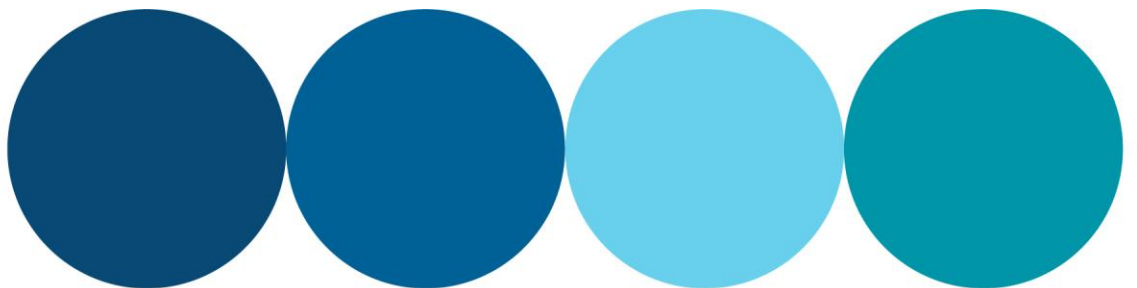


Perth Seawater Desalination Plant

Compliance Assessment Report

Ministerial Statements 655 & 832

01 July 2020 to 30 June 2021





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Abbreviations

CAR	Compliance Assessment Report
CSMC	Cockburn Sound Management Council
DFES	Department of Fire and Emergency Services
DO	Dissolved Oxygen
DoE	Department of the Environment (Commonwealth)
DWER	Department of Water and Environmental Regulation – a department which combined the previous departments of Department of Environmental Regulation (DER), OEPA, and DoW (Department of Water).
EQC	Environmental Quality Criteria
EQO	Environmental Quality Objectives
EPA	Environmental Protection Authority
IWSS	Integrated Water Supply Scheme
KIC	Kwinana Industries Council
MMMP	Marine Monitoring and Management Plan
MS626	Ministerial Statement 626
MS655	Ministerial Statement 655
MS832	Ministerial Statement 832
NIWA	National Institute of Water and Atmospheric Research
OEPA	Office of the Environmental Protection Authority – now EPA Services DWER
PSDP	Perth Seawater Desalination Plant
TDS	Total Dissolved Solids



1 Introduction

The Perth Seawater Desalination Plant (PSDP) has been producing drinking water for Water Corporation's Integrated Water Supply System (IWSS) since 18th November 2006 (officially opened on 18th April 2007). PSDP can produce approximately 18 per cent of Perth's annual water supply requirements and continues to be an important climate-independent water source for the population of Perth.

A summary of events relating to the environmental approval process for the PSDP proposal is provided below:

May 2003 – Ministerial approval for a 30GL/yr desalination plant (Ministerial Statement 626)

July 2004 – Amendment to the original approval for a 45 GL/yr desalination plant. (Ministerial Statement 655, MS655).

July 2005 – Minister for Environment requested the Office of the Environmental Protection Authority (OEPA) provide environmental advice, under Section 46 of the Environmental Protection Act 1986, on the approval associated with PSDP (Assessment 1512, Statement 655).

November 2007 – OEPA's Section 46 Report is submitted to the Department of Environment and Conservation (DEC, now Department of Water and Environmental Regulation – DWER) & a second peer review is completed by Dr Robert Spiegel of the National Institute of Water and Atmospheric Research (NIWA).

May 2009 – OEPA provided advice and recommendations to the Minister for Environment on the proposal based on the Section 46 Report & subsequent reviews, outlining key environmental factors, conditions and procedures.

June 2010 – Ministerial Statement 832 (MS832) is issued to supplement MS655, requiring more robust compliance reporting and the development and implementation of a marine monitoring and management plan (MMMP).

February 2011 – The MMMP, developed in close consultation with the OEPA, is endorsed by OEPA as meeting the requirements of MS832.

August 2013 – Water Corporation submitted a report summarising the results of the two year monitoring program under the MMMP.

April 2014 – Advice is received from the OEPA that the monitoring undertaken as part of the MMMP as required under condition 8-1 could cease. The marine monitoring condition required under Statements 655 is still to be implemented.

July 2014 – A revised marine monitoring program as required by MS655 Commitment 2 commences on a monthly basis.

July 2015 – The marine monitoring frequency is modified to quarterly. Seasonal patterns/variations continue to be observed.

This Compliance Assessment Report (CAR), required under Condition 832:5-6, covers the period 1 July 2020 – 30 June 2021.



2 Current Status

The PSDP operates under and in accordance with DWER Operating Licence L8108/2004/4 which commenced on 24 September 2013. The licence validity was originally for a 5 year period; however, DWER amended the expiry date in April 2016 from 23 September 2018 to 23 September 2023.

The PSDP produced approximately 45.12 GL of drinking water during the 2020-21 reporting period. The main components of the proposal and their current status are as follows:

- Design – the overall engineering and design is complete
- Plant construction – major construction works are complete
- Pipeline construction – the 1200 mm pipeline from the PSDP to Thompsons Reservoir is complete.

The 1400 mm pipeline from Thompsons Reservoir and the construction of the Nicholson Road Pump Station is also complete; however these components of the project were subject to separate approvals.



3 Compliance

3.1 Non-conformances/Non-compliances

There were no non-compliances during this reporting period (01 July 2020 to 30 June 2021). Compliance with individual Ministerial Statement conditions and commitments is detailed in the audit tables in Section 6.

3.2 Internal/External Audits and Inspections

During this reporting period, a number of audits and inspections were undertaken at PSDP:

- Regular inspections of subsea infrastructure were conducted by a diving contractor in October 2020 and March 2021. There were no issues identified during the inspection.

3.3 Complaints Register

No complaints regarding environmental management at the PSDP were received by the Water Corporation during this reporting period (01 July 2020 to 30 June 2021).



4 Environmental Monitoring and Research

4.1 Marine Monitoring

Commitment 655:2-1 requires a monitoring program for Total Dissolved Solids (TDS), temperature and dissolved oxygen (DO) of water surrounding the discharge site, a nearby reference site, and a site in the deeper waters of Cockburn Sound. This monitoring is occurring on a quarterly basis with no adverse trends or data observed.

The Water Corporation continues to work with the Cockburn Sound Management Council (CSMC) in the development of the Cockburn Sound Annual Environmental Monitoring Report. The CSMC reports annually to the Minister for Environment on the results of environmental monitoring of the Cockburn Sound marine area and the extent to which the results meet the Environmental Quality Objectives (EQO) and associated Environmental Quality Criteria (EQC) set in the State Environmental (Cockburn Sound) Policy. Water Corporation provides monitoring data related to PSDP's operations, which then enables CSMC to determine if the EQC for maintenance of water quality for industrial water supply have been met.

In the 2020/21 reporting period, monitoring of the intake seawater from Cockburn Sound into the PSDP indicated there were minor exceedances of the EQG for Total Suspended Solids (TSS) and bromide.

The suitability of the quality of the intake seawater for the desalination process was considered to have been compromised due to an algal bloom from late January to mid-March 2021. Outside of this timeframe, the quality of the intake seawater was considered suitable for the desalination process. There is therefore a degree of certainty that the Environmental Quality Objective has been achieved during the reporting period.

4.2 Flora and Fauna Management

As reported in previous Compliance Assessment Reports, considerable degradation of the dune area to the west of the Plant had been occurring as a result of vehicle access. Following the installation of palisade fencing and boom gates by Landcorp in late 2014, vehicle access to the beach was restricted. Rehabilitation activities by employees at PSDP have been continuing and have resulted in a marked improvement in the stabilisation of the dune area.

PSDP has partnered with Perth Region Natural Resource Management Group in their 'Adopt a Beach' program. Through this program, a number of restoration initiatives are underway. Bat boxes built by the Kwinana volunteer group, Men's Shed, have been installed around site and in the dunes adjacent to the plant to encourage native bats back into the area.

In August 2016, an infrared camera was installed in the dunes to record the fauna present in the area. For the first time a Bandicoot was captured by the camera in February 2018, since then there have been further Bandicoot sightings with the latest recorded sighting occurring in January 2019.

A variety of native and introduced species have been captured on the camera since installation. Native animals recorded include; White-browed Scrubwren, Willie Wagtail, Brown Goshawk, Dugite, New Holland Honeyeater, Singing Honeyeater, Australian Raven, Bobtail, Buff Banded Rail, Bandicoot. Introduced animals recorded include; Turtle dove, Rabbit, Rat, Cat, Fox, Dog.



The staff at PSDP complete an annual clean-up of rubbish from the beach and access path adjacent to the plant each year. In December 2020, approximately 50 kg of rubbish was collected and removed from the area. Additionally, a planting event was done in June 2021, with 860 plants installed. Photographs of the beach clean-up and planting event is included in Appendix 1.



5 Stakeholder Consultation

During this reporting period Water Corporation and the employees at PSDP consulted with a number of key stakeholders and the community regarding the operation of PSDP, including:

Community Groups:

- Cockburn Sound Management Council (CSMC)
- Kwinana Industries Council (KIC), including Rockingham and Kwinana Community and Industries Forum
- Perth Region Natural Resource Management Group

Government Agencies:

- Environmental Protection Authority (EPA)
- Department of Water and Environment Regulation (DWER)
- Department of Fisheries
- Department of Mines and Petroleum
- Department of Fire and Emergency Services (DFES)
- Landcorp
- Western Power
- Synergy
- City of Cockburn
- City of Kwinana
- City of Rockingham
- Fremantle Port Authority

Others:

- Murdoch University
- Energy Apprenticeships Group (EAG)



6 Audit Table

Table provides the compliance status against each of the conditions in MS655. **Error! Reference source not found.** provides the compliance status against each of the conditions in MS832.



Table 1: Audit Table – MS655

Note:

Phases that apply in this table = Pre-Construction, Construction, Operation, Decommissioning, Overall (several phases).

- This audit table is a summary and timetable of conditions and commitments applying to this project. Refer to the Minister's Statement for full detail/precise wording of individual elements.
- Any elements with status = "Audited by proponent only" are legally binding but are not required to be addressed specifically in compliance reports, if complied with.
- Code prefixes: M = Minister's condition, P = Proponent's commitment, A = Audit specification; N = Procedure.
- Compliance Status: C = Compliant, CLD = Completed, NA = Not Audited, NC = Non – compliant, NR = Not Required at this stage. Please note the terms VR = Verification Required and IP = In Process are only for OEPA use.
- Acronyms list: CEO = Chief Executive Officer; CSMC = Cockburn Sound Management Council; DER = Department of Environment Regulation; DoE = Department of Environment (now Department of Environment Regulation); EPA = Environmental Protection Authority; Minister for Env = Minister for the Environment; OEPA = Office of the Environmental Protection Authority.

Audit Code	Subject	Action	How	Evidence	Requirements of	Advice from	Phase	When	Status
655:G									
655:M1.1	Implementation	Implement the project as documented in Schedule 1 of Statement 655	Compliance report as required by condition 5.1	This report	DoE		Overall	Throughout the life of the project	Compliant
655:M2.1	Proponent Commitments	Implement the environmental management commitments documented in Schedule 2 of Statement 655	Compliance report as required by condition 5.1	This report	DoE		Overall		Compliant
655:M3.1	Nominated Proponent	The proponent nominated by the Minister for the Environment, under S38(6) or (7) of the EP Act is responsible for the implementation of the project until the Minister has revoked this nomination and nominated another person in respect of the proposal under S38(7) of the EP Act		No change. The Water Corporation continues to remain the proponent for this project	Min for Env	EPA	Overall		Compliant
655:M3.2	Change in Proponent	Any request for a change of proponent shall be accompanied by a copy of the Minister's statement endorsed with an undertaking by the proposed replacement proponent to carry out the proposal in accordance with the conditions and procedures set out in Statement 655. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.	Statement endorsed by the proposed replacement proponent. Contact details of proposed replacement proponent.	No change. The Water Corporation continues to remain the proponent for this project	Min for Env	EPA	Overall	Before transfer of ownership of the proposal	Not required at this stage
655:M3.3	Proponent	Notify the DoE of any change of proponent contact name and address	Notification of change of proponent contact name and address	No change. The Water Corporation continues to remain the proponent for this project	DoE		Overall	Within 60 days of any change of address	Not required at this stage
655:M4.1	Commencement	Substantially commence the proposal within five years of the date of Statement 655 or the approval granted in the statement of 9 July 2009 shall lapse and be void.		The project was substantially commenced within 5 years. DEC letter (ref. DOC74574) dated 16 January 2009 acknowledged completion.	Min for Env		Overall	By 9 July 2009	Completed
655:M4.2	Commencement	Make an application to the Minister for the Environment for any extension of approval for the substantial commencement of the proposal beyond five years from the date of Statement 655	Demonstrate that: the environmental factors of the proposal have not changed significantly; new, significant environmental issues have not arisen; and all relevant government authorities have been consulted. Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.	Letter regarding extension required, stating that the proposal is to be implemented as approved.	Min for Env	EPA	Design	At least six months prior to the expiration date of the five-year period (by 9 Jan 2009)	Completed



Audit Code	Subject	Action	How	Evidence	Requirements of	Advice from	Phase	When	Status
655:M5.1	Compliance audit	Prepare an audit program and submit compliance reports (CR's) to the Department of Environment	Compliance reports to address 1. the status of implementation of the proposal as defined in Schedule 1 of Statement 645; 2. evidence of compliance with the conditions and commitments; and 3. the performance of the environmental management plans and programmes. Note - Under sections 48(1) and 47(2) of the Environmental Protection Act 1986, the Chief Executive Officer of the Department of Environmental Protection is empowered to audit the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement.	(1) Design phase CR by 13 April 2006 (2) Construction phase CR. (3) Annual operation phase CR's for two years, then as required by the DoE.	DoE		Overall	1. Design phase Compliance Report (CR) addressing all Design phase and relevant Overall phase audit elements 2. Construction phase CR addressing all Construction phase and relevant Overall phase audit elements 3. Annual CR's for the first two years, then as required by the DoE	Superseded
655:M5.2	Performance Review	Submit a Performance Review report every five years after the start of the operations phase	Addressing: 1) the major environmental issues associated with the project; the targets for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those targets; 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) significant improvements gained in environmental management, including the use of external peer reviews; 4) stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and 5) the proposed environmental targets over the next five years, including improvements in technology and management processes	Performance Review Report every five years	Min for Env	EPA	Operation	Every five years after the start of the operations phase	Superseded
655:M6.1	Preliminary Decommissioning Plan	Prepare a Preliminary Decommissioning Plan, which provides the framework to ensure that the site is left in an environmentally acceptable condition	Addressing: rationale for the siting and design of plant and infrastructure as relevant to environmental protection, and conceptual plans for the removal or, if appropriate, retention of plant and infrastructure; a conceptual rehabilitation plan for all disturbed areas and a description of a process to agree on the end land use(s) with all stakeholders; a conceptual plan for a care and maintenance phase; and	Preliminary Decommissioning Plan provided. DEC letter (ref. DEC ref. A475025) dated 19 April 2005 states 6-1 as complete.	Min for Env	EPA	Design		Completed



Audit Code	Subject	Action	How	Evidence	Requirements of	Advice from	Phase	When	Status
			management of noxious materials to avoid the creation of contaminated areas						
655:M6.2	Final Decommissioning Plan	Prepare a Final Decommissioning Plan	Address: 1) removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders; 2) rehabilitation of all disturbed areas 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	Final Decommissioning Plan	Min for Env	EPA	Operation	At least twelve months prior to the anticipated date of decommissioning or at a time agreed with the EPA	Not required at this stage
655:M6.3	Final Decommissioning Plan	Implement the Final Decommissioning Plan		CR-closure	Min for Env	EPA	Closure		Not required at this stage
655:M6.4	Final Decommissioning Plan	Make the Final Decommissioning Plan required by Condition M6.2 publicly available	Carry out the following: 1) Request DoE to advertise the availability in the EPA weekly advertisement in the main daily newspaper; 2) Provide free copies of the documentation when approved for release to organisations nominated by EPA - the DoE library (2 copies), Battye Library (2 copies) and local Government libraries - those belonging to local government municipalities bordering Cockburn Sound (2 copies each). Make the document available on a website if the proponent has one	CR	Min for Env	EPA	Operation	When the Plan has been approved for release	Not required at this stage
655:M7.1	Management Plans	Prior to finalisation of the management plans referred to in commitments 1, 2, 3, 4, 6, 7 and 12, the proponent shall make each draft management plan available for public comment and provide evidence to the Department of Environment that any matters arising have been addressed		CR	DoE		Overall		Completed
655:M7.2	Monitoring reports-public availability	Make the monitoring reports publicly available	Carry out the following: 1) Advertise availability of the reports in the local community newspapers - those covering the local government municipalities bordering Cockburn Sound 2) Provide free copies to local Government libraries - those covering the local government municipalities bordering Cockburn Sound (1 copy). Post the documents on a website if the proponent has one	CR Monitoring reports available on the Water Corporation's public website.	Min for Env	EPA	Overall		Compliant
655:P1	Consultative Environmental Management Plan	Prepare a Consultative Environmental Management Plan	Include the following: Water Quality Management Plan (see commitment 2). Flora and Fauna Management Plan (see commitment 3). Greenhouse Gas Management Plan (see commitment 4). Noise Management Plan (see commitment 6). Hazardous Materials Management Plan (see commitment 7). Cooling	See relevant commitments 2,3, 4,6,7 The CEMP was submitted in August 2005. The Flora, and Fauna, Noise, Greenhouse, and Hazardous Materials management plans were included in the CEMP. The WQMP	DoE	CALM, CSMC, Town of Kwinana, City of Rockingham	Design	Within four months following a decision to construct	Completed



Audit Code	Subject	Action	How	Evidence	Requirements of	Advice from	Phase	When	Status
			Water Monitoring Programme (see commitment 2)	was prepared prior to construction and has since been revised as part of a Section 46 amendment.					
655:P2.1: 1.1	Draft Water Quality Management Plan	Make the draft Water Quality Management Plan available for public comment and provide evidence to the Department of Environment that any matters arising have been addressed		1) Water Quality Management Plan to be submitted to DoE after the public comments have been considered 2) Evidence that any matters arising from public comment and advisory agency comments have been addressed.	DoE		Design	Within four months following a decision to construct	Completed
655:P2.1: 1.2	Water Quality Management Plan	Submit the Water Quality Management Plan which will include the following: Procedures to mitigate potential impacts of construction of the discharge pipeline and intake		The WQMP was prepared and approved prior construction. The Water Quality Management Plan was submitted to the OEPA with a cover letter dated 11 March 2009.	DoE	DoE (Marine Branch)	Design	Following the public review of the plan	Completed
655:P2.1: 1.3	Water Quality Management Plan	Submit the Water Quality Management Plan including the following: Monitoring program for TDS (salinity), temperature and DO (dissolved oxygen) of water surrounding the discharge site, a nearby reference site, and a site in the deeper waters of Cockburn Sound.		As above.	DoE	DoE (Marine Branch)	Design	Following the public review of the plan	Completed
655:P2.1: 1.4	Water Quality Management Plan	Submit the Water Quality Management Plan including the following: A monitoring programme to ensure that the diffuser is performing to specifications and achieving the required level of dilution.		As above.	DoE	DoE (Marine Branch)	Design	Following the public review of the plan	Completed
655:P2.1: 1.5	Water Quality Management Plan	Submit the Water Quality Management Plan including the following: Monitoring of sediment habitat pre- and post-commissioning.		As above.	DoE	DoE (Marine Branch)	Design	Following the public review of the plan	Completed
655:P2.1: 1.6	Water Quality Management Plan	Submit the Water Quality Management Plan including the following: A contingency plan that examines the risk of contamination and procedures to mitigate any unanticipated impacts.		As above.	DoE	DoE (Marine Branch)	Design	Following the public review of the plan	Completed
655:P2.1: 1.7	Water Quality Management Plan	Submit the Water Quality Management Plan including the following: Whole of effluent testing methodology and protocols.		As above.	DoE	DoE (Marine Branch)	Design	Following the public review of the plan	Completed
655:P2.1: 1.8	Water Quality Management Plan	Submit the Water Quality Management Plan which will include the following: A monitoring programme for Kwinana Power Station cooling water, if used as input water, will be conducted. Analysis will be of sufficient accuracy and precision to enable comparison with appropriate standards and criteria for Cockburn Sound.		Kwinana Power Station cooling water not used at this stage	DoE	DoE (Marine Branch)	Design	Following the public review of the plan	Not required at this stage
655:P2.1: 1.9	Water Quality Management Plan	Submit the Water Quality Management Plan which will include the following: An annual inspection		Annual inspections are carried out as part of the maintenance plan.	DoE	DoE (Marine Branch)	Design	Following the public	Compliant



Audit Code	Subject	Action	How	Evidence	Requirements of	Advice from	Phase	When	Status
		programme to check the physical integrity of the outlet pipe and diffuser.						review of the plan	
655:P2.2: 1	Water Quality Management Plan	Implement the Water Quality Management Plan		CR In correspondence dated 13 April 2012 (DEC ref. A493843) the Corporation provided evidence of implementation.	DoE		Construction		Completed
655:P2.2: 2	Water Quality Management Plan	Implement the Water Quality Management Plan		CR Monitoring as per WQMP continued during this period through the quarterly manual monitoring program and diffuser performance testing & integrity inspections.	DoE		Operation		Compliant
655:P3.1: 1	Draft Flora and Fauna Management Plan	Make the draft Flora and Fauna Management Plan available for public comment and provide evidence to the Department of Environment that any matters arising have been addressed		DEC letter dated 7 April 2005 states commitment complete (DEC ref. A475023).	DoE		Design	Within four months following a decision to construct	Completed
655:P3.1: 2	Flora and Fauna Management Plan	Submit the Flora and Fauna Management Plan to DoE	Include the following: Locating the plant and pipelines to minimise clearing and effects on conservation values. Mitigating impacts on Priority Flora. Dieback management measures. Weed control measures	1) Flora and Fauna Management Plan to be submitted to DoE after the public comments have been considered 2) Evidence that any matters arising from public comment and advisory agency comment have been addressed. DEC letter dated 7 April 2005 states commitment complete (DEC ref. A475023).	DoE	DoE (Terrestrial section), CALM	Design	Following the public review of the plans	Completed
655:P3.2: 1	Flora and Fauna Management Plan	Implement the Flora and Fauna Management Plan described in commitment 3.1		CR A figure showing the rehabilitated area was supplied to DEC in September 2006.	DoE		Construction		Completed
655:P3.2: 2	Flora and Fauna Management Plan	Implement the Flora and Fauna Management Plan described in commitment 3.1		CR Flora and Fauna monitoring reports. Letter received from OEPA dated 10 October 2013 stating rehabilitation required under this condition can cease.	DoE		Operation		Completed
655:P4.1: 1	Draft Greenhouse Gas Management Plan	Make the draft Greenhouse Gas Management Plan available for public comment and provide evidence to the Department of Environment that any matters arising have been addressed		The plan was made available for public comment prior to approval and subsequent clearance, which was received in a letter from DEC (DEC ref. A4752757), dated 5 September 2006.	DoE		Design	Within four months following a decision to construct	Completed



Audit Code	Subject	Action	How	Evidence	Requirements of	Advice from	Phase	When	Status
655:P4.1:2	Greenhouse Gas Management Plan	Submit the Greenhouse Gas Management Plan to DoE	Including: Use of sources of renewable energy as far as is practicable. Calculation of the greenhouse gas emissions associated with the proposal, as indicated in 'Minimising Greenhouse Gas Emissions, Guidance for the Assessment of Environmental Factors, No 12' published by the Environmental Protection Authority. Specific measures to minimise the greenhouse gas emissions associated with the proposal. Monitoring of greenhouse gas emissions. Estimation of the greenhouse gas efficiency of the proposal in comparison with the efficiencies of other comparable projects producing a similar product. An analysis of the extent to which the proposal meets the requirements of the National Strategy using a combination of: "no regrets" measures, "beyond no regrets" measures, land use change or forestry offsets, and international flexibility mechanisms	1) Greenhouse Gas Management Plan to be submitted to DoE after the public comments have been considered 2) Evidence that any matters arising from public comment and advisory agency comments have been addressed. Letter from DEC dated 5 September 2006 (DEC ref. A4752757) stated that the management plan was accepted.	DoE	DoE (Air Quality Management Branch)	Design	Following the public review of the plan	Completed
655:P4.2	Greenhouse Gas Management Plan	Implement the Greenhouse Gas Management Plan		CR	DoE		Operation		Compliant
655:P5	Greenhouse Gases	Take all reasonable and practicable steps to obtain an electricity contract for the plant which will specify that the electricity will be sourced from gas-fired generating units at least 95% of the time		CR From 1 st November 2016, electricity was sourced from the general electricity market. Whilst sourcing electricity from the market, Water Corporation has purchased equivalent National Carbon Offset Standard accredited carbon credits to offset the difference in the estimated emissions intensity of its purchased electricity compared with an open cycle gas turbine.	DoE	OEPA	Operation		Compliant
655:P6.1:1	Draft Noise Management Plan	Make the draft Noise Management Plan available for public comment and provide evidence to the Department of Environment that any matters arising have been addressed		The plan was available for public comment prior to approval and clearance, which was received in a letter from DEC dated 7 March 2006.	DoE		Design	Within four months following a decision to construct	Completed
655:P6.1:2	Noise Management Plan	Submit the Noise Management Plan which includes detailed modelling of noise emissions and cumulative effect of emissions to DoE		1) Noise Management Plan to be submitted to DoE after the public comments have been considered 2) Evidence that any matters arising from public comment and advisory agency comment have been addressed. Letter from DEC dated 7 March 2006 stated that the management plan was accepted and the commitment met.	DoE	DoE (Noise Management Branch)	Design	Following the public review of the plan	Completed
655:P6.2:1	Noise Management Plan	Implement the Noise Management Plan		CR	DoE		Construction		Completed



Audit Code	Subject	Action	How	Evidence	Requirements of	Advice from	Phase	When	Status
655:P6.2: 2	Noise Management Plan	Implement the Noise Management Plan		CR Noise boundary survey completed in September 2019	DoE		Operation		Compliant – no complaints received.
655:P7.1: 1	Draft Hazardous Materials Management Plan	Make the draft Hazardous Materials Management Plan available for public comment and provide evidence to the Department of Environment that any matters arising have been addressed			DoE		Design	Within four months following a decision to construct	Completed
655:P7.1: 2	Hazardous Materials Management Plan	Submit the Hazardous Materials Management Plan to DoE		1) Hazardous Materials Management Plan to be submitted to DoE after the public comments have been considered 2) Evidence that any matters arising from public comment and advisory agency comment have been addressed. The Hazardous Materials Management Plan was submitted to and approved by the DER as part of the Consultative Environmental Management Plan (CEMP) for the Project. The plan was approved and managed under requirements of the site's Dangerous Goods licence. Refer to the letter from DEC dated 5 September 2006 (DEC ref. A475257).	DoE	DoIR	Design	Following the public review of the plan	Completed
655:P7.2: 1	Hazardous Materials Management Plan	Implement the Hazardous Materials Management Plan		CR	DoE		Construction		Completed
655:P7.2: 2	Hazardous Materials Management Plan	Implement the Hazardous Materials Management Plan		CR Managed under the requirements of the dangerous goods licence.	DoE		Operation		Compliant
655:P8.1	Ocean outlet for seawater return	Design the ocean outlet diffuser system and locate it to ensure the discharge complies with the requirements of the Revised Draft Cockburn Sound Environmental Protection Policy 2002 and the Revised Environmental Quality Criteria Reference Document (Cockburn Sound). The design is to be certified by an expert as soon as the optimised design of the diffuser is available		CR- ocean outlet diffuser system certified by expert Report showing compliance was submitted to the DEC on the 27 February 2006.	DoE		Design		Completed
655:P8.2	Ocean outlet for seawater return	Locate ocean outlet diffuser system to ensure the discharge complies with the requirements of the Revised Draft Cockburn Sound Environmental Protection Policy 2002 and the Revised Environmental Quality Criteria Reference Document (Cockburn Sound).		CR Discharge complies with EQCR. Diffuser monitoring results as per MMMP. Report showing compliance was submitted to the DEC on the 27 February 2006.	DoE		Construction		Completed



Audit Code	Subject	Action	How	Evidence	Requirements of	Advice from	Phase	When	Status
655:P9	Seawater return	Obtain an expert assessment of the likely stratification build up and any subsequent dissolved oxygen effects in the deeper area of Cockburn Sound		CR-Expert assessment findings DEC Letter dated 16th January 2009 acknowledges completion of commitment.	DoE		Design		Completed
655:P10.1	Whole effluent toxicity testing	Conduct WET testing of the high salinity seawater discharge including added chemicals (anti-scalants and biocides) as soon as the chemicals to be used and their likely dosing rates are known to a reasonable level of certainty. Conduct the testing following the principles contained in the USEPA, APHA and ASTM protocols at a NATA accredited laboratory in accordance with the protocols set out in ANZECC/ARMCANZ (2000) whole effluent toxicity protocols, at various concentration levels as stated in the Water Quality Management Plan. 2. Report the results of WET testing as described in commitment 10.1 to the DoE		CR DEC letter dated 9 May 2008 confirms requirements met.	DoE		Design		Completed
655:P10.2	Whole effluent toxicity testing	Report the results of WET testing as described in commitment 10.1 to the DoE		CR As above.	DoE		Design		Completed
655:P10.3	Whole effluent toxicity testing	Conduct WET testing of the high salinity seawater discharge as described in commitment 10.1 above 12 months after commissioning		CR As above.	DoE		Operation		Completed
655:P10.4	Whole effluent toxicity testing	Report the results of WET testing as described in commitment 10.3 to the DoE		CR As above.	DoE		Operation		Completed
655:P11.1	Vegetation, Declared Rare and Priority Flora and Fauna Habitat	Conduct a survey of product pipeline routes to determine final alignments to avoid areas identified by CALM or DoE		Survey findings DEC letter dated 7 April 2005 states commitment met.	DoE	CALM	Design	Spring season and prior to ground-disturbing activities	Completed
655:P11.2	Vegetation, Declared Rare and Priority Flora and Fauna Habitat	Conduct detailed surveys for Rare and Priority Flora, to contribute to the Flora and Fauna Management Plan		Rare flora and Priority Flora and Fauna Survey findings DEC letter dated 7 April 2005 states commitment met.	DoE	CALM	Design	Spring season and prior to ground-disturbing activities	Completed
655:P12	Nitrogen loading to Cockburn Sound	Prepare a management plan to ensure that the upgraded desalination plant is nitrogen-neutral relative to the 30 GL/a desalination plant		Management plan - Nitrogen loading to Cockburn Sound DEC letter dated 5 September 2006 states commitment met.	DoE	Cockburn Sound Management Council, Town of Kwinana, Town of Rockingham	Construction	Prior to operation	Completed
655:P13	Nitrogen loading to Cockburn Sound	Use Nitrogen-free alternatives for process chemicals where appropriate and practicable	Currently coagulant aid is the only chemical regularly used which contains a significant concentration of nitrogen. Most of the nitrogen binds to solids and is disposed with the solid waste stream.	CR	DoE	CSMC, Town of Kwinana, City of Rockingham	Operation		Compliant



Audit Code	Subject	Action	How	Evidence	Requirements of	Advice from	Phase	When	Status
			The use of the coagulant aid is minimised by the control system which automatically adjusts the dose rate of coagulant aid based on incoming water quality parameters. This ensures the use of the chemical is minimised in real-time.						



Table 2: Audit Table – MS832

Note:

- Phases that apply in this table = **Pre-Construction, Construction, Operation, Decommissioning, Overall** (several phases)
- This audit table is a summary and timetable of conditions and commitments applying to this project. Refer to the Minister's Statement for full detail/precise wording of individual elements.
- Code prefixes: M = Minister's condition; P = Proponent's commitment; A = Audit specification; N = Procedure.
- Any elements with status = "Audited by proponent only" are legally binding but are not required to be addressed specifically in compliance reports, if complied with.
- Acronyms list: Chief Executive Officer of the Office of the Environmental Protection Authority – CEO - OEPA; Office of the Environmental Protection Authority - OEPA; Perth Seawater Desalination Plant - PSDP

Audit Code	Subject	Action	How	Evidence	Satisfy	Advice	Phase	When	Status
832:M5.1	Compliance Reporting	The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the Chief Executive Officer (CEO) of the Office of the Environmental Protection Authority.		Compliance assessment plan submitted Dec 2010 Revised CAP submitted to OEPA March 2015	CEO - OEPA		Overall		Compliant
832:M5.2	Compliance Reporting	The proponent shall submit to the CEO of the Office of the Environmental Protection Authority, the compliance assessment plan required by condition 5-1 at least six months prior to the first compliance assessment report required by condition 5-6. The compliance assessment plan shall indicate: 1. the frequency of compliance reporting; 2. the approach and timing of compliance assessments; 3. the retention of compliance assessments; 4. reporting of potential non-compliances and corrective actions taken; 5. the table of contents of compliance assessment reports; and 6. public availability of compliance assessment reports.		This report	CEO - OEPA		Design	Six months prior to the first compliance assessment report required by condition 5-6	Completed
832:M5.3	Compliance Reporting	The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 5-1.	Annual compliance assessment report and Annual Internal Third Party Compliance Audit	This report. Annual internal audit upon completion of this draft report			Overall		Compliant
832:M5.4	Compliance Reporting	The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 5-1 and shall make those reports available when requested by the CEO of the Office of the Environmental Protection Authority.	Record keeping	Historical reports kept in Water Corporation's document management system, Nexus.	CEO - OEPA		Overall		Compliant
832:M5.5	Compliance Reporting	The proponent shall advise the CEO of the Office of the Environmental Protection Authority of any potential non-compliance as soon as practicable	Notify CEO of OEPA	Correspondence	CEO - OEPA		Overall	As soon as practicable	Compliant
832:M5.6	Compliance Reporting	The proponent shall submit a compliance assessment report annually from the date of issue of this Implementation Statement addressing the previous twelve-month period or other period as agreed by the CEO of the Office of the Environmental Protection Authority. The compliance assessment report shall: 1. be endorsed by the proponent's Managing Director or a person, approved in writing by the CEO of the Office of the Environmental Protection Authority, delegated to sign on the Managing Director's behalf; 2. include a statement as to whether the proponent has complied with the conditions; 3. identify all potential non-compliances and describe corrective and preventative actions taken; 4. be made publicly available in accordance with the approved compliance assessment plan; and 5. indicate any proposed changes to the compliance assessment plan required by condition 5-1.		Compliance Assessment Report	CEO - OEPA		Overall	Annually from the date of issue of this Implementation Statement Approval received 28 Oct 2014 from OEPA to amend reporting period to FY	Compliant
832:M8.1	Marine Water Quality	To protect the water quality of Cockburn Sound in accordance with the State Environmental (Cockburn Sound) Policy 2005 (SEP) the proponent shall operate the Perth Metropolitan Desalination Plant so that increases in the intensity and/or duration of density stratification do not cause declines in dissolved oxygen of bottom waters, defined as less than or equal to 0.5 metres above the seabed, to 60% saturation (24 hour running median) or less in the high and/or moderate protection areas of Cockburn Sound as defined by the SEP. This will be achieved by the proponent: 1. Developing and implementing a monitoring plan to the satisfaction of the CEO of the Office of the Environmental Protection Authority. Monitoring will include dissolved oxygen levels of the bottom waters (as defined above) and other parameters relating to dissolved oxygen levels in Cockburn Sound. The monitoring plan will also consider the parameters necessary to define the spatial extent, characteristics and persistence of the Plant plume; and	Develop a monitoring plan to the satisfaction of the CEO of the OEPA. Monitoring will include dissolved oxygen levels of the bottom water and other parameters relating to dissolved oxygen levels in Cockburn Sound. The monitoring plan will also consider the parameters necessary to define the spatial extent, characteristics and persistence of the plant plume.	Marine Monitoring and Management Plan (MMMP) signed by the OEPA on 28 February 2011. PSDP Marine Operational Monitoring Procedure endorsed by the OEPA on 6 June 2012. Report on MMMP results submitted to the OEPA 15 August 2013.	CEO - OEPA		Overall		Completed



		2. Undertaking a management response to the satisfaction of the CEO of Office of the Environmental Protection Authority if the monitoring required by condition 8-1-1 detects declines in dissolved oxygen of bottom waters, defined as less than or equal to 0.5 metres above the seabed, to 60% saturation (24 hour running median) or less in the high and/or moderate protection areas of Cockburn Sound		Letter received from OEPA dated 1 April 2014 stating monitoring required under this condition can cease. Revert to monitoring required under MS655.2-2					
832:M8.2	Marine Water Quality	To provide a basis for the Minister for Environment and the Minister for Water to review the requirement for further monitoring and management, the proponent shall implement the monitoring plan required by condition 8-1-1 for a continuous period extending over at least two autumn periods	Implement monitoring plan as required by condition 8.1.1	Monitoring plan successfully implemented. Summary report submitted and advice received from OEPA that monitoring can cease (Letter dated 1 April 2014).	CEO - OEPA		Overall	Over at least two autumn periods	Completed



7 Appendices

Appendix 1 – Photographs – Environmental Improvement Initiatives



Figure 1: Rubbish collected during the December 2020 beach clean-up event.



Figure 2: Staff involved on beach clean-up event.



Figure 3: Tree planting event in June 2021. 860 plants were installed.