

JULY 2017

The following is a monthly update for the Narrabri Community Consultative Committee (CCC) regarding activities undertaken by the NSW Environment Protection Authority (EPA) relating to PEL 238, PAL 2 and PPL 3 (Narrabri Gas Project).

It includes activities relating to the regulation of Environment Protection Licence (EPL) 20350 and the EPA's functions conducted under the NSW Gas Plan.

Attachments to this month's update:

- Running Log – Old Investigations of PEL 238 Outcomes
- Inspections undertaken by EPA – July 2017
- EPA Site Inspection Map – July 2017
- Feature Article – A year in review, the NSW EPA's work in the Narrabri area

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EPA ACTION ITEMS SINCE LAST NCCC

Nil.

INVESTIGATIONS

Background

On 19 February 2013 the EPA became responsible for investigating environmental incidents that occur during coal seam gas activities under the provisions of the *Protection of the Environment Operations Act 1997* (POEO) and issuing Environment Protection Licences (EPL) for coal seam gas activities.

On 1 July 2015 the EPA commenced a new role as the lead regulator for compliance with, and enforcement of, conditions of approval for gas activities in NSW. This includes regulating consent conditions and activity approvals issued by other agencies (excluding work health and safety). In carrying out this role the EPA works with the relevant experts and NSW Government agencies.

Gas activities must comply with a broad range of regulatory controls, including Acts, regulations, codes of practice, titles, approvals and other controls.

The prioritisation of investigations is determined using a risk assessment for investigations that considers the level of environmental impact and the likelihood of environmental harm occurring.

Current Investigations

Nil.

Running Log – Old Investigations PEL 238 and PAL 2 Outcomes

Incident	Outcome
<p>June 2017 <u>Bohena 13C and Bohena South 2C (PAL 2)</u> The EPA undertook a review of Bohena 13C and Bohena South 2C following the submission of ESF2 rehabilitation relinquishment documents from Santos. The EPA undertook unaccompanied inspections of the sites, and followed up on some matters with Santos regarding the rehabilitation status of the sites. A community call to the EPA Environment Line was also lodged with regards to Bohena 13C.</p>	<p>EPA officers re-inspected both sites. No environmental harm was identified from the inspections, with the matters finalised and no further action considered necessary. The EPA also sent a response letter to the complainant advising the outcome and finalisation of the matter at Bohena 13C.</p>
<p>February 2017 <u>Groundwater pH levels at Dewhurst 14C (EPL 20350)</u> The EPA investigated data from groundwater monitoring bore, Dewhurst 14C, following an Environment Line call on 17 February 2017 that raised concern about data published on the Santos Water Portal, showing alkaline results (pH>9.5) for water samples collected from monitoring well Dewhurst 14C.</p>	<p>An EPA investigation showed the findings indicated the alkaline pH reported for Dewhurst 14C was the result of local geological and groundwater conditions, and that there was no evidence that the groundwater chemistry in Dewhurst 14C had been modified because of water pollution. The investigation has been finalised, with no issues identified.</p>
<p>February 2017 <u>Tintsville Flare Incident (PEL 238)</u> On 24 February 2017, the EPA were notified by Santos of an incident relating to unauthorised access to Wilga Park, resulting in damage to the Tintsville Flare.</p>	<p>Investigation confirmed that the gas pipe had not been ruptured and there was no environmental harm. The EPA has concluded its investigation.</p>
<p>December 2016 <u>Leewood Northern Sediment Dam</u> EPA Officers Investigated Leewood Northern Sediment Dam following an Environment Line call alleging an overflow incident from Leewood Ponds Water Treatment Facility.</p>	<p>Incident was investigated and samples taken, with lab results confirming no BTEX present and the materials classed as organic; dried sun bleached algae; and a naturally occurring protozoa. Investigation finalised, with no issues identified.</p>
<p>November 2016 <u>Bohena Creek</u> Report alleging that Bohena Creek was impacted by the Bibblewindi Water Treatment Plant and gas wells.</p>	<p>EPA officers visited the area of Bohena Creek that the reporter referenced. There was no evidence that environmental harm has occurred.</p>
<p>September 2016 <u>Leewood (PAL002)</u> Report alleging Leewood produced water dams were overflowing.</p>	<p>The EPA officers visited the site and all ponds were observed to be operating with adequate freeboard. There was no evidence of any overflow or spill from the ponds.</p>
<p>September 2016 <u>Bohena 2</u> Report alleging Santos were using produced water from Leewood for watering program at Bohena 2 salinity site.</p>	<p>Environment Line complaint alleging Santos were using produced water from Leewood for the watering program at Bohena 2 salinity site following a Namoi Waste truck seen leaving Leewood and heading to Bohena 2 salinity site. EPA Officers attended the site, investigated and took water samples. Lab results indicate that the source of water is not consistent with produced water. The EPA sent a response letter to complainant advising this.</p>

<p>April 2016 <u>Bohena Creek Road</u> Methanol Drum on road.</p>	<p>Santos staff located a 44 gallon drum labelled 'Methanol' dumped on Bohena Creek Road near the Leewood Water Treatment Facility. Police and HAZMAT attended and secured the item. The drum was not on the Santos site, nor related to its activities as per media Tweet by the EPA.</p>
<p>March 2016 <u>Leewood Pond</u> Alleged leaking.</p>	<p>EPA officer inspected storage ponds and met with Santos staff. No evidence that produced water was leaking. No further action was required.</p>
<p>March 2016 <u>Bohena Creek Road</u> Report that a vent had been left open, unattended and emitting methane gas.</p>	<p>Santos has approval to vent gas from high and low point vents along the water gathering lines for safety and operational purposes – this is performed manually by a field operator. Santos has amended the manual venting operating procedure. The procedure clearly notes that a high point vent is not operated without an operator present.</p>
<p>March 2016 <u>Santos Pilliga</u> Report received that there was a 'foamy residue' left along Beehive Road. The complainant returned to the site some days later with a Geiger counter and recorded a reading allegedly linked to the high and low point vents.</p>	<p>An EPA Officer spoke to the complainant who advised that the location they took the Geiger counter reading was a few kilometres away from the area of concern and there was no evidence to support the initial claim. No further action required.</p>
<p>March 2016 <u>Leewood Water Treatment Facility</u> Report alleging a truck was spraying produced water between the internal fence and the property boundary fence for dust mitigation.</p>	<p>An EPA Officer viewed available data confirming raw water from an on-site bore was used for dust suppression at the time of the allegation. The EPA supports dust suppression which is a requirement of the Santos EPL. No further action required as at 15 March 2016.</p>
<p>February 2016 <u>Santos Pilliga</u> Report of 35,000 litre spill at unmanned Santos facility.</p>	<p>Investigations proved minor water run off with no environmental or health risks. Media release: Water Run-off From Leewood Water Treatment Facility in Narrabri Cleaned Up</p>
<p>January 2016 <u>Leewood Water Treatment Facility</u> Alleged discharge of sediment laden water.</p>	<p>The rainwater discharge followed heavy rain. Santos undertook immediate works to prevent further discharge from the site installing coir mats and construction of bunding. The EPA inspected site and determined no environmental harm had occurred and that no regulatory action was required.</p>
<p>January 2016 <u>Santos Pilliga</u> Report a 'foamy caramel coloured' material on the roadside near operation site.</p>	<p>The EPA inspected the site and collected samples. Analysis determined it was a natural event, likely due to the decomposition of organic material. No further action was required.</p>
<p>September 2015 <u>Bohena Creek</u> Piezometer located in creek.</p>	<p>No regulatory action required.</p>
<p>January 2015 <u>Santos Dewhurst Southern</u> Water flow line.</p>	<p>No breach of EPL 20350 identified. Santos varied operational practices for high point vents following negotiations with the EPA. Media release: No environmental harm but improvements needed</p>

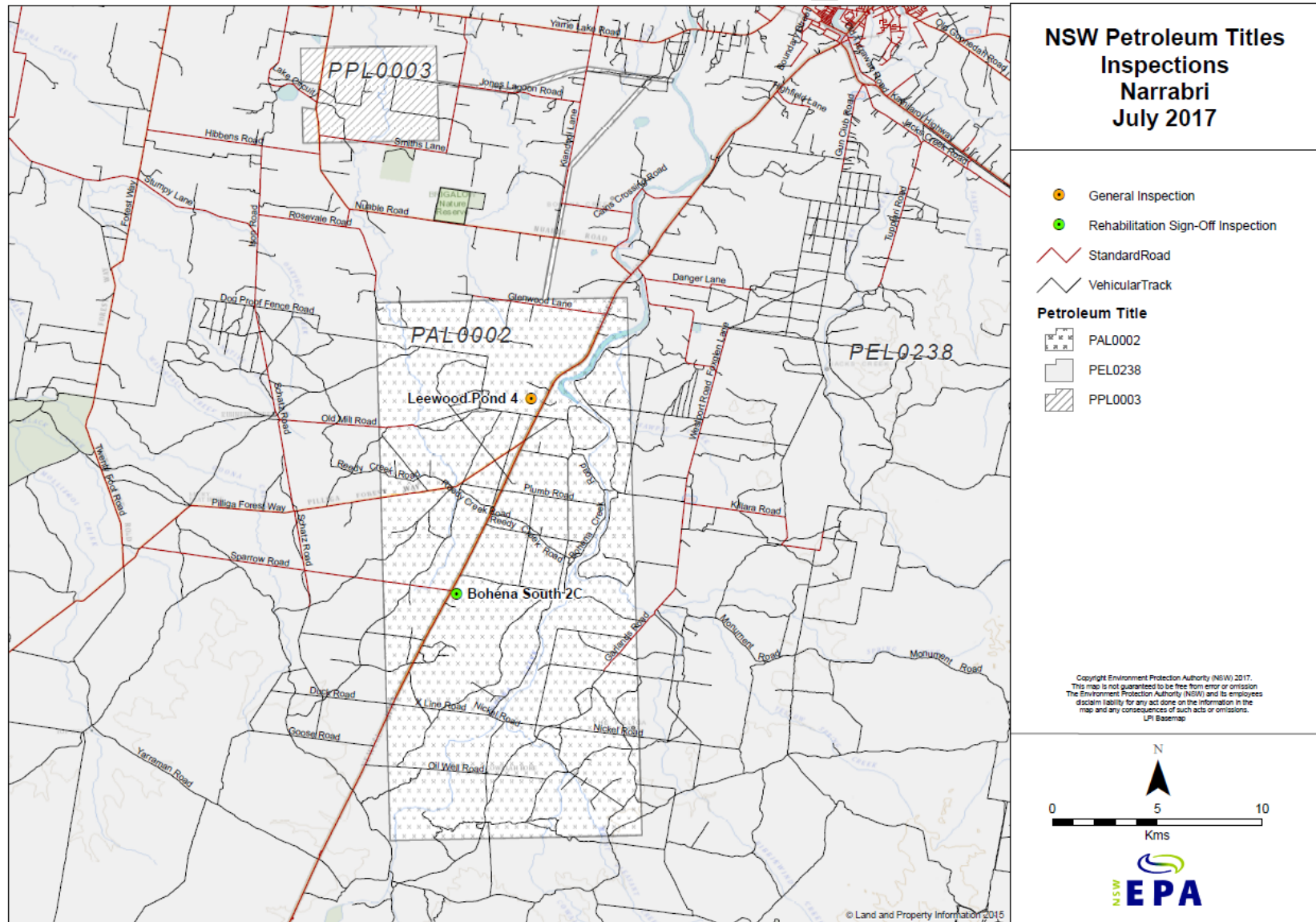
<p>February 2014 <u>Namoi Waste</u> Storage of Santos drilling mud onsite.</p>	<p>6 May 2014 The EPA issued Namoi Waste Corp with a Penalty Notice for breach of s145 of the POEO Act. Note - The Penalty Notice issued was not related to the original complaint regarding waste from coal seam gas, rather other waste material identified during the course of the investigation. Media release: EPA issues Naracor and Namoi Wastecorp with penalty notices for unlawful waste transport and storage</p>
<p>March 2013 <u>Bibbiewindi Water Treatment Facility</u> Pond liner failure.</p>	<p>11 Feb 2014 The EPA issued a Penalty Notice for s120 Pollution of Waters. A Pollution Reduction Program (PRP) was added to EPL 20350 (Environment Protection Licence) requiring the development of a Remediation and Monitoring Plan and the implementation of this plan.</p>
<p>March 2013 <u>Tintfield Ponds</u> Detection of elevated levels salinity and metals.</p>	<p>Insufficient evidence to determine if the changes detected in groundwater were the result of leaks from the Tintfield ponds or were from natural factors. A PRP was added to EPL 20350. Media release: No environmental harm but improvements needed</p>

Inspections undertaken by the EPA – July 2017

Inspections					
Site ID	Date Inspected	Reasons	Action/Outcome	Site Status	Statutory Document
Bohena South 2C	17/07/2017	Rehabilitation Inspection	Compliant	Rehabilitated	PAL 2
Leewood Ponds	20/07/2017	General Inspection	No issues identified	Active	PAL 2

SITE INSPECTION MAP

EPA site inspections undertaken at Narrabri during July 2017



FEATURE ARTICLE

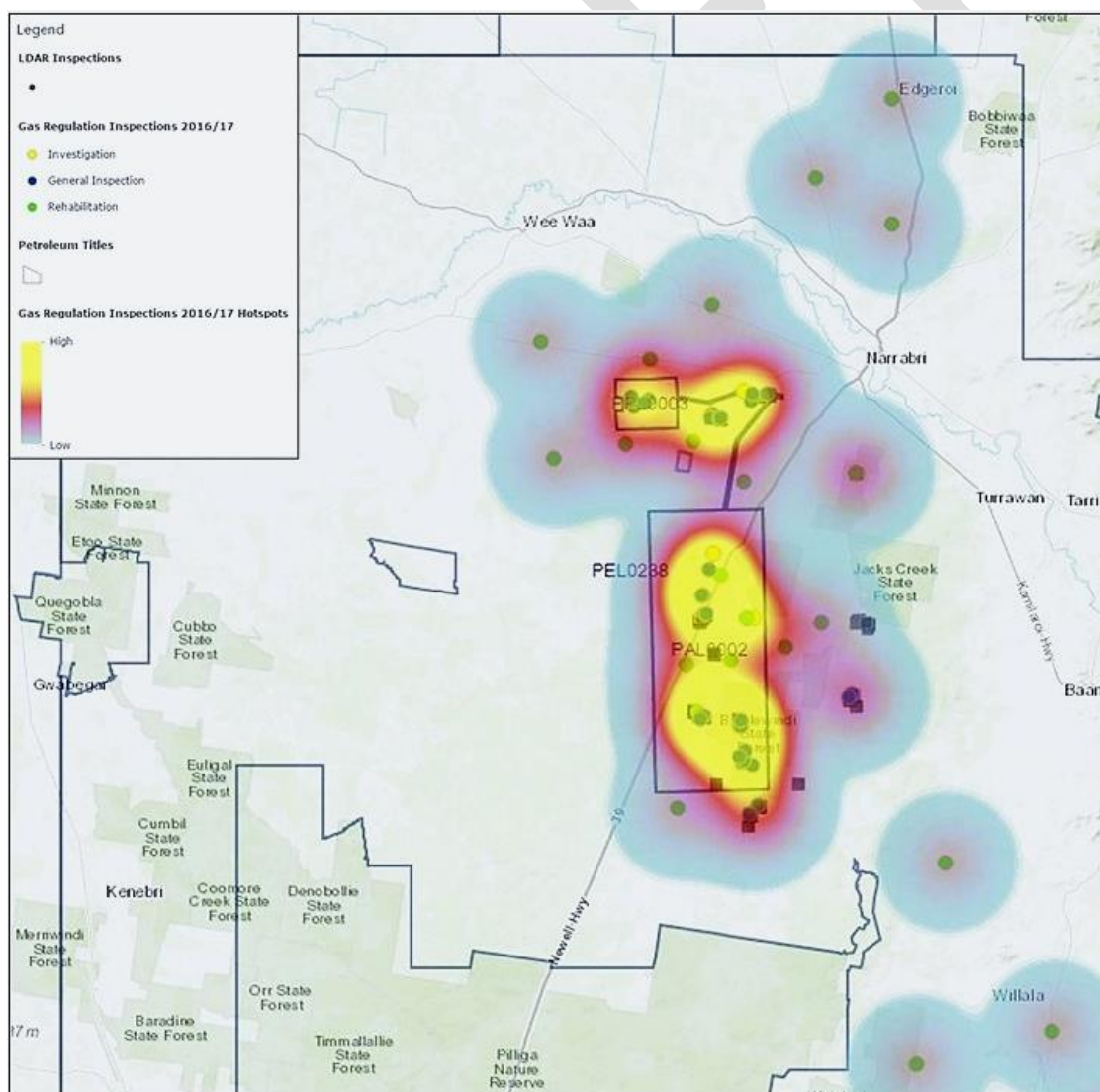
A year in review – The NSW EPA’s work in the Narrabri Area

The EPA recently passed its second year as NSW’s lead gas regulator. Below is an overview of some of the key contributions which the EPA has completed in the Narrabri area in the past year (Financial Year 16/17).

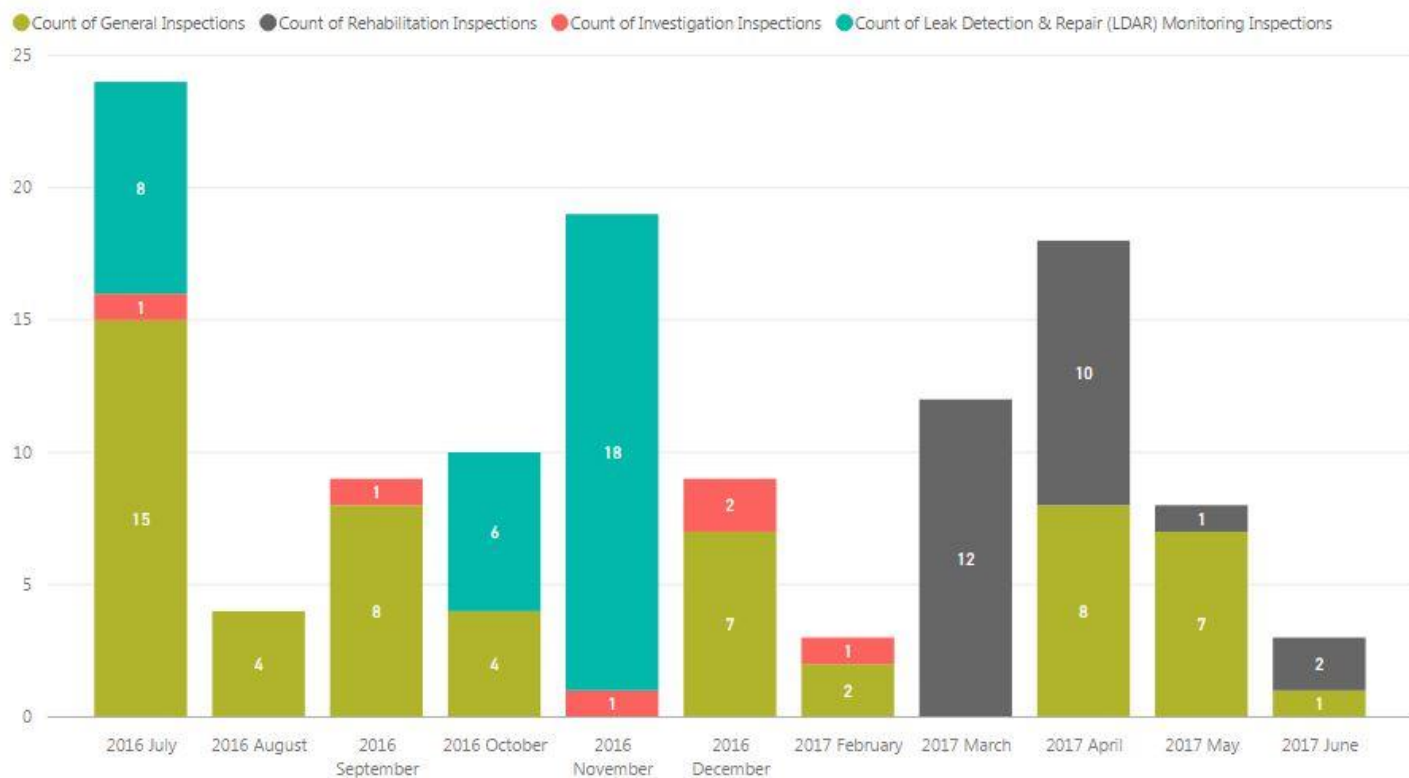
EPA Compliance Inspections completed in the Financial Year 16/17

In the past 12 months, the EPA has undertaken 119 gas related inspections within the Narrabri area:

- 88 inspections checked compliance with environmental and operational conditions issued by the EPA, the Division of Resources and Geosciences, Department of Planning and Environment and Department of Primary Industries – Water;
- 6 inspections related to investigations requiring regulatory and follow-up actions; and
- 25 inspections focused on compliance with rehabilitation standards before the return of security bonds for both active and bought back titles.



Monthly Compliance Inspections (General/Investigation/Rehabilitation/LDAR Monitoring) completed over FY16/17 in Narrabri



3D Theatre Launch

The EPA collaborated with Aspect Studios, and UK-based tech company, Igloo to establish Australia's first mobile virtual reality training facility. The development of the educational 3D immersion theatre follows on from the NSW Chief Scientist and Engineer's 2014 recommendation, that the NSW Government regulatory agencies should develop and implement a comprehensive training package for all staff involved in the regulation of the coal seam gas industry.

This virtual training facility was showcased to the Narrabri CCC and other stakeholders in regional NSW in early May this year.

The theatre provides a virtual training experience that can be used in a diverse range of areas including gas regulation, environmental pollution scenarios and incident management. The first modules that the EPA has developed for the training theatre are in gas regulation, and will be used to provide effective further training experience for EPA officers and other government agencies responsible for the regulation of gas activities in NSW.

The training is an innovative way of showing visual 3D simulation of topics including an introduction to coal seam gas regulation, well construction and groundwater hydrogeology. The EPA are currently in the progress of developing an additional module to include training on drilling and well integrity.



EPA Exhibit at the 2017 Narrabri Agricultural Show

The NSW EPA exhibited at the 2017 Narrabri Agricultural Show on the 6th May 2017.

The exhibit provided the local community with the opportunity to enquire about the EPA's work in the Narrabri area, including the planning process with the Narrabri Gas Project. The EPA also handed out information on air pollution and pesticides, EPA grant opportunities, Environment Line information cards, and waste compliance giveaways including BinTrim, Hey Tosser card holders and booklets.

The EPA's presence at the Narrabri Show provided a great opportunity to build relationships with a wide range of stakeholders, increase community awareness of the EPA and demonstrate our commitment to the local Narrabri community.



2MAXFM Narrabri Community Radio Interview

As part of a series run by the Narrabri community radio station, 2MAXFM, on presenting all angles on matters relating to the coal seam gas industry and activities, Carmen Dwyer, Director of the Gas Regulation Branch at the EPA, participated in a radio interview with the station on the 29th March 2017. During the interview Carmen detailed the EPA's role in regulating the NSW coal seam gas industry, and its commitment towards protecting the environment and community.

The recorded podcast from this interview can be found on the 2MaxFM website via the link below. The podcast will be available from the website for the foreseeable future, with no defined removal date.

<http://2maxfm.com.au/podcast/csg-interview-with-c-dwyer-director-of-the-gas-regulation-branch-environmental-protection-agency-epa/>

The EPA Environmental Liabilities Workshops

In November 2016, the EPA delivered three consultation workshops in Narrabri to consider mechanisms to manage financial risk associated with environmental liabilities in the NSW gas sector. The environmental liabilities project follows on from the recommendation of the NSW Chief Scientist and Engineer's 2014 independent review of CSG activities, to examine different approaches to "appropriate insurance and environmental risk coverage of the CSG industry to ensure financial protection short and long term."

The EPA workshops involved representatives from other government agencies, industry, non-government environmental groups and Narrabri CCC members. The EPA valued the insights offered from various stakeholders during the workshops, and the contribution that all participants had made in the early stages of the project.

The collated information from contributions made by stakeholders at the three workshops have been distributed to all workshop participants, and will be used to inform the next steps of the project. The stakeholders engaged in the early stages of the project will continue to be involved as the project processes.

NSW's first methane emission study - CSIRO

The EPA engaged the CSIRO to undertake a wide-ranging study of fugitive methane emissions from some of the major land uses across NSW. The aim of the study was to gain a better understanding of atmospheric methane emission sources, particularly from the coal seam gas industry. This is the first study in NSW to provide extensive data on atmospheric emissions across the state, with over 25,000 km of mobile surveys undertaken.

The study provides valuable information on the levels of methane associated with key land uses in NSW, with results informing future emissions research, regulatory decisions and operational management practices.

Narrabri CCC members were provided with copies of the final CSIRO Methane and Volatile Organic Compound Emissions in New South Wales report during the April 2017 committee meeting. The study report is also available for public review via the NSW EPA website -

<http://www.epa.nsw.gov.au/esdsmoky/methanestudy.htm>

Nomination for the 2017 Premier's Awards for Public Service

The NSW EPA has been nominated for the 2017 Premier's Awards for Public Service for its initiative with improving government services. This includes the EPA's commitment in delivering services that respond to community needs, including our involvement within the Narrabri Gas Project Community Consultative Committee (CCC).

The EPA has attended all committee meetings since the establishment of the Narrabri CCC in December 2014, prepared presentations and responded to committee requests for information. In addition, to ensure transparency with our activity, we have developed a monthly CCC newsletter highlighting the EPA's activity at the Narrabri gas field. The newsletters are available on the EPA's website and now available through a subscription service -

<http://www.epa.nsw.gov.au/licensing/community-involvement.htm>

The EPA's commitment with the Narrabri CCC addresses the Premier's priority and meets the elements of the NSW Gas Plan and the EPA Strategic Plan through its leadership in providing meaningful engagement and transparency in its dealings with the Narrabri community.

The EPA extends its thanks to the Narrabri CCC members for representing the voice of the local community and for their valuable insight which helps the EPA keep the community informed and involved as much as possible. The EPA value the partnership which it has with the Narrabri CCC, and will continue its commitment to build and maintain strong relationships with committee members, and the communities they represent.

CONTACT US

Want to know more about what the EPA does? Want to understand a process used by the gas industry in a bit more detail? ...

...Tell us what you would like discussed in a Feature Article!

The feature article in this newsletter each month is an opportunity for the EPA to provide additional information and address any questions you have. Your feedback is key to ensuring we are providing the sort of information the community would like to see, and so, we would like to hear from you all.

Previous editions of this newsletter have included articles on 'who we are and what we do', groundwater quality monitoring, specific EPA projects and decommissioning and rehabilitation of gas well sites – these examples may give you an idea of a question you would like to ask.

Please send us any activities, processes, questions or information you would like to see in a feature article to gas.reg@epa.nsw.gov.au.

We look forward to hearing from you!

Every effort has been made to ensure that the information in this document is accurate at the time of publication. However, as appropriate, readers should obtain independent advice before making any decision based on this information.

Published by:
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ISSN 2206-3234

EPA 2017/ 0269
July 2017

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