Queensland Government
Department of State Development, Infrastructure and Planning

Our ref: RPI24/007

16 December 2024

Ky-Ann Worthington-Sheppard
Environmental Advisor
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Dear Ms Worthington-Sheppard

REQUIREMENT NOTICE

RPI24/007: Santos – Leghorn Dev C Project

(given under section 44 of the *Regional Planning Interests Act 2014*)

I refer to the assessment application which was properly made on 2 December 2024 under section 29 of the *Regional Planning Interests Act 2014* (RPI Act). The application is seeking a regional interests development approval (RIDA) for resource activity: petroleum and gas for the Leghorn Dev C Project in the Channel Country Strategic Environmental Area (SEA) (Designated Precinct).

Application details

Applicant	Santos Limited ABN 80 007 550 92
Project	Leghorn Dev C Project
Description	One conventional gas well and supporting infrastructure
Area of regional interest	Channel Country SEA (Designated Precinct)
Proposed disturbance area	22.8 ha

1 William Street
Brisbane Queensland 4000
PO Box 15009
City East Queensland 4002
Telephone 13 QGOV(13 74 68)
Website www.statedevelopment.qld.gov.au
ABN 29 230 178 530

Site details

Real property description	Lot 1 SP133822
Local government area	Bulloo Shire

Information Requirement

Pursuant to section 44 of the RPI Act, you are advised that further information is required to assist in the assessment of the application against the assessment criteria contained in the RPI Act and the Regional Planning Interests Regulation 2014 (RPI Regulation).

The further information required in detailed in **Attachment A**.

The period in which the information must be provided is a maximum of three months from the date of this notice.

An extension to this period may be requested by the applicant if necessary.

It is noted that in responding to the items raised, it may be necessary to amend or even withdraw the application. The Department is available to meet to discuss the avenues available in this regard.

Another requirement notice may be given if, for example, the response to this requirement notice does not provide sufficient information to assess and decide the application or in response to matters raised in a submission.

Public notification requirement

Pursuant to section 34(4) of the RPI Act, it has been determined that the application requires notification. The reason for the decision is that the delegate for the chief executive has determined that it is in the public interest for the application to be publicly notified**.**

In accordance with section 35 of the RPI Act, you are required to:

- publish a notice about the application '*at least once in a newspaper circulating generally in the area of the land'* as prescribed in section 13 of the RPI Regulation
- where not the owner of the land, give the owners of the land notice about the application.

Please provide proof of delivery of notice about the application to landowners to RPIAct@dsdilgp.qld.gov.au

Public notification must be undertaken within 10 business days of providing the response to the requirement notice to the Department of State Development, Infrastructure, Local Government and Planning (DSDIP).

The notification period is 15 business days after the notice about the application is first published, with the closing date being a day that is after the end of the notification period.

The approved form for public notification is available on DSDIP's website at rpi-regional-interests-dev-approval-template.doc (live.com)

Please provide a copy of the notice as it appears in the newspaper circulating generally in the area to RPIAct@dsdilgp.qld.gov.au

You are also referred to the RPI Act Statutory Guideline 06/14 Public notification of assessment applications at RPI Act - Statutory Guideline 06/14 (windows.net) for further information.

If you require any further information, or have any queries, please contact Darren Brewer, Manager, Appeals and Regional Interests Improvement and Assessment, Planning Group, DSDIP on 3452 7472 or by email at RPIAct@dsdilgp.qld.gov.au who will be pleased to assist.

Yours sincerely

Phil Joyce
A/Executive Director
Improvement and Assessment Division
Planning Group

Encl. Attachment A

ATTACHMENT A

Information required for assessment against SEA criteria – Schedule 2, Part 5 of the Regional Planning Interests Regulation 2014

1.	**Issue:** The application states that the Leghorn Dev C development includes one conventional gas well and a total maximum disturbance area of 22.8 hectares. As part of the development, a new borrow pit (measuring 0.8 hectares and excavated to a maximum depth of 3 metres) will be established to supply material for infrastructure construction and access track maintenance. Schedule 2, Part 5, Item 3 of the RPI Regulation provides a definition of 'conventional gas or oil' and a definition for 'unconventional gas or oil'. Under part (b) of the latter, the definition makes reference to gas or oil extraction methodologies – including '(iii) infrastructure which has a high or widespread impact on the environment.' The note immediately following that reference states: *Examples of infrastructure that may have a high or widespread impact on the environment-* • *single well sites that disturb an area greater than 1ha or multiple well sites that disturb an area greater than 1.5ha* • *extensive borrow pits greater than 0.2ha and deeper than 2m* • *a petroleum facility* Given that both the well site disturbance area and the borrow pit exceed these thresholds, there are concerns regarding the environmental impact and that the proposal does not meet the 'conventional gas or oil' definition. **Action:** Please provide a detailed justification explaining why the proposed single well site disturbance area and borrow pit (given the size and depth) do not fall under the category of 'unconventional gas or oil' development, as defined in Schedule 2, Part 5, Item 3 of the RPI Regulation.

2.	**Issue** Further to Issue 1 above, the application states, ‘As described in Table 1 and illustrated in Figure 1, the proposed Leghorn Dev C development is comprised of one new conventional gas well and associated infrastructure.’ However, the application does not provide sufficient information to demonstrate how the proposed development meets the definition of "conventional gas", as provided in Schedule 2, Part 5, Item 3 of the RPI Regulation. Specifically, the definition requires that the gas be contained in, or extracted from, specific types of natural underground reservoirs with distinct characteristics. On the information provided, it is unclear if the proposed development aligns with these criteria. **Action** Provide a detailed explanation of how the proposed gas well meets the definition of conventional gas or oil (as outlined in Schedule 2, Part 5, Item 3 the of the RPI Regulation) by providing information about the type of underground reservoir, its characteristics (e.g., porosity, permeability, and geological structure), and confirmation of the extraction method (i.e., no fracking will be required). Additionally, include any relevant geological data or studies that support the classification of the well as conventional.
3.	**Issue:** The application states, ‘The proposed Leghorn Dev C development does not include any of the unacceptable uses prescribed by Schedule 2, Part 5, Item 15(2) of the RPI Reg.’ However, the supporting information does not provide an explanation (or evidence) as to how the conclusion has been reached. Notably, the Channel Country Strategic Environmental Area is fully overlaid by areas with Designated Precinct status. The prescribed solutions in the RPI Regulation identify certain activities as ‘unacceptable uses’ which are not permitted in the Designated Precinct. A ‘Water storage (dam)’ is listed as an unacceptable use - and is also a ‘regulated activity,’ as defined in Part 4, s11(3) of the RPI Regulation. A water storage (dam) is prohibited unless the water is used solely for specific purposes, such as meeting domestic water needs or watering livestock. Further to the above, the application states the proposed borrow pit will cover a total area of 0.8 hectares, with a quarried pit of 6000 square metres (m^2) and a maximum depth of 3 metres. The application material maintains the disturbance area is necessary for project facilitation, including the work area, seedstock pile, excavation machinery turning points, and the pit itself. However, the justification for such a large borrow pit is unclear. Moreover, there is concern the borrow pit could be used for water storage.

	Action: a) Please provide a clear and detailed justification for the size of the proposed borrow pit and why such a large area is necessary for the development. Also clarify whether the borrow pit could be used for water storage. If the borrow pit will not be used for water storage, please confirm this in your response. b) Provide a detailed explanation of how the proposed development complies with the requirements of Schedule 2, Part 5, Item 15(2) of the RPI Regulation. This should include an assessment of the proposed uses in relation to the prescribed unacceptable uses and any relevant supporting documentation.
4.	**Issue:** Figure 3 within the assessment report acknowledges "marsh/wetland – production" as a predominant land use within PL 1055. However, the text of the assessment report does not mention this marsh/wetland area. The report states: *The proposed Leghorn Dev C development is located on Durham Downs (1SP133822). Durham Downs is an 8,910 square kilometre (km²) cattle station with a carrying capacity of 21,000 cattle (S. Kidman, 2024). The primary land uses within and surrounding the proposed Leghorn Dev C development on Durham Downs are cattle grazing and petroleum activities (refer to Figure 3) (ABARES, 2016)*. The marsh/wetland area is not acknowledged in this description. **Action:** Please revise the assessment report to include a clear acknowledgment of the "marsh/wetland – production" land use, as shown in Figure 3. The report should accurately reflect all predominant land uses within and surrounding the proposed development area, including the marsh/wetland areas, and explain how these land uses may interact with the proposed development.
5.	**Issue:** The assessment report states that following the drilling of the well is expected to take up to 11 days, during which time the drilling fluids removed from the bore will be stored within an adjacent drilling sump. Following completion of these works, the backfilling of the sump is expected to be completed up to 6 months later. There is concern that during this time, this may result in stormwater, either directly falling into the sump or via surface flows of water coming into contact with the drilling fluids and becoming contaminated. Given the sensitive nature of the

surrounding environment, this contaminated water may not be suitable for release and may require treatment or collection and disposal to an appropriate facility. Given the remote nature of the location there is concern about how this will be monitored and managed.

The assessment report states:

Well stimulation techniques including hydraulic fracturing may be used to increase the recovery of resources (in this case, gas) by increasing the permeability of the reservoir. Hydraulic fracturing involves pumping a fluid under pressure into the reservoir to open and connect fractures within the reservoir rock, thereby increasing the opportunity for the resource to move within the reservoir rock and flow toward the well. After the fracture process is completed, fluids that return to surface when the pressure is released are captured for reuse, recycling or transported to a licenced water management facility.

There is concern that the returned material may include additional contaminants obtained through the stimulation process (i.e. dissolved salts and minerals) that may pose a risk to the water quality of any receiving waters.

Action:

- Provide further information on the decision criteria for the external removal or in-situ disposal of waste drill fluids via the mix-bury-cover method. This must include any certification obtained by a suitably qualified third party of the material being of acceptable quality for disposal to land and that the proposed method will not result in environmental harm environmental harm;
- Provide further information as to why backfilling of the drilling sump is expected to take up to 6 months;
- Provide further information as to how stormwater will be managed to prevent contact with the drill material and the release of any contaminated waters, this includes contaminated stormwaters captured in the drilling sump seeping into the underlying soil and groundwaters;
- Given the remote nature of the sites, provide further information as to how the sites will be managed and monitored during the period of time, prior to works being completed to backfill the sumps to ensure no release of contaminated materials occur;
- Provide further information as to how the fluids used during stimulation will be managed. This includes how returned

	stimulation fluids returned to the surface are stored prior to collection and removal from the site.
6.	**Issue:** The assessment report states that, 'A Right-of-Way (RoW) width of approximately 15 m is required for installation of the proposed buried gas flowline'. It is noted that the soil types in this area are extremely prone to erosion. There is concern that the construction of this ROW will provide a preferential pathway for the surface flows of water as they offer a flow path of less resistance. Additionally, given the relatively low rate of rainfall in these areas, any disturbance will likely require significantly longer periods for revegetation to become established and required more direct intervention by the applicant (i.e., to ensure that areas will be likely to survive long enough to allow the department to consider that sufficient rehabilitation has occurred to allow the environmental authority to be surrendered). There are concerns regarding the potential impact of these activities as they relate to: • potential for erosion; • deposition of sediment; • subsequent impacts on the hydrological characteristics of the area; and • impacts on the function of riparian processes associated with the adjacent watercourses, lakes, floodplains and wetlands present in the area. The department disagrees with the applicant's proposition that the impact is likely to be minimal due to the size of the proposed development with the overall footprint of the SEA. The supplied supporting information does not appear to consider localised impacts. **Action:** • Confirm the total length of the proposed pipeline; • Provide further information regarding how erosion and sediment will be managed within these areas during construction as well as during the life of the project; • Provide further information on the installation of the flow lines. Further information should address the construction methods

	employed to prevent significant disturbance to the soil profile and soil structures; • Provide further information on the rehabilitation of the proposed flow lines and right of ways. Further information should address how the original topography is re-established and maintenance of the 15m wide right of way; • Provide the proposed timeframe for rehabilitation to be completed following the installation of the flow lines; • Provide further information as to how revegetation of these areas will be undertaken to ensure a successful and timely rehabilitation outcome.
7.	**Issue:** The assessment report states: *Approximately 945 metres (m) of new access track would be constructed to provide access to the wells lease and borrow pit.* *The proposed access track will be up to 13 m in width to accommodate a trafficable roadway and table drains either side of the roadway, spaced out as per Santos Class D Road classification spacing recommendations* *Access track width may increase above 8 m when cutting into areas of elevated topography* *The proposed access track will be designed to convey natural surface water flows consistent with the existing hydrology and will not be accessed during prolonged wet weather.* It is unclear how the proposed access track will be designed to convey natural surface water flows consistent with the existing hydrology. The construction of access tracks has the potential to directly and indirectly affect the function of wildlife corridors of the area by causing changes that will impact the natural habitat present in the watercourse. It is unclear at this time if there are also springs present in the area; however, given that the area is mapped as including potential groundwater dependant ecosystems, it is a possibility. Finally, the activity has the potential to impact the natural water quality of the watercourse channels and aquifers and on flood plains in the area. The risk of intensifying the erosion rate and sediment deposition is further exacerbated by the extremely fragile and sensitive nature of the area.

	Action: • Provide spatial data provided also includes the proposed additional 945m of tracks; • Provide further information as to why it is necessary to construct these tracks 13m wide (or wider); • Provide further information regarding how erosion and sediment control will be managed within these areas during construction as well as during the life of the project; • Provide further information as to how the construction of these tracks will be undertaken in such a way as to prevent significant disturbance to the current soil profile and soil structures and general topography of the site; • Provide information as to how the topography will be re-established following the installation of the access tracks; Provide further information as to how revegetation of these areas will be undertaken to ensure a successful and timely rehabilitation outcome.
8.	**Issue:** The assessment report states: *The total area of the proposed borrow pit will be 0.8 ha. This disturbance area is required for project facilitation and is inclusive of the work area surrounding the pit, seedstock pile, excavation machinery turning point, and the quarried pit. The proposed quarried pit will be 6000 square metres (m^2) and excavated to a maximum depth of 3 m; the volume of this pit is approximately 12 megalitres (ML).* The activity increases the risk of erosion, potentially affecting hydrological processes both locally and downstream due to sediment deposition. As the borrow pits will be maintained for an ongoing material source, the total disturbance area may increase over the project's lifespan, especially given the erosion-prone soil. While other extraction methods are required to manage 24-hour rainfall events with a 1 in 10-year AEP, the applicant has not clarified how erosion and sediment control will be managed within these areas. **Action:** • Confirm the exact location and extent of the proposed borrow pit, including GPS coordinates (GDA2020 with 6 decimals) for each corner; • Provide details on the pit rehabilitation methodology, including final landform, topsoil application, and re-vegetation plans;

	• Outline erosion and sediment control measures during construction and throughout the project's life; • Specify the AEP event for sediment control measures and provide supporting documentation that demonstrates this.
9.	**Issue:** Figure 2 of the Assessment Report and the provided shapefiles suggest that the north-eastern extent of the proposed development footprint may be near or overlap a potential watercourse or drainage feature, as identified by the Department's watercourse identification mapping. It is unclear from the application whether this feature will be disturbed during the project. **Action:** Please provide additional information and clarification on whether the potential watercourse or drainage feature will be impacted in any way by the proposed development and, if so, detail how such impacts will be managed.
10.	**Issue:** Potential Groundwater Dependent Ecosystems (GDEs) have been identified in the area. **Action:** Please provide detailed information on how impacts to Derived Terrestrial GDEs and Potential GDE aquifers will be managed throughout the project.