

# SCARBOROUGH PROJECT

The Scarborough gas resource is located approximately 375 km off the Burrup Peninsula and is part of the Greater Scarborough gas fields which are estimated to hold 9.2 Tcf (2C, 100%) of dry gas.

The relevant offshore petroleum titles are all located in Commonwealth waters - Woodside holds a 75% interest in WA-1-R, and a 50% interest in WA-62-R, WA-63-R and WA-61-R, covering the Scarborough, North Scarborough, Thebe and Jupiter gas fields respectively.

Woodside is proposing to develop the Scarborough gas resource through new offshore facilities connected through an approximately 430 km pipeline to a proposed brownfield expansion of the existing Pluto LNG onshore facility (Pluto Train 2 Project).

The proposed offshore development, referred to as the Scarborough Project, is to initially develop the Scarborough gas field with up to seven subsea, high-rate gas wells, tied back to a semi-submersible floating production unit (FPU) moored in 900 metres of water close to the Scarborough field.

The Scarborough Project is an integral part of Woodside's Burrup Hub vision for a regional gas hub which will secure economic growth and local employment opportunities for Western Australia for decades to come.

During Q1 2019 Woodside, in its own corporate capacity as a Scarborough titleholder, awarded four contracts for front-end engineering design activities for the proposed Scarborough Project.

The contracts will support the project schedule until a positive final investment decision (FID) is taken on the project by the Scarborough Joint Venture.

Woodside is targeting a FID decision in 2020 and ready for start-up (RFSU) 2023.<sup>1</sup>

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### Tieback and future development

The 1.4 Tcf (2C, 100%) Thebe and 0.5 Tcf (2C, 100%) Jupiter gas fields provide opportunities for future tieback to Scarborough Project infrastructure.

As the proposed export pipeline route crosses the Carnarvon Basin in close proximity to undeveloped fields, Woodside is engaging with other resource owners to explore opportunities for future development.

### Nearshore

In support of construction of the Pluto LNG foundation project, a substantial dredging program was undertaken without impact to coral communities in the proposed Dampier Archipelago Marine Park.

Connection of the offshore Scarborough Project to the onshore Pluto Train 2 Project will require a minor dredging program through State waters in Mermaid Sound.

The proposed dredging program will be significantly less, only 20% of the volume, than what was undertaken for the Pluto LNG foundation project. Port facilities do not require upgrading and pre-investment dredging was undertaken during the initial program along harder sections of the pipeline route.

### Our engagement approach

Woodside has been part of the Pilbara community for more than 30 years. As we prepare to enter a growth and construction phase, we are committed to continuing to operate responsibly, working sustainably and engaging transparently.

Woodside, and its joint venture participants continue to invest in understanding and managing actual and potential impacts of proposed activities. We are undertaking environmental and social studies and consulting with our wide range of stakeholders to understand their interests and concerns.

### Environmental approvals

The Scarborough Project spans Commonwealth and State jurisdictions.

A proposal for activities in State waters was referred to the Western Australian Environmental Protection Authority (WA EPA) and the Commonwealth Department of Environment and Energy (DoEE) in December 2018. The referral can be viewed at the relevant regulator's website.

A proposal for activities in Commonwealth waters is proposed for submission as an Offshore Project Proposal (OPP) to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA). Adjacent Thebe and Jupiter reservoirs will also be included. This process is expected to commence in February 2019.

### State waters referral

The proposal for activities in State waters includes dredging, pipelay, sand backfill and pipeline stabilisation activities. Due to the pre-investment works undertaken for Pluto LNG foundation project, activities for this proposal will be a much smaller scale, with no blasting required.

The purpose of the State waters referral is to determine whether components of the proposed development in State waters will require formal assessment and approval under the *Western Australian Environmental Protection Act 1986* (EP



Figure 1: Indicative subsea layout for the Scarborough Project (not to scale)

<sup>1</sup> These targets are subject to all necessary joint venture approvals, regulatory approvals and/or appropriate commercial arrangements being finalised.

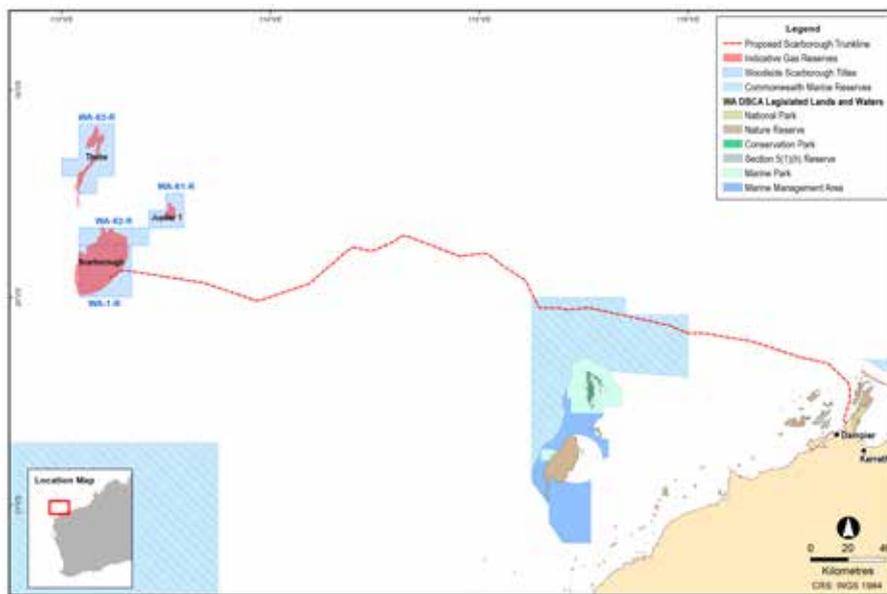


Figure 2: Greater Scarborough gas fields and proposed pipeline route

Act) and the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The EP Act is Western Australia's primary environmental legislation. The EP Act provides for the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment and for matters connected with these activities.

The EPBC Act is the Australian Government's central piece of environmental legislation which provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places.

The EPBC Act establishes a requirement for Commonwealth environmental assessment and approval for actions that are likely to have a significant impact on Matters of National Environmental Significance.

The purpose of the referral is to determine whether a proposed action is a 'controlled action' and requires approval under the EPBC Act. If the Minister determines that a proposed action is a controlled action, it would then proceed through Commonwealth assessment and approval processes.

One of the key roles of the WA EPA and the Commonwealth's DoEE, is to provide Government with advice on the environmental acceptability of development proposals to ensure they will meet the requirements under the relevant Acts.

### Commonwealth waters

All activities in Commonwealth waters will be assessed separately as part of an OPP to NOPSEMA.

The Scarborough Project includes the following activities in Commonwealth waters:

- + drilling of the gas wells and installation of the FPU
- + installation of the pipeline section and related activities within Commonwealth waters

The use of spoil grounds will be the subject of a separate permit application to DoEE.

### Onshore environmental approvals

A number of Commonwealth and State Government environmental approvals were granted for the Pluto LNG foundation project.

Existing primary environmental approvals allow for two LNG trains and supporting infrastructure. Associated management plans will be evaluated under these approvals and updated as required. Woodside will also obtain all necessary and required secondary approvals and licensing to support the Pluto Train 2 Project.

### Environmental management

A geophysical and environmental survey of the proposed pipeline route was completed in July 2018, which will assist in defining the environment between the Scarborough and Pluto field area.

Shallow water geophysical and geotechnical surveys in State and Commonwealth waters are targeted to commence between Q4 2018 and Q1 2019. The surveys will acquire data to support Scarborough Project FEED.

Woodside's Pluto LNG foundation project dredge monitoring program contributed A\$3.2 million to the WAMSI Dredging Science Node. This monitoring data and research will be used to support the Scarborough Project dredging scope.

Scarborough gas is dry and lean and contains extremely low reservoir CO<sub>2</sub> (0.1mol%) compared to conventional oil and gas reservoirs.

This contributes to a reduced carbon footprint as well as limited risk of hydrocarbon spills.

Woodside is committed to continued investment in technologies that reduce emissions and promote energy efficiency in our facilities.

We are working through engineering options to further reduce emissions - this includes consideration of batteries and sources of alternative renewable power.

Through the use of technology and innovation, Woodside will evolve to meet the challenges of the new low carbon economy. We accept the scientific consensus on climate change and will be a significant contributor in the global effort to reduce carbon emissions.

Woodside believes that natural gas, with its low carbon content, will be an important part of the solution to meeting global energy demand and reducing emissions during the next 50 years.

### Opportunities to comment

Woodside is continuing to undertake extensive consultation with a wide variety of stakeholders regarding the State and Commonwealth environmental approvals and OPP submitted for the Scarborough Project.

Woodside invites interested parties to comment during the public comment periods associated with the environmental approval submissions.

SCARBOROUGH JOINT VENTURE		
Gas Fields	Woodside Interest	BHP Interest
Scarborough (WA-1-R)	75%	25%
North Scarborough (WA-62-R)	50%	50%
Thebe (WA-63-R)	50%	50%
Jupiter (WA-61-R)	50%	50%

Table 1: Equity participants.

### Providing feedback and further information

If you would like to comment on the proposed activities outlined in this fact sheet, or would like additional information, please contact Woodside by email to [feedback@woodside.com.au](mailto:feedback@woodside.com.au) or toll free on 1800 442 977.

All information is current as at January 2019.