



ALKIMOS WASTEWATER TREATMENT PLANT



Ministerial Statement 755

2009 – 2010 Performance and Compliance Report

Endorsement

Completion of this endorsement sheet indicates that the information has been prepared and reviewed by qualified and experienced staff and have been checked for accuracy and compliance and is a true record of events.

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1. Introduction

The suburb of Alkimos lies on the coast of Western Australia, around 40km north-west of the Perth CBD, adjacent to the existing suburbs of Quinns Rocks and Butler. The Alkimos Wastewater Scheme is proposed to cater for anticipated population growth in the Alkimos catchment, which is expected to reach around 150,000 by 2030 (Water Corporation 2008). Once fully commissioned, the Alkimos Wastewater Scheme will allow for primary and secondary treatment before disposal of the treated wastewater to the ocean.

The proposal to construct the Wastewater Treatment Plant was formally assessed by the Environmental Protection Authority (EPA) in 2007, at the Public Environmental Review (PER) level. Subsequently, Ministerial Statement 755 (see **Appendix 1**) was released in November 2007, containing a number of Ministerial Conditions. As part of the Ministerial Conditions placed on the Alkimos Wastewater Treatment Plant (AWWTP) proposal, the proponent is required to submit annual environmental Performance and Compliance Reports to show that the conditions as provided in Ministerial Statement 755 are being met by the proponent to a satisfactory compliance level.

The proponent for the AWWTP is the Water Corporation of Western Australia; however the Alkimos Water Alliance (AWA) was formed to complete the design and construction of the project. The AWA is a commercial venture involving the Water Corporation and a joint venture from the private sector involving Brookfield Multiplex, Macmahon Contractors and Züblin. This Alliance brings together experts in the fields of engineering, environment, procurement, construction and management.

This Performance and Compliance Report (PCR) documents the Proponent's performance and compliance with the Ministerial conditions and commitments, between November 2009 and November 2010 for the development and construction of the Alkimos Wastewater Scheme, as outlined in Ministerial Statement 755.

2. Current Status

The Alkimos Wastewater Scheme is currently in the commissioning phase. The earthworks for the AWWTP, the construction of temporary access roads and all haul roads were completed in 2008. The tunnelling works from the AWWTP location to the marine discharge pipe were completed in 2008 and the tunnelling works for the Quinns Main Sewer (QMS) were completed in 2009. The ocean outfall construction was completed in June 2010. The AWWTP civil works (construction of oxidation ditches, secondary sedimentation tanks, inlet works, building and other structures) are now complete with commissioning of the plant currently progressing well. The plant is scheduled to be operational by January 2011.

The Water Corporation and the AWA have undertaken the commencement of all elements of the AWWTP within the statutory requirements of Ministerial Statement 755 and can demonstrate this through compliance to these conditions and the submission of this PCR.

3. Purpose of Report

This PCR documents the Proponent's progress towards satisfying the conditions outlined in Ministerial Statement 755 between November 2009 and November 2010 and is due to be submitted to the Office of the Environmental Protection Authority (OEPA) annually. This PCR is the third reporting compliance document submitted for the AWWTP since construction works commenced in March 2008.

During the preparation of this PCR a number of documents of relevance have been referenced:

- Public Environmental Review – Alkimos Wastewater Treatment Plant (Water Corporation 2005);
- Ministerial Statement 755 (2007);
- Fauna Management Plan (FMP) (AWA 2007);
- Management and Rehabilitation of the Haul-Road, including Area 10B (MRHR) (AWA 2007);
- Terrestrial Construction Management Plan (TCMP) (AWA 2008);
- Management Plan for the Construction and Ongoing Presence of the Ocean Outfall Pipeline (MPCOPOOP) (AWA 2008);
- Marine Treated Wastewater Discharge Monitoring and Management Plan (MTWDM&MP) (Water Corporation 2010);
- Odour Management Plan (OMP) (Water Corporation 2010).

With the exception of Ministerial Statement 755, these reference documents have not been included in this submission. However, they can be made available to the OEPA upon request.

There are also a number of other relevant documents to support the Proponent's environmental performance and compliance throughout the reporting period from November 2009 to November 2010. These documents have been attached to this submission in both paper copy and electronically.

4. Compliance

4.1 Non-conformances/Non-compliances

All Ministerial Conditions have either been met or are in progress for the reporting period November 2009 to November 2010. For the period November 2009 to April 2010 (i.e. when all offshore work was completed), one non conformance with the MPCOPOOP was reported. On further examination it was determined that the non conformance was rather a reflection of the calculation method used to determine if there had been an impact on the Benthic Primary Producer Habitat (BPPH). The percentage recorded for the period exceeded the Level 2 trigger value (with a positive value), however:

- subsequent analysis of the data and calculations show that there was no net loss rather just slowed growth; and
- the October and November 2010 BPPH post-construction surveys indicate that the study sites have resumed normal growth rates and assemblages.

Non-conformance reports issued to the OEPA are attached in **Appendix 2**.

The Audit Table included in the PCR provides an update on the compliance status of each Ministerial Condition and Proponent's Commitments. Evidence substantiating the status is provided in the attached appendices.

4.2 Internal / External Audits

The following audits were completed within the reporting period:

- Internal Audit of Ministerial Statement 755 Conditions (Environment Branch);
- Internal Audit of Works Approval W4423/2008/1 (Project Management Branch).
- External Audit of Fauna Management Plan (GHD);
- External Audit of Terrestrial Construction Management Plan (GHD); and
- External Audit of Management Plan for the Construction and Ongoing Presence of the Ocean Outfall Pipeline (URS).

The external audit reports are provided in **Appendix 3**.

4.3 Complaints Register

The project has been completed with minimal community disruption, minimal community interest and positive local media coverage. During the reporting period there has been two complaints received from the public and other stakeholders, which are further detailed below:

- On Monday 15 March 2010, following the successful completion of the pipe pull, a complaint was received by the Project Director from a member of the public concerning the noise generated from a vessel leaving from the Mindarie Marina at 4:30am heading for the Alkimos outfall. It was confirmed that the vessel was an Alliance subcontractor and soon after the complaint there was no longer a requirement for this vessel on the project. The complainant was contacted soon after and the matter was satisfactorily resolved.
- On Friday 2 April 2010, the Water Corporation's Operations Centre received a phone call from the DPI Marine Operations out of Mindarie advising that on a routine marine patrol the team noticed a plume approximately 200 metres from the shoreline with an odour similar to raw sewage. It was determined that the source of the plume was not from raw sewage being discharged from the AWWTP into the outfall pipeline, due to the following reasons:
 - (i) At the time of the plume, there was no incoming sewage flow into the AWWTP (flow into the plant commenced on 15 September 2010)
 - (ii) The outfall pipeline was not connected to the plant.

Details of this correspondence are provided in **Appendix 4**.

5. Environmental Monitoring and Research

5.1 Monitoring

5.1.1 Groundwater

Monthly water level monitoring of Department of Water (DoW) monitoring bores in the surrounding areas has been completed on a monthly basis, with all results being forwarded to the DoW. The annual report for the period January 2009 to December 2009 has been prepared for the DoW and has been submitted (refer to **Appendix 5**). This monitoring will continue until the end of the commissioning phase of the project, December 2010, after which a modified monitoring program will take effect for the duration of the operational phase of the AWWTP.

5.1.2 Inspections

Inspections have been undertaken to ensure compliance with the approved Management Plans and include:

- Marine Inspections (weekly during dredging and pipe pull program) – Checklist and example inspection provided in **Appendix 6**;
- General Inspections (fortnightly during construction program) - Checklist and example inspection provided in **Appendix 7**;
- Environmental Inspections Terrestrial and Fauna (monthly during construction program) - Checklist and example inspection provided in **Appendix 8**; and
- Modified Environmental Inspections (weekly during commissioning phase) – checklist and example inspection provided in **Appendix 9**.

The above inspections and other internal inspections and audits continued until the end of the construction phase (August 2010), after which a modified inspection and audit program was implemented for the duration of the commissioning phase of the AWWTP. The modified inspection for commissioning phase was a combination of the General Inspection and the Environmental Terrestrial and Fauna Inspection.

5.1.3 Offshore Water Quality

Six turbidity sensors were deployed in an arrangement north and south of the ocean outfall pipeline route of the Alkimos Wastewater Treatment Plant. These sensors were recovered fortnightly and analysed by Cardno Ecology Lab Pty Ltd, who are specialised marine scientists. Two example reports are attached in **Appendix 10**. Offshore water quality monitoring recommenced in October 2009 and continued for the duration of the marine works, which were completed in June 2010.

5.1.4 Benthic Habitat Surveys

Two baseline benthic habitat surveys were completed October 2009 prior to offshore construction works recommencing following postponement of the works during the winter months of 2009. Monthly benthic habitat surveys were carried out for the duration of the 2009/2010 marine works during the dredging and pipeline stabilisation operations, which were completed in June 2010. A 6-month post construction survey was completed in October/November 2010 as required by Condition 9.4 and showed that the marine habitat has returned to pre-construction conditions/state. Two example reports, along with Post-Construction survey reports, are attached in **Appendix 11**.

5.1.5 Rehabilitation

The second round of rehabilitation works were carried out during this reporting period. Landcare Services have been contracted to carry out the rehabilitation and maintenance works for the project over a three year period between mid 2009 and late 2012. The 2010 rehabilitation works included direct seeding, planting of tube stock, spreading of fertiliser, installation of jute mat and several weed control events. The areas rehabilitated in 2010 were the Haul-Road including Conservation Area 10B, the public purpose reserve at the outfall site, Bush Forever Site 397 also at the outfall site, and additional areas at the AWWTP. The AWWTP batters, access roads to the AWWTP and launch site, pipe jacking compound on the Quinns Main Sewer within the AWWTP buffer and the open trench section of the Quinns Main Sewer through Lot 102, and the AWWTP buffer have all had the first year of maintenance and infill planting and seeding completed.

Maintenance and infill planting and seeding will continue across the site until December 2012. A Rehabilitation Monitoring Report for 2010 has been completed and is provided in **Appendix 12**.

5.2 Research

During the reporting period Oceanica prepared and submitted the Marine Treated Wastewater Discharge Monitoring and Management Plan (MTWDMMP). The research for the implementation of this Plan was completed during the reporting period and involved the identification of appropriate methods for development of algal reef indicators, and the identification and investigation of the potential of algal growth indicators through:

- the development and implementation of a pilot survey, and the subsequent development of the experimental sampling design including meeting with the DEC (Marine Branch) and a review of the Environmental Protection Authority Service Unit comments and the Perth Coastal Waters Study (Lord and Hillman, 1995);
- a pilot survey involving a preliminary two day survey of the Alkimos region aimed at determining the logistics of sampling; identification of local algae species and the positioning of appropriate 'test' and 'reference' sites to inform the development of an appropriate sampling design;
- development of sampling design using the results of the pilot survey, together with a review of previous work conducted at Jurien Bay (as undertaken by CSIRO, DEC and ECU) for the preparation and development of an appropriate sampling design; and
- an assessment of algal growth potential indicators via a review of relevant (largely Australian) literature on macro algal growth potential indicators, and then, in discussion with academic researchers, use this as a basis to develop a Masters Research project to develop algal growth potential indicators.

The results of this research are presented in a report prepared by Oceanica (September 2010) attached in **Appendix 13**. The MTWDMMP (approved on 28th July 2010) prepared by Oceanica is attached in **Appendix 14**.

6. Stakeholder Consultation

Stakeholder consultation between November 2009 and November 2010 included:

- Submission by the Water Corporation in March 2010 and again on 27 July 2010 of the Marine Treated Wastewater Discharge Monitoring and Management Plan to the Department of Environment and Conservation.
- Submission by the Water Corporation on 1 December 2009 and again in May 2010 and November 2010 of the Alkimos Wastewater Treatment Plant Odour Management Plan to the Office of the Environmental Protection Authority.
- Submission by the Water Corporation to the Department of Environment and Conservation on 31 March 2010 of the partial compliance report for the Alkimos Wastewater Treatment Plant Work Approval W4423/2008/1.

- Submission by the Water Corporation to the Department of Environment and Conservation on 31 May 2010 for the amendment of the Alkimos Wastewater Treatment Plant Work Approval W4423/2008/1 to include commissioning and performance testing of the AWWTP and ocean outfall.

7. OEPA Audit Table

The OEPA Audit Table updated with the current status for each Ministerial condition is shown below.

Conditions Status (MS 755)

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M1.1	To ensure environmental impacts are predictable and manageable	Proposal Implementation	Overall		The proponent shall implement the proposal as documented and described in schedules 1, 2 and 3 of this statement subject to the conditions and procedures of this statement	In accordance with above and other design and technical specifications provided in the Public Environmental Review.	Compliance reports submitted in accordance with Conditions 4-1, 4-2, 4-3 and 4-4		OEPA	This report.	
755:M2.1	To ensure legal responsibility for the project rests with a nominated proponent	Proponent Nomination and Contact Details	Overall		The proponent for the time being nominated by the Minister for the Environment under sections 38(6) or 38(7) of the Environmental Protection Act 1986 is responsible for the implementation of the proposal			Min for Env EPA		The Proponent is an active participant in the Alliance who is implementing the project works.	Compliant
755:M2.2	To ensure DEC is able to maintain contact with the proponent	Proponent Nomination and Contact Details	Overall	Within 30 days of the change	The proponent shall notify the Chief Executive Officer of the Department of Environment and Conservation (CEO) of any change of the name and address of the proponent for the serving of a notice or other correspondence within 30 days of such change	In writing to CEO of the DEC.	Letter notifying the CEO of change in proponent details		OEPA	There has been no change to the proponent during this period.	Compliant
755:M3.1	To ensure the project has substantially commenced	Time Limit of Authorisation	Overall	Within five years of the date of Statement 755	The authorisation to implement the proposal provided for in this statement shall lapse and be void within five years after the date of this statement if the proposal to which this statement relates is not substantially commenced	Commencement of ground disturbance activities.			OEPA	A letter to the DEC dated 18 th November 2009 notifying the project has commenced.	Completed
755:M3.2	To notify the CEO of proposal status	Time Limit of Authorisation	Overall	Within five years of the date of Statement 755	The proponent shall provide the CEO with written evidence which demonstrates that the proposal has substantially commenced on or before the expiration of five years from the date of this statement	Letter notifying the CEO the proposal has been substantially commenced.			OEPA	A letter to the DEC dated 18 th November 2009 notifying the project has commenced.	Completed
755:M4.1	To provide evidence that the proposal is being implemented as approved, and the relevant conditions are being met	Compliance Reporting	Overall	Annually Due in February	The proponent shall submit to the CEO environmental compliance reports annually reporting on the previous twelve-month period, unless required by the CEO to report more frequently		Compliance Report	OEPA	OEPA	This report and appendices.	Compliant
755:M4.2	Demonstrate compliance with conditions of Statement 755	Compliance Reporting	Pre-Construction	Annually, unless required by the CEO to report more frequently	The environmental compliance reports shall address each element of an audit program approved by the CEO and shall be prepared and submitted in a format acceptable to the CEO	Address each element of the audit program.	Audit Program	OEPA	OEPA	This report and appendices.	Compliant

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M4.3	Demonstrate compliance with conditions of Statement 755	Compliance Reporting	Overall	Annually, unless required by the CEO to report more frequently	The proponent shall submit to the CEO environmental compliance reports annually	The environmental compliance reports shall: <ol style="list-style-type: none"> 1. be endorsed by signature of the proponent's Chief Executive Officer or a person, approved in writing by the CEO, delegated to sign on behalf of the proponent's Chief Executive Officer; 2. state whether the proponent has complied with each condition and procedure contained in this statement; 3. provide verifiable evidence of compliance with each condition and procedure contained in this statement; 4. state whether the proponent has complied with each key action contained in any environmental management plan or program required by this statement; 5. provide verifiable evidence of conformance with each key action contained in any environmental management plan or program required by this statement; 6. identify all non-compliances and non-conformances and describe the corrective and preventative actions taken in relation to each non-compliance or non-conformance; 7. provide an assessment of the effectiveness of all corrective and preventative actions taken; and 8. describe the state of implementation of the proposal. 	Compliance Report and Audit Table	OEPA	OEPA	This report and appendices.	Compliant
755:M4.4	Compliance reports to be publicly available for review	Compliance Reporting	Overall	Annually, unless required by the CEO to report more frequently	The proponent shall make the environmental compliance reports required by condition 4-1 publicly available in a manner approved by the CEO	The proponent shall carry out the following: <ol style="list-style-type: none"> 1. post document on proponent's website; 2. provide document to members of the public upon request; and 3. post document on the internal Corporate EMS Portal. 	Compliance Report	OEPA	OEPA	Available on the Water Corporation Website: http://www.watercorporation.com.au/A/alkimos_per.cfm	Compliant

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M5.1	Proposal is being implemented as approved, and the relevant conditions and commitments are being met	Performance Review	Overall	Every five years after the start of construction	The proponent shall submit a Performance Review report every five years after the start of construction to the Environmental Protection Authority	The Report shall address: 1. the major environmental issues associated with implementing the project, the environmental objectives for those issues, the methodologies used to achieve these, and the key indicators of environmental performance measured against those objectives; 2. the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable; 3. investigations undertaken in relation to developing alternative options to ocean disposal of treated wastewater, including wastewater re-use; 4. significant improvements gained in environmental management, including the use of external peer reviews; 5. stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and 6. the proposed environmental objectives over the next five years, including improvements in technology and management processes.	Performance Review Report		EPA	Not applicable at this stage.	Not required at this stage.
755:M6.1	To minimise impact on Bush Forever sites and Conservation Areas identified by the Water Corporation	Terrestrial Construction Management Plan	Construction	During Construction	Up to three launch/recovery chambers may be used for tunnelling of the overland pipeline. These chambers are to be located within the footprint of the WWTP and the footprint of the launch site. Any intermediate chamber is to be located outside a Bush Forever site or Conservation Area as identified by the Water Corporation, to be rehabilitated upon completion of the tunnelling	Locate launch and recovery chambers within approved clearing footprints	Compliance Report		OEPA	This report and Appendix 15.	Compliant
755:M6.2	The objective of the Plan is to protect native vegetation and landforms on the site outside the area of disturbance as defined in Figure 3 in Schedule 2 and Figure 4 in Schedule 3	Terrestrial Construction Management Plan	Pre-Construction	Prior to commencement of clearing for implementation of pipeline	Prior to commencement of clearing for the installation of the pipeline, the proponent shall prepare and submit, a Terrestrial Construction Management Plan (the Plan) that meets the objective of Condition 6-3 and the requirements of Condition 6-4 as determined by the Minister for the Environment. In preparing the Plan the Proponent shall consult with Department of Environment and Conservation	Prepare and submit a Terrestrial Construction Management Plan	Terrestrial Construction Management Plan		Min for Env DEC	Cleared.	Cleared

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M6.3	The objective of the Plan is to protect native vegetation and landforms on the site outside the area of disturbance as defined in Figure 3 in Schedule 2 and Figure 4 in Schedule 3	Terrestrial Construction Management Plan	Pre-Construction	On site and outside the area of disturbance	Erection of fencing on or inside the approved clearing footprint	Survey approved clearing footprint and erect fencing	Compliance Report	DEC	DEC	Cleared.	Cleared
755:M6.4	The objective of the Plan is to protect native vegetation and landforms on the site outside the area of disturbance as defined in Figure 3 in Schedule 2 and Figure 4 in Schedule 3	Terrestrial Construction Management Plan	Pre-Construction	On site and outside the area of disturbance	The proponent shall prepare and submit, a Terrestrial Construction Management Plan	The Plan shall address the following: 1. modification and configuration (dimension, shape and gradient) of the launch site as far as practicable to minimise the impact of the on terrestrial vegetation and formations launch site dimensions; 2. access roads; 3. sheds, amenities, and other facilities to be installed; 4. management of activities in areas outside the area of disturbance as defined in Figure 3 in Schedule 2 and Figure 4 in Schedule 3; 5. depth of burial of pipe sufficient to withstand a one-in-one hundred year storm; 6. impacts on the beach profile; 7. Bush Forever site, including <i>Frankenia pauciflora</i> ; 8. Threatened Ecological Communities; and 9. rehabilitation of the launch site/s.	Compliance Report		DEC	Cleared.	Cleared
755:M6.5	To comply with the Terrestrial Construction Management Plan	Terrestrial Construction Management Plan	Construction	Inside and outside the area of disturbance	The proponent shall implement the Plan	As outlined in the Terrestrial Construction Management Plan	Compliance Report		OEPA	This report and Appendices 4-9, 12, 15-24, 37-41 and 45-57.	Compliant
755:M6.6	Terrestrial Construction Management Plan to be publicly available for review	Terrestrial Construction Management Plan	Construction	Public Notices and Web	The proponent shall make the Plan available in a manner approved by the CEO	The proponent shall carry out the following: 1. post document on proponent's website; 2. provide document to members of the public upon request; and 3. post document on the internal Corporate EMS Portal.	Compliance Report		OEPA	Available on Water Corporation website: http://www.watercorporation.com.au/A/alkimos_terrestrial_construction_management_plan.cfm	Completed.

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M6.7	To ensure the environmental impact of the proposal is minimised	Terrestrial Construction Management Plan	Construction	Prior to ground disturbing activities	Prior to ground-disturbing activities and in consultation with the Department of Environment and Conservation, the proponent shall put in place measures (which may include fencing and/or signposting) to delineate and protect the locations of plants, vegetation, or other areas of particular conservation significance. In carrying out rehabilitation activities, the proponent shall only use native plant species of local provenance, defined as plant material or seeds collected within ten kilometres of the project site, except with permission in writing from the CEO	Survey approved clearing footprint and erect fencing and engage a specialist consultant to collect seed from the local area	Compliance Report		OEPA	The report and appendix 21-24	Completed
755:M7.1	Ensure ongoing stability of dunal system	Stability of dunes	Construction	Outside the area of disturbance as defined in Figure 3 in Schedule 2 and Figure 4 in Schedule 3	The proponent shall construct the WWTP and associated works to ensure the ongoing stability of the dunal system outside the area of disturbance as defined in Figure 3 in Schedule 2 and Figure 4 in Schedule 3	Minimise the impact of the clearing footprint and construction access roads	Compliance Report		OEPA	This report and appendix 12 and 35.	Completed
755:M8.1	(a) Ensure the maintenance of the ecological integrity of the marine waters surrounding the Alkimos site; and (b) ensure the final area of disturbance from Ocean Outlet Pipeline (and diffuser) taking into account rehabilitation works and the ongoing impacts from the presence of the pipeline will be within the area defined in Figure 5 and Table 4 in Schedule 4	Ocean Outlet Pipeline Construction Management Plan (Marine)	Pre-Construction	Prior to the commencement of the installation of the pipeline	Prior to commencement of installation of the pipeline, the proponent shall prepare and submit an Ocean Outlet Pipeline Construction Management Plan (the Plan) that meets the objectives set out in condition 8.2 that meets the requirements of 8.3 as determined by the Minister for the Environment. In preparing the Plan the Proponent shall consult with the Environmental Protection Authority.	Prepare and submit an Ocean Outlet Pipeline Construction Management Plan (Marine)	Ocean Outlet Pipeline Construction Management Plan (Marine)		Min for Env EPA	Cleared.	Cleared

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M8.2	(a) Ensure the maintenance of the ecological integrity of the marine waters surrounding the Alkimos site; and (b) ensure the final area of disturbance from Ocean Outlet Pipeline (and diffuser) taking into account rehabilitation works and the ongoing impacts from the presence of the pipeline will be within the area defined in Figure 5 and Table 4 in Schedule 4	Ocean Outlet Pipeline Construction Management Plan (Marine)	Pre-Construction	Prior to the commencement of the installation of the pipeline	The proponent shall prepare and submit an Ocean Outlet Pipeline Construction Management Plan	Obtain approval of the Plan by the DEC	Compliance Report		DEC	Cleared.	Cleared

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M8.3	(a) Ensure the maintenance of the ecological integrity of the marine waters surrounding the Alkimos site; and (b) ensure the final area of disturbance from Ocean Outlet Pipeline (and diffuser) taking into account rehabilitation works and the ongoing impacts from the presence of the pipeline will be within the area defined in Figure 5 and Table 4 in Schedule 4	Ocean Outlet Pipeline Construction Management Plan (Marine)	Pre-Construction	Prior to the commencement of the installation of the pipeline	The proponent shall prepare and submit an Ocean Outlet Pipeline Construction Management Plan	<p>The Plan shall address the following:</p> <ol style="list-style-type: none"> 1. route design 2. define the spatial definition of the extent of the disturbance footprint (a) direct loss of habitat due to construction, (b) indirect loss of habitat due to construction (sediment plume impacts – loss of light and burial) 3. prediction and spatially definition of the long-term stable' state of the marine environment of indirect impacts (construction and ongoing impact (see Note 9) 4. amount and type of material to be excavated 5. rehabilitation of excavated trenches blasting techniques and areas where blasting occurs identify where drilling and open-cut techniques (minimising open-cut technique) are to be used for the entire pipe installation 6. positioning of pipe-laying vessels, mooring pattern design and dredge support vessels 7. management of benthic community in construction areas 8. monitoring and establishment of impact from anchoring, wire and chain sweep techniques, marine dredging and supra-tidal excavation techniques used 9. identification of areas to be dredged, excavated and the timing and duration of dredging/excavation 10. water quality targets for criteria that will trigger management of sedimentation and protection of benthic community 11. monitoring reporting, and mitigating impacts on natural littoral drift processes from construction activities and beach profiles during construction 12. the management actions and contingencies that will be implemented in the event that criteria for water quality targets required by point 12 above are not being met. 	Compliance Report		DEC	Cleared.	Cleared

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M8.4	Reduce the likelihood of plume impacts on high relief algal reefs	Ocean Outlet Pipeline Construction Management Plan (Marine)	Construction	Pipe installation	To ensure that the diffuser is located in a position to reduce the likelihood of plume impacts on high relief algal reefs immediately to the east of the outlet, the proponent shall extend the pipe length by 200 metres from the end of the pipe shown in Figure 4.17 of the proponent's Public Environmental Review document, Version 3, 8 November 2005. This will give a total pipe length of 3.7 kilometres from the high water mark	Construct a pipe string to give a total pipe length of 3.7 kilometres from the high water mark	Compliance Report		OEPA	The report and appendix 25-30.	Completed
755:M8.5	(a) Ensure the maintenance of the ecological integrity of the marine waters surrounding the Alkimos site; and (b) ensure the final area of disturbance from Ocean Outlet Pipeline (and diffuser) taking into account rehabilitation works and the ongoing impacts from the presence of the pipeline will be within the area defined in Figure 5 and Table 4 in Schedule 4	Ocean Outlet Pipeline Construction Management Plan (Marine)	Construction	All offshore works	The proponent is to ensure that the extent of the disturbance footprint (direct and indirect loss of habitat) is no greater than that defined in Condition 8-3 (2).	Comply with the Ocean Outlet Pipeline Construction Management Plan (Marine)	Compliance Report		OEPA	The report and appendix 10, 11, and 25-34,.	Completed
755:M8.6	(a) Ensure the maintenance of the ecological integrity of the marine waters surrounding the Alkimos site; and (b) ensure the final area of disturbance from Ocean Outlet Pipeline (and diffuser) taking into account rehabilitation works and the ongoing impacts from the presence of the pipeline will be within the area defined in Figure 5 and Table 4 in Schedule 4	Ocean Outlet Pipeline Construction Management Plan (Marine)	Construction	All offshore works	The proponent is to ensure that the extent of the disturbance footprint (direct impacts) shall be within the area defined in Figure 5 and Table 4 in Schedule 4	Comply with the Ocean Outlet Pipeline Construction Management Plan (Marine)	Compliance Report		OEPA	The report and appendix 10, 11, and 25-34,.	Completed
755:M8.7	To minimise any indirect impacts on the marine environment	Ocean Outlet Pipeline Construction Management Plan (Marine)	Construction	All offshore works	The proponent is required to minimise indirect impacts as far as practicable within this boundary during construction	Comply with the Ocean Outlet Pipeline Construction Management Plan (Marine)	Compliance Report		OEPA	The report and appendix 10, 11, and 25-34,.	Completed

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M8.8	To minimise the environmental impact of the pipeline	Ocean Outlet Pipeline Construction Management Plan (Marine)	Construction	All offshore works	The pipeline will be laid within the area defined in Figure 5 and Table 4 in Schedule 4, and the 'line' of direct disturbance footprint will also be within the area. (see note 9)	Comply with the Ocean Outlet Pipeline Construction Management Plan (Marine)	Compliance Report		OEPA	The report and appendix 10, 11, and 25-34,.	Completed
755:M8.9	To comply with the Ocean Outlet Pipeline Construction Management Plan (Marine)	Ocean Outlet Pipeline Construction Management Plan (Marine)	Construction	All ocean outlet pipeline works	The proponent shall implement the Plan	<p>The Plan shall address the following:</p> <ol style="list-style-type: none"> 1. route design 2. define the spatial definition of the extent of the disturbance footprint (a) direct loss of habitat due to construction, (b) indirect loss of habitat due to construction (sediment plume impacts – loss of light and burial) 3. prediction and spatially definition of the long-term stable' state of the marine environment of indirect impacts (construction and ongoing impact (see Note 9) 4. amount and type of material to be excavated 5. Completed rehabilitation of excavated trenches blasting techniques and areas where blasting occurs identify where drilling and open-cut techniques (minimising open-cut technique) are to be used for the entire pipe installation 6. positioning of pipe-laying vessels, mooring pattern design and dredge support vessels 7. management of benthic community in construction areas 8. monitoring and establishment of impact from anchoring, wire and chain sweep techniques, marine dredging and supra-tidal excavation techniques used 9. identification of areas to be dredged, excavated and the timing and duration of dredging/excavation 10. water quality targets for criteria that will trigger management of sedimentation and protection of benthic community 11. monitoring reporting, and mitigating impacts on natural littoral drift processes from construction activities and beach profiles during construction 12. the management actions and contingencies that will be implemented in the event that criteria for water quality targets required by point 12 above are not being met 	Compliance Report		OEPA	The report and appendix 10, 11, and 25-34,.	Completed

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M8.10	Ocean Outlet Pipeline Construction Management Plan (Marine) to be publicly available for review	Ocean Outlet Pipeline Construction Management Plan (Marine)	Pre-Construction	Public Notices and Web	The proponent shall make the Plan available in a manner approved by the CEO	The proponent shall carry out the following: 1. post document on proponent's website; 2. provide document to members of the public upon request; and 3. post document on the internal Corporate EMS Portal.	Compliance Report		OEPA	Available on Water Corporation website: http://www.watercorporation.com.au/A/alkimos_ocean_outlet_management_plan.cfm	Completed.
755:M9.1	To ensure that seabed and benthic habitat loss outside the area of direct loss defined in the Plan required by Condition 8-3 (2) is avoided during construction and reinstated following construction	Seabed and Benthic Habitat Monitoring and Management Plan	Pre-Construction	Prior to the commencement of the installation of the pipeline	Prior to commencement of construction of the Alkimos ocean outlet in the marine environment, the proponent shall prepare and submit a Seabed and Benthic Habitat Monitoring and Management Plan (the Plan) that meets the objectives of condition 9-2 and the requirements of 9-3 as determined by the Minister for the Environment. In preparing the Plan the Proponent shall consult with Department of Environment and Conservation	Prepare and submit a Seabed and Benthic Habitat Monitoring and Management Plan	Seabed and Benthic Habitat Monitoring and Management Plan		Min for Env EPA	Cleared.	Cleared
755:M9.2	To ensure that seabed and benthic habitat loss outside the area of direct loss defined in the Plan required by Condition 8-3 (2) is avoided during construction and reinstated following construction	Seabed and Benthic Habitat Monitoring and Management Plan	Pre-Construction	Prior to the commencement of the installation of the pipeline	The proponent shall prepare and submit a Seabed and Benthic Habitat Monitoring and Management Plan	Obtain approval of the Plan by the DEC	Compliance Report		DEC	Cleared.	Cleared

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M9.3	To ensure that seabed and benthic habitat loss outside the area of direct loss defined in the Plan required by Condition 8-3 (2) is avoided during construction and reinstated following construction	Seabed and Benthic Habitat Monitoring and Management Plan	Pre-Construction	Prior to the commencement of the installation of the pipeline	The proponent shall prepare and submit a Seabed and Benthic Habitat Monitoring and Management Plan	<p>This Plan shall address:</p> <ol style="list-style-type: none"> 1. Procedures for obtaining and providing to the CEO, within six months following the completion of pipeline installation, an accurate total area and geographically referenced location map of areas of seabed (sub tidal, intertidal and beaches) modification and benthic primary producer habitats lost or damaged during pipeline construction, including specific identification of any areas of loss or damage that are in excess or outside of those areas defined and predicted in the Plan required by Condition 8; 2. Prediction and spatial definition of long-term stable' state of the marine environment following construction and taking into account on-going impacts from the presence of infrastructure – i.e. predicted impacts (the extent and severity) on the marine environment of indirect impacts (construction and ongoing impacts) (see also Condition 8-3 (3)); 3. The establishment of a quantitative annual monitoring program of the seabed and benthic habitat condition in, and adjacent to, areas of seabed and benthic primary producer habitats damaged during pipeline installation and the ongoing presence of the infrastructure; 4. The indicator(s) and criteria to be used to trigger cessation or reduction in the frequency of monitoring after three years following construction or, in the event of the trigger level referred to in item 3 above being exceeded, after the proponent has demonstrated the success of contingency actions in reducing the rate of annual seagrass loss or damage to less than the contingency trigger level referred to in item 3 above, for three successive years; and 5. Reporting procedures 	Compliance Report		DEC	Cleared.	Cleared
755:M9.4	Ensure rate of post-construction seabed and/or benthic primary producer habitat loss or damage is restricted and reduced	Seabed and Benthic Habitat Monitoring and Management Plan	Overall	Within six months of completion of construction	If within six months of completion of construction the marine habitat outside the area of direct impact has not returned to the state predicted in Condition 9-3 (3) the proponent is to commence contingency actions to ensure that the rate of post-construction seabed and/or benthic primary producer habitat loss or damage, is restricted and reduced	The comparison of the benthic habitat surveys conducted prior to the disturbance of the area with the post construction surveys will determine the extent of recovery. A contract for pre-construction, monthly, reactive and post construction benthic habitat surveys has been developed with Cardno Lawson Treloar who have extensive experience in this type of work.	Compliance Report		OEPA	This report and Appendix 11 and 36.	Completed

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M9.5	To comply with the ocean outlet pipeline construction	Seabed and Benthic Habitat Monitoring and Management Plan	Operation	Following completion of construction	The proponent shall implement the Plan	<p>This Plan shall address:</p> <ol style="list-style-type: none"> 1. Procedures for obtaining and providing to the CEO, within six months following the completion of pipeline installation, an accurate total area and geographically referenced location map of areas of seabed (sub tidal, intertidal and beaches) modification and benthic primary producer habitats lost or damaged during pipeline construction, including specific identification of any areas of loss or damage that are in excess or outside of those areas defined and predicted in the Plan required by Condition 8; 2. Prediction and spatial definition of long-term stable' state of the marine environment following construction and taking into account on-going impacts from the presence of infrastructure – i.e. predicted impacts (the extent and severity) on the marine environment of indirect impacts (construction and ongoing impacts) (see also Condition 8-3 (3)); 3. The establishment of a quantitative annual monitoring program of the seabed and benthic habitat condition in, and adjacent to, areas of seabed and benthic primary producer habitats damaged during pipeline installation and the ongoing presence of the infrastructure; 4. The indicator(s) and criteria to be used to trigger cessation or reduction in the frequency of monitoring after three years following construction or, in the event of the trigger level referred to in item 3 above being exceeded, after the proponent has demonstrated the success of contingency actions in reducing the rate of annual seagrass loss or damage to less than the contingency trigger level referred to in item 3 above, for three successive years; and 5. Reporting procedures 	Compliance Report		OEPA	<p>The comparison of the benthic habitat surveys conducted prior to the disturbance of the area with the post construction surveys has determined the extent of recovery.</p> <p>Appendix 11 and 36.</p>	Completed
755:M9.6	Seabed and Benthic Habitat Monitoring and Management Plan to be publicly available for review	Seabed and Benthic Habitat Monitoring and Management Plan	Pre-Construction	Public Notices and Web	The proponent shall make the Plan available in a manner approved by the CEO	<p>The proponent shall carry out the following:</p> <ol style="list-style-type: none"> 1. post document on proponent's website; 2. provide document to members of the public upon request; and 3. post document on the internal Corporate EMS Portal. 	Compliance Report		OEPA	<p>Available on Water Corporation website: http://www.watercorporation.com.au/A/alkimos_ocean_outlet_management_plan.cfm</p>	Completed.

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M10.1	Minimise impacts on terrestrial fauna	Fauna Management	Pre-Construction	Prior to ground disturbing activity	Prior to ground-disturbing activity, the proponent shall prepare and submit a Fauna Management Plan (the Plan) that meets the requirements of Condition 10-2 as determined by the Minister for the Environment. In preparing the Plan the Proponent shall consult with the Environmental Protection Authority	To meet the requirements of Condition 10-2 as determined by the Minister for the Environment	Fauna Management Plan		Min for Env DEC	Cleared.	Cleared
755:M10.2	Minimise impacts on terrestrial fauna	Fauna Management	Pre-Construction	Prior to ground disturbing activity	The proponent shall prepare and submit a Fauna Management Plan	The Plan shall address: 1. clearing of the construction area in a step-wise fashion as the plant expands, to reduce impacts on fauna; 2. avoidance of clearing land when Carnaby Cockatoos are actively breeding or foraging in the area; and 3. presence of terrestrial fauna and their translocation.	Fauna Management Plan		DEC	Cleared.	Cleared
755:M10.3	Minimise impacts on terrestrial fauna	Fauna Management	Construction	Inside and outside the area of disturbance	The proponent shall implement Plan	As outlined in the Fauna Management Plan	Compliance Report		OEPA	This report and appendix 24 and 37-41.	Completed
755:M10.4	Fauna Management Plan to be publicly available for review	Fauna Management Plan	Construction	Public Notices and Web	The proponent shall make the Plan available in a manner approved by the CEO	The proponent shall carry out the following: 1. post document on proponent's website; 2. provide document to members of the public upon request; and 3. post document on the internal Corporate EMS Portal.	Compliance Report		OEPA	Available on Water Corporation website: http://www.watercorporation.com.au/A/alkimos_fauna_management_plan.cfm	Completed.
755:M11.1	As per Condition 11-2	Marine Treated Wastewater Discharge Monitoring and Management Plan	Construction	Prior to commissioning of the wastewater treatment plant	Prior to commissioning of the wastewater treatment plant, the proponent shall prepare and submit a Marine Treated Wastewater Discharge Monitoring and Management Plan (the Plan) that meets the objective and Environmental Quality Objectives described in 11-2 and the requirements set out in 11-3 as determined by of the Minister for the Environment. In preparing the Plan the Proponent shall consult with the Environmental Protection Authority and the Department of Environment and Conservation	To meet the objective and Environmental Quality Objectives described in 11-2 and the requirements set out in 11-3 as determined by of the Minister for the Environment.	Marine Treated Wastewater Discharge Monitoring and Management Plan		Min for Env OEPA	The Plan was sent to the DEC EIA Division on 7 th August 2009. The MTWDM&MP was approved 28 July 2010. Letter attached (Appendix 42)	Cleared

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M11.2	To ensure that the discharge of Alkimos treated wastewater is managed to achieve simultaneously the Environmental Quality Objectives as described in the document, Perth's Coastal Waters: Environmental Values and Objectives (Environmental Protection Authority, February 2000)	Marine Treated Wastewater Discharge Monitoring and Management Plan	Construction	Prior to commissioning of the wastewater treatment plant	The proponent shall prepare and submit a Marine Treated Wastewater Discharge Monitoring and Management Plan	Environmental Quality Objectives: 1. (Maintenance of ecosystem integrity), with spatially-assigned levels of protection as shown in figure 2 of schedule 1; 2. (Maintenance of aquatic life for human consumption) assigned to all parts of the marine environment surrounding the Alkimos ocean outlet with the exception of zones shown in figure 2 of schedule 1; and 3. (Maintenance of primary contact recreation values, and Maintenance of secondary contact recreation values) assigned to all parts of the marine environment surrounding the Alkimos ocean outlet with the exception of zones shown in figure 2 of schedule 1; and 4. As per Objective 3.	Marine Treated Wastewater Discharge Monitoring and Management Plan		OEPA	The Plan was sent to the DEC EIA Division on 7 th August 2009. The MTWDM&MP was approved 28 July 2010. Letter attached (Appendix 42)	Cleared

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M11.3	Protect as per Condition 11-2	Marine Treated Wastewater Discharge Monitoring and Management Plan	Construction	Prior to commissioning of the wastewater treatment plant	The Proponent shall prepare a Marine Treated Wastewater Discharge Monitoring and Management Plan	The Plan shall address • within the Zone of Low Ecological Protection (i.e. within a 100 metres from the diffuser as shown in figure 1, schedule 2), the proponent shall seek to achieve the ANZECC & ARMCANZ1 80% species protection guideline “trigger” levels (as published from time to time) for bio-accumulating toxicants • within the Zone of High Ecological Protection (i.e. beyond a 100 metres from the diffuser as shown in figure 1, schedule 2), the proponent shall seek to achieve the ANZECC & ARMCANZ 99% species protection guideline “trigger” levels (as published from time to time) for toxicants (with the exception of cobalt, where the 95% guideline shall apply) • the establishment of indicators and associated “trigger” levels for further investigations (environmental quality guidelines) for nutrients and social quality objectives • the establishment of “trigger” levels for the implementation of remedial and/or preventative actions to protect the water quality and the environment off Alkimos (environmental quality standards) for toxicants, nutrients and social quality objectives • the establishment of “trigger” levels for the implementation of remedial and/or preventative actions to protect the water quality and the environment off Alkimos (environmental quality standards) for toxicants, nutrients and social quality objectives • the monitoring and evaluation, including remodelling, of the social and environmental effects of discharging treated wastewater into the marine environment off Alkimos to assess performance in the protection and maintenance of environmental values and objectives • the specific management actions that will be implemented in the event that environmental quality standards levels are not met, including the option of modifying the diffuser to increase dilution • a program to undertake whole-of-effluent toxicity testing of treated wastewater • the monitoring and reporting of diffuser performance in terms of achieving required number of initial dilutions within the area of low level of ecosystem protection compared to the initial dilutions in schedule 1 under low energy/calm meteorological and sea-state conditions • the protocols and schedules for reporting performance against the Environmental Quality Objectives.	Marine Treated Wastewater Discharge Monitoring and Management Plan lodged with the DEC on 19 Feb 09		OEPA	The Plan was sent to the DEC EIA Division on 7 th August 2009. The MTWDM&MP was approved 28 July 2010. Letter attached (Appendix 42)	Cleared

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M11.4	To ensure that the discharge of Alkimos treated wastewater is managed to achieve simultaneously the Environmental Quality Objectives as described in the document, Perth's Coastal Waters: Environmental Values and Objectives (Environmental Protection Authority, February 2000)	Marine Treated Wastewater Discharge Monitoring and Management Plan	Operation		The proponent shall implement the Plan	The Plan shall address • within the Zone of Low Ecological Protection (i.e. within a 100 metres from the diffuser as shown in figure 1, schedule 2), the proponent shall seek to achieve the ANZECC & ARMCANZ1 80% species protection guideline "trigger" levels (as published from time to time) for bio-accumulating toxicants • within the Zone of High Ecological Protection (i.e. beyond a 100 metres from the diffuser as shown in figure 1, schedule 2), the proponent shall seek to achieve the ANZECC & ARMCANZ 99% species protection guideline "trigger" levels (as published from time to time) for toxicants (with the exception of cobalt, where the 95% guideline shall apply) • the establishment of indicators and associated "trigger" levels for further investigations (environmental quality guidelines) for nutrients and social quality objectives • the establishment of "trigger" levels for the implementation of remedial and/or preventative actions to protect the water quality and the environment off Alkimos (environmental quality standards) for toxicants, nutrients and social quality objectives • the establishment of "trigger" levels for the implementation of remedial and/or preventative actions to protect the water quality and the environment off Alkimos (environmental quality standards) for toxicants, nutrients and social quality objectives • the monitoring and evaluation, including remodelling, of the social and environmental effects of discharging treated wastewater into the marine environment off Alkimos to assess performance in the protection and maintenance of environmental values and objectives • the specific management actions that will be implemented in the event that environmental quality standards levels are not met, including the option of modifying the diffuser to increase dilution • a program to undertake whole-of-effluent toxicity testing of treated wastewater • the monitoring and reporting of diffuser performance in terms of achieving required number of initial dilutions within the area of low level of ecosystem protection compared to the initial dilutions in schedule 1 under low energy/calm meteorological and sea-state conditions • the protocols and schedules for reporting performance against the Environmental Quality Objectives.	Compliance Report		OEPA	Not possible at this stage.	Not required at this stage.

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M11.5	Marine Treated Wastewater Discharge Monitoring and Management Plan to be publicly available for review	Marine Treated Wastewater Discharge Monitoring and Management Plan	Construction	Public Notices and Web	The proponent shall make the Plan publicly available in a manner approved by the CEO	The proponent shall carry out the following: 1. post document on proponent's website; 2. provide document to members of the public upon request; and 3. post document on the internal Corporate EMS Portal.	Compliance Report		OEPA	Available on Water Corporation website: http://www.watercorporation.com.au/files/Alkimos/Alkimos_Marine_Management_Plan.pdf	Completed.
755:M11.6	Determine source and remedy the exceedence	Marine Treated Wastewater Discharge Monitoring and Management Plan	Operation	Within one working day of a 'trigger' level being exceeded	In the event that a guideline 'trigger' level referred to in condition 11-3 is exceeded, the proponent shall report the matter to the Department of Environment and Conservation within one working day of determining that this has occurred, and shall initiate an investigation against the environmental quality standards and into the cause of the exceedence in accordance with the framework developed in the Revised Environmental Quality Criteria Reference Document (Cockburn Sound) ²	To the requirements of the Minister for the Environment on advice of the Department of Environment and Conservation	Written correspondence with DEC, copy of investigation report to be provided to DEC and Compliance Report		Min for Env OEPA	Not possible at this stage.	Not required at this stage.
755:M11.7	Determine source and remedy the exceedence	Marine Treated Wastewater Discharge Monitoring and Management Plan	Operation	If an environmental quality standard referred to in Condition 11-3 is exceeded	In the event that an environmental quality standard referred to in condition 11-3 is exceeded, the proponent shall initiate a management response to determine the source and remedy the accident in accordance with the implementation framework for the National Water Quality Management Strategy Note: 1. ANZECC & ARMCANZ guidelines are published in Australian and New Zealand Guidelines for Fresh and Marine Water Quality; 2. Revised Environmental Quality Criteria Reference Document (Cockburn Sound), A supporting document to the draft Environmental Protection (Cockburn Sound) Policy 2002, Environmental Protection Authority Report 20, November 2002; and 3. Implementation framework for Western Australia for the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (Guidelines Nos 4 & 7: National Water Quality Management Strategy), Report of the Environmental Protection Authority, Bulletin 1078, November 2002	To the requirements of the Minister for the Environment on advice of the Department of Environment and Conservation	Compliance Report		Min for Env OEPA	Not possible at this stage.	Not required at this stage.

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M11.8	Develop a set of expected conditions for the site and associated reporting processes	Marine Treated Wastewater Discharge Monitoring and Management Plan	Construction	Prior to submitting the works approval application	The proponent shall: 1. estimate the expected typical physico-chemical composition and flow rates of all wastewater streams discharging into the environment from the site; 2. estimate, for all non-negligible contaminants and nutrients, the total annual loads of contaminants and nutrients in the wastewater discharge exiting the site 3. estimate, for normal and worst-case conditions, the concentrations of contaminants and nutrients (for agreed averaging periods) in the wastewater discharge exiting the site; and 4. establish a reporting process that is an inventory of toxicants that enter and leave the plant.	Marine Treated Wastewater Discharge Monitoring and Management Plan	Compliance Report DEC approval letters		OEPA		Completed.
755:M11.9	To minimise the environmental impact of wastewater discharge	Marine Treated Wastewater Discharge Monitoring and Management Plan	Construction	Prior to submitting the works approval application	The proponent shall provide information to show how 'best practicable technology' and waste minimisation principles for contaminants and nutrients have been adopted for the wastewater discharge.	Marine Treated Wastewater Discharge Monitoring and Management Plan	Compliance Report DEC approval letters		OEPA	The Plan was sent to the DEC EIA Division on 7 th August 2009. The MTWDM&MP was approved 28 July 2010. Letter attached (Appendix 42)	Cleared
755:M11.10	To ensure plant is operating under expected conditions	Marine Treated Wastewater Discharge Monitoring and Management Plan	Operation	3 months following commissioning and 3 months after every major increase in wastewater discharge volume	Within 3 months following commissioning and stabilizing of plant operations, the proponent shall conduct an analysis demonstrating that effluent properties are substantially consistent with predictions. Similar analyses shall also be conducted within 3 months following every major increase in the volume of treated wastewater discharged from the plant or any significant change in effluent characteristics.		Compliance Report		OEPA	To be undertaken 3 months after commissioning and stabilisation (i.e. 3 months after issue of operating licence).	Not required at this stage.
755:M11.11	To establish a plan for alternative options for wastewater treatment and/or disposal in the event that Water Quality Objectives are not met	Marine Treated Wastewater Discharge Monitoring and Management Plan	Construction	Prior to commissioning of the wastewater treatment plant	The proponent shall develop a Contingency Wastewater Management Plan which will consider alternate options for wastewater treatment and/or disposal in the event that the Water Quality Objectives are not met		Within the approved Marine Treated Wastewater Discharge Monitoring and Management Plan Compliance Report		Min for Env OEPA	The Plan was sent to the DEC EIA Division on 7 th August 2009. The MTWDM&MP was approved 28 July 2010. Letter attached (Appendix 42)	Cleared
755:M11.12	To ensure effluent discharged from the WWTP will not cause unacceptable impact	Marine Treated Wastewater Discharge Monitoring and Management Plan	Operation	If effluent properties are not substantially consistent with predictions (refer to Condition 11)	In the event that effluent properties are not substantially consistent with predictions (refer to condition 11-9), the proponent shall conduct toxicological studies on the actual effluent, or provide acceptable alternative information such as risk assessment, to the timing and other requirements of the Minister for the Environment.	Studies and/or information should be consistent with ANZECC requirements	Compliance Report		Min for Env	Not possible at this stage.	Not required at this stage.

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M11.13	Avoid significant detrimental impacts on diversity of species and biological communities and abundance/biomass of marine life	Marine Treated Wastewater Discharge Monitoring and Management Plan	Operation	If findings from Condition 11-12 indicate effluent poses significant risk to marine life	In the event that the findings resulting from condition 11-12 indicate that the effluent poses a significant risk to the diversity of the species and biological communities and abundance/biomass of marine life, the proponent shall implement the Contingency Wastewater Management Plan required by condition 11-11		Compliance Report		OEPA	Not possible at this stage.	Not required at this stage.
755:M11.14	Ensure that the Contingency Wastewater Management Plan remains up to date and relevant to wastewater management activities	Marine Treated Wastewater Discharge Monitoring and Management Plan	Operation		The proponent shall review and revise the Contingency Wastewater Management Plan required by condition 11-11		Compliance Report		Min for Env OEPA	Not applicable at this stage.	Not required at this stage.
755:M11.15	Contingency Wastewater Management Plan to be publicly available for review	Marine Treated Wastewater Discharge Monitoring and Management Plan	Construction	Public Notices and Web	The proponent shall make any revisions of the Contingency Wastewater Management Plan, as required by condition 11-11, publicly available in a manner approved by the CEO	The proponent shall carry out the following: 1. post document on proponent's website; 2. provide document to members of the public upon request; and 3. post document on the internal Corporate EMS Portal.	Compliance Report		OEPA	Contained in the MTWDM&MP The MTWDM&MP was approved 28 July 2010. Letter attached (Appendix 42) Available on Water Corporation website: http://www.watercorporation.com.au/M/marine_treated_waste_water_discharge_monitoring_and_management.cfm	Completed.
755:M12.1	Manage impacts of odour on health and amenity	Odour Management Plan	Construction	Prior to commencement of operation	The proponent shall prepare and submit an Odour Management Plan	Plan to meet the objective set out in Condition 12-2 and the requirement in Condition 12-3 as determined by the Minister for the Environment. In preparing the Plan the Proponent shall consult with the Environmental Protection Authority.	Odour Management Plan		Min for Env OEPA	The Plan was sent to the DEC Statement Management Section on 1 st December 2009 final revisions submitted 17 Nov 2010. The OMP was approved 16 December 2010. Letter attached (Appendix 44)	Cleared
755:M12.2	Manage impacts of odour on health and amenity	Odour Management Plan	Construction	Prior to commencement of operation	Prepare and submit an Odour Management Plan	As described in 755:M12.3	Compliance Report		OEPA	The Plan was sent to the DEC Statement Management Section on 1 st December 2009 final revisions submitted 17 Nov 2010. The OMP was approved 16 December 2010. Letter attached (Appendix 44)	Cleared

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M12.3	Manage impacts of odour on health and amenity and to ensure biofilter is balanced and to identify short circuits	Odour Management Plan	Construction	Prior to commencement of operation	Prepare and submit an Odour Management Plan	<p>The Plan shall address:</p> <ol style="list-style-type: none"> 1. an initial dynamic olfactometry determination; 2. the biofilter acclimation period; 3. procedures for the replacement of the biofilter media; 4. regular checks of biofilter loading to ensure that the biofilter is balanced and to identify any short circuits (e.g. surface flow rate measurements and smoke tests); 5. the size of the stack; 6. compliance with the odour criteria, and trigger mechanisms for remedial actions when appropriate; 7. regular qualitative determination of odour from the facility; 8. odour surveys every five years; 9. contingency plans during upset or maintenance conditions; 10. contingency plans in the event of accident; and 11. complaint registration, investigation and response. 	Compliance Report		OEPA	<p>The Plan was sent to the DEC Statement Management Section on 1st December 2009 final revisions submitted 17 Nov 2010.</p> <p>The OMP was approved 16 December 2010. Letter attached (Appendix 44)</p>	Cleared
755:M12.4	Manage impacts of odour on health and amenity	Odour Management Plan	Operation	During operation of the WWTP	The proponent shall implement the Plan	<p>The Plan shall address:</p> <ol style="list-style-type: none"> 1. an initial dynamic olfactometry determination; 2. the biofilter acclimation period; 3. procedures for the replacement of the biofilter media; 4. regular checks of biofilter loading to ensure that the biofilter is balanced and to identify any short circuits (e.g. surface flow rate measurements and smoke tests); 5. the size of the stack; 6. compliance with the odour criteria, and trigger mechanisms for remedial actions when appropriate; 7. regular qualitative determination of odour from the facility; 8. odour surveys every five years; 9. contingency plans during upset or maintenance conditions; 10. contingency plans in the event of exceedence; and 11. complaint registration, investigation and response. 	Compliance Report		OEPA	Not possible at this stage.	Not required at this stage.

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M12.5	Odour Management Plan to be publicly available for review	Odour Management Plan	Construction	Public Notices and Web	The proponent shall make the Plan publicly available in a manner approved by the CEO	The proponent shall carry out the following: 1. post document on proponent's website; 2. provide document to members of the public upon request; and 3. post document on the internal Corporate EMS Portal.	Compliance Report		OEPA	This report and appendix 43. Available on Water Corporation website: http://www.watercorporation.com.au/A/alkimos_per.cfm	Completed.
755:M12.6	To ensure odour is within required guidelines	Odour Management Plan	Operation		The proponent shall operate the plant at all times to ensure that odour at all adjacent odour sensitive premises meets criterion for odours set out in condition 12-7	The Plan shall address: 1. an initial dynamic olfactometry determination; 2. the biofilter acclimation period; 3. procedures for the replacement of the biofilter media; 4. regular checks of biofilter loading to ensure that the biofilter is balanced and to identify any short circuits (e.g. surface flow rate measurements and smoke tests); 5. the size of the stack; 6. compliance with the odour criteria, and trigger mechanisms for remedial actions when appropriate; 7. regular qualitative determination of odour from the facility; 8. odour surveys every five years; 9. contingency plans during upset or maintenance conditions; 10. contingency plans in the event of exceedence; and 11. complaint registration, investigation and response.	Compliance Report		OEPA	This report and appendix 43. The Plan was sent to the DEC Statement Management Section on 1 st December 2009 final revisions submitted 17 Nov 2010. The OMP was approved 16 December 2010. Letter attached (Appendix 44)	Not required at this stage.

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M12.7	To ensure odour does not adversely impact on the local community	Odour Management Plan	Operation	Operation or as specified by the CEO from time to time	The odour criterion referred to in Condition 12-6 shall be 5 odour units (OU) (based on the 99.9 percentile 1 hour averaging Australia Standard OU) or as specified by the CEO from time to time through amendment of the operating licence issued under Part V of the <i>Environment Protection Act 1986</i>	The Plan shall address: <ol style="list-style-type: none"> 1. an initial dynamic olfactometry determination; 2. the biofilter acclimation period; 3. procedures for the replacement of the biofilter media; 4. regular checks of biofilter loading to ensure that the biofilter is balanced and to identify any short circuits (e.g. surface flow rate measurements and smoke tests); 5. the size of the stack; 6. compliance with the odour criteria, and trigger mechanisms for remedial actions when appropriate; 7. regular qualitative determination of odour from the facility; 8. odour surveys every five years; 9. contingency plans during upset or maintenance conditions; 10. contingency plans in the event of exceedence; and 11. complaint registration, investigation and response. 	Compliance Report		OEPA	This report and appendix 43. The Plan was sent to the DEC Statement Management Section on 1 st December 2009 final revisions submitted 17 Nov 2010. The OMP was approved 16 December 2010. Letter attached (Appendix 44)	Not required at this stage.
755:M13.1	To manage the decommissioning and closure of the plant to meet the requirements of Condition 13-2	Decommissioning and Closure Plan	Operation	At least 2 years prior to the anticipated date of decommissioning and closure, or at a time agreed by the EPA	At least two years prior to the anticipated date of decommissioning and closure, or at a time agreed by the Environmental Protection Authority, the proponent shall prepare and submit a Decommissioning and Closure Plan (the Plan) that meets the requirements of Condition 13-2 as determined by the Minister for the Environment. In preparing the Plan the Proponent shall consult with the Environmental Protection Authority	The Plan shall address: <ol style="list-style-type: none"> 1. removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders; 2. rehabilitation to a standard suitable for the agreed new land use(s); and 3. identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities 	Decommissioning and Closure Plan		Min for Env OEPA	Not possible at this stage.	Not required at this stage.
755:M13.2	To manage the decommissioning and closure of the plant to meet the requirements of Condition 13-2	Decommissioning and Closure Plan	Operation	At least 2 years prior to the anticipated date of decommissioning and closure, or at a time agreed by the EPA	The proponent shall prepare and submit a Decommissioning and Closure Plan	The Plan shall address: <ol style="list-style-type: none"> 1. removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders; 2. rehabilitation to a standard suitable for the agreed new land use(s); and 3. identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities 	Decommissioning and Closure Plan		OEPA	Decommissioning and Closure Plan and copies of letters to relevant authorities identifying any contaminated areas and management measures.	Not required at this stage.

Number	Objective	Issue	Phase	When/Where	Action	How	Report	Satisfy	Advice	Evidence	Status
755:M13.3	To manage the decommissioning and closure of the plant to meet the requirements of Condition 13-2	Decommissioning and Closure Plan	De-Commissioning	Until such time that the Minister for the Environment determines, on advice of the Environmental Protection Authority, that the proponent's decommissioning and closure responsibilities have been fulfilled	The proponent shall implement the Plan until such time as the Minister for the Environment determines, on advice of the Environmental Protection Authority, that the proponent's decommissioning and closure responsibilities have been fulfilled	The Plan shall address: <ol style="list-style-type: none"> removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders; rehabilitation to a standard suitable for the agreed new land use(s); and identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities 	Compliance Report		OEPA	Not possible at this stage.	Not required at this stage.
755:M13.4	Decommissioning and Closure Plan to be publicly available for review	Decommissioning and Closure Plan	Operation	Public Notices and Web	The proponent shall make the Plan publicly available in a manner approved by the CEO	The proponent shall carry out the following: <ol style="list-style-type: none"> post document on proponent's website; provide document to members of the public upon request; and post document on the internal Corporate EMS Portal. 	Compliance Report		OEPA	Not possible at this stage – Plan not prepared.	Not required at this stage.

8. Environmental Management Plan Audit Table

The Environmental Management Plan Audit Table updated with the current status for each Environmental Management Plan Commitment is shown below. This table is reported on only during the construction phase and as such will not be reported on in 2011 due to the plant being operational as at March 2011. The EMP audit table is a compilation of all the management plans that apply to the project during construction phase.

Acronym	Description
AWA	Alkimos Water Alliance
WC	Water Corporation
EMPAR	Environmental Management Plan Audit Report
ALT	Alkimos Lead Team
AMT	Alkimos Management Team
DMR	Design Management Review
GDWCM	Ground Disturbing Works Control and Management
CSM	Chemical Storage and Management
WM	Waste Management
DM	Dust Management
NVM	Noise and Vibration Management
PEHM	Plant and Equipment Hygiene Management
BM	Blasting Management
WdC	Weed Control
FM	Fire Management
HM	Heritage Management
TM	Traffic Management
RDA	Rehabilitation of Disturbed Areas
FMP	Fauna Management Plan
MPCOPOOP	Management Plan for the Construction and Ongoing Presence of the Ocean Outfall Pipeline
TCMP	Terrestrial Construction Management Plan
MRHR	Management and Rehabilitation of the Haul Road including Area 10B

EMP Commitment Status

Designation	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
DMR	<p>To ensure that all design is in accordance with the issued approvals and other Water Corporation commitments; and</p> <p>To identify areas where this is not the case and resolve through approval and/or design amendment.</p>	Design Management	Pre-construction/Construction	At commencement of detailed design.	<ul style="list-style-type: none"> DMR-1 - Design Manager to ensure that the detailed design process is informed of the relevant approvals and environmental constraints/restrictions. DMR-2 - Design Manager to prepare Design Review Schedule and circulate to communicate the design review requirements. DMR-3 - As the detailed design for any aspect of the project is completed, a review of the key environmental constraints and approvals is to be carried out. DMR-4 - Design Manager to provide approval that full and appropriate design review has been undertaken. 	EMPAR	AWA WC			Completed
GDWCM	To ensure that all ground disturbing works are undertaken in accordance with approved works permits.	Ground Disturbing Works Control and Management	Construction	Prior to and during ground disturbing works being undertaken.	<ul style="list-style-type: none"> GDWCM-1 - Prior to any ground disturbing works, a Ground Disturbing Works Permit (GDWP) is to be completed. GDWCM-2 - GDWP form is to be submitted to the MECR for review and approval/refusal. GDWCM-3- GDWP form is to be forwarded by the MECR to the Alliance Manager for approval/refusal. GDWCM-4- GDWP is to be provided a unique GDWP number (for future reference and records purposes). A copy is to be retained and filed by the MECR and the original is to be returned to applicant. GDWCM-5- A copy of GDWP is to be supplied to all relevant parties undertaking ground disturbing works (including sub-contractors). GDWCM-6- Applicant is to report any works non-compliances immediately to the MECR and Environmental Incident Report (EIR) procedure to be initiated if necessary. GDWCM-7- The MECR is to coordinate a review of GDWPs lodged and is to close out when works are complete. 	EMPAR	AWA WC		Appendix 17	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
CSM	<p>To ensure that chemicals are stored and transported accordingly for the duration of the project in line with relevant regulations, standards and licences;</p> <p>To ensure that any shortfalls in chemical handling and/or storage practices are immediately identified and remedied, and</p> <p>To avoid spills or leaks of any hydrocarbon or chemical onsite.</p>	Chemical Storage and Management	Construction	Prior to and whilst chemicals are being bought/utilised onsite.	<ul style="list-style-type: none"> CSM-1- Prior to any chemicals being bought onto the site, the relevant Supervisor is to ensure that appropriate storage requirements are determined for chemicals, particularly if these have toxic, corrosive, or highly reactive properties. Approval to bring these chemicals onto the site is to be obtained. CSM-2- All chemicals to be utilised on the works shall be checked using the Chemwatch system and a Material Safety Data Sheet (MSDS) obtained prior to use. CSM-3- The Safety Manager shall ensure that a register and file of MSDS records are maintained for all chemicals used. CSM-4- Areas where chemicals are to be stored are to be provided with a purpose specific, secure (lockable) and bunded chemical storage area. These areas are also to be equipped with spill response equipment to be used in response to spill incidents. CSM-5- Storage facilities to be installed onsite that comply with both <i>AS1940-2004</i> and Dangerous Goods Storage Licence. CSM-6- Diesel and petroleum, and/or any other flammable and combustible liquids used within operations are to be always handled and stored in accordance with the requirements of <i>AS1940-2004: The storage and handling of flammable and combustible liquids</i>. In accordance with the <i>Dangerous Goods Safety (Storage and Handling of Non-Explosives) Regulations 2007</i> storage facilities will require licences. 	EMPAR	AWA WC	DEC Pollution Response Unit	Appendix 7-9, 38, and 45-46	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
CSM (cont.)	<p>To ensure that chemicals are stored and transported accordingly for the duration of the project in line with relevant regulations, standards and licences;</p> <p>To ensure that any shortfalls in chemical handling and/or storage practices are immediately identified and remedied, and</p> <p>To avoid spills or leaks of any hydrocarbon or chemical onsite.</p>	Chemical Storage and Management	Construction	Prior to and whilst chemicals are being bought/utilised onsite.	<ul style="list-style-type: none"> CSM-7- Contractors delivering chemicals to the site to be briefed and supervised during delivery to ensure that storage handling and storage in accordance with requirements. CSM-8- Wherever possible vehicle servicing to be undertaken in workshop areas. CSM-9- Wherever possible, chemicals are to be handled in the purpose specific chemical storage facilities. Where this is not practical (i.e.: emergency in-field servicing), temporary appropriate spill response equipment is to be taken to servicing location and other precautionary servicing equipment is to be used (i.e. rubber bunded mats under oil changes). 	EMPAR	AWA WC	DEC Pollution Response Unit		Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
CSM (cont.)		Chemical Storage and Management	Construction	In the event of a chemical spill.	<ul style="list-style-type: none"> CSM-10- In the event of spillage of chemicals in either the chemical storage facility or elsewhere, response actions to be deployed immediately to capture spilt chemicals and contaminated materials. In workshops and other hardstand areas, spill response to involve spill response kits provided in chemical storage facilities. In non-bunded areas, all practical measures to be adopted to contain chemicals and minimise losses to environment using spill response equipment.. CSM-11- In the event of a spill, the relevant Supervisor and the Site Environmental Coordinator is to be immediately notified. Requirements for further notification (i.e. Water Corporation, DEC, nearby land owners etc.) to be determined following discussions with the MECR and the Alliance Manager. CSM-12- Following the necessary and immediate spill containment actions, relevant personnel/Supervisor to complete EIR Form to be lodged with the Site Environmental Coordinator. CSM-13- All waste chemicals (i.e. solvents and oils) to be captured at point of use and contained in appropriate sealed storage vessels for subsequent removal/disposal offsite. CSM-14- EIR forms are to be completed in response to any spill that occurs on the site. Based on the nature of the events leading up to and causing the spill the MECR will determine whether any statutory or non-statutory breeches have occurred. 	EMPAR	AWA WC	DEC Pollution Response Unit		Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
WM	<p>To reduce waste through avoidance of waste generation wherever possible;</p> <p>To reuse waste materials onsite or by other users nearby;</p> <p>To recycle waste materials either onsite or by other users nearby; and</p> <p>To ensure the appropriate disposal of waste that cannot be addressed through waste reduction, reuse and recycling initiatives.</p>	Waste Management	Construction	Prior to and during construction onsite.	<ul style="list-style-type: none"> WM-1- Prior to operations commencing onsite and as part of the project planning stage, contact is to be made with the City of Wanneroo and local waste management facilities/contractors to determine the full extent of waste management services available. A waste management operator register is to be established by the Site Environmental Coordinator and provided to all site supervisors. WM-2- No waste materials (solid or liquid) are to be disposed off onsite unless specific approval is secured from the MECR. WM-3- All site offices and other facilities are to be equipped with appropriate putrescibles waste collection bins so that waste can be collected and securely stored for collection by a contractor. WM-4- Site supervisors are to ensure that all operational areas are kept free from the build up of waste materials and that waste kept temporarily onsite is appropriately secured/contained. Any free litter is to be collected and disposed of as it is encountered. WM-5- All site offices and other facilities (i.e. workshops, crib rooms etc.) are to be provided with recycling collection bins for the collection of recyclable materials such as glass, plastics, cardboard etc. These collection bins are to be provided alongside the putrescibles waste collection bins and both are to be signed accordingly to direct users in their appropriate use. WM-6- All site office waste paper is to be separated from putrescibles waste and recycled through an appropriate service provider. WM-7- All waste oils and other vehicle servicing liquids are to be contained in sealed containers and stored within the chemical storage facilities at workshops. These are to be disposed offsite by a licensed contractor on a monthly basis or more regularly as required. WM-8- All scrap metals are to be stockpiled at workshops and will be sent offsite for re-sale where practical. 	EMPAR	AWA WC		Appendix 7-9, 38 and 47.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
WM (cont.)		Waste Management	Construction	Prior to and during construction onsite.	<ul style="list-style-type: none"> WM-9- All packaging materials (including polystyrene, timber pallets, strapping, plastic wrapping etc.) is to be re-used onsite or recycled offsite where practical. The least preferable option is for disposal at landfill. WM-10- All wastewater generated from site facilities will be treated and disposed of using conventional septic tanks and leech drain systems. Should these systems require pumping out during the course of operations this will be undertaken by a licensed liquid waste contractors. At the completion of construction activities these systems will be pumped out by licensed contractors and decommissioned with all infrastructures being removed from the site. WM-11- A licensed controlled waste contractor will be utilised to remove controlled waste. As per the <i>Environmental Protection (Controlled Waste) Regulations 2004</i>, the following needs to be determined and provided to the controlled waste contractor: <ul style="list-style-type: none"> Type of controlled waste: refer to <i>Environmental Protection (Controlled Waste) Regulations 2004 Schedule 1</i>; Amount of controlled waste; Contaminant type (bulk/packaged), and Approval from the appropriate waste destination based on level of contaminants. WM-12- Any soil that is contaminated will need to be either remediated onsite or taken offsite for treatment and/or disposal. Should material be taken offsite, disposal will need to be in accordance with waste acceptance criteria for landfill in line with the concentrations of contaminants in the soil. WM-13- Records of all waste disposed offsite should be retained and provided on a monthly basis to the Site Environmental Coordinator for tracking of waste disposal types and volumes. WM-14- Each site facility is to maintain the waste generation register. 	EMPAR	AWA WC			Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
DM	<p>To ensure that fugitive dust emissions generated as a result of earthmoving and construction operations do not:</p> <ul style="list-style-type: none"> • Cause health issues or nuisance at the working sites; • Cause health issues or nuisance at nearby sensitive premises. 	Dust Management	Pre-construction/Construction	Prior to/during construction works being undertaken.	<ul style="list-style-type: none"> • DM-1- A notice to residents will be published in the local paper and circulated via a post box drop advising residents when activities are commencing in their area particularly. Community meetings and/or visits of residences to explain/discuss dust management issues will be organised as required. • DM-2- The areas to be disturbed and cleared of vegetation will be restricted to the absolute minimum area possible in line. • DM-3- Where practical, activities with high dust generation potential will be scheduled so that the potential impacts of dust are kept to a minimum. For instance, where possible, topsoil will not be handled when it is excessively dry or windy. In addition, topsoil stripping will not be carried out in areas close to sensitive premises during adverse wind conditions. • DM-4- Where possible, clearing activities will be carried out in stages to reduce the total area exposed and hence susceptible to wind erosion. Further, bulk earthworks near sensitive premises (such as the Butler residential area) will be carried out during winter months where practical. • DM-5- As much vegetation as possible will be retained as patches and strips to function as wind breaks. Alternatively, cleared areas that are affected by wind erosion can be addressed through the installation of wind break fences. Wind break fencing can be placed perpendicular to the prevailing winds for maximum effectiveness. Sand build-up along wind break fences will need to be removed on a regular basis to prevent damage to the structure. Advice should be sought from the Site Environmental Coordinator regarding wind break fencing location and design. • DM-6- Control of vehicular speed will be a key element of dust control given that excessive speed is a significant contributor to dust generation. This will be achieved through conducting driver education and erecting speed limit signs across the operational area. In addition, off-road driving by vehicles and/or driving on unmarked land outside of the designated area of work will not be permitted. 	EMPAR	AWA WC		Appendix 7-9, 38 and 48.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
DM (cont.)		Dust Management	Pre-construction/Construction	Prior to/during construction works being undertaken.	<ul style="list-style-type: none"> • DM-7- Wind speeds over 8-10 knots will create lift-off of dust. Above these wind speeds dust generating activities will be reviewed to determine whether they should continue, continue in a restricted form, or be halted. • DM-8- Where possible, topsoil will be stripped and placed directly onto areas already prepared for rehabilitation rather than stockpiled. However, if stockpiling is required stockpiles will be placed: <ul style="list-style-type: none"> ○ in locations away from sensitive areas (e.g. nearby residents); and ○ parallel to prevailing winds (where practicable) and profiled to avoid steep gradients. ○ Topsoil stockpiles will not exceed 2 metres in height. • DM-9- Measures will be employed (e.g. vehicle wash down facilities, road grids) to ensure no soil or mud from the tyres of vehicles is deposited on public roads. Daily monitoring of the transport routes in residential areas will be undertaken and any spilt material removed. Loads of dry granular material driven through residential areas will generally require a clean tarpaulin cover to prevent the spread of dust from the load. • DM-10- Unsealed road surfaces will be regularly watered using water carts. Watering of live stockpiles will also be undertaken with the water cart to limit airborne dust (dependent on weather conditions). • DM-11- When clearing is required, large woody vegetation will be cleared and stockpiled separately for respreading on rehabilitation areas. The re-use of cleared vegetation will provide roughness to bare area reducing wind velocities (and hence wind erosion) at the soil surface as well as trap windblown seeds and hence facilitate the establishment of supportive vegetation in wind susceptible/exposed areas. • DM-12- All project personnel will complete a site induction, which will cover dust issues and their management, prior to commencing work. 	EMPAR	AWA WC			Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
NVM	<p>To ensure that noise and vibration emissions comply with statutory requirements at the nearest noise sensitive premises; and</p> <p>To ensure that noise emissions do not overly affect the quality of life of nearby residents and the general amenity of residential areas is not unduly diminished.</p>	Noise and Vibration Management	Construction	Prior to/during construction works being undertaken.	<ul style="list-style-type: none"> NVM-1- Prior to commencing work on site all project personnel (including sub-contractors) will be informed through the site induction process of the importance of minimising noise impacts on the site (particularly for works within the residential suburb of Butler) and adjacent areas. Work supervisors will also discuss noise management issues at morning briefs and other meetings as required. NVM-2- The <i>Environmental Protection (Noise) Regulations 1997</i> will apply to the project. AWA will need to ensure that all aspects of the project comply with the relevant requirements of these statutory regulations. NVM-3- Only machinery complying with relevant Australian Standards and best practice will be used for the works. NVM-4- Personnel operating equipment, including those that generate noise, will be qualified on the basis of appropriate education, training and/or experience, as required. Competency assessments, identification of training needs and provision of training for personnel shall be carried out. NVM-5- There is expected to be regular situations where operations are required outside of what is considered "normal hours" (including Sundays) to expedite the works schedule and to reduce the duration of impacts on local traffic, services, and the local residents. Normal hours of operation are defined to be 0700-1700 hours Monday to Friday and 0730-1700 hours on Saturday. AWA will ensure that activities that are particularly noisy or more likely to impact on nearby residents and other sensitive premises are limited to within normal hours where practical. 	EMPAR	AWA WC	City of Wanneroo	Appendix 7-9 and 49.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
NVM (cont.)		Noise and Vibration Management	Construction	Prior to/during construction works being undertaken.	<ul style="list-style-type: none"> NVM-6- For tunnelling (sewer construction) within or in close proximity to Butler, noise and vibration monitoring will need to be undertaken prior to tunnelling being undertaken over extended hours (outside of normal hours). Should monitoring indicate that noise and vibration emissions are within statutory limits consultation will be undertaken with nearby residents in regards to operation outside normal hours. Any complaints raised by local residents may prompt operations outside normal hours to be discontinued. NVM-7- All affected residences and businesses will be notified in writing before construction activities commence. An active community and stakeholder communication program will aim to be proactive in identifying community concerns and issues before complaints are actually lodged. 	EMPAR	AWA WC	City of Wanneroo		Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
PEHM	To ensure that the movement of plant and equipment on and off the site does not present opportunities for the spread of either soil borne plant diseases or noxious weeds.	Plant and Equipment Hygiene Management	Construction	Prior to and during construction works being undertaken.	<ul style="list-style-type: none"> PEH-1 -If plant and/or equipment is being mobilised to the site by an Alliance participant organisation, ensure that it is washed down and cleaned of all soil and vegetation prior to dispatch to the site. This needs to be coordinated by the Package Managers and the work supervisors. A responsible person (e.g. workshop supervisor where the plant has been cleaned) is to inspect the plant/equipment and complete a Vehicle Hygiene Declaration Form and send this to the site by facsimile to the Site Environmental Coordinator. A copy of the form is to be sent to the site with the plant/equipment. PEH-2- If plant and/or equipment is being mobilised to the site by an organisation that is not an Alliance participant organisation (e.g. contractors), responsible Package Manager or site supervisor dealing with external party is to advise of the vehicle hygiene requirements and to provide external party with Vehicle Hygiene Declaration Form. Responsible person from external party to ensure that all plant and equipment is washed down and cleaned of soil and vegetation prior to dispatch to site and to complete and return Vehicle Hygiene Declaration Form to Site Environmental Coordinator. A copy of the form is to be sent to the site with the plant/equipment. 	EMPAR	AWA WC	OEPA	Appendix 18, 19 and 52.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
PEHM (cont.)		Plant and Equipment Hygiene Management	Construction	Prior to and during construction works being undertaken.	<ul style="list-style-type: none"> PEH-3- Completed Vehicle Hygiene Declaration Forms are to arrive with the Site Environmental Coordinator at least 24 hours prior to plant/equipment arriving at the site. PEH-4- Site Environmental Coordinator or delegate to inspect plant and equipment prior to offloading on site and verify that assurances provided by the signed Vehicle Hygiene Declaration Form are correct. If the Site Environmental Coordinator is satisfied the plant/equipment will be allowed entry to the site. If plant/equipment has not been cleaned to the required standard it will not be allowed to be off loaded onto the site. The plant/equipment is to be cleaned at a location offsite deemed to be suitable by both the Site Environmental Coordinator and the Alliance participant/external party prior to again seeking approval for entry. PEH-5- Site Environmental Coordinator to maintain a register of completed Vehicle Hygiene Declaration Forms. PEH-6- The Plant and Equipment Hygiene procedure is to be adopted for all plant and equipment when it is deployed from the site. 	EMPAR	AWA WC	OEPA		Completed
BM	To ensure that all aspects of the drill and blast programme are controlled and managed to ensure that there are no significant adverse environmental impacts outside the immediate areas being subjected to drill and blast.	Blasting Management	Construction	Prior to and during blasting works being undertaken.	<ul style="list-style-type: none"> BM-1- Should the storage of explosives onsite during operations be required, a suitable explosives magazine will need to be provided. This will be in accordance with the <i>Dangerous Goods Safety Act 2004</i> and the <i>Dangerous Goods Safety (Explosives) Regulations 2007</i>. Under this scenario explosives will need to be stored within this facility when not actively in use. BM-2- Alternatively to DB-1, explosives may be bought in on a daily basis in a suitable vehicle, in accordance with <i>Dangerous Goods Safety Act 2004</i> and the <i>Dangerous Goods Safety (Explosives) Regulations 2007</i>. BM-3- Prior to any blasting being undertaken, the City of Wanneroo, Mindarie Marina and any nearby residents are to be notified. 	EMPAR	AWA WC	OEPA City of Wanneroo Mindarie Marina	Appendix 49 and 50.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
BM (cont.)		Blasting Management	Construction	Prior to and during blasting works being undertaken.	<ul style="list-style-type: none"> BM-4- The drilling program will need to be managed to ensure that explosive material is placed in the appropriate locations. This will require accurate survey of the drill pattern in accordance with the geotechnical information and the detailed design and be verified (by the site supervisor) prior to the charges being laid. If this is situated in virgin (undisturbed) areas, then a GDWP will be required. BM-5- Blasting operator to undertake test blasts to ensure that the appropriate amount of explosive is used and that this is not excessive. BM-6- The timing of blasting is to be controlled to ensure that the most appropriate conditions for the blast are selected. This should take into consideration the feedback from the City of Wanneroo, Mindarie Marina, local residents, other State Government Agencies, and the long range weather forecast. Blasting will also be timed in response to any site specific environmental issues that may arise on advice from the MECR (i.e. fauna issues, resident concerns etc.). BM-7- Any issues and/or complaints raised by the City of Wanneroo, Mindarie Marina or local residents are to be followed up immediately by the MECR or the Site Environmental Coordinator by delegation. 	EMPAR	AWA WC	OEPA City of Wanneroo Mindarie Marina		Completed
WdC	To ensure that the exiting biodiversity values of the project area are not compromised through the further proliferation of weed species and that existing weed infestations are controlled and contained.	Weed Control	Pre-construction/ Construction	Prior to and during construction works being undertaken.	<ul style="list-style-type: none"> WC-1 -Prior to any works being undertaken, the Site Environmental Coordinator will determine and demarcate areas that have been already subject to weed infestation and areas that are in "Good" condition or better. WC-2- For the duration of the works the areas in "Good" condition or better will be monitored to ensure that weed invasion is not occurring, that is ultimately affecting the condition of the intact remnant vegetation. Should weed invasion be occurring the Site Environmental Coordinator will arrange for appropriate weed control to be deployed either involving chemical and/or physical control methods. 	EMPAR	AWA WC		Appendix 12, 18, 19, 51, 53 and 54.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
WdC (cont.)		Weed Control	Pre-construction/ Construction	Prior to and during construction works being undertaken.	<ul style="list-style-type: none"> WC-3- Prior to vegetation clearing and topsoil being stripped for site works the Site Environmental Coordinator, in consultation with the earthworks supervisors, will identify areas for topsoil management based on the degree of weed invasion (i.e. areas with low weed invasion will need to be carefully managed to preserve the native seed bank, whereas areas subject to high weed invasion will either be stockpiled to destroy the weed seed bank or deep buried at fill sites). WC-4- The Site Environmental Coordinator will liaise with site supervisors in situations where changes in work practices could result in improved weed management outcomes. WC-5- The Site Environmental Coordinator will report monthly to the MECR regarding the weed management issues and actions deployed over the preceding month. 	EMPAR	AWA WC			Completed
FM	To ensure that the project activities do not lead to the break k out of fires that pose a risk to the project activities or lead to the decline of remnant vegetation values in the surrounding areas.	Fire Management	Construction	Prior to and during construction works being undertaken.	<ul style="list-style-type: none"> FM-1- There will be a number of firebreaks established around the project where fences are to be situated. These firebreaks will be a minimum of three metres wide and will also be used for fire control access in the event of a fire incident. FM-2- There will be no lighting of fires during any aspects of the works. This includes during clearing (i.e. no burning of cleared vegetation) or the disposal of waste materials. FM-3- All project personnel will be required to immediately report any incidence of fire outbreak to the relevant site supervisor. The site supervisor will then be responsible for determining the appropriate response action. 	EMPAR	AWA WC	FESA LEMAC OEPA	Appendix 54.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
FM (cont.)		Fire Management	Construction	Prior to/during construction works being undertaken.	<ul style="list-style-type: none"> FM4- Smoking of cigarettes will not occur within vehicles or other enclosed places. Smoking will be restricted to external/open spaces where earthworks are being undertaken and are not vegetated (i.e. presenting a fire hazard). Cigarette butts are to be fully extinguished and disposed of appropriately (in general use and purpose butt bins), and not disposed of as litter. Smoking of cigarettes will not occur in areas outside the marked operational footprint. Purpose "butt disposal bins" are to be provided outside site offices, workshops and other site buildings. FM-5- Fire extinguishers will be located in vehicles and all offices/workshops. These will be placed at strategic locations and site personnel will be informed of these locations and the appropriate use of these should a fire incident arise. FM-6- During the summer months, the water cart will always be left full of water should this need to be mobilised quickly for fire control purposes. FM-7- In the event of a fire being reported to any site supervisor, after ensuring that there are no immediate risks to human health or safety or site infrastructure and undertaking any immediate control actions, the site supervisor will immediately report this to the Construction Manager, and contact will also be made with the Fire and Emergency Services Authority (FESA), local Bush Fire Brigade and Local Emergency Management Advisory Committee (LEMAC). This notification will be to make these agencies aware of the incident and seek additional response assistance if required. 	EMPAR	AWA WC	FESA LEMAC OEPA		Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
FM (cont.)		Fire Management	Construction	Prior to/during construction works being undertaken.	<ul style="list-style-type: none"> FM-8- All site plant and equipment will be regularly maintained and serviced to ensure that it is in good running order and not posing any fire risk. This will be particularly relevant for exhaust systems and moving parts that could become hot from wear and friction. All site personnel will be informed of the need to monitor plant and equipment during works and particularly at the beginning and end of each shift. Any issues should be reported immediately to site supervisors for further inspection and maintenance/servicing where necessary. FM-9- In situations where weather conditions are particularly conducive for fire incidents (i.e. very hot, dry and windy) site supervisors, in consultation with Package Managers and the Construction Manager, will review works scheduled to be undertaken during the shift and determine whether this needs to be altered in light of the increased fire risk posed. Should certain activities be postponed/ceased because of fire risk, all relevant site personnel and the Site Environmental Coordinator are to be notified immediately and then notified again once the high fire risk has subsided. 	EMPAR	AWA WC	FESA LEMAC OEPA		Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
HM	To ensure that the project is delivered in a manner that accommodates the known heritage values of the area and responds to any new (currently unknown) heritage values that may be discovered during the project site works.	Heritage Management	Pre-construction/ Construction	Prior to and during construction works being undertaken.	<ul style="list-style-type: none"> HM-1- At the commencement of works all personnel will be inducted as to the Heritage Management requirements during works. This will outline the projects obligations pursuant to the <i>Aboriginal Heritage Act 1972</i>, the protection of sites that were not identified previously, and the manner in which potentially significant previously unknown material needs to be dealt with. HM-2- Particular care is to be exercised during clearing and topsoil stripping operations to identify any skeletal remains or other significant heritage/archaeological material that may be uncovered. HM-3- Any situation where material is uncovered that could potentially have heritage significance will need to be immediately reported to the relevant site supervisor for further action (see HM-4 and HM-5 below). HM-4- In the event that skeletal remains are uncovered during any stage of the project or operations, work is to immediately cease in that area. Should it be determined that the skeletal remains are of animal origin works can proceed without further action. It is important to note that areas of the project area have been used previously for the grazing of cattle and sheep. Should there be any uncertainty a local vet is to be contacted and brought onto the site to confirm the origin of the skeletal remains. Should bones of human origin be uncovered the local Police Station is to be immediately contacted to investigate the matter. Should this result in a determination that the skeletal remains do not require any further police response or inquiry, the DIA would need to be consulted with to determine the most appropriate manner in which to deal with the remains in accordance with the requirements of the local indigenous community. 	EMPAR	AWA WC	DIA City of Wanneroo	<p>Prior to work being completed an aboriginal sites survey was completed and no known aboriginal sites were registered in the project area. During earthworks no artefacts were found on the site.</p> <p>Appendix 57</p>	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
HM (cont.)		Heritage Management	Pre-construction/Construction	Prior to and during construction works being undertaken.	<ul style="list-style-type: none"> HM-5- In the event that other potentially significant heritage materials are discovered during the project operations (e.g. scar trees, flint stones, camp sites etc.) works should cease immediately in that area and the DIA contacted to determine the appropriate course of actions to deal with the material. HM-6- The Alkimos Wreck Site is the only known European Heritage site within or in close proximity to the project site. Given this site is situated some distance from the shore it will only be relevant to the marine works component of the project. Under the current design there are not expected to be any direct impacts to the Alkimos Wreck Site given the outfall alignment is some distance (approximately 870 metres to the south) from the Alkimos Wreck Site. There should be no activities undertaken within a 50 metre radius that would potentially disturb the site (i.e. anchoring or mooring of vessels). 	EMPAR	AWA WC	DIA City of Wanneroo		Completed
TM	To ensure that all aspects of the project that involve vehicle use and the movements (either light commercial or heavy earthmoving) are managed to ensure that any impacts on the natural environment, nearby residents, other sensitive premises or users of public roadways are avoided and any nuisance is minimised as low as reasonable possible.	Traffic Management	Pre-construction/Construction	Prior to/during any construction works being undertaken and heavy vehicle movements through residential areas.	<ul style="list-style-type: none"> TM-1- At least 2 weeks prior to the construction of the main access road (the extension of Romeo Road) to the site commencing, personal contact is to be made with residents along Romeo Road to inform them of road construction program and intended future use of the access road. TM-2- Prior to any works commencing on the site, a site access plan is to be prepared outlining the location of site access roads for the entire project. These haul and access roads are to then be marked out and established. TM-3- Prior to any heavy vehicles being driven through the established residential areas in Butler, specified traffic routes and management requirements (including limitation to the timing of major deliveries) are to be determined by AWA and communicated to the City of Wanneroo and other local stakeholders, including but not limited to the Butler Primary School. Any issues raised by the City of Wanneroo or the Butler Primary School are to be resolved to the satisfaction of the Alliance Manager and the Relationship Manager. 	EMPAR	AWA WC	City of Wanneroo	Appendix 51.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
TM (cont.)		Traffic Management	Pre-construction/ Construction	Prior to/during any construction works being undertaken and heavy vehicle movements through residential areas.	<ul style="list-style-type: none"> • TM-4- At all times vehicle movements are to be restricted to the established haul and access roads, or to approve areas of works (based on the relevant statutory approvals and approved GDWP. At no time are vehicles to be driven, parked or otherwise operated in areas other than these specified areas without first seeking a GDWP. • TM-5- Vehicle speed limits are to be specified for the entire project area, and site supervisors are to ensure that speed limits are enforced for both project vehicles and external vehicles entering the site. • TM-6- Steps are to be taken to ensure that fugitive dust from road surfaces is managed at all times. This will include the use of water carts and surface binding agents where possible. Particular care is to be taken in areas within or in close proximity to established residents. • TM-7- Vehicles are to be appropriately maintained at all times in line with a pre-determined maintenance schedule. Maintenance is to specifically ensure exhaust systems (including mufflers) are intact (for noise reduction and fire prevention purposes), hoses etc. • TM-8- Steps are to be taken to restrict the use of heavy vehicles in residential areas or public roads where there is potential for impacts on residents or other sensitive premises. Also, restrictions on the use of compression brakes in residential areas or public roads. • TM-9- Measures will be employed (e.g. vehicle wash down facilities, road grids) to ensure no soil or mud from the tyres of vehicles is deposited on public roads. Daily monitoring of the transport routes in residential areas will be undertaken and any spilt material removed. Loads of dry granular material driven through residential areas will generally require a clean tarpaulin cover to prevent the spread of dust from the load. • TM-10- Anchoring of vessels to avoid damage to reef and benthic habitat. 	EMPAR	AWA WC	City of Wanneroo		Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
RDA	<p>To rapidly stabilise the AWS site where short term landform stabilisation is required with a vigorous cover of endemic vegetation; and</p> <p>To restore previously existing flora to a state as good, if not exceeding the previous conditions in areas where future land use will allow retention of remnant vegetation and conservation values.</p>	Rehabilitation of Disturbed Areas	Pre-construction/ Construction	Prior to/during construction works being undertaken.	<ul style="list-style-type: none"> RDA-1- Seed Collection: <ul style="list-style-type: none"> Providence seed will be collected from the project footprint area at the highest rate. In other areas where vegetation will be retained in the long term, seed collection will need to be undertaken in a sustainable manner that does not affect the ongoing reproductive viability of that vegetation; Tube stock will be propagated by nurseries (locally based) from providence seed collected from the site; and In situations where it is not possible to collect adequate providence seed, native seed suppliers will be used. RDA-2- Brush Management: <ul style="list-style-type: none"> Vegetation will be added to eroding surfaces, such as dune surfaces, to increase stability and to reduce wind velocity at the land surface. It will also help protect seedlings and retain soil moisture; and Cleared vegetation will be pushed up and 'raked' into stockpiles at the edge of disturbed areas to be used as brush material. RDA-3- Topsoil: <ul style="list-style-type: none"> A pre-disturbance topsoil assessment will be undertaken prior to earthworks commencing to identify areas of best quality topsoil; During the construction phase of the project, topsoil will be removed and stored to be spread on areas proposed for revegetation; Topsoil will be stockpiled close to works and within the construction footprint; and Topsoil will be applied to the rehabilitation sites at a depth of up to 50 mm depending on the outcome required. 	EMPAR	AWA WC		Appendix 12, 18, 19, 21-23, 52, 53, 55-57.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
RDA (cont.)		Rehabilitation of Disturbed Areas	Pre-construction/ Construction	Prior to/during construction works being undertaken.	<ul style="list-style-type: none"> RDA-4- Direct Seeding and Tube stock: <ul style="list-style-type: none"> Direct seeding and tube stock seedling planting will be undertaken in autumn/winter when the soil profile is moist; Direct seeding will be applied at a heavy rate to ensure that post-germination emergence is dense; and Tube stock will be used in only those areas that require a high level of rehabilitation and restoration. RDA-5- Weed Control: <ul style="list-style-type: none"> If necessary, pre-revegetation weed control will be undertaken prior to first rehabilitation planting/seeding; and Potential infestation will be treated with six chemical application periods in the autumn and spring of each year. RDA-6- Fertiliser Installation: <ul style="list-style-type: none"> Granulated fertiliser is to be spread on all revegetation areas to provide nutrients for the sandy soils. RDA-7- Erosion Control: <ul style="list-style-type: none"> Sand trap fencing will be used in coastal environments to protect dune systems from wind erosion and help to stabilise mobile sand dunes; and Biodegradable fibre mesh matting can be laid on bare sand to help reduce erosion from wind. RDA-8- Pest Control: <ul style="list-style-type: none"> Baiting of rabbits and foxes over the entire footprint of the site will be coordinated by the AWA. 	EMPAR	AWA WC			Completed
FMP	To ensure the management of potential impacts to fauna values within the Alkimos project area during construction of the AWS.	Fauna Management Plan Implementation	Construction	Prior to and during clearing works being undertaken.	<ul style="list-style-type: none"> FMP-1- All site personnel to be inducted and provided training in regards to the fauna management requirements involved in the construction works. FMP-2- Prior to clearing commencing, a GDWP must be checked and signed by the Alliance Manager and MECR. FMP-3- Prior to clearing commencing, a reconnaissance fauna survey is to be undertaken by a suitability experienced zoologist to ensure no significant fauna could be injured by clearing operations and requiring relocation. 	EMPAR	AWA WC OEPA	OEPA	Appendix 7-9, 24, 37-41 and 57.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
FMP (cont.)		Fauna Management Plan Implementation	Construction	Prior to and during clearing works being undertaken.	<ul style="list-style-type: none"> FMP-4- Clearing to be undertaken in a progressive manner and over a period of time to allow mobile fauna to relocate from the works area, and will not create 'islands' of vegetation in which fauna could become stranded. FMP-5- Fencing not to be installed until clearing works are completed, to allow free movement of fauna away from works area. FMP-6- The WWTP site will be fenced to discourage fauna re-entering cleared areas. FMP-7- Personnel are required to contact a local veterinarian of appropriate local fauna carer should injured fauna be encountered during works. FMP-8- Site personnel to be clearly instructed that no native fauna are to be deliberately injured or killed. FMP-9- There is to be a qualified reptile handler within the workforce or based nearby. FMP-10- Any fauna management issues encountered are to be recorded on a Fauna Incident Form, and Site Supervisors will be required to lodge these forms with the Site Environmental Coordinator. FMP-11- Ensure that areas where fauna could be trapped are inspected daily for the duration of works to ensure trapped fauna are released in a suitable manner. FMP-12- Ensure any boreholes and test pits are capped and/or maintained in a way which restricts fauna entry. FMP-13- Ensure site rehabilitation is undertaken to maximise fauna habitat potential. 	EMPAR	AWA WC OEPA	OEPA		Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
MPCOPOOP-1	Water Quality To minimise the spatial and temporal extent of turbid plumes during dredging and side-casting activities..	Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation	Construction	Prior to/During construction works being undertaken.	<ul style="list-style-type: none"> • Backhoe dredging will be utilised to reduce generation of fine sediments. • Side-casting of material will be undertaken to minimise disturbance of sediments in the water column by maintaining the bucket below the surface to prevent overflow. • The backhoe bucket will be raised to the minimum possible height above the seabed. • Dredging will be reassessed if the wind speed and wave height exceed the operational parameters of the dredge. • Prior to commencement of work, all construction equipment will be inspected by a qualified mechanic to reduce the risk of hydrocarbon spills and minimise green house gas emissions. • The backhoe dredge shall cease work and relocate to the eastern side of Eglinton Rocks in medium to heavy swells >1.5m, or in other weather conditions considered dangerous. • In extreme weather conditions, all vessels will cease work and relocate to Mindarie Keys. • A tug boat will be on standby at all times in case of emergency and to provide fuel store. • No or limited backfilling of the pipeline trench will be undertaken in order to prevent further disturbance to side-cast sediments. • All wastes and spillages will be contained and appropriate storage and disposal practices will be implemented. • A spill cleanup kit will be provided to deal with spills on the dredge and an oil spill boom will also be available at all times for containment of oil spills on water. • In the event of spill to the marine environment, the dredging contractor is to undertake the spill procedure outlined in the MPCOPOOP, Section 5. 	EMPAR	AWA WC OEPA	OEPA	Appendix 6, 10, 11, 25-36, 50 and 57.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
MPCOPOOP-2	Water Quality To minimise the potential for and impact of fuel spills or leaks during maintenance activities.	Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation	Operation	Prior to/During operation works being undertaken.	<ul style="list-style-type: none"> A program of regular preventative maintenance will be implemented for all vessels and equipment to be used during operation of the ocean outlet. Prior to commencement of maintenance work, all vessels and equipment will be inspected by a qualified mechanic to reduce the risk of fuel spills and leaks. All wastes and spillages will be contained on board vessels and appropriate storage and disposal practices will be implemented. A spill cleanup kit will be provided to deal with spills on the maintenance vessels and an oil spill boom will also be available at all times for containment of spills on water. 	EMPAR	AWA WC OEPA	OEPA	Not required at this stage.	Not required at this stage.

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
MPCOPOOP-3	BPPH To minimise direct and indirect impacts to BPPH during construction of the outfall.	Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation	Construction	Prior to/During construction works being undertaken.	<ul style="list-style-type: none"> The pipeline route will be selected to minimise the area of BPPH directly impacted by avoiding areas of BPPH wherever possible and minimising the need for blasting and excavation. Blasting drill holes will be surveyed to avoid BPPH wherever possible. Controlled drill and blast will be utilised Backhoe dredging will be utilised to minimise direct and indirect impacts to BPPH. The dredging contractor will ensure that all equipment is not significantly fouled and does not contain any introduced marine pests. Barge spuds will be installed during dredging to ensure trench width is controlled and within the defined alignment. The barge spuds will be located within the construction footprint. Multi-beam surveys will be conducted during dredging to ensure correct alignment. Dredging material will be side-cast to one side of the trench where this will avoid or minimise burial of BPPH. The width of side-casting spoil mounds will be limited to a maximum of 25m. Anchor and mooring locations will be surveyed to refine their placement to avoid or minimise impacts to BPPH. The pipe-pull anchors will be set prior to commencement of construction to ensure they do not flip out and damage reef areas. Floats will be attached to anchor chains to lift them off the sea floor wherever possible. Backfilling under pipe with aggregate will be undertaken wherever necessary to refill erosion halos. 	EMPAR	AWA WC OEPA	OEPA	Appendix 6, 10, 11, 25-36, 50 and 57.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
MPCOPOOP-4	BPPH To avoid loss of BPPH during the launching and anchoring of vessels during operation.	Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation	Operation	Prior to/During operation works being undertaken.	<ul style="list-style-type: none"> • Skippers will be instructed on the environmental sensitivities of the area and their responsibilities in regards to protecting BPPH. • Vessels shall not be launched within or close to seagrass beds and vessel routes shall avoid areas with shallow seagrass beds. • 'Cyclone' rather than 'Swing' moorings shall be installed where moorings are required. • There shall be no anchoring of vessels within seagrass areas unless in an emergency situation. • The Maintenance Contractor will ensure that all equipment is not significantly fouled and does not contain any introduced marine pests. • Preventative maintenance will be undertaken in areas with the potential for erosion halos to occur. 	EMPAR	AWA WC OEPA	OEPA	Not required at this stage.	Not required at this stage.

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
MPCOPOOP-5	<p>Seabed</p> <p>To minimise short-term impacts to existing sediment transport processes and resulting beach profiles as a result of construction of the ocean outfall; and</p> <p>To avoid long-term impacts term impacts to existing sediment transport processes and resulting beach profiles due to the ongoing presence of the ocean outfall.</p>	Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation	Construction	Prior to/During construction works being undertaken.	<ul style="list-style-type: none"> The groyne and cofferdam will be constructed on a tidally exposed relief limestone reef to minimise erosion. Construction will be undertaken during the summer months, when lower wave energies generally occur. The cofferdam will be aligned to counter the erosion effects of littoral drift on the beach to the north. The cofferdam will be constructed and the pipeline installed within the minimum timeframe to reduce the temporal extent of impacts. The cofferdam and groyne will be removed following completion of the construction program and boulders will be placed into the fore dune for stability. The void left by the cofferdam will be backfilled. The drill and blast design will ensure rock fractures will not extend beyond 0.5m outside the disturbance footprint. All construction works shall be undertaken by suitably qualified and experienced operators. 	EMPAR	AWA WC OEPA	OEPA	Appendix 6, 10, 11, 25-36, 50 and 57.	Completed
MPCOPOOP-6	<p>Seabed</p> <p>To avoid long-term impacts to the seabed due to the ongoing presence of the ocean outfall.</p>	Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation	Operation	Prior to/During operation works being undertaken.	<ul style="list-style-type: none"> The pipeline has been designed and constructed to avoid long-term impacts to the seabed. Preventative maintenance will be undertaken in areas with the potential for erosion halos to occur. Preventative maintenance of beach areas will be undertaken if necessary to maintain the integrity of such areas. 	EMPAR	AWA WC OEPA	OEPA	Not required at this stage.	Not required at this stage.

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
MPCOPOOP-7	<p>Marine Fauna</p> <p>To minimise direct and indirect impacts to marine fauna during construction of the ocean outfall.</p>	<p>Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation</p>	Construction	Prior to/During construction works being undertaken.	<ul style="list-style-type: none"> Controlled drill and blast will be used and trial blasts will be conducted to establish the minimum quantity of charge required for blasting. Blasting will be suspended in response to sightings of marine mammals or turtles within 1km of the blast area. Warning shots will be fired to discourage marine fauna from remaining near the blast area. There shall be no littering by personnel associated with the construction of the ocean outfall. All rubbish will be placed in dedicated waste bins and returned to shore for appropriate disposal. Work vessels must not block the direction of travel of any wildlife, particularly a whale, dolphin, sea lion or turtle, or any passage of escape available to wildlife from an area where escape is otherwise prevented by a barrier, shallow water, vessel or some other obstacle to the animal's free passage. Wherever possible, a distance of at least 300m will be maintained from any whale and a whale shall never be deliberately approached by construction personnel or vessels. Wherever possible, a distance of at least 150m will be maintained from any dolphin and a dolphin shall never be deliberately approached by construction personnel or vessels. Wherever possible, a distance of at least 50m will be maintained from any sea lion or turtle and a sea lion or turtle shall never be deliberately approached by construction personnel or vessels. Vessels will not stop suddenly or change direction suddenly if a whale, dolphin, sea lion or turtle is in close proximity to the vessel. All construction personnel shall comply with all relevant components of the <i>Australian National Guidelines for Whale and Dolphin Watching 2005</i>. 	EMPAR	AWA WC OEPA	OEPA	Appendix 6, 10, 11, 25-36, 50 and 57.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
MPCOPOOP-7 (cont.)	Marine Fauna To minimise direct and indirect impacts to marine fauna during construction of the ocean outfall.	Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation	Construction	Prior to/During construction works being undertaken.	<ul style="list-style-type: none"> Wherever possible, wide, deep channels will be used as transport routes for work vessels. Shallow areas and seagrass beds will be avoided. Wherever possible, outboard motors on work vessels should be able to tilt up in the event of a collision with marine fauna. 	EMPAR	AWA WC OEPA	OEPA		

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
MPCOPOOP-8	Marine Fauna To minimise direct and indirect impacts to marine fauna during the operation of the ocean outfall.	Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation	Operation	Prior to/During operation works being undertaken.	<ul style="list-style-type: none"> Controlled drill and last will be used. Work vessels must not block the direction of travel of any wildlife, particularly a whale, dolphin, sea lion or turtle, or any passage of escape available to wildlife from an area where escape is otherwise prevented by a barrier, shallow water, vessel or some other obstacle to the animal's free passage. Wherever possible, a distance of at least 300m will be maintained from any whale and a whale shall never be deliberately approached by construction personnel or vessels. Wherever possible, a distance of at least 150m will be maintained from any dolphin and a dolphin shall never be deliberately approached by construction personnel or vessels. Wherever possible, a distance of at least 50m will be maintained from any sea lion or turtle and a sea lion or turtle shall never be deliberately approached by construction personnel or vessels. Vessels will not stop suddenly or change direction suddenly if a whale, dolphin, sea lion or turtle is in close proximity to the vessel. All construction personnel shall comply with all relevant components of the <i>Australian National Guidelines for Whale and Dolphin Watching 2005</i>. Wherever possible, wide, deep channels will be used as transport routes for work vessels. Shallow areas and seagrass beds will be avoided. Wherever possible, outboard motors on work vessels should be able to tilt up in the event of a collision with marine fauna. Noise and vibration will be kept to a minimum whilst work is being undertaken. All chemicals will be stored in a bunded area with appropriate spill kits. All chemical spills will be actioned and contained as appropriate. Chemical spills to the marine environment will be reported immediately to the Regulatory Committee for actioning. 	EMPAR	WC OEPA	OEPA	Not required at this stage.	Not required at this stage.

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
MPCOPOOP-9	Heritage To avoid impacts to the Alkimos and Eglinton Shipwrecks.	Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation	Construction	Prior to/During construction works being undertaken.	<ul style="list-style-type: none"> The precise locations of the Alkimos and Eglinton Shipwrecks will be recorded on GPS systems used by al work vessels. <ul style="list-style-type: none"> Alkimos: 31° 36.613437; 115° 39.24134 Eglinton: 31° 38.4500; 115° 39.5400 All vessel skippers will be made aware of the presence of the wrecks in the area. Work vessels shall not occupy the waters within 100m of either shipwreck at any time. 	EMPAR	AWA WC OEPA	OEPA	No disturbance of Wrecks.	Completed
MPCOPOOP-10	Heritage To avoid impacts to the Alkimos and Eglinton Shipwrecks.	Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation	Operation	Prior to/During operation works being undertaken.	<ul style="list-style-type: none"> The precise locations of the Alkimos and Eglinton Shipwrecks will be recorded on GPS systems used by al work vessels. <ul style="list-style-type: none"> Alkimos: 31° 36.613437; 115° 39.24134 Eglinton: 31° 38.4500; 115° 39.5400 All vessel skippers will be made aware of the presence of the wrecks in the area. Work vessels shall not occupy the waters within 100m of either shipwreck at any time. 	EMPAR	AWA WC OEPA	OEPA	Not required at this stage.	Not required at this stage.
MPCOPOOP-11	Air Quality To minimise air emissions produced during construction works.	Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation	Construction	Prior to/During construction works being undertaken.	<ul style="list-style-type: none"> All plant and equipment used during the construction works shall be regularly maintained to comply with the relevant exhaust emissions guidelines. Prior to commencement of work, all construction equipment will be inspected by a qualified mechanic to reduce the risk of hydrocarbon spills and minimise green house gas emissions. 	EMPAR	AWA WC OEPA	OEPA	Inspection checklist maintained by vessel operator.	Completed
MPCOPOOP-12	Air Quality To minimise air emissions produced during operation.	Management Plan for Construction and Ongoing Presence of the Ocean Outlet Pipeline Implementation	Operation	Prior to/During operation works being undertaken.	<ul style="list-style-type: none"> All plant and equipment used during the operation shall be regularly maintained to comply with the relevant exhaust emissions guidelines. Prior to commencement of work, all equipment will be inspected by a qualified mechanic to minimise green house gas emissions. 	EMPAR	AWA WC OEPA	OEPA	Not required at this stage.	Not required at this stage.

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
TCMP	To protect native vegetation and landforms on the AWS site outside the authorised areas of permanent disturbance as defined by MS755.	Terrestrial Construction Management Plan Implementation	Construction	Prior to and during construction works being undertaken.	<ul style="list-style-type: none"> TCMP-1 -Construction Management: <ul style="list-style-type: none"> Site Supervisors and Package Mangers will be responsible for ensuring all site personnel have been inducted and that they adhere to conditions made in the TCMP; Prior to ground disturbing activities, the site will be surveyed, pegged and fenced to ensure no vehicles operate outside the project boundaries, vehicles remain on designated access and haul road and to prevent recreational vehicles entering the site; and The GDWP procedure will be implemented for all aspects of the project. TCMP-2- Dieback Management: <ul style="list-style-type: none"> The Vehicle Hygiene procedure will be implemented for all aspects of the project and a Vehicle Hygiene Declaration Form is to be completed on entry and departure from site; Prior to any ground disturbing activities being undertaken onsite a dieback survey will be undertaken by a qualified interpreter. Procedures outlined in the Dieback Management Plan are to be adhered to at all times; If dieback is detected, site vehicles must transverse a wash down facility; and Materials sourced from infected areas (topsoil, vegetation brush and excavated soil) will be managed to ensure they are stockpiled and reused within the designated infection area. TCMP-3- Weed Management: <ul style="list-style-type: none"> Weed management is to be undertaken as outlined in the TCMP. TCMP-4- Fire Management: <ul style="list-style-type: none"> Fire Management is to be undertaken as outlined in TCMP. 	EMPAR	AWA WC OEPA	OEPA	Appendix 4-9, 12, 15-24, 37-41, 45-57.	Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
TCMP (cont.)		Terrestrial Construction Management Plan Implementation	Construction	Prior to and during construction works being undertaken.	<ul style="list-style-type: none"> TCMP-5- Hydrology: <ul style="list-style-type: none"> Table drains will be placed to redirect water from the site to areas of remnant vegetation during heavy rainfall; Refuelling of equipment will either be carried out at the main site office and the earthworks workshop area or by mobile refuelling vehicles according to accepted industry practices. These activities will be conducted on limestone hardstand areas only. Spill response kits will be available in all site areas and with refuelling trucks; and Ground water levels in monitoring bores located around the site are to be measured on a monthly basis. TCMP-6- Landform: <ul style="list-style-type: none"> Careful consideration will be given to the design and placement of various footprints to minimise impacts to significant landform features; and Monthly site inspections are to be undertaken to identify areas being affected by wind or water erosion. If areas are being affected by erosion, one of a number of erosion control responses will be deployed (heavy vegetation brushing, wind trap fencing, liquid surface binding agents or erosion matting). TCMP-7- Rehabilitation: <ul style="list-style-type: none"> Rehabilitation is to be undertaken as outlined in the Rehabilitation Tender Specification. 	EMPAR	AWA WC OEPA	OEPA		Completed

Number	Commitment	Issue	Phase	When/Where	Action	Report	Satisfy	Advice	Evidence	AWA Status
MRHR	To ensure that the haul road and access roads are managed, vegetation clearing is monitored and controlled, vehicle movements are restricted entirely within the area marked out for works and rehabilitation is undertaken.	Management and Rehabilitation of Haul Rd including Area 10B Plan Implementation	Construction	Prior to and during haul road construction works being undertaken.	<ul style="list-style-type: none"> • MRHR-1- Collect provenance seed material from within the WWTP site and surrounding areas for haul road revegetation. • MRHR-2- Induct all personnel regarding the content of the MRHR and requirements for implementation. • MRHR-3- Undertake a dieback survey along proposed haul road alignment. • MRHR-4- Mark-out clearing/disturbance extent for haul road. • MRHR-5- Undertake topsoil quality assessment and formulate topsoil segregation/management approach accordingly. • MRHR-6- Install fences along the defined edge of disturbance. • MRHR-7- Review vehicle movements to ensure vehicles remain within fenced areas. • MRHR-8- Stabilise construction batters using liquid stabilisers, matting and/or brush. • MRHR-9- Once haul road construction is complete, remove fences without causing disturbance to vegetation outside previously cleared areas. • MRHR-10- Rehabilitation is to be undertaken as outlined in the MRHR Plan and will include: <ul style="list-style-type: none"> • Direct seeding and planting • Weed control • Post revegetation monitoring and reporting 	EMPAR	AWA WC OEPA	OEPA	Appendix 4-9, 12, 15-24, 37-41, 45-57.	Completed

9. Conclusions and Recommendations

The Water Corporation and the Alkimos Water Alliance (AWA) have implemented all elements of the Alkimos Wastewater Treatment Plant (AWWTP) within the statutory requirements of Ministerial Statement 755. Compliance with all Ministerial conditions and Proponents commitments are demonstrated throughout this PCR submission.

In addition to meeting reporting requirements, this PCR is also being utilised as a management tool to review and improve the environmental operations of the AWA. Regular inspections and internal audits of management plans and their implementation has reinforced environmental awareness and compliance across the project.

The management plans have also provided the project with an audit tool to ensure that operating procedures and has allowed the proponent and the AWA to undertake the project in line with protecting the values of the surrounding natural environment.

It is requested that the OEPA formally acknowledge the Ministerial Conditions and Proponent Commitments marked as “Complete” within the Audit Table provided and remove legislative reporting requirements for those elements of the project.

10. Appendices

No	Evidence	MS755 Condition
1	Ministerial Statement 755 (December 2007)	M4.3
2	Complaints/Correspondence	M4.3
3	Non compliance correspondence to OEPA	M4.3
4	External audit reports	M6.5 EMP/TCMP EMP/MRHR
5	Water Corporation Groundwater Monitoring Report Jan 09 – Dec 09[1]	M6.5 EMP/TCMP EMP/MRHR
6	Marine Inspection Checklist and Example	M8.5 M9.5 EMP/MPCOPO OP-1, 3, 5, 7 EMP/TCMP
7	General Environmental Checklist and Example	M6.5 EMP/CSM EMP/WM EMP/DM EMP/NVM EMP/FMP EMP/TCMP EMP/MRHR
8	Terrestrial Environmental Inspection Checklist and Example	M6.5 EMP/CSM EMP/WM EMP/DM EMP/NVM EMP/FMP EMP/TCMP EMP/MRHR
9	Modified Environmental Inspection Checklist and Example	M6.5 EMP/CSM EMP/WM EMP/DM EMP/NVM EMP/FMP EMP/TCMP EMP/MRHR
10	Turbidity reports	M8.5-8.9 EMP/MPCOPO OP-1, 3, 5, 7

No	Evidence	MS755 Condition
11	BPPH reports	M8.5-8.9 M9.4 M9.5 EMP/MPCOPO OP-1, 3, 5, 7
12	2010 Rehabilitation Monitoring Report	M6.5 M7.1 EMP/WdC EMP/RDA EMP/TCMP EMP/MRHR
13	Macroalgal communities report	M11.1-11.3
14	MTWDMMP	M11.1-11.3
15	Launch Site & AC13 Access Road & Compound Clearing (Aerial Photo) and Launch Site Clearing (Aerial Photo)	M6.1 M6.5 EMP/TCMP EMP/MRHR
16	Environmental Incident Report (Example)	M6.5 EMP/TCMP EMP/MRHR
17	Ground Disturbing Works Permit Access Rd within buffer_AC13 and attachment	M6.5 EMP/GDWCM EMP/TCMP EMP/MRHR
18	Vehicle Weed and Dieback Hygiene Register & Weed and Dieback Certificate	M6.5 EMP/PEHM EMP/WdC EMP/RDA EMP/TCMP EMP/MRHR
19	Weed Register	M6.5 EMP/PEHM EMP/WdC EMP/RDA EMP/TCMP EMP/MRHR
20	Environmental Weekly Report Example	M6.5 EMP/TCMP EMP/MRHR
21	Alkimos Collection Report 09-10 Final	M6.5 M6.7 EMP/RDA EMP/TCMP EMP/MRHR
22	Alkimos Stock on Hand	M6.5 M6.7 EMP/RDA EMP/TCMP EMP/MRHR
23	Alkimos WWTP 10/11Progress Report	M6.5 M6.7 EMP/RDA EMP/TCMP EMP/MRHR

No	Evidence	MS755 Condition
24	Aerials and Fencing around WWTP	M6.5 M6.7 M10.3 EMP/FMP EMP/TCMP EMP/MRHR
25	Drawing IU92-17-410 Ocean Outfall Plan and Longitudinal Section	M8.4-8.9 EMP/MPCOPO OP-1, 3, 5, 7
26	Outlet Pipe Diffusers Tyco Purchase Order 20629	M8.4-8.9 EMP/MPCOPO OP-1, 3, 5, 7
27	Water Corporation Direction Letter Extend Outfall 200m (05 March 2008)	M8.4-8.9 EMP/MPCOPO OP-1, 3, 5, 7
28	Concrete Pipe Humes Purchase Order 20889	M8.4-8.9 EMP/MPCOPO OP-1, 3, 5, 7
29	Outfall Pipe Stringing Yard (Photo Looking East) and (Photo Looking West)	M8.4-8.9 EMP/MPCOPO OP-1, 3, 5, 7
30	Survey of Ocean Outlet Trench, Pipeline and Rock dumps	M8.4-8.9 EMP/MPCOPO OP-1, 3, 5, 7
31	Dredge volume log	M8.5-8.9 EMP/MPCOPO OP-1, 3, 5, 7
32	Dredging Summary	M8.5-8.9 EMP/MPCOPO OP-1, 3, 5, 7
33	Marine Mammal Observation Logs Example	M8.5-8.9 EMP/MPCOPO OP-1, 3, 5, 7
34	Blast Logs Example	M8.5-8.9 EMP/MPCOPO OP-1, 3, 5, 7
35	Photos of Beach	M7.1 EMP/MPCOPO OP-1, 3, 5, 7
36	Photos of Ocean Outlet pipeline	M9.4 M9.5 EMP/MPCOPO OP-1, 3, 5, 7
37	Fauna Incident Report example	M6.5 M10.3 EMP/FMP EMP/TCMP EMP/MRHR
38	Various TCMP and MRHR photos	M6.5 M10.3 EMP/CSM EMP/WM EMP/DM EMP/FMP EMP/TCMP EMP/MRHR

No	Evidence	MS755 Condition
39	1080 baiting program	M6.5 M10.3 EMP/FMP EMP/TCMP EMP/MRHR
40	Fauna survey	M6.5 M10.3 EMP/FMP EMP/TCMP EMP/MRHR
41	Snake handling course participants and certificate example	M6.5 M10.3 EMP/FMP EMP/TCMP EMP/MRHR
42	Letter from OEPA to the Water Corporation regarding clearance of Condition 11-1	M11.1-11.3 M11.9 M11.11 M11.15
43	Odour Management Plan Final	M12.1-12.3 M12.5-12.7
44	Letter from OEPA to the Water Corporation regarding clearance of Condition 12-1	M12.1-12.3 M12.5-12.7
45	Haz Sub and MSDS Register	M6.5 EMP/CSM EMP/TCMP EMP/MRHR
46	Spill kit training register and Purchase Order for Spill Kit Refill	M6.5 EMP/CSM EMP/TCMP EMP/MRHR
47	Waste removal receipts	M6.5 EMP/WM EMP/TCMP EMP/MRHR
48	Dust Control	M6.5 EMP/DM EMP/TCMP EMP/MRHR
49	Noise and Vibration Monitoring	M6.5 EMP/NVM EMP/BM EMP/TCMP EMP/MRHR
50	PRCDMAN037 - Management of Exclusion Zone during Offshore Blasting	M6.5 EMP/BM EMP/MPCOPO OP-1, 3, 5, 7 EMP/TCMP EMP/MRHR
51	Traffic Management Plan	M6.5 EMP/WdC EMP/TM EMP/TCMP EMP/MRHR

No	Evidence	MS755 Condition
52	Dieback Management Plan	M6.5 EMP/PEHM EMP/RDA EMP/TCMP EMP/MRHR
53	Topsoil stockpile photos	M6.5 EMP/WdC EMP/RDA EMP/TCMP EMP/MRHR
54	Fire management photos and vehicle equipment checklists	M6.5 EMP/WdC EMP/FM EMP/TCMP EMP/MRHR
55	Landcare Soil Report	M6.5 EMP/RDA EMP/TCMP EMP/MRHR
56	Letter and photos from nursery	M6.5 EMP/RDA EMP/TCMP EMP/MRHR
57	Site environmental induction presentation and questionnaire	M6.5 EMP/HM EMP/RDA EMP/FMP EMP/MPCOPO OP EMP/TCMP EMP/MRHR

Please also see attached CD for supporting documentation (appendices as per table above).

Note: Further documentation can be provided upon request from the OEPA.

