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24 March 2005

Ms Carolyn Strange
Director of Contaminated Sites
Department of Environment and Conservation
PO Box A290
Sydney South NSW 1232

RP014-05

Dear Ms Strange,

Re: *Draft guidelines for the assessment and management of groundwater contamination.*

1.0 INTRODUCTION

Thank you for providing Sydney Coastal Councils Group (SCCG) an opportunity to comment on the proposed *Draft guidelines for the assessment and management of groundwater contamination*. SCCG commends the Department on the preparation of the Draft Guidelines. SCCG views the management of groundwater resources, particularly in coastal urban environments, as an emerging and significant natural resource management issue.

SCCG is currently preparing in consultation with its Groundwater Working Group (of which Ms Giselle Howard from DEC is a member) a Groundwater Management Handbook for Local Government. A copy of the *Draft Management Handbook* is attached for DEC comment. The SCCG hopes to incorporate parts of the *Draft guidelines for the assessment and management of groundwater contamination* into the SCCG Groundwater Management Handbook where appropriate.

2.0 SPECIFIC COMMENTS

Summary 1 (page) – Legislative Framework for groundwater management in NSW

Under **Planning Authorities** there is not reference to the *Local Government Act 1993* and more specifically, how this piece of legislation may apply to groundwater contamination. SCCG has included within its *Draft Groundwater Management Handbook* a section on the *Local Government Act 1993*. In order to achieve more consistency between local and state government agencies, SCCG encourages DEC to consider including a section on the *Local Government Act* within Summary 1 under Planning Authorities.

Summary 2 (page 5) - Existing guidance on groundwater

SCCG encourages DEC to consider including under this section, the SCCG *Groundwater Management Handbook*. The Handbook references a number of guiding groundwater documents relating to groundwater protection and assessment, published by the Department of Infrastructure Planning and Natural Resources including;

- NSW Groundwater Quantity Management Policy (draft stage); and
- Groundwater Bore Licensing

Assessment of Groundwater Contamination (page 9)

In addition to the items listed in Appendix 2 for undertaking initial groundwater contamination investigations, SCCG recommends that DEC include a point to contact either DIPNR or their Local Council to determine the whereabouts of existing bore locations.

Groundwater Assessment Criteria (page 15)

The SCCG Groundwater Management Handbook also recognises that groundwater-specific criteria for assessment of risks from contamination have not been established. SCCG encourages DEC to consider establishing groundwater specific guidelines. These would be applied when the relevant criteria or trigger values assessed under ANZECC (2000) guidelines are exceeded.

Key Management Issues

Site management plans and environmental monitoring (under Sections 5.5.8 and 5.5.9) are not listed as mandatory requirements for managing groundwater contamination. SCCG encourages DEC to consider making these constituents compulsory for managing groundwater contamination. In addition, all appropriate information contained within groundwater environmental monitoring reports should be updated into a NSW groundwater database and be made available to Local Government for inclusion into Section 149 certificates.

2.1 OTHER COMMENTS

Establishment of a NSW Groundwater Database

SCCG supports the establishment of a NSW database of groundwater constituents including

- local geology and lithology;
- bore locations;
- groundwater quality and quantity data; and
- contaminated lands.

Similar groundwater databases have been established by State Government and Local Government Departments in Western Australia and Victoria (refer to Appendix A). SCCG encourages DEC to further investigate the possibility of establishing a joint groundwater database between local council's and state government departments e.g. DIPNR, NSW Health in relation to groundwater resource management.

SCCG views the creation of a groundwater database as an opportunity to improve the management of groundwater resources, including groundwater contamination throughout NSW. SCCG would be happy to assist and encourage a collaborative partnership in order to achieve this. SCCG recently achieved similar success with DIPNR in creating a joint DIPNR and SCCG member council groundwater bore licence agreement. The agreement has allowed member councils to upload into their Geographic Information Systems (GIS) all known groundwater bore locations within their respective local government areas.

Passive management of groundwater contamination

The draft document does not provide any reference to or guidance on using passive remediation techniques such as wetlands or bioremediation techniques, to manage groundwater contamination. SCCG would ask DEC to consider including a section on passive management of groundwater contamination.

SCCG requests DEC to consider including a section on community based groundwater contamination. Information on this topic would be useful for the management of groundwater's that may be potentially contaminated and discharged and retained on-site.

3.0 CONCLUSION

I trust that these comments and recommendations will receive appropriate attention when finalising the submission process for the *Draft guidelines for the assessment and management of groundwater contamination*.

If you wish to clarify any matter in the submission or require further information, please contact the Group's Coastal Projects Officer, Richard Phillips on 9246 7702 or email on the following address, richard@sydneycoastalcouncils.com.au

Kind Regards,

Geoff Withycombe
Executive Officer

APPENDIX A – VICTORIAN GROUNDWATER DATABASE

The Victorian Government manages a complete groundwater database which contains approximately 135 000 boreholes throughout Victoria. It stores information primarily for groundwater management and can be used as a resource for all environmental studies. They have a number of different reports on groundwater that are updated annually and are available to the public. Information that is commonly referred to within the groundwater reports includes but is not limited to:

- Groundwater contamination status report;
- A bore location report;
- Aquifer report;
- A bore chemistry report;

The responsible government department produces maps illustrating the availability of groundwater by regions and includes water quality and a beneficial use category (primarily for groundwater protection).

The maps also provide information on:

- where to get groundwater advice;
- drilling and constructing a water bore;
- decommissioning a bore;
- looking after your water bore quality;
- testing groundwater quality;
- reusing saline groundwater safely – strategies to reduce risk;
- what you can do to prevent groundwater pollution; and
- assess the effects of irrigating with saline water on ecological biodiversity.

Based on the Victorian experience, information outlined in Table 1.0. is an example of what information should be made available to managers and assessors of groundwater resources in NSW.

Table 1.0. Is an example of a model NSW groundwater database based on the Victorian experience. The information outlined within the table is the type of reference material that should be made available to people who manage groundwater systems and regularly assess developments that intercepts groundwater.

Geological Unit Forming Aquifer	Main Occurrence	Depth To Aquifer	Aquifer Thickness	Rock Types	Aquifer Type	Common Salinity Range (mg/L TDS)	Range of Bore yields (L/sec)	Groundwater Use
Hawkesbury Sandstone	Sydney Basin	2 metres	70 metres	Sand and Silt	Confined	2000	5 -15	Domestic Irrigation