

## OVERVIEW

August 2020

# SCARBOROUGH

The Scarborough gas resource is located approximately 375 km west-north-west of the Burrup Peninsula and is part of the Greater Scarborough gas fields which are estimated to hold 13.0 Tcf (2C, 100%) of dry gas.

The Greater Scarborough gas fields include Thebe (1.4 Tcf, 2C, 100%), Jupiter (0.5 Tcf, 2C, 100%) and Scarborough (11.1 Tcf, 2C, 100%).

The relevant offshore petroleum titles are all located in Commonwealth waters. Woodside holds a 73.5% interest in WA-1-R and WA-62-R, and a 50% interest in WA-63-R and WA-61-R, covering the Scarborough, North Scarborough, Thebe and Jupiter gas fields respectively. BHP Billiton Petroleum (North West Shelf) Pty Ltd is Woodside's Scarborough Joint Venture participant (Refer Table 1).

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

The proposal 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 950 m of water close to the Scarborough field.

The development of Scarborough will secure economic growth and local employment opportunities for Australia, WA and the local Pilbara community.

The major engineering design contracts for Scarborough have been awarded to Australian entities, with all project management and a substantial amount of engineering design work being undertaken in Perth, WA. Contract awards include engineering works related to the FPU as well as the export trunkline and subsea umbilical risers and flowlines.

Woodside is targeting a final investment decision (FID) on Scarborough and Pluto Train 2 in 2H 2021<sup>1</sup>.

### Tieback and future development

The Thebe and Jupiter gas fields provide opportunities for future tieback to Scarborough infrastructure.

### The Burrup Hub vision

Woodside, with our joint venture participants, is progressing opportunities that will develop an integrated, regional LNG production hub on the Burrup Peninsula in Western Australia. Utilising proven LNG facilities, the Burrup Hub will provide a long-term solution for processing gas resources to supply domestic and export markets for decades to come.

To realise the Burrup Hub vision a number of activities are being advanced simultaneously: North West Shelf (NWS) Project Extension; the Pluto-Karratha Gas Plant (KGP) Interconnector; Scarborough and Pluto Train 2; Woodside Power and Browse.

Woodside is committed to operating responsibly, working sustainably and engaging transparently. We are investing in understanding and managing actual and potential impacts of these activities and consulting with a wide range of stakeholders.

FIGURE 1: SCARBOROUGH INDICATIVE SUBSEA LAYOUT (NOT TO SCALE)



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.

### Offshore environmental approvals

Scarborough spans both Australian and Western Australian jurisdictions.

Activities in State waters include dredging, pipelay, sand backfill and pipeline installation operations. The State waters activities are assessed and approved under

the *Western Australian Environmental Protection Act 1986* (EP Act) and the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

A proposal for activities in State waters was referred to the Western Australian Environmental Protection Authority (WA EPA) and the Commonwealth Department of Agriculture, Water and Energy (DAWE). The DAWE referral decision of 'Not a controlled action' was released on 12 August 2019. The EPA published its report and recommendations on the referral on 6 January 2020.

<sup>1</sup> Developments and targets are subject to finalisation of required joint venture approvals, regulatory approvals and commercial arrangements.

Activities in Commonwealth waters include drilling of the gas wells, installation of the FPU and installation of the pipeline section and related activities.

A proposal for Scarborough activities in Commonwealth waters was submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) in February 2019 as an Offshore Project Proposal (OPP). The OPP was released for an eight-week public comment period during July and August 2019 and following stakeholder feedback and consultation, the OPP was accepted by NOPSEMA in April 2020.

The disposal of dredged material will be managed under a Sea Dumping Permit (granted 3 December 2019) and Dredging and Spoil Disposal Management Plan, which provides details on the environmental management procedures to limit impact.

### Onshore environmental approvals

Existing Commonwealth and State primary environmental approvals for Pluto LNG allow for two LNG trains and supporting infrastructure.

An area for a second train was pre-prepared during the foundation project in 2007-2008.

Associated management plans will be evaluated under these approvals and updated as required.

Woodside is seeking the necessary approvals and licensing to support Pluto Train 2.

### Greenhouse gas (GHG) emissions

The Scarborough OPP provides an assessment of potential environmental risks and impacts for the activities in Commonwealth waters, including the management of GHG emissions across the life of the project. In developing projects like Scarborough, Woodside is committed to playing a significant role in the world's energy transformation, through limiting our own emissions and reducing global emissions by supplying cleaner energy to a world that needs it.

Woodside will reduce Scarborough's direct GHG emissions to as low as reasonably practicable by incorporating energy efficiency measures in design and operations. Further information on how this is being achieved is included in the Scarborough OPP, sections 4.5.4.1 and 7.1.3.

To view the Scarborough OPP GHG fact sheet, visit [woodside.com.au/our-business/burrup-hub](http://woodside.com.au/our-business/burrup-hub)

### Future benefits

The development of Scarborough and Pluto Train 2 are expected to deliver significant long-term benefits<sup>2</sup> over the life of the projects including:

- + A peak construction workforce of almost 3,200 jobs.
- + Capital expenditure of A\$15.8 billion in WA to 2051.
- + Boosting Australia's Gross Domestic Product by A\$125 billion to 2063.

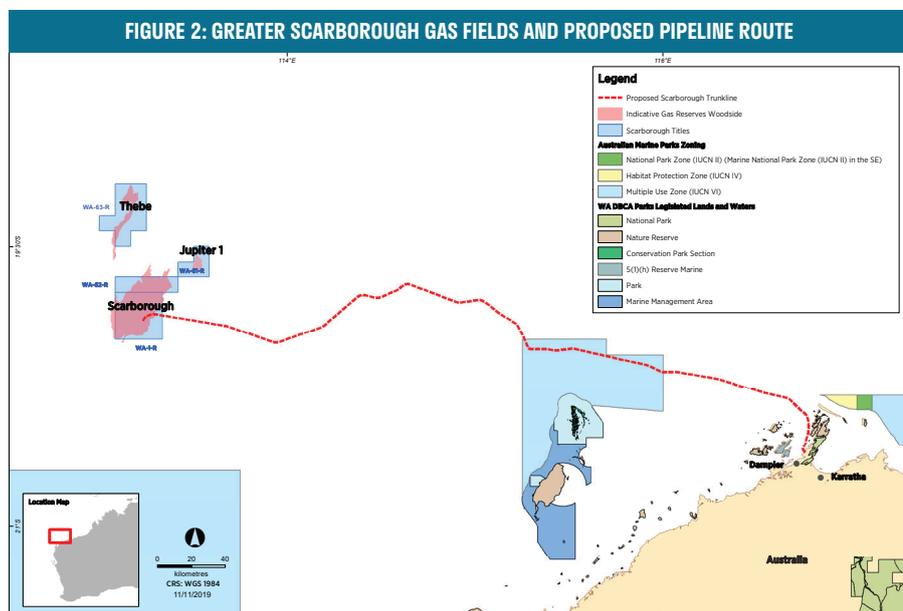
These developments will support local operations and WA communities for decades, including long-term investment in education, training and jobs.

Scarborough and Pluto Train 2 will extend the life of the existing Woodside-operated facilities and provide long-term cleaner reliable energy to both domestic and global markets.

### Opportunities to comment

Woodside invites participation in public comment periods associated with regulatory approvals. Further information on Woodside's environmental approvals and management plans can be found on the following relevant government websites:

[epa.wa.gov.au](http://epa.wa.gov.au)  
[nopsema.gov.au](http://nopsema.gov.au)



Gas Fields	Woodside Interest	BHP Interest
Scarborough (WA-1-R)	73.5%	26.5%
North Scarborough (WA-62-R)	73.5%	26.5%
Thebe (WA-63-R)	50%	50%
Jupiter (WA-61-R)	50%	50%

<sup>2</sup> Source: Proposed Development of Scarborough Economic Impact Assessment (ACIL Allen, June 2019)

### Further information

This Overview, along with other information on Woodside's proposed Burrup Hub developments and operations, is available at [www.woodside.com.au](http://www.woodside.com.au)

Proposed developments are subject to joint venture approvals, regulatory approvals and relevant commercial arrangements, therefore, development concept and timing may be subject to change.

If you require further information or would like to comment, please contact Woodside by email to [feedback@woodside.com.au](mailto:feedback@woodside.com.au) or call toll free 1800 442 977.

All information is current as at August 2020.