

Project Approval

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

I, the Minister for Planning, approve the project referred to in Schedule 1, subject to the conditions in Schedule 2.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

Mod 1 shown in red

Mod 2 shown in green

Mod 3 shown in blue

Mod 4 shown in yellow

Mod 5 shown in violet

Frank Sartor MP
Minister for Planning

Sydney

2007

File No: 9039739

SCHEDULE 1

Application No:	07_0054
Proponent:	Sydney Water Corporation
Approval Authority:	Minister for Planning
Project:	“the desalinated water delivery system” project
Concept Plan:	the project is a component of the approved concept plan for the Kurnell Desalination Plant (05_0082)
Part 3A Project:	On 25 October 2005, the Minister for Planning formed the opinion pursuant to clause 6 of <i>State Environmental Planning Policy (Major Projects) 2005</i> that the proposal is for the purpose of development described in clause 25(2) of Schedule 1 to that Policy. The proposal is thus declared to be a project to which Part 3A of the <i>Environmental Planning and Assessment Act 1979</i> applies.
Concept Plan Authorisation:	On 16 November 2005, the Minister for Planning authorised the submission of a concept plan for the proposal.
Critical Infrastructure:	On 16 November 2005, the Minister for Planning formed the opinion pursuant to clause 6A of the <i>State Environmental Planning Policy (Major Projects) 2005</i> that the proposal is for the purpose of development described in Schedule 5 to that Policy (clause 1 – Kurnell desalination project). The proposal is thus declared to be a critical infrastructure project within the meaning of section 75C of the Act.

KEY TO CONDITIONS

1. ADMINISTRATIVE CONDITIONS	4
Terms of Project Approval.....	4
Limits of Approval	4
Project Sectors.....	5
2. SPECIFIC ENVIRONMENTAL CONDITIONS	5
Construction Methods	5
Noise and Vibration Impacts	5
Traffic Impacts	7
Soil and Water Quality Impacts	8
Impacts on Ecology.....	9
Air Quality Impacts	9
Waste Management.....	9
3. BOTANY BAY CUMULATIVE IMPACTS AND COORDINATION	10
4. ENVIRONMENTAL MONITORING AND AUDITING	10
Ecosystem Monitoring.....	10
Beach and Foreshore Monitoring	11
Noise and Vibration Monitoring	11
5. ENVIRONMENTAL MANAGEMENT	11
Construction Environmental Management.....	11
Operation Environmental Management.....	12
6. ENVIRONMENTAL REPORTING	13
Incident Reporting	13

SCHEDULE 2

Act, the	<i>Environmental Planning and Assessment Act 1979</i>
Conditions of Approval	The Minister's conditions of approval for the project
DECC	Department of Environment and Climate Change
Department, the	Department of Planning
Director-General, the	Director-General of the Department of Planning, or delegate.
DPI	Department of Primary Industries
EA	<i>Environmental Assessment of the Desalinated Water Delivery System</i> , dated April 2007, and prepared by GHD on behalf of Sydney Water Corporation
Minister, the	Minister for Planning.
Proponent	Sydney Water Corporation, or any party acting under authorisation from and on behalf of the Sydney Water Corporation
Publicly Available	Available for inspection by a member of the general public (for example available on an internet site or at a display centre).
RTA	NSW Roads and Traffic Authority
Site	The land to which this approval applies

1. ADMINISTRATIVE CONDITIONS

Terms of Project Approval

- 1.1 The Proponent shall carry out the project generally in accordance with the:
- a) *Environmental Assessment of the Desalinated Water Delivery System*, dated April 2007, and prepared by GHD on behalf of the Proponent;
 - b) *Desalinated Water Delivery System: Preferred Project Report*, dated August 2007, and prepared by Sydney Water Corporation;
 - c) *Desalinated Water Delivery System: Application for Modification of Project Approval for the Urban Sydney Sector: Sydney North*, prepared by the Water Delivery Alliance for Sydney's Desalination Project and dated 5 May 2008;
 - d) *Desalinated Water Delivery System: Application for Modification of Project Approval for the Botany Bay Sector*, prepared by the Water Delivery Alliance and dated 15 July 2008, and additional information dated 2 September 2008;
 - e) *Desalinated Water Delivery System: Application for Modification of Conditions 2.18 and 2.19 of the Project Approval, Relating to the Botany Bay Sector*, prepared by the Water Delivery Alliance for Sydney's Desalination Project and dated 24 November 2008;
 - f) *Desalinated Water Delivery System: Application for Modification of Condition 2.6 of the Project Approval, Relating to Vibration*, prepared by the Water Delivery Alliance for Sydney's Desalination Project and dated 6 February 2009;
 - g) *Desalinated Water Delivery System: Application for Modification of the Project Approval, Botany Bay Sector relating to Dredged Material Storage in the Borrow Pit*, prepared by the Water Delivery Alliance for Sydney's Desalination project and dated 9 December 2009;
 - h) the concept plan approval granted with respect to the Kurnell Desalination Plant concept plan (05_0082); and
 - i) the conditions of this approval.
- 1.2 In the event of an inconsistency between:
- a) the conditions of this approval and any document listed from condition 1.1a) to 1.1g) inclusive, the conditions of this approval shall prevail to the extent of the inconsistency; and
 - b) any document listed from condition 1.1a) to 1.1g) inclusive, and any other document listed from condition 1.1a) to 1.1g) inclusive, the most recent document shall prevail to the extent of the inconsistency.
- 1.3 Notwithstanding condition 1.2, if there is any inconsistency between this project approval and the concept plan approval for the Kurnell Desalination Plant concept plan, the concept approval shall prevail to the extent of the inconsistency.
- 1.4 The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Department's assessment of:
- a) any reports, plans or correspondence that are submitted in accordance with this approval; and
 - b) the implementation of any actions or measures contained in these reports, plans or correspondence.

Limits of Approval

- 1.5 This project approval shall lapse on 31 December 2015, unless works the subject of this project approval or any other project approval granted with respect to the Kurnell Desalination Plant concept approval are physically commenced on or before that date. The Director-General may extend this lapse date if the Proponent demonstrates to the satisfaction of the Director-General that the desalination plant technology remains current, appropriate and reflective of best practice at the date the approval would otherwise lapse.

Project Sectors

- 1.6 For the purpose of this approval, the project shall be considered in three sectors:
- the **Kurnell Sector**, being the dry-land component of the project between the desalination plant site and Silver Beach (approximately 2.0 kilometres);
 - the **Botany Bay Sector**, being the water-based component of the project between Silver Beach and Kyeemagh, including construction compounds at Silver Beach and Kyeemagh (approximately 8.0 kilometres); and
 - the **Urban Sydney Sector**, being the dry-land component of the project between Kyeemagh and Erskineville (approximately 8.3 kilometres).

2. SPECIFIC ENVIRONMENTAL CONDITIONS

Construction Methods

- 2.1 Without limiting or restricting the selection of a construction method for other parts of the project, the Proponent shall ensure that the project parts identified in Table 1 are only constructed using a trenchless technology.

Table 1 - Trenchless Technology Project Segments

Sector	Description	Location
Kurnell Sector	Under residential streets	From under Captain Cook Drive (near the Kurnell subtransmission substation) to the corner of Tasman Street and Dampier Street, and along Dampier Street to Silver Beach (Figure 10-1 of the document referred to under condition 1.1b))
Botany Bay Sector	Under seagrass beds	From Silver Beach to a point around 800 metres from the mean high water mark into Botany Bay along the pipeline alignment (Figure 10-2 of the document referred to under condition 1.1b))
Urban Sydney Sector	Under residential streets and watercourses	From Cook Park along Tancred Avenue and under Muddy Creek to Riverine Park (Figure 10-3 of the document referred to under condition 1.1b))
	Under watercourses	Under Cooks River (near Marsh Street) to Tempe Recreation Reserve (Figure 10-3 of the document referred to under condition 1.1b))
	Under major rail infrastructure	Under Botany Freight Line (Figure 10-3 of the document referred to under condition 1.1b))
	Under major road infrastructure	Under Canal Road (Figure 10-3 of the document referred to under condition 1.1b))
	Under residential streets	From Sydney Park, near the intersection of Euston Road and Campbell Road, along Euston Lane to Maddox Street and through Ashmore and Mitchell Industrial Estates (Figure 2.2 of the document referred to under condition 1.1c))

Noise and Vibration Impacts

Construction Hours

- 2.2 Construction activities associated with the Botany Bay Sector (excluding trenching activities within one kilometre of the nearest residences) (refer to condition 1.6) and those parts of the Kurnell Sector and Urban Sydney Sector employing a trenchless construction technology (refer to condition 2.1), but not including establishment of launch and receival pits, may be undertaken 24-hours per day, seven days per week, subject to:
- compliance with the relevant Construction Noise Management Plan (refer to condition 5.2b)); and

- b) in the case of works associated with the Kurnell Sector or the Urban Sydney Sector, notification of the local council and potentially-affected residential landowners and occupiers at least 48 hours prior to any works being undertaken outside of the hours specified in condition 2.3.
- 2.3 The Proponent shall only undertake construction activities associated with the project, other than those referred to under condition 2.2, that would generate an audible noise at any residential premises during the following hours:
- a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive;
 - b) 8:00 am to 1:00 pm on Saturdays; and
 - c) at no time on Sundays or public holidays.
- This condition does not apply in the event of a direction from police or other relevant authority for safety reasons or where required in an emergency to avoid the loss of lives, property and/ or to prevent environmental harm.
- 2.4 The hours of construction activities specified under condition 2.3 of this approval may be varied with the prior written approval of the Director-General. Any request to alter these hours of construction shall be:
- a) considered on a case by case basis or activity-specific basis;
 - b) accompanied by details of the nature and need for activities to be undertaken during the varied construction hours;
 - c) accompanied by written evidence to the Director-General that activities undertaken during the varied construction hours are justified; appropriate consultation with potentially affected receivers and notification of the relevant local council has occurred; and all practicable and reasonable mitigation measures will be put in place; and
 - d) accompanied by any information necessary for the Director-General to reasonably determine that the noise impact of activities undertaken during the varied construction hours will not unreasonably impact on the acoustic amenity of receptors in the vicinity of the works.

Noise and Vibration Goals and Limits

- 2.5 The following construction noise goals shall apply to the project:
- a) with respect to airborne noise, a construction noise goal:
 - i) developed in accordance with the DECC's *Noise Control Guideline Construction Site Noise* during the hours of construction specified under condition 2.3 of this approval;
 - ii) established on the basis of what can reasonably and feasibly be achieved using best practice noise mitigation outside of the hours specified under condition 2.3 of this approval. Where applying such mitigation measures results in a noise level exceeding more than 5dB(A) ($L_{Aeq(15-minute)}$) above rating background noise levels at sensitive receiver locations, the requirements of condition 5.2b) i) 3 apply; and
 - b) with respect to ground-borne noise, a construction noise goal of:
 - i) 45dB(A) ($L_{Aeq(15-minute)}$) between the hours of 7:00 am and 6:00 pm;
 - ii) 40dB(A) ($L_{Aeq(15-minute)}$) between the hours of 6:00pm and 7:00am; except where ground-borne noise is predicted to occur for more than seven consecutive days in which case, 35dB(A) ($L_{Aeq(15-minute)}$) between the hours of 10:00pm and 7:00am applies.

Ground-borne noise is to be assessed within any habitable room.

- 2.6 The Proponent shall establish vibration goals for construction and operation of the trenchless technology consistent with the guidelines contained in *Environmental Noise Management – Assessing Vibration: A Technical Guideline* (DEC, 2006).

Impacts on Buildings and Structures

- 2.7 Subject to the agreement of the landowner, building condition surveys shall be completed on the following buildings/ structures prior to proximate tunnelling or excavation associated with the project:
- a) all buildings/ structures above the excavation/ tunnel and other buildings/ structures likely to be affected by tunnel/ excavation works or other major vibration-inducing construction activities in the vicinity of the buildings and structures in the Kurnell Sector and the Urban Sydney Sector. A suitably qualified person is required to certify that the survey area (and the buildings surveyed within) encompasses the maximum area that could reasonably be expected to be affected by tunnelling/ excavation or other major vibration-inducing construction works associated with the project; and
 - b) all buildings/ structures of heritage significance listed in Table 9.18 of the document referred to under condition 1.1a) of this approval, unless otherwise determined following geotechnical and vibration analysis endorsed by a suitably qualified person that the building/ structure(s) is not likely to be adversely affected by tunnel/ excavation works or other major vibration-inducing construction works associated with the project.
- 2.8 All property owners of buildings/ structures to be surveyed, as required under condition 2.7, shall be advised at least 48 hours prior to the commencement of the survey of their property of the scope and methodology of the surveys and the process for making a claim in relation to any property damage attributable to the construction of the project. A copy of the final survey shall be provided to each affected landowner upon request. A register of all properties surveyed shall be maintained by the Proponent and provided to the Director-General upon request.
- 2.9 Any damage to buildings/ structures, attributable to the construction of the project, either directly and indirectly (that is, including as a result of vibration or changes in groundwater) shall be rectified by the Proponent within a reasonable period, at no cost to the owner(s).

Traffic Impacts

- 2.10 Prior to the commencement of construction of the Kurnell Sector and the Urban Sydney Sector, the Proponent shall provide to the relevant road authority, the following information:
- a) where directional drilling/boring is proposed under roads, detailed plans (including vertical and horizontal alignment) of the pipeline route and mitigation measures proposed to reduce impacts to traffic and pedestrian safety during construction works on either side of the road. An indication of timing of works, hours of construction and maintenance arrangements during operation should also be outlined;
 - b) where trenching is proposed to cross roads or where trenching is proposed to occur within the road reserve, detailed design plans for the road works (including vertical and horizontal alignment) is to be provided as well as information regarding plant and equipment proposed to be used, construction compound locations, construction schedule and hours of construction, localised traffic diversions, need for short-term closure of roads or traffic lanes and restricted or modified access to adjacent properties.
 - c) details of all works that impact upon classified roads, including proposed mitigation measures to be implemented to reduce construction impacts such as traffic control measures for peak traffic periods (i.e. detours/diversions) and measures to ensure traffic and pedestrian safety during construction activities are required to be outlined. Ongoing maintenance arrangements for the operational phase should also be provided.
- 2.11 The Proponent shall ensure that any measures to restore roads to pre-existing conditions are undertaken in a timely manner, in accordance with the requirements of and to the satisfaction of the relevant road authority, at the full expense of the Proponent.
- 2.12 The Proponent shall ensure that all road crossings of classified roads, as defined in the *Roads Act 1993*, are constructed using underboring/directional drilling construction techniques unless otherwise agreed with the RTA. The construction method and depth of cover shall be determined in consultation with the RTA.

- 2.13 At all locations at which the project crosses:
- an existing road corridor (or future road corridors) between the Cooks River and Campbell Road (inclusive), Alexandria,
 - at Marsh Street, along the Alexandra Canal north of the bridge crossing near the Tempe Recreation Reserve, and
 - at General Holmes Drive,

the project shall be concrete encased, or equivalent, in order to protect the project from future road transport infrastructure, in consultation with the RTA.

- 2.14 Prior to the commencement of construction of the Urban Sydney Sector the Proponent shall consult with the RTA with respect to construction methods, project alignment, methods for protecting the pipeline infrastructure and future on-going maintenance of the project in that area. The consultation shall specifically address and resolve the potential for the project to adversely affect the RTA's future plans for road enhancement and development in order to minimise the potential for conflicts between the project and existing and any future major road transport infrastructure.
- 2.15 The Proponent shall ensure that the project is designed and constructed to be maintenance free within any RTA road reservations identified in environmental planning instruments and any future corridors identified by the RTA, or as otherwise agreed with the RTA. The Proponent shall ensure that pits, valves, hydrants, access structures or other related fittings are only located within areas of the project which are not within an existing or future road corridor, or as otherwise agreed with the RTA.
- 2.16 The Proponent shall provide the RTA with "as built" plans of the project where it is located within classified roads, as defined under the *Roads Act 1993*, and RTA road corridors (existing and future), showing the horizontal and vertical alignment and provisions for the protection of the project including locations of concrete encasement, or equivalent, if applicable, within six months of completion of construction of the project within those locations.

Soil and Water Quality Impacts

- 2.17 The Proponent shall employ soil and water management controls to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction of the Kurnell Sector and the Urban Sydney Sector, in accordance with *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004).
- 2.18 Construction and maintenance activities associated with the Botany Bay Sector shall be carried out in a manner that minimises the potential for the re-suspension and dispersal of marine sediments and associated biota, including installation of silt curtains around the Silver Beach and Kyeemagh construction sites and dredge discharge barges within the Botany Bay Sector.

Where silt curtains have been installed, they shall remain in place until the turbidity of the water within the silt curtains returns to background levels of turbidity in waters immediately outside the silt curtains.

All reasonable and feasible mitigation measures shall be employed during operation of the cutter suction dredges where monitoring demonstrates that turbidity levels at a point 2 metres from the cutter section dredges, due to dredging activities, exceed the background turbidity by more than an equivalent suspended sediment concentration of 50mg/L. These measures shall be detailed within the Botany Bay Sector Construction Water Management Plan as described under condition 5.2e.

- 2.19 The Proponent shall ensure that construction of the Botany Bay Sector, including all dredging, subsurface storage and reclamation works, is carried out in a manner such that

turbidity outside the silt curtains (as required under condition 2.18) does not exceed the background turbidity by more than an equivalent suspended sediment concentration of 50mg/L at a point of approximately 0.2 metre depth for Silver Beach and between 1 and 1.5 metre depth in the water column for all other sites and equipment and a distance of less than 10 metres from the silt curtain.

All reasonable and feasible mitigation measures shall be employed so as to minimise prolonged visible surface plumes (outside silt curtains) in the Bay, and shall be detailed within the Botany Bay Sector Construction Water Management Plan as described under condition 5.2e.

- 2.20 All equipment associated with the construction and operation of the project shall be operated and maintained in a manner that minimises the potential for oil and grease spills/leaks.
- 2.21 During construction of the Botany Bay Sector, the Proponent shall ensure that equipment capable of responding to a worst case oil spill is available at all times.
- 2.22 Prior to the commencement of construction of the Botany Bay Sector seaward of the mean high water mark, the Proponent shall develop work practices and procedures to be applied during construction to mitigate potential impacts on water quality and aquatic ecology. The work practices and procedures shall be consistent with the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC, 2000) and shall include, but not be limited to management of sediment-bound contaminants and acid sulfate soils located along the pipeline route. The Proponent shall consult DECC and DPI in development of these work practices and procedures. The Proponent shall submit a copy of the final work practices and procedures to the Director-General, prior to their implementation.

Impacts on Ecology

- 2.23 The Proponent shall ensure that construction of the Botany Bay Sector is carried out in a manner that minimises the potential for disturbance and/ or the spread of *Caulerpa taxifolia*.
- 2.24 The Proponent shall ensure that construction and maintenance of the Botany Bay Sector, particularly dredging and land reclamation works, is carried out in a manner that minimises the potential for impacts on seagrass beds, water quality, aquatic ecology and estuarine wetland systems.
- 2.25 Where practicable, noisy or other potentially disturbing activities associated with the construction of the project within Botany Bay shall cease or be scaled back when cetaceans and other marine mammals are approaching or in the area of construction activities.
- 2.26 The Proponent shall ensure that all revegetation and rehabilitation works are undertaken, in consultation with the relevant local council, using locally native species. The Proponent shall ensure that the regeneration of revegetated/rehabilitated areas is managed for a period of six months, or as agreed by the Director-General, until the newly planted vegetation has fully established.

Air Quality Impacts

- 2.27 The Proponent shall construct the project in a manner that minimises dust emissions from construction areas, including wind-blown and traffic-generated dust. All construction shall be undertaken with the objective of preventing visible emissions of dust from the site.

Waste Management

- 2.28 All wastes generated by the project shall be beneficially reused, recycled or directed to a waste facility lawfully permitted to accept the materials.

3. BOTANY BAY CUMULATIVE IMPACTS AND COORDINATION

- 3.1 Prior to the commencement of construction of the project, the Proponent shall consult with Sydney Ports Corporation (with respect to the timing of construction works associated with the expansion of Port Botany) and with EnergyAustralia (with respect to the timing of construction works associated with the Botany Bay electricity cable) to identify any potential coincident construction works between the project and those developments. Should construction works coincide, the Proponent shall consult with Sydney Ports Corporation and EnergyAustralia, as relevant, for the purposes of the development of a **Coordinated Environmental Monitoring and Management Protocol**. The Protocol shall provide a framework for identification of reasonable and feasible opportunities for the coordinated and cooperative monitoring and management of environmental impacts from the developments.

The Protocol shall include, but not necessarily be limited to:

- a) procedures for access to, and provision of, monitoring data from each development, particularly in relation to water quality and ecological health;
- b) identify and implement reasonable and feasible opportunities for coordinated and cooperative approach to the management of cumulative environmental impacts from the developments, with particular reference to water quality, noise impacts, construction traffic, dust impacts, aquatic ecology and reuse of spoil;
- c) arrangements for communication between the parties, including designated contact persons and contact details;
- d) notification procedures in the event of an incident at either development that may impact on the other development(s), or generate a significant common or cumulative impact;
- e) mechanism for review of the Protocol from time to time; and
- f) such other matters as parties may agree.

The Proponent shall provide a copy of the Protocol to the Director-General as soon as practicable after agreement on the terms of the Protocol.

4. ENVIRONMENTAL MONITORING AND AUDITING

Ecosystem Monitoring

- 4.1 Prior to the commencement of construction of the Botany Bay Sector seaward of the mean high water mark, the Proponent shall prepare an **Ecosystem Monitoring Program** to monitor the impacts of the project on ecosystems of Botany Bay. The Program shall be developed in consultation with the DECC and the DPI, and shall include, but not necessarily be limited to:
- a) a sampling, data collection and assessment regime to establish baseline ecological health, with particular reference to seagrasses, sygnathid species and benthic biota and for ongoing monitoring of ecological health during construction of the Botany Bay Sector. The monitoring program should include specific provisions for monitoring in and around construction works, including Towra Point Aquatic Reserve and its mangrove habitat, and should also take into account spatial variability in species types and distribution;
 - b) criteria against which the impact of the project on the ecological health of Botany Bay will be assessed;
 - c) water quality monitoring in the context of potential ecological impacts, particularly in relation to turbidity;
 - d) mitigation measures to be implemented in the event that reduced ecological health is identified with reference to established assessment criteria, including a timetable for implementation; and
 - e) monitoring for ecological health and biodiversity outcomes following completion of construction works, and for the recovery of biodiversity within the areas directly and indirectly affected by the Botany Bay Sector for a period of at least twelve months, unless otherwise agreed or directed by the Director-General.

Beach and Foreshore Monitoring

- 4.2 Prior to the commencement of construction of the Botany Bay Sector, the Proponent shall prepare a **Beach and Foreshore Monitoring Program** to monitor the impacts of the project on beach and foreshore erosion and quality where it is likely to be materially affected by the project. The Program shall be developed in consultation with the DECC and DPI and shall include, but not necessarily be limited to:
- a) surveys of beaches and foreshore areas around Botany Bay, including those areas likely to be materially affected by the construction of the project and at least one reference site to establish baseline profiles for those areas;
 - b) monitoring of those beaches and foreshore areas around Botany Bay referred to under part a) during construction of the project and following completion of construction to identify any changes in beach and foreshore profiles;
 - c) provisions to determine “source” and “sink” areas and to ameliorate any damage to habitat determined as a “sink” area for erosion sourced sediment;
 - d) contingency measures to be implemented in the event that beach and foreshore profile changes attributable to the project are identified, and a timetable for implementation; and
 - e) provision for amelioration of any damage to beach and foreshore areas as a result of the construction of the project.

Noise and Vibration Monitoring

- 4.3 Prior to the commencement of construction of the project, the Proponent shall prepare a **Construction Noise and Vibration Monitoring Program** for the purpose of assessing compliance with the goals and limits referred to under conditions 2.5 and 2.6. The Program shall be developed in consultation with the DECC.

5. ENVIRONMENTAL MANAGEMENT

Construction Environmental Management

- 5.1 The Proponent shall apply the **Construction Environmental Management System** required to be developed under the concept approval for the Kurnell Desalination Project during construction of the project.
- 5.2 In addition to the general requirements of the Construction Environmental Management System, the Proponent shall prepare and implement the following project-specific Construction Environmental Management Plans and Protocols during the construction of the project:
- a) where soil testing prior to the commencement of construction identifies the presence of acid sulfate soils, an **Acid Sulfate Soil Management Plan** prepared in accordance with guidance provided in *Acid Sulfate Soil Manual* (Acid Sulfate Soil Management Advisory Committee, 1998);
 - b) a **Construction Noise and Vibration Management Plan**, in consultation with DECC, to detail how construction noise and vibration impacts would be minimised and managed, including, but not necessarily limited to:
 - i) as primary objectives:
 1. attainment of the construction noise and vibration goals specified under this approval at all times;
 2. where construction noise and vibration goals cannot be met, to achieve best practice noise control (including, for example, acoustic enclosures over micro tunnelling launch and receipt pits), in terms of noise and vibration level and duration of noise and vibration emissions at affected receivers at all times;
 3. where the use of best practice noise and vibration control cannot substantially achieve the construction noise and vibration goals, alternative measures to resolve noise and vibration impacts on affected receivers (including, for example, temporary relocation of receivers);
 - ii) details of construction activities and a schedule for construction works;

- iii) identification of construction activities that have the potential to generate noise and/ or vibration impacts on surrounding land uses, particularly residential areas;
 - iv) a program for the periodic monitoring of noise emissions and vibration during construction, as required under condition 4.3;
 - v) procedures for notifying residents of construction activities that are likely to affect their noise and vibration amenity;
 - vi) development of reactive and pro-active strategies for dealing promptly with any noise and vibration complaints, including documentation of a fast response, the completed action on a complaint and feedback from the complainant;
 - vii) a description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be undertaken, how the results of this monitoring would be recorded; and, if any non-compliance is detected with the goals and limits specified under this approval; and
 - viii) mechanisms to consider and address cumulative noise and vibration impacts, particularly from other construction work potentially occurring in the area;
- c) a **Construction Traffic Management Protocol** to detail how heavy vehicle movements associated with the project (other than in relation to spoil management) will be managed during construction. The Protocol shall specifically address the movement of oversize loads to and from the site, the management of construction traffic, restrictions to the hours of heavy vehicle movements to avoid road use conflicts, and the transport of construction waste materials;
 - d) a **Spoil Management Plan**, consistent with the Spoil Management and Disposal Strategy required under the concept plan approval for the Kurnell Desalination Project. The Plan shall include procedures for undertaking further sediment samples at various depths along the trenched portion of the Botany Bay Sector to provide detail on particle size and quality of sediments to be disturbed;
 - e) a **Construction Water Management Plan** (for the Botany Bay Sector), in consultation with DECC, to detail how water quality will be managed during construction of the Botany Bay Sector, with specific reference to the minimisation and control of turbidity/ suspended solids. In particular, a turbidity criterion is to be established to enable instantaneous measurements to be obtained and used operationally.
 - f) an **Erosion and Sedimentation Management Protocol** (for the Kurnell Sector and Urban Sydney Sector), in consultation with DECC, to detail how surface water and stormwater will be managed during construction. The Protocol shall include use of appropriately-sized stormwater controls, in accordance with *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004).
 - g) a **Groundwater Management Protocol** (for the Kurnell Sector and Urban Sydney Sector), in consultation with DECC, to detail how groundwater will be managed during construction, with specific reference to identification and management of any contaminated groundwater along the pipeline route.

5.3 The Plans and Protocols referred to under condition 5.2 shall be submitted for the approval of the Director-General prior to the commencement of construction, or within such period otherwise agreed by the Director-General.

5.4 Nothing in this approval precludes the Proponent from developing the Plans and Protocols referred to under condition 5.2 as separate plans/ protocols, or as a single plan/ protocol, nor does it preclude the staging of submission of any of these plans/ protocols consistent with the staging of any construction works. Construction of the relevant component of the project must not commence until written approval of all Plans and Protocols relevant to that component of the project has been received from the Director-General.

Operation Environmental Management

5.5 The Proponent shall apply the **Operational Environmental Management System** required to be developed under the concept approval for the Kurnell Desalination Project during operation of the project.

6. ENVIRONMENTAL REPORTING

Incident Reporting

- 6.1 The Proponent shall notify the Director-General of any incident with actual or potential significant off-site impacts on people or the biophysical environment as soon as practicable and within 24 hours after the occurrence of the incident. The Proponent shall provide full written details of the incident to the Director-General within seven days of the date on which the incident occurred.
 - 6.2 The Proponent shall meet the requirements of the Director-General to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition 6.1 of this approval, within such period as the Director-General may require.
-