SYDNEY CATCHMENT AUTHORITY

PO Box 323 Penrith NSW 2750
Level 4, 2-6 Station Street
Penrith NSW 2750
Tel 1300 722 468 Fax 02 4725 2599
Email info@sca.nsw.gov.au
Website www.sca.nsw.gov.au

Our Ref: D2010/04241

Ms Dinuka McKenzie
Senior Planner – Energy and Water
Infrastructure Projects
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Kate Masters

Dear Ms McKenzie

ENVIRONMENTAL ASSESSMENT, MOUNT PIPER ASH PLACEMENT PROPOSAL APPLICATION NO. MP 09_0186

I refer to your letter dated 8 September 2010 inviting the Sydney Catchment Authority (SCA) to make a written submission on the Environmental Assessment for the Mount Piper ash placement project. The SCA notes that the proposal is for the concept approval and project approval for proposed ash placement at the Lamberts North and Lamberts South sites, and the concept approval for the future ash placement sites at Neubecks Creek and Ivanhoe.

The SCA has completed its review of the Environmental Assessment and provides its comments in the attached submission. The SCA requests further information on a number of matters as addressed in the submission.

The SCA would appreciate being involved in any further environmental assessment and consultation process associated with the application and the opportunity to comment on additional information. In particular the SCA would like to provide input to the drafting of approval conditions.

If you wish to discuss any matter raised in this letter please do not hesitate to contact Dr Girja Sharma on 4724 2459 or via e-mail girja.sharma@sca.nsw.gov.au or myself on 4724 2452 or via e-mail malcolm.hughes@sca.nsw.gov.au

Yours sincerely

MALCOLM HUGHES
A/Senior Manager Regulatory Operations

20/10/10

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SUBMISSION TO DEPARTMENT OF PLANNING

from the

SYDNEY CATCHMENT AUTHORITY

PART 3A PROJECT – MOUNT PIPER ASH PLACEMENT PROPOSAL

OCTOBER 2010

The Sydney Catchment Authority (SCA) has specific roles, objectives and functions specified in the *Sydney Water Catchment Management Act, 1998*. In particular the SCA has certain functions including managing and protecting Sydney's drinking water catchment areas.

The project is located within the Upper Coxs River catchment which is part of Sydney's drinking water catchments. The project is located in the catchment of Warragamba Dam – the main source of water for Sydney.

As the project has been classified a Major Project to be assessed and determined under Part 3A of the *Environmental Planning and Assessment Act 1979*, it is not formally subject to the requirements of the *Drinking Water Catchments Regional Environmental Plan No 1* (REP). Nevertheless, the SCA considers that the project should be constructed and operated in a manner which does not adversely affect the quality of surface and ground waters beyond the boundaries of the site, and is consistent with the REP requirement for achieving a neutral or beneficial effect on water quality.

The SCA has reviewed the Environmental Assessment (EA), and notes that it has addressed significant issues of concern to the SCA. Notwithstanding the above the SCA considers there are some deficiencies in the EA as outlined below that it requests the DoP to require to be addressed by the proponent:

1. The EA states that the groundwater is unlikely to be affected by the proposal and that there will be no impact on surface water quality with the implementation of the proposed water management measures. However, groundwater quality data in the *Water Quality Monitoring Update Report 2009* (Aurecon 2010), provided annually to the SCA, suggest there has been an increasing trend in chloride levels over the last 10 years in the downstream groundwater bores compared to groundwater bores located upstream of ash placement areas. The increase in chloride concentration from an average of 20 to 50-100 mg/L, are nevertheless still well below ANZECC drinking water guidelines. Similarly, pre and post ash-placement water quality in a downstream groundwater bore also show increasing trend in chloride levels from 22 to 50 mg/L. The long-term behaviour, fate and impacts of brine-conditioned ash disposal, including a risk assessment on ground and surface water quality under a range of rainfall events (up to an 100 ARI event and a range of rainfall duration/intensities) have not been addressed by the EA. The SCA recommends that a risk assessment study addressing the behaviour of surface and groundwater under a range of rainfall frequency and duration events be undertaken, and any additional measures necessary to mitigate the leaching of salts and trace elements from the disposal sites be identified and implemented. In addition, appropriate surface and ground water monitoring would be required as part of the water management plan to identify changes and sources of

pollutants to ensure appropriate management practices are in place where deleterious impacts on water quality are identified.

2. Many groundwater bores listed in the EA, according to the *Water Quality Monitoring Update Report 2009* (Aurecon 2010), have been closed and are not monitored. Recent baseline groundwater monitoring for the Lamberts North and Lamberts South sites is based on one-off sampling for a limited number of groundwater bores. The SCA considers that baseline groundwater water quality monitoring points should be evenly distributed within, around and downstream of the disposal sites to enable a better understanding and comparison of the potential and actual impact of the ash placement on groundwater.

3. The EA does not provide information on the chemical composition of ash and brine and how much salt and trace elements are added via the placement of brine-conditioned ash. The SCA considers that the proponent should provide information on the likely chemical composition of the ash.

4. The EA states that coarser bottom ash (10-15% by volume) (as opposed to fly ash - 85-90% by volume) is also to be disposed of within ash placement sites, yet the SCA understands that most other NSW power stations undertake beneficial reuse of all bottom ash. The SCA appreciates that Delta Electricity is identifying marketing opportunities for beneficial reuse of fly ash, however, the SCA considers that more effort is also required to explore reuse opportunities for bottom ash as well as fly ash. Reuse reduces the volumes and areas needed for ash placement and extends the life of ash placement sites.

5. The surface water management proposes diverting flow from Huons Gully to Lamberts Gully, however, the long term impacts on water flows in Lamberts Gully including a geomorphological study of the capacity of Lamberts Gully below the diversion to accommodate any additional flow have not been addressed and the SCA considers this should be undertaken. Further, the surface water management proposes diversion drains to separate dirty and clean water and the EA states that these drains would be designed to convey the 100 year ARI flood from the external catchments. The SCA considers these drains must be appropriately located, engineered and stabilized so as to be able to convey such runoff without collapse or erosion.

6. The EA states that the project requires about 9 hectares of vegetation clearing and proposes to offset this vegetation clearing, however, the details on any offset have not been specified in the EA. The SCA considers that offset measures should include the restoration, rehabilitation and revegetation of Lamberts Gully and the revegetation and stabilisation of sections of Neubecks Creek downstream of the existing discharge point.

Should the Department consider recommending approval of the project the SCA would appreciate the opportunity to input to the drafting of approval conditions.