



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Dampier Salt Limited

Licence: L7178/1997/11

Registered office: 37 Belmont Avenue
BELMONT WA 6104

ACN: 008 706 590

Premises address: Dampier Salt – Lake Macleod
AML 70/245, Blowholes Road
CARNARVON WA 6701

Issue date: Thursday, 1 October 2015

Commencement date: Sunday, 4 October 2015

Expiry date: Friday, 3 October 2025

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue a licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Christine Pustkuchen
Licensing Officer

Decision Document authorised by: Alana Kidd
Delegated Officer



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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER’s decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER’s assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent’s responsibility to ensure they have all relevant approvals for their Premises.

2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/> New Licence <input type="checkbox"/> Licence Reissue <input checked="" type="checkbox"/> Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises.	Category number(s)	Assessed design capacity
	14	3 100 000 tonnes per annum
	58	50 000 tonnes per day
	58A	84 000 tonnes per day
	64	60 tonnes per annum
80	500 000 tonnes per annum	
Application verified	Date: 19/08/2015	
Application fee paid	Date: 31/08/2015	
Works Approval has been complied with	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
Compliance Certificate received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome		
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>



Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.		

3 Executive summary of proposal and assessment

The Lake MacLeod site has operated since the 1960's under the *Evaporites (Lake MacLeod) Agreement Act 1967*, Dampier Salt Limited took control of the premises in 1978. The premises is located within the Shire of Carnarvon and is approximately 50 kilometres north of Carnarvon. It is located on Mining tenement AML 70/245 which covers approximately 220 000 hectares of land, covering the majority of Lake MacLeod.

Category 14 & 58A– Salt Manufacturing and bulk loading operation

The saturated brine contained in Lake MacLeod is approximately 10 times saltier than normal seawater, eliminating the need for a series of concentration ponds normally required at other salt mines to evaporate water to reach “salting” point (sodium chloride saturation).

A collection ditch has been cut into the halite layer to recover brine from Lake MacLeod. The brine is pumped at an average rate of 55 cubic metres per minute from the collection ditch into 8.5 kms of transport channel to a common collection point. There are thirty three crystallisers, averaging 23 ha each, used for salt production. Once deposited in the crystallising ponds the brine is further evaporated and salt is deposited on top of a pre-formed floor of salt. Deposition is stopped by draining the remaining brine when about three quarters of the sodium chloride has been deposited and before other salts come out of solution in significant quantities. The residual brine is called bitterns and contains high concentrations of potassium, magnesium and other salts. Bitterns are discharged from the crystallisers into a holding pond on the lake's surface where the water is evaporated. The resulting solid bitterns represent a significant resource which is also harvested.

Harvesting of salt is carried out using a laser controlled salt cutter with an average capacity of 1000 tonnes per hour discharging directly into three 60 tonne trailers hauled by a prime mover. The harvested salt is then washed at the salt wash plant to remove impurities off the salt. Once washed the salt is stockpiled and allowed to drain for approximately 6 weeks for the moisture content to fall below 2.5 %. Once the salt has finished draining, it is hauled by road trains, 24 km to a 200 000 tonne stockpile at Cape Cuvier for shipment. Reclaim for ship loading is by dozers which push the salt into a hopper, which then feeds to a conveyor system under the stockpile. The conveyor system transports the salt to the ship loader which feeds the salt onto the vessel at the wharf.

The premises production capacity can vary significantly depending on weather conditions. Dampier Salt Limited wishes to increase the approved premises capacity by 200 000 tonnes per year from 2 900 000 to 3 100 000 tonnes per year as part of this reissue. The increase is due to the reinstatement



of crystalliser F1 in 2012 (no significant works were required for this increase and therefore was not subject to a works approval).

An increase in the approved capacity for category 58A – bulk material loading or unloading (salt) has also been assessed as part of this reissue. No additional works has been carried out. The maximum rate of the CV3 conveyor for the ship loader is 3500 SPT/hour, this equates to a maximum capacity of 84 000 tonnes per day. Due to the requirements to move ships during loading it is unlikely that the maximum capacity would be achieved and it is expected that approximately 77 000 tonnes per day will be shipped.

Category 80 & 58- Gypsum Mining and bulk loading operation

Dampier Salt Limited wishes to re-commence its Gypsum mining operation on a campaign basis over approximately 250 days. Gypsum mining is carried out on the premises by excavation of raw gypsum from the lake surface. This is achieved through using an excavator and truck mining method. As mobile equipment is used on the dry lake surface, mining is planned to be completed during the dry period when there is no flooding of the lake. Following excavation, heap leaching of the gypsum stockpiles occurs with sprinklers using bore and fresh water (the latter produced from bore water using a reverse osmosis plant at the gypsum facility) on existing gypsum leach pads. This washes sodium chloride (salt) minerals from the gypsum stockpiles to the required levels of less than 150 parts per million chloride. The gypsum is then transported to Cape Cuvier where it is stockpiled and shipped at an annual production rate of approximately 500 000 tonnes per annum.

The gypsum operation was originally operational, under Category 12, in 1997 until 2008 when it ceased. Due to a re-evaluation of the market for the gypsum product from Lake MacLeod, it is proposed to re-establish mining operations under Category 80 (W5269/2012/1). Category 80 has been added to the licence during this reissue. A change to the approved premises capacity for Category 58 – bulk material loading or unloading (other than salt) has been made as part of this reissue to correct an error on the previous licence version. The maximum capacity for category 58 should be 50 000 tonnes which is based on the maximum size ship used for Gypsum shipments.

Category 64 - Landfill

The Lake Macleod operation disposes of inert waste and tyres at a landfill area on the premises. Some putrescible waste, in the form of used timber, is also disposed of at the landfill. All other wastes, including putrescible from the offices and crib rooms, are sent off site to the Shire of Carnarvon landfill facility in Carnarvon. The landfill facility uses a deep trench of around 3 to 4 metres deep to dispose of waste.



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	L1.2	<p>Condition 1.2.1 requires pollution control and monitoring equipment to be maintained. This condition replaces condition 4 on the previous Licence.</p> <p>Condition 1.2.2 requires the recovery and disposal of spills. This condition replaces Condition 9 and 11.</p> <p>Condition 1.2.3 has been added to the Licence to replace conditions 2, 3 and 12, which relate to preventing stormwater run-off from becoming contaminated by the operations. Condition 1.2.3 will ensure that contaminated stormwater will be treated prior to disposal off-site.</p> <p>Conditions relating to storage of environmentally hazardous chemicals such as fuel have been removed from the new format licence (i.e. old condition 5). This is as a result of a change in DER policy regarding the regulation of low risk environmentally hazardous chemical storage.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p><i>Environmental Protection (Unauthorised discharges) Regulations 2004</i>.</p>
Premises operation	L1.3	<p>Condition 1.3.1 sets out the process requirements for managing wastes produced and landfilled onsite. This condition replaces conditions 13 (waste acceptance), 15(i), 15(ii), 15(vi) (landfill operational requirements) and 16 (tyres).</p> <p>Condition 1.3.2 sets out cover requirements at the landfill. This condition replaces conditions 15(iii) and 16(iv).</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p><i>Environmental</i></p>



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Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>Condition 1.3.3 relates to the management of windblown wastes. This condition replaces conditions 15(iv) and 15(v).</p> <p>Condition 1.3.4 relates to fires at the landfill facility. This condition replaces condition 14.</p> <p>Condition 1.3.5 has been added to the licence to ensure that bitterns are contained within the bitterns holding ponds onsite and is not discharged anywhere else. The bitterns holding ponds have been constructed in the same way as the site's processing ponds (crystallisers), where a section of the lake's surface has been enclosed with an earthen levee. Dampier Salt has stated that the water within the holding ponds is evaporated and the resulting solid bitterns are a significant resource which has been identified as meeting quality specification for a number of customers and has been harvested directly from the holding ponds for sale since 2013. As a result bitterns have not been considered a discharge as part of this reissue.</p> <p>Hydrocarbon contaminated soil is treated onsite at a bioremediation facility. It is constructed on an old borrow pit area and has a compacted earthen floor and bund. A premises operation condition relating to soil remediation occurring within landform cells have been added to the licence (Condition 1.3.6).</p>	<p><i>Protection (Unauthorised discharges) Regulations</i></p> <p>Contaminated Sites Management Series, Bioremediation of hydrocarbon-contaminated soils in Western Australia (Department of Environment, October 2004).</p>
Emissions general	L2.1.1	Descriptive limits will be set through conditions of the licence and therefore condition regarding recording and investigation of exceedances of limits has been included.	N/A
Point source emissions to air including monitoring	N/A.	There are no point source emissions to air from the premises. No specified conditions relating to point source emissions to air has been included in the licence.	N/A.
Point source emissions to surface water		Condition 2.2.1 authorises discharge points to surface water (Lake MacLeod). This condition replaces condition 1 from the previous licence. Bitterns holding ponds have been removed as a discharge point (see premises operation section). Additional	General provisions of the <i>Environmental</i>



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Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
including monitoring		<p>discharge points have been added to ensure all previously approved discharges to surface water associated with the salt operations is captured by the licence. These discharge points are Discharge point 4 (Outlet pipe into Lake MacLeod from truck wash bay, Lube bay and RO plant at salt operations) and Discharge point 5 (outlet pipe into ocean from truck wash bay at Cape Cuvier).</p> <p>Condition 3.2.1 set out monitoring required for discharge points 4 and 5 (monitoring of total recoverable hydrocarbons (TRH) in truck wash bay discharge into lake Macleod and ocean at Cape Cuvier). This condition replaces condition 18 on the previous licence version. The frequency of monitoring has been increased from six months to quarterly. This will ensure the monitoring results provide a more accurate description of the TRH level within the discharge.</p> <p>Condition 2.2.2 has also been added to the licence to ensure the level of TRH within the wastewater discharges is below 15mg/L. This brings the licence in line with Dampier Salt's other similar licences (L7183 and L7182) and Water Quality Protection Note 68.</p> <p>Operation Two new discharge points to Lake MacLeod have been assessed as part of this reissue. Gypsum Discharge points 1 & 2 have arisen from the works approval for the reinstatement of the gypsum operations onsite.</p> <p><u>Emission Description</u> <i>Emissions:</i></p> <ul style="list-style-type: none"> Discharge of wastewater from heap leach pads (at stockpile 1 and stockpile 8) into Lake MacLeod. Approximately 1600-2200m³/day is discharged over the leaching period (6-8 months of the year) (discharge points 1 & 2). Hydrocarbon spills and leaks from mobile equipment to the lake surface. <p><i>Impacts:</i></p>	<p><i>Protection Act 1986.</i></p> <p><i>Environmental Protection (Unauthorised discharge) Regulations</i></p> <p>Application supporting documents</p> <p>Water Quality Protection Note 68 Mechanical equipment washdown (Department of Water, March 2006).</p>



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Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<ul style="list-style-type: none"> Impacts to fringing vegetation at the discharge point due to isolated localised flooding of the area. Impact to lake water quality from hydrocarbon spills <p><i>Controls:</i></p> <ul style="list-style-type: none"> Photographic monitoring of heap leach pad leachate discharge areas to monitor impact; Refuelling of mobile equipment will be conducted by mobile trucks that are equipped with spill kits; Major servicing of equipment will not occur on the lake; No mining operations will be conducted during flood conditions reducing the risk of hydrocarbon spills reaching sensitive receptors such as the Northern Ponds; and All spills will be cleaned as per the Dampier Salt Hydrocarbon spill response procedure. <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p>Heap leaching will be undertaken with sprinklers and bore water and desalinated water supplied from the onsite reverse osmosis (RO) plant. The pads are located adjacent to Lake Macleod from which the gypsum is sourced and leached with local groundwater (mixed with water from RO plant). No chemicals or other materials are added to the process. The discharge consists of sodium chloride component of the extracted gypsum with the addition of saline groundwater and RO water and therefore has a lower salinity level than lake water however other parameters are expected to be similar. The discharge from the leaching pads is not considered to pose a significant environmental risk as the constituents of the leachate is expected to be similar to the receiving environment. All water from the facility is contained by the trench surrounding</p>	



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		<p>the pads which drain the water to the lake surface.</p> <p>Dampier Salt has stated that no significant impacts were observed during the previous gypsum mining operation. To monitor the impacts of the discharge Dampier Salt propose to conduct quarterly photographic monitoring of the discharge area. Monitoring points will be established at the discharge point to cover areas of potential impact. The frequency of the photographic monitoring will be evaluated after two years of operation.</p> <p>The use of excavators for mining gypsum will create potential for hydrocarbon spills on the lake surface. The management measures proposed by Dampier Salt will ensure that the risk to the local lake environment from hydrocarbon spills is low.</p> <p><u>Regulatory Controls</u> Condition 3.2.1 has been added to the licence requiring Dampier Salt to undertake six monthly monitoring at the gypsum discharge points for the following parameters: chloride, sulfate, sodium, magnesium, potassium, calcium, total suspended solids, arsenic, beryllium, boron, cadmium, chromium, copper, fluoride, lead, mercury, nickel, total nitrogen, total phosphorus, electrical conductivity and pH. This will allow Dampier Salt to demonstrate that the constituents of the discharge is similar to the receiving lake environment as expected.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p>	
Point source emissions to groundwater including	N/A.	There are no point source emissions to groundwater from the premises. No specified conditions relating to point source emissions to groundwater have been included in the licence.	N/A.



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monitoring			
Emissions to land including monitoring	L2.3	<p>Condition 2.3.1 authorises discharges to land and has been added to the licence to ensure all previously approved discharges to land associated with the salt operations is captured by the licence. The new discharge points are; Discharge point 6 (Biomax treated wastewater Irrigation area), Discharge point 7 (seepage from unlined lab neutralisation pit) and Gypsum Discharge Point 3. Discharge points 6 & 7 have not been re-assessed as part of this reissue.</p> <p>Operation Discharges to land that have been assessed as part of this reissue relate to the new gypsum mining operation. This includes Gypsum Discharge Point 3.</p> <p><u>Emission Description</u> <i>Emission:</i></p> <ul style="list-style-type: none"> • Discharge of leachate from base of heap leaching pads and trenches to land; • Spills and leaks of hydrocarbons; and • Discharge of possible hydrocarbon contaminated stormwater/wash water to land from the gypsum fuel facility/truck wash into a sandy sump (Gypsum Discharge Point 3). <p><i>Impact:</i> Contamination of soil and groundwater. <i>Controls:</i></p> <ul style="list-style-type: none"> • Appropriate design of heap leach pad base and trenches (compacted subsoils and in-situ material); • Appropriate design of hydrocarbon storage area; and • Treatment of hydrocarbon contaminated stormwater/truck wash water via a triple interceptor prior to discharge. <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p><i>Environmental Protection (Unauthorised discharge) Regulations</i></p> <p>Application supporting documents</p> <p>Water Quality Protection Note 68 Mechanical equipment washdown (Department of Water, March 2006).</p>



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		<p><i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p>The base of the heap leach pads have been constructed from compacted subsoils and in-situ material which has been built up with low grade gypsum material to ensure that there is minimal seepage from the heap leach pads. Under abnormal operations (base of pad malfunctions or high leachate load) seepage may occur from the base of the pad. Seepage from the base of the pads in not considered to pose a significant environmental risk as the nature of the leachate is similar to the lake water and groundwater within the receiving saline environment.</p> <p>Hydrocarbons (diesel, oils, greases etc.) will be used during the mining and processing operations by light and heavy vehicles as well as miscellaneous equipment such as generators. All hydrocarbons will be stored in the fuel facility previously in use at the gypsum operation. All hydrocarbon storage and dispensing facilities have been constructed in compliance with Australian Standard 1940-2004. Waste oils are stored in a bunded facility and are removed from the site by a licensed carrier.</p> <p>All contaminated stormwater that falls within the gypsum fuel facility and truck wash water is captured and treated via a triple interceptor prior (cleaned as required) to discharge to a sandy sump (Gypsum discharge point 3). The volumes of water discharged are expected to be minimal. The discharge location is within a sandy sump that previously received the concentrated discharge from the Reverse Osmosis plant. The sump also acts as a dam to capture any overflow from the artesian water storage dam.</p> <p><u>Regulatory Controls</u> Condition 1.2.2 replaces existing conditions 9 & 11 to ensure all spills of environmentally hazardous materials are cleaned up as soon as practicable.</p>	



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		<p>Condition 3.3.1 has been added to the licence to include monitoring of the wastewater from Gypsum discharge point 3 (L3). A limit has also been added to the licence (condition 2.3.2) to ensure the level of total recoverable hydrocarbon within the wastewater discharge to the sump will be below 15 mg/L. This brings the licence in line with Dampier Salt's other similar licences (L7183 and L7182) and Water Quality Protection Note 68.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p>	
Fugitive emissions		<p>Operation <u>Emission Description</u> <i>Emission:</i> Fugitive dust emission from gypsum stockpile at Cape Cuvier port and from levees and haul roads. <i>Impact:</i> Nuisance dust potentially impacting on the marine environment. Reduced visual amenity with dust clouds visible from long distances over water. There are no nearby residences, closest being 10 km away. <i>Controls:</i> Dampier Salt Ltd has committed to undertaking the following dust management measures at the gypsum stockpile;</p> <ul style="list-style-type: none"> • Schedule gypsum haulage (uncovered trucks) and stockpiling at Cape Cuvier around the arrival of ships (to minimise stockpiling time); • Transport just enough material to load onto the ship so no long term stockpiling of gypsum; • Target loading and shipping to the lowest wind speed months where practicable; • As much as practicable, hauling, stacking and ship-loading of gypsum will be scheduled to occur in the lowest wind-speed months of 1 April to 1 September 	<p>Gypsum Operations Dust Management Plan, doc number JA-MPL-1462</p> <p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p>Application supporting documents</p>



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		<p>(there is a weather station on site);</p> <ul style="list-style-type: none"> • During transporting and stockpiling, gypsum ships will, as much as is practicable be scheduled consecutively at Cape Cuvier; • Gypsum operations will also be reduced or halted at the discretion of the Production Supervisor if dust levels become excessive due to high wind speeds;and • Water cannot be used for dust suppression on the stockpile due to the moisture requirement of the gypsum product. <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p> <p>Along with the proposed dust management controls and the distance to sensitive receptors (Quobba Homestead, which is approximately 10 km west of the salt facility and 20 km south of the port facility at Cape Cuvier) it is unlikely that dust emissions will have a significant impact on the surrounding environment.</p> <p>A Marine Impact Assessment was conducted at Lake MacLeod in 2010 by consultants MScience. The purpose of this study was to assess the level of impact wind derived gypsum has on the local marine environment at Cape Cuvier Port. The study concluded that it appears unlikely that the marine environment at Cape Cuvier has been significantly impacted by the gypsum deposited into the local marine environment from wind erosion off the existing gypsum stockpile. Consultants MScience stated that as the natural mined gypsum of Lake McLeod has only trace amounts of other contaminants of concern (e.g. copper, chromium and lead), well below guideline levels (e.g. ANZECC and NAGD); it is unlikely that contamination has occurred. The lack of influence is also evidenced by an observed 'healthy' coral habitat within the reef zone found at the base of the Cape Cuvier cliffs within the port area.</p>	



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		<p>This assessment supports the assumption that stockpiling of gypsum prior to shiploading from the new gypsum operation will not have a significant impact on the local marine environment.</p> <p><u>Regulatory Controls</u> Condition 17 on the old format Licence has been removed from the licence. This condition required photographs to be taken on a quarterly basis at 5 locations at Cape Cuvier to monitor the impact of dust from the existing gypsum stockpile on the surrounding marine environment. These photographs have not been useful in determining the impact of dust on the environment at the Cape and therefore this condition has been removed from the licence.</p> <p>Fugitive dust conditions 6, 7 and 8 on the previous licence have been removed from the licence. These conditions have been replaced by Condition 2.4.1. Dampier Salt has committed to implementing their internal dust management plan (Gypsum Operations Dust Management Plan, doc number JA-MPL-1462) to ensure dust emission do not significantly impact the local environment. Condition 2.4.1 has been added to the licence requiring Dampier Salt to comply with their Dust Management plan at all times.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p>	
Odour	N/A.	There are no odour emissions from the premises. No specified conditions relating to odour emissions have been included in the licence.	N/A.
Noise	N/A.	<p>Operations</p> <p><u>Emission Description</u> <i>Emission:</i> Noise emissions from mobile equipment such as excavators at Lake MacLeod, loading and unloading activities at the gypsum operation and Cape Cuvier.</p>	Environmental Protection (Noise) Regulations 1997



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		<p><i>Impact:</i> Nuisance noise impacting nearby sensitive receptors. <i>Controls:</i> Separation distance from sensitive receptors.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p>Due to the gypsum mining operation occurring on a campaign basis (6-8 months of the year) and the distance to nearby sensitive receptors (12km away from Quobba Station) it is unlikely that noise emissions will have a significant impact on the local environment.</p> <p><u>Regulatory Controls</u> No specified conditions regarding noise emission are required to be added to the licence. Dampier salt will be required to comply with the Environmental Protection (Noise) Regulations 1997.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p>	
Monitoring general	L3.1.1-3.1.4	<p>Condition 3.1.1 are included on licences where monitoring is required. This condition replaces Conditions 19 and 20 on the previous licence.</p> <p>Condition 3.1.2-3.1.4 are conditions that are included on licences where emission monitoring and ambient quality monitoring is required.</p>	Australian Standard AD/NZS 5667.1 – Water Quality Sampling – Guidance on the Design of sampling,



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			programs, sampling techniques and the preservation and handling of samples.
Monitoring of inputs and outputs	N/A.	Monitoring requirements for inputs and outputs have not been re-assessed as part of this reissue. As the previous Licence did not have conditions requiring input and output monitoring no specified conditions have been included in this section.	N/A.
Process monitoring	N/A.	Monitoring requirements for process monitoring have not been re-assessed as part of this reissue. As the previous Licence did not have conditions requiring input and output monitoring no specified conditions have been included in this section.	N/A.
Ambient quality monitoring	L3.3.1	No Ambient quality monitoring conditions are required to be added to the licence. Condition 17, which required photographs to be taken on a quarterly basis at 5 locations at Cape Cuvier to monitor the impact of dust from the existing gypsum stockpile on the surrounding marine environment, has been removed from the licence. These photographs have not been useful in determining the impact of dust on the environment at the Cape and therefore are unnecessary.	General provisions of the <i>Environmental Protection Act 1986</i> . <i>Environmental Protection (Unauthorised discharges) Regulations 2004</i>
Meteorological monitoring	N/A.	Monitoring requirements for meteorological monitoring have not been re-assessed as part of this reissue. As the previous Licence did not have conditions requiring meteorological monitoring no specified conditions have been included in this section.	N/A.
Improvements	N/A.	No improvement conditions are required to be added to the licence.	N/A.
Information	L4	Condition 4.2.1 and 4.2.2 relates to the requirement of an Annual Environmental Report (AER) (which includes the Annual Audit Compliance report (AACR)) to be	N/A.



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		submitted at the end of the annual period. This Condition replaces Conditions 21(a), 21(b) and 22 of the previous Licence. Condition 4.3.1 relates to the notification of a licence limit to the CEO.	
Licence Duration	N/A.	As emissions have been re-assessed it is considered appropriate to extend the licence duration to 10 years. DER has considered licence duration consistent with its guidance statement: <i>Licence Duration</i> , DER, May 2015 and determined that the licence will be issued for a period of 10 years.	Guidance statement: <i>Licence duration</i> , DER, May 2015



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
22/09/2015	Proponent sent a copy of draft instrument.	Response to questions within documents received.	Responses noted and changes made where applicable



6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High