

Minutes of the 5th Meeting of the Vickery Project Community Consultative committee

Meeting held: 21st May 2019 – 10.30am – 1.30pm

Venue: Boggabri RSL

Present:

Roberta Ryan (RR)	Independent Chair
Sandra Spate (SS)	Minute taker
Cr Robert Hooke (RH)	Gunnedah Shire Council (GSC)
Cr Cameron Staines (CS)	Narrabri Shire Council (NSC)
Brian Cole (BC)	Executive General Manager, Project Delivery, WHC
Tim Muldoon (TM)	Group Manager Community Relations and Property, WHC
Keith Blanch (KM)	Community Representative
Ron Fuller (RF)	Community Representative
Grant McIlveen (GM)	Community Representative
Barry Thomson (BT)	Community Representative
Andrew Raal (AR)	WHC Environmental
Cr Cathy Redding (CR)	Mayor NSC - observer

Apologies:

Item	Description	Action/ Responsibility
1	Present, introductions and apologies	
1.1	RR outlined her role as Independent Chair appointed by the Department of Planning. The CCC is not formally required at this point for the Vickery Extension Project as this is usually triggered as part of approval process. Notes go to members for feedback, the Chair signs off on them and then they go on public record. Cr asked if this CCC exists under current approval or whether it will stand for future approval. RR said if approval is given it will be constituted as part of that approval. Some changes were made to the committee pre-existing her role as chair but RR was asked to take over the pre-existing work for the Canyon and Vickery project. CCCs are part of government legislative requirements for mining projects and other state significant projects. They are facilitated independently. The purpose of the meeting is to provide information and get feedback. If approval is given the CCC's role is oversee consent conditions. Membership is up to Chair who seeks to broadly represent key interests. Both Councils within the project area are requested to participate. Members are asked to declare interests which are on the public record. Declarations of Interests don't exclude membership or participation and records sit with the chair.	
1.2	Members introduced themselves and noted their interest in the committee. Catherine Redding, Mayor of NSC attended as an observer.	
2	Declaration of pecuniary or other interests	
2.1	Declarations of pecuniary interests sit with the Chair. Two recent members are to provide formal declarations.	
3	Previous minutes and matters arising	
3.1	Acceptance of minutes from the October 2018 meeting was moved by GM and seconded by RF. The minutes were accepted.	

**Minutes of the 5th Meeting of the
Vickery Project Community Consultative committee**

3.2	Action 7.16 August 2018. TM to respond to the question of proximity of neighbours to Maules Creek in relation to coal into hoppers. GM had asked how close the nearest neighbours (property 108/109) are.	The distance scaled off an aerial plan is approximately 5.5km.
3.3	Action 4.17 October 2018. BC to provide figures for the total number of shut down hours experienced by Maules Creek over winter. BC reported Maules Creek has advised that it does not maintain records of shutdowns as it is a dynamic procedure. Noise levels are monitored. Approval limit is 35dB. Maules Creek has advised that when noise level gets to 30dB action is taken to change operations to remain below 35dB. Closures are determined by monitored readings. Based on advice it is estimated that there are around 20 to 30 instances where operations are impacted over the winter months but these vary in duration. RH asked whether noise monitors are in a fixed position. BC replied they are to monitor impacts on neighbours and keep noise at acceptable levels. RH asked if wind directions are considered. AR indicated that it was but not under high wind conditions. GM said the closest people at Maules Creek live further away than neighbours to Vickery but we have been told Vickery neighbours won't be affected. TM said there are many influences on noise impacts including distance to site, topography, temperature effects and wind direction. RF suggests we won't know impacts till operation.	
4	Canyon and Vickery Environmental Monitoring Report	
4.1	BC reminded the CCC that since the last Environmental Impact Statement (EIS) the Independent Planning Commission (IPC) process has occurred. The process is around 14 weeks behind government benchmarks of 12 weeks after exhibition of the EIS. . RR noted the IPC was formerly the Planning Assessment Commission (PAC) which is independently convened.	
4.2	AR delivered the Canyon and Vickery Environmental Monitoring Report (attached to minutes). Canyon is to the north of the Vickery site. It is closed and rehabilitated. A void remains. The two separate sites will merge as material from Vickery covers the void at Canyon. It will then be seen as one project. Water is extracted from the void for Tarrawonga. There was one issue of spontaneous combustion on site. All carbonaceous material was removed. Some air quality monitoring had some high readings. It was concluded this was due to dust storms. There were some higher conductivity readings in water due to evaporation with drought increasing salinity. There were no complaints.	.
4.3	CR asked that the link to the Environmental Monitoring Report be sent to Narrabri Council when uploaded.	WHC to send a link to the report to councils when uploaded.
4.4	KB asked why water continues to be carted to Tarrawonga after recent rains. AR and TM said they are still hauling some but this is being reviewed. GM asked if water in the void is groundwater or runoff. AR replied modelling showed a little is groundwater (around 4 megalitres year) but the majority is surface runoff. There is a separate water licence for 50 megalitres of ground water. CR asked whether increased water storage capacity in mines could capture more runoff considering the current extreme drought. This could	

Minutes of the 5th Meeting of the Vickery Project Community Consultative committee

	<p>also alleviate pumping from the river. She also asked whether Vickery can capture and use run-off during rain events and high flows.</p> <p>BC said the surface water assessment models climatic conditions looking at rainfall records and series of droughts from over 100 years. Whitehaven can capture some runoff but within limits.</p> <p>TM said Whitehaven captures all the water they can except in extreme events. The cleanest water is allowed to be released at approved release points in accordance with water management plans for the mine.</p> <p>.</p> <p>AR noted a separation between clean and dirty water. All disturbed areas potentially impact water quality. This water has to be captured and contained. Water entering the mine pit is captured. There are banks and berms to divert clean runoff into natural drainage systems.</p> <p>CS asked how runoff from rehabilitated areas is classed.</p> <p>AR replied it is initially dirty water but does not contain minerals from the mine. It is diverted to a settling pond where generally it will be used for air quality control. Water runoff the operational area is captured on site and quality is measured. In high rainfall events approval normally allows storage to overflow but this is determined by approval conditions. Samples are taken upstream and downstream.</p> <p>GM noted an event on April 1 with 76mm in less than two hours. Photos show high flow near where there washery will be. If the dam is not built big enough for such events the flow will end up in the river which is less than 600m from that location.</p> <p>AR said clean rainfall is diverted through the site into natural drainage. It is in the EIS and is expected to be part of conditions of approval.</p>	
4.5	<p>KB asked whether the void will be only part of the dump.</p> <p>AR said this depends on approval conditions.</p>	
4.6	<p>RF asked where the Vickery mine would start.</p> <p>BC replied that the box cut is just below the viewing point hill.</p>	
4.7	<p>KB asked what happened to captured pigs.</p> <p>AR said they are put down.</p>	
4.8	<p>KB asked what happens with facilities moved from site.</p> <p>BC said they are being moved to Tarrawonga.</p> <p>GM asked if Tarrawonga is being expanded.</p> <p>BC replied the old fleet is being replaced with larger equipment which will lift output up to current approved output</p>	
4.9	<p>KB asked about B-doubles.</p> <p>AR said with Vickery there will be less truck movements. With the coal washing on site none will go into the Gunnedah plant.</p> <p>KB asked about the future of Braymont Rd.</p> <p>BC said that ultimately Braymont Rd south of the mine will be excavated as the mine progresses.</p> <p>KB asked if Braymont Rd will be tarred.</p> <p>BC replied that it will remain unsealed.</p> <p>CR asked how Braymont Road will be policed as it is the shortest route from Boggabri.</p> <p>BC indicated that it would be similar to when Maules Creek was constructed when traffic was monitored and disciplinary action was taken against those using the road.</p> <p>RF noted Braymont Road pre-existed the mine.</p> <p>KB said people have the right to use it but it is not tarred.</p>	
4.10	<p>GM asked whether the last increase at Tarrawonga now allows 3 million tonnes or does it need a further approval?</p> <p>TM said it would require a further approval to lift production above 3mtpa</p> <p>BC noted limits on the size of deposits. Rocglen is nearly workout out. Tarrawonga has around 10 years left.</p> <p>KB asked whether coal is still being carted from Rocglen.</p>	

**Minutes of the 5th Meeting of the
Vickery Project Community Consultative committee**

	<p>BC and AR replied it is intermittent. The last production blast was last week. The mine will end in June and the stockpile will be trucked for three months.</p> <p>CS asked if Rocglen will close next financial year.</p> <p>AR said there is approximately three years of rehabilitation work.</p> <p>GM asked whether current workers at Rocglen will be doing the rehab work.</p> <p>AR replied Whitehaven workers will undertake the earthworks.</p> <p>Contractors will be used for seeding and tree planting.</p>	
4.11	<p>GM asked whether Vickery's initial approval is due to expire soon?</p> <p>BC said it is due to expire in September and some site work involving surveying commenced and will continue.</p>	
4.12	<p>CR asked whether all bores are to the same depth.</p> <p>AR said depth varies. Bores higher uphill are deeper.</p> <p>KB said that with Canyon rehabilitation dams on properties have become obsolete. They don't get water into them because of the rehabilitation. Even with recent rains they didn't get much runoff.</p> <p>GM said grasses absorb the water but it is different with bare gravel. In the recent 76mm event water gushed to the river. Once there is bare rock there will be nowhere to go but run off.</p>	
5.0	Vickery Extension Project – EIS Assessment Process Update	
5.1	<p>BC presented the update (attached to minutes). He noted the IPC report is on the IPC website. He outlined the background for the project including the initial approval for 4.5 tonnes per year, the intention to include Blue Vale as part of the extension and the later decision to excise Blue Vale from the application.</p> <p>Given the undesirability of trucking coal to Gunnedah, Whitehaven elected to include a CHPP on site and a rail option. The Environmental Impact Statement (EIS) was submitted in August 2018.</p> <p>With changes to the assessment process this was the first to go through the new process. Previously draft conditions went to PAC for review which after public meetings and refinements made a decision on the development application.. The new process injects the IPC into the process earlier to indicate to the Department of Planning where they should focus.</p> <p>After submission of the EIS there was a 6 week exhibition period. A Department of Planning review provided feedback to the IPC in October. As public meetings held in Boggabri and Gunnedah were deferred till February the submission period was extended. Submissions on the EIS whilst on exhibition included some 287 in favour, 179 objections and 9 comments.</p> <p>Submissions to the IPC included some 367 in support of the project, 37 objecting and 8 comments.</p> <p>BC and consultants were involved in two briefings to the IPC answering questions, the second briefing being held in February. There were 14 points of focus. Questions included how baseline data was obtained for surface water quality; groundwater; storage of mine water; sediment dams design; flooding; air quality; water requirements and water management; worst case; dust; noise and blasting; rail spur; timing; the coal processing plant; and economic assessment.</p> <p>There were questions about whether Vickery Coal is an independent entity from Whitehaven. Vickery and other mines come under the Whitehaven banner.</p> <p>BC expects the recent restructure of the Department of Planning may extend the assessment period. Following a whole of government assessment Planning will issue a report recommending approval or not and a draft set of conditions for IPC consideration. The IPC will then</p>	

Minutes of the 5th Meeting of the Vickery Project Community Consultative committee

	<p>make a decision on whether to approve the project or not and the conditions that would apply if approved.</p> <p>Whitehaven is commissioning design work on the coal preparation and processing plant and the mine infrastructure.</p> <p>Surveys and geotech work and some earthworks is also going ahead under existing approval.</p> <p>Discussions have taken place around works to improve the grounds of Kurrumbede.</p>	
5.2	<p>GM and CR questioned why Blue Vale is referred to as being excised from the scope of the proposed development when it was not part of the 4.5m tonne pit approval.</p> <p>BC noted a review of total resources at Vickery by mining consultants indicated that there was some 6 to 7mt of coal that could be mined by reopening Bluevale pit. Studies showed conclusively that this could be accomplished without impacted on the Namoi River, but in response to some community concerns Whitehaven elected to not proceed with reopening Bluevale pit.</p> <p>GM raised the issue of whether it could be reopened in the future. BC responded that if one considers the layout of the site, it would be impractical.</p>	
5.3	<p>RF asked whether points of discussion particularly around groundwater were clarified at the second briefing.</p> <p>BC replied the second briefing was more informed as the IPC Commissioners had had chance to look at the EIS and had heard from public hearings.</p>	
5.4	<p>GM asked whether the 14 points of discussion aligned with what locals have been saying.</p> <p>BC said a number of areas were covered, sometimes quite technical which were handled by experts e.g. how a particular modelling exercise occurred. The groundwater consultant (Hydrosimulations) was involved in the briefing and was able to respond to questions from the IPC regarding groundwater. The 14 points not by the IPC in its report broadly aligned to the EIS and therefore the IPC directed Department of Planning to broadly review the EIS in the whole of government process and take into account climate change impacts which is also covered in the EIS.</p>	
5.5	<p>GM asked how Whitehaven can say they have enough licenced water license to meet requirements for Vickery if they have to buy water from Maules Creek and move water from zone 4 to zone 5.</p> <p>TM indicated that the water recently purchased was Zone 4 and Zone 5 to cover the current situation. It would be extracted from Zone 4 not Zone 5.</p>	<p>WHC (TM) to provide more information on transfer of water between zones.</p>
5.6	<p>GM asked if Boggabri is deemed too far for dust monitoring why a air quality monitor located at Kitchener Park, Gunnedah? He can see why people in Boggabri find it hard when they have consistently asked for dust monitoring a Boggabri.</p> <p>AR replied the monitoring station is managed by government (EPA) and is part of a regional network.</p> <p>GM asked why Whitehaven can't install a dust monitor.</p> <p>TM indicated that the community had indicated that it wanted the monitoring to be independent of mining companies and therefore the network was managed by the EPA.</p> <p>CS noted Council has pushed hard for years for a remote mobile independent monitor. Letters have been sent to Planning. It has to be independent. If Whitehaven funded and managed a monitor people</p>	<p>RR to draft a letter to the EPA on behalf of the CCC requesting air monitoring at Boggabri.</p>

Minutes of the 5th Meeting of the Vickery Project Community Consultative committee

	<p>would doubt results. Narrabri Council and the CCCs have been strong advocates but pleas have fallen on deaf ears.</p> <p>KB asked how dust from the various locations and sources could be distinguished.</p> <p>RF noted there is a monitor on the Services Club to monitor dust from trains.</p> <p>BC suggested the monitor on the hill above Canyon would likely be used to monitor Vickery.</p> <p>AR noted there are real time monitors located at the mines and dust deposition buckets.</p> <p>CS asked that a letter from the CCC be sent to the Department asking for an independent dust monitor at Boggabri. This was supported by the community members on the committee.</p> <p>CR suggested a monitor is needed before Vickery is mined to establish baseline data.</p> <p>BC noted the establishment of an environmental trust for the community of \$100,000 from Maules Creek, Tarrawonga and Boggabri and suggested a dustwatch monitor which would be part of a community network could be a suitable initiative for the Trust..</p>	
5.7	<p>RF asked whether the bottom of the pit at 36m at Vickery will be lower than the river level.</p> <p>BC replied the pit will be lower than the river.</p> <p>RF has worked in wet pits. He thinks Vickery will have to pump constantly as water in the water table will enter the pit. BC indicated that the groundwater assessment did not indicate this.</p>	
5.8	<p>GM noted neighbours are awaiting more information requested about the western side of the rail spur. He asked why some neighbours had been consulted while closer ones not.</p> <p>BC indicated that residents are being progressively talked to.</p>	
5.9	<p>TM asked who makes the final determination on approval.</p> <p>BC replied it is the IPC.</p>	
5.10	<p>RF is worried about the impact of coal production in the Galilee Basin on production here.</p> <p>BC suggested that won't affect production here as Gunnedah Basin coal is generally a higher quality.</p>	
6	General Business	
6.1	<p>GM asked about correspondence regarding additional community representatives on the CCC.</p> <p>RR will follow this up, noting that no membership matters will be settled until the next stage in the Vickery Extension project is clear.</p>	
6.2	<p>CR asked whether existing approval expires soon.</p> <p>BC and TM replied it expires in September but current work is being undertaken under the current approval. This includes survey for future road works and for water infrastructure, engineering in the form of geotechnical investigations on site, establishment of site offices and compounds and some access road works.</p>	
6.3	<p>RH reported on a skill shortage throughout the area. Gunnedah Shire Council has been supporting efforts revitalise Gunnedah TAFE. State government money has gone into restructuring TAFE with commencement of construction engineering, plant operators and white card courses. TAFE is trying to re-engage with big employers in the community and he encourages Whitehaven to get an appetite to re-engage with TAFE. If there is demand for a particular course TAFE will put it on. He urges Whitehaven to have conversation with TAFE and save people having to go to the Hunter. There are also pre-apprenticeship courses.</p>	

**Minutes of the 5th Meeting of the
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	CR said Narrabri Council is engaged in similar activities. With a country university campus opening in June. Council is working in the TAFE area. TM noted Whitehaven have commenced talking to TAFE.	
6.4	GM raised the desire of the Boggabri Progress Association to see if land owned by Whitehaven to the north can be developed as industrial land. RF agrees both shires should encourage Whitehaven to develop industrial land. CR suggested it would depend on zoning. TM said Council would need to do a feasibility study. If feasible Whitehaven may be able to assist. RR suggested interested parties should talk with Whitehaven.	
7	Date and agenda for next meeting	
	TBA depending on the approval process. Whitehaven will communicate any developments to the CCC.	
	<p>These minutes have been endorsed by the meeting Chair</p> <p>Signed:  Date: 11.6.2019</p>	

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Vickery Project Community Consultative committee**

Whitehaven Coal Limited

VICKERY EXTENSION PROJECT |
VICKERY CCC MEETING
21 MAY, 2019

May, 2019



Agenda

ITEMS

1. Present, introductions and apologies
2. Declaration of pecuniary or other interests
3. Previous minutes
4. Canyon and Vickery Environmental Monitoring Report
5. Vickery Extension Project – EIS Assessment Process Update
6. General business
7. Date and agenda for next meeting

ENVIRONMENTAL MONITORING

VICKERY PROJECT CCC MEETING - MAY 2019

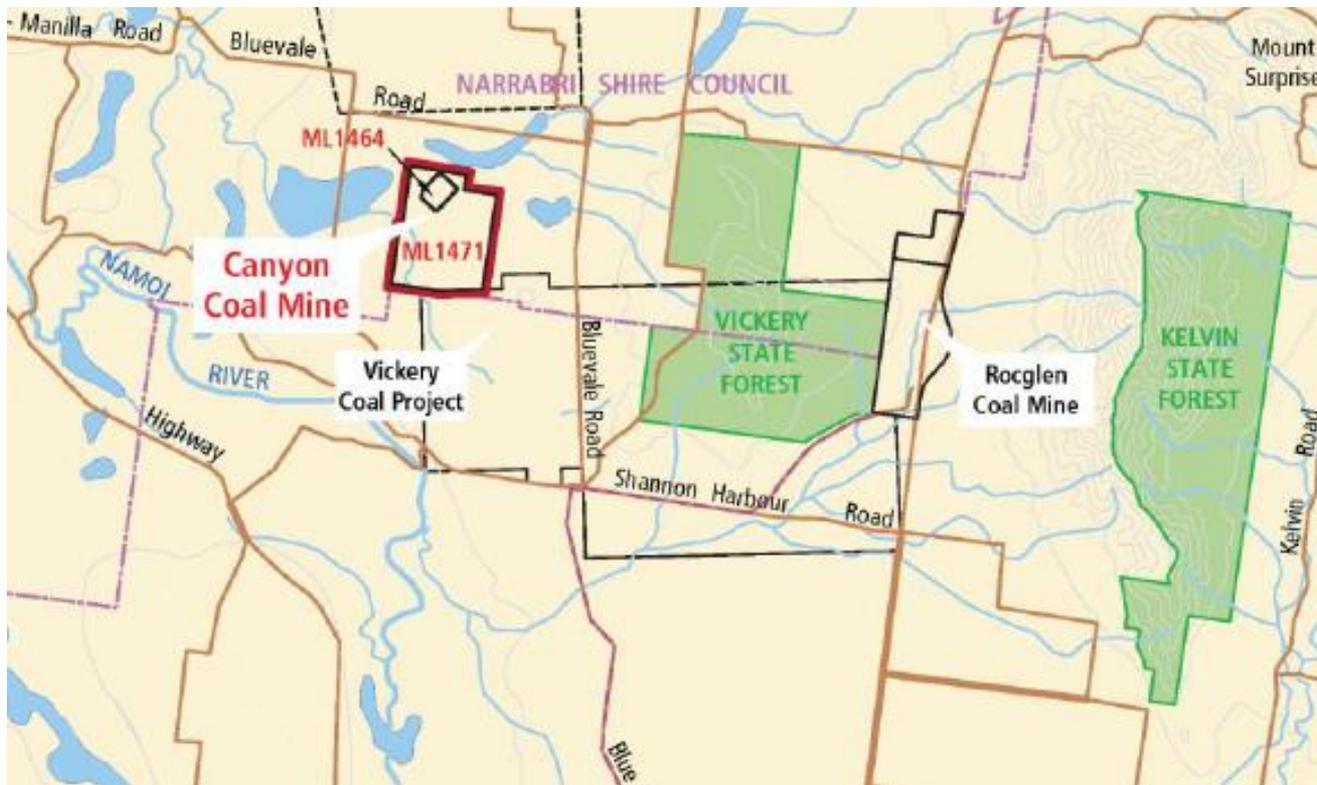
BOGGABRI, AUSTRALIA
MAY 2019



WHITEHAVEN COAL

VICKERY AND CANYON MINES

MINING AT VICKERY CEASED IN THE 1990'S AND IN 2009 AT CANYON.



CANYON COAL MINE



CANYON MINE CLOSURE

MINING CEASED IN 2009 AND THE SITE HAS UNDERGONE SIGNIFICANT REHABILITATION. MAJORITY OF INFRASTRUCTURE HAS BEEN REMOVED FROM SITE

- **Activities on site controlled by Mine Closure Operations Plan 2015-22, DA 8-1-2005, and ML's 1464 and 1471. Canyon CCC has been combined into the Vickery CCC.**
- **Report covers key environmental monitoring and events that have occurred since the last CCC. Which include:**
 - Site environmental issues and activities (SponCom, Void water extraction, Independent Environmental Audit)
 - Rehabilitation
 - Monitoring (Dust, surface and groundwater)
 - Specialist studies
 - Community complaints

CANYON VOID WATER EXTRACTION

Water has been extracted from the canyon void for use at Rocglen and Tarrawonga mines, which started in December 2018.

Current void Volume is $\pm 80\text{ML}$

Weekly use $\sim 3.5\text{ml}$ a day.

Due to recent rain only Tarrawonga is still utilizing water from the pit void.



INDEPENDENT ENVIRONMENTAL AUDIT

Canyon three yearly independent audit was conducted in February 2019. There were a few non-compliances which were all low or administrative. No medium or high risk non-compliances.

Report and submission has been sent to the Department of Planning, awaiting confirmation and finalisation prior to making the document public.

One finding relative to CCC is requirement to provide copies of reports.

DA 8-1-2005 (10). Within 1 month of the approval of any management plan/strategy or monitoring program required under this consent (or any subsequent revision of these management plans/strategies or monitoring programs), the completion of the independent audits required under this consent (see conditions 30 of Schedule 3 and Condition 6 of Schedule 5), or the completion of the AEMR (see condition 5 of schedule 5), the Applicant shall:

- (a) provide a copy of the approved document/s to NSC, GSC, relevant agencies and the CCC; and*
- (b) ensure that a copy of the relevant documents is made publicly available at NSC and GSC offices, to the satisfaction of the Secretary.*

All documentations are placed on Whitehaven Coal web page. Discussion with GSC is that they prefer documents link be emailed when the documentation is available for publication.

<http://www.whitehavencoal.com.au/>

<http://www.whitehavencoal.com.au/sustainability/environmental-management/canyon-mine/>

REHABILITATION & INDEPENDENT ENVIRONMENTAL AUDIT

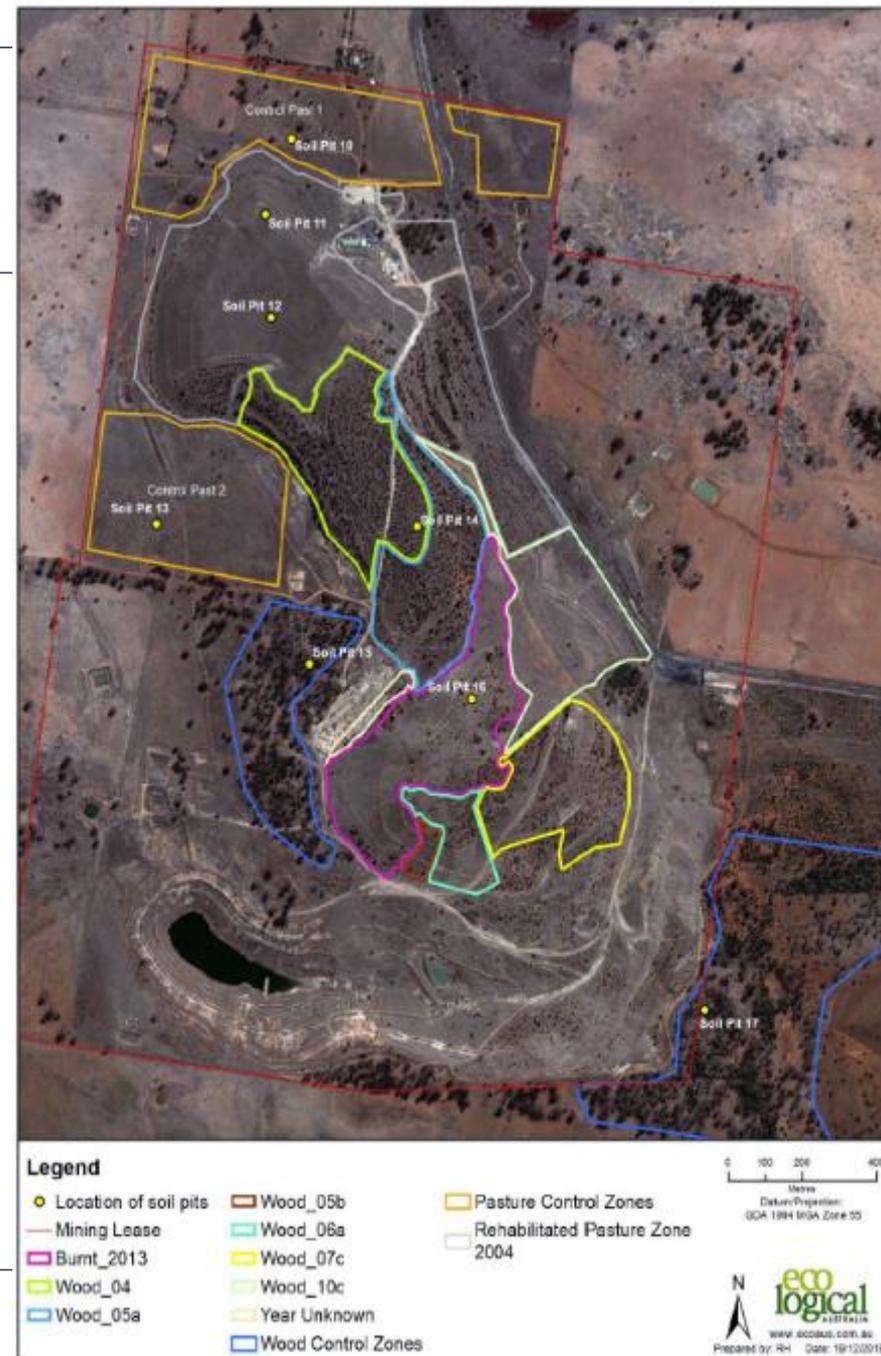
REHABILITATION ACTIVITIES

Two motion sensor camera 'traps were installed' to identify feral animal numbers and species on site, and general fauna species numbers for potential culling programs.

Weed spraying was undertaken in December 2017 and April 2018 for African Boxthorn and Prickly Pear. April spraying also include fire breaks.

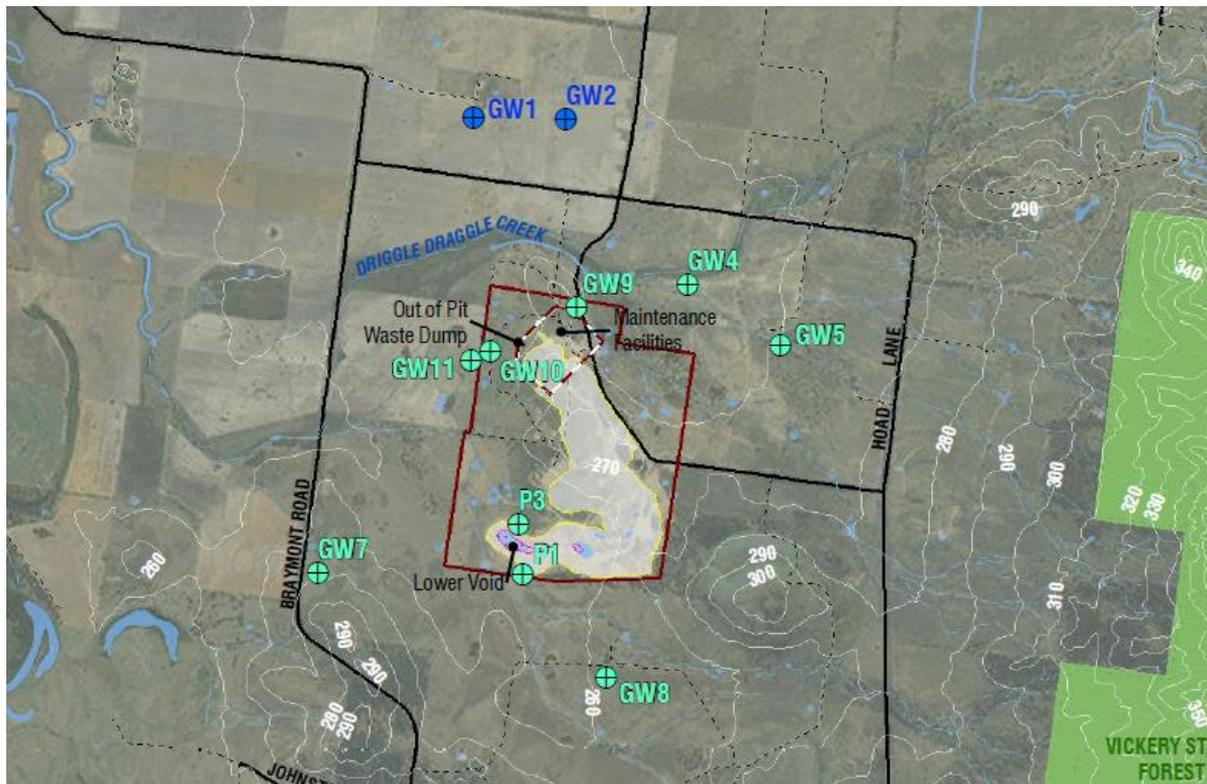
A total of 23 pigs were trapped onsite.

Detailed rehabilitation monitoring results are provided in Canyon Annual Review which is available to view online.



CANYON MINE LAYOUT

THE REMNANTS OF THE MINE INCLUDE AN UPPER AND LOWER VOID.



MONITORING

Surface Water:

There were no wet weather discharges during the period.

76mm of rainfall was recorded on the 30th March, dam inspections revealed that none of the dams had overflowed, void water volume increased by 3ML.

Air Quality:

Depositional dust levels were high especially for D12 which was due to regional dust storms. Similar high dust readings were also recorded for all monitoring sites across the region.

Site	Property Name	Annual Average Guideline	Annual Mean Total Insoluble Solids (g/m ² /month)
D1	Whitehaven	4	2.27
D2	Merton	4	2.75
D12	Whitehaven	4	5.87
D13b	Womboola	4	3.27

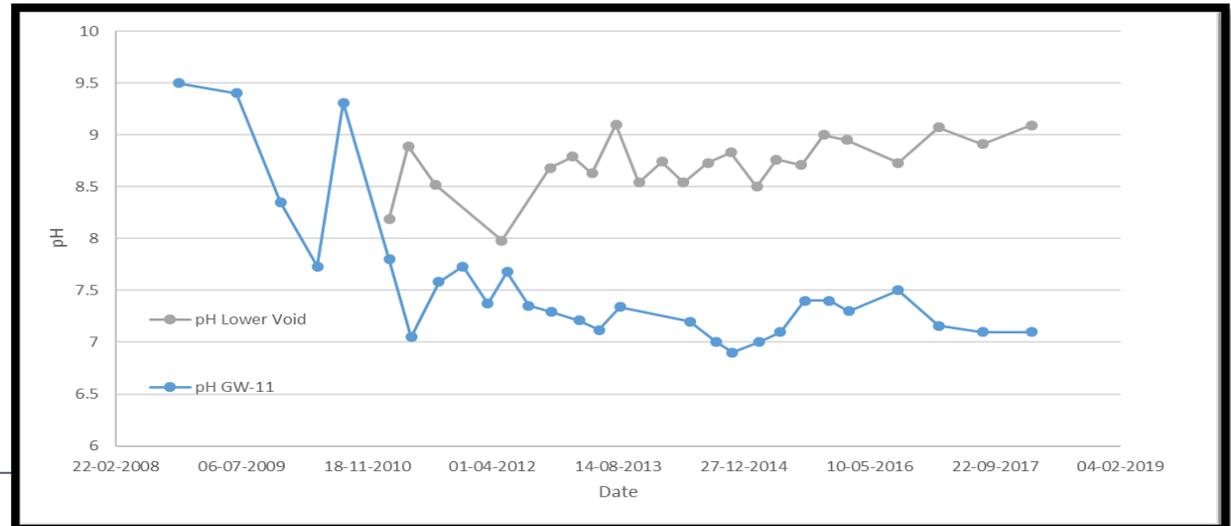
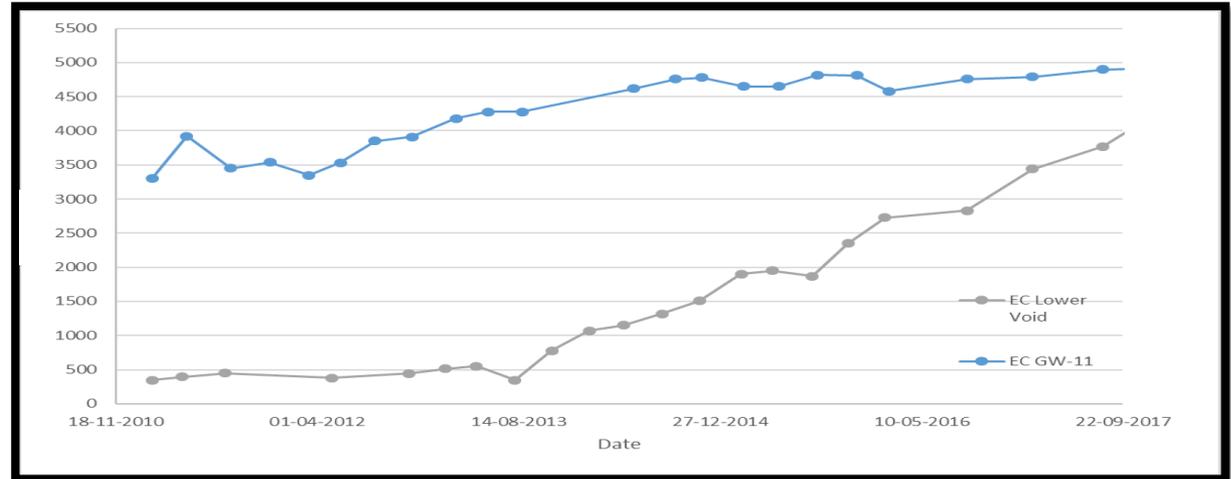
STUDIES COMPLETED

Void Water Quality Assessment

Report Conclusion

The main focus of the analysis was to assess whether the data reviewed provided any clarity on the reasons why the EC and pH in the void were increasing. It appears that the EC and pH rise may be due to separate mechanisms. Evaporation appears to be the primary mechanism for this increase in EC in the lower void.

Furthermore, it is considered unlikely that groundwater inflow is the primary mechanism causing a rise in pH. It is possible that erosion of the void and upper catchment could be contributing to the increase in pH. This should be investigated further through increased testing for both the upper and lower voids.



COMPLAINTS

FY18

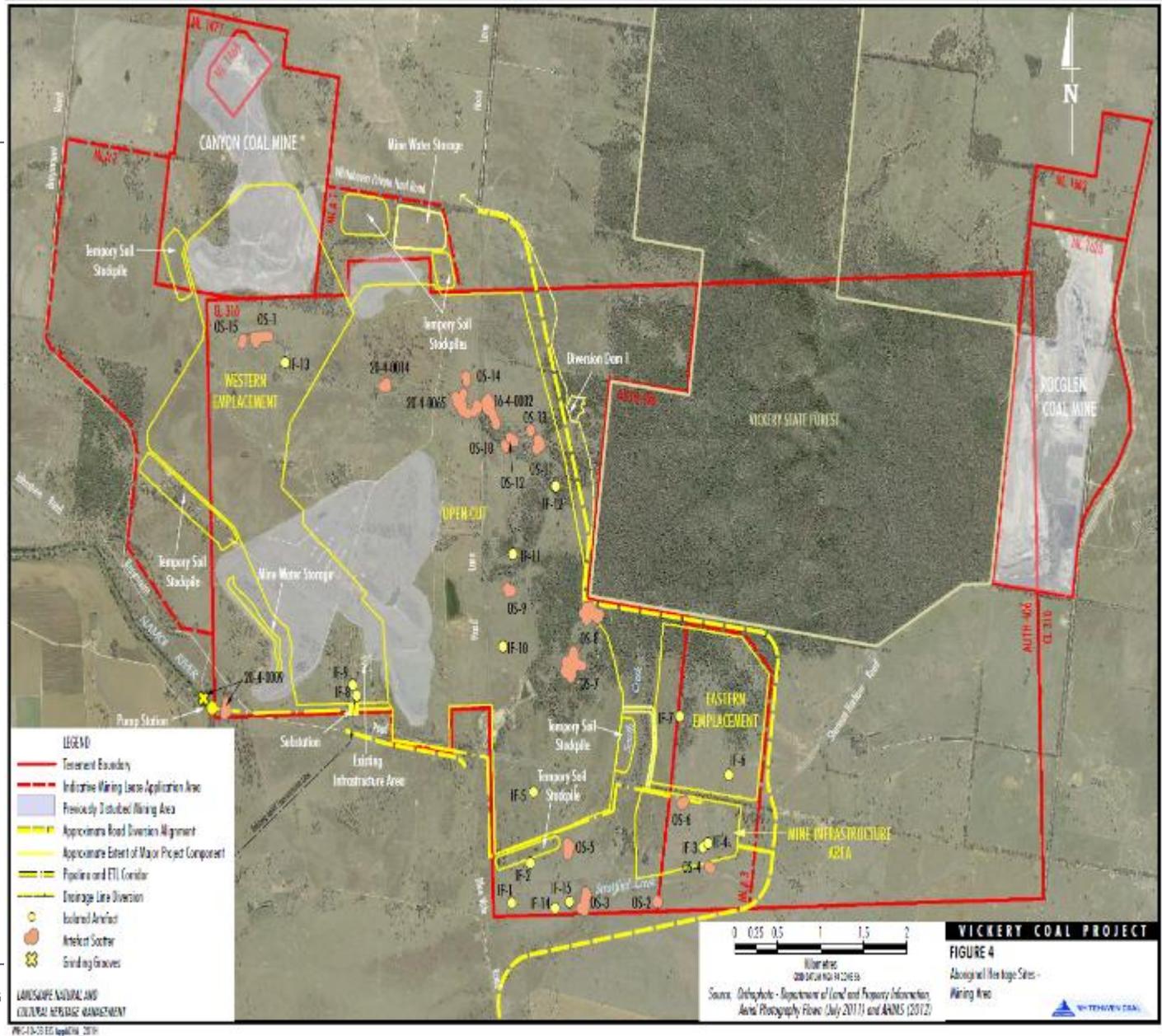
No complaints received since last CCC



VICKERY COAL PROJECT

VICKERY

- Rehabilitation Activities
- Monitoring (Dust, surface and groundwater)
- Specialist studies
- Community complaints



REHABILITATION & INDEPENDENT ENVIRONMENTAL AUDIT

REHABILITATION ACTIVITIES

Feral animal management is done in conjunction with Canyon (Pig Trapping)

Extensive biodiversity works carried out on Willeroi, including weed spraying, feral animal management, ecological burning.

Two monitoring cameras were installed on the CCM during November 2018, with results thus far indicating that Macropods are in high abundance, foxes are medium to scarce abundance, cats, goats, rabbits and deer are all scarce in abundance, and pigs and hare have a scarce to high abundance.

Extensive biodiversity works carried out on Willeroi, including weed spraying, feral animal management, ecological burning

Detailed rehabilitation monitoring results are provided in Canyon Annual Review which is available to view online.



MONITORING

Depositional Dust

FY 2018-2019 Depositional Dust

	Guideline	DG1	DG2	DG3	V1	V2	V3	V4	V5
Min		1.80	0.37	1.30	0.53	0.50	1.30	0.85	0.89
Max		7.30	4.00	2.30	4.00	2.20	30.60	7.90	5.70
Mean	4	3.66	2.43	1.80	1.86	1.26	10.37	3.08	2.77

A number of high dust reading due to regional dust storms and dry weather



GROUNDWATER

Groundwater levels up to end of December 2019 had a mean drop of -0.86m



COMPLAINTS

FY18

No complaints were received during the 2018 financial year.



SR 17 Narrabri 35

17 Maules Ck 11 Boggabri 18



THANK YOU

www.whitehavencoal.com.au



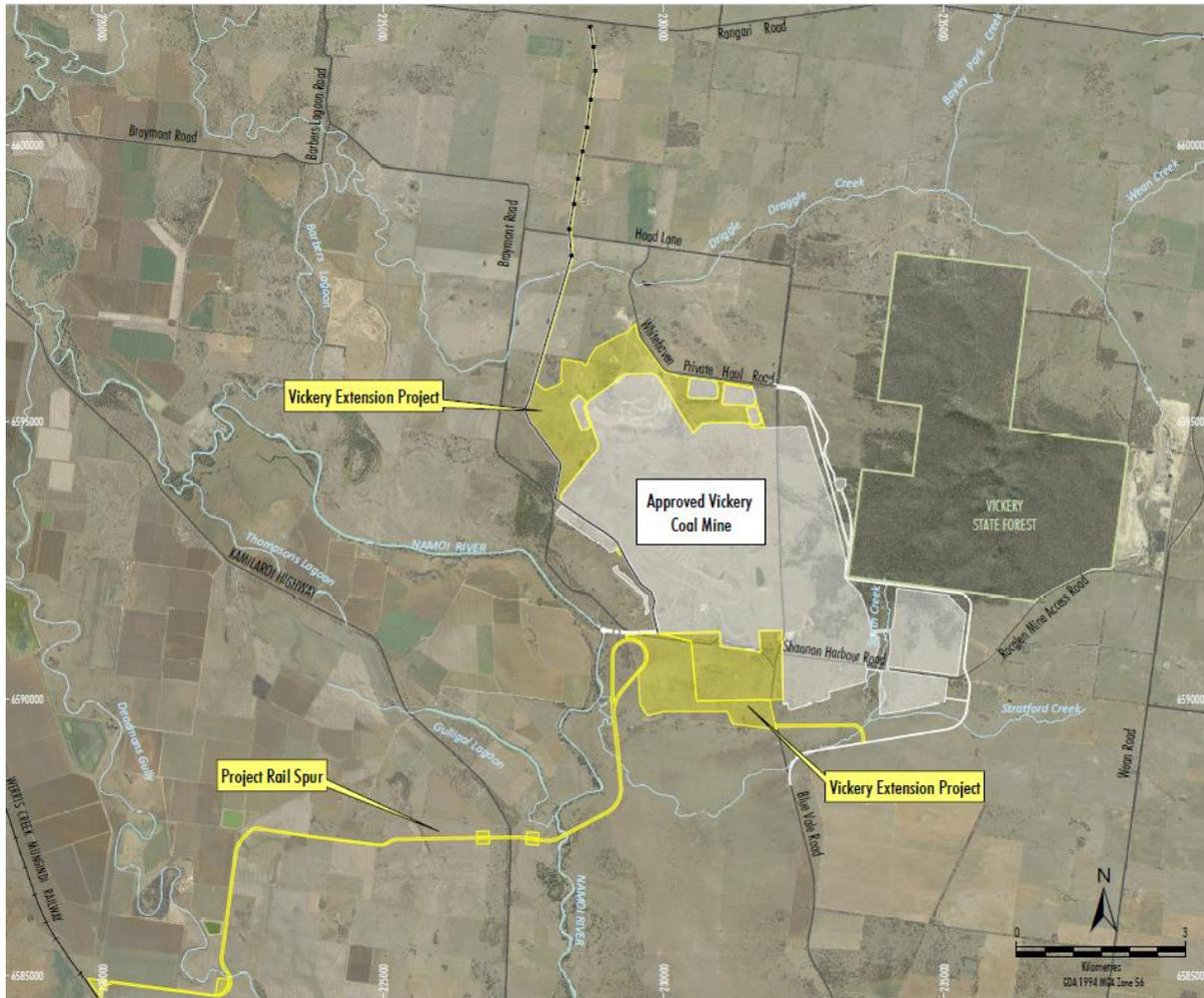
WHITEHAVEN COAL

Background - Vickery Extension Project



- **The Vickery Coal Mine is already approved (2014)** as a 4.5Mtpa open cut coal mining operation, located approximately 15 km south east of Boggabri.
- **The Project site has previously been extensively mined and there is no high value agricultural land on the site**
- Whitehaven is seeking approval for increased average run rate of 7.2Mtpa over 25 years.
- The Project involves the construction and operation of an on-site CHPP, train load-out facility, rail loop and rail spur.
- Access agreements are in place with private landholders along rail spur.
- The project will deliver additional jobs and business for the Gunnedah Shire.
- The Gunnedah Basin produces some of the highest quality coal in the world.

Background - Vickery Extension Project



The scale of the Vickery Extension Project footprint is marginally larger than the Approved Mine footprint.

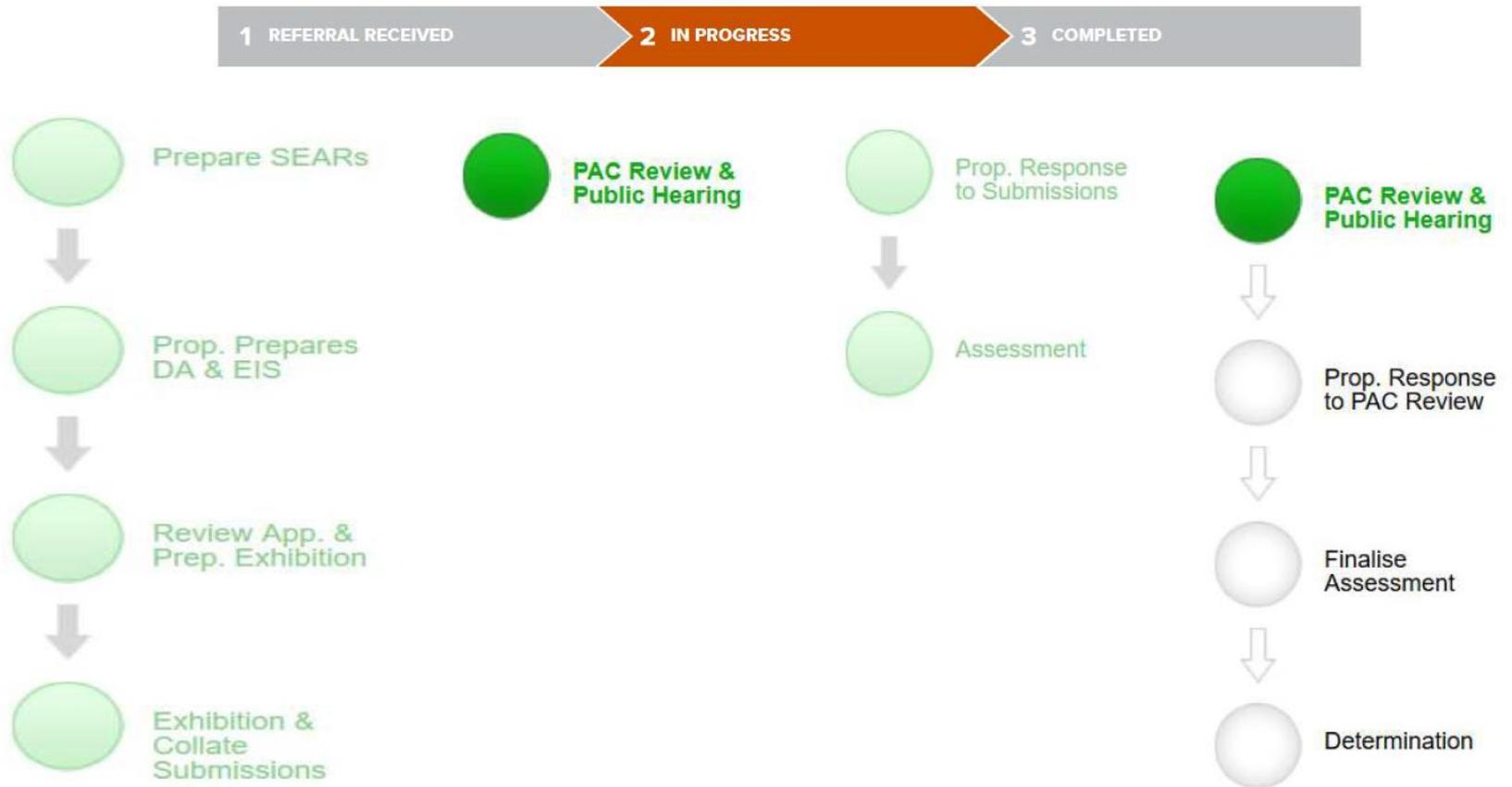
Coal resource increased to include Vickery South – from approx. 135Mt to 179Mt.

Mine run rate increases from 4.5Mtpa to average of 7.2Mtpa.

Scope includes rail spur and on site coal processing which provides a superior environmental outcome.

Assessment Process

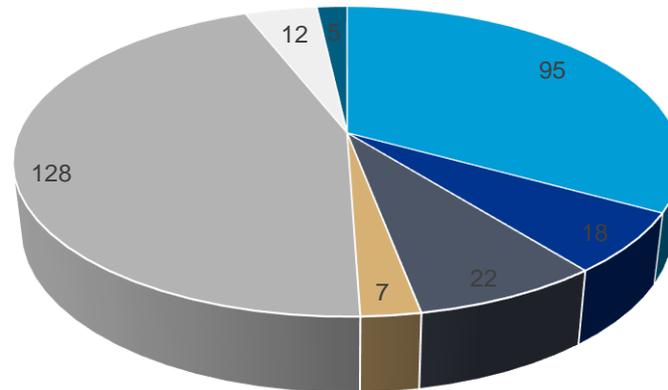
📅 Referral Received: 23/10/2018



Submissions to DoPE

SUPPORT							
Gunnedah	Narrabri	Tamworth	Boggabri	Other NSW	Other Qld	Other Vic	
95	18	22	7	128	12	5	287

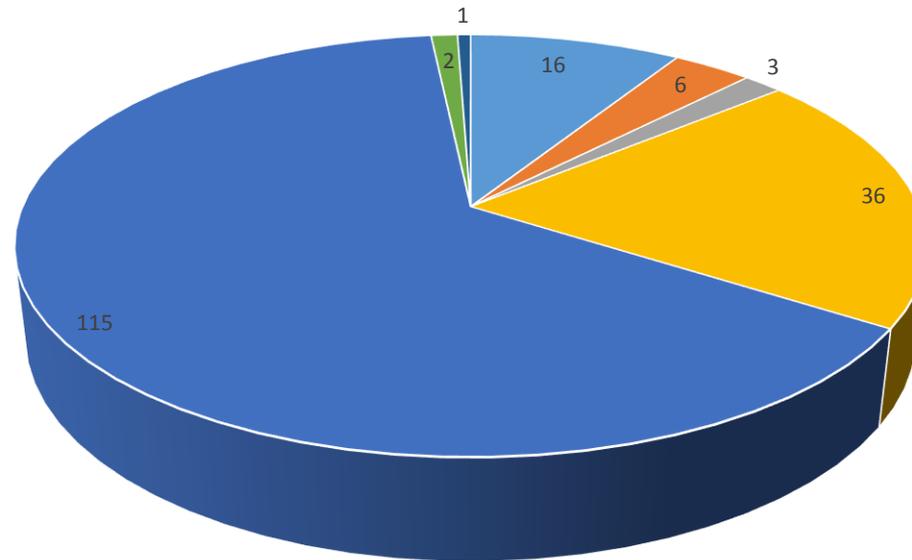
Support By Area



- Gunnedah ■ Narrabri ■ Tamworth ■ Boggabri
- Other NSW ■ Other Qld ■ Other Vic

Submissions to DoPE

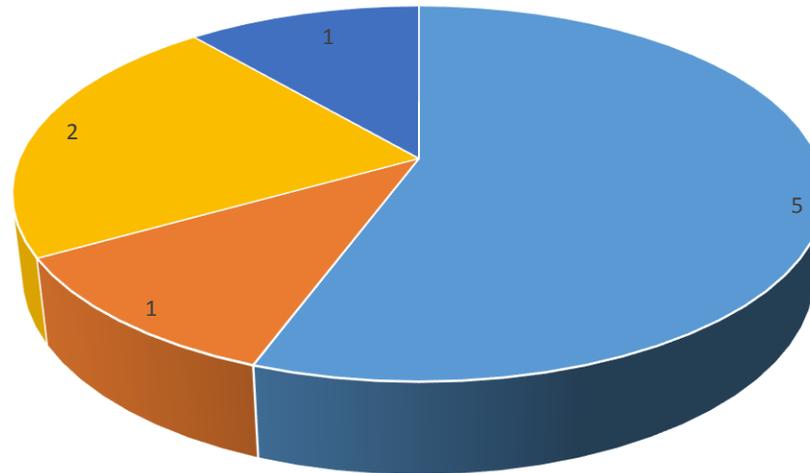
Objection By Area



- Gunnedah
- Narrabri
- Tamworth
- Boggabri
- Other NSW
- Other Qld
- Other Vic

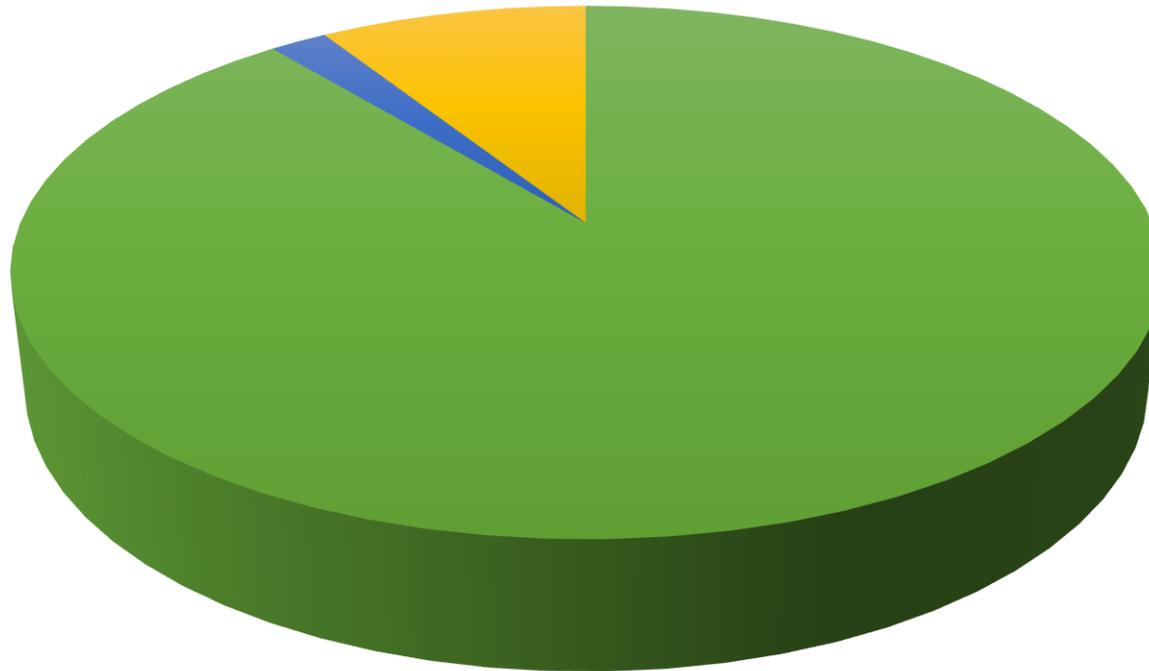
Submissions to DoPE

Comments By Area



- Gunnedah
- Narrabri
- Tamworth
- Boggabri
- Other NSW
- Other Qld
- Other Vic

Public Submissions to the IPC



■ Support ■ Comment ■ Objection

Second IPC Briefing 25 February, 2019

Response to Queries from IPC

Vickery Extension Project Groundwater Assessment

IPC Briefing - 25 February 2019



IPC Questions

What is the stratigraphy used in the groundwater model? What data is it based on?

- The 14 model layers represent the lithologies within the model domain
- Lithologies within the model domain have been identified based on:
 - Published regional data (e.g. government geological mapping)
 - Government hydrogeological studies and models (e.g. Upper Namoi Groundwater Flow Model) – alluvium thickness determined by drilling and seismic refraction surveys in late 1960s
 - Review of regional bore logs
 - Review of local geological and groundwater monitoring data (e.g. historical Vickery mine and Canyon, Rocglen, Tarrawonga Coal Mines)
 - Site specific hydrogeological investigations (e.g. alluvial definition drilling; TEM)
 - Site **geological model** from exploration drilling

LAYER	LITHOLOGY
1	Alluvium or Regolith
2	Alluvium or Overburden
3	Overburden
4	Braymont Seam to Jeralong Seam
5	Interburden
6	Merriown Seam to Velyama Seam
7	Interburden
8	Nagero Upper Seam
9	Interburden
10	Northam Seam to Templemore Seam. Tralee Seam to Stratford Seam
11	Interburden
12	Bluevale Seam to Cranleigh Seam (Whitehaven Seam)
13	Underburden
14	Volcanics

What is the sensitivity of the results to potential climate change impacts both during and post-mining?

- The Groundwater and Surface Water Assessments have considered potential changes in rainfall and evaporation to account for climate change predictions over the life of mining and post-mining.
- Post-mining:
 - The sensitivity of the final void pit lake equilibrium level has been tested by Advisian (2018) for various IPCC climate change scenarios.
- During mining:
 - NarClim, CCiA and CSIRO modelling predictions have been reviewed for Project mining and post-mining periods, for each of four seasons.
 - The pit inflow predicted by the groundwater model was found to be insensitive to recharge variation predicted by CCiA climate change models.
 - The site water balance predicts water supply demands could be met (within Whitehaven's licensed allocations) and that the water management system would operate satisfactorily to contain rainfall runoff.
- Groundwater and Surface Water Assessment have been peer reviewed (for the EIS and by / on behalf of DPE)

Vickery Extension Project Surface Water Assessment

Independent Planning Commission Briefing

Chris Thomas

Senior Principal

Practice Lead – Water Resources

25 February 2019



www.advisian.com

IPC Questions

If approved, what steps would Whitehaven take to obtain adequate baseline surface water quality data before commissioning of the plant,?

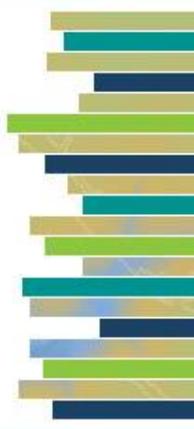
- There is extensive baseline data available for the Namoi River, however, the collection of recent monitoring data from local streams inhibited by intermittent flow and drought conditions
 - As there is nil discharge of mine water there is limited potential for changes in downstream water quality – therefore limitations on local stream baseline data due to drought conditions not an assessment issue
 - **Baseline surface water quality data was drawn from:**
 - NSW Department of Industry (Water) database
 - Monitoring of nearby streams conducted by Whitehaven
 - Monitoring of mine water dams, sediment dams and final void water bodies for other mining operations in the region
 - Data compiled previously for the original Vickery Coal Mine EIS
 - **Proposed Baseline Surface Water Monitoring leading up to commissioning:**
 - Sediment dams
 - Controlled discharge from sediment dams
 - Ephemeral streams
-
- **Monitoring will continue throughout the Project life**

Reviewers have suggested that the available storage for mine water needs to be increased to prevent the risk of an inadvertent damaging discharge during prolonged inclement weather. Could Whitehaven comment on the need or otherwise for this?

- Sediment Dam design is inherently over-designed to account for maximum catchment area over the Project life and reuse of water on-site
- Mine designed to be a NIL Discharge Mine
 - No mine water or coal contact water will be discharged from the site
- Sediment dams will collect sediment-laden runoff from active waste rock emplacement and rehabilitation areas.....
 - but NOT mine or coal contact water
- Sediment dams conceptually designed according to standard practice
 - Based on guidelines in “the Blue Book” (Landcom, 2004)
- Frequency of discharge will actually be less than prescribed by the Blue Book, because:
 - (i) Sediment dams would be over designed and constructed at the start of the Project for their maximum reporting catchment, which would increase over the Project life
 - (ii) Water captured in sediment dams would be preferentially used to meet on-site water demands which would reduce the likelihood of overflow



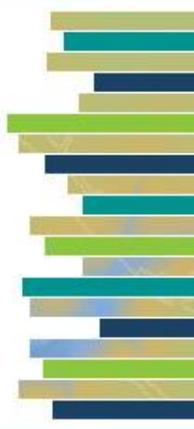
Vickery Extension Project Flood Assessment



IPC Briefing - 25 February 2019



IPC Questions





What is the sensitivity of the predicted incremental flood levels (above or below that would occur without the rail spur) at the CHPP and junction with the North-west main line to changes in the flood plain hydraulics parameters?

- Project CHPP is located outside the extent of the event that is three times the Namoi River 1 in 100 year design flood event
- North-west main line is not overtopped at the proposed junction with the Project rail spur for this event
- Flood modelling showed peak flood levels not overly sensitive to changes in floodplain roughness
- No chance that changes in floodplain roughness would impact on the flood immunity of the Project CHPP or the North West main line

Vickery Extension Project

Air Quality

25 February 2019



TODOROSKI
AIR SCIENCES

IPC Questions

The following provides a brief summary of the detailed response to questions raised by the IPC.



Modelling assumptions & outputs, specifically comparing the Approved mine with the Extension Project, including mine extraction, load & haul operations, CHPP, transport, overburden handling, rehabilitation & inputs from other Whitehaven mines

- ✦ For both the Project and the Approved Mine annual emissions were estimated based on peak years of waste rock and ROM coal movement, exposed areas and proximity of operations to sensitive receivers
- ✦ The key difference in emissions inventories is that the Project adopts a best practice control level for haul roads of 90% whereas the Approved Mine assumed 75%
 - ✦ Haul roads are the most significant contributor to annual emissions
 - ✦ Since the Air Quality Assessment for the Approved Mine (2012) the EPA implemented its Dust-Stop Program, which required all NSW mining operations to demonstrate at least 80% control on haul roads
 - ✦ Numerous mines (including Whitehaven mines) demonstrated 90% control or greater
 - ✦ Accordingly 90% control was adopted for the Project
- ✦ Further detail will be provided in the written response



Details confirming the scenarios modelled include worst case. Details of the definition of worst case

- ✦ 'Worst case' refers to a situation where the maximum likely dust level would arise
- ✦ Three potential worst case scenarios assessed to represent:
 - ✦ The maximum amount of material (waste rock and ROM coal) is moved, and hence the maximum amount of dust is generated
 - ✦ The exposed areas are large and hence wind erosion may be greater (note wind erosion is a small source)
 - ✦ The activity is nearest receptors, and thus has most scope for impacts
- ✦ As the mine moves relative to several groups of receptors, several worst case scenarios are used to ensure maximum impacts at any receptor are assessed



Consideration of the establishment of an air quality monitoring station at Boggabri

- ✦ An extensive regional monitoring network is already in place
- ✦ Data from the OEH network monitors at Narrabri, Gunnedah, Tamworth, Maules Creek, Breeza and Wil-gai (i.e. Project site) are reported weekly on the EPA website
- ✦ In its latest monitoring report, OEH says dust levels in the Namoi Region were “*Very good*”, “*Good*” and “*Fair*” (i.e. below air quality criteria) 97% of the time from May 2017 to July 2018, and attributes levels above criteria to dust storms and winter wood smoke, in common with almost all country towns
- ✦ The OEH Network is in addition to mine-specific monitors designed to demonstrate compliance with air quality limits
- ✦ Boggabri is too distant from the Project to register any measurable level of dust due to the mine
- ✦ Dust would be measured at an air quality monitoring station established closer to the mine, where there is potential to detect the contributed dust from the mine, and thus confirm compliance at that location and further afield



VICKERY EXTENSION PROJECT NOISE & BLASTING ASSESSMENT

25 February 2019

IPC Questions

Can the proponent demonstrate that their approach gives valid results for similar scenarios at their other local mine sites (i.e. show that their modelling works)? What is the sensitivity of the predictions to changes in noise assumptions

- The modelling and assessment methodology under the NSW *Noise Policy for Industry* is inherently conservative
- Modelling was conducted using the Environmental Noise Model (ENM) which is a regulatory approved model
- Key inputs to the modelling provide certainty for results:
 - Equipment sound power levels (based on measurements of manufacturer specifications)
 - Mine topography and source locations (based on 3D mine plans)
 - Surrounding topography (based on government topographic data and/or project surveys)
 - Meteorology (based on data from the on-site meteorological station)
- Wilkinson Murray has conducted noise validation studies for ENM which found monitoring was within 1-2 dB of modelled levels
- Maximum noise predictions are for the most adverse meteorological conditions – analysis indicates noise levels would be lower than maximum for >90% of the time

Details confirming the scenarios modelled include worst case. Details of the definition of worst case

- Three operational scenarios were modelled to represent the maximum potential for noise impacts
- The scenarios account for:
 - Proximity of operations to receivers (e.g. Year 3 for receivers to the south-west)
 - Maximum elevation of mine topography (elevation increases noise propagation due to decreased likelihood of intervening topography)
 - Maximum fleet numbers
- Noise results (for all Years modelled) consider adverse meteorological conditions (e.g. inversions and source to receiver winds)

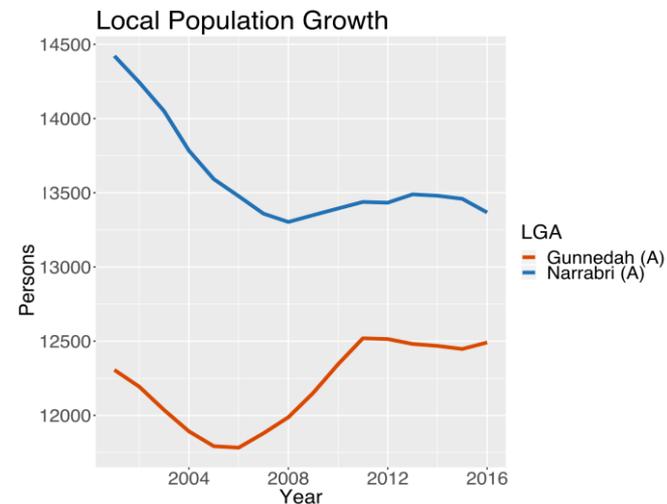
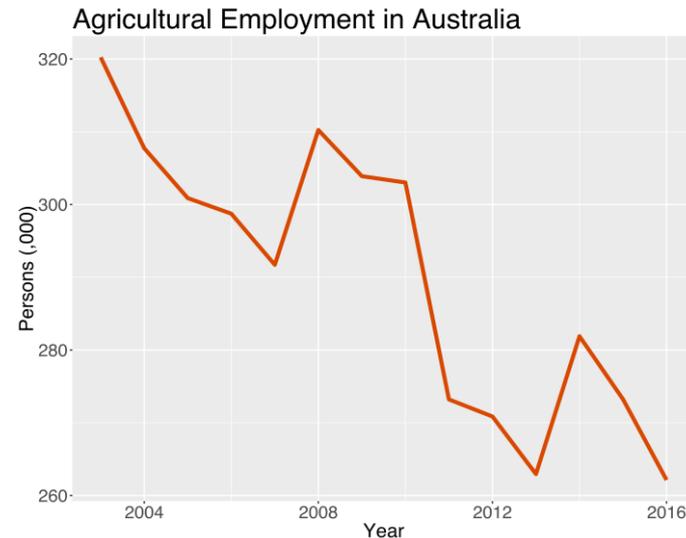
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Vickery Economic Assessment

25 February 2019

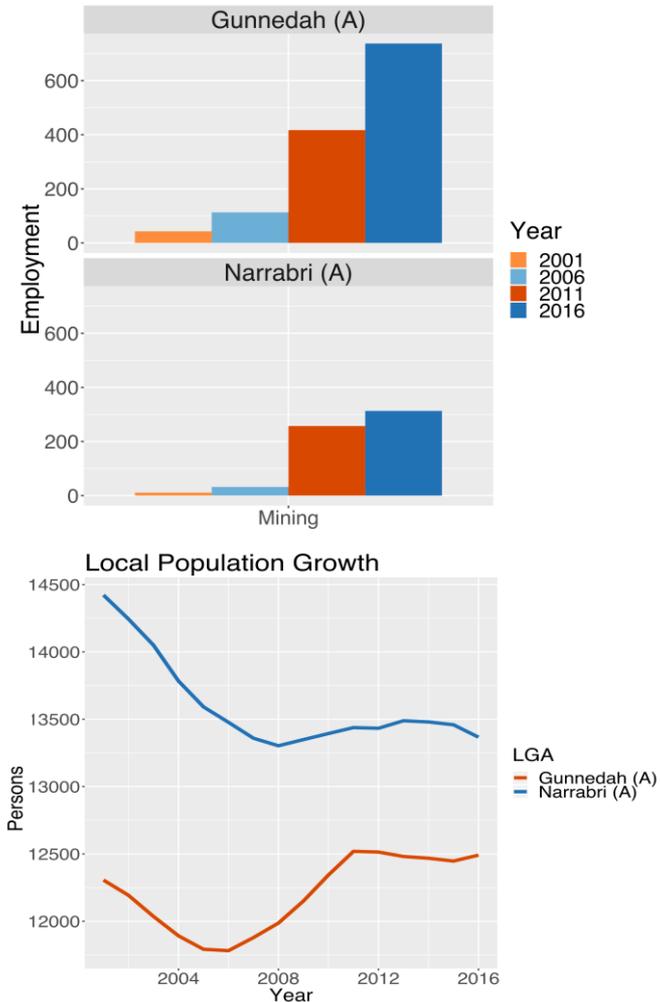
Agriculture

- EIS submissions raised concerns in regard to competition for labour – particularly from agricultural sectors
- In rural Australia agriculture is the primary source of employment
- Over the last twelve years agricultural employment has fallen by almost 19%
- Regional Australia is not immune from other downward employment trends in manufacturing and retail trade
- This has and will see declines in rural population growth



Mining

- In Gunnedah and Narrabri coincident increases in mining employment appear to have curtailed population decline (or increased population)
- Sustained / sustainable increases in LGA population can have associated economic and socio-economic benefits
 - Gunnedah has strong employment growth in the service sector
 - Narrabri has seen a recovery in its service sector



IPC Questions

Details of the assessment of all rail options & particularly the northern loop, providing assumptions and specific reasons for conclusions

- Whitehaven considered a number of options for the rail spur, in particular the:
 - Project rail spur presented in the EIS
 - Northern rail spur
- In assessing the options the factors considered included:
 - Land ownership
 - Construction (comparative lengths, watercourse and road crossings, upgrades to existing infrastructure)
 - Logistics and congestion (capacity of the existing Maules Creek-Boggabri Spur, cycle times, requirement for new passing loops)
 - Environmental (e.g. floodplain management, Boggabri offsets, biodiversity, Aboriginal heritage)
 - Relative costs (capital, operational, above/below rail)
- An economic analysis of the two options indicated that the rail spur options proposed delivered in excess of \$150m of value when compared with the northern option

Specific timing of rail commissioning

- Specific timing is dependent on Project approval
- Expect construction period to first raiing of approximately twelve months
- Full commissioning (e.g. destressing, signaling, defect rectification) approximately another six months

Specific timing of CHPP commissioning.

- Specific timing is dependent on Project approval
- A construction period of approximately twelve months
- It assumes that long lead time equipment is ordered in advance
- Commissioning of the plant usually takes six to nine months

Can the CHPP be bunded to reduce noise impacts on local landowners (e.g. extension of the western emplacement to surround the CHPP).

- There is insufficient space between the extent of mining tenure and the pit to construct a bund of sufficient size to be effective
- Noise impacts under adverse weather conditions at the closest residences to the south west (apart from 127c) are 'negligible' (under VLAMP definition) or compliant with the *NSW Noise Policy for Industry* noise limits
- An acoustic treatment package has been developed for 127c and has been shared with the owners
- Whitehaven will continue to consult with the owners of property 127

**VICKERY EXTENSION REPORT IDENTIFIES KEY
ISSUES REQUIRING “DETAILED CONSIDERATION”**

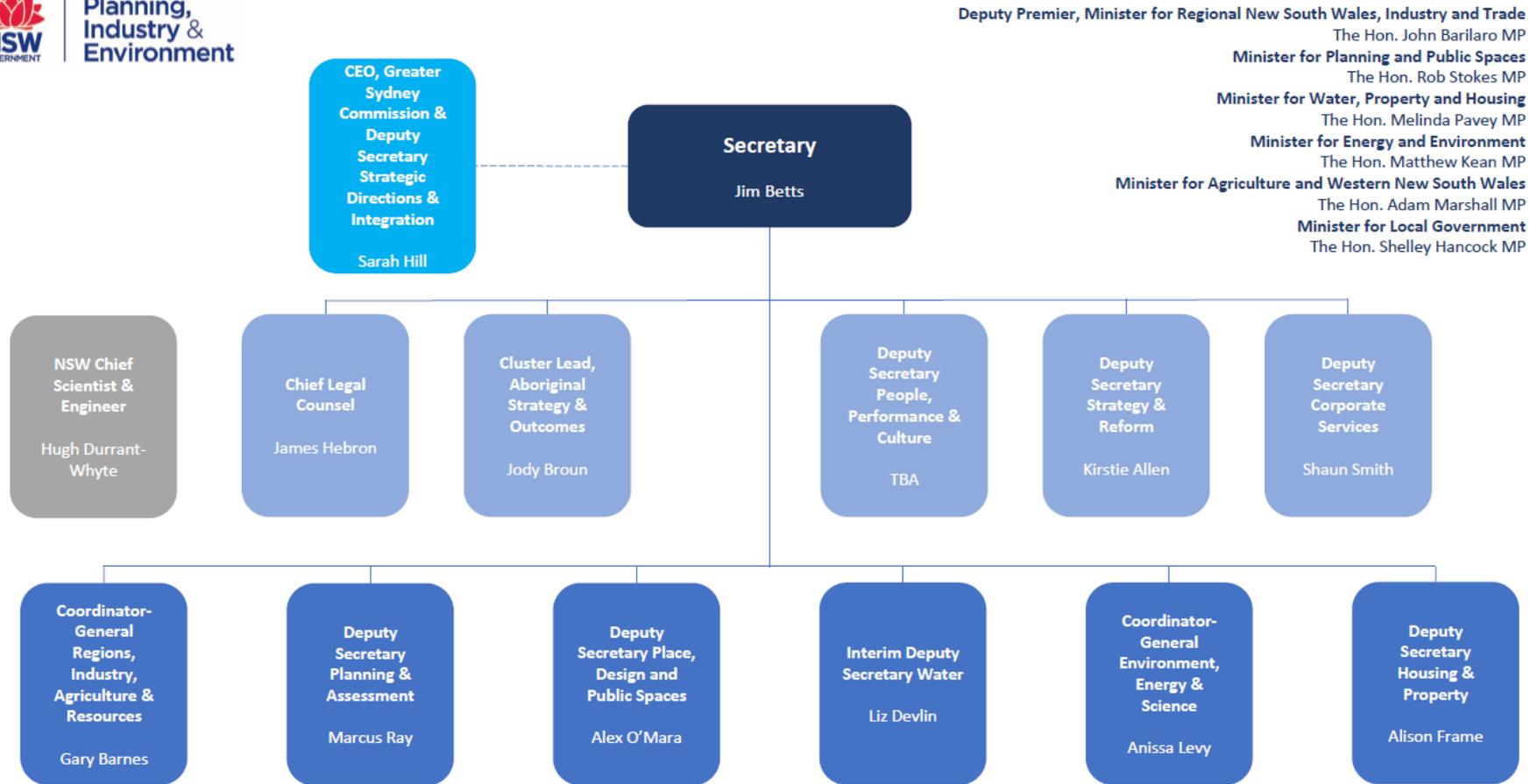
30 April 2019

“The Commission has identified a number of issues associated with these 14 aspects of the Project, all of which the Commission considers are key issues requiring detailed consideration by the Department in its evaluation of the merits of the Project,” it added.

- strategic context and Project justification;
- groundwater;
- surface water and flooding;
- water balance;
- noise and blasting;
- air quality;
- Project infrastructure area;
- Biodiversity;
- rehabilitation, final void and final landform;
- heritage;
- social and economics;
- visual amenity;
- traffic and transport; and
- the public interest.”

The Project now goes back to the Department for a full whole-of-government assessment.

Whole of Government Assessment



Deputy Premier, Minister for Regional New South Wales, Industry and Trade
The Hon. John Barilaro MP
Minister for Planning and Public Spaces
The Hon. Rob Stokes MP
Minister for Water, Property and Housing
The Hon. Melinda Pavey MP
Minister for Energy and Environment
The Hon. Matthew Kean MP
Minister for Agriculture and Western New South Wales
The Hon. Adam Marshall MP
Minister for Local Government
The Hon. Shelley Hancock MP

SR 17 Narrabri 35

17 Maules Ck SR 11 Boggabri 18



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