

# Victorian Desalination Project



D&C Utilities Environmental Management Plan  
 Attachment G – Environmental Obligations Register

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## ATTACHMENT G – Environmental Obligations Register

The references in the Area columns are to the relevant sub plans in the Area Environmental Management Plans.

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
01001	Visual Amenity – Leased Area, Transfer Pipeline Land and Booster Pump Station Land	Protect visual amenity, including landscape and recreational values of the coast.	Minimise visual impact on coastal landscapes, rural and residential properties and on publicly accessible locations.  No permanent marine project infrastructure visible from the beach			I1
01002			Minimise nocturnal light spill beyond the Desalination Plant.		I5	
01004			Comply with the requirements of <b>Appendix S4 Integrated Design of Architecture and Landscape)</b>			I1
01005			Design and site Desalination Plant infrastructure to minimise visual impacts on coastal landscapes, rural and residential properties, and publicly accessible locations.	Refer to Design Management Plan and Environmental Compliance Tracker for specific design package numbers		
01006			The Desalination Plant is to use building forms (including massing) and a palette of materials and finishes for all buildings, structures and open space elements that are responsive to the character of the surrounding coastal landscape.	Refer to Design Management Plan and Environmental Compliance Tracker for specific design package numbers		
01007			The impact of the configuration of the Desalination Plant on the surrounding landscape from close up, middle distance and long distance should be studied and demonstrated by visual modelling from critical viewpoints	Refer to Design Management Plan and Environmental Compliance Tracker for specific design package numbers		

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			defined in The Desalination Plant Component Landscape and Visual Assessment report (prepared by ERM 2008). The results of the modelling to be provided to the community and relevant property owners as part of the proposed communications strategy prior to construction of any above ground components of the Desalination Plant.			
01008			The Desalination Plant building envelope is defined by: <ul style="list-style-type: none"> <li>• Figure PR Visual Sensitivity Area – Desalination Plant Building Envelope in the Property Schedule,</li> <li>• a maximum building height of +32m elevation Australian Height Datum (AHD)</li> </ul>		Refer to Design Management Plan and Environmental Compliance Tracker for specific design package numbers	
01009			If constructing any building outside the Desalination Plant building envelope, demonstrate compliance with the performance criteria.		Refer to Design Management Plan and Environmental Compliance Tracker for specific design package numbers	
01010			Provide integrated landscaping on the Leased Area, including perimeter landscape buffering between the Desalination Plant building envelope and Leased Area boundaries having particular regard to the potential visual amenity and noise impacts on the northern and western boundaries.		Refer to Design Management Plan and Environmental Compliance Tracker for specific design package numbers	
01011			Provide visual screening along the public access to Williamson Beach as an integrated component of the landscape sensitive design.		Refer to Design Management Plan and Environmental Compliance Tracker for specific design package numbers	
01012			Landscape sensitive design to be an integral part of the Desalination Plant layout and design, incorporating coastal tolerant vegetation and areas of mounding that use the nearby coastal dune system as an appropriate landform. An example of an acceptable outcome could be		Refer to Design Management Plan and Environmental Compliance Tracker for specific design package numbers	

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			mounding with grades less than 1:3 to allow ease of maintenance and varying heights to mimic natural landforms.			
01013			Keep lighting levels within and external to buildings at minimum required for operation and safety.		I5	
01014			The Transfer Pipeline, with the exception of any booster pump station and its power supply, air valves and scour valves, surge tanks, Water Quality Sampling Stations, the Transfer Pumping Station and the Pressure Reducing Station must be underground.			I1
01015			Ancillary structures such as pump stations, tanks, valving, surge tanks and the like must comply with the performance criteria			I1
01016			<p>Landscape sensitive design for the Desalination Plant and any associated structures along the Transfer Pipeline to minimise visual impacts including:</p> <ul style="list-style-type: none"> <li>• Landscaping using species from locally occurring Ecological Vegetation Classes (EVCs) to achieve screening from rural and residential properties and on publicly accessible locations</li> <li>• Respecting the local landscape character and landform in any significant earthworks or landscaping</li> <li>• Use of non-reflective materials for roofs</li> <li>• Re-establishment of wetland (unnamed tributary of the Powlett River) on the Leased Area</li> </ul>			I1
01017			Offer landscape mitigation measures on a case by case basis to:			I1

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			<ul style="list-style-type: none"> <li>Existing residential buildings within 2 km of the Leased Area</li> <li>Melbourne Water Reserve, Berwick</li> </ul>			
02018	Visual Amenity – Electricity Transmission and Connection Assets	Minimise visual intrusion.	Limit visual impact on rural and residential properties and on publicly accessible locations.  Minimise impacts on landscape quality in areas with high existing landscape quality.			I1
02020			Minimise impacts on landscape and visual amenity values, especially within Significant Landscape Overlay areas, coastal areas and areas visible from key tourist routes including the Bass Highway, as well as on rural and residential properties, to the extent practicable.			I1
02021			The Electricity Transmission and Connection Assets must be underground with the exception of the associated equipment at CBTS, the reactive compensation, terminal station and associated equipment at the Booster Pump Station, the reactive compensation equipment at the Mid Point Reactive Compensation Station and the Desalination Plant terminal station.			I1
03022	Social and economic  Minimise adverse social and economic impacts and encourage social and economic benefits.		Inform the community about Project Activities.	Refer to the Community Involvement Plan		
03023			Support local procurement, employment and industry participation.	Refer to the Community Involvement Plan		
03024			Manage construction workforce accommodation impacts.	Refer to the Community Involvement Plan		

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03026			Develop and implement a communications strategy in consultation with the Bass Coast Shire Council to inform the community about Project Activities.			Refer to the Community Involvement Plan
03027			Comply with <b>Appendix S10 (Community)</b> including participating in two-way communication during the construction phase with respect to the management of off-site impacts, including to provide timely information in order to minimise any potential project impacts on the local community and to enable Project Co to seek advice on its communications strategy and other project implementation issues. Develop and implement a local industry participation strategy in consultation with the Bass Coast Shire Council supporting local purchasing and employment, and maximising local industry participation where appropriate.			Refer to the Community Involvement Plan
03028			Develop and implement a construction workforce accommodation strategy, in consultation with affected Councils, DPCD and Office of Housing, to the satisfaction of the State, that will: <ul style="list-style-type: none"> <li>(i) minimise housing stress for low income households in rental accommodation in Wonthaggi and nearby townships, to the extent practicable;</li> <li>(ii) create any new housing within township boundaries;</li> <li>(iii) minimise the need for new physical and social infrastructure, especially where Councils would be responsible for this;</li> <li>(iv) minimise any adverse effects on community cohesion;</li> </ul>			Refer to the Community Involvement Plan

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			(v) consider opportunities to supply new housing to meet local needs once the Project construction is complete, including potentially for low income households.			
03029			The construction of the Transfer Pipeline in the vicinity of the Berwick South Primary School and St Catherine's Primary School / St Francis Xavier College Junior Campus should be undertaken as far as possible to minimise impacts on school operations.		Refer to the Community Involvement Plan	
04030	Public Safety	Protect neighbourhood amenity and site personnel.	Comply with the legislation relevant to Occupational Health and Safety and Australian Dangerous Goods Code in relation to any toxic and flammable materials transferred to site and used onsite.		Refer to the Community Involvement Plan	
04031			Comply with legislation relevant to Major Hazard Facilities if it is determined that Project Co will be operating a Major Hazard Facility.		Refer to the Community Involvement Plan	
04033			Undertake a quantitative risk assessment to determine the off-site impacts of the facility and to demonstrate that the off-site risk complies with Victorian Interim Risk Criteria.		Refer to the Community Involvement Plan	
004034			Develop a Safety Management System for the facility in consultation with WorkCover, emergency services and the Bass Coast Shire Council. This system is to comply with any requirements under Major Hazard Facility regulations.		Refer to the Community Involvement Plan	
05035	Activities on agricultural and grazing land	Minimise impacts on agricultural productivity.	Design pipeline and grid connection easements to minimise rural impacts.  Adopt construction methods and programming schedules which take account of landowner needs.			11

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			Prepare appropriate rehabilitation plans with individual landholder input in order to restore land to similar existing conditions.			
05037			In design, minimise impact on agricultural productivity including, for the Transfer Pipeline, following road reserves and/or property boundaries where practical subject to further investigations and landholder consultation.			11
05038			Comply with all agricultural or horticultural protocols that need to be respected during construction and operation.			11
05039			Comply with the Plant Health and Plant Products Act 1995 and the Plant Health and Plant Products Regulations 2006, relating to declared potato cyst nematode control area at Koo Wee Rup.			11, 15
05040			Detail the methodology for any soil removal, assessment, reuse and management to manage biohazard risk including Potato Cyst Nematode and <i>Phytophthora cinnamomi</i> .			11
06041	Terrestrial flora and fauna	Minimise impacts on terrestrial flora and fauna	<p>Minimise impacts on terrestrial flora and fauna</p> <p>Comply with the Victorian Native Vegetation Management Framework, including its net gain approach to vegetation clearance</p> <p>Avoid where practicable, or minimise impacts in the designated areas presented in Figures:</p> <ul style="list-style-type: none"> <li>• PR Sensitivity Areas – Plant Area</li> <li>• PR sensitivity Area – Transfer Pipeline – Sheet 1, 2,</li> </ul>		15	15

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			<p>4, 5 and 6</p> <ul style="list-style-type: none"> <li>PR Sensitivity Areas – Northerly Grid Connection – Sheet 1, 2, 4, 5 and 7</li> </ul> <p>In the Property Schedule</p> <p>Apply EPA Best Practice Environmental Management – Environmental Guidelines for Major Construction Sites (1996) to limit impacts during construction</p>			
06043			Apply the Net Gain approach, consistent with the Victorian Native Vegetation Management Framework to the satisfaction of the Department of Sustainability and Environment or the Minister for Environment and Climate Change as appropriate, including the endorsement of any removal of any vegetation of Very High Conservation Significance and confirmation of the suitability of associated offsets prior to the commencement of works		15	15
06044			Develop and implement methods and management systems to limit impacts on terrestrial flora and fauna including:		15	15
06045			<ul style="list-style-type: none"> <li>Management of the volume, velocity and quality of stormwater entering the declared Western Port Ramsar Site during construction and operation</li> </ul>			19
06046			<ul style="list-style-type: none"> <li>Management of noise, light spill, vehicle movements, domestic animals, dust suppression and weeds</li> </ul>		15	15
06047			<ul style="list-style-type: none"> <li>Design, management and monitoring of open trenches to minimise entrapment of fauna</li> </ul>			15
06048			<ul style="list-style-type: none"> <li>Monitoring and reporting protocols, including water quality criteria, to determine compliance with the above</li> </ul>		15	15

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			matters			
06049			<ul style="list-style-type: none"> <li>Pre-construction surveys to detect indigenous species (flora, birds, fish amphibians and reptiles) listed under the EPBC Act or the <i>Flora and Fauna Guarantee Act 1988</i> for which potential habitat exists in the vicinity of the proposed works.</li> </ul>			15
06050			<ul style="list-style-type: none"> <li>Development of contingency plans to apply in the event that as yet undetected populations of species listed under the <i>Flora and Fauna Guarantee Act 1988</i> or EPBC Act are encountered prior to or during construction or before site rehabilitation, to the satisfaction of Department of Sustainability and Environment and the Department of the Environment, Water, Heritage and the Arts.</li> </ul>		15	15
06051			Undertake pre-construction survey for Giant Gippsland Earthworm along the pipeline and power supply alignments. Ensure all identified locations of the species are protected by appropriate buffer zones. Develop contingency plans for management of yet undetected populations of the Giant Gippsland Earthworm.			15
06052			<ul style="list-style-type: none"> <li>Post-construction monitoring to apply at construction sites with significant flora or fauna values to assess actual impacts and the effectiveness of rehabilitation.</li> </ul>			15
06053			Post-construction monitoring of any dispersal of <i>Phytophthora cinnamomi</i> dieback in remnant native vegetation in close proximity to pipeline and powerline earthworks sites, for a minimum of two years after the completion of site rehabilitation works.	Applicable to O&M phase		
06054			Locally alter the alignment of the Transfer Pipeline and the		15	15

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			power supply routes to avoid any identified populations of the Giant Gippsland Earthworm or, if necessary, translocate populations of the Giant Gippsland Earthworm.			
06055			<p>Where disturbance is to occur, the agreement of the State is to be obtained for the processes to apply to:</p> <ul style="list-style-type: none"> <li>• Management of Ecological Vegetation Classes (EVC) to ensure compliance with the Victorian Native Vegetation Management Framework</li> <li>• Salvage of plant species and plant collection</li> <li>• Conservation of significant fauna species (Hooded Plover, Giant Gippsland Earthworm, Southern Brown Bandicoot, Dwarf Galaxias, Australian Grayling, Growling Grass Frog, Swamp Skink and Orange-bellied Parrot); conservation of significant flora species (River Swamp Wallaby-grass, Green Striped Greenhood, Matted Flax Lily, Maroon Leek-orchid).</li> <li>• Taking of protected flora from public land</li> <li>• Translocation, disturbance or handling of native wildlife</li> </ul>		15	15
06056			Develop a vegetation management plan detailing the appropriate revegetation techniques including the species to be revegetated.			15
06057			Comply with the requirements and recommendations of the Biosis Research Pty Ltd Assessment of EPBC Act threatened species for the Victorian Desalination Project report (2009).			15
06058			Adopt construction hygiene measures for earthworks,		15	15

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			specifically for movement of soil, plant, vehicles and personnel in and out of areas that may be infected with <i>Phytophthora cinnamomi</i> , in accordance with Victoria's Public Land <i>Phytophthora Cinnamomi</i> Management Strategy, DSE (2008) and any specific protocols issued by the Department of Sustainability and Environment.			
06059			Develop and implement methods and systems for managing imported soils or gravel material used for construction, particularly in and around areas that support native vegetation. Ensure any imported materials are pathogen free.			15
-			No unauthorised removal of native vegetation <b>C.</b>		15	15
07060	Waterways and Wetlands	Protect waterways and wetlands	<p>Comply with the State Environment Protection Policy (Waters of Victoria) or ANZECC Guidelines (2000)</p> <p>No significant impact on Western Port Ramsar Site</p> <p>Maintain the environmental values of waterways and wetlands</p> <p>Compliance with all relevant Government Agency and/or Water Authority requirements for waterway crossings</p> <p>Avoid where practicable or minimise impacts in the designated areas presented under the EES</p>		110	110
07062			<p>Develop and implement construction methods and site rehabilitation plans that seek to protect the habitat values of waterways and wetlands including:</p> <ul style="list-style-type: none"> <li>Developing appropriate construction methods to minimise environmental impacts for crossing sensitive waterways including:</li> </ul>		110	110

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			<ul style="list-style-type: none"> <li>~ Powlett River</li> <li>~ Bridge Creek</li> <li>~ Woolshed Creek</li> <li>~ Bass River</li> <li>~ Lower Lang Lang River</li> <li>~ Yallock Cut</li> <li>~ Yallock Creek</li> <li>~ Bunyip River</li> <li>~ McDonalds catch Drain</li> <li>~ Deep Creek</li> <li>~ Toomuc Creek</li> <li>~ Cardinia Creek</li> <li>~ Tennant Creek</li> </ul> <ul style="list-style-type: none"> <li>• Wherever practicable, where trenching of waterways is to occur, trench during dry conditions</li> <li>• Site specific construction methods to minimise environmental impacts on ecologically significant species and vegetation, as well as the risk of sedimentation, heightened flood risk, acid sulphate soils and impacts on downstream water users.</li> <li>• Reinstating and revegetating disturbed areas</li> <li>• Limiting impact on ecological processes such as fish movements and breeding</li> </ul>			

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			<ul style="list-style-type: none"> <li>Undertake an environmental risk assessment of individual waterway crossings to guide decision-making on the most appropriate crossing method and related mitigation</li> </ul>			
07063			Develop and implement monitoring and reporting on the effects of construction on waterways and wetlands.		I10	I10
07063-1			Develop and implement methods and management systems to limit impacts on waterways and wetlands during operation.		I10	I10
07064-1			Re-establishment of wetland (unnamed tributary of the Powlett River) on the Leased Area		I10	
07064-2			Develop maintenance and emergency management plans for the Transfer Pipeline which meet the performance criteria	Refer to Environmental Incident Response Plan		
07065			Design and locate scour and other relief valves to meet the performance criteria			I10
08066	Aboriginal heritage	<p>Protect Aboriginal sites of Cultural Heritage significance.</p> <p>Manage potential interactions with Aboriginal sites where impacts are unavoidable and for previously unrecorded Aboriginal sites of significance.</p>	<p>No works to be undertaken prior to the approval of project Cultural Heritage Management Plan(s) in accordance with the Aboriginal Heritage Act 2006.</p> <p>Comply with the approved Cultural Heritage Management Plan(s). Avoid where practicable or minimise impacts in the designated areas presented in Figures:</p> <ul style="list-style-type: none"> <li>PR Sensitivity Areas – Plant Area</li> <li>PR Sensitivity Areas – Transfer Pipeline - Sheet 1, 2, 4, 5 and 6</li> <li>PR Sensitivity Areas – Northerly Grid Connection -</li> </ul>			I11

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			Sheet 1, 2, 4, 5 and 7 in the Property Schedule			
08068			Assess the extent of Aboriginal cultural heritage.		I1	I11
08069			Design extent of Works and Temporary Works to avoid known sites if practicable. If not practicable, comply with the terms of all required approvals to disturb or destroy Aboriginal cultural heritage sites.		I1	I11
08070			Mark known sites on construction plans and on site.		I1	I11
08071			Protect sites that are at risk of accidental damage during construction activities .		I1	I11
08072			Provide cultural awareness training to relevant construction personnel.		I1	I11
08073			Consult with relevant Registered Aboriginal Parties, or, if not appointed, with relevant aboriginal groups.		I1	I11
08074			Comply with recommendations and contingencies specified in the Approved CHMP.		I1	I11
-			Protect known parts of Aboriginal sites within the development from impact wherever possible.			I11
-			Manage potential interactions with Aboriginal sites where impacts are unavoidable and for previously unrecorded Aboriginal sites of significance in accordance with the CHMP requirements.			I11
09075	Heritage	Protect listed historical heritage (including maritime heritage) places and sites from disturbance.	<p>Minimise impacts on historical heritage sites that are within or near the Project Area</p> <p>Minimise impacts on places and sites listed on relevant registers and protected under planning schemes</p>			I11

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09077		<p>Manage potential interactions with historic places and sites including historic maritime places and sites).</p> <p>Protect listed historical heritage (including maritime heritage) places and sites from disturbance.</p> <p>Manage potential interactions with historic places and sites (including historic maritime places and sites) in accordance to Consent conditions specified by Heritage Victoria (HV).</p>	Develop a list of known places and sites of heritage significance.		I1	I11
09078			Design extent of Works and Temporary Works to avoid known sites if practicable. If not practicable, comply with the terms of all required approvals to disturb or destroy historic places and sites.		I1	I11
09079			Mark known sites on construction plans and monitor where works are in proximity. Monitoring to be carried out by a qualified Archaeologist.		I1	I11
09080			Protect sites that are at risk of accidental damage during construction activities.		I1	I11
-			To avoid or minimise to the extent practicable adverse effects of project construction on Aboriginal and post-settlement cultural heritage, as well as palaeontologic and geomorphologic values.			I11
-			Compliance with the CHMP.			I11
10081	Geology and Geomorphology	Protect sites of regional geosciences significance.	Design and construct the Desalinated Water Supply System and its power supply to avoid and minimise impacts to sites of geoscience significance.	Refer to Design Management Plan and Environmental Compliance Tracker “Design” tab for detailed Design Package numbers		
10083			Design and construct the Desalinated Water Supply System and its power supply to avoid and minimise impacts to the sites of geosciences significance.	Refer to Design Management Plan and Environmental Compliance Tracker “Design” tab for detailed Design Package numbers		
10084			Design the Works and the Temporary Works to be able to tolerate any differential settlement resulting from potential	Refer to Design Management Plan and Environmental Compliance Tracker “Design” tab		

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			subsidence including from the old mining works.	for detailed Design Package numbers		
11085	Resource efficiency	Minimise resource use including energy and water during Project Activities.	Comply with the Environment and Resource Efficiency Plans reporting and management requirements.	I3	I6	I6
-			Design to provide a holistic, best practice solution encompassing minimal resource usage and emissions to the receiving environment.		I6	
11087			Develop and implement construction and operation methods and management systems (including monitoring and reporting) to ensure the efficient use of water resources during Project Activities, including: <ul style="list-style-type: none"> <li>• Minimising water use. Designing offices and associated facilities to achieve a minimum water conservation target of 2A (i.e. less than, or equal to, 18 litres per day per person)</li> <li>• Reusing or recycling water, where possible. Where practical, harvesting rainwater and stormwater as a supplementary supply for various non-potable uses such as toilet flushing, cooling tower, irrigation and various in-plant uses where appropriate</li> <li>• Treating and/or returning surplus water for other non-Project uses or benefits</li> <li>• Using recycled water where practical, including during construction.</li> </ul>	I3	I6	I6
11088			Develop and implement construction and operation methods and management systems (including monitoring and reporting) to ensure energy efficiency during Project	I3	I6	

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			<p>Activities including:</p> <ul style="list-style-type: none"> <li>Achieving a specific energy consumption for the desalination process that is less than 4.6KWh/kL (calculated using a method agreed with EPA) on an annual average basis and as low as reasonably practicable and to the satisfaction of EPA</li> <li>Installing variable speed drives (VSD) on pumps and motors, where practical</li> <li>Ensuring all pumps are selected to run at their best efficiency point under normal operating conditions.</li> </ul>			
12089	Use of chemicals	Minimise use of chemicals during Project Activities	Minimise adverse effects of chemicals on the receiving environment.	I2	I2	I2
12091			Design the pre-treatment, desalination and potabilisation systems to minimise chemical usage and to select chemical products that are proven to have minimal adverse effect on the receiving environment.		I2	
13092	Flooding control	Protect public and private assets from flooding.	Limit impacts of flooding from Project Activities		I9	I9, I10
13094		Maintain ecological processes dependent on periodic flooding during project design, construction and operation to the extent practicable.	Design and construct the Works and the Temporary Works to avoid impacts on flood potential and obtain approval of the relevant Government Agency or Water Authority to any change in waterway flood levels.		I9	I10
13095			Design and construct the Desalination Plant to be sufficiently above the 1 in 100 annual exceedance probability (AEP) flood level under expected climate change conditions to allow for the natural closing of the river mouth, coincident levels in Bass Strait and a		I9	

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13096			<p>reasonable allowance for the uncertainty in these estimates (AEP is the probability of exceedance of a given discharge within a period of one year).</p> <p>Develop and implement methods and management systems that:</p> <ul style="list-style-type: none"> <li>Identify and investigate potential interactions with flood protection systems during Project Activities</li> <li>Maintain existing flood protection systems during Project Activities</li> <li>Maintain flood dependent ecosystems to the extent practicable</li> </ul>		I9	I9, I10
13097			Any Project activities on waterways are to be in accordance with the requirements of the relevant Government Agency or Water Authority.		I10	I10
14098	Groundwater	Protect the beneficial uses of groundwater	<p>Minimise impact on groundwater</p> <p>Minimise impacts on the interaction between groundwater and flora and fauna habitats, including waterways, wetlands and dunes.</p> <p>Comply with the Water Act 1989 and State Environment Protection Policy (Groundwaters of Victoria) requirements for groundwater quantity, quality, availability and flow including meeting any Government Agency or Water Authority licensing requirements.</p>			I9
14100			Develop and implement methods and management systems which do not cause deterioration to groundwater systems including:		I9	I9

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			<ul style="list-style-type: none"> <li>• Consideration of the interaction between surface water and groundwater</li> <li>• Recognition of the interaction with flora and fauna habitats, including wetlands and dune vegetation</li> <li>• Management of extracted groundwater seeking to maximise potential reuse and disposal</li> <li>• Limiting any impact on, or diminution of, the existing flow regime in waterways, wetlands or groundwater aquifers arising from the interception and/or drainage of groundwater</li> <li>• Minimise any reduction of existing groundwater recharge to wetlands resulting from the construction or operation of the Desalinated Water Supply System</li> </ul>			
14101			Undertake a site specific assessment, in consultation with the relevant Government Agency or Water Authority and the EPA, if intercepted groundwater is proposed to be discharged to waterway segments and demonstrate that water quantity, quality, availability and flow will meet the relevant licensing requirements.		19	19
14102			Monitor groundwater quality and levels during project construction in accordance with the requirements of the EPA and/or relevant Government Agency or Water Authorities		19	19
-			Zero incidents or release of contaminated groundwater to environment.		19	19
-			Maximise groundwater reuse wherever possible			19

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
-			No identifiable drawdown effect on groundwater past construction activities.		19	
15103	Surface water quality	Protect and maintain surface water quality.	<p>Minimise impacts on surface water quality.</p> <p>Comply with State Environment Protection Policy (Waters of Victoria)</p> <p>Achieve the Urban Stormwater Best Practice Environmental Management Guidelines performance objectives during construction and operation</p> <p>Comply with EPA Best Practice Environmental Management – Environmental Guidelines for Major Construction Sites (1996)</p> <p>Stormwater treatment system is to be fully integrated into the overall detail design of the Desalinated Water Supply System and its power supply and include spill management infrastructure to protect surface water quality</p>		19	19
15105			Develop and implement construction methods and management systems that seek to maintain surface water quality consistent with State Environment Protection Policy (Waters of Victoria) and EPA Best Practice Environmental Management – Environmental Guidelines for Major Construction Sites (1996)		19	19
15106			Design and construct Temporary Works to isolate construction runoff from catchment runoff and treat it prior to discharge to receiving waterways		19	19
15107			Establish a surface water quality monitoring and reporting program in consultation with the EPA and West Gippsland Catchment Management Authority for all waterways that		19	19

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			may be affected by the Project Activities			
15108			Manage maintenance to avoid release of water with chemical concentrations above State Environment Protection Policy (Waters of Victoria) objectives.		19	
-			<ul style="list-style-type: none"> <li>- Avoid release of hazardous substances to soil or waterways.</li> <li>- Maximise surface water reuse where ever possible.</li> <li>- Minimise release of sediment laden water to waterways. Only discharge to construction water to waterways following authorisation from relevant waterway authority and EPA. Notify EPA and relevant waterway authority of uncontrolled release of construction water to waterway.</li> </ul>		19	19
16109	Erosion and sediment control	Minimise erosion and sediment movement	Comply with EPA Best Practice Environmental Management – Environmental Guidelines for Major Construction Sites (1996) and EPA Construction Techniques for Sediment Pollution Control (1991).		19	19
16111			<p>Develop, implement and maintain construction methods and management systems consistent with EPA Best Practice Environmental Management – Environmental Guidelines for Major Construction Sites (1996) and EPA Construction Techniques for Sediment Pollution Control (1991) to limit erosion and sediment movement by:</p> <ul style="list-style-type: none"> <li>• Identifying highly erodible soil and avoiding activities involving disturbance of these areas where possible. Where avoidance is not possible, additional control measures to be implemented for these identified areas</li> </ul>		19	19

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			<ul style="list-style-type: none"> <li>Limiting clearance of vegetation, particularly along streams</li> <li>Designing drainage outlets and diversion channels to limit flow velocities and erosion</li> </ul>			
-			- No increase in on site eroded features		19	
17112	Acid Sulfate soils	Manage Acid Sulfate Soils (ASS)	<p>Manage potential and actual AAS in accordance with relevant legislation, standards and guidelines including the waste hierarchy.</p> <p>Comply with EPA's Industrial Waste Management Policy (Waste Acid Sulfate Soils) and EPA Publication 655 Acid Sulfate Soil and Rock</p>	Refer to the Acid Sulfate Soil Management Plan		
17114			Identify and where possible avoid disturbing areas of potential acid sulfate soils (PASS).	Refer to the Acid Sulfate Soil Management Plan		
17115			Develop and implement methods and management systems to manage ASS and construction where ASS are encountered to minimise environmental impacts.	Refer to the Acid Sulfate Soil Management Plan		
17116			Ensure that the environmental management plan for the Powlett River crossing addresses potential ASS in the vicinity of Powlett River and the project site, and interaction with groundwater dewatering, floods, flora and fauna and construction technique.	Refer to the Acid Sulfate Soil Management Plan		
17117			Dispose of any ASS spoil at appropriate premises licensed by the EPA.	Refer to the Acid Sulfate Soil Management Plan		
18118	Contaminated Soils	Protect beneficial uses of land	<p>Manage and remediate contaminated soils.</p> <p>Comply with the State Environment Protection Policy (Prevention and Management of Contamination of Land).</p>		17	17

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
18120			Protect human health and ecosystems from exposure.			
18121			Assess any contamination in accordance with the National Environment Protection (Assessment of Site Contamination) Measure, NEPC 1999 and other relevant guidelines.		17	17
18122			Identify any contaminated land within the plant site area and assess the potential for long term impacts.		17	17
18123			Detail the methodology for any soil removal, assessment, reuse and management.		17	17
18124			Manage decontamination of any buildings being demolished or areas within the plant site in which pre-existing land, water or ground contamination is identified or exposed.		17	17
18125			Identify procedures to manage contaminated soil and buildings during the construction works, including during building demolishing.		17	17
18125			Develop and implement methods and management systems that seek to protect human health and the environment.		16, 17	16, 17
19126	Hazardous materials and dangerous goods	Protect beneficial uses of air, land, water, human and environmental health, from the impacts of hazardous materials and dangerous goods.	Manage, store, handle and dispose any hazardous substances and dangerous goods in accordance with relevant policies, regulations and guidelines including the Victorian WorkCover Authority and Australian Standard AS1940 Storage and Handling of Flammable and Combustible Liquids, EPA Best Practice Environmental Management - Environmental Guidelines for Major Construction Sites (1996) and EPA Publication 347 -	12	12	12, 19

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
19128			(Bunding Guidelines). Develop and implement methods and management systems (including contingency plans) that: <ul style="list-style-type: none"> <li>– Limit the on-site and on-vessel storage and/or use of hazardous substances and dangerous goods</li> <li>– Manage hazardous materials and dangerous goods to avoid environmental damage</li> <li>– Install bunds (if appropriate) and take precautions to reduce the risk of spills entering the stormwater drainage system</li> <li>– Seek to contain any spills captured by the stormwater drainage system</li> <li>– Provide for management of hydrocarbon spills</li> </ul>	I2	I2	I2, I9
19129			Undertake routine maintenance of construction equipment and monitor fuel storage tanks to reduce the potential for spills to occur.	I2		
-			No unauthorised offsite discharge of hazardous materials.			
20130	Waste – general	Manage waste from the construction and operation phases of the Project consistent with the requirements of the Government/ EPA Waste	Minimise waste through the adoption of best practice waste reduction and disposal procedures consistent with the EPA waste hierarchy.	I3	I6	I6
20132			Develop and implement a long term waste minimisation and management plan for the construction <sup>1</sup> and	I3	I6	I6

<sup>1</sup> This sub plan serves as the Waste Minimisation and Management Plan for the construction phase of Utilities, as required by PR#20132.

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
		Management Policies	operational phases of the Project, incorporating best practice measures to reduce the quantities of particular waste streams and minimise associated environmental impacts – including landfill requirements and greenhouse gas emissions – to the extent practicable, to the satisfaction of the EPA.			
20133			In assessing waste management options, adopt the following order of preference: - Waste avoidance and/or reduction - Waste reuse, recycling and reclamation - Waste treatment - Waste disposal	I3	I6	I6
20134			Remove and otherwise handle any materials containing asbestos in accordance with the requirement of all Laws and Approvals, including the Occupational Health and Safety (Asbestos) Regulations 2003 (Victoria).		I6	I2, I6
20135			Promote the efficient use and conservation of resources as part of the training program for all Associates including contractors, subcontractors and operators.	I3	I6	I6
21136	Site rehabilitation	Restore preconstruction land quality and uses.	All disturbed land progressively reinstated: <ul style="list-style-type: none"> <li>• In the case of the Desalination Plant, to the standards agreed with the State</li> <li>• In the case of all other private land directly affected by the Project Activities in accordance with the rehabilitation plan</li> <li>• In the case of public land, as agreed with the public and manager</li> </ul>		I3	I3, I9

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
21138			<p>Progressively and prior to its disturbance, conduct pre-construction surveys of the land within 50 metres of the Project Area to be disturbed. Provide to the State a rehabilitation plan developed in consultation with each private landowner to address as applicable:</p> <ul style="list-style-type: none"> <li>• Site protection and site preparation</li> <li>• Planting design including plant densities relative to EVC benchmarks (subject to easement clearance requirements).</li> <li>• Source of planting stock.</li> <li>• Post-planting maintenance.</li> <li>• Protection of re-seeded and revegetated areas.</li> <li>• The timing of rehabilitation activities to ensure that it is appropriate to seasonal conditions as far as practicable.</li> </ul>		13	13, 19
21141			Comply with Native Vegetation, Revegetation Planting Standards, DSE (2006).		13	13
21142			Identify areas where there is a risk of subsidence, and develop and implement construction approaches to mitigate the risk. Monitor and rectify any defect.		13	13
21143			Ensure that no Waste of any kind other than clean fill soil is placed in any trench or included in earthworks.		17	17
21144			Re-instate the soil profile to pre-existing conditions.		13	13
21145			Avoid or minimise settlement of backfill along the Transfer Pipeline and Electricity Land. Ensure that layering of sands, clays and topsoil is reinstated to ensure			13

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			regeneration of existing pasture and vegetation.			
21146			Revegetate, in accordance with Native Vegetation Management Framework and not inconsistently with landholder uses.		13	13
21147			Restore any pre-existing infrastructure (including tracks, fences, dams, irrigation lines and the like) unless incompatible with obligations under the Deed or the terms of an acquired easement.			13
22148	Air quality – dust	Protect air quality	Limit dust emissions.  Compliance with the State Environment Protection Policy (Air Quality Management) and EPA Best Practice Environmental Management – Environmental Guidelines for Major Construction Sites (1996).  Minimise dust impacts on sensitive receiver sites		14	14
22150			Develop and implement methods and management systems (including monitoring) to maintain air quality during construction consistent with State Environment Protection Policy (Air Quality Management) intervention levels for particulates and EPA Best Practice Environmental Management – Environmental Guidelines for Major Construction Sites (1996).		14	14
22151			Register interest with Parks Victoria fire operation plans to ensure site managers are informed of planned burn offs in the area of any construction works.		14	14
23152	Air quality – odour and emissions	Protect air quality	Limit odour and emissions from Desalination Plant operations.	13	14	
23153			Compliance with the State Environment Protection Policy	13	14	14

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			(Air Quality Management) and State Environment Protection Policy Ambient Air Quality).			
23154			Comply with the EPA Works Approval.		14	
23156			Develop and implement methods and management systems consistent with State Environment Protection Policy (Air Quality Management) and State Environmental Protection Policy (Ambient Air Quality) to limit odour and emissions from the operation of the Desalination Plant and ensure no offensive odours beyond the boundary of the premises.		14	
23157			Monitor and report the effect of Project Activities on air quality.		14	14
24158	Airborne Noise	Protect neighbourhood amenity	<p>Minimise impacts from airborne noise</p> <p>During construction, comply with EPA Publication 1254 as well as relevant aspects of EPA Publication 480 and N3/89 for the Desalination Plant.</p> <p>Comply with EPA N3/89 during day and evening, and with State Environment Protection Policy N1 at night-time for the Leased Area</p>	15	18	18
24160			Develop and implement communication strategy with key stakeholders and the community to manage the impact of construction noise and limit disturbance to local amenity.	15	18	18
24161			Model and report predicted airborne noise levels during operation to demonstrate that the design meets the performance criteria. As part of the modelling and reporting exercise, include an assessment of tonality and other character adjustments with consideration to the		18	

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			relevant provisions of State Environment Protection Policy N1. If found present, tonality or character adjustments should be eliminated through the detailed design stage. Alternatively reduced noise limits, with consideration to State Environment Protection Policy N1, may be applicable.			
24162			Develop and implement a noise mitigation strategy for construction activities.		18	18
24163			Night time construction works outside the provisions of EPA Publication 1254 should be subject to a specific noise mitigation strategy, through consultation with the EPA prior to commencement of works.		18	18
24164			Monitor and report on airborne noise levels		18	18
25165	Vibration	Protect buildings from vibration impacts	Compliance with Section 5.5 of EPA Publication 480: Environmental guidelines for major construction sites.  Minimise damage from vibration caused by construction activities and Desalination plant activities.		18	18
25166			Undertake site investigations, property and land surveys and ground and infrastructure condition surveys of vibration generation works prior to and after carrying out vibration generation works on a case-by-case basis for all potentially impacted dwellings.			18
25167			Develop and implement methods and management systems to protect buildings from vibration impacts.		18	18
25168			Undertake site investigations, property and land surveys and ground and infrastructure condition surveys of vibration generation works prior to and after carrying out		18	18

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			vibration generation works on a case-by-case basis for all potentially impacted dwellings.			
25169			During any blasting, undertake a monitoring strategy to measure and mitigate ground vibrations in the dune system.		18	18
25170			Short-term vibration levels must not exceed 3 – 10mm/s peak particle velocity (frequency dependent limit) at Heritage buildings, 5 to 20 mm/s Peak Particle Velocity (frequency dependent limit) at rural and residential buildings and 20 to 50mm/s peak particle velocity (frequency dependent limit) at commercial or industrial buildings.		18	18
26171	Traffic and transport	Maintain public access and protect safety of road users	Minimise traffic impacts and maintain road safety.	See Traffic Management Plan		
26172			Undertake specified traffic and pedestrian infrastructure upgrades to provide safe access to the Project.	See Traffic Management Plan		
26174			Access to the Leased Area in normal conditions shall be via Lower Powlett Road.	See Traffic Management Plan		
26175			Implement the following infrastructure upgrades to the standard required by VicRoads and Bass Coast Shire Council (as relevant): <ul style="list-style-type: none"> <li>• Reconstruction to improve the Bass Highway and Lower Powlett Road intersection</li> <li>• Reconstruction of Lower Powlett Road from Bass Highway to Williamsons beach car park</li> </ul>	See Traffic Management Plan		
26176			In consultation with the Bass Coast Shire Council, plan	See Traffic Management Plan		

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
26177			and implement a new Shared Use Path around the periphery of the Leased Area to maintain public access around the site for pedestrians, cyclists and equestrian activities.  Provide emergency access to the Leased Area from both Mouth of Powlett Road and Lower Powlett Road in consultation with the Bass Coast Shire Council. Provide and maintain at all times emergency access for the mouth of Powlett Community from both Mouth of Powlett Road and Lower Powlett Road in consultation with the Bass Coast Shire Council.	See Traffic Management Plan		
26178			At all times, maintain all weather vehicular access to Williamsons Beach Car Park from Lower Powlett Road in consultation with the Bass Coast Shire Council.  [AquaSure Note: the above amendments are acceptable on the basis that:  a) Restoration of any area affected by this requirement will only need to occur before Close Out:  b) Any area affected will not require screening]	See Traffic Management Plan		
27179	Greenhouse Gas	Minimise greenhouse gas emissions.	Adopt energy efficient design in accordance with Protocol for Environmental Management - Greenhouse Gas Emissions and Energy Efficiency in Industry (EPA Victoria), 2006.  Comply with the Environment and Resource Efficiency Plans reporting and management requirements.	13	16	16
27181			Monitor and report in accordance with the National Greenhouse and Energy Reporting (Measurement)	13	16	16

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
27182			Systems and Technical Guidelines 2008 v1.0 (Department of Water Climate Change, 2008).  Demonstrate design, selection of project components and consumables minimises greenhouse gas emissions to the extent reasonably practicable.	I3	I6	I6
28183	Coastal processes	Protect coastal processes	Minimise impacts on sand movements, wave patterns and currents.	I1		
28185			Demonstrate through modelling of hydrodynamic processes such as tides currents, winds and sand movements, that the Project will have no adverse effect on coastal processes.	I1		
28186			Monitor and report the effect of Project Activities on coastal processes.	I1		
28187			Detail the measures proposed to address the results of the monitoring undertaken to achieve compliance with the performance criteria.	I1		
29188	Coastal integrity	Protect the physical integrity of the dune system, beach and intertidal zone.	No surface disturbance of the dune system, beach and intertidal zone.  No measurable loss to the integrity of the coastal assets including the dune system, beach and intertidal zone.	I1		
29190			Develop and implement methods and management systems designed to ensure no adverse effect on the dune system, beach and intertidal zone from Project Activities including: <ul style="list-style-type: none"> <li>• Induction programs for Project personnel</li> <li>• Minimise access outside public access pathways</li> </ul>	I1		

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
29191			Monitor and report the effect of Project Activities on the dune system, beach and intertidal zone.	I1		
30192	Coastal flora and fauna	Protect the ecological values of coastal habitat.	No reduction in habitat values for significant species. Minimise loss of significant species' individuals. No removal of coastal vegetation.	I5, I1		
30194			Develop and implement methods and management systems designed to ensure no adverse effect on coastal flora and fauna from Project Activities including: <ul style="list-style-type: none"> <li>• Induction programs for Project personnel</li> <li>• Implement management measures to minimise access of construction personnel to Williamsons Beach and foreshore reserve, particularly during Hooded Plover breeding season (August to February)</li> <li>• Collaborate with Parks Victoria and DSE to achieve additional protective measures such as fencing off portions of the beach used by nesting Hooded Plovers to exclude people, uncontrolled dogs and increased fox and cat control</li> <li>• Ensure that external lights are kept to a minimum, that they are positioned as low to the ground as is practicable and that they are shielded to avoid light spill upward and toward the foreshore, beach and sea</li> <li>• Implement a program of monitoring the locations and breeding success of resident Hooded Plovers along Williamsons Beach to measure the impact of Project Activities and inform opportunities for mitigation. This should continue at least monthly from prior to</li> </ul>	I5, I1, I4		

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			<p>construction until the plant is in routine operation.</p> <ul style="list-style-type: none"> <li>• Manage helicopter use to avoid low level flyovers of Williamsons Beach to minimise impacts on Hooded Plovers.</li> <li>• Monitor human activity in the vicinity of the Hooded Plover nesting area on Williamsons Beach.</li> <li>• Implement a program of monitoring for the Orange-bellied Parrot from March to September prior to and during construction activities and inform opportunities for mitigation.</li> </ul>			
<b>31195</b>	Marine flora and fauna - general	<p>Protect marine flora and fauna.</p> <p>No significant impact on Bunurong Marine National Park and on the protected values of marine parks.</p>	<p>Minimise to the extent practicable the impacts on marine flora and fauna from Project Activities.</p> <p>Avoid impacts on the ecology of reefs with high biodiversity, to the extent practicable.</p>	I4		
<b>31197</b>			<p>Develop, implement and maintain methods and management systems to protect marine flora and fauna.</p>	I4, I6, I8		
<b>31198</b>			<p>Avoid to the extent practicable direct impacts from construction in the designated areas, presented in Figure PR Sensitivity Area – Marine Area in the Property Schedule.</p>	I4, I8		
<b>31199</b>			<p>Trenching is not permitted in the designated areas presented in Figure PR Sensitivity Area - Marine Area in the Property Schedule.</p>	I4		
<b>31200</b>			<p>Manage any geotechnical investigation program to avoid significant impacts on the high relief reef in the designated areas and marine fauna in general and cetaceans in particular.</p>	I4		

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
31201			Any spoil from marine construction to be disposed of in accordance with EPA Best Practice Guidelines for Dredging and the National Ocean Disposal Guidelines for Dredged Material.	14, 18		
32202	Marine flora and fauna – intake	Minimise impacts on marine flora and fauna from intake structure.	Prevent entry of penguins and other diving birds into the intake structure.  Limit entrainment of marine biota.	14		
32204		Minimise impact on Bunurong Marine National Park and on the protected values of marine parks.	Provide an external grill space no greater than 100 mm x 100 mm or, if the grill space is greater than 100 mm in any one direction, then the space should be no greater than 50 mm in any other direction. Alternatively implement other measures to achieve the performance criteria.	14		
32205			Locate and design intake structure: <ul style="list-style-type: none"> <li>• To avoid significantly affecting the beneficial uses associated with the designated areas of high relief reef and coastal reserve presented in Figure PR Sensitivity Area – Marine Area in the Property Schedule, and minimise impacts on the ecology of moderate relief reefs if practicable.</li> <li>• To achieve a horizontal intake velocity of less than 0.15 m/s (during still conditions)</li> <li>• So that the lowest point of intake area is at least 4 metres above surrounding seafloor level</li> <li>• To inform final site selection and hydrodynamic modelling, undertake a survey prior to construction of the Intake structure to identify marine community composition and structure within 300 m of the proposed</li> </ul>	14		

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			Intake site and use existing knowledge of larval behaviour to demonstrate compliance with relevant Performance Criteria.			
32206			Demonstrate through hydrodynamic modelling of Seawater Intake Structures and behaviour that the Project will limit entrainment to meet performance criteria.	I4		
32207			Monitor and report on possible effects of entrainment on marine biota including changes to recruitment and marine community structure and demonstrate compliance with the relevant performance criteria.	I4		
33208	Marine flora and fauna – outlet	Minimise impacts on marine flora and fauna from siting and operation of Outlet structure.	Comply with State Environment Protection Policy (Waters of Victoria). No observable accumulation of solid matter or staining on the beach.	I4		
33210		Minimise impact on Bunurong Marine National Park and on the protected values of marine parks.	Meet the requirements of the EPA with regard to the Works Approval Application and discharge licence.	I4		
33211		Minimise impact on ecosystem integrity.	Achieve a minimum engineering design dilution target of at least 50:1 into the local ambient water column within 100 metres of the diffuser(s) under all design flow conditions.	I4		
33212			Define an area to be approved by the EPA which at its boundary achieves not more than 1 psu (or as agreed with the EPA) above regional ambient salinity, 95% of the time on an annual basis, outside the designated areas presented in Figure PR Sensitivity Area – Marine Area in the Property Schedule.	I4		

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
33213			No discoloration of the sea surface visible from land due to surface strike of the plume(s).	I4		
33214			Develop and implement pre-construction survey prior to the construction of the outlet and post construction survey and monitoring program to : <ul style="list-style-type: none"> <li>• Demonstrate protection of beneficial use outside the areas to be approved by EPA</li> <li>• Assess the extent, magnitude and level of impacts of discharge on marine flora and fauna</li> <li>• Assess the long term impacts of outlet discharge(s)</li> <li>• Document the condition of high and moderate relief reef ecosystems in the vicinity of the mixing zone.</li> </ul> and otherwise demonstrate performance in compliance with the Performance Criteria,	I4		
33215			Demonstrate through modelling that the projected operation will meet the performance criteria.	I4		
33216			Conduct tracer testing to demonstrate compliance of the marine structures with the performance criteria.	I4		
33217			Direct toxicity assessment and water quality assessment shall be undertaken to confirm that representative concentrate (which contains representative chemical additives) meets the requirements of the State Environment Protection Policy (Waters of Victoria) environmental quality objectives of 99% ecosystem protection for largely unmodified aquatic ecosystems.	I4		
33218			Prior to construction of the diffuser Project Co must	I4		

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			demonstrate to the EPA, following examination by the Independent Reviewer & Environmental Auditor, that the diffuser has been designed, and will be located and operated, in a manner that minimises the size of the mixing zone to the extent practicable and minimises environmental risks outside the mixing zone.			
34219	Marine amenity – recreational	Minimise disruption to Marine recreational activities.	Outside any marine exclusion zone (for diving safety) no significant impact on diving, surfing, recreational fishing or marine boating activities.  Limit disruption to divers outside construction exclusion zones.	17, 11		
34221			Develop and implement methods and management and systems to minimise disruption to recreational activities.	17, 11		
34222			Turbidity or colouration impacts from the outlet should not be visible from the shoreline.	11		
35223	Commercial fishing and marine tourism	Minimise disruption to the commercial fishing industry and marine tourism.	Minimise restrictions on commercial fishing and marine tourism activities.	11		
35225			Develop and implement methods and management systems that seek to achieve effective consultation and communication with the commercial fishing and marine tourism industry in relation to potential restrictions and disruptions during construction.	11		
36226	Marine Pests	Avoid the introduction, spread and establishment of marine pests.	Compliance with the Commonwealth and State legislative requirements for Ballast Water.	16		
36228			Develop and implement a marine pest risk management and monitoring process (including a process directed to addressing the risks of introducing pests by vessels and	16		

Ref	Subject	Objective	Performance criterion / Performance requirement	Area 1 Marine	Area 2 Plant & General	Area 3/4 Utilities
			equipment).			
36229			Develop and implement a risk management process specifically for limiting risk of abalone disease.	16		
37230	Underwater noise and vibration - ecological	Protect cetaceans	Compliance with EPBC Act Policy Statement 2.1 - Interaction between offshore seismic exploration and whales.	17		
37231			Conduct any geophysical survey of Project Activities in accordance with the procedures outlined under the EPBC Act Policy Statement 2.1 – Interaction between offshore seismic exploration and whales.	17		
38232	Underwater noise and vibration – marine diving activities	Protect marine diving activities from underwater noise and vibration.	No significant impact outside any marine exclusion zone on marine diving activities.	11, 17		
38234			Outside any exclusion zone, minimise exposure of marine recreational users to underwater (continuous) noise levels greater than 145 dB re 1µPA.	11, 17		
38235			Develop, implement and maintain methods and management systems that ensure effective consultation and communication with marine divers in relation to marine noise and vibration.	11, 17		
39236	Marine - navigation	Protect coastal access on marine waters for vessels.	Minimise impact on safe passage of non-Project vessels along the coast	11		
39238			Identify and implement any requirements for notifications for vessel movements by Marine Safety Victoria.	11		