

**Illawarra Coal**

Illawarra Coal Holdings Pty Ltd  
BHP Billiton Illawarra Coal Administration Centre  
Old Port Road Port Kembla  
New South Wales 2505 Australia  
PO Box 514 Unanderra  
New South Wales 2526 Australia  
Tel: +61 2 4255 3200 Fax: +61 2 4255 3201  
bhpbilliton.com

14 August 2009

Department of Planning  
GPO Box 39  
SYDNEY NSW 2001  
Attn: Alison O'Reilly

Dear Alison

**Response to Submissions  
Appin Goaf Gas Project (08\_0256)**

Thank you for providing the submissions sent to the Department of Planning (DoP) in response to the exhibition of the abovementioned Project. Our response to each submission is provided in Attachment A. We note that no objection to this Project was raised by any NSW Government Agency or Wollondilly Shire Council. No submissions from the general public were received.

In accordance with our letter to the Department of Planning dated 24 July 2009 and described to various agencies in a presentation/field trip on 31 July 2009, Illawarra Coal propose to relocate the preferred extraction plant approximately 150 m to the south west to avoid Telstra fibre optic cables that were found by 'Dial Before You Dig' site investigations. A map of the modified Project layout is shown in Appendix B. The Option A MRD site was fully assessed in the Environmental Assessment. Given the relocation of the extraction plant, Illawarra Coal now considers that Option B MRD site is preferable. Letter reports from the respective expert consultants that contributed to the Environmental Assessment confirm that the impact of this modification is the same or less than that originally proposed in the Environmental Assessment are provided in Attachment C.

Illawarra Coal would like to commence construction of the Appin Goaf Gas Project as soon as possible. To this end, we request that approval for this Project be granted by early September 2009.

Should you have any further queries in relation to this Project application please do not hesitate to contact me.

Yours sincerely,



**Bruce Blunden**  
Manager – Environmental Approvals

## **Appendix A**

### **Appin Goaf Gas Project (08\_0256) Response to Submissions**

Department of Environment, Climate Change and Water (formally DECC)

DECCW have determined that they are able to support this application.

The Environmental Assessment justifies clearing of up to 0.16 ha of native vegetation. This vegetation is nominally Cumberland Plains Woodland, however it is within a highly disturbed agricultural landscape, not contiguous with other stands of nearby Cumberland Plains Woodland, and has low conservation status. There is approximately 2010 ha of Cumberland Plains Woodland within a 10km radius of the Project Area. Clearing up to 0.16 ha of Cumberland Plains Woodland would amount to a reduction of 0.008% of this vegetation type within a 10 km radius. As demonstrated to various NSW Government Agencies at the site inspection on 31 July 2009, clearing of any native vegetation on Lot 7 DP 250231 is to enable access to the site by heavy vehicles. Illawarra Coal will minimise any vegetation clearing required to enable vehicle access to the site. It is likely that vegetation clearing will be restricted to less than 10 individual trees. All of the trees that may be cleared are relatively immature regrowth. Illawarra Coal has committed to replanting Cumberland Plains Woodland species on Lot 7 DP 250231 at the completion of the Project. This replanting will be guided by the "Recovering Bushland on the Cumberland Plain: Best Practice Guidelines for the Management and Restoration of Bushland" DECC 2005. The site is fenced and grazing animals are excluded. Given the minimal impact associated with the proposed vegetation clearing and commitment to replant and manage this vegetation on completion of the project, we do not consider that the additional Commitments suggested by DECCW are warranted.

Illawarra Coal reports comprehensive greenhouse gas emission data to the Federal Government as required by the National Greenhouse and Energy Reporting Act (NGERA). NGERA is an important component of the Federal Governments integrated regulatory response to climate change. According to the Australian Governments' Department of Climate Change, the NGERA introduces a single national reporting framework for the reporting and dissemination of information about the greenhouse gas emissions, greenhouse gas projects, and energy use and production of corporations. The objectives of the NGER Act are to:

- underpin the Carbon Pollution Reduction Scheme
- inform government policy formulation and the Australian public
- help meet Australia's international reporting obligations
- assist Commonwealth, state and territory government programs and activities
- avoid the duplication of similar reporting requirements in the states and territories

We understand that the Council of Australian Governments have agreed that the Federal Government will lead climate change regulation in Australia. To this end, we request that NSW Government Agencies avoid the duplication of monitoring and reporting requirements in the administration of their approval role.

Further, Illawarra Coal reports all aspect of environmental performance, including greenhouse gas emissions, in the Annual Environmental Management Report (AEMR). The AEMR is provided to DECCW. In discussion with DECCW, their justification for requiring this reporting is to familiarise themselves with coal mine greenhouse gas emissions, abatement technologies, and gas management practices. We do not consider this sufficient justification to warrant duplication of existing mandatory reporting requirements. Illawarra Coal has made a standing

offer to DECCW for them to inspect our sites and discuss greenhouse gas management options with our staff at their convenience.

Given the comprehensive reporting of Greenhouse Gas emissions data that occurs to both the Federal and State government agencies, which will incorporate the emissions and emissions abated from this Project, we do not consider that the conditions suggested by DECCW are warranted.

DECCW provide a critique of the Aboriginal Cultural Heritage Assessment and Management Plan. Illawarra Coal will consider the opportunities for improvement suggest by DECCW in our subsequent applications. DECCW propose no specific amendments to the proposed Aboriginal Cultural Heritage Management Plan. The Aboriginal Cultural Heritage Assessment has identified up to four sites of low cultural heritage significance that may be disturbed by trench excavations. Illawarra Coal has committed to avoiding Aboriginal cultural heritage objects during the construction of the Project where it is possible to do so, and undertake all activities in accordance with the Aboriginal Cultural Heritage Management Plan.

As described in the cover letter and Appendices B & C, the modification to the location of the preferred extraction plant, MRD drilling site and associated pipelines may further reduce any potential to disturb Aboriginal cultural heritage sites.

#### Department of Environment, Climate Change and Water (formally DWE)

The Environmental Assessment, including Figure 5.1, shows the location of all streams within and adjacent to the Project Area. This includes the 1<sup>st</sup> order tributary that has been mapped by DWE in Lot 7 DP 250231. As demonstrated to various NSW Government Agencies at the site inspection on 31 July 2009 (which DWE did not attend), this mapped 1<sup>st</sup> order tributary has no defined bank or bed within the land that is proposed to be disturbed by the Project. Given the absence of any physically defined waterway on Lot 7 DP 250231, a 10 metre wide core riparian zone (measured from the top of the bank) cannot be determined. No riparian vegetation is present. No bed or bank instability or clearing of riparian vegetation will occur as a result of this Project. Standard soil and erosion control works will be employed on and adjacent to any land disturbed by the Project to minimise any export of sediment from the site and water quality impacts downstream.

#### Department of Industry and Investment (formally DPI)

The Department of Industry and Investment support this Project as an appropriate use of the State's energy resources.

Illawarra Coal understands the requirement to amend the Appin Mine Operations Plan (MOP) to incorporate this Project. This review will include consideration of any additional security deposit relevant for rehabilitation of works associated with the Project. Notwithstanding the review of the MOP, Consolidated Coal Lease 767 does not extend to the surface in the area where the Project will be located, and Illawarra Coal considers that site rehabilitation will be undertaken in accordance with this Project Approval and our Statement of Commitments.

As described in the Environmental Assessment, surface disturbance associated with this Project is minor in both nature and extent. Details on the rehabilitation of disturbed areas are described in Sections 5.3.6, 8.7 and 8.12 of the EA. Comprehensive rehabilitation of all surface disturbance is addressed in the Statement of Commitments.

Given the relatively minor surface disturbance that will occur as a result of this Project, the highly degraded landscape that currently exists, and the standard management practises that will be adopted to manage temporary soil stockpiling and revegetation works as outlined in the Statement of Commitments, we do not concur with the recommendation of the Department of Industry and Investment that these matters be addressed in an Environmental Management Plan prior to the commencement of the Project.

It is Illawarra Coals preference that any conditions of Project Approval specify performance requirements that must be complied with rather than a requirement to prepare an Environmental Management Plan for approval by the Department. For example, a condition relevant to the management of erosion, sedimentation and rehabilitation of areas of land disturbed by the Project could be:

*Soil and water management controls shall be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction, operation and decommissioning activities in accordance with Landcom's Managing Urban Stormwater: Soils and Conservation.*

#### Roads and Traffic Authority (RTA)

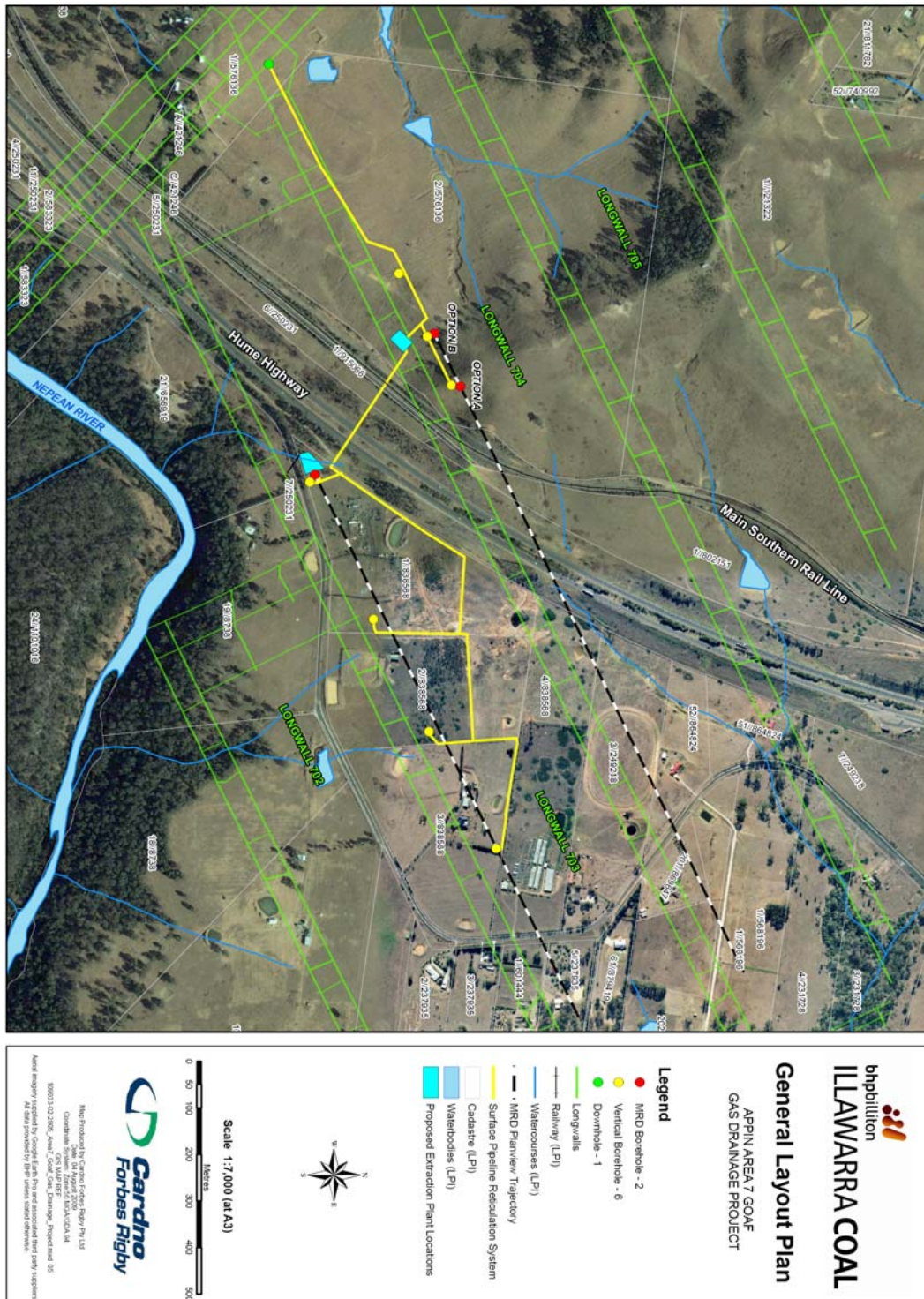
The RTA does not object to the Project. Illawarra Coal has designed, and will implement, this Project to comply with the requirements specified by the RTA in their submission. An application for s138 consent under the Roads Act has already been submitted to the RTA on 3 July 2009. Illawarra Coal will progress any amendment to the Deed of Agreement for Appin Area 7 with the RTA as soon as possible. Construction of the proposed underbore will not require any occupancy of the Hume Highway road reserve. As such, no Road Occupancy Licence will be required.

#### Wollondilly Shire Council (WdSC)

The WdSC does not object to the Project. Illawarra Coal will comply with any reasonable request of the WdSC to ensure safe entry and egress from the Project to council roads.

## Appendix B

### Modified Project Layout



## **Appendix C**

### **Modified Project Layout Expert Consultant Letter Reports**



Our Ref: 109033-02/Letter 001

Contact: Philip Paton

23 July 2009

Illawarra Coal Holdings Pty Ltd  
BHP Billiton Illawarra Coal Administration Centre  
PO Box 514  
**UNANDERRA NSW 2526**

Attention: Dr. Bruce Blunden

Cardno Forbes Rigby Pty Ltd  
ABN 41 003 936 981

278 Keira Street, Wollongong  
NSW 2500 Australia  
Telephone: 02 4228 4133  
Facsimile: 02 4228 6811  
International: +61 2 4228 4133  
Email: [cfr@cardno.com.au](mailto:cfr@cardno.com.au)  
Web: [www.cardno.com.au](http://www.cardno.com.au)

**RE: RELOCATION OF PREFERRED GOAF GAS EXTRACTION  
COMPOUND - ENVIRONMENTAL IMPACT REVIEW**

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We are writing in relation to BHP Billiton Illawarra Coal's (BHPBIC) proposal to relocate the preferred goaf gas extraction plant associated with the Appin Colliery Area 7 Goaf Gas Drainage Project.

The location for the preferred extraction plant shown in the Environmental Assessment (EA) dated June 2009 for the Project has been fully assessed and presented to the Department of Planning seeking development consent. Due to the recent location of Telstra underground cables in this area Cardno understands that this extraction plant is to be relocated approximately 150m west-south-west.

The location shown in the EA and the relocated position are shown on drawing number SK02 Rev P1 attached to this letter. Figure 5.1 (attached) from the EA has been amended to show the revised location.

Cardno has reviewed the environmental impact assessments relating to the preferred goaf gas extraction plant and concurs with BHPBIC that there is unlikely to be any significant alteration in environmental impacts due to the relocation. The only possibility for additional impacts is considered to be:

- Noise
- Fauna & Flora
- Aboriginal Cultural Heritage
- Visual.

Further to your request we have contacted Wilkinson Murray (WM) to obtain guidance on the potential for additional noise impacts due to the proposed relocation. WM has reviewed these concerns and in their professional opinion the proposed relocation will not result in the breach of any noise emission criteria at any sensitive receivers. Please refer to the attached letter from WM.

Offices - Australia

New South Wales

Sydney  
Newcastle  
Gosford  
Wollongong  
Deniliquin

Queensland

Brisbane  
Cairns  
Townsville  
Mackay  
Rockhampton  
Bundaberg  
Hervey Bay  
Sunshine Coast  
Toowoomba  
Springfield  
Gold Coast

Canberra

Victoria

Melbourne  
Bendigo  
Dandenong

Western Australia

Perth  
Kalgoorlie  
Busselton

Northern Territory

Darwin

We have also contacted Biosis Research and requested that their ecologist and archaeologist assess the potential for the relocated position to impact flora, fauna and Aboriginal cultural heritage. Biosis staff visited the relocated position to assess these impacts. This investigation confirms the relocated position will not significantly impact on protected species, communities or Aboriginal cultural sites. Please refer to the attached letter from Biosis.

Cardno has reviewed the visual impact assessment in the EA for the Goaf Gas Drainage Project and is of the opinion that the relocation will not increase visual impacts from the preferred goaf gas extraction plant.

The relocated position is approximately 6m lower and on a reduced incline than the position proposed in the EA. This will reduce the visual catchment and minimise impacts on topography. The relocated position will not have any additional impacts on land use. Overall, the relocated position will not increase the visual sensitivity; moreover, it is likely to result in the development having a reduced visual impact.

In conclusion the reviews and assessments conducted in relation to the relocation proposal of the preferred goaf gas extraction plant indicate there will be no additional impacts to those already assessed in the EA.

Should you have any questions relating to the contents of this letter please contact Philip Paton on (02) 4228 4133.

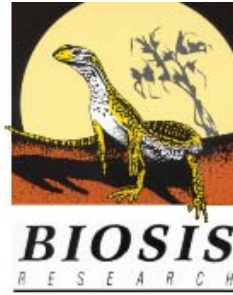
Yours faithfully

A handwritten signature in dark ink, appearing to read 'P. Paton', with a stylized flourish extending from the end.

*Philip Paton* (Town Planner)  
for **Cardno Forbes Rigby**

Encl. Figure 5.1 – General Layout Plan  
SK02 – Relocation of Preferred Goaf Gas Extraction Compound  
Wilkinson Murray Letter dated 22 July 2009  
Biosis Research Letter dated 22 July 2009





Philip Paton  
Town Planner  
Cardno Forbes Rigby  
278 Keira Street,  
WOLLONGONG NSW 2500

22 July 2009

Dear Philip,

I am writing to provide a brief description of the findings of a Flora, Fauna and Cultural Heritage site inspection of an alternative location for the proposed Goaf Plant site to avoid existing underground services situated close the original site.

Matthew Richardson (Senior Botanist) and Melanie Thomson (Senior Archaeologist) undertook the site inspection of the proposed Goaf Plant site on Tuesday 22 July 2009.

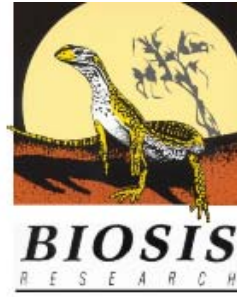
The alternate Goaf Plant site is situated on the mid to lower slopes of a large undulating ridge line, located to the west of the Hume Highway on private property. The area of the alternate Goaf Plant site is highly disturbed and does not contain any remnant native vegetation communities. The site is dominated by Blackberry (*Rubus* sp.), pasture grasses and agricultural weeds. Some native grass and shrub species occur scattered across the site. The site does not contain any significant fauna habitat.

Recorded Aboriginal archaeological site Mountbatten 1 (52-2-3674) occurs on along the crest and saddles of the main ridgeline along the existing farm vehicle track. The site comprises a low-density scatter of stone artefacts. The site is considered to be of low archaeological significance.

Ground surface visibility was limited to an existing vehicle access track that follows the underground telecommunications cable. Due to the steep slope and location of the site, it is considered highly unlikely that archaeological material would occur in this location. No archaeological sites or areas of archaeological potential were identified at the alternate Goaf Plant site.

Access to the site should be restricted to the existing access road adjacent to the rail line. If this is not possible, access to the Goaf Plant should occur in the low-lying area adjacent to the western property boundary to avoid impact to registered Aboriginal archaeological sites on the ridgeline.

There are no cultural or natural constraints associated with the proposed Goaf Plant and no further work is required.



If you have any further queries regarding the assessments, please don't hesitate to contact myself or Matthew Richardson in the Wollongong office on 4229 5222.

Kind Regards,

A handwritten signature in black ink, appearing to read 'Melanie Thomson'.

Melanie Thomson  
Senior Archaeologist

22 July 2009

WM Project Number: 08396  
Our Ref: CFR220709 Revised GOAF  
Email: philip.paton@cardno.com.au

Philip Paton  
Cardno Forbes Rigby Pty Ltd  
278 KEIRA STREET  
WOLLONGONG NSW 2500

Dear Phillip

**Re: Noise Impacts of Relocated Western Goaf Plant - APPIN AREA 7**

Wilkinson Murray has previously assessed the noise impacts of a proposed GOAF Gas Drainage Plant located east of Douglas Park. Predicted receiver noise levels were calculated using the Environmental Noise Model (ENM) computer software.

Since the initial noise study was conducted the plant has been relocated approximately 150m south-west of the initial location. The newly proposed site has a slightly reduced exposure to surrounding receivers in most directions, as the location is below the previous site. The distance to the nearest receivers, on the opposite side of the Hume Highway, is generally unchanged and with potentially greater shielding than the previous site receiver noise levels are anticipated to be similar or slightly reduced. It is recommended that the earth mound mitigation detailed in our previous report be retained, as any reduction in level is expected to be small and will not negate the need for this mitigation.

The new site is located slightly closer to those receivers on the outskirts of Douglas Park, to the south-west. Considering the reduced attenuation due to distance only, the nearest of these receivers is predicted to receive noise levels 2dB greater than those predicted in our initial assessment, increasing the  $L_{Aeq,15min}$  to 30dBA. This is still well within the relevant criteria of 40dBA for these receivers.

**Conclusion**

Wilkinson Murray has considered the in-principal impacts, using hand calculations, associated with relocating the western GOAF plant 150m south-west of the location initially assessed. These noise levels are anticipated to be similar at most receivers, with the receivers potentially most affected by the change expected to be still well within relevant criteria.

We trust this information is sufficient. Please contact us if you have any further queries.

Yours faithfully

**WILKINSON MURRAY PTY LIMITED**



**Adam Bioletti**  
Engineer

Wilkinson Murray Pty Limited

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Our Ref: 109033-02/Letter 002

Contact: Peter Chudleigh

26 August 2009

Illawarra Coal Holdings Pty Ltd  
BHP Billiton Illawarra Coal Administration Centre  
PO Box 514  
**UNANDERRA NSW 2526**

Attention: Dr. Bruce Blunden

Cardno Forbes Rigby Pty Ltd  
ABN 41 003 936 981

278 Keira Street, Wollongong  
NSW 2500 Australia  
Telephone: 02 4228 4133  
Facsimile: 02 4228 6811  
International: +61 2 4228 4133  
Email: [cfr@cardno.com.au](mailto:cfr@cardno.com.au)  
Web: [www.cardno.com.au](http://www.cardno.com.au)

## **RE: RELOCATION OF MRD AND VERTICAL BOREHOLES - ENVIRONMENTAL IMPACT REVIEW**

We are writing in relation to BHP Billiton Illawarra Coal's (BHPBIC) proposal to relocate the MRD borehole and one of the vertical boreholes on the property described as Lot 2 DP576136, for the Appin Area 7 Goaf Gas Drainage Project.

The location for the MRD and two vertical boreholes on the abovementioned property, shown in the Environmental Assessment (EA) dated June 2009 for the Project, has been fully assessed and presented to the Department of Planning seeking development consent. Due to the recent location of Telstra underground cables in this area and hence the relocation of the preferred goaf gas extraction plant (CFR Ref Letter 001, 23 July 2009), Cardno understands that the MRD borehole and one of the vertical boreholes (refer attached figure) located on the property described as Lot 2 DP576136 are also proposed to be relocated south west of the initial location assessed in the EA.

Cardno understands that there are two options being considered for the relocation of the MRD borehole and one of the vertical boreholes on this property; Option A sees the MRD and vertical borehole relocated approximately 60m south west of the initial location assessed in the EA and Option B sees the MRD and vertical borehole relocated approximately 120m south west of the initial location assessed in the EA (refer attached figure).

Cardno has reviewed the environmental impact assessments relating to both Option A and B proposed borehole locations and concurs with BHPBIC that there is unlikely to be any significant alteration in environmental impacts due to the relocation of the MRD borehole and one of the vertical boreholes on the property described as Lot 2 DP576136. The only possibility for additional impacts is considered to be:

- Noise
- Fauna & Flora
- Aboriginal Cultural Heritage
- Visual.

### Offices - Australia

#### New South Wales

Sydney  
Newcastle  
Gosford  
Wollongong  
Deniliquin

#### Queensland

Brisbane  
Cairns  
Townsville  
Mackay  
Rockhampton  
Bundaberg  
Hervey Bay  
Sunshine Coast  
Toowoomba  
Springfield  
Gold Coast

#### Canberra

#### Victoria

Melbourne  
Bendigo  
Dandenong

#### Western Australia

Perth  
Kalgoorlie  
Busselton

#### Northern Territory

Darwin

Further to your request, we have contacted Wilkinson Murray (WM) to obtain guidance on the potential for additional noise impacts due to the proposed relocation of the boreholes. WM has reviewed these concerns and in their professional opinion the proposed relocation for both Option A and B will not result in the breach of any noise emission criteria at any sensitive receivers. Please refer to the attached letter from WM.

We have also contacted Biosis Research and requested that their ecologist and archaeologist assess the potential for the relocated positions for both Option A and B to impact flora, fauna and Aboriginal cultural heritage. Biosis have assessed the relocated positions for both options and their investigation confirms the relocated positions for either Option A or Option B will not significantly impact on protected species, communities or Aboriginal cultural sites. Please refer to the attached letter from Biosis Research.

Cardno has reviewed the visual impact assessment in the EA for the Appin Area 7 Goaf Gas Drainage Project and is of the opinion that the relocation the MRD borehole and one of the vertical boreholes will not increase visual impacts from either Option A or B locations.

The relocated positions for both Option A and Option B maintain a similar elevation, distance and exposure to the neighbouring receivers to the initial position proposed in the EA. The relocated positions for both Option A and Option B will not have any additional impacts on land use or visual sensitivity than what was initially assessed in the EA.

In conclusion, the reviews and assessments conducted in relation to the relocation of the MRD and one of the vertical boreholes on the property described as Lot 2 DP576136 indicate there will be no additional impacts to those previously assessed in the EA.

Should you have any questions relating to the contents of this letter please contact Peter Chudleigh on (02) 4228 4133.

Yours faithfully

A handwritten signature in dark ink, appearing to read 'P. Chudleigh', written in a cursive style.

*Peter Chudleigh* (Civil/Environmental Engineer)  
for **Cardno Forbes Rigby**

Encl. General Layout Plan  
Wilkinson Murray Letter dated 25 August 2009  
Biosis Research Letter dated 24 August 2009









25 August 2009

WM Project Number: 08396  
Our Ref: CFR250809 Revised GOAF  
Email: peter.chudleigh@cardno.com.au

Peter Chudleigh  
Cardno Forbes Rigby Pty Ltd  
278 KEIRA STREET  
WOLLONGONG NSW 2500

Dear Peter

**Re: Noise Impacts of Relocated Western Goaf Plant and associated Vertical Well and MRD Borehole - APPIN AREA 7**

Wilkinson Murray has previously assessed the noise impacts of a proposed GOAF Gas Drainage Plant located east of Douglas Park. Predicted receiver noise levels were calculated using the Environmental Noise Model (ENM) computer software.

Since the initial noise study was conducted the plant has been relocated approximately 150m south-west of the initial location. The newly proposed site has a slightly reduced exposure to surrounding receivers in most directions, as the location is below the previous site. The distance to the nearest receivers, which are on the opposite side of the Hume Highway, is generally unchanged and with potentially greater shielding than the previous site receiver noise levels are anticipated to be similar or slightly reduced. It is recommended that the earth mound mitigation detailed in our previous report be retained, as any reduction in level is expected to be small and will not negate the need for this mitigation.

In addition to the revised plant location a vertical well and also an MRD borehole are also proposed to be relocated south-west of the initially assessed locations. At this stage Wilkinson Murray understands there are two options being considered; a) the well and borehole will be relocated approximately 60m south-west of the initial location; and b) both holes will be relocated approximately 120m south-west to be adjacent to the revised GOAF plant. The noise implications of these options are considered minimal, with the new locations maintaining similar distance, elevation and exposure to the neighbouring receivers. As with the relocated GOAF plant, the noise levels at the most potentially impacted receivers, which are across the Hume Highway, is considered unlikely to change from those predicted in our initial assessment. Any mitigation specified in our initial assessment should be maintained for the revised locations.

The new GOAF plant, well and borehole locations are located slightly closer to those receivers on the outskirts of Douglas Park, to the south-west. Considering the reduced attenuation due to distance only, the nearest of these receivers is predicted to receive noise levels 2dB greater than those predicted in our initial assessment. This will result in levels remaining well within the relevant criterion of 40dBA for these receivers.

Wilkinson Murray Pty Limited

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ACOUSTICS AND AIR



**Conclusion**

Wilkinson Murray has considered the in-principal impacts, using hand calculations, associated with relocating the western GOAF plant and the associated well and borehole south-west of the location initially assessed. The noise levels are anticipated to be similar at most receivers, with the receivers potentially most affected by the change expected to be still well within relevant criteria.

We trust this information is sufficient. Please contact us if you have any further queries.

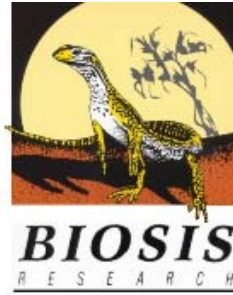
Yours faithfully

**WILKINSON MURRAY PTY LIMITED**

A handwritten signature in dark ink, appearing to read 'Adam Bioletti', is written over the company name.

**Adam Bioletti**

Engineer



Peter Chudleigh  
Environmental Engineer  
Cardno Forbes Rigby  
278 Keira Street,  
WOLLONGONG NSW 2500

24 August 2009

Dear Peter,

I am writing to provide a brief description of the findings of a Flora, Fauna and Cultural Heritage site inspection of an alternative location for the proposed Goaf Plant site to avoid existing underground services situated close to the original site.

Matthew Richardson (Senior Botanist) and Melanie Thomson (Senior Archaeologist) undertook the site inspection of the proposed Goaf Plant site on Tuesday 22 July 2009.

The alternate Goaf Plant site is situated on the mid to lower slopes of a large undulating ridge line, located to the west of the Hume Highway on private property. The area of the alternate Goaf Plant site is highly disturbed and does not contain any remnant native vegetation communities. The site is dominated by Blackberry (*Rubus* sp.), pasture grasses and agricultural weeds. Some native grass and shrub species occur scattered across the site. The site does not contain any significant fauna habitat.

In addition to the alternate Goaf Plant a desktop assessment was carried of four alternate borehole locations by Renée Regal (Archaeologist), who completed the initial archaeological assessment of the goaf gas plant and borehole locations on this property on Thursday 7 May 2009. The alternate borehole locations (Option A and Option B) are also situated on the mid to upper slopes of the same large undulating ridgeline that the alternate Goaf plant site that was assessed. Option A is located on the north eastern side of the slope and consists of one MRD borehole and one vertical borehole. Option B is on the south western side of the crest and also consists of one MRD borehole and one vertical borehole. Both option's for borehole locations are in the same disturbed vegetation as listed for the alternate Goaf Gas Plant.

Recorded Aboriginal archaeological site Mountbatten 1 (52-2-3674) occurs on along the crest and saddles of the main ridgeline along the existing farm vehicle track. The site comprises a low-density scatter of stone artefacts. The site is considered to be of low archaeological significance.

Ground surface visibility was limited to an existing vehicle access track that follows the underground telecommunications cable. Due to the steep slope and location of the site, it is considered highly unlikely that archaeological material would occur in this location. No archaeological sites or areas of archaeological potential were identified at the alternate Goaf Plant or borehole sites.

Access to the site should be restricted to the existing access road adjacent to the rail line. If this is not possible, access to the Goaf Plant and proposed borehole locations should occur in the low-lying area adjacent to the western property boundary to avoid impact to registered Aboriginal archaeological sites on the ridgeline. No access is allowed along the existing track on the top of the ridge.

There are no cultural or natural constraints associated with the proposed Goaf Plant or either Option A or B for alternate borehole locations and no further work will be required.

If you have any further queries regarding the assessments, please don't hesitate to contact me in the Wollongong office on 4229 5222.

Kind Regards,

A handwritten signature in black ink, appearing to read 'R. Regal', with a stylized flourish at the end.

Renée Regal  
Archaeologist