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Our Ref: D2011/001780

Your Ref: 9042505

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

Attention: Clay Preshaw

Dear Mr Reed

**APEX GAS EXPLORATION DRILLING PROJECT
MODIFICATION APPLICATION 09_0161_MOD 1**

I refer to your letter dated 2 February 2011 inviting the Sydney Catchment Authority (SCA) to make a written submission on the Modification Application by Apex Energy NL (Apex).

The SCA has specific roles, objectives and functions detailed in the *Sydney Water Catchment Management Act 1998* (SWCM Act). In particular the SCA's functions include:

- managing and protecting the catchment areas, the dams, storages and pipelines
- protecting and enhancing water quality.

The SCA gives effect to the function of protecting and enhancing water quality across the Sydney drinking water catchment by applying the neutral or beneficial effect on water quality criteria in State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011.

The SCA is a stakeholder with respect to the proposal because:

- the proposed additional exploration borehole site is located within the Woronora Special Area on land owned and managed by the SCA
- the SCA has responsibilities relating to the Special Area under the *Sydney Water Catchment Management Act 1998*
- the proposal has the potential to adversely affect water quality and the ecological integrity of the Special Area.

While the SCA has no statutory planning role with respect to the proposal, the SCA's approval is required to enter the Special Area pursuant to clause 9 of the *Sydney Water Catchment Management Regulation 2008*. The SCA typically includes specific environmental management conditions in its approval to enter the Special Area.

The SCA has carried out a detailed review of the Environmental Assessment (EA) and has prepared the attached submission. The SCA's assessment has focused on issues of interest to the SCA including the following:

- Access and Work in the Special Areas
- Vegetation Clearing and Rehabilitation
- Soil and Water Management
- Gas Flaring, Hot Works and Bushfire Management

The SCA understands that it is not essential for Apex to drill at site AI19. In these circumstances and given the environmental impacts associated with re-opening currently closed Fire Road 9A the SCA does not support this Modification Application.

The SCA also wishes to advise that in its capacity as the owner of the land on which the additional borehole is intended to be located, that it unlikely to consent to the location of that borehole on the SCA's land.

If the SCA's recommendation is not accepted and the application is to be approved, the SCA requests further consultation with the SCA.

Please do not hesitate to contact Malcolm Hughes on 4724 2452 or email malcolm.hughes@sca.nsw.gov.au if you wish to discuss the matter.

Yours sincerely,



GREG SHEEHY
Senior Manager Sustainability

Encl : SCA's Submission

SUBMISSION BY THE SYDNEY CATCHMENT AUTHORITY
on the
APEX GAS EXPLORATION DRILLING PROJECT
MODIFICATION APPLICATION 09_0161_MOD 1
FEBRUARY 2011

INTRODUCTION

The Sydney Catchment Authority (SCA) has specific roles, objectives and functions detailed in the *Sydney Water Catchment Management Act 1998* (SWCM Act). In particular the SCA's functions include:

- managing and protecting the catchment areas, and the dams, storages and pipelines
- protecting and enhancing water quality.

The SCA gives effect to the function of protecting and enhancing water quality across the Sydney drinking water catchment by applying the neutral or beneficial effect on water quality criteria in State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011.

The SCA is a stakeholder with respect to the proposal because:

- the proposed additional exploration well site is located within the Woronora Special Area on land owned and managed by the SCA
- the SCA has special responsibilities relating to the Special Area under the SWCM Act
- the proposal has the potential to adversely affect water quality and the ecological integrity of the Special Area.

The SCA has no statutory planning role with respect to the proposal. However the SCA's approval is required to enter the Special Area pursuant to clause 9 of the *Sydney Water Catchment Management Regulation 2008* (SWCM Regulation).

The proposed drill site is located on land within the Woronora Special Area (not the Metropolitan Special Area as stated in the EA). The Proponent will therefore need to obtain the SCA's approval to enter the Special Area. Site access would also require re-opening about 1 km of SCA Fire Road 9A that had been previously closed and rehabilitated. The SCA currently has no operational reasons to re-open the fire road.

ASSESSMENT OF THE PROPOSAL

Issues of interest to the SCA in the Environmental Assessment (EA) for the additional borehole include the following:

- Access and Work in the Special Areas
- Vegetation Clearing and Rehabilitation
- Soil and Water Management
- Gas Flaring, Hot Works and Bushfire Management.

Assessment of the proposal with regards to these issues is presented below.

Access and Work in the Special Areas

Information in the EA

The modification application involves an additional borehole (AI19) in order for Apex Energy NL (Apex) to collect core samples from unmined coal seams within PEL 444. The borehole is a type 3 – as detailed in the March 2009 Environmental Assessment. The entire length of the borehole would be encased in steel and concrete which prevents any uncontrolled movement of material into or out of the borehole. The drilling activity would be followed by a period in which flow, pressure and permeability testing would be undertaken. Drilling and testing would take approximately 6 weeks. Once the testing is completed the core hole would be filled with concrete to the surface.

The proposed drilling operation is commonly used in coal exploration and ventilation of underground mines and the drilling rig set-up is typical of such operations. The drill site will include a compound and drill area of approximately 50 m x 70 m. Site access would require re-opening about 1 km of SCA Fire Road 9A that had been previously closed and rehabilitated.

The EA states that the proposal will involve about 0.16 ha of primary vegetation disturbance at the borehole site and 0.50 ha of secondary vegetation disturbance along the closed Fire Road, comprising:

- Exposed Sandstone Scribbly Gum Woodland (the borehole site is also located within this community)
- Upland Swamp Fringing Eucalypt Woodland
- Upland Swamp-Banksia Thicket.

EA Section 5 describes the environmental precautions and mitigation measures proposed by Apex. Work is proposed 24 hours a day 7 days a week with adequate justification provided for this requirement. The EA states that the proposed gas testing would not result in major gas emissions and would not require any flaring of gas.

Apex has included in EA Section 6 a number of project commitments relating to work on SCA land, including liaising with the SCA to obtain agreement on pre-commencement requirements.

SCA Assessment

The information about the drilling program in EA Sections 2 and 3 is sufficiently detailed to obtain an understanding of the overall proposal, environmental controls and environmental mitigation measures applicable to the site.

The SCA has concerns about the proposed borehole location. The SCA has an established preference that any mining exploration activities proposed for SCA land, including site access, should be located on previously disturbed or cleared sites and only where the required environmental assessment can demonstrate that the proposed activities are likely to have a neutral or beneficial effect on water quality.

As establishing the proposed borehole and site access will require primary vegetation disturbance and re-clearing along a closed fire road, the SCA would prefer the borehole not be located as proposed. The SCA has no operational reasons to re-open the fire road.

The SCA is also aware that Apex has identified and evaluated an alternative strategy for obtaining their required information from a previously approved borehole – see 'Potential Drilling Project (2 Core + 5 Production Wells) – Illawarra / Bulli, Apex Energy NL, Feb 2010'. The report's author, Chris Rogers, Chief Operating Officer, Apex Energy NL states on p19, "... Apex has scope to replace this well with an approved well if the need arises. This well is AI06 which is a type 2 ..."

As borehole AI06 is located at a cleared site with appropriate access, the SCA recommends this modification application **not be** approved.

Vegetation Clearing and Rehabilitation

Information in the EA

As described above, the borehole site is adjacent to the revegetated fire road in Exposed Sandstone Scribbly Gum Woodland. Part of the drill site would be located on the disturbed margin of the fire road and partly in Exposed Sandstone Scribbly Gum Woodland that would need clearing. This is referred to as primary vegetation disturbance.

The vegetation along the revegetated fire road is comprised of Exposed Sandstone Scribbly Gum Woodland, Upland Swamp Fringing Eucalypt Woodland and Upland Swamp-Banksia Thicket. This is referred to as secondary vegetation disturbance.

EA Section 4.3 and Appendix II provide an assessment of the impacts on native flora and concludes the works are unlikely to have a significant impact. A number of mitigation measures and commitments regarding site rehabilitation and revegetation are identified.

SCA Assessment

The SCA is aware of the submission to the Department of Planning from Peter Bloem, Manager Illawarra, Environmental Protection and Regulation, DECCW. DECCW does not support the current proposal due to potential impacts on Prickly Bush-pea (*Pultenaea aristata*), which is listed as threatened under the *Threatened Species Conservation Act 1995*.

The SCA considers the impacts identified by DECCW are not consistent with the protection of ecological integrity, which is one of SCA's main goals in the management of the Special Areas. Therefore the SCA does not support the current proposal involving clearing vegetation regrowth along the currently closed Fire Road 9A and at the borehole site.

The SCA refers to the advice from Apex that borehole AI06 is already approved and is located at a cleared site with appropriate access, the SCA recommends this modification application **not be** approved.

Soil and Water Management

If the SCA's objections as detailed above are not accepted, the SCA recommends the following issues be considered.

Information in the EA

Soil and water management is discussed in EA Section 4.2 and Appendix 1. Potential water related impacts at the site are consistent with the issues identified for the previously approved boreholes.

Surface water and sediment controls are identified for managing the potential water impacts. These include:

- a conceptual site layout for Air Drilling, Core Drilling Using In-Ground Fluid Pits. Site layout is to be confirmed at a pre-drilling site inspection with the SCA
- an excavated drill sump and an earth spoil bund, the main components of the dirty water containment system. The minimum bund wall height would be 660 mm, providing capture of a 20-year, 6 hour rainfall event.
- additional recommendations to avoid or minimise water impacts identified in the earlier Part 3A EA (September 2008), which would also apply this site. These include water quality monitoring to assess requirements for management of groundwater brought to the surface that have not been successfully confined within on-site tanks or pits and are contained behind the site bund wall.

A significant upland swamp is described as being 60 m due west of the borehole location. The EA states that clearing would not encroach on the swamp and it should be able to be protected from any adverse water quality impacts.

Access to the site is proposed to be provided by re-opening about 1 km of SCA Fire Road 9A. This would involve slashing existing vegetation, re-grading the road surface and re-installing appropriate table drains and crossover banks. On completion of the site activities, the fire road would be re-closed and re-vegetated to SCA requirements.

SCA Assessment

As borehole AI06 is located at a cleared site with appropriate access, the SCA recommends this modification application **not be** approved.

Gas Flaring, Hot Works and Bushfire Management

The EA states that the gas testing proposed would not result in major gas emissions and would not require any flaring of gas. Notwithstanding, the EA also includes some references to flaring procedures, fire management requirements and Project Commitments consistent with the previous Part 3A EA.

If gas flaring becomes necessary, the SCA should be consulted.

The fire prevention and protection measures proposed are considered to be adequate. The SCA requires Apex to meet its requirements relating to Bushfire Season and Hot Works on SCA land and these requirements should be specifically include in a Project Commitment or Condition of Approval.