launch will take up to 60 hours to traverse the Gulf (including exclusion zones). This is approximately 180 hours per year. Therefore, the bundle launch and associated marine vessel spread will be operational and possibly visible for 2.05 % of the year in the Gulf and not expected to significantly impact recreational users in the area. Also, the implementation of bundle technology can also significantly decrease oil and gas construction vessel use of the Exmouth Gulf, leading to an overall potential reduction in any interface between recreational and industrial operations in the gulf.

The results of the LVIA determined that the bundle tow through the Gulf did not appear to have any significant impact on any valued receptors, apart from Schofield Shoal, a locally valued offshore location where impacts during bundle launches were considered significant for up to 1.47 % of the year (it should be noted that there is minimal impact on this location for most of the year).

As discussed in Section 4.3.1. a 500 m exclusion zone will be in place during a bundle launch an exclusion zone, the exclusion zone will progress relative to the bundle position.

Recreational fisherman and boaters will still be able to depart from Exmouth Marina and travel to Ningaloo Reef unhindered. Travel to or from the Muiron Islands will be unaffected, except for during a short (6 hours) window when the bundle will be exiting Exmouth Gulf from the bundle parking area. All vessels on the water and in the vicinity will be required to operate their vessel safely. Vessels will need to detour up to 10 km for access to the Muiron Islands. Advance notice of proposed launches will be given to allow the public to plan activities and routes during launch and tow periods.

Some of the key diving locations within Ningaloo WHA and the Gulf include Exmouth Navy Pier (~8 km from tow route), Murion Islands (~5.5 km), Lighthouse Bay sanctuary area (~10 km), Bundegi Reef (~12 km), Sponge Gardens (east of the Navy Pier), Nor-West Reef (~ 7 km) and various locations along the Ningaloo Reef (Ningaloo Visitor Centre 2018). These locations are not likely to be inhibited by the bundle tow operations as they

do not intersect the path of the bundle tow route and the bundle will not be visible underwater from these locations. Travel to or from the Muiron Islands will be unaffected, except for during a short (6 hours) window when the bundle will be exiting Exmouth Gulf from the bundle parking area. Vessels will need to detour up to 10 km for access to the Muiron Islands.

The Gamex recreational fishing competition held in March each year is recognised by Tourism Western Australia as one of the state's major fishing tournaments with over 50 boats entering each year (Exmouth Game Fishing Club [EGFC] 2019). Overall the competition runs for approximately 10 days, of which 6 days are fishing. Subsea 7, in consultation with the EGFC, will commit to having a launch block out period over these six days each year to minimise interference with the competition.

Onshore Activities and Amenity

The Exmouth region provides diverse opportunities for onshore recreational activities including hiking, camping, four-wheel driving and pristine beaches for leisure or snorkelling. The onshore components of the fabrication facility are located adjacent to the Minilya-Exmouth Road, 35 km south of Exmouth. This area of land is mostly part of a pastoral lease used for livestock grazing. The launchway component near the beach at Heron Point is used by some groups for camping, four-wheel driving and fishing. The Project is likely to have some temporary impacts for visual amenity and access for recreational users in the area.

To determine visual amenity impacts, a LVIA was undertaken using eight vantage points across the region (to capture all phases of the operations). The LVIA determined that the fabrication facility will be visible from several locations along the Minilya-Exmouth road. The field assessment of the LVIA showed that based on typical observer speeds, the facilities will likely be visible mostly off axis to the direction of travel and only for short periods of time (360 Environmental 2019). The launchway and rails/tracks appeared to largely impact coastal receptors at Heron Point, which is considered to be a locally significant area for landscape and visual amenity values. Although a significant impact is likely to be experienced during bundle launches, impacts for most of the year are considered low, due to the small footprint of the Project in this area and the minor impact on the use of the area (360 Environmental 2019).

Vantage points (receptors) from popular tourist lookouts (Charles Knife Canyon, Bundegi Beach, Mildura Wreck and Vlaming Head Lighthouse) all showed very low levels of visual impact from the offshore (and onshore) operations. The Project (offshore and onshore components) is not practically visible from Charles Knife Canyon. While the larger marine vessels may be visible from the Bundegi, Mildura and Vlaming vantage points, impact is expected to be minimal, since, a) large distances causes the activities to blend into the ocean due to atmospheric distortions; b) the nature of impact caused by the activities is equal to or less than existing impacts such as vessels already operating in the gulf (and the permanent offshore oil platforms visible from some locations); and c) the bundle and

vessels were not practically visible at these onshore sites. Although support vessels are likely to be visible to the keen eye, the expected impact duration for these sites were estimated as being a maximum of 18 hours per launch as seen from Vlaming Head Lighthouse, which had the largest viewshed (360 Environmental 2019).

Overall, the LVIA found that minimal impacts can be expected from the project outside of the bundle launch phase. During the bundle launch phase, locally significant sites may be significantly impacted. Recommended Visual Management Measures which aim to minimise these impacts have been proposed as follows:

- Maintain access to the launchway area when not in use (consider establishing public access to the end of the launchway);
- Consider implementing measures to improve amenity (including visual) at the launchway facilities when not in use (e.g. fishing platform on launchway or a simple boat ramp could be developed in consultation with the community);
- Consider undertaking a colour palette assessment for onshore infrastructure; and
- Consider sealing roads within the fabrication facility to minimise dust generation during operations.

Access to Heron Point and Bay of Rest

Access to the Project site will be restricted due to safety reasons, to ensure there is no unplanned interaction between the on-site operation and members of the public or other groups that are not appropriately inducted, escorted, or trained to be on site. However significant stakeholder consultation indicated that access to Heron Point and Bay of Rest was important to local groups. Therefore Subsea 7 committed to ensuring access to these areas was maintained whenever possible, and the following measures will be implemented to ensure minimisation of access impacts to local groups (Figure 6):

- A launchway crossing will be incorporated in to the launchway design that allows off-road vehicles to continue to with their normal access along the beach to Heron Point and the Bay of Rest. The crossing will be of a low-profile design that is not prohibitive for any 4WD vehicle that is able to drive on the beach (Plate 1). For the large majority, access to this area will be completely unaffected. The only situation in which access along the beach, with this crossing, will be impacted is during bundle launch operations. Each bundle launch will have an exclusion in place for 36 hours (a maximum of three bundles per year = 108 hours out of a total 8,760), it is expected that local users will not be able to access the launchway area at Heron Point for 1.2% of the year, but the remaining 98.8% of the year access will be maintained. As bundle launch operations are well planned in advance, sufficient notice will be provided. Signage will be erected in the approaches to the beach crossing to ensure that the closure is

known. The green track illustrated in Figure 6 below shows the public access route to Heron Point after project implementation;

- Access to the Bay of Rest will be maintained at all times (even during bundle launches). However, the access route will be adjusted slightly as described below:
 - Currently, there is direct access to the Bay of Rest from the Minilya-Exmouth Road via an access track that extends across the proposed bundle track (refer to the southernmost black track on Figure 6). This track will be cut off by the construction and then operation of the site. Subsea 7 engaged with available stakeholders and recognises that this track is utilised by both members of the public and small businesses that access the Bay of Rest directly, without having to drive along the sandy, boggy beach; and
 - To ensure access to Bay of Rest, without having to drive along the beach, can still be achieved, Subsea 7 will create a new access track. Refer to the blue track on Figure 6. The new track will be 1.7 km further south, along the Minilya-Exmouth Road, of the exiting track. It will utilise the Project's access track and then continue North (alongside the bundle site) until it joins again with an existing track that turns east to the Bay of Rest (refer to blue and green track intersection). This ensures that access to the Bay of Rest is maintained at all times, irrespective of the status of the bundle site operation. It is expected that the newly created track would be an improved condition to the existing track, likely offsetting most or all of the extra (1.7 km) driving distance.

Impacts to visual amenity and access to recreational users is not expected to be significant since a small portion of the Exmouth region use this area for recreation and access to Heron Point and the Bay of Rest will still be achievable for 98.8% of the year. Visual amenity impacts at tourist lookouts are minimal, except at Heron Point and Schofield Shoal during bundle launch and tows, however this will only be for short periods of the year.

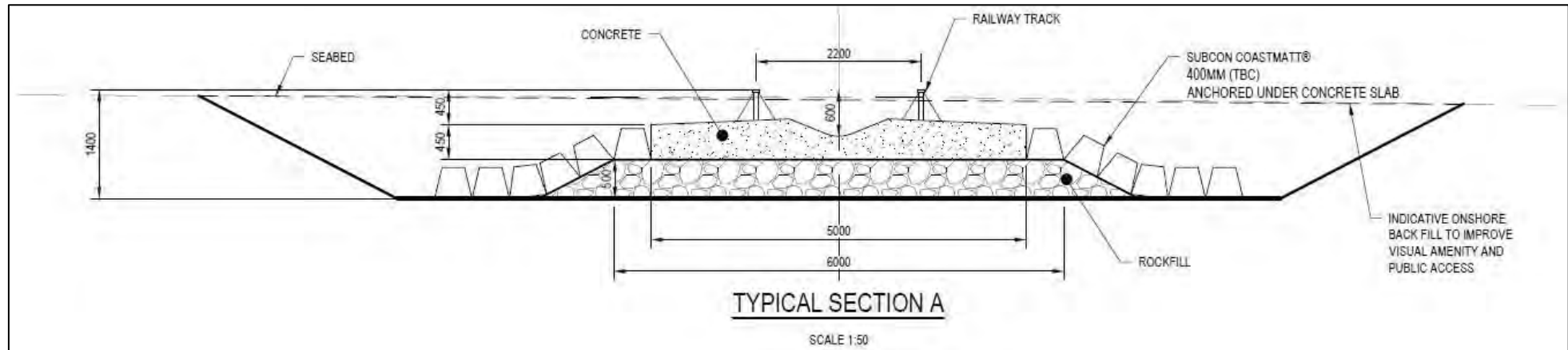
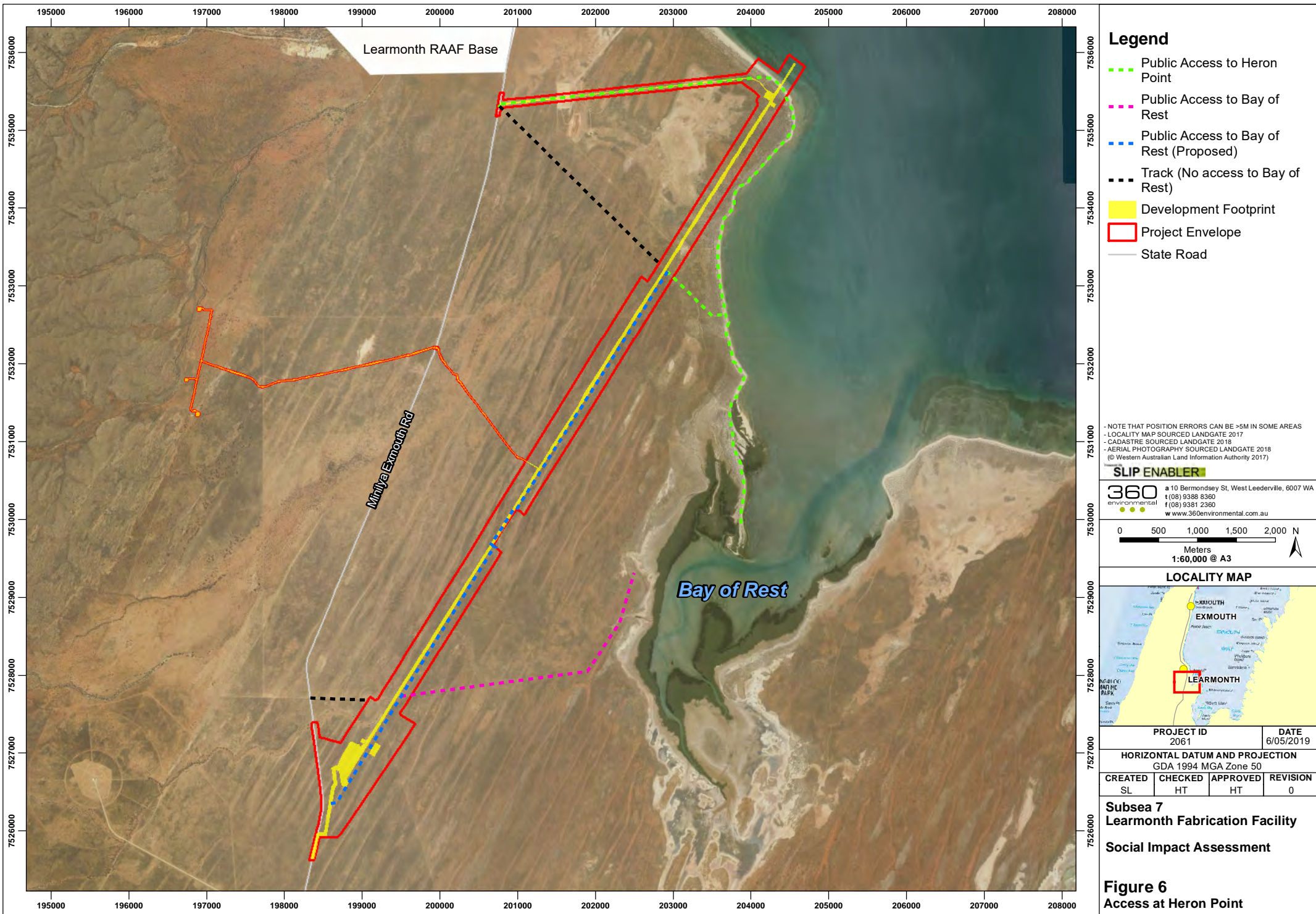


Plate 1: Artists impression of the proposed launchway



4.7 Aboriginal Heritage

Potential impacts identified for Aboriginal Heritage include:

- Disturbance to Aboriginal places or cultural associations within the area during construction and/or operations;
- Temporary and/or temporary constraint on access and traditional cultural activities during construction and/or operations; and
- Changes to surface water flow patterns or coastal processes which could impact on Aboriginal heritage places.

The Heritage survey (as well as desktop assessments and previous surveys) undertaken across the site did not record any archaeological or ethnographic places, as defined under Section 5(a), (b) or (c) of the AH Act 1972. Additionally, the survey did not identify any significant areas within the Proposal envelope used for customary practices. Therefore, impacts to Aboriginal Heritage places or cultural associations are not expected. The Heritage team identified the potential for artefacts to emerge in the more mobile soils once clearing works commence allowing wind to blow sand away. Subsea 7 will commit to having heritage monitors on site for future ground disturbing works to mitigate disturbances to potential sites. The Heritage team considered this acceptable (SJC Consultants 2019). A tree, identified as the Dinner Time Tree within the Project envelope, was noted as having some cultural importance for the group and requested that it not be disturbed (Figure 3). Subsea 7 has marked the location of the tree and will ensure it is not disturbed during construction or operations. Subsea 7 will use the site to raise cultural awareness of the Traditional Owners of the area. Overall, impacts to Aboriginal Heritage places and cultural associations is therefore considered low.

Access to the site will remain restricted due to safety reasons, to ensure there is no unplanned interaction between the on-site operation and members of the public or other groups that are not appropriately inducted, escorted, or trained to be on site. This is a standard safety practice. Given that the site does not contain any culturally significant areas used for customary practices impacts are considered unlikely. Members of the Gnulli will also be able to enter the site upon request to do so for a specified purpose. An Indigenous Land Use Agreement (ILUA) is currently under negotiation between the Gnulli Claimant Group and Subsea 7 and will be approved prior to the construction of the Proposal. Maintaining public access to Heron Point and Bay of Rest lagoon was considered important to the Heritage team. As discussed in Section 4.6.3 access to Heron Point will be maintained for 98.8% of the year (access will be restricted during bundle launches), and access to Bay of Rest will be maintained at all times. A launchway crossing has been incorporated into the launchway design that allows off-road vehicles to safely drive over the launchway. The crossing will be of a low profile design that is not prohibitive for any 4WD vehicle that is able to drive on the beach (Plate 1). A significant impact to long-term access to the area is not expected.

Surface water flow patterns are expected to remain similar to baseline flow patterns, and changes to flow velocities as a result of the Project are not expected to alter any natural scour or sediment deposition characteristics of the area (Subsea 7 2019). No significant indirect impacts to coastal morphology as a result of altered wave climate, water flows and sediment movement following launchway construction are expected (Subsea 7 2019). Water abstraction volumes and rates are not considered large, and drawdown impacts will be insignificant and localised to within a few kilometres of the production bore area (Subsea 7 2019). Therefore, impacts to Aboriginal cultural or heritage values of water in the Project area are considered unlikely.

5 Stakeholder and Community Engagement

Stakeholder consultation is an ongoing component of the social impact assessment and will continue through all phases of the project. To date, Subsea 7 has consulted regularly with key regulators and stakeholders throughout the development of the Project. This has included town planning, native title, local government, indigenous heritage, industry, environmental stakeholders and community groups.

A Land Use agreement with the Pastoral Lease holder has been executed and meetings have been held with the Shire of Exmouth and Exmouth Community Group. At the time of writing, an Indigenous Land Use Agreement was being negotiated. Appendix E provides a summary of all stakeholder consultation undertaken to date for the Project (this will be continually updated as consultation continues).

The key stakeholder messages in Section 5.3 have been used to inform the social impact risk assessment in Appendix B.

5.1 Stakeholders

5.1.1 Key Stakeholders

The key stakeholders identified during early scoping and ongoing development of the Project are as follows:

- Pastoralist.
- Shire of Exmouth.
- Department of Jobs, Tourism, Science and Innovation (DJTSI).
- Department of Premier and Cabinet (DPC).
- Department of Water and Environmental Regulation (DWER) including the
- Environmental Protection Authority (EPA) Service Unit.
- Exmouth Community Reference Group.
- Exmouth Chamber of Commerce and Industry.
- Gascoyne Development Commission – Exmouth Branch.
- Department of Lands, Planning and Heritage (DPLH).
- Gnulli Working Group (Traditional Owners).
- YMAC – Native Title Representative Body.
- Exmouth Community.
- Cape Conservation Group (CCG).
- Department of Biodiversity Conservation and Attractions (DBCA).
- Department of Transport (DoT).

- Department of the Environment and Energy (DoEE).
- Kailis Group.

5.1.2 Other Stakeholders

Other stakeholders that have been consulted throughout the project development include:

- Commonwealth Department of Defence (DoD);
- Minister for Regional Development;
- Department of Primary Industries and Regional Development (DPIRD);
- Department of Mines, Industry and Safety Regulation (DMIRS);
- Office of the Appeals Convenor – clearing permit appeal;
- Chair of the Ningaloo Reef World Heritage Area; and
- Protect Ningaloo Campaign.

5.2 Stakeholder Engagement

A comprehensive list of the stakeholder engagement conducted throughout the project thus far is presented in Appendix E. Throughout the engagement, Subsea 7 has prepared and delivered presentation material with the aim of ensuring that all interested stakeholders are identified and engaged. Table 1 below provides a summary description of the information that has been made available to stakeholders.

Table 3: General Reference Information Supplied for Stakeholder Engagement

ITEM	DESCRIPTION	AVAILABILITY
FORMAL PUBLIC CONSULTATION		
S38 Referral	<ul style="list-style-type: none"> Initial project referral, including project description and original environmental impact assessment 	<ul style="list-style-type: none"> Publically available, via the EPA website 14 day consultation period from 14 February 2018
EPBC Referral	<ul style="list-style-type: none"> Initial project referral, including project description and original environmental impact assessment 	<ul style="list-style-type: none"> Publically available, via DoEE website 10 day consultation period from 31 October 2018
NVCP Application	<ul style="list-style-type: none"> Native vegetation clearing permit application, including discussion regarding the purpose of the clearing as it was required for the PER development 	<ul style="list-style-type: none"> Publically available, via the EPA website 21 day consultation period from 7 February 2018
NVCP Appeal Period	<ul style="list-style-type: none"> Appeal period corresponding to the approval of the NVCP 	<ul style="list-style-type: none"> Publically available, via the EPA website 21 day appeal period from 10 April 2018
Environmental Scoping Document	<ul style="list-style-type: none"> Public consultation period for the draft ESD 	<ul style="list-style-type: none"> Publically available, via the EPA website

ITEM	DESCRIPTION	AVAILABILITY
S43A Update to Proposal – Public Consultation	<ul style="list-style-type: none"> Public consultation period for the Update to Proposal, capturing updates regarding the launch and tow operation, water sourcing strategy, and the site access roads 	<ul style="list-style-type: none"> Publically available, via the EPA website 15 day consultation period from the 1st to the 15th March 2019
PROJECT SPECIFIC SUPPLIED INFORMATION		
Frequently Asked Questions	<ul style="list-style-type: none"> An FAQ was generated to provide a quick reference guide to commonly asked questions about the proposal 	<ul style="list-style-type: none"> Issued to the project mailing list (19th June 2018)
Information Exhibition	<ul style="list-style-type: none"> An open forum information exhibition was held in Exmouth, with representatives from the project and key consultancies 	<ul style="list-style-type: none"> Open forum (24th October 2018)
Brochure	<ul style="list-style-type: none"> Learmonth Pipeline Fabrication Site Development Timeline 	<ul style="list-style-type: none"> Presented at the Open Forum on the 24th October Additional copies available at the Ningaloo Centre
Brochure	<ul style="list-style-type: none"> Local Employment Opportunities and Site Manager Employment Advertisement 	<ul style="list-style-type: none"> Presented at the Open Forum on the 24th October Additional copies available at the Ningaloo Centre

ITEM	DESCRIPTION	AVAILABILITY
Brochure	<ul style="list-style-type: none"> ● Environment – update and information on the environmental studies and assessments ongoing 	<ul style="list-style-type: none"> ● Presented at the Open Forum on the 24th October ● Additional copies available at the Ningaloo Centre
Brochure	<ul style="list-style-type: none"> ● Supply Chain Engagement – performance to date regarding local supply chain engagement, and future commitments toward local supply chain engagement 	<ul style="list-style-type: none"> ● Presented at the Open Forum on the 24th October ● Additional copies available at the Ningaloo Centre
Brochure	<ul style="list-style-type: none"> ● Bundle Technology – addressed feedback raised regarding bundle technology and contents, launch and tow engineering, and launch and tow operations 	<ul style="list-style-type: none"> ● Presented at the Open Forum on the 24th October ● Additional copies available at the Ningaloo Centre
Bundle Model Display	<ul style="list-style-type: none"> ● A 1:1 scale model of an actual bundle that was previously delivered was transported to Exmouth and left on display at the Ningaloo Centre 	<ul style="list-style-type: none"> ● Left in free access area at Ningaloo Centre from early November 2018 to early February 2019 ● Planned to be returned to the Ningaloo Centre in Q2 2019 and throughout the PER public consultation period

ITEM	DESCRIPTION	AVAILABILITY
S43A – Update to Proposal	<ul style="list-style-type: none"> ● Notification of the upcoming public consultation for the S43A ● General information regarding the S43A content 	<ul style="list-style-type: none"> ● Correspondence issued to mailing list on 27th February 2019 and 5th March 2019
SUBSEA 7 CORPORATE INFORMATION REGARDING BUNDLES		
Subsea 7 Corporate Website	<ul style="list-style-type: none"> ● Corporate video “Pipeline, Flowline & Bundle” including approx. 50 seconds on bundle technology, with key elements regarding how it works ● Wick Bundle Fabrication Site data sheet (as the only other example of a permanent bundle site) 	<ul style="list-style-type: none"> ● Available on Subsea 7’s corporate website

ITEM	DESCRIPTION	AVAILABILITY
Subsea 7 YouTube Channel	<ul style="list-style-type: none"> ● 5 minute video explaining the full breadth of bundle technology, fabrication, launching, etc ● 1 minute Pipeline bundle video (showcasing the existing base and the technical advantages of bundle technology) ● Video from the Montrose Area Development, including the pipeline bundle launch from March 2015 ● Video from the Premier Oil Catcher Area Development, including the pipeline bundle launch from June 2016 ● Video showing towhead transportation through the town of Wick (January 2015) 	<ul style="list-style-type: none"> ● Available online on the Subsea 7 YouTube channel

5.3 Key Stakeholder Messages

This section provides a summary of the key messages from the stakeholder engagement undertaken by Subsea 7 over the past three years and during the various stages of the project development (Appendix C). These key messages have been used to inform the social risk assessment by determining stakeholder concerns and expectations.

5.3.1 Regulators

The overall key message received from the varying government departments (other than the approval process requirements that Subsea 7 is subject to) was the importance of regular communication during the various phases of the project and notice of any major changes to the proposal. Regulators have also emphasized the importance of regular (and accurate) communication with local stakeholders, community and local marine operators (particularly during bundle launch and tow periods).

5.3.2 Local Industry

- No major concerns raised by commercial fishing industry groups or commercial fisheries for impacts to prawn trawling activities and business;
- Concerns regarding potential impacts to benthic community habitats adjacent to Heron Point as a result of launch and tow as locally owned businesses use these areas for fly-fishing and collecting aquarium species; and
- Significant support for the project was received by the Exmouth Chamber of Commerce and Industry (CCI) (and numerous member organisations), citing the benefits to local development that would come with the proposal (employment, economic diversification, additional services demand).

5.3.3 Local Community and Non-government Organisations

Key messages that emerged from the local community, non-government organisations and recreational representative groups included the following:

- Accurate, regular and open communication as new information develops or any foreseen changes to the project;
- Concerns regarding potential impacts to local tourism operators (particularly recreational fishing);
- Concerns regarding potential water quality (turbidity) impacts during launchway construction and bundle launch;
- Concerns regarding impacts on the visual amenity of the area as a result of the project;
- Concerns regarding increased traffic volumes (and safety) on the Exmouth-Minilya Road;

- Maintenance of public access to and along the beach at Heron Point; and
- Concerns regarding potential impacts to benthic community habitats as a result of launch and tow as locals use areas for recreational fishing and collecting aquarium species.

The Conservation Council of WA is the state's premier environmental Non-government Organisation (NGO) and the Cape Conservation Group is a volunteer organisation based in Exmouth. Both groups have openly opposed the proposed project as it promotes the oil and gas industry across the Northwest Shelf. Additionally, any development near Exmouth is opposed by the groups. These two groups have partnered together with the Australian Marine Conservation Society and developed a grassroots campaign, "Protect Ningaloo: Save Exmouth Gulf". The campaign aims to prevent development in the Ningaloo Region (and in particular the Learmonth Pipeline Fabrication Facility) in order to protect and preserve Ningaloo. The Project is under the highest level of environment review (public) under the *Environmental Protection Act 1986*. Subsea 7 has undertaken a vast array of technical studies to determine potential risks and impacts as a result of the Project and used these studies to inform appropriate mitigation and management measures.

Subsea 7 has engaged with campaigners on a regular basis to provide them with information on the full extent of potential impacts, proposed management measures and commitments which will further mitigate impacts (Appendix C). Overall, it is expected the Project will not have a significant impact to any of the Environmental Factors set out by the EPA. However, the Protect Ningaloo Campaign's position remains no development in the Gulf.

Significant community engagement for the Shire's Strategic Community Plan 2030 showed a key finding that 'to be able to remain living permanently in Exmouth there is a need for greater fulltime employment opportunities' and the Exmouth community would like to build and diversify their local businesses whilst ensuring the protection of the natural environment (Shire of Exmouth 2018). Whilst Subsea 7's community engagement has showed that the community has some concerns regarding potential impacts to the environment, they welcome the opportunity of long-term employment, business generation and investment in their town.

6 Conclusion

The social impact assessment together with the current level of baseline studies has determined the following key risks and opportunities are associated with the implementation of the Learmonth Pipeline Fabrication Facility:

- Project approval process – high-medium risk (impacts included disgruntled local community, activism and community divide);
- Relationship with Custodians of the land strained – medium risk (impacts include an unsatisfactory agreement for the custodians of the land); and
- The ‘physical presence of the Fabrication Facility’, ‘bundle tow traverses World Heritage Area’ and the ‘implementation of exclusion zones during bundle tow in the Gulf’ all ranked as medium levels of risk. Impacts associated with these risks were restricted access both onshore and offshore during bundle tows and visual amenity.

The SIA determined the following key opportunities (positive social impacts):

- Increased demand for supporting industries – high-medium positive rating (increased revenue and contract opportunities, economic contributions to local industry and Gascoyne);
- Increased demand for employees – high-medium positive rating (impacts include increased employment opportunities for local community and businesses);
- Scientific research – medium positive rating (provides increased knowledge of existing environment at Heron Point and within the Gulf); and
- Increased demand for skills and tradesmen – medium-positive rating (impacts include training and employment opportunities; upskilling of local workforce).

The impacts and opportunities will be managed through the mitigation hierarchy. Continuing regular stakeholder engagement through a stakeholder engagement strategy is a key priority for Subsea 7 for minimising social impacts throughout the life of the Project. Overall it is expected that the Project will have a positive social contribution to Exmouth, Gascoyne and WA. Subsea 7 aim to be an integral part of uplifting the Exmouth community not only through employment but also through investing in community programmes, education and community facilities. The EPA’s objective for the Social Surrounds factor, ‘*to protect social surroundings from significant harm*’, will be met.

7 Limitations

This report is produced strictly in accordance with the scope of services set out in the contract or otherwise agreed in accordance with the contract. 360 Environmental makes no representations or warranties in relation to the nature and quality of soil and water other than the visual observation and analytical data in this report.

In the preparation of this report, 360 Environmental has relied upon documents, information, data and analyses ("client's information") provided by the client and other individuals and entities. In most cases where client's information has been relied upon, such reliance has been indicated in this report. Unless expressly set out in this report, 360 Environmental has not verified that the client's information is accurate, exhaustive or current and the validity and accuracy of any aspect of the report including, or based upon, any part of the client's information is contingent upon the accuracy, exhaustiveness and currency of the client's information. 360 Environmental shall not be liable to the client or any other person in connection with any invalid or inaccurate aspect of this report where that invalidity or inaccuracy arose because the client's information was not accurate, exhaustive and current or arose because of any information or condition that was concealed, withheld, misrepresented, or otherwise not fully disclosed or available to 360 Environmental.

Aspects of this report, including the opinions, conclusions and recommendations it contains, are based on the results of the investigation, sampling and testing set out in the contract and otherwise in accordance with normal practices and standards. The investigation, sampling and testing are designed to produce results that represent a reasonable interpretation of the general conditions of the site that is the subject of this report. However, due to the characteristics of the site, including natural variations in site conditions, the results of the investigation, sampling and testing may not accurately represent the actual state of the whole site at all points.

It is important to recognise that site conditions, including the extent and concentration of contaminants, can change with time. This is particularly relevant if this report, including the data, opinions, conclusions and recommendations it contains, are to be used a considerable time after it was prepared. In these circumstances, further investigation of the site may be necessary.

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APPENDIX A

Scoping and Screening Document

Learmonth Pipeline Fabrication Facility - Screening and Scoping Tool						
	Screening Response (Yes/No/Unknown)	Screening Probability (Highly Unlikely; Unlikely; Somewhat Unlikely; Likely; Somewhat Likely; Highly Likely)	Screening Significance of Impacts (Not Significant, Low Significance, Medium Significance, High Significance)	Scoping Distribution of Impacts (Confined; Local; Regional; National)	Scoping Duration & Frequency of Impacts	Comments Summary of Available Data and Data Gaps to Address in Impact Assessment
Social & Cultural Values and Resources						
Would the project occur in an area of known or suspected social, cultural or historical significance, including locally established cultural practices, norms and customs?	Y	Likely	Low Significance	Local	40 years Construction phase: 12 months Operation Phase: (3 times a year for 40 years) Decommission Phase: 6 months	<p>Available Data: The traditional owners of the land on which the fabrication site is located is the Gnulli Native Title Claimant Group. The Gnulli were consulted in the early stages of the project development and Subsea 7 has continued regular engagement with the group. An Indigenous Land Use Agreement (ILUA) is currently being negotiated between Subsea 7 and the Gnulli Group. Two Aboriginal Heritage surveys were undertaken across the borefield area and the project development envelope. No sites of archaeological or cultural significance were recorded during the surveys. A search of the Western Australian Department of Aboriginal Affairs inquiry system found four "Lodged, Other Heritage Places" which means information has been received in relation to the place, but an assessment has not been completed to determine if it meets Section 5 of the Aboriginal Heritage Act 1972. Regular community stakeholder engagement has been undertaken throughout the development of the project and indicated that Heron Point is used as a local beach-camping spot and offshore areas at Heron Point are used for recreational fishing and boating. The proposed tow route is also an area regularly used by recreational and commercial fisherman.</p> <p>Data Gaps: NA</p>
Would the project occur in or near an area of indigenous significance? If yes, consider how will the project impact the function of the areas?	N	Unlikely	Low Significance	Local	40 years	<p>Available Data: An Indigenous Land Use Agreement (ILUA) is being negotiated between Subsea 7 and the Gnulli Native Title Group. Two Aboriginal Heritage surveys were undertaken across the borefield area and the project development envelope. No sites of archaeological or cultural significance were recorded during the surveys.</p> <p>Data Gaps: NA</p>
Will the project significantly impact cultural or community values and beliefs?	Y	Somewhat Likely	Low Significance	Local	40 years	<p>Available Data: Stakeholder Engagement sessions indicated some level of community opposition to the project. In particular concerns regarding the potential impacts to the Ningaloo Reef and Marine Park and future industrial development within the gulf.</p> <p>Data Gaps: NA</p>
Community Services, Facilities & Infrastructure						
Will the project occur in an area with recreational or social facilities, infrastructure or activities (e.g. fishing, boating, hiking)? How will the project impact the use of existing recreational facilities and opportunities in the area?	Y	Likely	Medium Significance	Confined	40 years Boating activities will only be impacted during bundle launch and tow periods (approximately for 2 days, 3 times a year)	<p>Available Data: Stakeholder engagement sessions have revealed that a small group of the local community use the beach to the north of Heron Point as a camping and fishing location. Whilst there will be no direct impact to these activities, the project may pose a visual amenity impact. There are offshore fishing, boating and diving locations near Schofield Shoal that could be temporarily impacted during bundle launch and tow operations. Stakeholder engagement has also revealed that some groups of recreational fisherman welcome the launchway area as a new habitat for fish at Heron Point. A visual impact assessment was undertaken across eight view points (including an offshore location and at the beach camping spots). The outcome of this assessment was an overall low impact to visual amenity. A number of visual recommendations were provided and these will be implemented where possible.</p> <p>Data Gaps: NA</p>
Will the project occur in or near an area occupied by sensitive marine or land uses (e.g. scientific research areas, event routes (indigenous practices, races, pilgrimages) or essential community infrastructure (e.g. hospitals, schools, places of worship)? Consider how the project may affect the function or quality of these areas.	Y	Likely	Medium Significance	Local	Bundle launch and tow operations will occur over a period of approximately 2 days, for a maximum of three times a year.	<p>Available Data: The onshore pipeline fabrication facility is not located near any sensitive receptors or community infrastructure, the land use is pastoral. The offshore route of the bundle tow will traverse through the Exmouth Gulf (and a small section of the Ningaloo World Heritage Area). This gulf is a known whale migration route, particularly as a rest area between mid-September and mid-November. A whale migration survey was undertaken in the Gulf and subsequently a marine fauna block out period has been developed in which bundle tows will not occur during the migration period (August - November). The launch and tow will occur up to three times a year, with a nominal launch duration of 2 days, and an Exmouth Gulf tow <24 hours, and therefore any impacts will be temporary. Additionally, the proposed bundle tow route is the same 'shipping' route as other large vessels in the Gulf. The use of the bundle technology eliminates the need for offshore pipelaying vessels, which in turn reduces the use of areas such as Exmouth Gulf for pipe re-stocking operations. Therefore the bundle operations represents an insignificant increase in marine vessel operations in the Gulf and WHA,</p> <p>Data Gaps: NA</p>

Will the project impact the capacity for people to participate in community affairs and social interactions?	N	–	–	–	–	Available Data: NA Data Gaps: NA
Could the project alter demand for community services and facilities in the area?	Unknown	Likely	Medium Significance	Local	40 years	Available Data: It is proposed that during the construction phase (9-12 months) an estimate of 50 personnel will be required at the site. Subsea 7 will source this construction workforce locally as far as possible. During operations (estimated to be 40 yrs in this assessment) an average of 70-80 personnel are required on site during bundle construction activities. ACIL Allen estimates that the Project will directly support an average of 40 full time equivalent (FTE) employees (58 in upside scenario) per year over the study period, while a further 149 FTE (285 in upside scenario) positions per year on average will be indirectly created as a consequence of the project. Overall, ACIL Allen estimates that an average of 189 (344 in upside scenario) FTE employees will be supported by the Project each year over the study period. Subsea 7 intend to hire local employees, therefore population is not expected to increase significantly, unless employees relocate to Exmouth permanently. In this case there is the potential for 70 new households (~up to 300 people) which would then be a large increase in the population (10%), given the Exmouth population was 2,728 in 2016.
Will the project use or create a need for government services and/or facilities? If yes, consider how the project may affect existing public resources.	Y	Likely	Low Significance	Regional	40 years	Available Data: The onshore fabrication facility is located just to the east of the Exmouth-Minilya Road. This road is the only entrance into Exmouth and will be used to haul pipeline fabrication materials to the site. Traffic forecasts indicate that an additional 10 truck movements (one way) including 4 double road trains and 6 extendable trailers, together with 3 additional pilot vehicles (one way). This is the only expected use of government services/resources and trucking movements will only occur on a campaign basis (maximum three times a year for each bundle build and launch). Trucks and additional traffic are not expected to enter Exmouth town. A traffic management study has been undertaken to assess the need for additional turning lanes or overtaking lanes in accordance with Main Roads WA guidelines. This study concluded that the traffic volume increase from bundle site operations was minor, and did not trigger the need for any overtaking lanes or additional roads in accordance with MRWA criteria. Subsea 7 will engage with the Shire and Main Roads WA before commencing trucking campaigns. Data Gaps: NA
Will the project have the potential to affect access to schools, clinics, or other essential services/facilities either through physically limiting traffic or pedestrian movement or by overburdening the resources, thereby making it unavailable to local residents?	N	Unlikely	Low Significance	Regional	40 years	Available Data: The Exmouth Community Health Service is the single primary health facility servicing the Shire of Exmouth. In 2009, Exmouth Hospital became a Multi-purpose Service (MPS), enabling the provision of additional services to the community including top quality hospital care and treatment. In 2015 the facility was renamed Exmouth Health Service after being redeveloped. The redeveloped Exmouth Health Service constitutes an emergency department, six inpatient beds and three residential aged care beds (WA Country Health 2018). Exmouth is serviced by one School, Exmouth District High School which caters for approximately 455 students from kindergarten to Year 12. Subsea 7 aims to employ locally and therefore a significantly increased population and burden to government services and facilities is unlikely. Data Gaps: NA
Could the project have positive impacts on community services, facilities, public services and recreation in the area?	Y	Likely	Medium Significance	Local	40 years	Available Data: The proposed fabrication facility will provide a long term and stable employment base for local personnel. Subsea 7 intend to employ locally where ever possible. Subsea 7, through stakeholder engagement, understand a lack of employment opportunities for school leavers and is in discussions with the local TAFE regarding trade training opportunities. Local expenditure within the Exmouth locality and within local businesses will be spent as a result of the proposed project. A new beach access track will be constructed adjacent to the Bundle track to facilitate continued beach access. A beach crossing over the bundle tracks will be implemented to allow continual use of the Heron Point beach area during non-launching periods. An economic impact assessment was undertaken and the Project will make a large contribution to the Gascoyne economy (ACIL Allen 2019). Subsea 7 will form an integral part of society in Exmouth through investment and sponsorship. Subsea 7 has already contributed to significant studies within the Gulf and will commit to high standards of environmental practices and support local projects where possible (Subsea 7 has done Tern relocation projects, beach cleans and dune stabilisation studies at their Wick site in Scotland). Subsea 7 will be contributing to apprenticeship training and technology development. Data Gaps: NA
Demographic, Population and Housing						

Would the construction, operation or decommissioning of the project temporarily or permanently cause displacement of current residents, visitors and/or workers, or the relocation of people to an area, physically or economically? If yes consider how such changes may affect the public, including access to food, housing, sanitation, clean water, or other limited resources.	N	–	–	–	–	Available Data: There are no current residents within the vicinity of the proposed project envelope. The project development will not displace residents physically or economically (including access to public services). Data Gaps: NA
Will the construction, operation or decommissioning of the project temporarily or permanently increase the population of the immediate or broader locality? If yes, will this occur in a short timeframe?	Y	Likely	Low Significance	Local	40 years	Available Data: Subsea 7 will employ locally wherever possible and thus an increase to the Exmouth population is not expected to be significant. It is possible that during the construction (9-12 months) and decommissioning phase (6 months) part of the workforce may need to be brought in temporarily for specialised trades. It is expected this will be a workforce of 50 for each phase. This will increase the population slightly and likely to be people between the ages of 20 - 40 years of age. Since this will be temporary and they will be placed in organised accommodation, there is no expected change to household structures. Some employees may relocate to Exmouth permanently, increasing the population slightly. However Exmouth's population already fluctuates during the peak and low tourist seasons. It is not expected that the construction phases will be much different from other construction projects in Exmouth including the telescope, deepwater wharf, marina and Ningaloo Visitor Centre. Data Gaps: NA
Will the construction, operation or decommissioning of the project temporarily or permanently cause changes to local demographics, including age and household structure?	Y	Likely	Low Significance	Local	40 years	Available Data: Subsea 7 will employ locally wherever possible and thus an increase to the Exmouth population is not expected to be significant. It is possible that during the construction (9-12 months) and decommissioning phase (6 months) part of the workforce may need to be brought in temporarily for specialised trades. It is expected this will be a workforce of 50 for each phase. This will increase the population slightly and likely to be people between the ages of 20 - 40 years of age. Since this will be temporary and they will be placed in organised accommodation, there is no expected change to household structures. Some employees may relocate to Exmouth permanently, increasing the population slightly. However Exmouth's population already fluctuates during the peak and low tourist seasons. It is not expected that the construction phases will be much different from other construction projects in Exmouth including the telescope, deepwater wharf, marina and Ningaloo Visitor Centre. Data Gaps: NA
Will the project occur in an area with known social conflict or tension? If yes, how will population and demographic changes impact these tensions?	N	–	–	–	–	Available Data Data Gaps
Could the project have positive impacts on population, housing, employment and demographic?	Y	Likely	Medium Significance	Local	40 years Construction phase: 12 months Operation Phase: (3 times a year for 40 years) Decommission Phase: 6 months	Available Data: Subsea 7 will employ locally wherever possible and thus an increase (7.6%) to the Exmouth population is not expected to be significant (it can be expected that some personnel will relocate to Exmouth). During the construction phase (9-12 months) an estimate of 50 personnel will be required at the site. During operations (estimated to be 40 yrs) an average of 70-80 personnel are required on site during bundle construction activities. Subsea 7 will source this construction workforce locally as far as possible. ACIL Allen estimates that the Project will directly support an average of 40 full time equivalent (FTE) employees (58 in upside scenario) per year over the study period, while a further 149 FTE (285 in upside scenario) positions per year on average will be indirectly created as a consequence of the project. Overall, ACIL Allen estimates that an average of 189 (344 in upside scenario) FTE employees will be supported by the Project each year over the study period. Overall there is not expected to be a significant impact to housing, demographics or population. Off-site accommodation will need to be organised during construction and decommissioning phases. This will provide opportunities for the hospitality industry during non tourist peak seasons. Data Gaps: NA
Will the project significantly impact the local housing market, or alter the availability of affordable housing in the community?	N	–	–	–	–	Available Data Data Gaps
Will the project require the construction of new housing or accommodation?	N	–	–	–	–	Available Data: There will be no accommodation facilities on site. All employees will drive in and out of the Exmouth locality. Data Gaps
Could the project have a positive impact on housing and accommodation in the area?	Y	Likely	Medium Significance	Local	40 years	Available Data: The project is likely to provide patronage for the accommodation industry outside of the peak tourist season. Data Gaps

Accessibility, Transportation and Traffic						
Will the project use public roads for construction, operational or decommissioning activities? How could this affect existing traffic patterns, load and capacity? E.g. Congestion on roads for locals.	Y	Likely	Low Significance	Regional	40 years Construction phase: 12 months Operation Phase: (Up to 3 times a year for 40 years) Decommission Phase: 6 months	Available Data: Double road trains and prime movers with extendable trailers capable of carrying 24 m pipe sections) will be using the public Minilya-Exmouth Road, Burkett Road and North West Coastal Highway during traffic campaigns. A traffic management assessment has been undertaken by an engineering consultant to understand the potential impacts of the increased truck movements and heavy loads on the roads. The expected route of these trucks will be from Dampier Port, along North West Coastal Highway, Burkett Road and Minilya-Exmouth Road. The assessment report recommended that only an additional turning lane at the Minilya-Exmouth / Site Access Intersection was required. Traffic forecasts indicate that an additional 10 truck movements (one way) including 4 double road trains and 6 extendable trailers, together with 3 additional pilot vehicles (one way). The total additional daily traffic based on the proposed transport campaign modelled is therefore 13 vehicles per day (vpd) (one way) for up to 32 days and 26vpd two way. During operations a bus will be provided from town to the site to reduce required amounts of light vehicles on roads from Exmouth to the Proposal site. Data Gaps: NA
Will the project have the potential to affect access to essential services and facilities (e.g. schools, medical) through physically limiting traffic or pedestrian movement or by over burdening the resource, thereby making it unavailable to local residents?	N	–	–	–	–	Available Data: Traffic campaigns will not interfere with any major towns. Data Gaps: NA
Will the construction, operation or decommissioning of the project use air, marine or rail transportation? If yes, consider how the project may affect existing traffic patterns, such as increases in traffic levels, changes in type or size or service craft used, changes in routes or base location.	Y	Likely	Low Significance	Local	Up to 3 times a year for 40 years	Available Data: The project will use marine transportation during bundle launch and tows. During a bundle launch and tow, a marine vessel spread will be required. This will include up to three tugs (leading and trailing), a command vessel and a patrol/ survey vessel. The tow route will transect through the Exmouth Gulf. Prawn trawling in the Gulf commenced in 1963, with approximately 50,000 hours trawled in the late 1970's to the early 1980's when a maximum of 23 trawlers operated in the fishery. In 1985, the number of trawlers was reduced to 17, to 16 in 1990, another boat was removed in 1998 and in 2000 two more were removed bringing the total to 13 (Kangas et al. 2006a). The Exmouth Gulf Prawn Fishery is one of the largest trawl fisheries in WA and has had catches ranging from 771 to 1,456 tonnes per year over the past 11 years (since 2006). The commercial catch for 2016 was a total of 822 tonnes. (Department of Fisheries 2006). The bundle tow route overlaps with the area currently trawled. Consultation with the trawling business indicated the proposed bundle tows will not significantly interfere with their operations. The bundle technology provides an offset of removing pipe logistic vessels and operations that have often been utilised in the Gulf - by adopting an alternative pipe installation technology. Data Gaps: NA
Does the location impact accessibility to existing towns/settlements/pedestrian or cycle networks? (positive or negative)	N	–	–	–	–	Available Data: NA Data Gaps: NA
Will the construction, operation or decommissioning of the project have the potential to have positive impacts on transportation and traffic in the area?	Y	Somewhat Likely	Low Significance	Local	Up to 3 times a year for 40 years	Available Data: The Project will potentially create local industry opportunities for small local vessel businesses rather than the usual offshore construction projects which utilise larger international vessels. Data Gaps: NA
Utilities and Service System						
Will the construction, operation or decommissioning of the project require construction of new or expansion of existing facilities for water or wastewater treatment, storm water drainage, waste management or power generation? If planning to use local facilities, consider the potential to overburden these resources.	N	Likely	Low Significance	Confined	40 years	Available Data: The Learmonth Pipeline Fabrication Facility will be a self contained site that will not require use of public facilities/services (e.g. scheme water, local power grid or waste water treatment). The site will be powered by 4 x 850 kVA diesel generators. Groundwater will be abstracted from a surrounding bore network with approximately 12ML per annum abstracted. It is not expected that the groundwater will need to be treated as it is fresh enough to use. Greywater volume production rate is 7000 L/day and includes showers and wash basins only. Nutrient concentrations for this greywater (which will be discharged via a sprayfield) is 6-12 mg/L of Nitrogen and 2-4 mg/L for Phosphorus. Data Gaps: NA

Will the construction, operation or decommissioning of the project have the potential to have positive impacts on utilities and service systems in the area?	N	–	–	–	–	<p>Available Data: The Learmonth Pipeline Fabrication Facility will be a self contained site that will not require use of public facilities/services (e.g. scheme water, local power grid or waste water treatment). It will not contribute to any existing utilities and service systems. Subsea 7 are in discussions with the Shire to supply surplus water for their water supply licence (if necessary).</p> <p>Data Gaps: NA</p>
Aesthetics						
Will the project occur in an area with scenic resources (e.g. trees, beaches, historic buildings)? How may the project affect the existing visual character or quality of the area?	Y	Likely	Low Significance	Local	40 years	<p>Available Data: The nature of the Learmonth Pipeline Fabrication Facility is such that it makes use of both onshore, beach interface (Heron Point) and offshore areas. A landscape visual impact assessment (LVIA) was undertaken from 8 vantage points that capture the visual impact from the Minilya-Exmouth Rd, tourist lookout areas, beach and recreational areas to capture the bundle tow out of the Exmouth Gulf. The results from the LVIA showed on overall low visual impact (except during bundle launch and tow periods at Heron Point). Given the large scale of the Exmouth Gulf and the current marine vessel activity in the gulf, visual impacts from the bundle tow are not significant.</p> <p>Data Gaps: NA</p>
Will the construction, operation or decommissioning of the project temporarily, periodically or permanently create or increase a source of light, glare, haze or dust? If yes, how may this affect daytime and night-time views in the area?	Y	Likely	Low Significance	Local	40 years	<p>Available Data: The project area will involve the clearing of vegetation during the construction stage, this may result in short term dust lift off impacts. However this is expected to be confined to areas within and possibly just beyond the project envelope. Dust lift off is likely to be created during operations only via vehicle access and truck delivery, operations of the site is not likely to result in significant dust impacts. Management measures for dust include clearing the least amount of vegetation necessary, Light spill is only expected during operations as a result from marine vessel activity during a bundle launch and tow. During construction operations will be kept to dayshift and therefore light spill impacts will not be significant. Bundle launches will occur a maximum three times a year for a period of approximately 3 days. Given the already established activity in the Gulf, this impact is not expected to be significant. There may be temporary light spill on the beach during bundle launches, this is not expected to be significant. Any light sources used at the fabrication shed will be directional and shrouded when required.</p> <p>Data Gaps: Light spill modelling will not be undertaken as the impacts are expected to be negligible.</p>
Public Perception/Reputation						
Will the project occur in an area where advocacy groups have focused on environmental concerns including the oil, gas and other extractive industries?	Y	Highly Likely	Medium Significance	Regional	40 years	<p>Available Data: Stakeholder engagement during the project development phase has indicated an opposition towards the project. The opposition group consists of environmental advocates and conservationist groups, namely Protect Ningaloo campaign associated with the Cape Conservation Group. The concerns raised are potential impacts to the Ningaloo Marine Park during bundle tows, impacts to the Gulf and associated whale breeding and nursing habitats. Concerns were also raised that the project will create a precedent for future developments within the North West Cape area. This social impact assessment as well works to address the EPA Factor Social Surroundings will provide insight into the potential social impacts as a result of the proposed project. A number of stakeholder engagement sessions have been held with interest groups in Exmouth to discuss any concerns and provide information about the project. This engagement has been documented in a stakeholder engagement register.</p> <p>Data Gaps: NA</p>
Will the construction, operation or decommissioning of the project have the potential to cause significant change in existing company relationships with community members and other stakeholders?	Y	Likely	Medium Significance	Local	40 years	<p>Available Data: A key finding from the public consultation process in the Shire of Exmouth's Strategic Community Plan 2030 was the need for greater fulltime employment opportunities. Additionally, the community would like to see in the next ten years a stronger and more diverse local economy enabling yearlong employment opportunities (Shire of Exmouth 2018a). The proposed fabrication facility provides these opportunities for the Exmouth community. An economic impact assessment determined the Project estimates that the Project will directly support an average of 40 full time equivalent (FTE) employees (58 in upside scenario) per year over the study period (ACIL Allen 2019), while a further 149 FTE (285 in upside scenario) positions per year on average will be indirectly created as a consequence of the project. Overall, ACIL Allen estimates that an average of 189 (344 in upside scenario) FTE employees will be supported by the Project each year over the study period (2017/18 - 2052/53). The Project and Subsea 7 are likely to be one of the highest employing companies in Exmouth and aim to be a long term presence in the community offering employment, investment, business and training opportunities.</p> <p>Data Gaps: NA</p>
Will the project occur in an area where communities are disadvantaged (e.g. economically, as minority groups, or by not having a voice in public decisions) and would be considered as bearing a disproportionately high level of potentially significant environmental and health risks because they are located near industrial activities?	N	–	–	–	–	<p>Available Data: NA</p> <p>Data Gaps: NA</p>

Local Economy & Employment						
Could the project temporarily or permanently, impact local employment patterns, or cause a change in demand for local skills?	Y	Likely	Low Significance	Local	40 years	<p>Available Data: Subsea 7 will employ locally wherever possible and thus an increase (7.6%) to the Exmouth population is not expected to be significant (it can be expected that some personnel will relocate to Exmouth). During the construction phase (9-12 months) an estimate of 50 personnel will be required at the site. During operations (estimated to be 40 yrs) an average of 70-80 personnel are required on site during bundle construction activities. Subsea 7 will source this construction workforce locally as far as possible. ACIL Allen estimates that the Project will directly support an average of 40 full time equivalent (FTE) employees (58 in upside scenario) per year over the study period, while a further 149 FTE (285 in upside scenario) positions per year on average will be indirectly created as a consequence of the project. Overall, ACIL Allen estimates that an average of 189 (344 in upside scenario) FTE employees will be supported by the Project each year over the study period.</p> <p>The skills need for the project include (but not limited to) welders, mechanics, electricians, riggers, operators, supervisors, engineers and administration staff. Subsea 7 will be implementing an apprenticeship scheme (which has previously been successful at the Wick site in Scotland). This will aim to ensure a sustainable source of local labour within the Exmouth region and reduce over demand for local skills. In addition to the apprentice scheme for graduates Subsea 7 will provide training and upskilling for workers wishing to transition into the industry.</p> <p>Data Gaps: NA</p>
Would the project provide local benefits, directly or indirectly, including diverse employment opportunities?	Y	Likely	High Significance	Local	40 years	<p>Available Data: Subsea 7 is committed to employing local personnel from the Exmouth locality. They are currently hiring a local operations manager that will have the opportunity to be trained in Scotland at the existing Wick site before commencing their role at the Learmonth site. Additionally, Subsea 7 have committed to an apprenticeship scheme program (which has been successful at the Wick site). This will be implemented in consultation with the Exmouth tafe. A sustainable source of local labour is key for the success of the Learmonth site and therefore Subsea 7 will invest in the future workforce of the site. It is also expected that the Project will generate indirect business and services amongst industry.</p> <p>Data Gaps: NA</p>
Health, Safety and Wellbeing						
Would the project impact local health and wellbeing, either positively or negatively?	N	–	–	–	–	<p>Available Data: There are no significant emissions or discharges as a result of the project. There may localised minor impacts from discharging of wastewater either via a sprayfield or reinjection to groundwater. However this will not have significant effects on human health or wellbeing.</p> <p>Data Gaps: NA</p>
Would the project impact public safety, perceived or actual?	Y	Highly Unlikely	Low Significance	Local	During bundle launch and tow operations. Which will occur over a period of approximately 2 days, for a maximum of three times a year.	<p>Available Data : The general public will not be able to access the fabrication site and therefore this poses low public safety risks. During bundle launch and tows, the public will be able to operate within the Gulf as usual, and there is a very minimal public safety risk. Whilst bundle tows are being undertaken, a 500 m exclusion zone will be implemented at every stage of the tow route. A support marine guard vessel will accompany the bundle during the tow through the gulf to ensure boaters and public remain outside of the exclusion zone. Notices will be given to the public before a bundle tow is undertaken. It is not expected that the bundle tow route will interfere with any recreational scuba-diving spots. The bundle tow operations will pose a low risk to public safety given the operational safety measures implemented during a tow. Subsea 7 has had no safety incidents in the 40 years of operating the Wick site. The Project will result in increased traffic on the Exmouth-Minilya Road particularly during trucking campaigns. A traffic study has been undertaken to assess traffic loads and recommended a basic right turn into the Project site.</p>
Will the construction, operation or decommissioning of the project temporarily, periodically, or permanently increase noise levels or vibration? Consider how this may affect the community.	N	–	–	–	–	<p>Available Data: The construction, operations and decommissioning phase of the project is unlikely to have any noise and vibration impacts to the community. The fabrication site is located well away from any residential or sensitive receptors (25 km). The fabrication shed is enclosed and is not proposed to emit high noise levels.</p> <p>Data Gaps: NA</p>
Will the project include significant influx of workforce populations during construction, operations or decommissioning? If yes, consider the potential community health factors associated with communicable diseases.	Y	Likely	Low Significance	Local	Construction phase: 9-12 months Decommissioning phase: 6 months	<p>Available Data : Subsea 7's goal is to establish a local workforce to work on the bundle site. During a bundle build phase, up to 120 people can be required, over the total duration for a project, the average number of personnel on site may be 70-80 personnel. Exmouth region has a population of 2,500 (ABS 2016). The required number of employees for the fabrication facility is not expected to result in a large influx of people since the employees are mostly going to be locals. During the construction and decommissioning phase it is expected that a workforce of approximately 50 will be required. Subsea 7 will source the workforce locally wherever possible.</p> <p>Data Gaps : NA</p>

Will the construction, operation or decommissioning of the project generate significant levels of emissions, effluents and/or hazardous wastes or have the potential for large spills, explosions/fires or releases?	Y	Unlikely	Low Significance	Local	40 years	<p>Available Data: Treated grey wastewater is the only proposed discharge from the site and this is not a significant volume. There is low potential for any hydrocarbon spills. The fabrication facility is proposed to store a 110kL above-ground diesel storage tank. This fuel will be used to power the generators and onsite vehicles and machinery. The tank will be self banded and spill kits will be stored around the tank; regular inspections will also be undertaken to monitor for leaks. Explosions are highly unlikely to occur during any phase of the project with strict safe work measure implemented on site.</p> <p>It is currently proposed that the fabrication facility will require 11.8ML of water per annum. This is likely to be abstracted from groundwater bores on the western side of Minilya-Exmouth Road. The water will be used as potable water for site amenities and hydrotesting of the bundle pipelines. Sewerage from the site will be treated in a wastewater treatment plant (WWTP). Treated wastewater (TWW) from the WWTP, along with the brine by-product from the desalination system, is proposed to be discharged via spray field over land adjacent to the site. Spray fields use sprinklers to spray TWW onto fields where it evaporates or infiltrates into soil. Greywater volume production rate is 7000 L/day and includes showers and wash basins only. Nutrient concentrations for this greywater (which will be discharged via a sprayfield) is 6-12 mg/L of Nitrogen and 2-4 mg/L for Phosphorus. The proposed location of the spray field is southeast of the fabrication site. The sprinklers are expected to mix, pump and spray a combined TWW and brine volume of 33 m3/day, or 23 litres/min over a nominal 11,000 m2 area. This is equivalent to 3 mm/day, or 0.125 mm/hr. Conservatively assuming a moderate infiltration soil type, the Horton loss model suggests a final (ultimate) infiltration rate of 13 mm/hr. Therefore, the spray field rate of discharge is an order of magnitude lower than the soil infiltration capacity, and no surface runoff is expected. There is a buffer area allotted in the proposed spray area to prevent humans or livestock from being exposed to the TWW, as well as fencing around the field. It should be noted that groundwater in the area of the spray field occurs at a depth of around 15 metres below existing ground level. The groundwater at this location is hypersaline. It is expected the total dissolved solids (TDS) of the wastewater will be approximately less than 1,300mg/L.</p> <p>Data Gaps: NA</p>
Will the construction, operation or decommissioning of the project include significant use of community medical facilities, care providers or medicines? If yes, consider how the project may affect availability of health care in the community.	N	–	–	–	–	<p>Available Data: The nature of the project is a fabrication facility, there will be minimal health hazards within the sites operations. Bundle launch and tow operations will only occur up to three times a year. Health and safety is always a priority for Subsea 7 who has over 40 years of experience and highly trained expert in safety and bundle launch and tows. The expected number of personnel onsite will be up to 70-80, most of which will be part of the local population in the Exmouth region. The project is unlikely to have any impact on availability of health care within the community.</p> <p>Data Gaps: NA</p>
Will the construction, operation or decommissioning of the project have the potential to have positive impacts (i.e. benefits) on public health.	N	–	–	–	–	<p>Available Data: The nature of the operations is that of a fabrication facility located at least 35 km from residential areas. The operations are unlikely to have any positive contribution towards public health.</p> <p>Data Gaps: NA</p>
Would the project provide opportunity for anti-social or criminal behaviour?	N	Highly Unlikely	Low Significance	Local	40 years	<p>Available Data: The site will be fenced off and a security gate located at the main entrance.</p> <p>Data Gaps: NA</p>

Legend:	
Confined: Impact is felt by a relatively small group within the community e.g. individual, household or small group	Project Area
Local: Impact is felt by a wider community e.g. town or city	Exmouth
Regional: Impact is immediately felt by population outside of immediate project area e.g. region, state	Regional area within WA (North West Cape)
National: Impact is felt across the nation	Australia
	Positive Opportunities

APPENDIX B

Social Impact Risk Register

Risk Assessment Register													
	Project: Date:	Subsea 7 - Learmonth Pipeline Fabrication Facility 3-May-19											
Risk Area	Risk No.	Risk Pathway	Potential Impacts	Initial Risk				Mitigation and Management Measures	Recommended Actions	Residual Risk			
				Probability	Consequence	Probability / Consequence	Risk Value			Probability	Consequence	Probability / Consequence	Risk Value
1. Social & Cultural Values and Resources													
Heritage	1.01	Relationship with Traditional Owners (TOs) strained	Unsatisfactory agreement for TOs	C	4	C4	8	• Early and ongoing stakeholder engagement to understand TOs expectations • Undertake and implement any recommendations from social impact assessment (SIA) • Negotiate and enter into an Indigenous Land Use Agreement (ILUA)	Develop a Stakeholder Engagement Strategy	D	4	D4	12
Heritage	1.02	Clearing of native vegetation and site works	Disturbance of sites of cultural / archaeological significance	D	3	D3	17	• Undertake Heritage surveys and subsequent marking out of aboriginal heritage and cultural sites if found • Training and inductions includes Heritage Management, cultural awareness at the site • Develop and implement ground disturbance procedures (internal clearing permits). • Section 18 Approval under <i>Aboriginal Heritage Act 1972</i>	Undertake Heritage Surveys Develop Cultural Awareness Plan and training	E	3	E3	20
Heritage	1.03	Physical presence of infrastructure	• Traditional Owners prevented from accessing land on which Project is located • Inadvertent impact on aesthetic values leading to cultural land use changes	B	2	B2	14	• Undertake Heritage surveys (ethnographic and archaeological) • Early stakeholder engagement with Traditional Owners (and regular ongoing engagement) • Undertake social impact assessment (SIA) and landscape visual impact assessment (LVIA) and implement (where possible) any recommendations	Undertake Heritage Surveys Develop Cultural Awareness Plan and training	B	1	B1	19
Social	1.04	Physical presence of infrastructure and operations (including bundle construction and bundle launch)	• Recreational users unable to access land on which Project is located • Project development creates industrial visual presence in the natural landscape • Inadvertent impact on aesthetic values leading to cultural land use changes (e.g. relocation of fishing and camping spots)	A	2	A2	10	• Undertake early stakeholder engagement with local community (and regular ongoing engagement) to understand land use and amenity values of Project area • Implement social impact assessment and landscape visual impact assessment • Implement recommendations (where possible) from social and visual impact assessments (e.g. visual screening, providing recreational use of Project area when safety permits) • Provide alternative access routes to recreational areas	Where popular tracks used by the community are blocked off, alternative routes to be provided or upgraded. Provision of maps to local users of affected tracks and access. Implement recommendations of LVIA and SIA where possible	A	1	A1	15
Social	1.05	Bundle tow traverses Ningaloo Marine Park, Ningaloo Coast World Heritage Property and the Ningaloo Coast World Heritage Place	• Exclusion (safety clearance) zone during bundle tow a 6-hour exclusion zone, up to 3 times per year • Inadvertent impact on aesthetic values to World Heritage due to presence of marine vessel spread (4 hrs for bundle to traverse through WHA, up to 3 times per year)	A	2	A2	10	• Undertake early stakeholder engagement with local community (and regular ongoing engagement) to understand land use and amenity values of Project area • Undertake social impact assessment and landscape visual impact assessment • Implement recommendations (where possible) from social and visual impact assessments (e.g. visual screening, providing recreational use of Project area when safety permits) • Adhere to bundle launch procedures (where bundle tow and parking times are specified) • Issue notice to 'Temporary Notice to Mariners' via AMSA • Community notices and information updates for upcoming bundle launch operations	• Notice to mariners and community of expected bundle launch and tow. • Create learning or touring opportunities for schools or community during launches, implement interpretive stations at various sites to inform people of a bundle tow	A	1	A1	15
Social	1.06	Bundle tow traverses Exmouth Gulf	• Exclusion (safety clearance) zone during a bundle tow (62 hours up to 3 times per year) • Inadvertent impact on aesthetic values to Exmouth Gulf due to presence of marine vessel spread	A	2	A2	10	• Undertake early stakeholder engagement with local community (and regular ongoing engagement) to understand land use and amenity values of Project area • Undertake social impact assessment and landscape visual impact assessment • Implement recommendations (where possible) from social and visual impact assessments (e.g. visual screening, providing recreational use of Project area when safety permits) • Adhere to bundle launch philosophy (where bundle tow and parking times are specified) • Issue notice to 'Temporary Notice to Mariners' via AMSA • Community notices and information updates for upcoming bundle launch operations	• Notice to mariners and community of expected bundle launch and tow. • Create learning or touring opportunities for schools or community during launches, implement interpretive stations at various sites to inform people of a bundle tow	A	1	A1	15
Social	1.07	Local workforce and travelling workforce	Worker behaviour impacts on tourist/holiday feel of Exmouth through minor influx of groups of workers, high-vis clothing, group dynamics	C	2	C2	18	• Code of Behaviour for workers when travelling to and from Exmouth (e.g. high-vis clothing only allowed on site, code of conduct for utilising community facilities such as gyms and pools) • Workforce sourced locally wherever possible	Develop site code of conduct	C	1	C1	22
2. Community Services & Facilities													
Medical Services	2.01	Increase in population during construction phase	Overburdening of local emergency services or medical facilities	D	1	D1	24	• Training and inductions include health and safety, emergency procedures and muster points. • Work safe procedures implemented (e.g. take 5s, PPE, signage, instructions, safety mechanisms on machinery) • Employ locally and utilise local contractors wherever possible	Training of employees in fire fighting and first aid. Develop emergency and safety procedures.	E	1	E1	25
Bushfire Services	2.02	Hot works, welding and flammables during construction and operations	Bushfires sparked as a result of operations at Fabrication Facility	D	3	D3	17	• Bushfire Attack Level (BAL) assessment incorporated into site design and complied with. • Regular monitoring, inspections and maintenance of any onsite generators. • Training and inductions outline emergency response procedures. • Fire extinguishers available in all plant and mobile equipment, vehicles and buildings. • Regular maintenance of machinery and vehicles • Develop hot works procedures	Training of employees in fire fighting and first aid. Ensure appropriate fire extinguishers available at necessary locations. Develop maintenance registers.	E	3	E3	20
Scientific Research	2.03	Bundle tow traverses Ningaloo Marine Park, Ningaloo Coast World Heritage Property and the Ningaloo Coast World Heritage Place	Disturbances to scientific research vessels access in bundle tow areas for limited times.	D	2	D2	21	• Implementation of 12 wk. marine fauna block-out window during whale migration where no launches will occur • A maximum of three launches per year (a nominal 6 days per year), minimal disruption periods for boat users per annum • Notice to mariners (and community) - supporting information issued prior to tow to inform local vessels of operations. • Guard vessel to monitor and implement exclusion zones.	Communication of 12 week marine fauna block out window to community, recreational and commercial users.	E	2	E2	23

Risk Assessment Register													
	Project:	Subsea 7 - Learmonth Pipeline Fabrication Facility											
	Date:	3-May-19											
Risk Area	Risk No.	Risk Pathway	Potential Impacts	Initial Risk				Mitigation and Management Measures	Recommended Actions	Residual Risk			
				Probability	Consequence	Probability / Consequence	Risk Value			Probability	Consequence	Probability / Consequence	Risk Value
Scientific Research	2.04	Physical presence of infrastructure and operations including bundle construction and bundle launch and tow	Increased knowledge of existing environment at Heron Point and in the Gulf	A	-3	A-3	-6	<ul style="list-style-type: none"> ◦ Publish studies in PER for public review ◦ Specimens vouchered at Herbarium and WA Museum ◦ Monitoring and measuring activities to be shared with research projects where suitable ◦ Engagement with Universities and other Research Institutes to understand knowledge gaps and potential areas for assistance 	Communicate and share knowledge where appropriate Subsea 7 to engage and develop relationship with University groups and researchers to understand potential research projects	A	-4	A-4	-10
Facilities and Community Services	2.05	Increased population during construction	Overcrowding of community facilities such as gym, public pools, golf course, restaurants	D	2	D2	21	<ul style="list-style-type: none"> ◦ Agreed code of behaviour for workforce. 	Develop Behaviour code for Construction period Engage with Accommodation providers to agree expectations and commitments	E	2	E2	23
3. Demographics, Population & Housing													
Population	3.01	Increase in population	<ul style="list-style-type: none"> ◦ Strain on community facilities or public services (pools, sport arenas, schools, medical) 	D	3	D3	17	<ul style="list-style-type: none"> ◦ Communication to hospitality industry and council on required personnel at Proposal site ◦ Utilise existing local workforce where ever possible ◦ Community and stakeholder engagement 	Engage with community and Shire as well as local hospitality providers to develop an accommodation strategy	E	2	E2	23
Population	3.02	Increase in population	<ul style="list-style-type: none"> ◦ Potential increase in younger demographics and working professionals ◦ Sustainable long-term established population in Exmouth 	B	-2	B-2	-5	<ul style="list-style-type: none"> ◦ Utilise existing local workforce where ever possible ◦ Community and stakeholder engagement 	Stakeholder engagement with Shire and community members	C	-2	C-2	-8
Accommodation	3.03	Temporary increased demand for accommodation requirements during construction and decommissioning	Increased occupancy and use of local services during low tourist season	A	-3	A-3	-6	<ul style="list-style-type: none"> ◦ Communication to hospitality industry ◦ Use locally owned businesses as a preference 	Engage with local hospitality providers to develop an accommodation strategy	B	-3	B-3	-9
4. Accessibility, Transportation and Traffic													
Traffic	4.01	Increased traffic on Exmouth-Minilya Road	<ul style="list-style-type: none"> ◦ Overburden of road infrastructure ◦ Increased traffic leading to increased safety hazards 	B	2	B2	14	<ul style="list-style-type: none"> ◦ Implementation of traffic study recommendations (e.g. Basic right turn lane on the Exmouth-Minilya Rd, appropriate road signage) 	Ongoing stakeholder engagement including Shire, Main Roads WA and local community groups to communicate future traffic changes.	B	1	B1	19
Access	4.02	Unauthorised access to site (e.g. camping, driving)	<ul style="list-style-type: none"> ◦ Campfires leading to bushfire and destruction of equipment and site infrastructure ◦ Increased dust and/or weeds from driving ◦ Safety risk to unauthorised personnel on site 	C	3	C3	13	<ul style="list-style-type: none"> ◦ Clear warning and danger signage indicating no access to the site ◦ Directional signs for visitors to report to site office/reception ◦ Fencing off of majority of site for safety (in accordance with DPLH requirements) ◦ Implementation of weed management plan, fire extinguishers, emergency response procedures and compliance to BAL rating 	Ensure appropriate signage is purchased. Develop procedures for unauthorised personnel coming onto site.	D	3	D3	17
5. Aesthetics													
Visual Impact	5.01	Bundle tow traverses Ningaloo Marine Park, Ningaloo Coast World Heritage Property and the Ningaloo Coast World Heritage Place	<ul style="list-style-type: none"> ◦ Inadvertent impact on aesthetic values leading to cultural land use changes ◦ Bundle tow takes approximately 4.5 hours to traverse through World Heritage Area 	C	2	C2	18	<ul style="list-style-type: none"> ◦ Stakeholder engagement with Native Title Claimants / Traditional Owners. ◦ Implement LVIA visual management measures where possible 	Implement recommendations from LVIA visual management objectives and SIA Interpretation stations during launch, displays at visitor centre, educational opportunities	C	-1	C-1	-4
Visual Impact	5.02	Bundle tow traverses Exmouth Gulf	<ul style="list-style-type: none"> ◦ Inadvertent impact on aesthetic values leading to cultural land use changes (marine spread will be visible for approximately 18 hours) 	C	2	C2	18	<ul style="list-style-type: none"> ◦ Stakeholder engagement with Native Title Claimants / Traditional Owners. ◦ Implement LVIA visual management measures where possible 	Implement recommendations from LVIA visual management objectives and SIA Interpretation stations during launch, displays at visitor centre, educational opportunities	C	-1	C-1	-4
Visual Impact	5.03	Bundle launch and tow at Heron Point (visible from beach and Gulf)	<ul style="list-style-type: none"> ◦ Short term, moderate visual impact to coastal receptors at Heron Point and Schofield Shoal area 	C	3	C3	13	<ul style="list-style-type: none"> ◦ Implement LVIA visual management measures where possible ◦ Access at Heron Point beach area is maintained ◦ Up to three bundle launches a year only (bundle launch and tows will only occur 1.64% of the year) 	Implement recommendations from LVIA visual management objectives and SIA Interpretation stations during launch, displays at visitor centre, educational opportunities	C	2	C2	18
Visual Impact	5.04	Fabrication facility visible from Exmouth-Minilya Road	<ul style="list-style-type: none"> ◦ Inadvertent impact on aesthetic values leading to cultural land use changes ◦ Loss in value of wilderness landscapes 	C	2	C2	18	<ul style="list-style-type: none"> ◦ Stakeholder engagement with Native Title Claimants or Traditional Owners. ◦ Undertake Visual Impact Assessment ◦ Designing of fabrication facility to integrate into the surrounding landscape and environment upon closure. ◦ Adherence to approved design specifications of the facility 	Implement recommendations from LVIA visual management objectives and SIA Interpretation stations during launch, displays at visitor centre, educational opportunities	C	1	C1	22
6. Public Perception / Reputation													
Stakeholder Engagement	6.01	Project Approval Process	<ul style="list-style-type: none"> ◦ Disgruntled wider community ◦ Activism ◦ Community divide 	A	3	A3	6	<ul style="list-style-type: none"> ◦ Ongoing and regular consultation with underlying landholder, native title representatives and local community. ◦ Implementation of recommendations (where possible) of Social Impact Assessment ◦ Adherence to all Environmental Management Plans, Approvals and Commitments ◦ Adherence to all community commitments 	Develop Stakeholder Engagement Strategy (including commitments register)	A	2	A2	10

Risk Assessment Register													
	Project:	Subsea 7 - Learmonth Pipeline Fabrication Facility											
	Date:	3-May-19											
Risk Area	Risk No.	Risk Pathway	Potential Impacts	Initial Risk				Mitigation and Management Measures	Recommended Actions	Residual Risk			
				Probability	Consequence	Probability / Consequence	Risk Value			Probability	Consequence	Probability / Consequence	Risk Value
Pastoralist	6.02	Non-conformance with pastoral land access agreement	◦ Strained relations with pastoralist	E	2	E2	23	◦ Develop and adhere to land access agreements with Pastoralist ◦ Maintaining open, transparent and healthy relationships with Pastoralist	Develop Stakeholder Engagement Strategy. Ongoing stakeholder engagement with Pastoralist.	E	2	E2	23
Pastoralist	6.03	Physical presence of fabrication facility infrastructure and operations	Loss of grazing land due to creation of roads for project activities or due to degradation of land from weeds, erosion or dust.	A	1	A1	15	◦ Consultation with pastoralist has indicated little impact is expected from the Proposal ◦ Adherence to all pastoral agreements and ongoing consultation with landholder ◦ Compensation	Develop Stakeholder Engagement Strategy	A	-1	A-1	-1
7. Local Economy & Employment													
Skills	7.01	Increased demand for skills and tradesmen	◦ Training and employment opportunities for local community ◦ Upskilling of local workforce	A	-3	A-3	-6	◦ Subsea 7 offer training opportunities to local school leavers (e.g. apprenticeships) via local TAFE ◦ Graduate engineering programs and work experience at the site ◦ Subsea 7 to offer employment and contracts to locals (including Indigenous groups) as a preference ◦ Subsea 7 to offer employees industry recognised training opportunities to increase capabilities and facilitate career progression ◦ Early budgeting to include training opportunities	Advertise employment and contract opportunities and communicate to locals and businesses. Develop apprenticeship program.	A	-4	A-4	-10
Employment	7.02	Increased demand for employment	◦ Employment opportunities for local community and businesses	B	-2	B-2	-5	◦ Increase local community skills via training commitments. ◦ Commitment to employ locals (including pastoralists) for road/earth works, construction, operation and administration ◦ No accommodation facilities at the Learmonth Fabrication site (all employees will be local and drive to and from site)	Develop employment strategy. Stakeholder consultation.	B	-4	B-4	-14
Economy	7.03	Increased demand for supporting industries	◦ Increased revenue and contract opportunities for local businesses ◦ Increased indirect economic benefits in Exmouth and Gascoyne region to local industries	B	-2	B-2	-5	◦ Commitment to engage local contractors (haulage, engineering, electrician, earthworks) ◦ Upskill local suppliers and subcontractors to assist them in becoming approved vendors for Subsea 7	Advertise contract opportunities to local service providers and contractors	B	-4	B-4	-14
Commercial Fisheries	7.04	Exclusion zones during bundle tow within Gulf	◦ Access to some fishing areas within bundle tow route limited for short periods (60 hours per launch for entire route) ◦ Strained relationships with Commercial fishers	B	2	B2	14	◦ Consultation with commercial fishery indicated low impacts expected from Proposal ◦ Ongoing consultation and engagement with Commercial fishing operators ◦ Notice to mariners	Develop and implement Stakeholder Engagement Strategy	B	1	B1	19
Tour Operators	7.05	Exclusion zones during bundle tow within Gulf	◦ Limited access to some tourism locations for short periods during the year ◦ Strained relationships with Tourist operators	B	2	B2	14	◦ Ongoing consultation and engagement with tourist operators ◦ Notice to mariners ◦ 12 week marine fauna block out period during whale migration season ◦ Bundle tow operations not within area of whale shark tour operating areas (which occur on western side of peninsula)	Develop and implement Stakeholder Engagement Strategy	B	1	B1	19
8. Health, Safety & Wellbeing													
Public Safety	8.01	Bundle launch and tow	Collision with recreational or commercial marine vessels	D	4	D4	12	◦ Implementation of 500m exclusion zone and management and Guard Vessel during tow ◦ Notice to Mariners ◦ Installation of signage and buoy for launchway ◦ Implementation and adherence to the bundle launch philosophy.	Development and Implement Stakeholder Engagement strategy	E	4	E4	16
Emissions, effluent, hazardous waste	8.02	Wastewater treatment plant and irrigation	◦ Illness from exposure to irrigated wastewater ◦ Odour	C	3	C3	13	◦ Access control to site and irrigation area ◦ Wastewater treated to appropriate level and approval from Dept. of Health ◦ Implement and monitor complaints register (for odour)	Develop Complaints Register	D	3	D3	17
Noise and Dust	8.03	Dust and noise generated during construction and operations	◦ Reduced visibility from dust impacts on traffic ◦ Dust and noise (during construction and operations) reduces amenity during recreational activities	C	2	C2	18	◦ Dust suppression, equipment on site meets Australian Standards for Noise, regular maintenance of machinery, design of fabrication shed,	Develop and implement a Construction Environmental Management Plan (CEMP)	D	2	D2	21

APPENDIX C

Stakeholder Engagement Register

Appendix C – Subsea 7 Stakeholder Engagement Register, Learmonth Pipeline Fabrication Facility

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
28 November 2016	<ul style="list-style-type: none"> Pastoralist Subsea 7 Squire Patton Boggs 	This meeting was to introduce the development concept to the Pastoral Lease Holder at the proposed site.	The prospect was well received by the Pastoralist, leading to the discussion of the willingness to formalise a Land Use Agreement (which was agreed and executed over the next 6 months).
28 November 2016	<ul style="list-style-type: none"> Shire of Exmouth Subsea 7 Squire Patton Boggs 	This meeting was to introduce the development concept to the Shire of Exmouth, and gauge initial feedback on the development and the site selection.	N/A
28 February 2017	<ul style="list-style-type: none"> Office of the EPA Subsea 7 360 Environmental 	This meeting was to introduce the development concept to the EPA Service Unit and the scope of the project from an environmental perspective. As part of the meeting, the results of the initial assessments and research were presented, and discussion was held on the scope of further assessments and potential key environmental considerations were discussed.	N/A
2 May 2017	<ul style="list-style-type: none"> Department of Planning Taylor Burrell Barnett Squire Patton Boggs 	The meeting was held to discuss some planning process options that could be available for the proposal. The concept of lodging a modification to the draft LPS 4 was discussed.	N/A
8 May 2017	<ul style="list-style-type: none"> Shire of Exmouth Commissioner Subsea 7 Taylor Burrell Barnett Squire Patton Boggs Claypan Services 	<p>The meeting broadly introduced the project to the Exmouth Commissioner.</p> <p>The scope of the project was discussed from a tenure, engineering, environmental,</p>	A number of future meetings will be held to maintain communication with the local government and engagement with other stakeholders.

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
	<ul style="list-style-type: none"> Banks-Smith & Associates 	planning, and indigenous heritage and native title perspective.	
19 May 2017	<ul style="list-style-type: none"> Department of Lands Subsea 7 Squire Patton Boggs 	This meeting broadly introduced the development to the Department of Lands. The meeting included discussion on the tenure of the site (given the site is under a Pastoral Lease) including options for obtaining a permit for non-pastoral use of the site as well as the potential for an excision of the site from the pastoral lease.	N/A
30 May 2017	<ul style="list-style-type: none"> Shire of Exmouth Subsea 7 Taylor Burrell Barnett Squire Patton Boggs 	The meeting broadly introduced the project to the new Chief Executive Officer of the Shire of Exmouth.	An update on stakeholder engagement and the project programme were discussed. A memorandum was provided to the Shire of Exmouth outlining the requested modification to the draft Local Planning Scheme No. 4.
30 May 2017	<ul style="list-style-type: none"> Department of Planning 	Taylor Burrell Barnett distributed a memorandum to the (then) Department of Planning officers outlining the requested modification to the draft Local Planning Scheme No. 4.	N/A
21 July 2017	<ul style="list-style-type: none"> Office of the EPA Subsea 7 360 Environmental Taylor Burrell Barnett 	Subsea 7 provided a brief project overview including proposed schedule, construction methods, and proposed environmental approvals process. An update was provided in relation to technical studies that are being undertaken or completed.	The Office of the EPA indicated that the modification should aim to align as closely as possible with the section 38 referral (being prepared).

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
		<p>An update on stakeholder consultation was provided.</p> <p>The proposed modification to the draft LPS 4 was discussed.</p>	
23 rd August 2017	<ul style="list-style-type: none"> • Shire of Exmouth • Subsea 7 • Squire Patton Boggs • Taylor Burrell Barnett 	<p>The meeting was held to discuss the options available within the planning process to obtain approvals for the site. The project proponents presented a proposed planning approvals strategy that was discussed by the attendees.</p>	<p>It was agreed to hold a further discussion inclusive of the Department of Planning in order to gain their insight and recommendation as to the correct process to be utilised.</p>
23 rd August 2017	<ul style="list-style-type: none"> • Exmouth Community Reference Group • Exmouth Chamber of Commerce and Industry • Gascoyne Development Commission – Exmouth Branch • Subsea 7 • Shire of Exmouth • Squire Patton Boggs 	<p>This engagement session was planned as the initial community engagement presentation by the proponent in Exmouth. The presentation included an overview of the development, the proponent, and a general opportunity for question and answer within the group.</p> <p>Key queries related to the maintenance of public access to/along the beach, increased traffic volumes on Minilya Rd and identification of the environmental values of the Gulf.</p>	<p>Subsea 7 made a commitment to investigate the issues raised and respond at the next meeting</p>
29 th August 2017	<ul style="list-style-type: none"> • Department of Lands, Planning and Heritage • Subsea 7 • Squire Patton Boggs • Taylor Burrell Barnett 	<p>This meeting was held as a follow up to the discussion held on the 23rd August 2017, regarding the appropriate planning process to be utilised for the development.</p> <p>The Department of Lands also were present at the meeting, and some general discussion as held regarding the land tenure.</p>	<p>It was agreed at the discussion that a modification to the existing town planning scheme 3 was the most appropriate process to utilise.</p> <p>It was agreed that further discussion would be held in future meetings.</p>

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
30 th August 2017	<ul style="list-style-type: none"> Gnulli Working Group (Traditional Owners) YMAC – Native Title Representative Body Subsea 7 Squire Patton Boggs Banks-Smith and Associates 	The development was included as an agenda item in the Gnulli Working Group meeting. Subsea 7 and their Native Title Consultants attended the meeting to present an overview of the development, and commence discussions with the Native Title holders of the site.	<p>The meeting resolved to perform a site visit in the coming months with the plan to then conduct a heritage survey of the site.</p> <p>It was resolved that the development would become an agenda item for future meetings of the working group.</p>
21 st September 2017	<ul style="list-style-type: none"> Scheme Amendment Request 	The formal request was submitted for the proposed amendment to Town Planning Scheme 3, with the Shire of Exmouth	N/A
4 th October 2017	<ul style="list-style-type: none"> Exmouth Community Exmouth Community Reference Group Exmouth Chamber of Commerce and Industry Gascoyne Development Commission – Exmouth Branch Subsea 7 360 Environmental 	<p>This engagement session was the 2nd community engagement presentation in Exmouth. The session presented an overview of the development, provided responses on the feedback received at the previous engagement session (23rd August 2017), and an update on the progress with the development proposal.</p> <p>The session was also attended by 360 Environmental in order to provide the community with information on the environmental aspects of the development, any potential impacts and the mitigations that are proposed.</p> <p>Key community concerns related to potential water quality (turbidity) impacts during launchway construction and Bundle launch, and impacts on local tourism operators.</p>	<p>Subsea 7 confirmed it's commitment to provide ongoing access to/along the beach, except during a Bundle launch.</p> <p>Subsea 7 confirmed that a traffic study was underway, with mitigation measures (e.g. overtaking lanes) to be investigated.</p> <p>The presentation included a summary of the environmental studies completed to fully characterise the existing environmental values (onshore and offshore).</p> <p>Subsea 7 indicated that any water quality impacts were expected to be minor and short-term, with no long-term impacts to surrounding BCH expected.</p> <p>It was noted that the fabrication shed is likely to be visible from the Minilya Rd and the launchway would be visible at the coast,</p>

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
		The Proposal's impact on the visual amenity of the area was also raised.	while the Bundle track will not be visible except from the air.
5 th October 2017	<ul style="list-style-type: none"> • Cape Conservation Group • Subsea 7 • 360 Environmental 	<p>Subsea 7 met directly with the Cape Conservation Group whilst in Exmouth to have a direct discussion with this local stakeholder in addition to the meeting held with the Exmouth Community Reference Group the previous day. The meeting was also attended by 360 Environmental.</p> <p>In the meeting, Subsea 7 provided overview information of the development proposal. Subsea 7 and 360 Environmental provided findings of the initial studies and surveys that had been conducted in relation to the development, including discussions on proposed mitigations and management plans for any potential impacts.</p>	The meeting included an opportunity for question and answer from the CCG. Also, a draft copy of the Marine Fauna Management Plan that was under preparation was presented to the CCG with an opportunity given to the CCG to review the document and provide any input or additional suggestions that they would like to see included in advance of the referral submission.
19 th October 2017	<ul style="list-style-type: none"> • NA 	Referral for Environmental Approval under the EPBC Act issued to the Department of Environment and Energy (Commonwealth)	N/A
19 th October 2017	<ul style="list-style-type: none"> • NA 	Referral for Environmental Approval under the EP Act issued to the Office of the EPA (WA) (State)	N/A
23 rd October 2017	<ul style="list-style-type: none"> • Office of the Premier – Jo Gaines and Kristin Berger • Subsea 7 	Subsea 7 introduced the organisation, and presented an overview of the proposal to the Office of the Premier.	N/A

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
31 st October 2017	<ul style="list-style-type: none"> Department of Jobs, Science, Tourism and Innovation (Geoffrey Wedgewood and Chris Clark) Subsea 7 	Subsea 7 introduced the organisation, and presented an overview of the proposal to the Department of Jobs, Science, Tourism and Innovation as this proposal type fits within the remit of this department.	<p>The presentation was well received, with the department offering to engage directly with Subsea 7 on the project and provide assistance or advice.</p> <p>Subsea 7 and the Dept of JTSI agreed to meet further and discuss more details of the project.</p>
7 th November 2017	<ul style="list-style-type: none"> Recfishwest Subsea 7 	This meeting was to introduce the proposal to Recfishwest. As the peak body for recreational fishing in Western Australia, Recfishwest represent the interests of the local fishing community in Exmouth, some of whom had been very vocal about the proposal.	<p>The meeting was very productive with an overview of the development presented, and discussion held around the potential impacts to fishing in the area. Subsea 7 communicated the relative infrequency of the marine operations associated with the development, which was well received.</p> <p>Subsea 7 and Recfishwest agreed for Subsea 7 to share new information on the project as it is available to allow Recfishwest to communicate correct and factual information to its membership.</p>
16 th November 2017	<ul style="list-style-type: none"> Department of Transport – Marine Safety Division (Raymond Buccholz and Steven Wenban) Subsea 7 	<p>This meeting was held to introduce the Proposal to the Department of Transport's marine safety division, who have jurisdiction of marine operations in Exmouth Gulf.</p> <p>Subsea 7 presented a summary of the proposal, and focused on the bundle launch and towing operations.</p>	The Proposal was well received, with no significant issues raised by the DoT regarding the operations associated with the launch and towing of bundles.
21 st November 2017	<ul style="list-style-type: none"> Vince Catania MLA – Member for North West Central 	This meeting was to introduce the Proposal to the local state government member for	N/A

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
		Exmouth (part of the North West Central electorate).	
23 rd November 2017	<ul style="list-style-type: none"> Department of Defence – Exmouth Subsea 7 	This meeting was held to introduce the Proposal to the Department of Defence (given that the DoD are a neighbour of the proposed site, and also a major employer and local stakeholder in Exmouth).	The proposal was well received by the DoD, with no direct concerns raised with DoD operations.
23 rd November 2017	<ul style="list-style-type: none"> Exmouth Shire Council and Execute Team Subsea 7 	This meeting was held to introduce the Proposal to the newly elected council for the Shire of Exmouth.	Overall the meeting was very positive. The council members were able to ask a wide range of questions on the development to gain clarity on what is proposed, and also able to communicate the concerns that had been raised in the community.
23 rd November 2017	<ul style="list-style-type: none"> Exmouth Community Subsea 7 GHD 	<p>This engagement session was the 3rd community engagement presentation in Exmouth.</p> <p>The session was also attended by GHD and Subsea 7's Supply Chain Management staff to initiate engagement on supply chain aspects of the proposed development. A presentation was made including high level details of the different subcontracted packages and services required, as well as the general processes and requirements for subcontractors.</p> <p>During the question and answer session, community members were able to raise concerns on the development, primarily</p>	<p>Subsea 7 clarified some aspects of the development that may have been misunderstood or misreported, particularly the scope of the proposal at the seaward end of the development, and the structure of the launchway.</p> <p>As part of the supply chain engagement, Subsea 7 collected contacts for all interested businesses and since created a local supplier register. Subsea 7 committed that all packages that were issued to the market would include the local supplier register in order to encourage the use of local businesses wherever possible.</p>

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
		related to potential environmental impacts on the marine areas of the proposal.	Subsea 7 communicated that the proposal is to undergo the most stringent level of environmental assessment (following the EPA's decision for a PER level of assessment).
18 th December 2017	<ul style="list-style-type: none"> Minister for Regional Development, Alannah MacTiernan MLC, with her Chief of Staff and Principal Policy Advisor Chris Clark, Major Projects Director at the Dept of JTSI Subsea 7 	<p>This meeting was initiated by Subsea 7 to present the Subsea 7 organisation, and an overview of the proposal to the Minister for Regional Development.</p> <p>The meeting included discussion on the developments contribution to regional jobs and sustainable growth.</p>	Minister MacTiernan received the development proposal well, and took an action to write a letter of support for the project to the Minister of Environment.
18 th December 2017	<ul style="list-style-type: none"> Department of JTSI Subsea 7 360 Environmental Squire Patton Boggs Taylor Burrell Burnett 	<p>This meeting was performed as a follow up to a previous meeting from the 31st October to discuss the current progress on approvals for the development.</p> <p>Subsea 7 and the various consultants presented the status of the tenure, planning, environment and heritage approvals.</p> <p>The Dept of JTSI presented the Lead Agency Framework, and encouraged Subsea 7 to consider applying for lead agency support.</p>	<p>Subsea 7 took the action to submit an application for lead agency support by the Dept of JTSI.</p> <p>Actions were also taken at the meeting to hold follow up discussions with some other departments to assist in the approvals processes (in particular the Dept of Planning, Lands and Heritage).</p>
20 th December 2017	<ul style="list-style-type: none"> Department of Planning, Lands and Heritage – Lands Department of JTSI Subsea 7 Squire Patton Boggs 	This meeting was held to discuss the strategy for obtaining tenure for the project in both pre-construction, construction, and operational phases.	The Dept of Lands confirmed previous discussions that a S.122 licence would not be granted for this development, but that a S.97 licence could be applied for to cover the pre-construction work.

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			The Dept of Lands also recommended that a s.79 (general lease) would be required for the site construction and operation phases. This was to be discussed further with the pastoral lease holder by Subsea 7.
29 th January 2018	<ul style="list-style-type: none"> Office of the EPA Subsea 7 360 Environmental 	<p>This meeting was held following Subsea 7's receipt of the first draft of the PER Environmental Scoping Document.</p> <p>Each EPA factor was reviewed to ensure the scope of work detailed in the ESD was applicable to the proposal and addressed key issues.</p>	<p>Minor changes to the draft ESD were incorporated to better tailor the scope of work of the PER to specific details of Subsea 7's proposal.</p> <p>Subsea 7 took an action to engage with specific regulators to discuss some environmental factors in greater detail</p>
13 th February	<ul style="list-style-type: none"> Gnulli Working Group (Traditional Owners) YMAC – Native Title Representative Body Subsea 7 	<p>Subsea 7 were invited to the Gnulli working group meeting to provide an update on the proposal, and to discuss the planned works for the subterranean fauna sampling campaign.</p> <p>This meeting was followed by a site visit the next day, which included the beach approach and proposed landward fabrication facility location.</p>	<p>The group expressed continued support for the proposal and discussed the way forward for the subterranean sampling programme.</p> <p>All groups agreed a specific heritage survey for the subterranean fauna works would be commissioned to ensure no sites of significance would be impacted.</p>
14 th February 2018	<ul style="list-style-type: none"> Department of Transport Subsea 7 360 Environmental MP Rogers Taylor Burrell Burnett 	<p>This meeting was held with the DoT following initial review of the PER ESD with the OEPA, to discuss the Coastal Processes factor in more detail.</p> <p>Meeting included overview and further clarification of the development proposal.</p>	<p>The meeting was positive with recommendations received on the management and monitoring activities, particularly around the launchway.</p> <p>Minor amendments to the draft ESD were recommended to the OEPA.</p>

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26 th February 2017 to 15 th May 2017	<ul style="list-style-type: none"> Subsea 7 Conservation Council WA 	Subsea 7 engaged with the Director of CCWA in order to attempt to set up an meeting to introduce Subsea 7 and the project to the Conservation Council WA.	<p>Some emails were exchanged with the CCWA requesting answers to queries, but not acceptance to meet in order to discuss the queries.</p> <p>Subsea 7 continued to extend offers to meet in March, April and May without response.</p>
27 th February 2018	<ul style="list-style-type: none"> Department of Primary Industries and Regional Development Subsea 7 360 Environmental 	<p>This meeting was held with the DPIRD following initial review of the PER ESD with the OEPA, to discuss the Marine Fauna factor in more detail.</p> <p>Meeting included overview and further clarification of the development proposal.</p>	<p>The meeting was positive with recommendations received particularly regarding the level of risk assessment required for marine pest control & mitigation.</p> <p>Minor amendments to the draft ESD were recommended to the OEPA.</p>
13 th – 15 th March 2018	<ul style="list-style-type: none"> Subsea 7 Heritage Consultant (Stephen Corsini) Gnulli Working Group (Traditional Owners) YMAC – Native Title Representative Body 	The archaeological & anthropological field survey was undertaken to examine the proposed locations of water monitoring bores.	<p>No Aboriginal Heritage Materials or cultural items were discovered in any of the proposed drill pad areas.</p> <p>Minor changes to the proposed pad locations were recommended due to local geography.</p>
15 th March 2018	<ul style="list-style-type: none"> Office of the EPA Subsea 7 360 Environmental 	<p>Briefing of EPA Board prior to finalisation of the Environmental Scoping Document.</p> <p>Description of Proposal, site selection process, launch and tow methods.</p>	PER to include detail on site selection process.
10 th April 2018	<ul style="list-style-type: none"> Department of JTSI Office of the EPA Department of Planning, Lands and Heritage – Lands Department of Water and Environmental Regulation 	<p>Following endorsement from the Premier's office of project Lead Agency Status, Department of JTSI organised a Project Implementation team kick-off meeting.</p> <p>Subsea 7 were invited to present the details</p>	<p>Focus was on the environmental approval process, and the extent of planning approvals that would continue in parallel with the environmental approvals.</p> <p>There was also a light discussion on Native Title & Heritage affairs.</p>

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	<ul style="list-style-type: none"> Department of Biodiversity, Conservation and Attractions Department of Mines, Industry Regulation and Safety Subsea 7 	<p>of the proposal, and provide an update on the current status.</p> <p>This was followed by a general introduction of each department, their role, and any particular concerns.</p>	
16 th April 2018	<ul style="list-style-type: none"> Office of the EPA Subsea 7 	<p>This meeting followed the public review period of the PER ESD. The OEPA highlighted the changes to the ESD and the contributing factors behind these changes.</p>	<p>Subsea 7 further clarified the intent of the prescribed scope of work, to prepare a suitably comprehensive response during the PER compilation.</p>
1 st May 2018	<ul style="list-style-type: none"> Office of the EPA Department of JTSI Subsea 7 Squire Patton Boggs Taylor Burrell Burnett 	<p>Following the Project Implementation team meeting, Subsea 7 team met with JTSI and OEPA to discuss the continuation of the planning approvals in parallel with the EPA PER assessment.</p> <p>The intent is for no decision to be made to implement the project ahead of the EPA's approval, but to allow specific processes to continue to align with project schedule.</p>	<p>The meeting concluded with the OEPA taking action to review the parallel processing and successive processing schedules, and to advise which would suit the project best.</p>
10 th May 2018	<ul style="list-style-type: none"> Office of the Appeals Convenor Department of JTSI Subsea 7 360 Environmental 	<p>Following an appeal to the native vegetation clearing permit required for the subterranean fauna sampling, Subsea 7 were invited to present the details of the proposal to the Appeals Convenor.</p> <p>The intent of the clearing to allow the studies which inform the PER submission was explained.</p>	N/A

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16 th May 2018	<ul style="list-style-type: none"> Cape Conservation Group Subsea 7 	<p>Subsea 7 received a letter from the CCG, advising their disappointment that the ESD had been released in April 2018, without the CCG being advised.</p> <p>The CCG also noted their request to be kept informed of updates regarding the project, and to be informed regarding the project.</p>	<p>Subsea 7 responded to the CCG advising the following:</p> <p>The ESD document is owned by the EPA, and it was the EPA that published the document. Subsea 7 did not have any control over the issue of this document.</p> <p>Subsea 7 confirmed that it had in fact included the CCG on all updates provided on the project, having sent them to the email address previously provided. Subsea 7 advised that they would add the chair person address to the distribution list for completeness.</p>
13 th June 2018	<ul style="list-style-type: none"> Chair of the Ningaloo Reef World Heritage Area Subsea 7 	<p>This meeting was primarily a general introduction to the proposal for Mr Woodley, in his role as the Chair of the Ningaloo Reef World Heritage Area.</p> <p>In the meeting, Subsea 7 presented information including:</p> <p>An introduction to Subsea 7 as an organisation</p> <p>Introduction to Bundle technology</p> <p>The general overview of the development proposal</p> <p>Specific information regarding the bundle launch and tow, with a focus on the operation in the world heritage area</p>	<p>The meeting was a good opportunity for Mr Woodley to ask questions and gain a good understanding of the project. Mr Woodley acknowledged that he was pleased to have attended the meeting, noting that his understanding of the development was significantly different prior to the meeting.</p> <p>Mr Woodley acknowledged that his interest in the development concerns only the operation inside the World Heritage Area, or impacts to this area.</p> <p>Subsea 7 provided the presentation material to Mr Woodley, and extended an invite to provide any specific feedback to the proposal. Mr Woodley advised that he would likely not provide feedback until further</p>

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		<p>The benefits of the development</p> <p>The current status of the approval process, including environmental approvals</p>	<p>information became available through the PER process.</p>
14 th June 2018	<ul style="list-style-type: none"> Department of the Environment and Energy MBS Environmental Subsea 7 	<p>Conference call to further discuss the required scopes of work to adequately address matters of national environmental significance in the PER submission.</p>	<p>Further clarity received on DoEE's expectations and recommendations of the level of consultation and technical studies required, including:</p> <p>Assessment of behavioural responses as a result of the Bundle tow operation</p> <p>Clarification of 'no-launch' period and inclusion of period when young calves present</p> <p>Survey to confirm Humpback whale usage of Exmouth Gulf ahead of PER publication</p> <p>Wider (spatial) assessment of important migratory bird habitat</p> <p>Assess potential lighting or turbidity on interesting turtles (no nesting surveys required)</p> <p>Assess risk of collision with marine turtles during Bundle tow</p> <p>Cover off no risk of impact to Dugong.</p>
21 st June 2018	<ul style="list-style-type: none"> Exmouth Shire Council Exmouth Shire Executive Team Subsea 7 	<p>This meeting was held for Subsea 7 to provide an update on the development proposal to the Exmouth Shire Council and Executive Team.</p>	<p>The meeting was positive, with information regarding the FAQ, and the new projects at the Wick site well received.</p> <p>Subsea 7 also played video footage of two recent launch operations, which gave further</p>

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		<p>The update included communication regarding:</p> <p>Bundle technology developments and projects were progressing well within Subsea 7, with a number of project awards recently announced at the Wick site in Scotland</p> <p>The PER document had been kicked off, and various studies were underway to deliver the PER with a target date of Q1 2019</p> <p>Planning approvals were on hold with the EPA subject to the PER process.</p> <p>Subsea 7 were awaiting the outcome of the appeal to the Native Vegetation Clearing Permit before we were able to commence subterranean fauna studies and investigations on site</p> <p>Discussion regarding the Bundle Site FAQ that was recently sent out to the mailing list</p>	<p>visual information regarding the type of launchway structure that could be expected at the site, its size, construction, etc. This was well received and the group advised that this information should be widely communicated to inform the community with more tangible information.</p> <p>The group also discussed the planning process. Subsea 7 advised that due to the delay of the processing of the previous planning scheme amendment at the EPA that it was likely that another scheme amendment would be proposed when LPS4 was implemented. The Council were advised that this would naturally go to the Council for endorsement (or otherwise) when it was submitted.</p>
21 st June 2018	<ul style="list-style-type: none"> Chair of the Exmouth Chamber of Commerce and Industry Subsea 7 	Subsea 7 (Tom Radic) and the Chair of the Exmouth CCI took the opportunity to meet whilst in Exmouth to provide an update on the progress of the project. This was a general meeting only with no specific agenda.	N/A
28 th June 2018	<ul style="list-style-type: none"> Cape Conservation Group Subsea 7 	Subsea 7 engaged with the Cape Conservation Group to advise that they were in the process of developing the scope of the Visual Impact Assessment for the site. Subsea 7 advised on a list of proposed	The Cape Conservation Group declined to contribute to the selection of the vantage points on the basis that the development was unacceptable in any consideration.

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		vantage points, and asked the CCG if they would like to suggest any further vantage points for consideration in the assessment.	
29 th June 2018	<ul style="list-style-type: none"> • Kailis Group • Subsea 7 	This meeting was held to provide an update on the proposal, and discuss any potential interaction or impacts on the Kailis prawn fishing operation that is undertaken in the Exmouth Gulf.	<p>A generally positive discussion, with the Kailis Group confirming that they did not see any major impacts or issues to their operation from the proposal.</p> <p>Kailis and Subsea 7 agreed to continue to collaboratively engage further as the proposal progresses. The Kailis Group initially agreed to provide historical fishing information for the Gulf, to enable Subsea 7 to consider this when planning their operations and evaluating any potential impacts.</p>
4 th July 2018	<ul style="list-style-type: none"> • Woodside Energy Limited • Subsea 7 • MBS Environmental 	This meeting was held to introduce Subsea 7's environmental consultants and PER development team to Woodside's Principal Environmental Scientist Luke Smith, among other members of the Woodside team.	Subsea 7 advised Woodside that they would be performing a whale migration survey in the upcoming migration season in Exmouth Gulf. Woodside advised that this data would provide beneficial to many stakeholders for the area.
5 th July 2018	<ul style="list-style-type: none"> • Department of Planning Lands and Heritage • Department of Jobs, Tourism, Science and Innovation • Subsea 7 • Squire Patton Boggs • Taylor Burrell Burnett 	<p>This meeting was held to provide a briefing and update to the DG of the Dept of Planning, Lands and Heritage, regarding the project.</p> <p>A general briefing of the project was given, as well as a status update regarding the environmental (PER) and planning approval</p>	The meeting generally agreed that there was a general benefit to stakeholders and the proponent alike by aligning the public consultation process, such that no unnecessary delay to an outcome on the proposal could be reached. However, further

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		<p>processes (Scheme Amendment). The delay in progress on the scheme amendment was discussed, noting that the EPA had advised that they were unable to progress the scheme amendment until the PER process had progressed, and that this was preventing the scheme amendment from progressing further.</p> <p>In the meeting, the options regarding the public consultation process for the scheme amendment and the PER were discussed and how they might be managed.</p>	<p>investigation would continue to ensure that processes are correctly followed.</p>
6 th July 2018	<ul style="list-style-type: none"> Department of Energy and the Environment (Rod Whyte, Daniel Rothenfluh, Sophie Dubravs) 	<p>Overview of Proposal provided including:</p> <p>History of Bundle deployments in the North Sea</p> <p>3 previous Bundle launches in Australia</p> <p>Procedures to ensure weld strength/integrity.</p> <p>Matters requiring assessment:</p> <p>Access for operators during Bundle tow</p> <p>Potential for impacts to recreational users of the Ningaloo World Heritage area.</p> <p>Also noted that:</p> <p>Outline of local communications before a Bundle launch should be described</p> <p>Advice from Michael Woodley (NCHAC) should be sought and communicated</p> <p>Tug visibility during Bundle launch – less of an issue</p>	<p>Information noted and to be addressed in PER as appropriate</p>

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		<p>Potential for underwater noise during a Bundle tow should be addressed</p> <p>Availability of environmental data from Wick was queried</p> <p>Proposal change can be managed via a self-assessment if no increase in impact.</p>	
9 th July 2018	<ul style="list-style-type: none"> EPA Services (Kathryn Schell, Claire Stevenson, Annarie Boer) Subsea 7 MBS Environmental 360 Environmental 	<p>Discussion of proposed subterranean fauna sampling regime, in particular proposal to undertake initial sampling ~1 month following drilling.</p> <p>Noted that the current guidance is under review, but that the current guidance should be taken into account in the design of the sampling programme.</p> <p>Agreed that a follow-up meeting following the initial sampling event would be useful.</p> <p>Separately noted that:</p> <p>Any Request to Change Proposal under S43a should occur ahead of PER publication, and that the S43a may be issued for public comment</p> <p>The 'locally important species' referred to in the ESD is the Whaleshark.</p>	Schedule meeting to follow initial subterranean fauna sampling event.
17 th July 2018	<ul style="list-style-type: none"> Department of Biodiversity, Conservation and Attractions – Regional Office in Exmouth 	Offer of briefing, declined by DBCA due to availability.	NA

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19 th July 2018	<ul style="list-style-type: none"> Vince Catania MLA – National Party Member for North West Central Mia Davies MLA – Leader of the National Party in Western Australia David Gillespie – Exmouth Chamber of Commerce and Industry Subsea 7 	<p>This meeting was held for Subsea 7 to provide an update on the development proposal to the National Party members.</p> <p>The update included communication regarding:</p> <p>Bundle technology developments and projects were progressing well within Subsea 7, with a number of project awards recently announced at the Wick site in Scotland</p> <p>The PER document had been kicked off, and various studies were underway to deliver the PER with a target date of Q1 2019</p> <p>The specific details of the site infrastructure, and local workforce plans</p> <p>Stakeholder engagement to date and future plans to maintain community awareness</p>	<p>Subsea 7 to confirm VIA following advice from regulators and stakeholder engagement.</p> <p>Marine fauna surveys to continue and be published in the PER documentation.</p> <p>General information and feedback provided following the questions raised during the time on-site.</p>
26 th July 2018	<ul style="list-style-type: none"> Department of Biodiversity, Conservation and Attractions (Simon Choo) Subsea 7 	<p>Subsea 7 met with a representative of the DBCA to discuss the shared interface with the Traditional Owners in the area, the Gnulli, and the potential to work together to deliver desirable programs to the Gnulli.</p> <p>Subsea 7 registered their interest to be able to contribute to a ranger program, and in particular, encompass a marine component to the program.</p>	<p>The initial discussion went well, and the potential to work together with the DBCA was well received. It was discussed that the most likely scenario would involve the DBCA continuing to facilitate and administer the program, with additional funding to be able to be provided by Subsea 7 to allow the program to grow.</p> <p>It was agreed to keep in touch as the development progresses.</p>

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31 st July 2018	<ul style="list-style-type: none"> Conservation Council of WA Wilderness Society 	<p>Subsea 7 provided background on Subsea 7 and details on the site selection process.</p> <p>Subsea 7 responded to many questions relating to Subsea 7's shareholders, Subsea 7's board, subsea engineering, oil and gas field development.</p> <p>CCWA suggested that the PER process and the EPA's assessment could not be considered rigorous and cited previously approved projects which have not proceeded (Browse, Roe 8).</p>	<p>CCWA clearly opposed to the Proposal as it is seen to promote the oil & gas industry across the Northwest Shelf, and is considered a gateway project to the region.</p> <p>CCWA also opposed to development near Exmouth.</p> <p>No specific concerns provided regarding any specific environmental factors.</p>
2 nd August 2018	<ul style="list-style-type: none"> Ningaloo Aquaria 	<p>Ningaloo Aquaria noted that he fishes in the area off Heron Point approximately 1 day/month during his week long trips to the region.</p> <p>He specifically targets the 'spider sponge' <i>Trikentrion flabelliforme</i> off Heron Point, where it occurs along a narrow band in 7-10 m water depth. He doesn't know of other such occurrences of this species.</p> <p>Annually he sells specimens collected off Heron Point for approximately \$50,000 to \$60,000. He noted other good coral and sponge habitat off Point Lefroy.</p>	<p>Not opposed to the project and not overly concerned, just wants to make sure that a significant area of the habitat is not cleared.</p>
15 th August 2018	<ul style="list-style-type: none"> Gnulli Working Group YMAC Subsea 7 	<p>Subsea 7 attended the Gnulli Working Group Meeting and presented to the group regarding:</p>	<p>Subsea 7 advised their willingness to perform a heritage survey of the development envelope, as required by the Environmental Scoping Document.</p>

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		<p>Recent progress and developments on the project, particularly focussing on the ongoing environmental investigations</p> <p>Next steps in the environmental investigation process to support the PER</p> <p>General next steps for the project regarding no-environmental aspects</p> <p>Overview of the tenure structure being proposed for the project</p> <p>Introduction of potential opportunities between the Gnulli Group and Subsea 7 associated with the development proposal</p>	
29 th August 2018	<ul style="list-style-type: none"> Department of the Environment and Energy (DoEE) (Sophie Dubravs, David Loch) EPA Services (Kathryn Schell, Hans Jacob) MBS Environmental Subsea 7 Traditional owners of the Gnulli Group Lyn Irvine (Marine Fauna Expert) 	<p>This meeting was held at Learmonth / Exmouth to inform EPA Services and the Dept. Environment & Energy of the proposal area and wider region. Subsea 7 was joined by MBS Environmental and members of the Gnulli Traditional Owners group.</p> <p>Survey of proposal area, at the fabrication landward end, and the launchway seaward end of the envelope</p> <p>Review of wider area from various vantage points</p> <p>Cultural awareness brief delivered from Traditional Owners</p> <p>Exmouth Gulf vessel trip with Lyn Irvine, with discussion on usage of the Exmouth Gulf by marine fauna</p>	<p>Numerous vehicle tracks visible at Heron Pt and some vehicles on the beach to the north.</p> <p>Resource industry vessels operating in the vicinity of Heron Point.</p> <p>Learmonth RAAF base clearly visible from Charles Knife Gorge in the foreground, with Heron Pt far in the background.</p> <p>The large (> 10 km) distance between the shoreline and the proposed tow route became clear. Numerous Humpback whales visible out from Exmouth marina.</p>

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10 th September 2018	<ul style="list-style-type: none"> EPA Services (Kathryn Schell, Kevin McAlpine, Gordon Motherwell, Fiona Webster) 	<p>Discussion of updated launch and tow methods including revised seabed disturbance area.</p> <p>Presentation of nominated 16 LAUs.</p>	<p>Discussions led to the definition of a total of 4 LAUs (include Heron Pt) based on the area of disturbance, type and frequency of disturbance, seabed types and recovery times, historic and current prawn trawling.</p> <p>Survey approach also discussed and no concerns raised.</p>
19 th September 2018	<ul style="list-style-type: none"> Office of the EPA (inc. EPA Chairman Dr. Tom Hatton) MBS Environmental Subsea 7 	<p>This meeting was held at the Office of the EPA, for Subsea 7 to present content that will be included in the Section 43a 'Update to Proposal'. This included changes to site access road, water strategy, and updates on the Bundle launch process.</p>	<p>Proposed update perceived as low impact, particular due to the overlap in the area of seabed interaction for the bundle with the ongoing prawn trawling operations. It was noted that this will be fully assessed on receipt of Section 43a documentation.</p> <p>Agreement that a chain tow trial will be useful to allow modelling of the turbidity and sediment fate during a bundle tow. This environmental study is low-impact and may be performed.</p>
20 th September 2018 to 12 th October 2018	<ul style="list-style-type: none"> Protect Ningaloo Campaign Cape Conservation Group Subsea 7 	<p>Subsea 7 wrote to the Protect Ningaloo Campaign and the Cape Conservation Group to advise them of incorrect information that had been posted on social media regarding the Subsea 7 development, requesting that the information be correct.</p>	<p>The Protect Ningaloo Campaign responded, advising they would adjust their post.</p> <p>In the ensuing discussion, Subsea 7 continue to make offers to meet and discuss the project, to ensure that project particulars were correctly understood and could then be communicated accurately. The Cape Conservation Group declined to meet at this time, and the Protect Ningaloo Campaign did not respond.</p>

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10 th October 2018	<ul style="list-style-type: none"> Media Reporter – Trevor Paddenburg Subsea 7 	<p>Mr Paddenburg contacted Subsea 7, explaining that he had been asked to put together a story regarding the proposal, and wished to meet with Subsea 7 in this regard.</p> <p>Subsea 7 and Mr Paddenburg held a phone conference whereby the following was discussed:</p> <p>An overview of the development</p> <p>Discussion on the environmental impacts, and comparison to alternative / conventional pipeline construction techniques</p> <p>Benefits of the development</p> <p>General update on approval progress</p> <p>Mr Paddenburg also requested a response to a statement made by the Protect Ningaloo Campaign.</p>	<p>The discussion was primarily of a general nature, to provide Mr Paddenburg with information regarding the proposal to support his story.</p> <p>Subsea 7 also responded to specific elements of a statement made by the Protect Ningaloo Campaign to correct a range of misinformation or incorrect statements made regarding the project.</p>
17 th October	<ul style="list-style-type: none"> Base Marine Subsea 7 	<p>Meeting at Base Marine (Exmouth) to allow bundles tow master and bundle engineering team (currently based in UK) to understand the infrastructure and support services available locally.</p> <p>Base Marine provided a tour of local marine facilities and insight into operations typically taking place to support multiple industries operating out of Exmouth.</p>	<p>Many future opportunities for local engagement to support the Bundle launch and tow operations.</p> <p>Whilst main tow vessels will not typically be local to Exmouth, support vessels and small utility vessels will be utilised when suitable during construction and site operations.</p> <p>Subsea 7 endeavour to utilise existing local services wherever possible</p>

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18 th October 2018	<ul style="list-style-type: none"> Solstad Farstad Subsea 7 	<p>Meeting held at Subsea 7 to discuss the available tow vessel suitability and operability in the Exmouth Gulf for Bundle launches.</p> <p>Subsea 7 tow master and bundle engineering team presented the Learmonth launch philosophy to the Solstad Farstad management and vessel Captain, discussing the constraints and particulars of Bundle launch and tow.</p>	<p>Tow vessels typically deployed to the North West Shelf would be capable of safely and effectively launching and towing a Bundle.</p> <p>Considerations can be made by vessel Captains to reduce thrust and impacts to the seabed, whilst maintaining positional control in relatively shallow water.</p> <p>No issues were identified with the proposed Bundle launch and Tow methodology.</p>
18 th October 2018	<ul style="list-style-type: none"> Siem Offshore Subsea 7 	<p>Meeting held at Subsea 7 to discuss the available tow vessel suitability and operability in the Exmouth Gulf for Bundle launches.</p> <p>Subsea 7 tow master and bundle engineering team presented the Learmonth launch philosophy to the Siem Offshore management and vessel Captain, discussing the constraints and particulars of Bundle launch and tow.</p>	<p>Similar outcomes to the discussions with Solstad Farstad. Tow vessels typically deployed to the North West Shelf would be capable of safely and effectively launching and towing a Bundle.</p>
19 th October 2018	<ul style="list-style-type: none"> Department of Transport Subsea 7 	<p>Meeting held at Department of Transport to discuss the marine launch and tow activities.</p> <p>Subsea 7 tow master and bundle engineering team presented the Learmonth launch philosophy and the typical vessel specifications to Stephen Wenban of DoT.</p>	<p>No issues identified by the group. DoT expressed the importance of engaging with local stakeholders leading up to each launch, and involving as many local operators as possible to ensure safe tow operations.</p> <p>DoT going through organisational changes and it is important to continue this interface in the case authority over the Exmouth</p>

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			marine operations changes to a future port authority.
19 th October 2018	<ul style="list-style-type: none"> MMA Offshore Subsea 7 	<p>Meeting held at MMA Offshore (Fremantle) to discuss the ROV command vessel availability, suitability and operability in the Exmouth Gulf for Bundle launches.</p> <p>Subsea 7 tow master and bundle engineering team presented the Learmonth launch philosophy to the MMA Offshore management and operations team, discussing the constraints and particulars of Bundle launch and tow.</p>	<p>Discussion focused on the operational aspects of crane activities to adjust Bundle trim in the shallow waters of Exmouth Gulf.</p> <p>Operations were identified as operations recently completed safely in the Malus channel (offshore Dampier) in similar water depths. Operations will be detailed through operational procedures, operators will be adequately briefed, and therefore no particular issues were identified.</p>
23 rd October 2018	<ul style="list-style-type: none"> EPA Services MBS Environmental Subsea 7 	<p>Subsea 7 met with the Department of Transport's Harbour Master from the Marine Safety Division. Subsea 7 brought with them personnel from the North Sea region, including an expert Bundle Engineer, and a Bundle Towmaster, in order to provide a full update and introduction of the bundle launch and towing operations in Exmouth Gulf.</p> <p>During the meeting, a presentation was given regarding the bundle launch and tow methodology, with a particular focus on the safety and risk mitigation associated with the marine operations.</p> <p>The meeting was also utilised as an opportunity to provide a general update of the project to the Department of Transport.</p>	<p>Discussed the aspects of the Bundle launch and tow that will be described in the <i>Section 43a – Change to Proposal</i>.</p> <p>General update on ongoing environmental studies and PER progress.</p> <p>The Department of Transport did not identify any fatal flaws from an operational perspective regarding the performance of the proposed marine operations.</p>

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
24 th October 2018	<ul style="list-style-type: none"> Shire of Exmouth – CEO, Engineering and Planning Executives Subsea 7 	<p>Subsea 7 met with the members of the Shire of Exmouth to provide a general update on the project, and to discuss the progress on LPS4 (the new planning scheme).</p> <p>It was discussed that there is an outstanding amendment application from Subsea 7 to LPS3, and understood that this would be superseded by the update to LPS4, thereby requiring a new scheme amendment to take place. The meeting held a general discussion on the timing of this process.</p>	No particular actions or findings taken from the meeting. Subsea 7 would continue to monitor the status of LPS4 and advised their intention to submit an amendment when the new scheme was adopted.
24 th October 2018	<ul style="list-style-type: none"> Local community Subsea 7 MBS Environmental 	<p>A public engagement session was delivered in the Ningaloo Centre in Exmouth. The session was open from 3pm-6pm and promoted open conversation around any aspects of the proposed development.</p> <p>Subsea 7 had project and HR management representation, supported by supply chain, engineering, and MBS Environmental consultant to provide information to the local stakeholders.</p> <p>Information brochures were prepared for the session as well as visual presentations of Bundle operations and footage of environmental studies recently completed.</p> <p>The session was structured to discuss five (5) areas that have been regularly raised in previous engagements and discussions;</p>	<p>Approx. 40-60 local community members attended the session, including local business operators. Members of the Cape Conversation Group attended the session, spending considerable time engaging with Subsea 7 personnel, Environmental Consultations, and interested members of the public.</p> <p>Information was shared in a casual environment. Subsea 7 provided takeaway brochures covering the 5 topics presented at the session.</p>

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
		<p>Overall proposal timeline and progress</p> <p>Environmental approvals and investigations</p> <p>Bundle launch and tow operations</p> <p>Employment opportunities</p> <p>Supply chain engagement</p>	
25 th October 2018	<ul style="list-style-type: none"> Exmouth Shire President – Matthew Nikkula Shire of Exmouth CEO – Cameron Woods Subsea 7 	<p>Subsea 7 met with the Exmouth Shire President and the Shire CEO in order to provide feedback on the community session held the previous afternoon / evening.</p> <p>Subsea 7 also provided high level feedback on the ongoing recruitment process for the Site Manager position.</p> <p>The meeting was also utilised to be able to provide the Shire President with an update on the progress of the project and the environmental approvals.</p>	<p>The Shire President and CEO provided feedback to say that they were pleased that the community session had been well attended, and that there had been good opportunity for local personnel to get more information on the project directly from the proponent.</p> <p>It was discussed that there is always a desire for more engagement, and to continue to hold sessions in the future. It was acknowledged however that the town was now entering a very quiet period, and Subsea 7 advised that further sessions and information would continue in the following year.</p> <p>Both the CEO and President showed overwhelming support for the project and support to continue with the environmental impact assessment process.</p>
30 th October 2018	<ul style="list-style-type: none"> Gnulli Working Group YMAC Subsea 7 	<p>Subsea 7 attended the monthly Gnulli working group meeting, to provide the group with an update of the project, particularly with respect to ongoing environmental studies,</p>	<p>The meeting discussions included the EPA's PER and the heritage survey that would be completed to address aspects of the PER related to Aboriginal Heritage.</p>

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
		and continue discussions on Aboriginal Heritage and land use.	<p>Subsea 7 and the Gnulli Working Group will continue to work together to ensure Aboriginal heritage and the cultural significance of the site is considered through the proposed development lifespan.</p> <p>Two primary outcomes came from the meeting:</p> <p>Agreement was reached to proceed with the planning and execution of a Heritage Survey to meet the requirements of the EPA's Environmental Scoping Document for the project</p> <p>Agreement was reached to progress with an ILUA negotiation protocol</p>
31 st October 2018	<ul style="list-style-type: none"> Jock Clough (holds a number of positions including Director of the Nature Conservancy Australia, Chairman of the UWA Ocean's Institute Oceans Community, Director of the WA Maritime Museum) Subsea 7 	<p>Mr Jock Clough requested a meeting with Subsea 7, following his receipt of a number of representations to him regarding the Learmonth Pipeline Fabrication site proposal. Mr Clough requested the meeting to ensure he was fully informed before deciding on any potential further involvement.</p> <p>Subsea 7 met with Mr Clough, with the presentation and discussion including:</p> <p>An overview of the development</p> <p>Discussion on the environmental impacts, and comparison to alternative / conventional pipeline construction techniques</p> <p>Benefits of the development</p>	<p>Amongst general discussion to communicate and understand the development, Mr Jock Clough had a number of queries regarding the site selection, acknowledging that the technology and development appeared sound but remained concerned regarding the site selection and potential for impact to the Exmouth Gulf. Site selection was discussed, explaining that there was a thorough process behind site selection and that this would be address extensively in the PER, and independently peer reviewed. Subsea 7 explained that site selection remained the major barrier to the global deployment of bundle technology.</p>

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
		<p>General update on approval progress</p> <p>General update on stakeholder engagement status</p>	<p>Mr Clough also voiced concern regarding the potential for this development to lead to further development of the area. Subsea 7 explained the proposed Special Use Zone planning model that was being sought, noting that it was very limited and specific as to what use this land could have. Irrespective, Mr Clough maintained his concern in this regard.</p>
8 th November 2018	<ul style="list-style-type: none"> The Honourable Melissa Price MP (Federal Minister for the Environment, and Federal Member for Durack) Subsea 7 Exmouth Chamber of Commerce & Industry Representative Exmouth Shire Exmouth Shire Council Members 	<p>Subsea 7 were invited to present the Learmonth Pipeline Fabrication Site development proposal to the Honourable Melissa Price MP (Federal Minister for the Environment and Member for Durack). Subsea 7 provided an overview presentation of the development, and engaged in question and answer from members of the meeting.</p>	<p>Positive feedback regarding the development was received from Melissa Price MP, along with suggestions and guidance regarding the ongoing stakeholder engagement for the proposal.</p>
6 th December 2018	<ul style="list-style-type: none"> Jock Clough (holds a number of positions including Director of the Nature Conservancy Australia, Chairman of the UWA Ocean's Institute Oceans Community, Director of the WA Maritime Museum) Subsea 7 	<p>A follow up meeting to that held on the 31st October was held to discuss specifically the site selection process that Subsea 7 had undertaken for the Learmonth Pipeline Fabrication Site proposal.</p> <p>Subsea 7 provided Mr Clough with an overview of the site selection process, the requirements for a bundle site, and the range of sites investigated.</p> <p>Further, Subsea 7 provided detailed insight in to the sites that were also shortlisted at the time of the investigation, and explained the</p>	<p>The meeting content prompted significant general discussion, and question and answer regarding the site selection. In doing so, Subsea 7 were able to provide further insight in to bundle technology and the importance of the site in order to be able to deliver the technology.</p> <p>Mr Clough maintained his general concern regarding developments in the Exmouth Gulf area, but at the same time, did not provide specific feedback regarding any particular</p>

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
		reasoning behind them being unacceptable for bundle developments. The assessment discussed environmental, technical, and tenure / statutory / legislative issues for all sites to provide an overall view.	environmental factor that was of particular concern. The parties concluded the meeting and the invitation was extended to meet again should there be a desire or need to do so.
10 th December 2018	<ul style="list-style-type: none"> The Honourable Josh Wilson MP – Federal Member for Fremantle Subsea 7 	<p>Mr Josh Wilson MP requested a meeting with Subsea 7 to discuss the proposal, following representations made to him by constituents in his electorate (Fremantle), to ensure he had all information before responding.</p> <p>Subsea 7 met with Mr Wilson MP and one of his staff members to provide an overview of the project, and also to explain the current status of the project in its approvals cycle.</p>	<p>Mr Wilson MP asked a wide range of clarifying questions to confirm his understanding of the project.</p> <p>There were no specific requests made of Subsea 7 at this stage, as the meeting was primarily to gain a general understanding of the project.</p> <p>Subsea 7 answered the queries, and offered to meet again, or be available for contact, should there be any further queries or need for discussion.</p>
12 th December 2018	<ul style="list-style-type: none"> Recfishwest Subsea 7 	<p>Subsea 7 invited Recfishwest to meet and provide an update to the project, following previous initial introductory meetings that were held approximately 1 year earlier.</p> <p>Subsea 7 provides updates in the following areas:</p> <p>General overview of the PER content and process</p> <p>Particular focus was given to the launch and tow operation, to explain how this would work and any impacts to users of the Exmouth Gulf</p>	<p>Recfishwest explained that they would continue to maintain a watching brief over the project.</p> <p>With regard to the launchway and the potential for this to become a similar habitat to that such as Kings Reef, Recfishwest explained that there was potential to discuss this at a later date following further progress on the project. No commitment was made on this topic, but it was agreed it is a discussion point for the future.</p>

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
		<p>Update of the whale migration survey and the proposed no-launch period</p> <p>Visual impact assessment</p> <p>Subterranean fauna investigations</p> <p>General update on stakeholder engagement status</p> <p>The parties also discussed the potential of the launchway structure becoming a habitat for recreational fishing.</p>	<p>The parties discussed any restrictions to marine activities in Exmouth Gulf associated with the launch and tow operations. Subsea 7 explained the low frequency of operations, and also explained the proposal would include safety exclusion zones around the bundle during towing, and that this was necessary for the safety of all personnel and vessels, as well as ensuring no damage to the bundle. It was confirmed though, that access to the Muiron Islands would be maintained at all times.</p> <p>The parties discussed the need for notices and communication regarding launch activities to ensure all users of the Gulf were aware. Subsea 7 acknowledged that this was planned and there would be wide scale notices issued in advance of these operations, highlighting again their very infrequency nature.</p>
February 2019	<ul style="list-style-type: none"> Gnulli Traditional Owners (up to 8 members of the group) Steve Corsini – Heritage Consultant Subsea 7 (partial involvement at beginning and end of survey) 	<p>A heritage survey was conducted over the proposed project envelope, incorporating a broad selection of members of the Gnulli Group, and facilitated by the project's jointly appointed Heritage Consultant.</p> <p>The heritage survey encompassed both an archaeological component, and an ethnographic component, and was structured</p>	<p>The survey did not identify any Heritage Places or Objects, as defined in WA AHA 1972.</p> <p>In conducting the survey, the Gnulli Group and Subsea 7 spent valuable time together on the site, enabling significant learning to occur, development of cultural awareness, and an understanding of what is considered important by the Traditional Owners. In</p>

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		<p>to meet the requirements of the Heritage Act, as well as the EPA's ESD for the proposal.</p> <p>Subsea 7 also performed a site visit with the members of the traditional owner group at the end of the survey in order to discuss the findings and also to continue to generate a broad cultural understanding between the Gnulli Group and Subsea 7.</p> <p>The total survey was conducted over a period of 8 days.</p>	<p>general, it was an extremely positive engagement for all participants.</p>
13 th February 2019	<ul style="list-style-type: none"> • CEO – Shire of Exmouth • Subsea 7 	<p>Subsea 7 were in Exmouth performing interviews for the Site Manager position, and took the opportunity to meet with the Shire of Exmouth CEO and provide an update on the project.</p> <p>Subsea 7 explained that the environmental investigations were ongoing, and thus far, all data collected was broadly in line with our expectations, reinforcing our belief that the project remained a low impact proposal.</p> <p>The parties discussed the current status of the town planning scheme (LPS4), noting that Subsea 7 had intended to formally submit a Scheme Amendment Request once LPS4 had been gazetted. It was discussed that the amendment would be largely the same as that previously submitted, but would account for the changes in the planning scheme.</p>	<p>General update, with no specific or new actions generated by the meeting.</p>

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
13 th February 2019	<ul style="list-style-type: none"> Department of Biodiversity, Conservation and Attractions Subsea 7 	<p>Subsea 7 met with the District Manager of the Exmouth District from DBCA, along with a Senior Policy and Planning Officer to discuss the project.</p> <p>Subsea 7 provided a general update of the project, particularly with regard to the development of the Public Environment Review document and the ongoing environmental investigations.</p> <p>Subsea 7 and DBCA also discussed their interfaces with the Gnulli Group, noting that the DBCA were in the latter stages of finalising a ranger program with the group. Subsea 7 expressed their desire to contribute to the program, and this was discussed by all parties so that Subsea 7 could gain a better understanding of the mechanics of the program.</p>	<p>Subsea 7 asked if the DBCA was able to provide publicly available information that would assist in the development of the PER, inclusive of:</p> <p>Details regarding licenced tourism operators that utilise the Exmouth Gulf (quantity and areas of operation)</p> <p>Further understanding of the implementation of the Management Plan for the Ningaloo Marine Park and Muiron Islands Marine Management Area 2005-2015</p> <p>The DBCA agreed to supply this information.</p> <p>Subsea 7 also requested further information regarding the ranger program in order to develop a plan for potential contribution.</p>
20 th February 2019	<ul style="list-style-type: none"> Gnulli Traditional Owner Working Group YMAC Subsea 7 Squire Patton Boggs (by phone) 	<p>Subsea 7 were invited to present at the Gnulli Working Group Meeting as part of our ongoing engagement in both Heritage and Native Title discussions with the group.</p> <p>The agenda for Subsea 7's presentation included:</p> <p>An update and further information regarding points of interest for the Gnulli Group concerning the environment</p>	<p>Good general discussion was held to ensure the Gnulli were well informed of potential environmental impacts (or lack of) for environmental elements of interest to them.</p> <p>Feedback from Gnulli Working Group included:</p> <p>Movement of native fauna across the development envelope was discussed.</p>

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
		A presentation of Subsea 7's initial proposal of key terms for an ILUA to support the project.	Re-explained development for new people to the Group (usual Chair Paul Barron was absent). Very positive response to Draft ILUA items. Working Group supportive of the proposed terms and indicated they were willing to progress ILUA. Agreed for SPB to provide key terms following the meeting.
1 st March 2019	<ul style="list-style-type: none"> • Conservation Council WA • Cape Conservation Group • Protect Ningaloo Campaign 	<p>Subsea 7 invited these stakeholders to meet to discuss and provide:</p> <p>A general update of the status of the development of the public environment review</p> <p>Information regarding the extent of the environmental investigations that have been conducted</p> <p>Confirmation of the timeline for the PER submission to the EPA, and explanation on the reasoning behind a perceived delay in its submission (due to the appeal that was heard during the native vegetation clearing process)</p> <p>Detailed discussion on the recently advertised S43A update to proposal, including discussion on the scope of the update and the reasoning behind the update</p> <p>The meeting also led to a general discussion regarding future projects in the oil and gas industry and their potential interface with Exmouth Gulf. Note that this discussion was</p>	<p>Subsea 7 invited any specific feedback regarding the environmental investigations that were ongoing. CCWA / CCG / Protect Ningaloo declined to provide comment at this stage, instead suggesting it would perhaps do this after the PER was out for public comment. The parties agreed that a further meeting at that point would be beneficial.</p> <p>Various clarification questions were asked and answered regarding the information presented, particularly concerning the Update to Proposal.</p> <p>The meeting included discussion regarding the potential outcomes of the S43A process. Subsea 7 acknowledged that in the event that the S43A was not accepted by the EPA, that they intended to re-refer the project in any case, and felt that there was more benefit to the community and stakeholders in general to proceed with the PER to allow for</p>

DATE	STAKEHOLDERS	SUMMARY / STAKEHOLDER COMMENTS	OUTCOME / SUBSEA 7 RESPONSE
		not specific to potential Bundle projects, but also included various projects that would not involve any potential for bundle style developments. Subsea 7 explained the benefit with regard to vessel utilisation of local waters such as Exmouth Gulf with bundle developments in comparison to conventional pipeline execution models.	the public consultation process to occur. CCWA / CCG / Protect Ningaloo did not pass comment or judgement regarding their position on the S43A.
8 th March 2019	<ul style="list-style-type: none"> Ningaloo Aquaria Subsea 7 	Subsea 7 were contacted by Ningaloo Aquaria (an aquarium fish collector), and queried regarding any impact to access to the Bay of Rest. Ningaloo Aquaria explained that he utilised the Bay of Rest to launch his boat to collect items for his small business operation.	<p>Subsea 7 explained that access to the Bay of Rest would be maintained via two options:</p> <p>A beach crossing over the bundle launchway</p> <p>A new alternative track that ran parallel to the bundle track, until it intersected with the current track that is utilised to directly access the Bay of Rest.</p> <p>Mr Gebbetis was satisfied that access would be maintained, and stated that he was glad that access to the Bay of Rest had been taken in to account.</p>

APPENDIX D

Supporting Letters

To whom it may concern

Please ask for: Stuart Black
Direct Dial: 01463 702251
E-mail: stuart.black@highland.gov.uk
Our Reference: JSB/VM
Date: 25 January 2019

Dear sir/madam

Subsea 7 has been fully operational for over 40 years in Caithness and The Highland Council (THC), and its predecessor local authorities (Highland Regional Council and Caithness District Council), have enjoyed a positive relationship with the multi-national company over this period. Planning, and the subsequent facility development, have all been completed on a collaborative basis to ensure that the site was constructed in keeping with the local development plans, environmental needs and area requirements.

The chosen location in 1978 on the shores of Sinclair's Bay, involved passing over one of Scotland's most beautiful beaches and heads in a landward direction for 7.8 kilometres over farm and peat lands. The site also neighbours a Site of Special Scientific Interest, one of the highest environmental designations in the UK. I can confirm that Subsea 7 works hard with all the various statutory agencies to ensure that the bundle pipeline construction process meets or exceeds all the environmental requirements for such an area. Subsea 7 continuously ensures that all stakeholders, visitors and tourists are duly considered and accommodated as part of the operations taking place at Wester Site.

Throughout their tenure, the local management team, supported by their Aberdeen office, has operated with a high degree of corporate social responsibility, contributing greatly to community life and various events e.g. beach cleans, and educational programmes with local schools. They also operate a Performance Recognition Scheme which has delivered hundreds of thousands of pounds in financial support to local community organisations over the past 40 years.

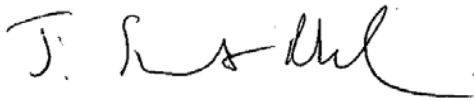
Subsea 7 has provided significant economic benefits with a predominately local work force of around 150 people. This brings high quality job opportunities for a wide variety of skill sets. Caithness, and indeed the Highlands, has benefitted greatly as a result of this world class

pipeline fabrication site operating in the area. It is considered a key long term employer following the downturn of the fishing industry and the reduced requirement for labour in the agricultural sector.

To summarise, Subsea 7 has been an important player in the continuing economic development of the North of Scotland, and has done so with the highest regard for the environment and the local community.

Please do not hesitate to contact me if you require further information.

Yours faithfully

A handwritten signature in black ink, appearing to read 'J. Stuart Black', with a long horizontal flourish extending to the right.

J Stuart Black
Director

January 2019

To whom it may concern

SUBSEA 7 IN CAITHNESS

Highlands and Islands Enterprise (and its predecessor body Highlands and Islands Development Board) has been supporting the economic and socio-economic development of the north of Scotland for over 50 years. In that time there have been a number of key regional success stories, one of which has been the creation and subsequent growth of the company now known as Subsea 7.

Subsea 7 began life in Caithness in the 1970s as Kestrel Marine, and the company remains an integral part of the local economy. Its reputation within the North Sea oil & gas industry in the UK is unrivalled, but even more importantly for the north of Scotland, it is an important source of employment. Since its initial phases of work, the facility in Caithness has provided high quality employment to around 150 staff, and it is a testament to the company's operation that its workforce has consistently been able to contract and expand according to workload.

The company is widely seen as a positive contributor not only to the area economy in terms of direct wages, but also as a supporter of the area's wider economy in terms of its strong relationships with local supply chain companies. And it has been heartening to see the sustained effort and commitment of its staff in supporting the social wellbeing of the communities from which it draws its staff.

Over the past 40 years Subsea 7 has been a force for good in the north of Scotland: it continues to live up to its own high standards of corporate responsibility, as well as helping future economic opportunities in our area.

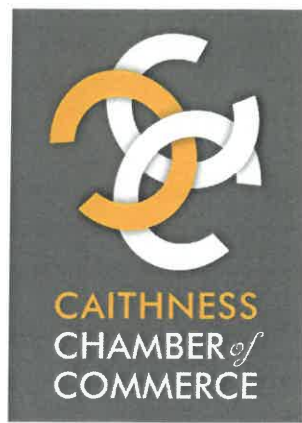
Yours sincerely



Eann Sinclair
Area Manager, Caithness & Sutherland
Highlands and Islands Enterprise

Tel 01847 805211
Email eann.sinclair@hient.co.uk





STRONGER TOGETHER

To whom it may concern,

I am writing to you today on behalf of Subsea 7, to outline the company's positive impact in the North Highlands of Scotland.

Caithness Chamber of Commerce is the lead organisation representing business within the area. It actively works to support and promote businesses from all sectors and is working alongside key agencies within the area on regeneration plans to ensure that the region has a vibrant and sustainable future.

Subsea 7 is one of our Silver Premier Partner members and a major employer in the local area. It has had a base in Caithness for the past 40 years. Premier Partners are high level memberships and as a Chamber there is very little we can do for Subsea 7 which it can't access for itself through its multi-national corporation. However, it takes its corporate social responsibility extremely seriously and by being part of and supporting the Chamber, it is helping the local business community. It also contracts with the local supply chain and has a sizeable associated spend in the local economy.

Caithness has a strong heritage in manufacturing and engineering, despite the geographic and demographic challenges we face and Subsea 7 has played a significant role in that success. Wick, the burgh town of Caithness is the nearest town to Subsea 7's sites and it has gone through significant challenges, particularly being hard hit by the decline in the fishing industry. Subsea 7 has played a major role in the regeneration of Wick Harbour which has led to significant investment, firstly with a new marina in 2012 and now acting as the Operations and Maintenance base for the Beatrice Offshore Wind Farm.

As well as using the harbour at Wick, Subsea 7 uses the rail infrastructure in its commitment to green procurement, ensuring items are delivered in an environmentally pro-active way and in fact the company were instrumental in the reopening of the far north rail line in 1994.

It is also committed to environmental sustainability with its fabrication site at Wester being situated beside a European Site of Special Scientific Interest (SSSI) established to conserve and protect the wildlife and ecology of the area. Subsea 7 ensures its activities do not impact the SSSI and regularly organises beach clean-ups, quite often with the local school, and supports local rangers and ornithological groups.

Unlike many large employers, it has made efforts to play a real part in the life of the community. This goes beyond the usual surface-level activities like sponsoring the local football team, with the company taking a close interest in helping to build a lasting legacy for the North Highlands.

It has also been actively involved in the Chamber-led "Developing the Young Workforce" initiative, working with local schools to help pupils develop the skills they will need as they enter the workforce for the first time. The majority of Subsea 7's staff are employed from the local area and training is at the heart of the company.

The General Manager of the local site, Willie Watt, is himself a community stalwart, acting as one of the deputy Lord Lieutenants of Caithness, and giving generously of his time to promote all aspects of life in the area.

When we talk up our inward investment pitch, we always cite Subsea 7 as one of our examples, as it demonstrates our connectivity and ability as an area to work in global markets, despite those demographic and geographic challenges. In the Far North of Scotland major employers can be counted on one hand and as we look back at Subsea 7's immense and valuable contribution to the area over the last 40 years, I have no doubt that without its influence and support, some of these things wouldn't have happened or would have taken longer to develop.

This is just a short synopsis but hopefully it gives a flavour of how Subsea 7's presence here in the North Highlands has proven to be of great benefit to the area. I hope you have found this useful to see how a similar community has been impacted by a multi-national corporation.

Yours sincerely,



Trudy Morris
Chief Executive

Caithness Chamber of Commerce
Naver Business Centre, Naver House, Naver Road, Thurso, Caithness KW14 7QA
T: 01847 890076; E: info@caithnesschamber.com; W: www.caithnesschamber.com

Caithness Chamber of Commerce is a company limited by guarantee
Registered in Scotland no: 350926
Registered office: Naver Business Centre, Naver House, Naver Road, Thurso, Caithness KW14 7QA

APPENDIX E

Stakeholder Communication

Bundle Technology

Subsea 7's Bundles are a proven solution for reducing the footprint of offshore field developments, whilst also reducing the vessels required for installation.

BUNDLE TECHNOLOGY

A subsea Bundle can incorporate a combination of features, including:

- Active heating of product lines
- Corrosion resistant alloy materials
- Manifold systems integrated into the flowlines
- Hydraulic control tubing
- Electrical control signal and power cables

These components are all safely contained inside the carrier pipe and fully tested onshore, reducing offshore risk.

The Bundle is fabricated and towed offshore with no hydrocarbons inside.

LAUNCH & TOW ENGINEERING

- Modular buoyancy built into Australian towheads, lifting the towhead from seabed and reducing seabed disturbance
- Redeveloped tow method for the shallow waters of Exmouth Gulf
- Refined surface controlled depth tow method for towing through the Ningaloo Marine Park with the greatest distance from the seabed
- Continued commitment to maintain launch and tow speeds **less than 8 knots** to reduce risk to marine fauna.

LAUNCH & TOW OPERATIONS

A step change in offshore installation that allows for low impact and cost effective operations.

- Smaller tow vessels replacing the need for large construction vessels
- Tow vessels are available in Western Australia and small support vessels are available from Exmouth, increasing opportunities for local operations
- Extension of the DBCA ranger programme, with a focus on marine fauna observers
- 2-3 Bundle launches per year, with 2-3 days of marine operations within the Exmouth Gulf per launch.

NO BUNDLE LAUNCH AND TOW OPERATIONS DURING THE PEAK SEASON OF THE SOUTHERN WHALE MIGRATION



Environment

Subsea 7 is acutely aware of the responsibility that comes with proposing a development in the Exmouth Gulf.

Our greatest focus is on the completion of an extensive number of studies to support our Public Environment Review.

MARINE FAUNA

- We have commissioned the 1st whale migration survey in Exmouth Gulf since 2005
- 4 local experts, performing at least 9 surveys, over 3 months
- We are the first operator, to our knowledge, to propose a strict commitment regarding our potential interactions with the whale migration in Exmouth Gulf:

NO BUNDLE LAUNCH AND TOW OPERATIONS DURING THE PEAK SEASON OF THE SOUTHERN WHALE MIGRATION.

VISUAL IMPACT

Broad visual impact assessment underway.

- 8 separate vantage points
- Input sought by Subsea 7 from the Shire Council, the Cape Conservation Group, Exmouth CCI, the EPA and the DoEE.

THE PER PROCESS

The PER process is the most extensive level of environmental assessment in Australia. We are confident in the process knowing that it includes:

- Multi-level assessment – State (EPA) and Commonwealth (DoEE)
- Covers 12 environmental factors with 84 elements to address
- Requires 3 independent peer reviews
- Has an open public consultation process
- 7 separate decision making authorities.

FLORA AND VEGETATION

We have completed an extensive investigation into flora and vegetation on the proposed site.

- Survey area covering over 540 hectares
- 16 days of field work by botany experts
- Investigation ranging over 3 seasons.

SUBTERRANEAN FAUNA

- Commissioned the 1st detailed investigation in the area
- Contributing valuable knowledge to this small, but important field of environmental science
- Completed the vegetation clearing with disturbance to less than 40% of the approved area.

BENTHIC COMMUNITIES AND HABITAT

- 114 video transects, covering 160 square kilometres of the seabed along and adjacent to the tow route, in addition to the work completed in 2017 for our referral.

SITE MANAGER

Future Construction Manager,
Pipeline Fabrication Facility,
Exmouth, Western Australia

THE OPPORTUNITY

Subsea 7 is a seabed to surface engineering, construction and services contractor to the offshore energy industry worldwide. People are central to our success and we build our business around a valued and motivated workforce. We work in partnership with our clients to develop and maintain long-term relationships that add value to our developments.

Subsea 7 Australia have been delivering projects for our clients from the North West Shelf to the Bass Strait for over 40 years. Subsea 7 plans to extend our capability in Western Australia with the development of a Pipeline Fabrication Facility in Exmouth. This project is currently in the planning phase and progressing through State and Federal processes. The proposed facility would be only the second of its kind worldwide, and the first in the southern hemisphere, representing a unique opportunity to establish and develop a truly innovative technology in Western Australia.

The function of this facility is to fabricate strings of pipe, reaching total lengths of up to 10km, known as Bundles. From the fabrication site, the Bundle is launched and towed to the required offshore location and installed.

THE ROLE

In advance of the site construction and operation, we are recruiting the Construction Manager to gain experience with Bundle technology and management of this type of fabrication facility. We have a Pipeline Fabrication Facility in Wick, Scotland which has been operating for 40 years. The successful candidate will relocate to Wick, Scotland for a minimum of 12 months to become part of the Global Bundles team, working alongside the current General Manager to develop a robust understanding of bundles projects and the management of the facility.

Following a period of familiarisation and development, you will be employed as the Construction Manager for the Australian site. In this role you will be responsible for the delivery of Bundle projects, having overall accountability for the fabrication, workforce management, financial management and maintenance of the facility.

THE CANDIDATE

Candidates require a minimum of 10 years construction and / or fabrication experience, oil and gas experience is preferred but not essential.

Demonstrated experience managing a fabrication/welding workforce as well as scheduling operations and overall site management will make you an excellent candidate for this opportunity. All personnel are expected to contribute to creating a positive HSEQ culture within Subsea 7 and ensure familiarity with and adherence to local HSEQ codes and practices.

This role will eventually be based in Exmouth, and as such preference will be given to candidates from the area.

Please apply with resume and cover letter via the link:

<https://careers.subsea7.com/Exp/VacancyInformation.aspx?VId=59845>

Shortlisting will commence immediately. If you would like to discuss this opportunity further please contact: **Nicole Irvine: (08) 9326 0692**

Local Employment Opportunities

FUTURE SITE MANAGER

- Vacancy currently advertised for Site Manager (see over)
- Applications close 15th November 2018
- Relocate to Scotland for 12-18 months to learn about the execution of Bundles projects
- Preference given to local candidates.

APPRENTICESHIP OPPORTUNITIES

- Subsea 7 will employ up to 4 apprentices from the commencement of operations at the proposed Learmonth fabrication facility
- Classroom training to be completed at Geraldton or Canarvon prior to opening of proposed facility
- Apprenticeship recruitment will commence Q1 2019 ready for commencement at the facility in 2020
- Disciplines available: Mechanic, Electrician and Boilermaker/Welder.

LOCAL WORKFORCE FROM ~2020

From approximately 2020 we will employ the following positions at the proposed Learmonth fabrication facility:

- Administration
- Cleaners
- Site Manager (currently advertised)
- Mechanic
- Electrician
- Trades Assistant
- Welders
- Technicians.

WHAT CAN I DO NOW TO QUALIFIED FOR FUTURE ROLES?

- Ensure your qualifications, certifications are up to date.
- Consider the following courses/qualifications:
 - Basic/Advanced Rigger Training
 - Working at Heights
 - Forklift Operator
 - Workplace Health and Safety Programs

Contact Nicole Irvine on (08) 9326 0692 to discuss your employment history and future role requirements.

Supply Chain

OUR PERFORMANCE - LOCAL EXPENDITURE

- Over \$500k spent by Subsea 7 and our consultants with local businesses in the last 18 months
- Expenditure across a wide range of businesses in Exmouth
 - Civil contractors
 - Surveyors
 - Vessel operators
 - Light planes for survey work
 - People! We are using all local people as spotters for our whale migration surveys
 - Consultants – e.g. marine fauna experts
 - Accommodation providers
- The median yearly household income in Exmouth is about \$90,500 (ref 2016 census), therefore our direct expenditure is equivalent to 5.5 households' annual income.

OUR PERFORMANCE - TRADITIONAL OWNERS

- Over \$80k spent by Subsea 7 and our consultants with the Gnulli Traditional Owner group.

OUR COMMITMENT - SUPPORTING LOCAL BUSINESSES

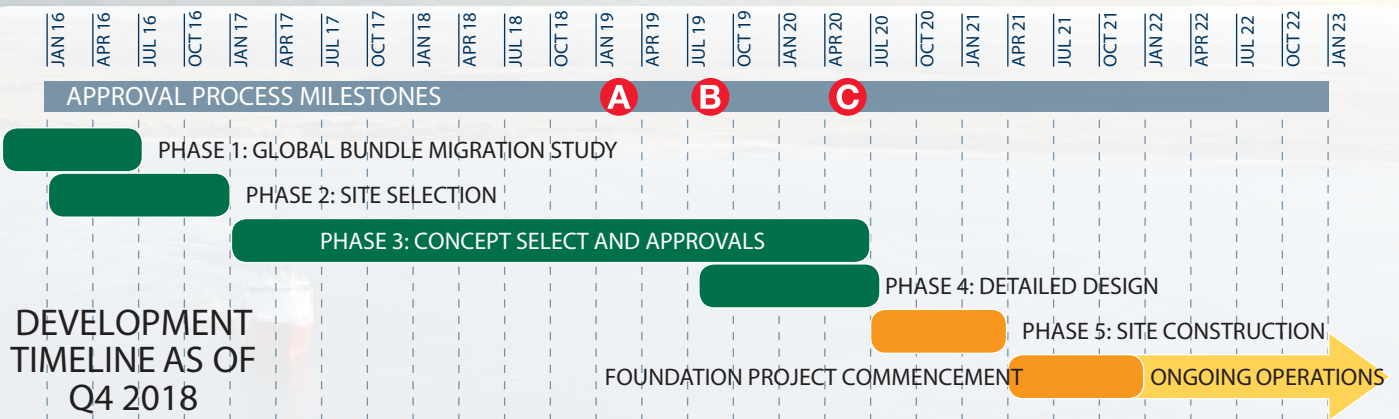
What this means for Exmouth:

- Dedicated focal point - Jeremy Cohen, SCM Manager
- Ongoing engagement - local supplier register, use of ICNWA, etc
- Local content evaluation criteria
- Local content KPIs.

OPPORTUNITIES TO GET INVOLVED ARE ON THE HORIZON:

- Through 2019 we will continue through our approvals phase, and the site investigations
- To register interest, contact our organisations and ask to speak with the supply chain focal points
- Major opportunities in the future are available during the construction and operation phases of the project. Prepare yourself and your company, to be ready to get involved
- We encourage partnerships and alliances, to make sure your business is best placed for the opportunities ahead.

Learmonth Pipeline Fabrication Site Development Timeline



KEY MILESTONES FOR AN AUSTRALIAN BUNDLE SITE

The key milestones on the way for the site development include:

DATE	EVENT
A Q1 2019	Public Environment Review submission to the EPA
B Q3 2019	EPA Notice of Decision for PER Assessment
C Q2 2020	Development Approval for Site Construction

*Note: These timelines may change as the approvals progress.
We'll endeavour to keep you updated as we move forward.*

RIGOROUS APPROVAL PROCESS

The Learmonth Pipeline Fabrication Site is subject to a broad approval process, including:

- Environmental approvals at State and Federal levels
- Planning and development approvals
- Tenure and site access approvals
- Heritage approvals
- Native title approvals.

PROJECTS AND PROSPECTS

Subsea 7 is continuously engaging with our Clients to offer this technology to the market.

We are performing a number of technical and commercial studies for prospects on the horizon, looking to secure our foundation project for the site.

Our aim is for this site to be operating sustainably for the long term, delivering necessary infrastructure to major projects in Australia's offshore construction industry.





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