



19 December 2011

Mr H Read
Manager Mining Projects
Major Projects Assessments
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2011

Dear Mr Reed

Modification of Development Consent: Mount Taurus - Harness Racing Club (DA 183-8-2004-MOD 2)

Reference is made to Council's correspondence (dated 25 November 2011) accompanying a draft submission prepared by officers in regard to the above application.

I can now advise that the attached submission was endorsed by Council at its meeting on 13 December 2011 without amendment. Accordingly, it is requested that the document be viewed by the New South Wales Department of Planning and Infrastructure (DP&I) as a formal submission on the application by Campbelltown City Council. The co-operation of the DP&I in allowing for Council to consider the draft submission after the specified deadline is appreciated.

However, the DP&I is requested to note that the submission expresses the strong view of Council that the development application be refused due to Council's significant concerns regarding inadequate controls over the proliferation of wells and inadequate assessment of cumulative environmental and social impacts. Consequently, the provision of a prompt response by the DP&I to the issues raised in Council's submission on the application, prior to any determination, is requested.

If you require any further information please contact Council's Senior Environmental Officer (Environment Protection and Management), David Henry, on (02) 4645 4214.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Phil Jemison", is written over a faint, illegible background.

Phil Jemison
Manager Environmental Planning

Stage 2 Camden Gas Project Draft Submission on the EA Modification to DA 183-8-2004

The following submission outlines issues that are of concern to Campbelltown City Council in regard to an application lodged by AGL with the Department of Planning & Infrastructure (DP&I), to modify the development consent for the Camden Gas Project –Stage 2 at Mount Taurus Harness Racing Club (DA 183-8 2004i). The DP&I is requested to note that Council strongly objects to the application and has significant concerns over aspects of the Environmental Assessment (EA)

1) Summary of Council's position regarding coal seam gas projects

It should be noted that Council previously provided a submission on the EA accompanying the Stage 2 application (dated 26 October 2007), that raised a number issues regarding proposed wells in the southern part of the Campbelltown Local Government Area (LGA). Issues raised in this submission included, but were not limited to, concerns over potential land implications for the future development of the Menangle Park Urban Release Area and considered inadequacies in the assessment of the impacts of flood events from the Nepean River. Council maintains that these concerns are still relevant and should be considered in DP&I's determination of this application for modification.

Subsequently, Council has also provided a detailed submission on the EA accompanying the project application for the Camden Gas Project - Stage 3, which is attached for the information of the DP&I. This submission referred to the increase in research, scientific knowledge, publicity and community awareness regarding issues associated with the coal seam gas industry. This submission provides strong objection to the project on a number of grounds that included significant deficiencies in the assessment of potential impacts associated with the project application on surface and groundwaters in particular.

Council has also provided a submission to the current NSW Parliamentary Inquiry into coal seam gas. This submission expressed Council's view that the projected rapid growth in the event of coal seam gas extraction (as outlined in the submission from the NSW Government to this Inquiry), appears to be occurring without adequate scientific research, particularly in regard to potential impacts on surface and groundwater resources. This viewpoint is consistent with information outlined in a recent presentation provided to Council, on the potential impacts of coal seam gas activities on groundwater resources, by a Scientific Officer from the Sydney Catchment Authority, with over 25 years relevant experience.

In response to these concerns and considering the absence of scientific knowledge, particularly in relation to the assessment of cumulative impacts on the environment from coal seam gas extraction activities, the DP&I is requested to note that Council resolved at its meeting on 18 October 2011:

That Council write to the Premier and relevant Ministers requesting a moratorium on further coal seam gas mining until conclusive evidence emerges that this practice does not damage ground water resources:

A copy of Council's letter to the Premier is attached for the Department's information. In addition, Council has significant concerns regarding the inadequacies of baseline data on groundwater resources as well as the current extent of groundwater monitoring.

2) Level of Council support for the modification application

Council recognises that the Concept Plan approval (dated September 2008) allowed for additional wells at the existing Mt Taurus gas field, subject to a separate approval and assessment process under the *Environmental Planning and Assessment Act 1979*. However, the DP&I is requested to note that Council strongly opposes any new well (as is being proposed in the modification application) until there is sufficient scientific knowledge regarding associated impacts on surface and groundwater sources from these activities. Council therefore has strong objection to the modification proposal until this knowledge is obtained. Council also has strong objection to the modification until such time as the EA accompanying the application provides a comprehensive and

adequate assessment of potential environmental impacts based on independent and baseline data and scientific research.

3) Scope of Submission

The submission provides comments on the adequacy of the assessment of potential environmental impacts associated with the application as requested by the DP&I. The submission provides comments primarily in regard to the proposed new well component of the application which has increased potential for environmental and social impacts. The comments are provided within the context of Council's resolution, requesting a moratorium on further coal seam gas activities until greater scientific knowledge is obtained regarding associated potential impacts on groundwater resources, referred to above. While Council was invited by the DP&I to provide recommended conditions of approval, this is not considered appropriate given that Council is not the Determining Authority, and strongly opposes the development.

4) Review of the EA

The review of the modification EA was conducted by Council officers with a level of expertise in Environmental Assessment and flood management. The following outlines the outcome of this review concerning to the two broad components of the document.

(i) Issues associated with the statutory framework adopted by the application

a) Environmental Planning and Assessment Act 197. (EP&A Act)

It would appear that the modification EA has been written within the context of conditions of consent in the previous development approval issued by the DP&I. This viewpoint is based on references in Section 3.4.1 of the modification EA, to the now repealed Section 75W (2) of the EP&A Act, in providing justification for the lodgement of the application, as well as references in the document to outdated policies. Council requests that the DP&I note its disappointment that the EA has been provided to stakeholders for comment with this lack of current statutory basis.

In addition, it is considered essential that consent conditions issued under the EP&A Act are consistent with current legislation and associated guidelines. In this regard, the modification EA is noted to state that the application is exempt from the requirements of the interim Aquifer Interference Policy (introduced on 1 July 2011) as it was lodged under the (now repealed) Part 3A of the EP&A Act. However, a Senior Hydrogeologist from the New South Wales Office of Water (NoW) recently provided a presentation on aspects of the detailed draft policy, (which is understood to be nearing finalization) at a Local Government Panel meeting (associated with the Sydney Catchment Authority) held on 7 November 2011. This officer advised that the detailed Policy will apply to designated State Significant Developments, such as the Camden Gas Project. Consequently, it is strongly requested that discussions occur with the NoW regarding the implications of the interim and impending draft Policy for the proposal, prior to any determination of the application.

Council considers that the consent conditions should also be based on adequate and independent scientific knowledge regarding the impacts of coal seam gas activities. In this regard, Council has concerns over the insufficient knowledge regarding this issue. This stance is supported by scientific evidence from a range of government agencies. Council's concerns in this regard are summarised as follows:

- There are deficiencies in the knowledge of the groundwater environment and interconnectivity with surface waters which is demonstrated by the decision by AGL to undertake a groundwater analysis for Stage 3 of the Camden Gas project application.
- There is an absence of scientific knowledge regarding the impacts (including cumulative impacts) on groundwaters and interconnectivity associated with the three broad components of coal seam gas activities comprised of drilling, hydraulic fracturing and dewatering.

- Recent scientific research has raised questions that greenhouse gas emissions associated with the burning of methane compared to coal is lower, when the whole-of-lifecycle is taken into account.

Therefore, and in accordance with Council's 18 October resolution, Council considers that the preparation of a modification application is highly inappropriate.

b) NSW Water Management Act 2000

It is noted that the modification EA states that the site of the layout area will maintain a minimum distance of 40 metres to the Nepean River as well as maintain a buffer to the Sydney Coastal River Flat (now known as River Flat Eucalypt Forest, an Endangered Ecological Community within NSW). However, the DP&I should note that under this legislation, waterfront land is defined as 40 metres from the highest bank of the watercourse. Activities occurring in this zone are classified as controlled activities and require Minister's approval. In this regard, Council has concerns not only over the potential approval for the additional well (M25), but also the previous approval for the existing well (M16), as both wells are located within this 40 metre zone. For this reason, it is strongly requested that the DP&I obtain advice from the NoW regarding the implications of this Act for the proposal.

(ii) Adequacy of the project description

While noting the EA contains a description of the main components of the proposal, it is considered the level of detail is insufficient. In addition, the intended use of two lined pits for the storage of wastewater and drilling are opposed in the strongest possible terms for the following reasons:

- The use of lined pits is in contravention of the NSW Government's announcement of 21 July 2011, that prohibits the use of evaporation ponds as part of coal seam gas projects in New South Wales;
- The use of lined pits is contrary to advice provided by AGL representatives at meetings of the Camden Gas Community Consultation Committee, where advice was given that only enclosed tanks are used as part of the Camden Gas Project;
- The lined pits are intended to be placed on a flood plain adjacent to the Nepean River system, which the modification EA states (on page 22) could be flooded to a depth of 5.4 metres during a 20 year average recurrence interval flooding event; and
- The excavation work required for the construction of the pits has significant potential to result in salinity related impacts on the Nepean River and its surrounds which may potentially affect the overall ecology of the river.

Therefore, the DP&I is requested to note that the protection of the Nepean River is of major importance to Council given its high level of ecological and social significance, both in this area and further downstream and that accordingly, the application must be refused.

(iii) Consultation undertaken as part of the application

It is noted that the modification EA states that the proponent will consult with members of the Camden Gas Community Consultation Committee, (of which Council is a member), regarding the proposal. Whilst this action is considered appropriate, the level of consultation with this Committee during the preparation of the application only consisted of a brief reference in a routine report at the conclusion of the meeting held on 20 October 2011. The DPI is requested to note that Council considers this to be unacceptable and that a detailed presentation and separate consultation with individual relevant members of the Committee should have occurred.

(iv) Assessment of environmental impacts

The modification EA lists a range of potential impacts associated with coal seam gas activities. However, there are significant omissions of a number of potential environmental impacts as well as significant deficiencies in the assessment of environmental impacts associated with all components of the proposal sufficient to warrant refusal of the application. These are provided in detail below:

- The modification EA does not include any reference to available groundwater information or the current studies being undertaken by AGL as part of its response to submissions received on the Stage 3 project application and/or complementary amendments to NSW Legislation. In this regard, the DP&I should note that Council is extremely concerned over the significant deficiencies in the level of baseline and independent data regarding groundwater environment in the project area and current scientific knowledge regarding the impacts of coal seam gas activities on groundwater aquifers outlined in the modification EA (and the Stage 3 EA).
- The modified EA does not contain an assessment of impacts associated with the proposal (including cumulative impacts) on groundwater sources and any interconnectivity with surface waters apart from a statement regarding the casing of gas wells. This is unacceptable.
- It is acknowledged that the modified EA identifies some potential impacts on surface waters associated with sediment loss and stormwater flow and outlines some protective measures such as the storage of fuel in enclosed tanks. However, it is considered the modification EA has not adequately addressed these impacts on the overall ecological health of the adjoining Nepean River, within a catchment context as well as potential impacts on downstream users of the river. This is unacceptable.
- In regard to the assessment of flooding risks on site, the modified EA is noted to state on page 23 that, "*Potential transfer of fuels, lubricants or drill water from the works to the Nepean River during flooding is not likely to have a significant impact on water quality, as any such transfers will be minor in comparison to the total volume of the river*". The DP&I is requested to note that this statement is unacceptable as it is dismissive of the potential impacts associated with the proposal on the overall health of this highly significant river. This demonstrates the contempt that AGL holds for the potential impact on River Health.
- The modified EA does not include any reference to potential salinity impacts and measures to protect the Nepean River and its ecology from any salinity-related impacts as a consequence of the proposal. Again, this shows little regard by AGL for the impact of the proposal on the health of the Nepean River.
- The ecological assessment is noted to be based on the conclusions of a flora study completed in 2003 which concluded that an 8 part test to determine the significance of potential impact on the River Flat Eucalypt Forest in close proximity was not required. In this regard, the modified EA has not referred to the Threatened Species Assessment Guidelines released by the NSW Office of Environment and Heritage (for the now 7 part test), which may result in a different conclusion. Again, this is unacceptable.

5) Consistency of the Application with Section 96 of the *Environmental Planning and Assessment Act 1979*

Council would like to express its strong objection to project determination of the modification application. This is consistent with Council's recent resolution requesting a moratorium on any further coal seam gas extraction until there is greater scientific knowledge demonstrating acceptable or nil impacts on ground-water resources. Further, in response to the identified significant deficiencies in the assessment of potential impacts associated with the proposal, Council considers that, at a minimum, the preparation of a new application with a comprehensive environmental assessment is essential.

A review of the EA by officers has identified inconsistencies in the proposal with the requirements of Section 96 of the EP&A Act for the assessment of designated State Significant Projects, in terms of the EA and approval processes. These inconsistencies relate to Section 96 (1) (Minimal Environmental Impact) and Section 96 (2) (Other Impacts) of the EP&A Act, and are outlined below for action by the DP&I.

- (i) *Modifications involving minimal impact (Section 96(1A) of the EP&A Act) -*

Council is of the opinion that the application does not satisfy the requirements of this Section of the EPAA for the granting of an approval to modify a previous condition of development consent by the DP&I. The reasons for this view are outlined below and are referred to according to the relevant sub-sections under the EPAA Section 96(1A):

- (a) (The consent authority) is satisfied that the proposed modification is of minimal environmental impact:

It is recognised that the modified EA contains a description of a range of potential environmental impacts and measures to mitigate these impacts. However, Council strongly disagrees with the conclusion of this document that the proposal will "*most likely have minimal environmental impact,*" for the following reasons:

- There is an absence of baseline and independent data that council considers necessary for a consent authority to determine that the proposed modification is '*of minimal environmental impact*'.
- The significant deficiencies in the EA relating to the identification and measurement of impacts associated with the proposal outlined in the previous section of this submission prevent a determination regarding the level of impact associated with the proposal.
- Recent scientific research has highlighted the significant potential for impacts associated with coal seam gas extraction activities on groundwater sources as well as the connectivity of these resources with surface waters. These issues are not referred to in the document.
- The modification EA contains a range of statements acknowledging the potential for environmental impact as a consequence of the proposal, such as the potential impacts on the condition of the Nepean River during flood events referred to in Section 5.2.4.

Surely, the Department cannot be satisfied that the development "will most likely have minimal environmental impact"

- (b) The development is substantially the same as the development for which the consent was granted:

It is noted that on a number of occasions, the modified EA acknowledges that the proposed works are not consistent with the original development consent (dated December 2004) or the subsequent concept approval issued by the DP&I (dated 4 September 2008). In this regard, Council officers are of the opinion that the modified development is not the same development. The proposal would represent project expansion and intensification including new facilities with significant environmental "presence" and potential for environmental impact. Importantly:

- The proposal would result in an increase in intensity of surface activities as a consequence of the upgrading of an access road and installation of additional gas gathering pipelines;
- The proposal would result in an increase in intensity of the level of operations in terms of an increase in drilling and associated maintenance activities; and
- The proposal would result in an intensification of subsurface activities as a consequence of an increased level of extraction and increased drawdown on groundwater aquifers within the context of the existing operating wells in the Mt Taurus gas field.

Consequently, Council would urge the Department to refuse the application.

- (ii) *Modifications involving other impacts (Section 96(2) and Section 96(3) of the EP&A Act –*

- **Section 96(2) (a)** makes reference to approval being granted where '*The development is substantially the same as the development for which the consent was granted.*' Again, as outlined above, Council is of the opinion that that the proposal is not substantially the same and requests that modification application be refused.
- **Section 96(2)(d)** makes reference to approval being granted if the consent authority *has* considered any submissions made concerning the proposed modification within the period prescribed by the regulations or provided by the development control plan, as the case may

be. Council is of the opinion that this submission has provided sufficient justification for refusal of the application.

(III) *Section 96(3) of the EP&A Act*

- **Section 96(3)** states that, 'In determining an application for modification of a consent under this section, the consent authority must take into consideration such of the matters, referred to in Section 79(C) that are of relevance to the development the subject of the application.

This Section of the EP&A Act requires that the consent authority must review any modification application assessed under either Section 96(1) or 96(2) of the Act in terms of consistency with the requirements of Section 79(c) of the EP&A Act. Consequently, the modified EA must be reviewed to determine its consistency with these requirements and the associated Clause 228 of the Environmental Planning and Assessment Regulation 2000.

Detailed comments regarding each item of the Regulation can not be provided due to the short timeframe provided for the submission of comments provided by the Department and the considered need for a comprehensive review of the modified EA to comply with this Regulation.

In addition, the provision of detailed comments regarding the flood risk analysis are not provided due to requested documents referred to in the modified EA not having been made available. The DP&I is requested to note that this issue is one of major concern to Council due to frequency of flooding that can occur, the significance of the potential impacts on the condition of the Nepean River that can occur as a consequence of the proposal as documented in the flooding analysis undertaken by the applicant. Consequently, it is requested that these documents be provided to Council for comment and review prior to any consideration of project determination. The potential for environmental impacts exacerbated by the risks of flooding is significant.

Notwithstanding the above, other major requested amendments that are considered necessary to achieve a level of consistency with Section 79C of the EP&A Act prior to any consideration of determination by the DP&I are as follows:

- The amendment of the EA to assess flooding implications associated with the intended stockpiling of fill within the floodplain.
- The amendment of the EA to include a detailed report regarding impacts on flora and fauna associated with the proposal comprised of (as a minimum):
 - Targeted surveys in accordance with relevant guidelines;
 - Assessment of the impacts of the proposal on the ecology within the terrestrial environment as well as aquatic and riparian environment within the Nepean River; and
 - Determination of the significance of the impacts in accordance with the Guidelines produced by the NSW Office of Environment and Heritage.
- The amendment of the EA to include a detailed assessment of potential impacts associated with all components of the proposal on the health of the Nepean River.
- The amendment of the EA to include an assessment of impacts and proposed mitigation measures that will prevent any impacts on the overall health of the Nepean and associated ecological environments during flood events.
- The amendment of the EA to include a detailed and independent specialist groundwater report that is comprised of (but not limited to), the following:
 - The inclusion of an overview of previous groundwater studies as well as the current investigation program being undertaken by AGL and any others.
 - The assessment of impacts associated with the key components of coal seam activities (drilling, hydraulic fracturing and dewatering of groundwater aquifers) on groundwater resources (based on the list presented in the Attachment). This should include an assessment of cumulative impacts within the context of the existing wells in the Mt Taurus gas field.

- The assessment of potential impacts on the condition of the Nepean River in terms of water quality and riparian and aquatic environments associated with any groundwater contamination that may occur as a consequence of the proposal.

6) Requested response by the DP&I

It is strongly recommended that the DP&I reject the modification application. No future application for coal seam gas extraction should be considered by the NSW Government until such time as conclusive and independent evidence is available that extraction has no negative impact on groundwater resources.

7) Conclusion

Council recognises that the Concept Approval issued as part of the Stage 2 of the Camden Gas Project for the installation of new wells in the Mt Taurus gas field was inappropriate in light of the range of concerns that are now coming to light over coal seam gas extraction and the potential environmental impacts. However, this submission has outlined Council's significant concerns regarding inadequate controls over the proliferation of wells and inadequate assessment of cumulative environmental and social impacts. In this regard, the submission expresses the strong view of Council that the application be refused.

The submission expresses disappointment that the application has been lodged within the statutory framework of the repealed Part 3A of the EP& A Act and also has outlined a range of significant omissions and deficiencies in the assessment of potential environmental and social impacts. The major identified deficiencies include the proposed use of lined pits for the storage of wastewater adjacent to the Nepean River in contravention of Government policy and inadequate assessment of assessment of there potential impacts (including cumulative) on groundwater resources. Council is deeply concerned that the Department has decided not to publicly exhibit the modification application, which in Council's view, is not consistent with the requirements of Section 96(2) of the EP&A Act.

Council strongly objects to this proposal and considers that it does not satisfy the requirements under Section 96(1) of the EP&A Act (minimal environmental impact) allowing for the granting of modification to the consent condition issued in December 2004. Further, the proposal does not satisfy the requirements of Section 96(2) of the EP&A Act for the granting of a modification approval.

This submission has been provided within the significant constraints of the narrow timeframe provided by the DP&I for the supply of comments from stakeholders. This was disappointing given the significance of the proposed development and Council's concerns with the application.

Agenda Report

User Instructions

If necessary to view the original Report, double-click on the 'Agenda Report' blue hyperlink above.

Action Item

Council at its meeting of 13 December 2011 adopted the following Resolution with Resolution No <No>.

12.1 SUBMISSION ON THE APPLICATION FOR THE INSTALLATION OF A PROPOSED ADDITIONAL GAS EXTRACTION WELL AT MENANGLE PARK

This item was moved forward and dealt with in conjunction with Planning and Environment - Item 2.7 - Submission on the Application for the Installation of a Proposed Additional Gas Extraction Well at Menangle Park.

[Agenda Report](#)

User Instructions

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Action Item

Unless otherwise indicated below Council at its meeting of 13 December 2011 adopted the following Committee's Recommendation with Resolution No 265.

2.7 Submission on the Application for the Installation of a Proposed Additional Gas Extraction Well at Menangle Park

Officer's Recommendation

1. That Council reiterate its strongest objection to the application and Council's previous resolution to call on the NSW Government to implement a moratorium on all further coal seam gas extraction until conclusive evidence emerges that this practice does not damage ground water resources.
2. That Council endorse the submission to the New South Wales Department of Planning and Infrastructure on the modification project application.

Committee's Recommendation: (Bourke/Greiss)

That the Officer's Recommendation be adopted.

CARRIED

Council meeting 13 December 2011

It was **Moved** Councillor Kolkman **Seconded** Councillor Bourke that Directors Report - Item 12.1 - Submission on the Application for the Installation of a Proposed Additional Gas Extraction Well and Menangle Park be brought forward and dealt with in conjunction with Item 2.7 of the Planning and Environment Committee.

WON and became part of the Motion.

An **Amendment** in regard to Item 2.7 - Submission on the Application for the Installation of a Proposed Additional Gas Extraction Well and Menangle Park it was **Moved** Councillor Kolkman **Seconded** Councillor Bourke:

1. That Council reiterate its strongest objection to the application and Council's previous resolution to call on the NSW Government to implement a moratorium on all further coal seam gas extraction until conclusive evidence emerges that this practice does not damage ground water.



Our Reference: OUT11/21727

Mr Howard Reed
Manager Mining Projects
Major Development Assessment
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention Mr Clay Preshaw

Dear Mr Reed

**Camden Gas Project – Stage 2
Modification of Development Consent: Mount Taurus
DA 183-8-2004i – MOD 2**

I refer to your letter of 31 October 2011 requesting comment on the Environmental Assessment (EA) modification for Camden Gas Project – Stage 2 and any advice on recommended conditions of approval.

Technical officers of Trade & Investment NSW (DTIRIS) have reviewed the EA and make the following comments:

ENVIRONMENTAL ISSUES

Final Rehabilitation

The modification does not discuss the final rehabilitation of the well upon completion of its productive life. Whilst it is expected that this well will remain in operation for many years, the modification should identify the expected steps in plugging and abandoning the well. Removal of gas gathering lines and rehabilitation of the access road will also be required where there is an environmental risk or no beneficial use to the landowner

Conceptual Final Landform Plan

The modification should include a conceptual final landform plan at a suitable scale. The plan should show final contours and vegetation types.

The Petroleum Operations Plan (POP) for the project must be amended to reflect this modification prior to the commencement of construction.

A revised security calculation will be required to accompany the POP amendment.

If you have any inquiries regarding these comments please contact Steve Cozens on telephone (02) 8289 3932.

Yours sincerely



William Hughes
Director Industry Coordination



PCU028292

Mr Howard Reed
Manager, Mining
Department of Planning and Infrastructure
GPO Box 39 Sydney, NSW 2001

Contact Mark Simons
Phone 02 4904 2572
Mobile 0447 429 336
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Email mark.simons@water.nsw.gov.au

Our ref ER20966
Your ref DA 183-8-2004i – MOD2

Attention: Clay Preshaw

Dear Mr Reed

**Camden Gas Project - Stage 2 – Modification of Development Consent: Mt Taurus –
Harness Racing Club – DA 183-8-2004i – MOD 2**

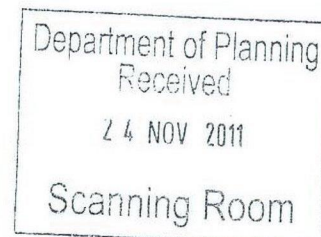
I refer to your letter of the 31 November, 2011, inviting comment on the Environmental Assessment (EA) for the above project. NOW has reviewed the EA and provides detailed comments in Attachment A, with recommended conditions of approval in Attachment B.

Section 1.3 of the EA discusses the approvals framework, regarding a Part 4 development consent, modified by the minister under Section 75W of the Environmental Planning and Assessment Act and clause 8J(8) of the EP&A Regulation. Advice provided by your department is that a modification assessed under this framework is not an approved project under Part 3A. Consequently Section 75U of the EP&A Act does not apply, so this project is not exempt from requiring activity approvals. This conflicts with statements made within the EA at Section 3.4.2(iii). As a result, Water Management Act Work Approvals and Use Approvals will be required for this activity. An Aquifer Interference Activity Approval may also be required. Controlled Activity Approvals will not be required, as the activity is to be undertaken in accordance with a petroleum title in force under the <http://www.legislation.nsw.gov.au/xref/inforce/?xref=Type%3Dact%20AND%20Year%3D1991%20AND%20no%3D84&nohits=y> *Petroleum (Onshore) Act 1991*, and these activities are exempt under clause 39 of the *Water Management (General) Regulation 2011*

If you have any enquiries regarding this matter please contact Mark Simons on 4904 2572

Yours sincerely

Mark Mignanelli
Manager, Major Projects, Mines and Assessment
18 November 2011



**NOW COMMENTS ON ENVIRONMENTAL ASSESSMENT
CAMDEN GAS PROJECT - STAGE 2 – MODIFICATION OF DEVELOPMENT CONSENT: MT
TAURUS – HARNESS RACING CLUB – DA 183-8-2004I – MOD 2**

Water Licences under the Water Management Act and Water Act.

The Water Management Act 2000 (WMA) governs sustainable and integrated management of water sources across the State. Licensing of water is regulated under the Water Management Act 2000 for areas which are subject to a Water Sharing Plan, and the Water Act 1912 for water sources not covered by a Water Sharing Plan. At present, the Water Sources targeted for dewatering by the proponent are regulated under the Water Management Act 2000, under the Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2011. AGL have obtained a Water Act 1912 licence (10BL604888) for the proposed bore which will be converted to a Water Management Work Approval if the project is approved. An Aquifer Interference Policy is currently under development. Although an Aquifer Interference Approval system is not currently in place, the proponent must discuss the need for such an approval prior to commencement of the activity.

The EA does not discuss the expected volume of water to be produced from this well, or address whether the existing entitlement held by AGL is sufficient for this new well. Prior to commencing any pumping, the need for additional entitlement must be determined and the work approval linked to a valid access licence.

Bore Construction

Construction of all wells must be undertaken by a driller holding a water drillers licence, valid in New South Wales. It is recommended that a condition requiring this, and stating the requirements for construction and reporting requirements be included in the consent conditions.

Groundwater Monitoring and Aquifer Connectivity

The EA fails to discuss the behaviour of groundwater systems, the impact of the current AGL operations on these systems, or the likely impact of the additional extraction. However, Water Licence conditions for bores associated with the Camden Gas production borefield require the development of a Groundwater Management Plan by July 2012. The Office of Water has met with AGL on 16 November 2011 to discuss the preparation of this plan. The Office of Water will ensure monitoring and reporting requirements are met through this plan.

**End Attachment A
18 November 2011**

**NOW COMMENTS ON ENVIRONMENTAL ASSESSMENT
CAMDEN GAS PROJECT - STAGE 2 – MODIFICATION OF DEVELOPMENT CONSENT: MT
TAURUS – HARNESS RACING CLUB – DA 183-8-2004I – MOD 2**

Water Licencing Requirements

1. Prior to commencement of any pumping, the proponent must demonstrate that they hold sufficient entitlement to account for extraction from the all their current expected operations.
2. Prior to commencing any pumping from this bore, the work approval resulting from the conversion of Water Act Licence 10BL604888 must be linked to a valid access licence.

Bore Construction

3. Investigations of groundwater occurrence are to be conducted such that all water bearing horizons and zones of fracturing, fissuring or weakness within all of the strata intersected by drilling are to be identified and documented for all of the boreholes used in the project.
 - Caliper and video logs (and any other geophysical logs considered necessary by the NSW Office of Water) shall be run for the full length of each hole following the completion of drilling by suitably qualified professionals experienced in the methods and techniques required.
 - Geological logs are to be prepared for the full length of each hole by suitably qualified professionals experienced in the methods and techniques required.
4. The borehole drilled for the project are to be constructed with annular seals so as to isolate the horizons from which coal seam gas is to be drawn from overlying and underlying strata that are used, or potentially may be used, for water supply purposes.
 - The materials used in the sealing of the annular spaces of boreholes shall not be of a composition that poses a risk of pollution to groundwater as defined by the dictionary meaning of '*water pollution*' or '*pollution of waters*' within the *Protection of the Environment Operations Act 1997* (NSW).
 - Cement bond logs (and any other geophysical logs considered necessary by the NSW Office of Water) shall be run for the full length of each hole after annular sealing by suitably qualified professionals experienced in the methods and techniques required.
 - Documentary evidence of the integrity of seals placed to isolate the horizons from which coal seam gas is to be drawn from other strata is to be provided to the NSW Office of Water prior to the commencement of operation.
5. On completion of bore construction, a pumping test assessment should be undertaken to the satisfaction of the Office of Water.

**End Attachment B
18 November 2011**



Office of
Environment
& Heritage

Your reference

Our reference:

Our contact:

LIC06/638-07:DOC11/50243:PW

Paul Wearne (02) 4224 4100

Major Projects Assessment Mining and Industry Projects
(Attention: Clay Preshaw)
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Sir

**CAMDEN GAS PROJECT – STAGE 2
MODIFICATION OF DEVELOPMENT CONSENT MOUNT TAURUS - HARNESS RACING CLUB
DA 183-8-204i – MOD 2**

I am writing in relation to your letter dated 2 November 2011 seeking comments from the Environment Protection Authority (EPA) on the above modification at Menangle Park.

The submitted Environmental Assessment (EA) indicates that the proposed modification will involve the construction and operation of an additional surface to in-seam production well, minor extension of existing gas gathering line and upgrade of existing access tracks.

The EPA has undertaken a review of the submitted EA and has identified the following issues that require clarification or additional information being sought from the proponent. These are detailed in the attachment to this letter (**Attachment 1**). They relate to the following:

- Justification for Additional In Seam Well
- Protection of Groundwater
- Environment Protection Licence
- Consolidated consent
- Public consultation; and
- Cumulative Impacts.

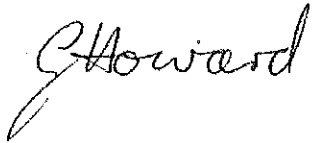
Once this information has been provided by the proponent, the EPA will be able to undertake a further assessment of this information and provide any recommended draft approval conditions if necessary. This information is also important with respect to setting any future environment protection licence requirements. (if approval is granted).

The EPA is also able to meet with the Department of Planning and Infrastructure at a mutually convenient time to discuss any of the above matters. If you have any questions please contact Paul Wearne on (02) 4224 4100.

The Environment Protection Authority is part of the Department of Premier and Cabinet

PO Box 668 Parramatta NSW 2124
Level 7, 79 George St Parramatta NSW 2150
Tel: (02) 9995 5000 Fax: (02) 9995 6900
ABN 30 841 387 271
www.environment.nsw.gov.au

Yours sincerely

A handwritten signature in cursive script that reads "G. Howard".

22 DEC 2011

GISELLE HOWARD
Director Metropolitan
Environment Protection Authority

Attachment 1

ATTACHMENT 1

ENVIRONMENT PROTECTION AUTHORITY COMMENTS ON THE ENVIRONMENTAL ASSESSMENT

1. Justification for Additional In Seam Well

The proposed new production well MP25 is immediately adjacent to existing well MP16. The Environmental Assessment (EA) states that the justification for the new well is based on demand for natural gas and energy security. However, the EA still needs to provide information on the reasons why the existing well MP16 cannot accommodate this demand and security, thereby potentially negating the need for this new production well. In this regard, the Environment Protection Authority (EPA) recommends that additional information be sought from the proponent on further justification for MP25.

2. Protection of Groundwater

A review of the EA has identified a number of additional information needs. These include but are not necessarily limited to the following:

- The need for additional information on the groundwater system in the area to enable the assessment of any potential impacts from drilling and gas production. Given the close proximity of the activity next to the Nepean River (less than 50 metres) there needs to be an understanding of groundwater and its relationship with the River or any associated water dependant ecosystem.
- The need for information in the EA on the environmental risks of chemicals used including their fate in groundwater. For example, the EA states that "drilling will use a circulation fluid of water containing approximately 5% potassium sulphate by weight".
- The need for an assessment on any potential aquifer interference.
- The need for detailed information on well construction and measures to ensure its integrity in the short and long term.
- Clarification about whether the well will be subject to hydraulic fracturing and whether approval is being sought for this process.

The following specific information should be sought from the proponent to assist in understanding the proposal and to ensure effective measures are in place to protect the environment at all times.

- a) Design and construction of the well and the measures in place to ensure the integrity of the drill hole to comply with any statutory requirements, regulatory controls or standards;
- b) The management controls which will be implemented to prevent the pollution of groundwater resources and prevent depletion of the groundwater resources (other than within the target coal seam aquifer) as a result of interconnectivity;
- c) Details of any hydraulic fracturing (well stimulation);
- d) Description of the regional groundwater system;
- e) Identification and characterisation of potentially affected groundwater resources and values that require protection, including the location of any groundwater bores, users and groundwater dependent ecosystems;
- f) Description of transmissivity, flow rate, hydraulic conductivity and direction(s) of flow for these groundwater resources including any potential for aquifer interference (including changes to inter-aquifer connectivity);
- g) Description of any barriers and connections between the target formation and these groundwater resources;
- h) Description, quantification and characterisation of any proposed extraction of groundwater;
- i) Assessment of the impact of extraction or interference on existing groundwater resources, including groundwater dependent ecosystems;
- j) Inclusion of a mass balance estimating the concentrations and absolute masses of chemicals that will be reacted, returned to the surface or left in the drill hole or target formation;
- k) Inclusion of a risk assessment of all chemicals used and any associated impacts as a result of drilling and gas extraction activities, including their mixtures and the resultant chemicals that may be formed;

- l) Details of any groundwater monitoring programs; and
- m) Details of any contingency measures to address any unforeseen or unpredicted consequences.

3. Environment Protection Licence

The EA states that the existing Environment Protection Licence (EPL) applies to the proposed modification. However, the EA needs to document how the existing EPL No (12003) has been taken into account in relation to this development and will be complied with at all times. This would also include the need for any Variation if approval is granted.

For your information, the EPA is currently discussing with the proponent a suite of proposed additional conditions for this EPL. These include:

- Requiring information and assessments to be undertaken of the groundwater and groundwater monitoring networks
- Implementation of a VOC leak detection and repair program; and
- Development of a site specific spatial layer of all coal seam gas infrastructure.

4. Consolidated Consent

There have been numerous modifications that have been approved since the original Camden Gas approval. It would benefit the community, Government and Industry if these approvals were consolidated under a single instrument. This would provide a clearer understanding of the extent of the approved project, its existing conditions of approval, and any conditions that would need to be modified or added for this development (if approved). It would also benefit EPA regulation of the premises by ensuring greater clarity between approval and licensing requirements. This includes for example, operational, monitoring and reporting requirements. The EPA would like to discuss this further with Department of Planning and Infrastructure (DP&I) and explore opportunities to facilitate such a consolidated approval.

5. Public Consultation

It's unclear from the EA, what community consultation has occurred as part of this proposal. From Section 4 of the EA it is not clear whether the EA has been discussed at the Community Liaison Group. There also does not appear to be any public information on the AGL web site in relation to this. DP&I has also indicated that it will "*not be publicly exhibited due to its relatively small scale*".

There is currently a high level of community interest in coal seam gas developments in NSW. To demonstrate effective community consultation has occurred, the EA needs to document all consultation to date on this proposal. While the EPA notes that DP&I have indicated that the proposal will not be publicly exhibited due to its relatively small scale, it is strongly recommended that public exhibition does occur prior to determining the project.

6. Cumulative Impacts

The EA does not include an assessment on any potential cumulative impacts as a result of the proposed modification. Information should be sought from the proponent on the potential for any cumulative impacts on the environment from the proposed modification. This assessment should identify and take into account any impacts from the Camden Gas Scheme and other projects in the immediate locality and the region.

Your Reference: DA183-8-2004i-MOD 2
Our Reference: SYD11/00977
Contact: Stella Qu
Telephone: 8849 2520



Transport
Roads & Maritime
Services

Manager
Mining
Department of Planning & Infrastructure
GPO Box 39
Sydney NSW 2001

Attention: Clay Preshaw

**CAMDEN GAS PROJECT – STAGE 2
MODIFICATION OF DEVELOPMENT CONSENT: MOUNT TAURUS – HARNESS
RACING CLUB DA 183-8-2004i-MOD 2**

Dear Clay,

I refer to your letter of 31 October 2011 (your ref: DA183-8-2004i) requesting Roads and Maritime Services (RMS) to provide comments on the proposed modifications to the approved gas gathering line routes under section 75W of the *Environmental Planning & Assessment Act 1979*.

RMS has reviewed the proposed modifications and raises no objection to the proposal as the modification will not have any significant impact on the classified road network.

Further enquiries on this matter can be directed to the undersigned on phone 8849 2520 or email via stella.qu@rms.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Pahee Sellathurai', written over a horizontal line.

Pahee Sellathurai
A/Senior Land Use Planner
Transport Planning, Sydney Region

9 December 2011

Roads & Maritime Services

LEVEL 11, 27-31 ARGYLE STREET PARRAMATTA, NSW 2150
PO BOX 973 PARRAMATTA CBD NSW 2124 DX28555
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PO Box 323 Penrith NSW 2750
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Email info@sca.nsw.gov.au
Website www.sca.nsw.gov.au

Howard Reed
Manager Mining
Department of Planning and Infrastructure
GPO Box 39
Sydney NSW 2001

Attention: Clay Preshaw

**Camden Gas Project – Stage 2
Modification of Development Consent: Mount Taurus – Harness Racing Club
DA 183-8-2004i – MOD2**

Thank you for your letter dated 31 October 2011 inviting the Sydney Catchment Authority (SCA) to comment on the Camden Gas Project Stage 2 Modification (DA 183-8-2004i – MOD2).

The proposed location for the additional gas production borehole (MP25) is not near any SCA assets or infrastructure, nor is it located within the Sydney Drinking Water Catchment. Consequently, the SCA has no comments on the proposal.

If you have any enquiries regarding development near SCA infrastructure or within the Sydney Drinking Water Catchment please contact Malcolm Hughes on 4724 2452 or via email on malcom.hughes@sca.nsw.gov.au

Yours sincerely

A handwritten signature in blue ink, appearing to read "Peter Davies".

DR PETER DAVIES
Senior Manager Sustainability