



NSW GOVERNMENT
Department of Planning

Contact: Brad Deane
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Email: brad.deane@planning.nsw.gov.au

Our ref: 9043421

Mr Brendan Young
Environmental Planner
Parsons Brinckerhoff Australia Pty Ltd
c/o Manly Council
GPO Box 5394
Sydney NSW 2000

Dear Mr Young

**Director General's Requirements
Addiscombe Road Remediation, Manly Vale**

The Department has received your application for the proposed remediation of Lots 1-4 DP 818957 Addiscombe Road, Manly Vale (Application Number: 06_0252).

I have attached a copy of the Director-General's requirements (DGRs) for the project. These requirements have been prepared in consultation with relevant government authorities and are based on the information that you have provided to date. I have also attached a copy of the government authorities comments for your information.

Please note that under section 75F(3) of the *Environmental Planning and Assessment Act 1979*, the Director-General may alter these requirements at any time.

I would appreciate it if you would contact the Department at least 2 weeks before you propose to submit the draft Environmental Assessment for the project to determine the:

- fees applicable to the application;
- consultation and public exhibition arrangements that will apply; and
- number and format (hard-copy or CD-ROM) of the Environmental Assessment that will be required.

As you may know, the Department will review the draft Environmental Assessment in consultation with the relevant authorities to determine if it adequately addresses the Director-General's requirements. If the Director-General considers the Environmental Assessment to be inadequate, you will be required to revise it prior to public exhibition.

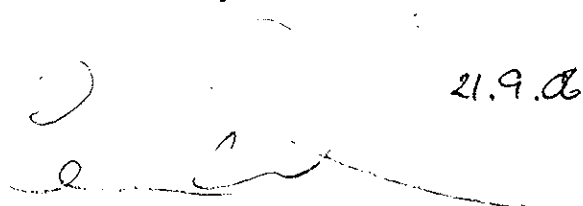
The Director-General's requirements will be placed on the Department's website along with other relevant information which becomes available during the assessment of the project. As a result, the Department would appreciate it if all documents that are subsequently submitted to the Department are in a suitable format for the web, and if you would arrange for an electronic version of the Environmental Assessment for the project to be hosted on a suitable website with a link to the Department's website.

Finally, if your proposal contains any actions that could have a significant impact on Matters of National Environmental Significance, it will require an additional approval under the Commonwealth *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act). This approval would be in addition to any approvals required under NSW legislation. If you have any questions about the application of the EPBC Act to your proposal, you should contact the

Commonwealth Department of Environment and Heritage in Canberra (02 6274 1111 or <http://www.deh.gov.au>).

If you have any enquiries about these requirements, please contact Brad Deane on 02 9228 6465.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Chris Wilson', with a date '21.9.06' written next to it.

Chris Wilson
Executive Director
As delegate of the Director-General

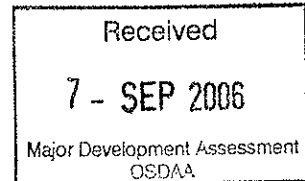
Director-General's Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

Project	The proposed remediation of contaminated land, Manly Vale
Site	Lots 1-4 DP 818957 Addiscombe Road, Manly Vale
Proponent	Manly Council
Date of Issue	21 September 2006
Date of Expiration	21 September 2008
General Requirements	<p>The Environmental Assessment (EA) must include</p> <ul style="list-style-type: none"> • an executive summary; • a detailed description of the project including the: <ul style="list-style-type: none"> – need for the project; – alternatives considered; and – various components and stages of the project; • consideration of any relevant statutory provisions; • an overview of all the environmental impacts of the proposal, identifying the key issues for further assessment and taking into consideration any issues raised during consultation; • an assessment of the key issues specified below and any other significant issues identified in the general overview of the environmental impacts of the proposal (see above); • a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures; • a conclusion justifying the proposed development, and • a signed statement from the author of the EA certifying that the information contained in the report is neither false nor misleading.
Key Issues	<ul style="list-style-type: none"> • Remedial Action Plan – including characterisation of the nature and extent of contaminated material, and details of proposed management measures, including justification of remediation criteria and compliance with the <i>Contaminated Land Management Act 1997</i>; • Soil & Water – including an erosion and sediment control plan for the proposed remediation works; an acid sulphate soils management plan; detailed plans of the stormwater management scheme that would be installed on site; a surface and groundwater monitoring program; and a surface and groundwater response plan outlining the contingency measures that would be implemented to address any potential risks associated with the proposed remediation works; • Construction Management Plan – describing the measures that would be implemented to minimise the potential dust, noise, odour, visual and traffic impacts during remediation works; monitor the performance of these measures; and handle any complaints about the proposed remediation works; and • Landscape Plan– showing the proposed final landform of the site and the landscaping that would be implemented following the proposed remediation works.
References	The Environmental Assessment must take into account relevant State government technical and policy guidelines. While not exhaustive, guidelines which may be relevant to the project are included in the attached list.
Consultation	During the preparation of the Environmental Assessment, you must consult with the relevant local, State or Commonwealth government authorities, service providers, community groups or affected landowners.

	<p>In particular you must consult with;</p> <ul style="list-style-type: none"> • Department of Environment and Conservation; and • Department of Natural Resources. <p>The consultation process and the issues raised should be described in the EA.</p>
Deemed Refusal Period	60 days

Our reference : SRF15904; SR342
Contact : David Gathercole, 9995 6840



Mr Chris Ritchie
Manager Manufacturing and Rural Industries
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear Mr Ritchie

RE: PROPOSED REMEDIATION - ADDISCOMBE ROAD, MANLY VALE

I refer to the Project Application and accompanying information provided for the proposed remediation at Addiscombe Road, Manly Vale, received by the Department of Environment and Conservation (DEC) on 29 August 2006.

We have reviewed the information provided and consider that the proposed remediation of the above site is generally acceptable.

However, the DEC advises that a remedial action plan (RAP) must be prepared for the site. The RAP must incorporate the site auditor's comments before submitting it to the DEC Contaminated Sites Section for review. If you have any questions regarding the remediation process please contact Ulli Manuel of the DEC's Contaminated Sites Section on 02 9995 5611.

The DEC would support the public exhibition of the proposed remediation if the abovementioned amendments are made and referenced in the environmental assessment. Please note that this does not constitute the DEC's support for the project.

If you have any questions, or wish to discuss this matter further please contact David Gathercole on 9995 6840.

Yours sincerely

James Goodwin 04/09/06

JAMES GOODWIN
Unit Head Sydney Industry
Environment Protection and Regulation





NSW Government

DEPARTMENT OF NATURAL RESOURCES

Contact: Jo Ann Moore
Phone: (02) 9895 5016
Fax: (02) 9895 7501
Email: JoAnn.Moore@dnr.nsw.gov.au

Our ref: ERM2006/6847

Your ref: No reference provided

File: 06-6847 DGs requirements Lot 1-4
Addiscombe Rd Manly Vale final.doc

The Director
Major Development Assessment
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Brad Deane

21 September 2006

Dear Brad

Subject: Request for Director-General's requirements – Proposed remediation of Contaminated Land – Lots 1-4 Addiscombe Road, Manly Vale NSW.

The following NRM comments are provided.

Groundwater Issues

It is noted that the Manly Council document "Proposed Remediation of Contaminated Land...Project Application and Preliminary Environmental Assessment" dated August 2006, refers to the project making significant improvements to groundwater quality, however it does not give any detail as to how works would be conducted in a manner that would prevent increased contamination of the groundwater (see Table 5.1 – Soil and Water Management – Groundwater). This section of the table notes "the plan would outline provisions to reduce the flow of contaminated groundwater to the lagoon". Please refer to the document at the end of this advice titled *Director General's Requirements Developments with the potential to impact upon Groundwater* for inclusion in the Director General's Requirements.

Specific Site Issues

Need for a Part 3A permit under the Rivers and Foreshores Improvement Act 1948 (RFI Act)

The 1:25K Sydney Heads topographic map indicates a watercourse on the site – Manly Lagoon – which is a "river" for the purposes of the RFI Act. Additionally, the Natural Resource Planning Unit has mapped this river as a Category One in accordance with the DIPNR publication (2004) the River Corridor Management Strategy. In reference to the RFI Act, if earthworks are proposed in or within 40 metres of the top of the bank of, a "river", then a Part 3A permit may be required. If this is the case, the proponent is advised to contact Jo Ann Moore on 9895 5016 for advice on standards of work and the protection of the watercourse and its riparian areas.

The types of works that could trigger the need for a Part 3A permit are:

- Excavation of earth, or the placement of fill;
- detention basin/sediment pond discharge outlets or spillways running to the creek;
- stormwater system and outlets to the creek;

Department of Natural Resources

Sydney South Coast Region, Level 11, 10 Valentine Avenue, Parramatta NSW 2150, PO Box 3720, Parramatta 2124
Telephone: (02) 9895 6211 Facsimile: (02) 9895 7501 Website naturalresources.nsw.gov.au

- access tracks, haul roads, crossings, etc; and
- construction of services, utilities, communications – water, sewer, electricity, etc.

The Department will require a riparian setback from this watercourse in which no development (built structures) can take place. As stated above the watercourse has been categorised as a Category 1¹ watercourse consequently it is likely the Department would require a **minimum 50 metre** (40m + 10 m) riparian zone setback measured horizontally landward from the top of the bank of the right-hand bank of the watercourse within the subject site. Should there be any works proposed in the riparian setback, the Department will require stabilisation of any disturbed areas through rehabilitation, with vegetation, of the riparian zone area.

To assist the proponent in assessing watercourse and riparian areas, a guideline, “*Watercourse and Riparian Area Planning, Assessment and Design (Version 4)*”, is provided. Additional guidelines referred to within it that may be relevant to the project are available on request.

Asset Protection Zones

Any requirements for bushfire asset protection zones (APZs) are not to compromise in any way the extent, form or function of the riparian zones. The Department requires that all Bushfire APZs must be located outside the riparian zones.

The APZ is to be measured horizontally landward from the outer edge of the riparian zone setback. It is recommended that the proposal consider building setbacks and perimeter roads be incorporated into the design at the interface of the riparian zone and the APZ so as they can act as a component of the Inner and/or Outer Protection Areas.

Accessways/Pathways

All accessways, being cycleways, pedestrian pathways or other non-vehicular form of accessway that may be proposed for the Site, are to be designed and constructed in accordance with the guidelines for *The Design and Construction of Paths and Cycleways in Riparian Areas- Version 2*.

Soil and water management

It is important that sediment basins and detention basins are adequately sized for design storm events, and incorporate a safety factor. Also, regular monitoring and maintenance of basins and site controls must take place, and without exception, after every rainfall event. These activities must be part of routine site procedures and duty check-lists. This is to ensure that no sediment discharges find their way into any watercourse downslope.

Acid Sulfate Soils

The Department's 1:25K *Acid Sulfate Risk Map for Sydney Heads* indicates that the subject site has high probability of the occurrence of acid sulfate soil materials. Additionally the 1:25K *Acid Sulfate Risk Map for Sydney Heads* indicates a 'Wa1' and 'Em' classification of depth to ASS material. These represent respectively depths of within 1 metre of ground surface and bottom sediments (of the waterbody). It is recommended that soil investigations be undertaken if the proposal includes excavation of the parent soils on the site to exclude or identify the presence of potential acid sulfate soils.

Should you have any queries in relation to this matter, please contact:

- For RFI matters: Jo Ann Moore on telephone 9895 5016

¹ DIPNR Riparian Corridor Management Study (March 2004), Section 3. Also see adaptation in Section 5.2 in Landcom publication: *Managing Urban Stormwater: Soils construction – Volume 1 4th Edition* (2004)

- For Ground Water matters: Greg Russell on 9895 6273.

Yours sincerely

Jo Ann Moore
Natural Resource Officer
Parramatta Office

Watercourse and Riparian Area Planning, Assessment and Design (Version 4)

Watercourse and riparian area planning and design should be consistent with the policies of the NSW State government, particularly: the objectives and principles of the *Water Management Act 2000*, the *Environmental Planning and Assessment Act 1979*, the *NSW State Rivers and Estuaries Policy*, the *NSW Wetlands Management Policy*, and the *NSW Biodiversity Strategy*. Two useful supporting publications are:

- *A Rehabilitation Manual for Australian Streams* (LWRRDC) <http://www.lwrrdc.gov.au/downloads/PR000324.pdf>
- *Riparian Land Management Technical Guidelines* (LWRRDC) <http://www.lwa.gov.au/downloads/PR990322.pdf>

The guiding principles herein aim to achieve sound watercourse and riparian area management. Consultation with relevant approval agencies at the early concept stage of developments, and during the design phase, is recommended so that good outcomes can be identified, planned for and achieved.

Watercourses and riparian areas provide extremely valuable ecosystem services. They are water quality polishing “factories”, and ecological “highways” for the movement of genetic material. The degradation of rivers and loss of biodiversity are frequent news items, and governments are spending millions of dollars “cleaning up” degraded catchments. It is therefore essential to protect, AND RESTORE, these natural assets. Regulatory authorities, land owners and the development sector must all protect these systems for the benefit of present and future generations.

Planning Principles

1. Protect, rehabilitate and “re-connect” watercourses, riparian areas and other habitat areas.
2. Maintain and restore geomorphological and ecological connectivity between riparian areas, wetlands, other natural habitat areas and between catchments. This is VERY important for conserving biodiversity, allowing movement of pollinators (and hence **gene flow**) and increasing the resilience of the system as a whole. NOTE: ground surface connectivity is necessary for the suite of organisms that move in that environment (soil fauna, spiders, insects, amphibians, reptiles, small mammals, etc.), however, ecological “stepping stones” (patches) play a vital role in facilitating the movement of short range flying and wind-blown organisms (birds, insects, spiders, etc.).
3. Identify and plan for **potential** ecological links (biodiversity corridors) to increase the ecological “web” network.
4. Seek Department of Natural Resources’ advice on the “category” of the watercourse and an appropriate riparian area setback. To gain an appreciation of watercourse “categories”, refer to Section 5.2 in the Landcom publication: *Managing Urban Stormwater: Soils and Construction – Volume 1, 4th Edition (2004)*. (NOTE: “Category 3” watercourses cover a broad range of watercourse situations, ranging from piped sections to sections with marginally less value than a “Category 2” watercourse - setbacks should reflect the relative value of the watercourse).
5. Set aside *buffer areas* adjacent to riparian areas to protect the latter from nutrients, contaminants, shading and weed invasion.
6. Locate bushfire asset protection zones outside riparian areas (they are “NO GO” areas for fuel reduction).
7. Locate utility easements (sewer, electricity, water, gas, communications) outside riparian areas. For essential crossings of riparian areas, refer to the guideline *Pipe and Cable Laying Across Watercourses and Riparian Areas*.
8. Locate water quality controls and stormwater detention ponds out of watercourses (that is, off-line) and not within riparian areas. Basin and drainage outlet structures are to be designed and constructed in accordance with the guideline *Stormwater Outlet Structures to Streams (for pipes, culverts, drains and spillways)*.
9. Locate roads and tracks beyond riparian areas, unless essential for a watercourse crossing. If unavoidable, allow for ecological connectivity via the provision of viable vegetation cover beneath the structures (refer to the guideline *Watercourse Crossing Design and Construction*).
10. Keep pedestrian and cycle paths outside riparian areas, but if unavoidable, use a “boardwalk” path design to allow for the penetration of light and moisture to support the growth of vegetation beneath the structure. For more detail, refer to the guideline *Design and Construction of Paths and Cycleways in Riparian Areas*.
11. Subdivision designs should strive for a perimeter road layout, whereby roads and paths are located between the houses and the outside edge of riparian areas. This facilitates passive surveillance for anti-social behaviour and rubbish dumping, and the roads and paths can form part of a bushfire Asset Protection Zone.
12. Subdivision layouts should permanently protect watercourses and their riparian areas by designating them as “environmental protection”, by use of a S.88B covenant or by a suitable community title provision.
13. Maintain watercourses as open natural systems. They should not be degraded by piping, culverting, channelising, walling (piles, mesh structures, concrete, etc.), straightening or other inappropriate means.

14. Watercourses that are already piped, culverted, channelised or "hard" armoured should be rehabilitated if the opportunity arises – e.g. if part of a concrete channel is being enlarged to cater for revised flooding requirements it should be "naturalised" using "soft-engineering" principles and a riparian area setback provided.
15. Avoid filling floodplains, which can lead to an increase in flood flow velocities, and the triggering of an instability sequence in the watercourse system.
16. Plan for and design inter-allotment drainage systems to "polish" ALL runoff, and avoid conventional piped drainage. Water quality must meet the ANZECC (2000) Guidelines for the Protection of Aquatic Ecosystems. Follow Water Sensitive Urban Design principles, and if possible, retrofit existing drainage systems to this standard.
17. Plan for and design drainage systems to mimic natural discharges to watercourses.

Assessment of Options and Constraints

Gain a thorough understanding of the following parameters to assist project planning and design.

18. **ecology:** flora and fauna (previous studies, endangered species & ecological communities, existing vegetation, weeds), habitat, diversity, connectivity (aquatic and terrestrial) and remnant values, wetlands (including hanging swamps, floodplain back swamps, groundwater soaks), the hyporheic zone (saturated subsurface zone)
19. **hydrology/hydraulics:** flood and flood-runner dynamics and stream energy (bankfull frequency, height of flood debris, bent vegetation), velocities/tractive stress, catchment area, cross-section areas, scour depths (natural & around proposed works), surface water runoff/drainage, water table and seepage potential, etc.
20. **soils, stratigraphy and chemistry** (watercourse and floodplain): size of material (clay, sand, gravel), cohesiveness, dispersiveness, profile features, acid sulphate soils, sodicity, salinity
21. **geomorphology:** sinuosity, historical change (check old air photos, surveys) and rate of change (are the works wisely located?), bed slope, headcuts or bed lowering (will structures be exposed and need a grade control?), sediment slug upstream or at site (will channel capacity change?), deposition, toe erosion, bank slopes (stable?), slumping (predict failure curve), piping, prone to mass movement, age of vegetation (clue to dynamics) – will stabilisation works be necessary?
22. **what is stabilising the watercourse, floodplain and flood-runners?:** armour layer in bed, existing vegetation, low longitudinal gradient, hydraulic controls (bedrock upstream/downstream, dams, weirs, constrictive road crossings, etc.) – if the project involves **removing** a structure, will a bed control be needed as a replacement
23. **contaminants:** old fuel storage areas, dip sites, contaminated groundwater, asbestos, mine tailings, etc.
24. **nearby infrastructure:** effect of the project on roads, bridges, pathways, railways, utilities, and, opportunities for any infrastructure to benefit the project (e.g. attaching a sewer line to a bridge)
25. **Approvals and compliance:** **a)** legislative approvals (council and relevant agencies (DNR, DPI Fisheries, etc.), planning provisions (SEPPs, REPs, LEPs, DCPs), guidelines, management plans (Crown Land, river management, etc.); **b)** affected landowners – the site, adjacent to the site, for access (vehicular, water use)
26. **other:** archaeological, heritage, risk of vandalism, public safety, etc.

Design Principles

27. Maintain or restore natural watercourse and riparian area features and functions incorporating: a stable natural form with natural morphological features (meanders, variable longitudinal profile, benches, bars, chain-of-ponds, floodplains, back-swamps, flood runners and bed and bank slopes, etc.), ecological interactions, habitat (living and dead vegetation, litter layer, topsoil, surface features), natural surface and sub-surface flows (with respect to seasonality, magnitude, duration, frequency, variability, rates of change, spatial extent, levels) and longitudinal and lateral hydrological and ecological connectivity.
28. If a degraded part of a watercourse is to be diverted or re-aligned, the new watercourse should resemble the original watercourse and riparian area form, and match the local hydrologic and hydraulic conditions. The result should be a stable and fully vegetated hydrologically and ecologically functional system mimicking the natural state.
29. Watercourses and floodplains must be able to convey flood flows based on roughness coefficients that represent the "natural" state. For most watercourses this will be fully structured mature riparian vegetation.
30. Apply a stream "rehabilitation" design philosophy rather than a "reconstruction" philosophy.
31. Use natural materials and "soft engineering" for works in watercourses and riparian areas. Wire mesh baskets and mattresses, concrete, concrete-filled mattresses, sheet piling and masonry are not appropriate. Apart from their geomorphological and ecological drawbacks, "hard" works are aesthetically non-"natural", and do not promote an ethos of "ecological sustainability" to people.
32. Revegetation of riparian areas should be based on a plan prepared using the *guidelines How to Prepare a Vegetation Management Plan and Watercourse and Riparian Zone Rehabilitation Requirements*.



GROUNDWATER

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In accordance with the *EIS Guidelines* (NSW DUAP 1996) the following Director General's Requirements for the preparation of an EIS, REF or SEE for the subject development include addressing the following issues related to the potential groundwater impacts of the proposal.

1. The location and condition of any bores within 1 kilometre of the proposed development and the current and potential uses and users of groundwater in the area.
2. A baseline assessment of the groundwater system based on a reasonable period of monitoring at appropriate locations including:
 - 2.1. The depth to the water table, hydraulic gradient, flow directions and rates, location of any recharge areas and discharge sites (seeps or springs).
 - 2.2. The geological characteristics in relation to the vulnerability of the groundwater in the area of the proposed development to pollution.
 - 2.3. The ambient quality of groundwater in the area.
 - 2.4. The presence of environmentally sensitive areas in the vicinity of the proposal site and their likely interaction with groundwater.
3. The potential for acid-related issues due to the presence of acid sulphate soils, if present in the area, considering impacts from the alteration of groundwater levels together with mitigation measures (including minimisation of disturbance of the material or the water table and treatment of disturbed soils or acid water), the proposed monitoring program and response strategies should deleterious effects be observed.
4. The potential for contaminated soils to exist on the site, the potential direct or indirect effects on groundwater, the need for remediation (including the level of remediation, the proposed methods to be used and a monitoring program to assess the progress of the decontamination) and the results of any correspondence with the NSW Department of Environment and Conservation.
5. An assessment of the potential risk of contamination of groundwater by activities associated with the development, including:
 - 5.1. Effects on groundwater recharge areas or aquifer intake areas.
 - 5.2. The potential sources of pollution, the likely transference of any pollutants to groundwater and measures to avoid contamination during construction and operation.
 - 5.3. Proposals for remediation should contamination occur.
 - 5.4. An assessment of the potential impacts on existing and future uses of groundwater in the area considering both successful and unsuccessful site management and contaminant containment.
 - 5.5. An assessment of the adequacy of proposed construction and operational measures to prevent contamination of groundwater.
6. Any constraints on the proposal due to soil characteristics, with regard to the potential for lateral or vertical movement of contaminants, considering the permeability of the subsoil structure or surface sealing characteristics, and an assessment of the likelihood of vertical or lateral seepage or flow to neighbouring properties, natural waterbodies or groundwater.
7. Identification of the location and nature of any rising groundwater levels or salinisation problems if present in the area, and an assessment of the potential for the proposal to contribute to rising groundwater levels or any salinity problems.
8. An assessment of the need to treat groundwater, stormwater, seepage water, tail water or process water prior to reuse or discharge to meet beneficial use water quality objectives or other limits, identification of the approvals required and details of the adequacy of protection provided by the proposal.



GROUNDWATER

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continued ...

9. Predictions of the effects of dewatering or depressurisation on the local or regional water table, identification of the approvals required and details of the adequacy of protection provided by the proposal.
10. Definition of the potential impact of any proposed water usage from a groundwater source, identification of the approvals required and details of the adequacy of protection provided by the proposal.
11. Advice on the potential impacts on species, populations, or ecological communities or their habitats either directly or indirectly through changes to the groundwater regime (flow, pressure, level or quality) and details of the adequacy of protection provided by the proposal.
12. Description of the proposed final use of the site if rehabilitation is to be carried out as part of the proposal, and its compatibility with the surroundings:
 - 12.1. The suitability of the site with regard to groundwater, permeability of soil and the type of material to be introduced to achieve the final landform.
 - 12.2. Assessment of the potential groundwater impacts and long-term potential management problems if the final landform is proposed to include a recreation lake.
 - 12.3. The general suitability of proposed soil material for rehabilitation purposes and the adequacy of measures to be adopted during the development of the final landform to prevent introduction of contaminated or unsuitable material.
 - 12.4. The adequacy of measures to ensure the groundwater will not become contaminated during and after the development of the landform.
13. Details of a plan for the ongoing maintenance and monitoring of groundwater including:
 - 13.1. The key information to be monitored, impact assessment criteria and the reasons for monitoring.
 - 13.2. The monitoring locations, intervals and durations.
 - 13.3. Procedures to be undertaken if the monitoring indicates a non-compliance or abnormality.
 - 13.4. Internal reporting and links to management practices and action plans.
 - 13.5. Reporting procedures to relevant authorities.
 - 13.6. The effectiveness of proposed management controls or mitigation measures.
 - 13.7. The means for verification of predicted impacts of the proposal.
14. Outlines of strategies to feed information from the monitoring programs back into the management practices and action plans to improve the environmental performance and sustainability of all components of the proposal.
15. Advice on the sustainability of the proposal described in terms of site-specific environmental performance requirements considering the vulnerability of the groundwater and the threats to other environmental factors.
16. Assessments of the cumulative impacts of the proposal with regard to any other activities with similar impacts in the area interacting with the environment, and specifically groundwater.

The EIS, REF or SEE must consider these issues having regard to other requirements specified in the *EIS Guidelines* (NSW DUAP 1996) for the type of proposed activity. The proposal must also demonstrate consistency with the spirit and principles of the *NSW State Groundwater Policy Framework Document* (NSW Government 1997), the *NSW State Groundwater Quality Protection Policy* (NSW Government 1998) and the *NSW State Groundwater Dependent Ecosystems Policy* (NSW Government 2002).