Narrabri Gas Project Community Consultative Committee Meeting 37 – February 2019

Action Item 37.2a_Questions from PFTP to Santos arising from November CCC tabled at February CCC meeting.

Question 1 - How often does Santos take water samples for analysis from the well heads of the gas wells located in PEL238 and where can the analytic information on these water samples be found and accessed by the public?

RESPONSE:

Sampling is carried out in accordance with the requirements of the Environment Protection Licence (EPL) 20350. The EPL doesn't require sampling of produced water at wellheads.

A copy of EPL 20350 is available from the EPA website at:

https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=20350&id=20350&option=licence&searchrange=licence&range=POEO%20licence&prp=no&status=Issued

Santos has carried out sampling of the produced water from its operations and this is provided in the Water Baseline Report of the Narrabri Gas Project Environmental Impact Statement.

A copy of the Water Baseline Report is available from the Major Projects site for the Narrabri Gas Project EIS at the Department of Planning and Environment website at Appendix G4 – Water baseline report: https://majorprojects.accelo.com/public/54242a1a2dbaf501d7e951d31e5f866a/Appendix%20G4%20Water%20baseline%20report.pdf

Question 2 -

In response to a statement in general conversation on the soil preparation and analysis from another CCC member "Santos had spent a lot of money preparing the soil condition at the Irrigation area at Leewood". The People for the Plains Delegate asked the following question of Mr Neale House. "What was done to Leewood irrigation area so that Santos could grow Lucerne?" Because Santos would not qualify to answer the simple question at the time and decided instead to ask for it in writing, an obvious conversation stifling tactic, that question has now been expanded as seen below. As Santos presented a business case in the REF in support of the Irrigation areas potential the question has now been directed that way.

Given that the irrigation area was reduced from the original sizes as seen in the REF and associated attachments as well as from general observations, will Santos give this CCC a full explanation as to exactly what was done to prepare the soil area to take the Lucerne crop? I would like the explanation to include the quantities of chemicals/fertiliser applied to the soil and the method that was used to "rip" the area so as to open the hard-packed ground to receive these chemicals and fertilisers?

The information request also includes the following;

- a. The machinery hours and type of machinery used.
- b. The approval application with the approval notice for the reduced irrigation area made and given by relevant Department. The question does not include the irrigator or associated pipework, nor the paddock boundary fence as neither of which are mentioned in the REF.

RESPONSE:

Table 1 provides information in relation to chemicals/fertiliser applied to the soil.

Table 1

Farm Activity	Date	Description of activity	Commitment for approval/plan
Gypsum	Jan-17	Apply 20T/Ha Gypsum from Bourke quarry	Review of Environmental Factors
Lime	Jan-17	Apply 8T/Ha Lime	Review of Environmental Factors
Deep Rip	Jan-17	Deep rip with bulldozer to 600mm	Review of Environmental Factors
Cultivate	Jan-17	Cultivate to create even seed bed before sowing	Agronomic advice
Soil Moisture Probes	Feb-17	Install Moisture probes LWDSMP1,2,3,4 with continuous monitoring	Irrigation Management Plan
Monitoring Wells	Mar-17	Install LWDMW4,5 and 6 within shallow aquifer with quarterly monitoring	Review of Environmental Factors
Spray	Jun-17	Knockdown herbicide with Glyphosate/Lontrel	Agronomic advice
Fertilise	Jul-17	Fertilise with 200Kg/Ha of Urea	Agronomic advice
Fertilise	Jul-17	Fertilise Mono Ammonium Phosphate (MAP) plus zinc 1% at 80kg/Ha	Agronomic advice
Sow	Jul-17	Sow Barley crop at 80kg/Ha	Agronomic advice
Native vegetation monitoring	Jul-17	To establish baseline vegetation, undertaken quarterly thereafter	Irrigation Management Plan
Soil sample	Jul-17	Soil sample at 4 locations to establish baseline soil data prior to irrigation commencing. Complete annually thereafter	Irrigation Management Plan
Commencement of Irrigation	Aug-17	Commence Irrigation at Leewood	
Spray	Sep-17	Spray with Glyphosate to knockdown Barley crop for green manure	Agronomic advice
Fertilise	Sep-17	Fertilise with MAP at 200kg/Ha	Agronomic advice
Fertilise	Sep-17	Fertilise with Urea at 50kg/Ha	Agronomic advice
Cultivate	Sep-17	Cultivate to break down barley and incorporate fertiliser - Green manure barley	Agronomic advice
Cultivate	Sep-17	Cultivate using kelly-chain discs to prepare and even seed bed for Lucerne	Agronomic advice

Response: a. The machinery hours and type of machinery used.

A bulldozer was used to prepare the soil and the hours were as necessary to complete the tasks in accordance with the work program.

Response: b. The approval application with the approval notice for the reduced irrigation area made and given by relevant Department.

The approved Irrigation Management Plan.

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**ENDS**