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08 March 2021

Steve O'Donoghue
Director, Resource Assessments
Department of Planning, Industry and Environment

Dear Mr O'Donoghue

I refer to condition A23 of the Narrabri Gas Project development consent (SSD-6546) relating to the staging, combining and updating of strategies, plans or programs.

The condition states:

A23. With the approval of the Planning Secretary, the Applicant may:

- a) prepare and submit any strategy, plan or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program);*
- b) combine any strategy, plan or program required by this consent (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined);*
- c) update any strategy, plan or program required by this consent (to ensure the strategies, plans and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development); and*
- d) combine any strategy, plan or program required by this consent with any similar strategy, plan or program required by a consent of any adjoining mine subject to common, shared or related ownership or management.*

Santos seeks the approval of the Planning Secretary to:

- stage specific management plans for Phase 1 activities, as described in Attachment A, under condition A23(a); and
- combine the Managed Release Protocol and Salt Management Plan for Phase 1 activities, with the Produced Water Management Plan, under condition A23(b).

If you have any questions about this matter, please contact me on (07) 3838 5822 or by e-mail to cassie.hay@santos.com

Yours sincerely

A handwritten signature in blue ink, appearing to read "C. Hay".

Cassie Hay
Santos Limited

Attachment A – Proposal to stage management plans

1. Introduction

The Independent Planning Commission of NSW approved the Narrabri Gas Project (NGP) on 30 September 2020 under State Significant Development (SSD) consent (SSD-6456). The approved project includes the progressive development of up to 850 new gas wells on up to 425 new well pads and the construction and operation of gas processing and water treatment facilities until 31 December 2045.

The SSD consent requires the project to be carried out in stages. Condition A5 of the consent states:

The Applicant may only undertake the development in the following stages ^[1]:

- a) Phase 1 ^[2], comprising ongoing exploration and appraisal activities;*
- b) Phase 2, comprising construction activities for production wells and related infrastructure;*
- c) Phase 3, comprising gas production operations; and*
- d) Phase 4, comprising gas well and infrastructure decommissioning, rehabilitation and closure.*

The consent was drafted with the intent that management plans would be staged according to the progressive development of the project. The *Narrabri Gas Project Assessment Report* (DPIE June 2020) states that “management plans are likely to be developed in stages as the project is rolled out progressively and would only need to cover specific requirements of the stage rather than the whole project”. Condition A23 of the consent states:

With the approval of the Planning Secretary, the Applicant may:

- a) prepare and submit any strategy, plan or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program);*
- b) combine any strategy, plan or program required by this consent (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined);*
- c) update any strategy, plan or program required by this consent (to ensure the strategies, plans and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development); and*
- d) combine any strategy, plan or program required by this consent with any similar strategy, plan or program required by a consent of any adjoining mine subject to common, shared or related ownership or management.*

¹ Condition A6 of the consent states “Condition A5 does not prevent the Applicant from carrying out the development of phases concurrently, subject to the other conditions of this consent.

² Phase 1 is defined under the consent as “The phase of the development comprising ongoing exploration and appraisal activities in the project area, including: seismic surveys; core and chip holes; construction and operation of pilot wells (up to 25 wells on up to 25 well pads across the project area); and pilot well ancillary infrastructure, including access tracks, gas and water gathering lines, water balance tanks, safety flaring infrastructure, utilities and services, and environmental monitoring equipment including groundwater monitoring bores...”.

Prior to approval of the project, Santos was carrying out exploration and appraisal activities within Petroleum Exploration Licence (PEL) 238 and Petroleum Assessment Lease (PAL) 2. Santos plans to continue exploration and appraisal of the resource in the near term until a Final Investment Decision (FID) can be made. The first stage of new activities to be carried out under the consent (Phase 1 activities) will comprise a minor extension to the existing exploration and appraisal activities only.

This application seeks approval to prepare specific management plans for Phase 1 activities only. The application includes:

- an indicative description of Phase 1 activities that will be included in the first Field Development Plan (Section 2)
- the proposed staging of specific management plans required to be approved prior to Phase 1 commencing (Section 3).

2. Description of Phase 1

This description of Phase 1 works and associated figure is for the purpose of the seeking approval to stage management plans required under the consent and is indicative only. The final Phase 1 scope and footprint will be determined following completion of micro-siting, cultural heritage, and consultation processes required under the consent, and approved as part of the first Field Development Plan.

Continuation of existing exploration and appraisal activities

Current exploration and appraisal activities will continue in PEL 238 and PAL 2. These include:

- Tintsville Pilot
- Bibblewindi East Pilot
- Bibblewindi West Pilot
- Dewhurst North Pilot
- Dewhurst South Pilot
- Dewhurst northern and southern flow lines
- Leewood Water Management Facility including ponds, water treatment plant and irrigation area
- Bibblewindi Facility including gathering system, water balance tank, compressor and flare
- Bibblewindi to Leewood buried gas pipeline.

New exploration and appraisal activities

The Phase 1 scope includes continuation of the above described existing activities as well as construction and operation of the following new proposed infrastructure:

- 4 coreholes
- 6 pilot wells
- 1 deep reservoir monitoring bore (converted corehole)
- shallow water monitoring bores
- associated linear infrastructure
- seismic surveys.

The attached figure shows the general layout of the proposed Phase 1 activities. This layout may change as a result of further micro-siting, cultural heritage and consultation processes still to be carried out. The Field Development Plan will describe the final activities and their locations.

Each corehole and pilot well will be on a single lease pad of up to 1 ha in area. Gas and water gathering infrastructure will tie into existing infrastructure at Bibblewindi.

The pilots will gather appraisal data to inform FID and field development planning for later phases. During this appraisal period, gas recovered will be sent to Wilga Park Power Station for beneficial reuse. Produced water will be sent to the existing Leewood Water Management Facility for treatment by reverse osmosis and beneficial reuse.

The treated water will be beneficially reused in a variety of applications, including for irrigation (either by Santos at the Leewood irrigation area or a third party under an appropriate Resource Recovery Order and Exemption), construction, drilling and dust suppression.

Exclusions

Phase 1 will not include:

- managed release of treated water to Bohena Creek
- salt crystallisation for reuse or disposal
- gas treatment.

Indicative timing of Phase 1 relative to overall project schedule

Operation of existing exploration and appraisal activities is ongoing.

Construction of new Phase 1 infrastructure is planned to commence no earlier than October 2021 and is expected to take approximately 6-8 months.

The new Phase 1 pilots are expected to commence operation in April 2022 and continue operating at least until FID which is expected by mid-2023. The FID outcome will determine whether these pilots are converted to ongoing production wells, or plugged, decommissioned and rehabilitated along with the rest of the field.

Phase 2 of the project, comprising construction for production wells and activities, is expected to commence in mid to late 2023, following FID. These activities will be included in a new Field Development Plan for which Santos will seek approval. At this time, Santos will also need to update any management plans that were specifically prepared for Phase 1 and seek approval of the updated plans. Santos expects to submit the Phase 2 Field Development Plan and updated management plans for approval in early 2023.

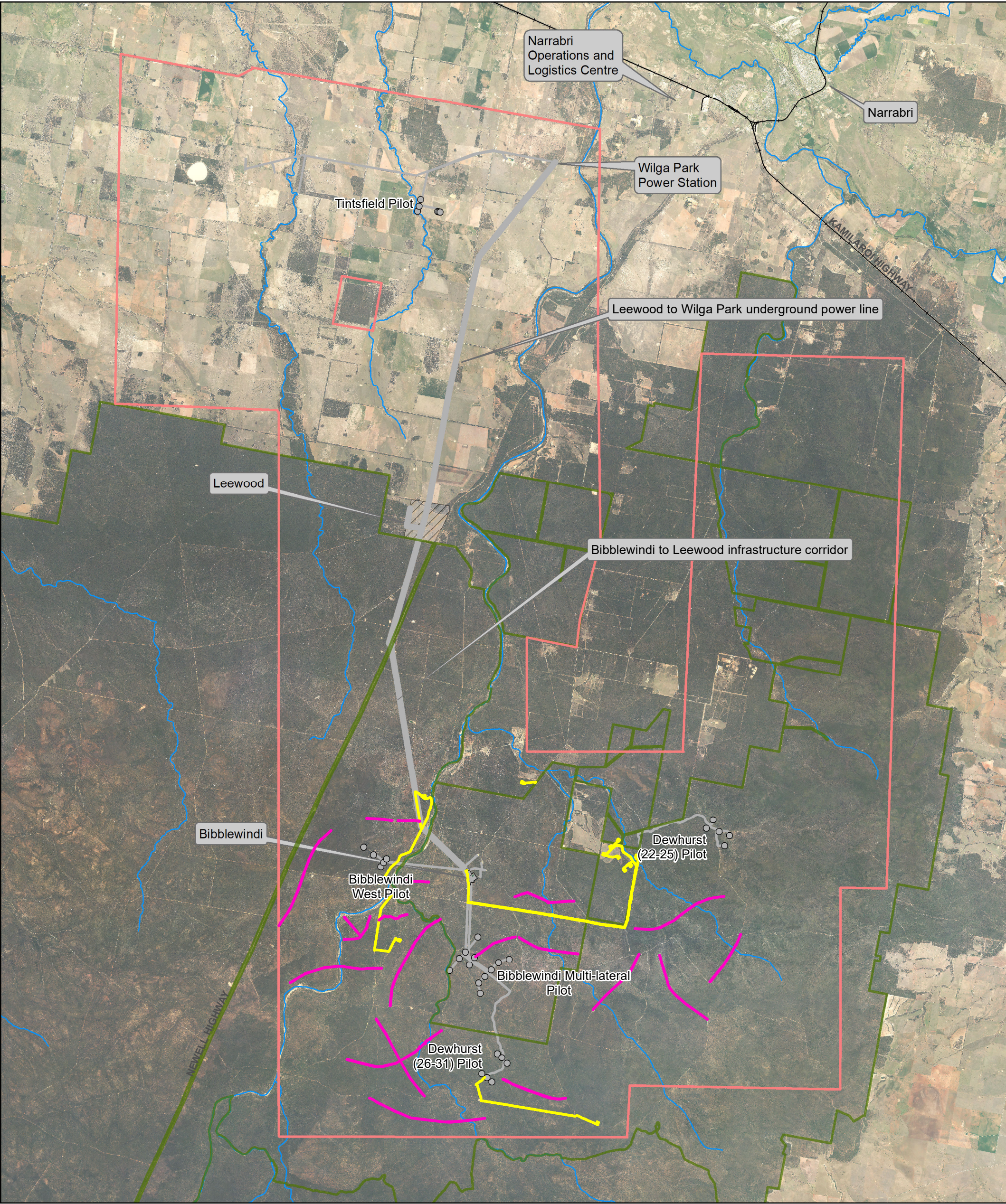
3. Proposed approach to management plans

Table 1 identifies management plans, sub-plans and protocols, required to be developed to the satisfaction of the Planning Secretary (or, in the case of the Rehabilitation Management Plan, the Resources Regulator) prior to Phase 1 and Santos' proposed approach to staging these plans.

Table 1 Proposed approach to staging management plans (including sub-plans and protocols) required to be approved prior to commencement of Phase 1

Cond.	Plan	Proposed approach to staging
B2	Field Development Protocol	NA. The Field Development Protocol will be consistent across the life of the project.
B4	Field Development Plan	The first Field Development Plan will be for Phase 1 activities, including existing and proposed new activities, only. Subsequent Field Development Plans will be prepared for further development under the consent.
B13	Noise Management Plan	The Noise Management Plan will be for Phase 1 activities, including existing and proposed new activities, only. Prior to Phase 2, the Noise Management Plan will be updated to include subsequent phases of development.
B41	Water Management Plan	The Water Management Plan will be for Phase 1 activities, including existing and proposed new activities, only. Prior to Phase 2, the Water Management Plan will be updated to include subsequent phases of development.
B41(i)	- Erosion and Sediment Control Plan	The Erosion and Sediment Control Plan will be for Phase 1 activities, including existing and proposed new activities, only. Prior to Phase 2, the Erosion and Sediment Control Plan will be updated to include subsequent phases of development.
B41(ii)	- Site Water Balance	The Site Water Balance will be for Phase 1 activities, including existing and proposed new activities, only. The Site Water Balance will be updated annually.
B41(iii)	- Surface Water Management Plan	The Surface Water Management Plan will be for Phase 1 activities, including existing and proposed new activities, only. Prior to Phase 2, the Surface Water Management Plan will be updated to include subsequent phases of development.
B41(iv)	- Groundwater Management Plan	The Groundwater Management Plan will be for Phase 1 activities, including existing and proposed new activities, only. Prior to Phase 2, the Groundwater Management Plan will be updated to include subsequent phases of development.
B41(v)	- Produced Water Management Plan	The Produced Water Management Plan (PWMP) will be for Phase 1 activities, including existing and proposed new activities, only. Prior to Phase 2, the Produced Water Management Plan will be updated to include subsequent phases of development.
B41(vi)	- Irrigation Management Plan	The Irrigation Management Plan will be for Phase 1 activities, including existing and proposed new activities, only. Prior to Phase 2, the Irrigation Management Plan will be updated to include subsequent phases of development.
B41(vii)	- Dust Suppression Protocol	The Dust Suppression Protocol will be for Phase 1 activities, including existing and proposed new activities, only. Prior to Phase 2, the Dust Suppression Protocol will be updated to include subsequent phases of development.
B41(viii)	- Managed Release Protocol	There will be no managed release to Bohena Creek during Phase 1. The managed release protocol for Phase 1 will therefore comprise a statement in the Produced Water Management Plan.

Cond.	Plan	Proposed approach to staging
B41(ix)	- Salt Management Plan	There will be no salt production during Phase 1. The Salt Management Plan for Phase 1 will therefore comprise a statement in the Produced Water Management Plan.
B41(x)	- Pollution Incident Response Management Plan	The Pollution Incident Response Management Plan (PIRMP) will be for Phase 1 activities, including existing and proposed new activities, only. Prior to Phase 2, the PIRMP will be updated to include subsequent phases of development.
B51	Biodiversity Management Plan	The Biodiversity Management Plan will be for Phase 1 activities. Prior to Phase 2, the Biodiversity Management Plan will be updated to include subsequent phases of development.
B51(f)	- Biodiversity Offset Strategy	The Biodiversity Offset Strategy will be for Phase 1 activities. Prior to Phase 2, the Offset Strategy will be updated to include reasonably equivalent Phase 2 credits listed in the Tables 8, 9 and 10 of condition B43 of the consent.
B59	Aboriginal Cultural Heritage Management Plan	NA. The Aboriginal Cultural Heritage Management Plan will be consistent for all Phases of the project.
B61	Historic Heritage Management Plan	NA. The Historic Heritage Management Plan will be consistent for all Phases of the project.
B69	Produced Salt Beneficial Reuse and Disposal Study	NA. The Produced Salt Beneficial Reuse and Disposal Study will be submitted for the approval of the Planning Secretary prior to Phase 1 commencing as required by this condition.
B70	Waste Management Plan	The Waste Management Plan will be for Phase 1 activities, including existing and proposed new activities, only. Prior to Phase 2, the Waste Management Plan will be updated to include subsequent phases of development.
B79	Fire Management Plan	NA. Fire Management Plan will be consistent for all Phases of the project.
B83	Rehabilitation Management Plan	The Rehabilitation Management Plan will be for Phase 1 activities, including existing and proposed new activities, only. Prior to Phase 2, the Rehabilitation Management Plan will be updated to include subsequent phases of development.
D1	Environmental Management Strategy	NA. The Environmental Management Strategy (EMS) will be consistent for all Phases of the project.



LEGEND

Project area	Watercourses	Existing wells
Leewood	Train line	Phase 1 Development (Indicative Footprint)
Bibblewindi	Existing flowlines	Indicative Seismic Lines
State forest	Infrastructure Corridor	