HUTCHISONPORTS

Annual Environmental Management Report 2020/2021

V01

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Version No.		Description of amendments	Prepared by	Approved by	Date
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Annual Environmental Management Report

Title Block

Name of Operation	Sydney International Container Terminals Pty Ltd
Name of Operator	Sydney International Container Terminals Pty Ltd
Development Consent #	DA-494-11-2003i
Name of holder of development consent	Sydney Ports Corporation / Port Botany Operations Pty Limited
Environmental Licence #	20322
Name of holder of EPA Licence	Sydney International Container Terminals Pty Ltd
Commercial Trade Wastewater Permit #	37958
Name of holder of Permit	Port Botany Lessor Pty Ltd (SICTL Terminal)
Annual Review start date	1 September 2020
Annual Review end date	31 August 2021

I, Dozie Egeonu, declare that I have reviewed the contents of the attached Compliance Report and to the best of my knowledge:

i. the Compliance Report has been prepared in accordance with all relevant conditions of consent;
ii. the Compliance Report has been prepared in accordance with the Compliance Reporting Requirements;
iii. the findings of the Compliance Report are reported truthfully, accurately and completely;
iv. due diligence and professional judgement have been exercised in preparing the Compliance Report; and
v. the Compliance Report is an accurate summary of the compliance status of the development.

Name of authorised reporting officer	Dozie Egeonu
Title of authorised reporting officer	Environmental Engineer
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Signature of authorised reporting officer	
Date	26 October 2021

Acronyms and Glossary

Term	Description
AEMR	The Annual Environmental Management Report
Automated Stacking Cranes (ASC)	An automated crane used to stack containers received either from the landside or waterside exchange areas into rows, lines and blocks. Locations are allocated and controlled by the terminal operating system.
Development Consent	Instrument of Development Consent DA-494-11-2003-i.
DG	Dangerous Goods.
DPIE	The NSW Department of Planning and Infrastructure.
EIS	Environmental Impact Statement.
EMP	Environmental Management Plan
EPA	Environmental Protection Authority (NSW)
ERP	Emergency Response Plan
HD	Hayes Dock
OEMP	Operational Environmental Management Plan. A document within the HSEQ Management System outlining the requirements, methods and goals of environmental management during the operation of the SICTL terminal.
PBCCC	Port Botany Community Consultative Committee
PBLIS	Port Botany Landside Improvement Strategy
PBROG	The Port Botany Rail Optimisation Group (PBROG) provides advice to Transport for NSW (TfNSW) on strategies and actions to optimise the movement of containers by rail to and from the container terminals at Port Botany.
Quay crane (QC)	A crane purpose-built for the loading and unloading of cargo from ships which is mounted on rails on the wharf and can move along the wharf on these rails.
Reachstacker	An item of plant used to pick up and carry containers with its telescopic arm and spreader. Used to handle OOG cargo, rail cargo and any containers not travelling through the ASC area.
Shuttle carrier (SC)	An item of mobile plant used to transport containers from the quay cranes to the ASC stacks or to the exchange pads, capable of stacking containers two-high.
Spreader	A device used by quay cranes, shuttle carriers or reachstackers which enables these machines to lift and carry containers safely.
SQID	Stormwater Quality Improvement Device
TEU	Twenty-foot Equivalent Unit, the accepted measure of container throughput and equal to one 20-foot (6.1m) long container. One 40-foot container is equals 2 TEU.
TfNSW	Transport for NSW
VOC	Verification of Competency

1 Statement of Compliance

The purpose of the 2021 Annual Environmental Management Report (AEMR) is to undertake an assessment and review of compliance and the effectiveness of environmental measures required under condition C4.2 of the Development Approval (DA) Consent 494-11-2003-i for Sydney International Container Terminals Pty Ltd (SICTL) Terminal 3 area at the Port Botany Expansion (PBE) Project. The report is for the period between 1 September 2020 and 31 August 2021.

The overall assessment of environmental performance for this reporting period demonstrated a high level of compliance with the Development Consent conditions.

A comprehensive table with compliance status of all Project Approval conditions is included in *Appendix A*. A summary of the AEMR findings regarding compliance to the DA is presented in *Table 1.1.*

Table 1.1 Summary of Compliance

Relevant Approval	No. of Non-Compliant	Condition	Compliance requirement	Summary of Non-compliant	Where addressed in AEMR
DA-494-11-2003-i	0	-	-	-	-

2 Introduction

Background

This Annual Environmental Management Report (AEMR) by Sydney International Container Terminal Limited (SICTL) details the environmental performance of the Terminal from 1 September 2020 to 31 August 2021.

The AEMR is prepared to meet the requirements of Schedule C, Condition C4.2 of the Terminal's DA Consent 494-11-2003-i. The report reviews the environmental management and compliance status of the site in relation to the conditions of the DA Consent.

The document is compiled in accordance with the Compliance Reporting; Post Approval Requirements (2020) published by *NSW Department of Planning, Industry and Environment.*

Site Overview

SICTL is located at B150-160 Sirius Road (off Foreshore Road), Botany, New South Wales (NSW) 2019 within Terminal 3 which is part of NSW Ports' Port Botany Expansion (PBE) Project that also includes other port operators and terminals. The SICTL Terminal 3 is situated parallel to the runway at Sydney International Airport. The site occupies an approximate area of 63 hectares, extending 550 metres west and 1,300 metres north of the existing northern quay of Brotherson Dock.

SICTL operates a modern international container terminal at Port Botany with key features being a 1300m Quay Line and two Rail Sidings equal to 1.6km of track. The terminal commissioning of container handling equipment and infrastructure commenced in July 2013, with the handover to Operations in September 2013. The terminal vessel and truck operations and services to shipping lines commenced in November 2013.

The SICTL terminal has become progressively operational since 2013 with the following key infrastructures:

- Administrative building;
- Automated Stacking Crane (ASC);
- Engineering and Maintenance building – includes workshop and washing bay;
- Vessel berths HD1 and HD2;
- Four Quay Cranes (QCs);
- Shuttle carriers;
- Reachstackers;
- Railway sidings;
- Container yards, including Truck grids; and
- Stormwater treatment installations.

Figure 1 - Development Consent Area – leased by Sydney International Container Terminals Pty Ltd

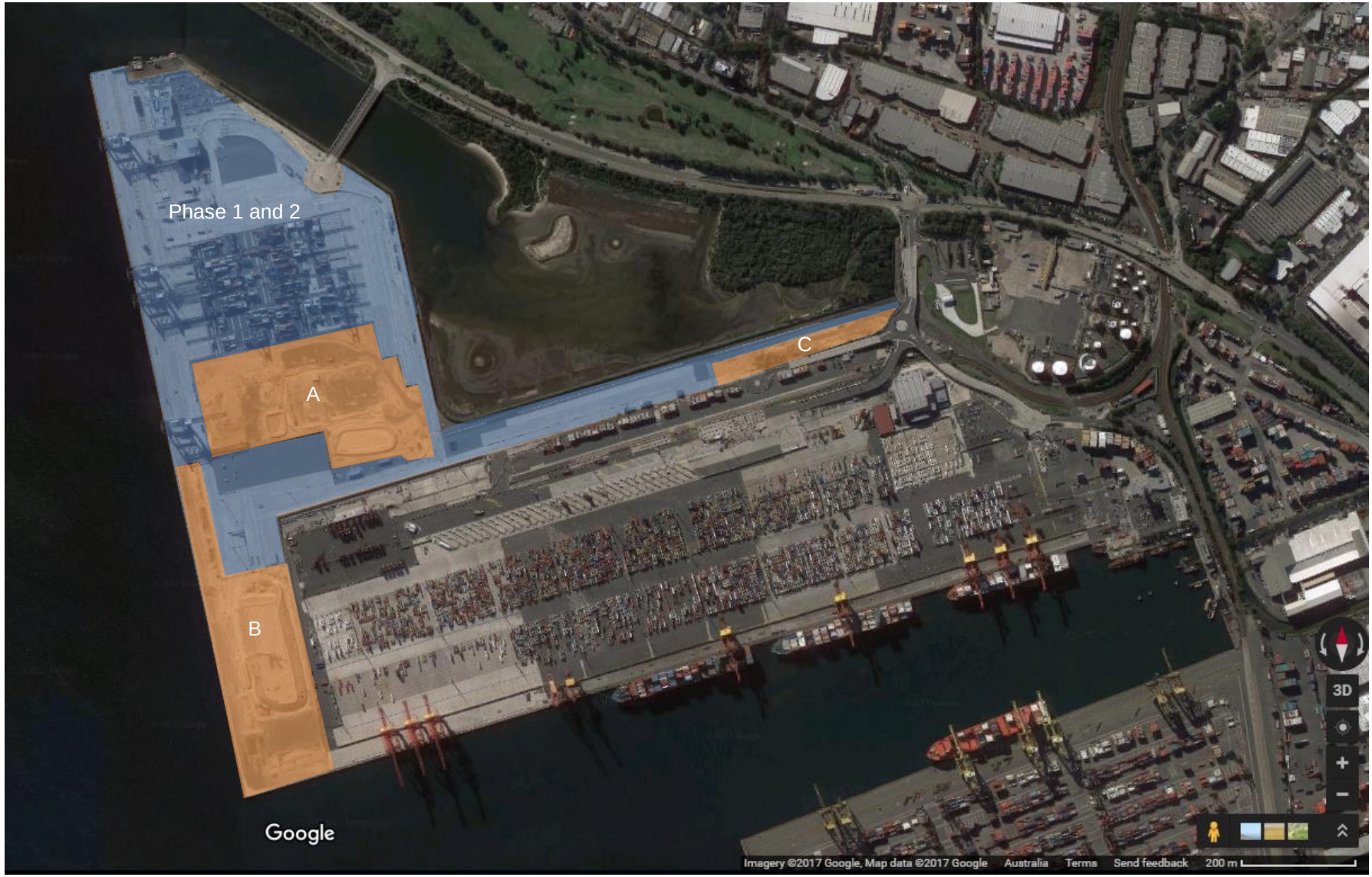


Figure 2 - Current Operational Areas **Future Construction Areas**

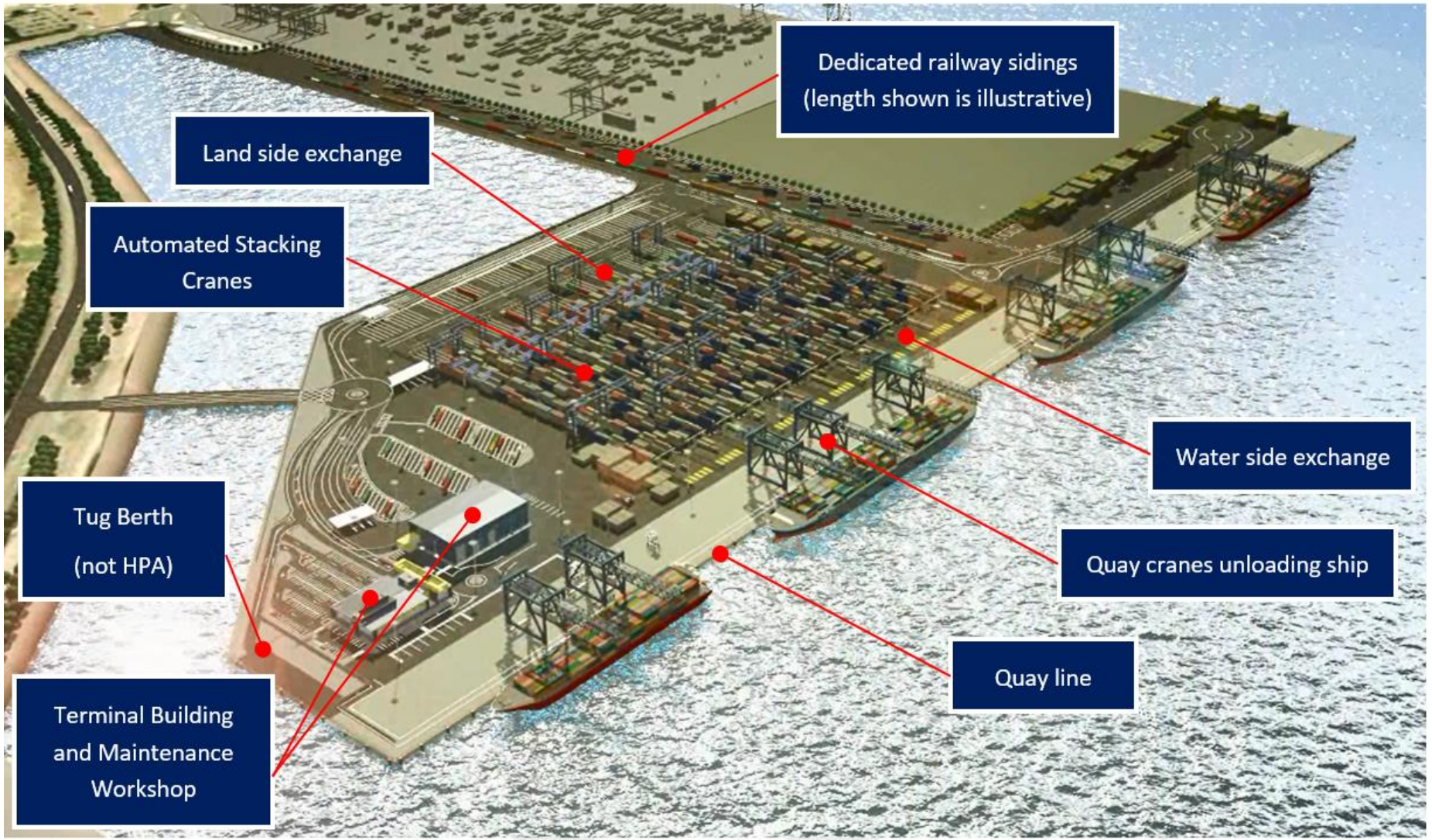


Figure 3 – Layout of the SICTL terminal

3 Approvals

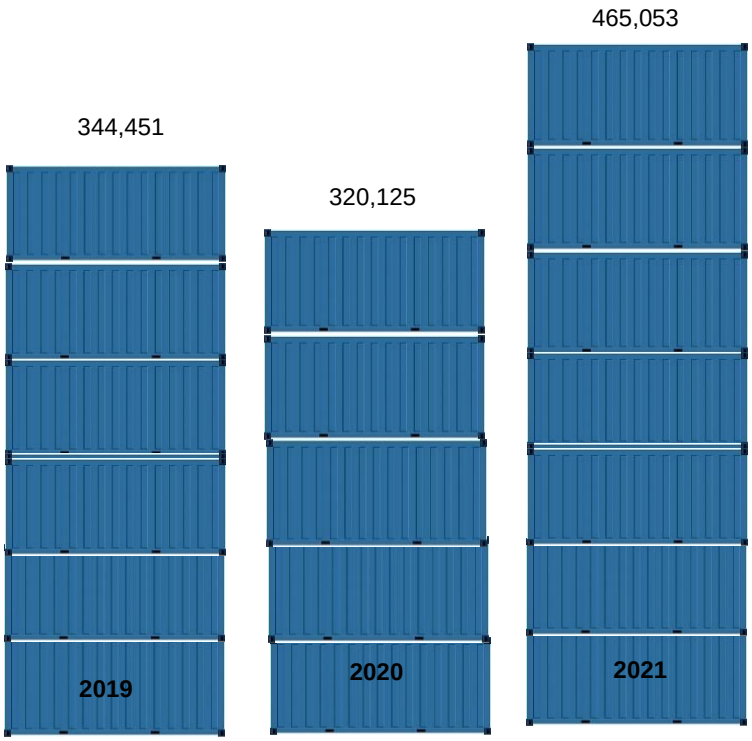
Table 3.1, below lists all approvals currently held by SICTL which are relevant to the operations, and any changes to those approvals that occurred during the reporting period.

Table 3.1 List of approvals at SICTL

Approval Name and Reference	Issue Date	Changes for this reporting period
Development Consent # DA-494-11-2003i Mod17	19 September 2019 *Determination Date*	No change
EPA Licence # 20322	14 October 2013	No change
Commercial Trade Wastewater Permit #37958	15 October 2014	No change

4 Operations Summary

4.1 Terminal Operations



TEU volume for the reporting is 45% increase from previous year. During this reporting year SICTL secured two additional shipping line service contracts which drove the increase in the container throughput.

Figure 4 - TEU Throughput comparison by reporting period: 1 September – 31 August

	2019 Containers Handled	2020 Containers Handled	2021 Containers Handled
	85%	87%	88%
	15%	13%	12%

Figure 5 - Landside mode share by reporting period: 1 September – 31 August

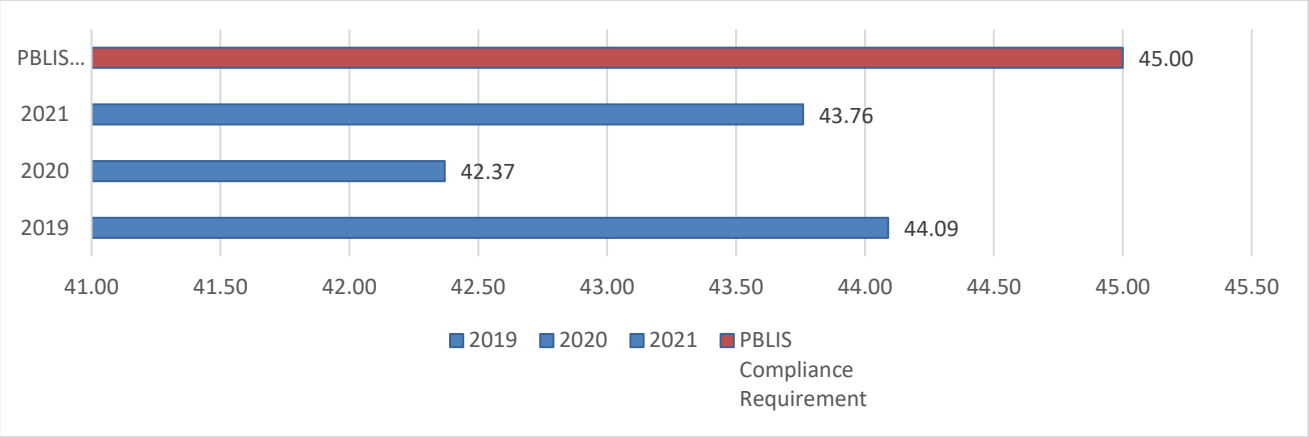


Figure 6 - Average Truck Turnaround times by reporting period: 1 September – 31 August

Hours of Operation and truck bookings by reporting period: 1 September – 31 August

Day = 0700 to 1800, Evening 1800 to 2200 and Night 2200 to 0700

2019 total truck bookings = 183,081*
2020 total truck bookings = 177,300*
2021 total truck bookings = 160,612*

* figures are for Serviced or Non-Serviced bookings – excludes No-Shows or Cancelled Bookings.

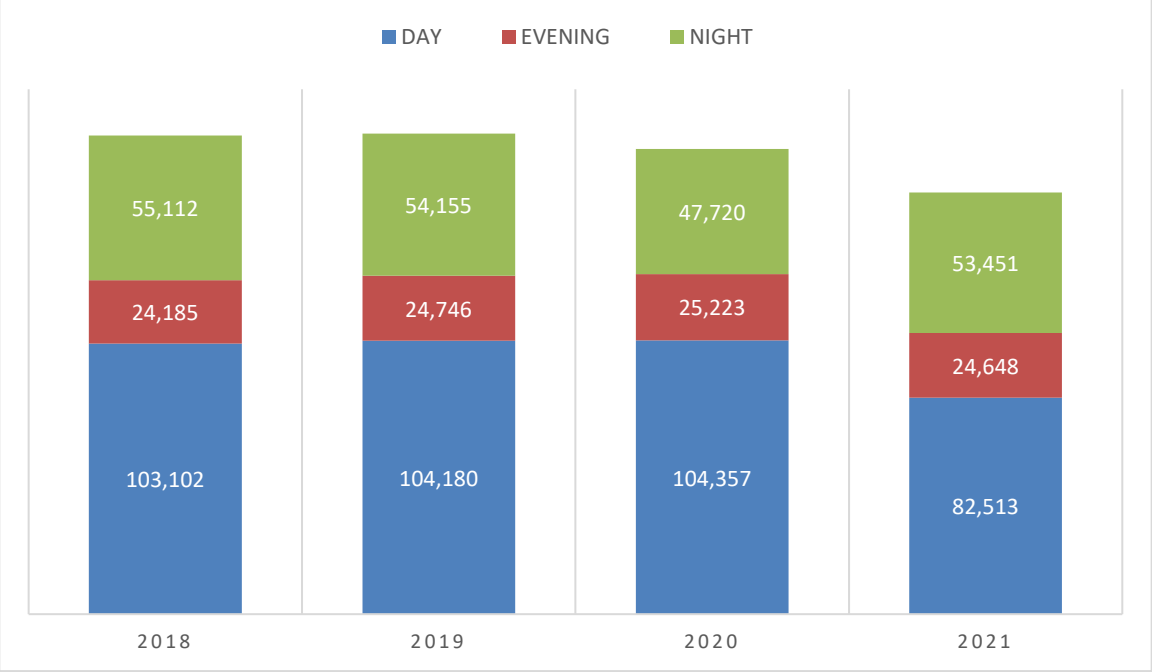


Figure 7- TAS Truck Booking (4 years summary)

5 Complaints and Environmental Incidents

5.1 Community Complaints

Performance during the reporting period

In the 2020/2021 reporting period SICTL received 4 noise complaints. The noise complaints were registered to NSW Ports by the surrounding residents who generally alleged extreme loud bangs and engine noises from berthed vessels at the Port.

SICTL completed investigations following these complaints to assess if the Terminal's operation contributed to the noise. However, the investigation findings indicated there was no unusual activities that could potentially cause excessive noise. Also, there were no vessel operations on the Terminal at the time indicated in the complaints.

The noise complaints are not a reliable indication on the performance of the site in regards to noise management due to subjective factors, like description of noise, location of the resident and other port and industrial activities within the immediate precinct.

Further details on the complaints received during the reporting period are presented in *Appendix D.* A comparison on complaints received in the last five years is shown in *Figure 7* below.

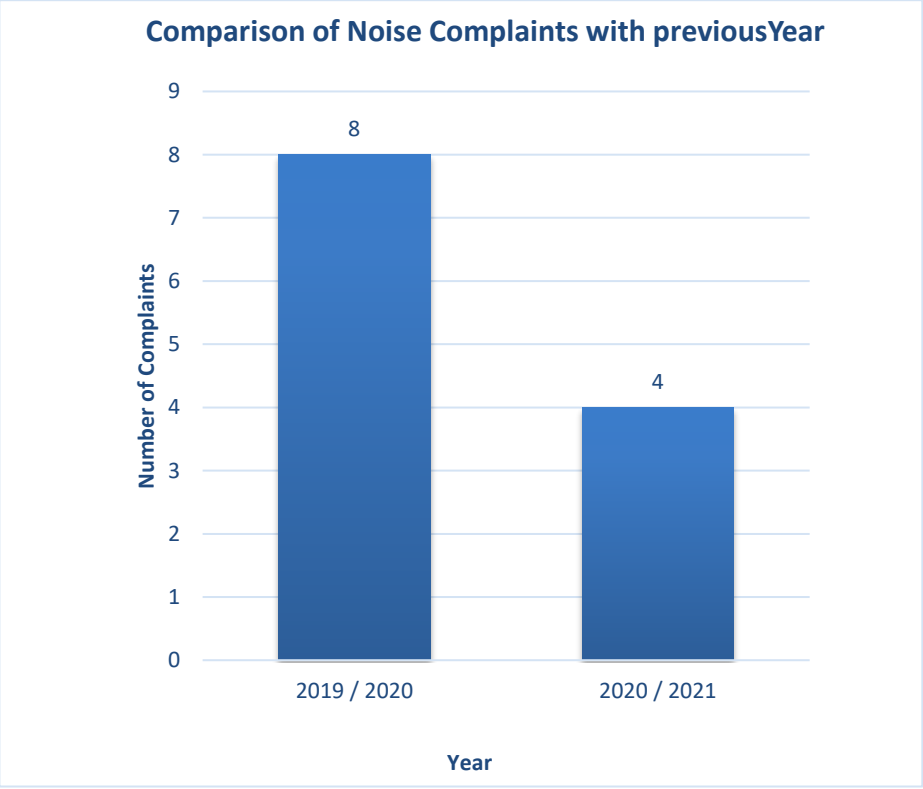
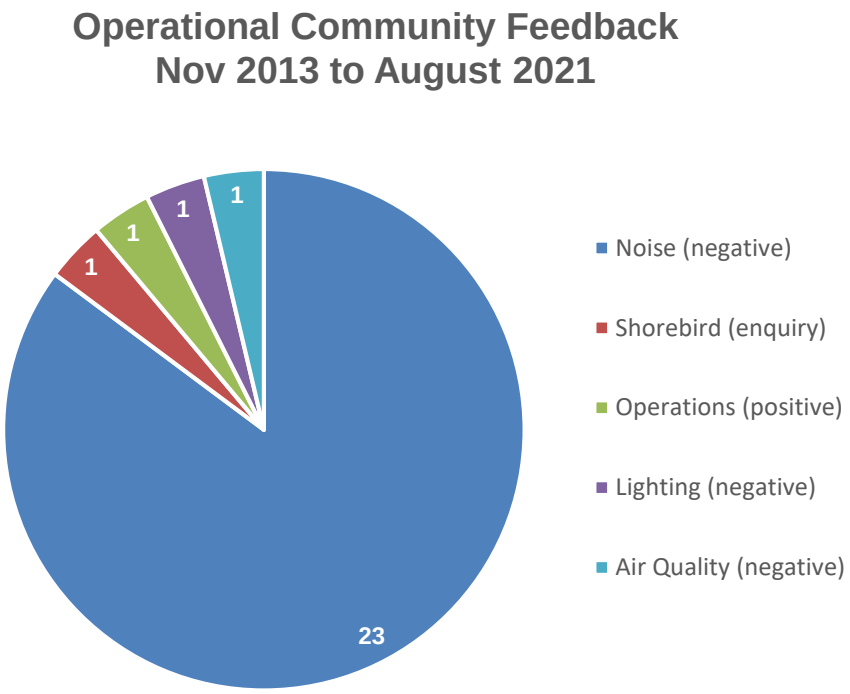


Figure 8 – Noise complaint comparison chart with previous reporting year

A part from noise, no other community complaint was received, including odour, air emissions, etc.

Quarterly Community Feedback Reports are prepared and submitted to the Department of Planning, Industry & Environment and NSW EPA. Copy of each is uploaded to the SICTL website at: http://www.hutchisonports.com.au/operations/monitoring-and-reporting/

The required information relating to any and all complaints is contained within the report. The below graph depicts all types of community feedback received by the SICTL terminal since the commencement of operations.



Implemented / proposed management actions.

SICTL operates a toll free community complaints and feedback line (1800 472 888) which operates on a 24/7 basis. The SICTL website also has a “Contact Us” feature allowing the community to report complaints and provide feedback.

SICTL continues to monitor all community feedback and complaints, and responds promptly to all parties.

All complaints are logged in the SICTL Complaints Register, and the actual complaint (scanned letter or email) is filed on the SICTL server or hard copies filed and kept in a locked office or cupboard

The Complaints Register records all complaints received, and the action taken by SICTL.

5.2 Environmental Incidents

Performance during the reporting period

No incident which caused or potentially cause material harm to the environment occurred on the terminal during the reporting year. However, twenty three (23) low to medium environmental incidents occurred during the reporting period.

Eighteen (18) of the incidents were related to oil spills from equipment (Shuttle Carriers, Quay Crane and container truck). There was no ingress of oil into stormwater drains or any waterways in any of the hydraulic spill events.

Other incidents include suspected leaking dangerous goods (DGs) containers on board berthed vessel occurred during the reporting period. The incidents were managed in accordance to SICTL Emergency Response Plan - suspected dangerous goods leaking container. Relevant emergency services - FRNSW (HAZMAT) and Fire Brigade attended site during the DG incidents. The incidents did not pose any pollution risks.

Also, grain spill incidents from damaged containers were recorded this period. These were managed proactively and resulted to no environmental harm. EPA was notified of the grain spill that occurred on 20/06/21 involving of about 6.2 tons of wheat grain being spilled on the wharf area.

Refer to *Table 5.2* below for details of the incidents during the reporting year.

Implemented / proposed management actions.

SICTL continued to reinforce the requirement for operators to immediately shut down mobile equipment if safe to do so whenever a leak is detected. This has significantly reduced oil ingress into stormwater drains (none occurred in this reporting period), tracking across the terminal and amount of oil spilled and pooled.

The preventative maintenance checklist was updated to include new areas of inspection associated to possible mechanical failures leading to potential hydraulic leaks in shuttles.

One environmental drill was completed this reporting period to assess spill incidents and management of any possible risks to waterways or stormwater structures.

Table 5.2 – Environmental Incidents

Date	Description of Incident	Action Taken	Rating	Status
27-09-2020	Shuttle carrier #04 spilled a small amount of oil between the 30m - 50m mark quay side near QC01. The leak was caused from failure of a hydraulic hose. No spill went into the drain.	Spill absorbent was applied and spill area cleaned out promptly. Maintenance attended to the equipment, mitigated further leaks and completed replacement of the damaged hose before sending the equipment out to operations.	Low Severity	Closed
04-10-2020	Shuttle Carrier #02 had a hydraulic system failure and leaked oil on the berth area. Leak was caused by general wear and tear of the hydraulic hose. No spill went into the bin. Leak was minor – approximately 5L amount of spill.	The equipment operator shut down the equipment as soon as he noticed the spill. 2 bags of oil absorbent granules were applied over the affected area, later swept up and the waste placed into the waste bags for appropriate disposal. Maintenance team attended the equipment, completed replacement, washed down the equipment before sending it out to operations.	Low Severity	Closed
13-10-2020	Oil spilled from shuttle carrier #12 hydraulic hose attached to tank supply. This occurred while maintenance worker was aligning the hydraulic pump to the engine flywheel but the hydraulic tank valve was not being closed during the coupling alignment, hence releasing approximately 180 litres of hydraulic oil onto workshop floor. No leak went into the drain or any water ways.	Incident happened inside the maintenance workshop. Leak was contained immediately and cleaned up adequately. The Hydraulic tank valve was closed to prevent further oil loss. Relevant workers were given Toolbox reminding them to close the hydraulic supply valve during alignment coupling to prevent further reoccurrence.	Low Severity	Closed
14-10-2020	Venting ISO Tanks (containers) on board vessel. Whilst unloading 9/11 deck two ISO tanks were noticed to vent gas. The tanks vented as per design through the safety diverter valve due to a build-up of pressure (pressure build-up exceeding release pressure of 2.1 MPA. The valve is designed to release pressure. The release was consistent with the design of the tank but excessive compared to any past event (not the norm due to the type of product, size of the release and different to a normal release valve design and the high pressure). NSW Fire & Rescue (HAZMAT), Port Authority of NSW– VTS, NSW Ports, EPA were notified. The	The following actions were taken: • All personnel working in the affected location were evacuated. • 250 meter exclusion zone was maintained. • Due to wind direction, Operational activity at QC #3 was suspended as an additional precautionary measure. • Notified the Fire Brigade Hazmat Unit, Port Authority of NSW, Neighbouring Port – Patricks, NSW Ports • HAZMAT supervised the safe removal of the ISOs off the vessel.	Low Severity	Closed

Date	Description of Incident	Action Taken	Rating	Status
	gas was identified as CO2, and the area was isolated as per the DG guide and made safe pending the arrival of HAZMAT. HAZMAT team attended site afterwards, inspected the area and informed that there had been gas on arrival at box but over the time on board the reading had dropped to zero. They advised the ISO tanks to be discharged unto the berth, cable ties placed to secure all release valve handles of the tanks. The tanks were later moved to the M-area (spill containment area) to be isolated till a certified fitter attends site to confirm the tanks are safe to be transported out of the terminal. The fitter attended the terminal to inspect the tanks, and reported that the ISO is venting due to the high pressure build up in the ISO, due to long transit time.	• ISO pressure valves were checked and held in place by rubber ties as advised by the HAZMAT unit. • ISOs were isolated at the M-area (spill containment area). • Maintenance fitter was engaged to check the safety of the ISOs • Fitter normalized the pressure to the correct working pressure and reported ISOs are safe to be transported out the terminal.		
20-10-2020	Hydraulic leak from shuttle carrier #04. The shuttle operator noticed the 40' spreader light and locking pin lights flashing on the arm rest, and then immediately hit the E-Stop on the shuttle to halt the equipment, mitigating further leaks. Maintenance team inspected the shuttle and found that the spreader extend/retract cylinder came out and the mounting bolts and shims were missing, This put tension on the hydraulic hoses breaking them and snapped the elbow fittings. No ingress of fluid in stormwater drain. Spill was cleaned up at the affected area, adequately and on time.	Spill area was isolated and kitty litter spill absorbents were applied to the affected areas on the wharf. External third party contractor (Hydrawash) was engaged to clean out and properly scrub the affected area. Maintenance attended to the shuttle to ensure no more leaks from the equipment. Bolts, washers and locking fluid were then fitted to the equipment and all Kalmar shuttles.	Low Severity	Closed
17-11-2020	Shuttle carrier #01 blew a hydraulic hose. The operator immediately shut down the machine and the spill container was deployed and spill prevention prioritised to eliminate any overflow into any drain catchment.	Timely shut down of the equipment by the operator helped to stop further leaks and tracking across the wharf area. All Kalmar shuttles have had all of the hydraulic lines inspected, all repairs/replacements of hoses, clamps and fittings have been completed. A new PM "Shuttle Hydraulic Hose Inspection" has been implemented and scheduled to be completed every six months.	Low Severity	Closed

Date	Description of Incident	Action Taken	Rating	Status
19-11-2020	Suspected DG smell was reported on board vessel. QC team leader smelled the gas and informed the shift manager who inspected the area with other key personnel and they could smell the gas in the air which they identified the smell to come from around a hazardous containers in Bay 05 and 06 - 10/82 and 84. Shift manager notified HAZMAT who attended site and checked the area. HAZMAT came off the vessel and indicated they could not find anything with their monitors and said area was all clear. Area was isolated as workers were removed from the location.	An exclusion zone of 250m was established and workers instructed not to load the vessel until HAZMAT clears the area.	Low Severity	Closed
28-11-2020	Minor oil leak from shuttle carrier #12 into localised quay crane area of berth 2. The leak was due to wear and tear of the hydraulic break hose.	The area was cleaned with spill absorbents and new break hose installed on the equipment.	Low Severity	Closed
08-12-2020	Shuttle carrier #07 broke down in front of ASC06W causing an oil spill. Maintenance team attended with kitty litter and towed the shuttle away from the area. Leak was found to come out of the upper left hand drive hose which had ruptured. A new hose was installed to drive machine out of way to enable clean up. No ingress of leak into the drain occurred as the spill was adequately controlled by the workers.	Spill absorbents were deployed and third party contractor attended site to properly cleanout and scran the area. Replaced starter motor, stauff clamp and oil was topped up before the equipment was sent to the operations.	Low Severity	Closed
13-12-2020	Shuttle Carrier #02 blew hydraulic hose outside block 4 causing a minor oil spill. The operator stopped equipment immediately the leak was noticed. The leak was due to wears from continual hydraulic pressure. No ingress of leak into the stormwater drain.	Operator stopped machine immediately and notified maintenance team who attended the spill location, controlled the leaks form the shuttle and drove it to the workshop for repairs. Spill absorbent placed over the oil spill and area cleaned of	Low Severity	Closed
18-12-2020	Minor split from a spreader hoses of shuttle carrier #02 caused a minor spill around QC #03 of berth 2. SC02 was discharging under QC3	The shuttle operator immediately shut the equipment upon noticing the leak, then notified maintenance. Spill absorbents were deployed and the area was cleaned up. No leaks went into the stormwater drains.	Low Severity	Closed
23-12-2020	Oil leak occurred from QC #04 L/T brake line. The hydraulic hose from the L/T brake leaked due to crack in the brake line.	Crane was turned off as the leak occurred and maintenance notified to check the QC. Maintenance replaced hose and area was cleaned up. No ingress of leak into the stormwater drain.	Low Severity	Closed
13-01-2021	Reachstacker #RS03 leaked hydraulic oil as the operator tried a sharp turn which caused the front differential of the reach	Spill absorbents were deployed and the area was cleaned up.	Moderate Severity	Closed

Date	Description of Incident	Action Taken	Rating	Status
	stacker to fall out because the arc is smaller, resulting to a moderate spill. This occurred at the rail siding No oil entered the stormwater drain.	Engineering team advised operations to be mindful of tight turning circles on firm ground while operating reachstackers as this puts excessive pressure and overheating which causes such failures.		
10-03-2021	Shuttle carrier #04 leaked oil due to failure of accumulator fitting. Operator of the shuttle shut down and packed the shuttle immediately when the leak was noticed. This helped prevent increased amount of spill or pooling. The spill was small and there was no pooling, however dry oil was tracked approximately 30metre area which was caused by the other shuttles driving over it. No oil went near any drains.	Maintenance team attended the spill area to properly stop the leak from the source whilst workers applied relevant spill absorbents on the affected areas. Maintenance team took the shuttle back to the workshop replaced fitting and washed the oil residue off.	Low Severity	Closed
23-03-2021	During routine inspection of SQIDs, the outlet side of SQID #24 was observed to have an odorous hydrocarbon smell with oily layers on top of the water. Water at the inlet side (terminal side) was clear and non-odorous. The unit was pumped out and regular monitoring followed.	Spel (the manufacturer and installer) of some of the SQID units attended the terminal to thoroughly investigate the SQID and others installed across the terminal. Repairs of identified units arranged as per the investigation report. Continued monitoring of the SQID units and pumping out of the units to reduce the risk of discharge is still ongoing.	Low Severity	Ongoing
29-03-2021	Shuttle carrier #12 burst a hydraulic hose causing a small spill around ASC 4W. The incident was due to mechanical failure as result of a hole in park brake of the equipment. Not unusual considering the run time of the shuttle. Operator on noticing the spill trail, shut down, shuttle isolated while area was cleaned up. No risk to stormwater drain as There was no drain close to the spill area.	Operator on noticing the spill trail, shut down, shuttle isolated while area was cleaned up. Equipment repaired, washed down before returning to operations.	Low Severity	Closed
23-04-2021	Shuttle carrier #05 leaked oil in the parking bay due to damaged O-Ring on a relief valve. No spill entered any waterway.	Spill area as well as the rest of the wharf of trailed dry oil were cleaned. Equipment repaired.	Low Severity	Closed
15-05-2021	Customer truck loading import 20' container spilled oil at the ASC block 5L. The truck tracked dry residue on leaving the ASC.	Spill area cleaned using absorbent materials and scrubbed off.	Low Severity	Closed

Date	Description of Incident	Action Taken	Rating	Status
24-05-2021	Right side drive hose of shuttle carrier #05 blew causing an oil leak oil at the ASC5W. It was a localised spill, no risk to waterways. The area was isolated and cleaned immediately. After repairs, the shuttle was topped up approximately 50L of oil.	Third party contractor engaged to scrub the area. Drive hose to be regularly inspected during scheduled PMs.	Low Severity	Closed
16-06-2021	Grain spill covering a small area of approximately 2.4m2 observed at the ASC block 3. This area has stacked containers and the spill was noticed by a worker during scheduled task inside the ASC row. Spill area is localised and no water drain in the proximity.	Spilled grains were collected and area cleaned of any grain residue.	Low Severity	Closed
20-06-2021	Approximately 6.2 tons of wheat grain was spilled on the wharf area. The spill was caused as a shuttle operator incorrectly placed a container on the landing stand under the crane resulting to the base (floor sheet) of the container to be damaged. The container was not lined up correctly. As it was lowered, its weight caused the metal end of the stand to push up through the floor sheet, lifting the sheet. No spill went into a water drain. EPA notified of the spill and SICTL responded with a report as requested by EPA.	The container was moved clear of the area onto our spill trailer and taken for remediation whereby the hole was plugged, sealed and taped up. Spill area was also timely isolated, no operational activity was undertaken around the area. External contractor – with sucker truck was engaged to attend site to clean up the spill. Area has since being cleaned and cleared.	Moderate Severity	Closed
22-06-2021	Hydraulic oil spill from shuttle carrier #05 occurred as a result of cracked adaptor of a brake accumulator. No oil entered the storm water pit.	Area was immediately delineated with cones. 2x granular spill absorbents were applied on the spilled area. Storm water pit close to the parked shuttle was covered with booms and pads to protect any potential inflow of the leak to the pit. Adaptor cracking is a rare occurrence and maintenance to monitor closely especially during PMs.	Low Severity	Closed
24-08-2021	Shuttle #05 spilled small amount of hydraulic oil around the manual stack area of the wharf area. Leak was due to loosened hydraulic accumulator from the hydraulic motor where it was attached. About 200L of oil was refilled, however this does not indicate the amount spilled as the equipment already a long run and already consumed significant amount of hydraulic oil.	Spill area isolated while spill absorbent applied. Third party contractor engaged to scrub the area. Maintenance completed repairs which included resecuring the accumulator.	Low Severity	Closed

5.3 Actions from Previous Audit

Section C4.5 of the Development Consent 494-11-2003-i requires an Independent Environmental Audit (IEA) within one year of the commencement of operations and every year thereafter. The most recent IEA was completed by WolfPeak Pty Ltd in 2020 which included a Site inspection and interview.

No non-compliances were identified against DA-494-11-2003-i nor EPL 20322. However, one corrective action request and two observations were identified. A summary of the findings from the last is presented in *Table 6.3* below.

Table 5.3 - Audit Findings (WolfPeak, 2020)

Cond No.	Details	Comments, observations, discussion, evidence, supporting documentation	Actions	Status
CoA C4.1	CoA C4.1 states that the Director-General shall be notified of any incident with actual or potential significant off-site impacts on people or the biophysical environment within 12 hours of the Applicant, or other relevant party undertaking the development, becoming aware of the incident. Full written details of the incident shall be provided to the Director-General within seven days of the date on which the incident occurred. The Director-General may require additional measures to be implemented to address the cause or impact of any incident, as it relates to this consent, reported in accordance with this condition, within such period as the Director-General may require.	The Emergency Response Plan (Version 6, 2018) does not identify DPIE (or Council) as agencies requiring notification despite notification being required in accordance with this condition.	Update Emergency Response Plan inserting DPIE and Council as a notifiable agencies	Closed The DPIE & council contact is now included in the updated ERP version – 21st July 2021
EPL 20322 O3.2 R2.1 and R2.2	Condition O3.2 states in relation to condition 4.1 Emergency Response: A Pollution Incident Response Management Plan (PIRMP) is the relevant document required. R2.1 and R2.2 state that notifications must be made by telephoning the Environment Line service on 131 555. The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the	A review of the ERP to be undertaken to verify that all aspects required under the relevant section of the POEO Act and clauses of the *Protection of the Environment Operations (General)* *Regulation 2009* have been addressed in full.	A review of the ERP to be undertaken to verify that all aspects required under the relevant section of the POEO Act and clauses of the *Protection of the Environment Operations (General) Regulation 2009* have been addressed in full.	Closed ERP updated to comply with the requirement of PIRMP.

Cond No.	Details	Comments, observations, discussion, evidence, supporting documentation	Actions	Status
	person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.			
CoC C2.14 EPL 20322 L1.1 OEMP Table 23	CoC C2.4 and EPL 20322 Condition L1.1 state that except as may be expressly permitted by a licence under the Protection of the Environment Operations Act 1997 in relation to the development, section 120 of that Act (prohibition of the pollution of waters) shall be complied with in connection to the development. The EPL does not permit deviations from s120. Table 23 of the OEMP sets water quality criteria for the outlets of the SQIDS (consistent with the ANZECC Fresh and Marine Water Quality Guidelines (and included in the Project's EIS).	According to the laboratory results for 16 July 2020, the following exceedances of the Project specified limits were recorded on the outlet of the SQIDS: - SQID 24 Outlet TSS 240mg/L - SQID 24 Outlet Oil and Grease 20,000mg/L. The inlet readings for both of these events were below the applicable criteria, and the unit was cleaned with material removed via sucker truck and disposed of as liquid waste. This occurred in accordance with Table 24 of the approved OEMP which states that clean out of the unit will occur within 6 weeks of the exceedance. However there was no evidence available to demonstrate that these exceedances had been thoroughly or formally investigated and attributed to non-site sources.	The Auditor reiterates its recommendation from the 2018-19 audit that, in order to ensure section 120 of the POEO Act is not breached, SICTL should implement a process whereby an exceedance of OEMP stormwater KPIs triggers an appropriate response to investigate, report and rectify the issue as relevant.	Closed SICTL completed a thorough investigation on the SQID unit including other installed units within the terminal by engaging a third party environmental consultant. Inflow of external estuary water during high tides indicated as possible cause of increase pollutant concentration levels. Technical inspection of the units was also carried out by the manufacturer and installer of the units which identified defects to be fixed which have already being arranged. Also, SICTL continues to monitor the water levels in these SQIDs and pump out when necessary to prevent any offsite discharge.

6 Environmental Performance

6.1 Air Quality Management

Performance during the reporting period	No visible dust emissions were reported during this period.
Implemented / proposed management actions.	SICTL will continue the apply polymer emulsion agent to stabilise the unpaved ground at the undeveloped area as required. Regular sweeping of internal roads and sealed areas using road sweeper trucks still ongoing as required. Regular visual inspections of the terminal are undertaken by the Environmental Engineer to assess implemented control are still effective and to identify any air quality issues to be addressed. There has been no identified sand accumulation for this period.

6.2 Aviation Operational Management

Performance during the reporting period	SICTL has generally complied with the requirements for Crane heights, light spill and bird management. There have been no reported incidents of aviation impacts, complaints or requirements for bird management during this reporting period.
Implemented / proposed management actions.	Vessels are generally berthed facing south, unless otherwise directed to face north by the pilots. SICTL staff are required to report any hazards or the presence of nesting or injured wildlife, including any eggs. Monitoring of the undeveloped future construction areas and terminal structures (i.e. light poles) for nesting birds is undertaken periodically and during the nesting season. SICTL has adopted the following measures to discourage bird attraction to the terminal: • No eating is permitted outside of the buildings; • Use of closed bins to reduce the risk of bird attractant; • Control of littering through signage, induction training and regular toolbox talks; • the design of rooves and gutters of terminal buildings to deny birds the opportunities to make nests. Information relating to SICTL terminal rules and environmental requirements are provided to all Staff, Visitors and Contractors within the terminal Induction training. In addition, the *HSEQ5.2.1.1 Ship Booklet* has been implemented and is provided by the SICTL Shift Leader to the Ship Master of all vessels that berth at SICTL. The Environmental Requirements of the terminal (managing light spill and bird and best management) are outlined in section 5 of the Ship Booklet.

6.3 Noise Management and Monitoring

Performance during the reporting period

SICTL completed two noise monitoring rounds during this reporting period, in accordance to the conditions of the DA consents and the EPL. First monitoring was undertaken from 18 January to 31 January 2021, while the second monitoring was carried out from 6 July to 19 July 2021.

The noise assessments included both attended and unattended noise monitoring to determine compliance with the established noise limits at the nearest affected receivers. The monitoring report indicated that the terminal operational noise complies with the DA and EPL day, evening and night-time noise limits.

Four noise complaints were registered during this reporting period. The complaints were from surrounding residents who registered the complaint through NSW Ports. Findings from the noise investigations indicated there was no unusual activities that could potentially cause excessive noise from the terminal. Also, there were no vessel operations at the time indicated in the complaints. Due to the industrial location of the terminal, the noises described in the complaints can possibly be originated from the other potential port and industrial operations within the immediate precinct.

Implemented / proposed management actions.

There was no significant changes to SICTL operations or equipment during this reporting period. SICTL implemented the noise mitigation requirements of the OEMP including fitting plants and equipment with quackers alarm systems, maintaining the mufflers and controlled soft landing of containers and deck lids.

Noise level emissions and noise controls are part of the technical specifications for new plant. Maintenance is carried out on a regular basis in accordance with the OEMP requirements and the equipment use.

There was no breaches on the terminal’s noise walls during the reporting period.

Workers completed environmental awareness program which covers noise as a hazard, noise generation and management. Soft landing of containers and vessel deck lids on hard stands were reiterated and encouraged.

6.4 Operational Traffic Management

Performance during the reporting period

A total of 160,612 truck bookings were made during the reporting year with an average turnaround time of 43.76 minutes which is below PBLIS compliance requirement.

With the low truck turnaround time and truck bookings SICTL recorded no noise complaint directly linked to truck movements within the terminal.

Implemented / proposed management actions.

SICTL traffic management plan (TMP) was updated three times during this reporting period with a full review completed on the 2nd of July 2021. Part of the update included the adoption of 10 kph speed limit for reverse parking near operation's building, and changes to requirement for escorting visitors. Only fully inducted contractors such as mooring / linesman contractor can drive unescorted within the terminal.

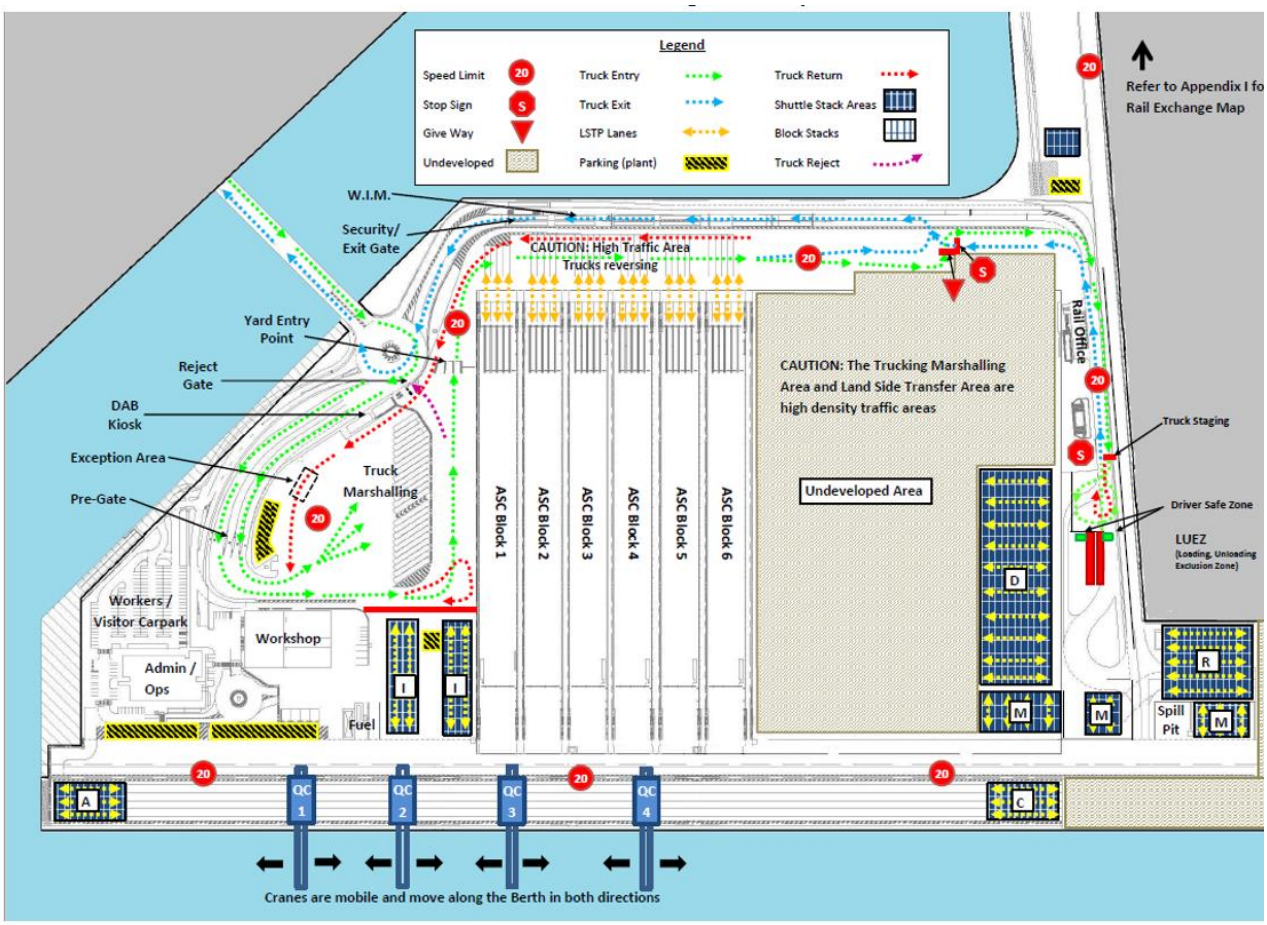


Figure 9 - SICTL overview traffic management plan

6.5 Water Quality Management

Performance during the reporting period

SICTL has generally complied with the requirements under section 120 of the POEO. During this reporting period, there were no environmental incidents resulting in the pollution of waters.

In this reporting period SICTL increased the level of assessment of stormwater quality control and maintenance of installed devices to mitigate water contamination as a result of the terminal's operations. Twenty (20) Stormwater Quality Improvement Devices (SQIDs) were inspected by the SQID manufacturer and installer to technically evaluate the state of the installed units. This was a comprehensive investigation which identified units for further maintenance to increase efficiency. SQIDs #3, #17 and #24 are priority units for maintenance which includes coalescer replacement and vacuuming of entire system.

SICTL to continue to monitor and pump out the units to mitigate any discharge during rain events.

Although there is no specific monitoring requirement included on the EPL and development consent, however stormwater testing was completed on three (3) SQIDs (#9, #24 and #25) for pollutant analysis in accordance to SICTL OEMP. Refer to *Appendix F* for the OEMP details of the pollutants and concentration limits.

A total of six (6) water samples were collected from each SQID, sourced from the inlet and outlet sides of the units which was analysed in a NATA accredited laboratory. Laboratory results showed the water samples were generally below the acceptable limits except for a negligible phosphorus exceedance in unit #25 – outlet and zinc in the samples collected. Unit #24 – outlet exceeded the acceptable limit for grease and oil. This was followed up with pumping out of the water in the units, comprehensive technical investigation of the devices and planned maintenance.

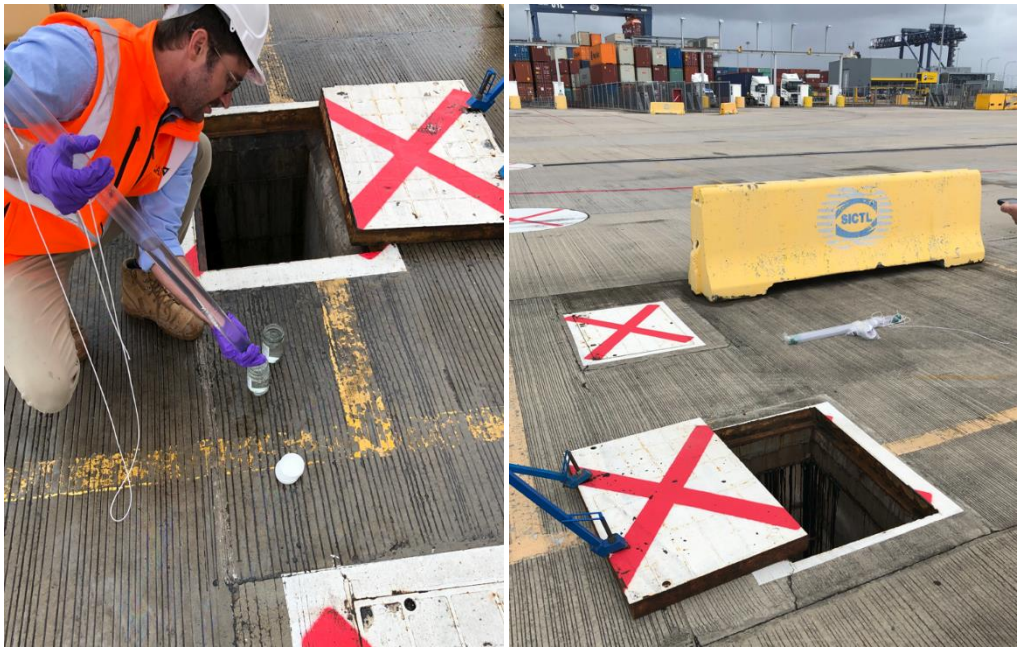


Figure 10 – Water sampling at SQID #24

Implemented / proposed management actions.

SQID units were inspected and planned maintenance underway for 3 priority units scheduled for the replacement of coalescer and vacuuming of the entire systems.

All installed units are continued to be monitored as required to proactively identify any defects.

SICTL to continue pumping out of contained water in the SQID units to mitigate any overflow and possible discharge following rain events.

A Sampling Analysis and Quality Plan (SAQP) and Procedure have been developed, detailing the requirement for stormwater sampling from the units. For example; sampling must be conducted after a rainfall event of least 10 - 20 mm within a period of 12 hours. Once rainfall has ceased, samples are to be collected before a high tide to avoid interference due to background concentrations of contaminants within the receiving waters. These external interferences or inflow of external waters during high tide potentially impacts on the contaminants concentration in the SQIDs.

Following hydraulic spill incidents, thorough degreasing and scrubbing of the spill location is completed by a third party industrial cleaning contractor. This helps to improve the water quality of run off waters on the ground surface that flow into the drains, SQIDs and other waterways.

Installed drain wardens to improve the water quality across the terminal is still functional and continues to be inspected.

A drill about management of dangerous goods spill incident from a leaking DG container near a drain was conducted on the 30 April 2021. The drill objective was to determine how workers can effectively respond to spill incidents, particularly one involving a DG with a risk of an ingress into a stormwater drain. In addition to ensure that spill containment measures are well implemented, including closing the stormwater emergency shut-off valves and timely deployment of spill kits, if safe to do so.

Figure 11 - Closing of the emergency shut-off valve during the drill

6.6 Dangerous Goods Management

Performance during the reporting period

Total volume of Dangerous Goods over the reporting year was 27,441 tonnes, averaging 75 tonnes per day.

With reference to consent condition C2.18, 29 tonnes of DG class 2.3 transited through the terminal during the reporting period.

During this reporting period, no incident or emergency associated with hazardous chemical occurred.

A full hazardous chemical management audit was completed on the 17 February 2021. The aim of the audit is to assess the safe handling, storage, control and procedures in place to manage hazardous substances present in the terminal. This includes flammable gases and aerosols. The outcome of the audit helped improve the overall chemical management system and increased awareness to safe handling and storage of chemicals in accordance to relevant regulations and standards.

Weekly Inspections were conducted by the Port Authority of NSW Dangerous Goods Auditor relating to the terminal compliance to dangerous goods separation and segregation and container dwell time rule enforcement.

Figure 12 - Contained gas cylinders and aerosols observed during the audit

Implemented / proposed management actions.

Chemical register was reviewed and updated in compliance to the *SafeWork NSW Hazardous Chemical Register template*.

Signage were improved to be consistent to labelling standards, which includes the posting of the labels outside the designated location as required.

A safety alert bulletin about the risks of hydraulic (oil, air, grease) injection into skin and the required treatment to drive awareness to be communicated to the maintenance crews and First Aiders.

Hazardous Chemical Management SOP and risk management tool drafted. These provide guide and template for required procurement processes, assessing risks and handling of hazardous chemicals within the terminal.

6.7 Waste and Wastewater Management

Performance during the reporting period

Waste management of waste within the terminal has greatly improved. About 146 tonnes of waste was generated (including waste oil) this year, presenting a 20% decrease from previous year.

With the continual awareness about waste management within the terminal especially in waste segregation, a 34% increase in recycled / comingled waste was achieved.

SICTL launched its Sustainability plan in March 2021 with the targets to complete within 3 years. Some of the goals includes to reduce paper usage; improve waste management and recycling with a focus on used oil absorbents and collection of used NiCad batteries. Actions to achieve the targets have being completed and a few still in progress.

The wastewater treatment system at the maintenance wash bay which removes solid and oil pollutants prior to discharge to the sewer was operational during this reporting period. This system was maintained as required during this reporting year.

Trade wastes generated at the terminal was managed in accordance to the existing SICTL's Commercial Trade Wastewater Permit (ref No: 37958 dated 17 July 2015).

Figure 13 - Containers for the collection of NiCad batteries now placed in strategic location within the terminal.

Implemented / proposed management actions.

To encourage the collection and recycling of NiCad batteries, SICTL has placed containers in both the maintenance and operation's building. Filled container will be collected by licensed waste management contractor for recycling.

Waste management SOP *reference# SOP046-S* was developed. It covers the management of the waste tyres, scrap metals, batteries, filters, waste oil, oily rags & used spill absorbents, wastewater, paper, general wastes and other waste streams generated at the terminal.

Maintenance workers were re-educated through toolbox and circular on the use and maintenance of the workshop washing bay to improve housekeeping including thorough scrubbing of the greased floor after use, and cleaning out of solid residues to prevent ingress into the sewer.

6.8 Shorebird and Feral Animal Management

Performance during the reporting period	No shorebird was identified during this reporting period. However, SICTL continues to monitor the site for migratory shorebirds as a result of two nesting pairs of Pied Oystercatchers identified on the terminal in August 2019. Both pairs were observed at the undeveloped areas within the terminal. No foxes were sighted on the terminal this reporting period, however if the occurrence of feral foxes increase, SICTL will consider fox baiting at the terminal.
Implemented / proposed management actions.	SICTL to continue monitoring of shorebird nesting areas and chicks beyond this period. In the event of any nesting activity, the business will implement controls to isolate the nesting area and communicate information to staff and contractors.

6.9 Action Plans from Previous Reporting Period - Completed

Table 6.9 - 2020/2021 Actions

Source	AEMR Reference	Activity	Responsibility	Status
Air Quality Management	5.1	SICTL assessment is that risk of dust is now low following the removal of 134,106.48 tonne sandpiles in April 2020 from the undeveloped area, which has remained undisturbed till date. Based on this assessment, SICTL to consider suspending the monthly dust monitoring implemented during the sandpiles removal as the primary source of dust has been removed.	Manager, Risk & Compliance Environmental Engineer	Closed. Dust depositional monitoring suspended as the risk from dust generated at the terminal remains very low. SICTL to reinstate the gauges once the risk increases.
Noise Management	5.3	Due to the increasing noise complaint associated with general industrial and port activities within Port Botany, SICTL to review its terminal operation and existing noise mitigation measures to identify areas for improvement.	Manager, Engineering Manager, Risk & Compliance Environmental Engineer	Closed Noise monitoring conducted by SICTL and NSW Ports did not associate SICTL's operation to the industrial noise at Port Botany area. Instructions on required soft landing of containers and deck lids have being communicated to workers.
Water Quality Management	5.5, 6.2	SQID inspection improvement to include desilting and clean out of the oil and grease chamber of identified SQIDs.	Manager, Engineering Environmental Engineer	Closed SQID #24 identified to have oil & grease layers on the water surface was pumped out twice this period. SICTL continues to monitor the water levels in installed SQID units and will pump out when necessary to prevent any offsite discharge.
Dangerous Goods Management	5.6	Further review of the storage of hazardous chemicals in the Maintenance Area to ensure that the appropriate practices for safe handling, storage, segregation and labelling are maintained. Review inherent risks associated with DG container movements and storage as well as update the ERP with appropriate procedure to manage DG emergencies.	Manager, HSEQ Environmental Engineer	Closed A full hazardous chemical management audit was completed on the 17 February 2021. The audit outcome helped improve the safe handling, storage, control and procedures in

Source	AEMR Reference	Activity	Responsibility	Status
				place to manage hazardous substances present in the terminal. ERP updated – current version is dated 21-07-2021
Waste Management	5.7 6.2	Due to the inconsistencies in managing used oil absorbent, SICTL to improve on the collection and disposal of the used absorbent materials utilised during the control of spill incidents. Improvement will include, identifying separate wheelie bins for collection of different types of used absorbents (granules, oily rags, booms, etc.). Bins to be distinguished by colour and visible labels. Discarded materials in the bins will be disposed of by licensed waste contactor. Further to identifying separate collection bins, workers to be re-educated on proper disposal of used oil absorbents.	Manager, Engineering Environmental Engineer Workforce Trainer	Closed The terminal now have existing separate (colour coded) bins for discarding used oil absorbents
Incident Management	6.2	To mitigate the prevalence of hydraulic spills, SICTL shall review all reported hydraulic incidences to determine common causes of hydraulic failures and implement any engineering control.	Manager, Engineering	Closed Identified issues now added to the maintenance Preventative Maintenance (PM) checklist.

APPENDIX

Appendix A - Compliance to Development Consent – Schedule C

Compliant: Complies with all requirements of the condition(s)

Non-Compliant: Does not fully comply with all requirements of the condition.

Observation*:* A situation identified that provides an opportunity for improvement, requires further consideration or could lead to a non-compliance or environmental impact if not addressed.

Not Applicable*:* There were either no compliance issues related to the condition, is a future required action, was not applicable at the time of the audit or was not related to a SICTL responsibility.

No.	Details of Condition	Comment	Compliance Status
C1	**General Requirements**		
C1.1	**Application of Schedule** The conditions in this Schedule of the consent relate to all the development and activities associated with the operation of the container terminal and associated infrastructure.	Noted	Compliant
C1.2	The conditions in this sub-schedule of the consent must be complied with by the Applicant, or any party undertaking the activities and works referred to under condition C1.1, with the exception of the undertaking of Port, Maritime and Waterway Related Interim Uses at Hayes Dock Services Area, which are subject to condition C1.2A – C1.2F. Should more than one terminal operator undertake operations within the terminal area, compliance with the conditions of this Schedule may be undertaken individually by operators, or collectively.	Noted	Compliant
C1.2A	**Interim Uses Port, Maritime and Waterway Related Uses – Hayes Dock Services Area** The conditions in this sub-schedule of the consent must be complied with by the Applicant, or any party undertaking activities and works associated with Port, Maritime and Waterway Related Uses Interim Uses, except conditions C1.3, C1.4, C1.5, C2.5, C2.12, C2.16, C2.17, C2.18, C2.20, C2.25, C3.2, C3.3, C4.2, C4.3, C4.4 and C4.5.	-	Not Applicable

No.	Details of Condition	Comment	Compliance Status
C1.2B	**Operation Environmental Management Plan – Port Maritime and Waterway Related Interim Uses Hayes Dock Services Area** The Applicant shall prepare an Operation Environmental Management Plan (OEMP) - Port, Maritime and Waterway Related Interim Uses prior to the commencement of Port, Maritime and Waterway Related Interim Uses on the site. The Plan shall include details of how environmental performance would be managed and monitored to meet acceptable environmental outcomes, including what actions will be taken to address potential adverse environmental impacts. In particular, the following environmental issues shall be addressed in the Plan: – Odour and Air Quality; – Noise Management; – Waste Management; – Water and Wastewater Management; – Hazard and Risk Management; – Amenity, including lighting; and – Incident Reporting. The OEMP shall also address: – details of operation activities including key noise and/or vibration generating activities and machinery that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers; – identification of feasible and reasonable measures proposed to be implemented to minimize and manage operation noise and vibration impacts, especially during sleep disturbance; – a description of how the effectiveness of mitigation and management measures would be maintained. Noise management shall include: – hours in which particular activities are undertaken; – use of shore power where available; – restrictions on notably noisy vehicles and vessels from the site; – use of building and vehicle alarms and/or alternatives available. The Plan shall also – identify all statutory obligations that the applicant is required to fulfil in relation to operation of the development, including all consents, licences, approvals and consultations;	-	Not Applicable

No.	Details of Condition	Comment	Compliance Status
	– include a description of the roles and responsibilities for all key employees involved in the operation of the development; – include overall environment policies and principles to be applied to the operation of the facility; – a copy of the updated OEMP shall be submitted for approval by the Secretary within three (3) months of the date of approval of Modification 16, unless otherwise agreed by the Secretary;		
C1.2C	**Noise Management Plan – Interim Uses Hayes Dock Services Area Operation** The noise management plan shall include, but not necessarily be limited to: – compliance standards, – community consultation, – compliant handling monitoring system, – site contact person to follow up complaints, – mitigation measures, – the design/orientation of the proposed mitigation methods demonstrating best practice, – operation times, – contingency measures where noise complaints are received, and – monitoring methods and program.	-	Not Applicable
C1.2D	**Noise Compliance Assessment – Interim Uses Hayes Dock Services Area Operation** Noise from the Hayes Dock Services Area must not exceed the Leq (15 minute) noise limits presented in the Table at C2.6 by more than 5d (B) A between 10.00pm and 7.00am. The Secretary may require a detailed noise compliance assessment, prepared by a qualified acoustic consultant. The noise compliance assessment shall meet the requirements of the Environment Protection Authority. The noise compliance assessment shall include the representative residential receiver locations identified in the table in C2.6.	-	Not Applicable
C1.2E	A complaint handling procedures shall be implemented for the Hayes Dock Services Area. Annual reports shall be provided to the Department, outlining details of the complaints received. A register of complaints shall be kept and include the following:	-	Not Applicable

No.	Details of Condition	Comment	Compliance Status
	– date and time, where relevant, of the comment, inquiry or complaint, – how the comment, inquiry or complaint was communicated, – any personal details of the commenter, inquirer or complainant that were provided. If no details were provided this should be recorded, – the nature of the comment, inquiry or complaint, – any actions taken by the Applicant in relation to the comment, inquiry or complaint, including any follow-up contact, and – if no action was taken, record the reason(s) why.		
C1.2F	Reporting on the compliance of the Hayes Dock Services Area with the OEMP shall be conducted annually. Reports shall be provided to the Department within twelve (12) months of this modification unless otherwise agreed.	-	Not Applicable

No.	Details of Condition	Comment	Compliance Status
C1.3	**Operational Environmental Management Plan (OEMP)** The Applicant shall prepare an Operational Environmental Management Plan (OEMP) which must be approved by the Secretary prior to commencement of any operations at the terminal. The OEMP must: – identify all statutory obligations that the Applicant is required to fulfil in relation to operation of the development, including all consents, licences, approvals and consultations; – describe any relevant staging or phasing of the commencement of operations within the terminal envelope and any relevant timeframes; – clearly outline what aspects of environmental management, monitoring and reporting would be undertaken by the Applicant or jointly with other operators within the terminal area; – include a description of the roles and responsibilities for all key employees involved in the operation of the development; – include overall environment policies and principles to be applied to the operation of the facility; – include specific consideration of measures to address any requirements of DOP, EPA and the Council during operation; – detail standards and performance measures to be applied to the development, and a means by which environmental performance can be periodically reviewed and improved, where appropriate; – detail management policies to ensure that environmental performance goals are met and to comply with the conditions of this consent; – include the Management Plans relevant to operation, include the environmental monitoring requirements relevant to operation; and – be made available for public inspection after approval of the Secretary.	SICTL maintains an OEMP which was approved by the Secretary on 16 September 2013 prior to commencement of operations. The OEMP was last updated on 25 August 2020 The current OEMP is located on the SICTL website at the following location: http://www.hutchisonports.com.au/operations/environmental-management-plans/	Compliant

No.	Details of Condition	Comment	Compliance Status
C1.4	**Compliance Certification** Prior to each of the events listed from a) to c) below, or within such period otherwise agreed by the Secretary, documentation certifying that all conditions of this consent applicable prior to that event have been complied with shall be submitted to the satisfaction of the Secretary. Where an event is to be undertaken in stages, submission of compliance certification may be staged consistent with the staging of activities relating to that event, subject to the prior agreement of the Secretary. a) commencement of any operations within the terminal area; and b) commencement of each stage or phase of operations.	The Development Consent Pre-Operational Compliance Report (v2 dated 03-09-2013) was approved by the Secretary on 16-09-2013.	Compliant
C1.5	Notwithstanding condition C1.4 of this consent, the Secretary may require an update report on compliance with all, or any part, of the conditions of this consent. Any such update shall meet the requirements of the Secretary and be submitted within such period as the Secretary may agree.	No update was requested by the Secretary during this reporting period.	Compliant
C2	**Operational Environmental Performance**		
C2.1	**Air Quality Management – Odour** The development shall be undertaken so as not to permit any offensive odour, as defined under section 129 of the *Protection of the Environment Operations Act 1997*, to be emitted beyond the boundary of the site.	No odour was identified during this reporting period.	Compliant
C2.2	**Air Quality Management – Dust Emissions** All activities shall be undertaken in a manner that minimises or prevents dust emissions from the site, including wind-blown and traffic-generated dust. All activities undertaken on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, all practicable dust mitigation measures, including cessation of relevant works, as appropriate, shall be identified and implanted such that emissions of visible dust cease.	No visible dust emissions occurred during the reporting year from day to day operation of the site. Air Quality Management is covered in section 7.1 of the OEMP.	Compliant
C2.3	All trafficable and vehicle manoeuvring areas shall be maintained at all times in a condition that minimises the generation and emission of dust.	Internal roads and truck marshalling areas are all sealed.	Compliant
C2.4	All vehicles entering or leaving the site carrying a load must be covered or otherwise enclosed at all times, except during loading and unloading, to minimise the generation and emission of dust.	Generally all vehicles on site are carrying shipping containers, tanks or tradesman equipment which are sealed. All container trucks are visually inspected through CCTV by SICTL Security at the Exit Gate.	Compliant

No.	Details of Condition	Comment	Compliance Status
C2.5	**Noise Management – Operation Noise Management Plan** Prior to the commencement of operations, the Applicant must prepare an Operation Noise Management Plan in consultation with EPA, DOP, Botany and Randwick Councils. The Plan shall include noise management, mitigation monitoring and reporting to ensure that local acoustic amenity is not adversely impacted. In addition, the Operational Noise Management Plan must: – identify general activities that will be carried out and associated noise sources; – assess operation noise impacts at the relevant receivers; – a primary objective of achieving the operational noise limits outlined in this consent; – provide details of overall management methods and procedures that will be implemented to control noise from the development; – include a pro-active and reactive strategy for dealing with complaints including achieving the operation noise limits , particularly with regard to verbal and written responses; – detail noise monitoring, reporting and response procedures consistent with the requirements of EPA; – provide for internal audits of compliance of all plant and equipment; – indicate site establishment timetabling to minimise noise impacts; – include procedures for notifying residents of operation activities likely to affect their noise amenity; – address the requirements of EPA; – a strategy to identify operational practices and noise controls that can minimise/or reduce noise levels from container impacts, audible alarms and other short duration high level noise events; – identify opportunities to reduce operational noise levels including, but not necessarily limited to, selection of equipment, engineering noise controls and shore based power; and – be approved by the Secretary prior to the commencement of operation.	The original Operational Noise Management Plan (v2 dated 30 August 2013) was approved by the Secretary on 16 September 2013. Air Quality Management is covered in section 7.1 of the OEMP.	Compliant

<table>
<tr><th>No.</th><th>Details of Condition</th><th>Comment</th><th>Compliance Status</th></tr>
<tr><td>C2.6</td><td>Noise Management – Noise Limits
Noise from the premises must not exceed the sound pressure level (noise) limits presented in the Table [see table in the Development Consent]. Note the limits represent the sound pressure level (noise) contribution, at the nominated receiver locations in the table.
<table><tr><th rowspan="2">Most affected residential Location</th><th>Day</th><th>Evening</th><th colspan="3">Night</th></tr><tr><th>LAeq(15 minute)</th><th>LAeq(15 minute)</th><th>LAeq(15 minute)</th><th>LAeq,9hr s</th><th>LA1(1 minute)</th></tr><tr><td>Chelmsford Avenues</td><td>40</td><td>40</td><td>40</td><td>38</td><td>53</td></tr><tr><td>Dent Street</td><td>45</td><td>45</td><td>45</td><td>43</td><td>59</td></tr><tr><td>Jennings Street</td><td>36</td><td>36</td><td>36</td><td>35</td><td>55</td></tr><tr><td>Botany Road(north of Golf Club)</td><td>47</td><td>47</td><td>47</td><td>45</td><td>59</td></tr><tr><td>Australia Avenue</td><td>35</td><td>35</td><td>35</td><td>35</td><td>57</td></tr><tr><td>Military Road</td><td>42</td><td>42</td><td>42</td><td>40</td><td>60</td></tr></table>For the purpose of this condition;
Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays,
Evening is defined as the period from 6pm to 10pm
Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays</td><td>Noise Monitoring was carried out in January and July 2021. Noise readings from the monitoring did not exceed the required noise limits.
The Noise Monitoring reports are uploaded to the SICTL website:https://www.hutchisonports.com.au/operations/monitoring-and-reporting/</td><td>Compliant</td></tr>
<tr><td>C2.7</td><td>Noise from the premises is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the noise level limits in Condition C2.6 unless otherwise stated.</td><td>Noise was measured during this reporting period in accordance to this condition.</td><td>Compliant</td></tr>
<tr><td>C2.8</td><td>Noise from the premises is to be measured at 1m from the dwelling façade to determine compliance with the LA1 (1 minute) noise level in Condition C2.6.</td><td>The loggers during the noise monitoring were positioned at the front of the property in compliant to this condition.</td><td>Compliant</td></tr>
</table>

No.	Details of Condition	Comment	Compliance Status
C2.9	Where it can be demonstrated that direct measurement of noise from the premises is impractical, the EPA may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy.	EPA via #DOC14/127781 approved the applied methodology for conducting noise measurements and modelling by SICTL.	Compliant
C2.10	The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.	Refer to C2.9 comment.	Compliant
C2.11	The noise emission limits identified in Condition C2.6 apply under meteorological conditions of wind speed up to 3 metres per second at 10 metres above ground level, and temperature inversion conditions up to 1.50C/100m positive lapse rate.	The Noise Compliance Assessment reports for January and July 2021 confirm that the measurements taken were within the meteorological conditions specified in C2.11.	Compliant
C2.12	**Operational Traffic Management Plan** Prior to the commencement of terminal operations, the applicant must prepare an Operational Traffic Management Plan in consultation with RTA, DOP, Botany and Randwick Councils and SSROC. The Applicant shall address the requirements of these organisations in the Plan. The Applicant shall also consult with the Community Consultative Committee in preparation of the Plan. The plan must include, but not be confined to, mitigation measures identified in EIS such as: – identification of preferred routes to minimise noise impacts on the surrounding community; – physical and operational measures (including signage) to mitigate noise impacts from vehicles accessing and leaving the terminal; – measures to limit the impact of traffic noise on Foreshore Road and Botany Road; – driver education and information to promote driver habits to minimise noise; and – timetabling, scheduling and details of vehicle booking systems. The plan must be submitted and approved by the Secretary prior to the commencement of operations.	The Traffic Management Plan (TMP) was last updated on 02/07/2021. The TMP measures are covered in section 7.4 of SICTL OEMP.	Compliant
C2.13	**Waste Management On-Site** Management of waste must be in accordance with the environment protection licence issued by EPA under the Protection of the Environment Operations Act 1997.	On-site waste management during the reporting period was in accordance to Condition L2.1 of EPL 20322 and POEO Act 1997. No waste was received on site during this reporting period.	Compliant

No.	Details of Condition	Comment	Compliance Status
C2.13A	The management of waste for uses and activities not subject to an Environmental Protection licence, shall be managed and disposed of in accordance with the *Protection of the Environment Operation (Waste) Regulation 2005* and the *Waste Classification Guidelines* (DECCW 2009), or any future guideline that may supersede that document. All waste materials removed from the site shall only be directed to a waste management facility lawfully permitted to accept the materials.	All waste removal providers engaged for collection and disposal of waste materials from SICTL are licenced under the EPA for the appropriate scheduled activity.	Compliant
C2.14	**Water and Wastewater Management** Except as may be expressly permitted by a licence under the *Protection of the Environment Operations Act 1997* in relation to the development, section 120 of that Act (prohibition of the pollution of waters) shall be complied with in connection to the development.	SICTL has generally complied with the requirements under section 120 of the POEO.	Compliant
C2.15	For each monitoring / discharge point or utilisation area, the concentration of any pollutant discharged at that point, or applied to that area, must not exceed concentration limits specified in the relevant environment protection license.	There is no approved discharge points in the EPL 20322.	Not Applicable
C2.15A	**Hazards and Risk Management – Hayes Dock Interim Uses** Port, Maritime and Waterway Related Interim Uses with in Hayes Dock may involve the loading, unloading and storage of minor volumes of dangerous goods (DGs) for the sole purpose of minor site maintenance; line boat, barge and tug maintenance; related service activities and boat refuelling.	-	Not Applicable
C2.16	**Hazards and Risk Management** **Storage and Handling of Dangerous Goods** Prior to the commencement of operation, the Applicant shall develop management measures in consultation with the Major Hazards Unit of DOP regarding the use of the new terminal for loading, unloading and storage of dangerous goods of Classes 2.3 and 6.	Prior to the commencement of operations the Handling of Dangerous Goods and Hazardous Substances Sub-Plan (v2 dated 9 September 2013) was developed to meet the requirements DPIE Major Hazards Unit DGs are managed in accordance to The Dangerous Goods Management Plan covered in section 7.6 of the OEMP.	Compliant

No.	Details of Condition	Comment	Compliance Status
C2.17	Twelve months after the determination of DA 494-11-2003-I MOD 16, the Proponent shall submit an annual report to the Secretary which provides details on actual Dangerous Goods movements listed in the Table 1 provided in Schedule 4. Should the threshold limits listed in Table 2 in Schedule 4 be exceeded for three consecutive annual reporting years, or if the maximum limits are reached in a single 12 month reporting period, the Applicant shall prepare an updated hazard analysis for the PBE operations. The hazard analysis shall: – be prepared in consultation with the Department; – be prepared in accordance with Hazardous Industry Planning Paper No. 6, “Hazard Analysis”; – assess compliance against the land use safety planning risk criteria (including individual fatality risk, injury/irritation risk and societal risk), as outline in Hazardous Industry Planning Advisory Paper No. 4 “Risk Criteria for Land Use Safety Planning”; and – assess whether the risks from PBE operations will significantly impact on the cumulative risk contour of 1 x 10-6 per annum, contained in Figure 2 of the Port Botany Land Use Safety Study Overview Report 1996, or in any other revised land use safety study for the Port that supersedes the 1996 study. The report shall be prepared to the satisfaction of the Secretary. The hazard analysis is to be submitted to the Secretary within 6 months of an identified threshold exceedance, or as agreed to by the Secretary. The information provided shall cover all stevedores in the PBE area. The information may be provided separately by each stevedore to the Department or in total for the PBE by the Applicant.	SICTL submitted the Dangerous Goods report to NSW Ports on 11 October 2021. Refer to *Appendix E* for the DG report. SICTL has not exceeded any threshold limits.	Compliant
C2.18	The Applicant shall not store or handle or permit to be stored or handled, dangerous goods of Class 2.3, toxic compressed or liquefied gases above the quantities stored or handled in 1995/96 except in accordance with recommendations 1.1 and 1.2 in the Port Botany Land Use safety Study (1996).	29 tonnes of DG class 2.3 transited through the terminal during the reporting period.	Compliant
C2.19	Condition Deleted from Development Consent	-	-

No.	Details of Condition	Comment	Compliance Status
C2.20	**Emergency Incident Management** Emergency Response and Incident Management Plan The Applicant shall develop an Emergency Response and Incident Management Plan in consultation with EPA, DOP, Council and the Community Consultative Committee. The Plan must be approved by the Secretary prior to the commencement of operations and shall detail: – terminal security and public safety issues; – effective spill containment and management; – effective firefighting capabilities; – effective response to emergencies and critical incidents; and – a single set of emergency procedures, consistent with the existing Port Botany Emergency Plan, should be developed that be scaled as appropriate for any incident or emergency.	Emergency Response Plan (ERP) was approved by DPIE prior to the commencement of operations The latest version of the ERP updated on 21/07/2021 is uploaded to the SICTL website: http://www.hutchisonports.com.au/operations/environmental-management-plans/	Compliant
C2.21	**Aviation Operations Impacts – Impact on Aviation Operations at Sydney Airport** The Applicant shall ensure that the location of fixed terminal operating infrastructure adequately takes into account the required lateral separation distances to minimise the interference to Sydney Airport radar and navigational systems.	SICTL OEMP incorporates the Aviation Operational Impacts Management Plan (section 7.2). The current OEMP is located on the SICTL website at the following location: http://www.hutchisonports.com.au/operations/environmental-management-plans/	Compliant
C2.22	**Obstacle Limitation Surface** The Applicant shall ensure that all operation equipment is below the obstacle limitation surface, unless otherwise permitted by an approval under the Airports Act 1999 and Airports (Protection of Airspace) Regulation 1966.	Operational equipment comply with the approval granted on 4 September 2013 by Aviation Environment, Aviation and Airports Division of the Department of Infrastructure and Transport.	Compliant
C2.23	**Terminal Lighting** The Applicant shall ensure design specifications of the terminal lighting conform to the requirements of Regulation 94 of the Civil Aviation regulations 1988.	SICTL developed Aviation Operational Impacts Sub-Plan to address this requirement of Regulation 94 of the Civil Aviation regulations 1988. Approval was granted by Aviation Environment, Aviation and Airports Division of the Department of Infrastructure and Transport on 4 September 2013. SICTL OEMP incorporates the Aviation Operational Impacts Management Plan (section 7.2). The current OEMP is located on the SICTL website at the following location:	Compliant

No.	Details of Condition	Comment	Compliance Status
		http://www.hutchisonports.com.au/operations/environmental-management-plans/	
C2.24	**Light Spill** The Applicant shall adopt measures to ensure that there is minimal light spill from ships which may cause distraction, confusion or glare to pilots. These may include: • minimising ship board lighting while berthed; • orientating ships in a specific direction; and or • providing temporary shielding on the ship mounted floodlights while docked.	SICTL implements measures in compliance to Maritime Order 32 Schedule 1 (2) requirement to ensure adequate lighting during vessel loading or unloading activities. Occasions when vessels are not under stevedore operations, the Quay Crane lights (except the beacon lights) are switched off in order to minimise the light glare or distraction to aircraft pilots.	Compliant
C2.25	**Bird Hazard Management Plan** Prior to operations, the Applicant shall develop a Bird Hazard Management Plan to minimise the attraction of bird species that pose a risk to aircraft movements. The Plan is to be prepared in consultation with the Department of Transport and Regional Services, Sydney Airport Corporation and Botany and Randwick Councils. The Plan must be approved by the Secretary prior to the commencement of operations.	Prior to the commencement of operations the Bird Hazard Management Plan (v2 dated 3 September 2013) was developed to address this requirement and was approved by the Secretary on 16 September 2013. Section 7.2 of site's OEMP incorporates the Aviation Operational Impacts Management Plan which includes controls to minimise the attraction of bird species that pose a risk to aircraft movements. No incident related to bird impacts occurred during this reporting period.	Compliant
C3	**Community information, involvement and consultation**		

No.	Details of Condition	Comment	Compliance Status

C3.1	**Community Information Complaints Handling**
	The Applicant must meet the following requirements in relation to community consultation and complaints management:
	• all monitoring, management and reporting documents required under the development consent shall be made publicly available;
	• provide means by which public comments, inquiries and complaints can be received, and ensure that those means are adequately publicised; and
	• includes details of a register to be kept of all comments, inquiries and complaints received by the above means, including the following register fields:
	  ○ the date and time, where relevant, of the comment, inquiry or complaint;
	  ○ the means by which the comment, inquiry or complaint was made (telephone, fax, mail, email or in person);
	  ○ any personal details of the commenter, inquirer or complainant that were provided, or if no details were provided, a note to that effect;
	  ○ the nature of the complaint;
	  ○ any action(s) taken by the Applicant in relation to the comment, inquiry or complaint, including any follow-up contact with the commenter, inquirer or complainant;
	  ○ if no action was taken by the Applicant in relation to the comment, inquiry or complaint, the reason(s) why no action was taken.
	• Provide quarterly reports to the Department and EPA, unless otherwise agreed by the Secretary, outlining details of complaints received.
		SICTL prepares Quarterly Community Feedback Reports, which are submitted to the DPIE and uploaded each quarter to the SICTL website at: http://www.hutchisonports.com.au/operations/monitoring-and-reporting/	Compliant

No.	Details of Condition	Comment	Compliance Status
C3.2	**Community Consultative Committee** At least 6 months prior to commencement of operations, the Applicant shall establish a Community Consultative Committee to oversee the environmental performance of the development. This committee shall: a) be comprised of: • 2 representatives from the Applicant, including the person responsible for environmental management; • 1 representative from Botany Bay City Council; and • at least 3 representatives from the local community, whose appointment has been approved by the Secretary in consultation with the Council; b) be chaired by an independent party approved by the Secretary; c) meet at least four times a year, or as otherwise agreed by the CCC; d) review and provide advice on the environmental performance of the development, including any construction or environmental management plans, monitoring results, audit reports, or complaints; and e) port rail noise within the Port Botany Expansion site is to be an ongoing agenda item to be discussed by the CCC and relevant stakeholders; and f) within 12 months of the commencement of MOD 16, an advertisement must be placed for new members to join the CCC, given that the other working groups such as the RNWG are no longer present. *Note: The Applicant may, with the approval of the Secretary, combine the function of this CCC with the function of other existing Community Consultative mechanisms the area, including the construction phase CCC (Condition B3.2) however, if it does this it must ensure that the above obligations are fully met in the combined process.*	Two SICTL representatives attended the 3-Monthly Port Botany Community Consultative Committee meetings organised during this reporting period. PBCC meeting is coordinated by NSW Ports.	Compliant

No.	Details of Condition	Comment	Compliance Status
C3.3	The Applicant shall, at its own expense: a) ensure that 2 of its representatives attend the Committee's meetings; b) provide the Committee with regular information on the environmental performance and management of the development; c) provide meeting facilities for the Committee; d) arrange site inspections for the Committee, if necessary; e) take minutes of the Committee's meetings; f) make these minutes available on the Applicant's website within 14 days of the Committee meeting, or as agreed to by the Committee; g) respond to any advice or recommendations the Committee may have in relation to the environmental management or performance of the development; and h) forward a copy of the minutes of each Committee meeting, and any responses to the Committee's recommendations to the Secretary within a month of the Committee meeting.	PBCCC Meetings held in this reporting period in November 2020, February, May and August 2021. PBCCC Meetings are attended by SICTL representatives. The meeting minutes are published on the NSW Ports website: https://www.nswports.com.au/community-and-environment-hub/consulative-committees/port-botany/	Compliant
C4	**Environmental Monitoring and Auditing**		
C4.1	**Incident Reporting** The Secretary shall be notified of any incident with actual or potential significant off-site impacts on people or the biophysical environment within 12 hours of the Applicant, or other relevant party undertaking the development, becoming aware of the incident. Full written details of the incident shall be provided to the Secretary within seven days of the date on which the incident occurred. The Secretary may require additional measures to be implemented to address the cause or impact of any incident, as it relates to this consent, reported in accordance with this condition, within such period as the Secretary may require.	There have been no incidents which required notification during this reporting period.	Compliant

No.	Details of Condition	Comment	Compliance Status
C4.2	**Annual Environmental Management Report (AEMR)** The Applicant must prepare an Annual Environmental Management Report for the development. The Annual Environmental Management Report must: • detail compliance with the conditions of this consent; • contain a copy of the Complaints Register (for the preceding twelve-month period, exclusive of personal details) and details of how these complaints were addressed and resolved; • include a comparison of the environmental impacts and performance predicted in the EIS and additional information documents provided to the Department and Commission of Inquiry; • detail results of all environmental monitoring required under the development consent and other approvals, including interpretations and discussion by a suitably qualified person; • contain a list of all occasions in the preceding twelve-month period when environmental performance goals have not been achieved, indicating the reason for failure to meet the goals and the action taken to prevent recurrence of that type of incident; • be prepared within twelve months of the commencement of operation, and every twelve months thereafter; • be approved by the Secretary each year; and • be made available for public inspection.	The AEMR for 2013, 2014, 2015, 2016, 2017, 2018, 2019 and 2020 have been completed and uploaded to the SICTL website in the following location: http://www.hutchisonports.com.au/operations/monitoring-and-reporting/ This document is the current AEMR for 2020-2021 reporting year which satisfies this condition.	Compliant
C4.3	**Deleted**	-	Not Applicable
C4.4	**Environmental Training** Prior to the commencement of operations an Environmental Training Program shall be developed and implemented to establish a framework in which relevant employees will be trained in environmental management and the operation of plant and equipment, including pollution control equipment, where relevant. The Program shall include, but not necessarily be limited to: • identification of relevant employment positions associated with the development that have an operational or management role related to environmental performance; • details of appropriate training requirements for relevant employees;	Section 3.6 of site's OEMP specifies the Environmental Training Program. The current OEMP is located on the SICTL website at the following location: http://www.hutchisonports.com.au/operations/environmental-management-plans/	Compliant

No.	Details of Condition	Comment	Compliance Status
	• a program for training relevant employees in operational and/ or management issues associated with environmental performance; and • a program to confirm and update environmental training and knowledge during employment of relevant persons.		
C4.5	**Environmental Auditing** Within one year of the commencement of operations and every year thereafter, the Applicant shall fund a full independent environmental audit. The audit must be undertaken by a suitably qualified person/team approved by the Secretary. The audits would be made publicly available and would: • be carried out in accordance with ISO 14010 – Guidelines and General Principles for Environmental Auditing and ISO 14011 – Procedures for Environmental Auditing; • assess compliance with the requirements of this consent, and other licences and approvals that apply to the development; • -assess the construction against the predictions made and conclusions drawn in the development application, EIS, additional information and Commission of Inquiry material; and • review the effectiveness of the environmental management of the development, including any environmental impact mitigation works. *Note: An independent and transparent environmental audit can verify compliance (or otherwise) with the Minister's consent and various approvals. Auditing also provides an opportunity for continued improvement in environmental performance.*	Yearly Independent Environmental Audit (IEA) is undertaken in compliance to this condition at SICTL. Previous IEA reports are uploaded to the SICTL website at:http://www.hutchisonports.com.au/operations/monitoring-and-reporting/ The last IEA was undertaken on 12 October 2021.	Compliant

Appendix B - Performance to EIS, Commission of Inquiry (COI) and S96 Application obligations

☺ = Predicted
😐 = Partially predicted
☹ = Not predicted
NA = Not applicable

Section	Prediction / Conclusion	Comments / Evidence	Rating
16.4.2	**Surface Water Quality** Initial consolidation of material in the reclaimed area is expected to take up to two years. During this time the surface of the reclamation, if not protected, may be subject to erosion.	No erosion occurred during the reporting year due to Phase 1 and 2 of construction at SICTL has now been completed and the Operational areas are fully surfaced and sealed.	☺
17.6.2	**Groundwater Quality** The operation of the new terminal is expected to have minimal effect on groundwater quality. Once operational, all terminal activities would be conducted in a manner to prevent contamination of surface or groundwater from operational activities. An Operational EMP would be developed in the detailed design phase to ensure an adequate standard is applied to contamination control for the operation of the new terminal	No pollution incident occurred the reporting period that would have had possible impact on the groundwater quality. Operational areas of the terminal are fully sealed with engineered controls to effectively treat any pollutant in stormwater runoffs that may have moved into the stormwater systems. Therefore the risk of groundwater contamination still remains low. SICTL has prepared and implemented the following documents under its OEMP: • section 7.5 Stormwater Management Plan; • section 7.6 Dangerous Goods Management Plan; • section 7.7 Waste Management Plan.	☺
18.4.2	**Soil Erosion** The operations at the new terminal would take place on reclaimed and hard-surfaced pavement. There is no requirement for soil removal or disturbance during operation of the terminal. Stormwater collection and treatment systems would be designed to capture surface water runoff from all impervious surfaces. Therefore, the operation of the new terminal is expected to have minimal effects on soil erosion.	No activity related to bulk excavation or soil disturbance was undertaken at the terminal during the reporting year which is likely to cause soil erosion. Therefore, the risk of soil erosion due to terminal operation still remains low.	☺

Section	Prediction / Conclusion	Comments / Evidence	Rating
	Soil in the vicinity of facilities outside the new terminal area, such as the proposed railway, boat ramp and car park, would be stabilised and erosion in these areas would be low.		
18.4.3	**Sediment Contamination** Leaks and spills from operations at the new container terminal would be contained by the proposed stormwater detention and treatment system. There is low potential for leaching of contaminants through the hard stand areas. Environmental management measures would be included in the Operational EMP.	Stormwater collection and treatment devices have been installed at SICTL and are operational. They include SQIDs, Polluplugs and LDUs which effectively separate pollutants, including sediments from stormwater. The leaching of pollutants through the sealed / hard grounds remains low as predicted.	☺
18.5.2	**Operation** The operation of the new terminal would have minimal effects on geology, soils and geotechnical issues. Once operational, all terminal activities would be conducted in a manner to prevent soil erosion and contamination from operational activities. A SWMP would be developed as part of an Operational EMP to ensure an adequate standard is applied to sediment control for the operation of new terminal. This plan would also address stormwater management and be prepared in accordance with NSW EPA requirements. The SWMP for operations would be incorporated in the Operational EMP. Management measures would include: • a first flush system to capture sediment and contaminants from surface water runoff from the new terminal; • treatment of surface water runoff from potential pollutant areas on the new terminal by a wastewater treatment system prior to discharge to sewer; • investigation of the feasibility of installation of sediment traps on Flood vale and Springvale Drains to reduce influx of sediment to Penrhyn Estuary; • emergency response plan for fuel, oil and chemical spills; and • storage and handling of all dangerous goods in accordance with Australian Standards, Dangerous Goods Regulations and NSW EPA requirements.	SICTL has prepared and implemented the following documents under its OEMP: • section 7.6 Dangerous Goods Management Plan; • section 7.5 Stormwater Management Plan. The current OEMP is located on the SICTL website at the following location: http://www.hutchisonports.com.au/operations/environmental-management-plans/ The terminal has installed SQID units to treat stormwater of sediment and pollutants. These treatment devices were maintained during this reporting period. Any issues with regards to water quality were investigated. Trade waste generated in the terminal is managed under existing Commercial Trade Wastewater Permit #37958.	😐
19.6.1	**Noise, Vibration and Light** Vibration would occur as a result of construction and operation of the new terminal. Most aquatic animals would tend to habituate to the	No complaints related to noise, vibration or light directly associated with SICTL were received during the reporting period.	☺

Section	Prediction / Conclusion	Comments / Evidence	Rating
	changes in noise and vibration, therefore, impacts could be considered as low. **Introduced Species** There appear to be no aspects of the proposal likely to enhance the risk of the introduction of exotic species, other than an increase in risk associated with greater numbers of vessels using Port Botany. In terms of introduced species already in Botany Bay, there is some risk of changes in distribution associated with the proposed port expansion for • *Caulerpa taxifolia* presently occurring along Foreshore Beach.	All noise complaint received from NSW Ports and EPA were general complaints related to broader activities within the Port Botany Industrial Precinct.	
19.6.2	Management of the possible spread of *Caulerpa. Taxifolia* would form part of a Construction and Operational EMP	The management of *Caulerpa Taxifolia* is not included in the SICTL Operational EMP or the sub-plans, as SICTL has limited control over activities outside of the terminal boundaries. However the management and monitoring of *Caulerpa Taxifolia* is addressed in the Penrhyn Estuary Habitat Enhancement Plan and assessed in the Port Botany Post-Construction Environmental Monitoring reports. See reports uploaded to the Port Authority of NSW website: https://www.portauthoritynsw.com.au/sustainability-environment/penrhyn-estuary-rehabilitation/ https://www.portauthoritynsw.com.au/sustainability-and-environment/seagrass-monitoring-at-foreshore-beach/	☺
19.7.2	**Marine Mammals** With the current operation of the port it appears that marine mammals are able to co-exist with the port operations. A Marine Mammal Management Plan would, however, be prepared to ensure that the occurrence of marine mammals in the vicinity of the port during operations is appropriately managed. This would form part of the Operational EMP and would be prepared in consultation with NPWS	The Port Authority of NSW monitors the presence and location of marine mammals in Botany Bay and through Harbour Control will advise commercial vessels and port operators if there is any marine hazard or emergency.	☺
19.7.4	**Monitoring and Feedback – Baseline Monitoring** Monitoring of the effects of the proposed port expansion on aquatic ecology would require investigation during construction and operation. Monitoring would be required before construction begins to compile	The management and monitoring of the effects on aquatic ecology in the Penrhyn Estuary is covered in the Penrhyn Estuary Habitat Enhancement Plan.	☺

Section	Prediction / Conclusion	Comments / Evidence	Rating
	appropriate baseline data. The proposed monitoring would be described in the Construction and Operational EMPs for the project and would include the measures described below: **The Water Column** – Following construction, water quality would be measured on a regular basis within Penrhyn Estuary. Indicators would include turbidity, dissolved oxygen, temperature, salinity, pH, nutrients, heavy metals and organic contaminants. In particular, organic contaminants (eg VHCs) would be measured in relation to an influx of contaminated groundwater into Penrhyn Estuary. **Seagrass, Algae and Associated Fauna** - Monitoring programs would be designed and implemented for seagrass during the construction and operational phases of the project. The seagrass indicators that would be considered include extent and coherence of beds (i.e. patchiness) and morphological characteristics, including shoot density, leaf length and width and extent of epiphytic growth. The occurrence and persistence of nuisance algae within Penrhyn Estuary as a result of nutrients from the catchments of Flood vale and Springvale Drains would be monitored to enable an appropriate management response. Finally, organisms utilising the compensatory seagrass beds would be monitored to evaluate diversity and abundance. It is suggested that a good indicator of this would be fish and mobile invertebrates (e.g. prawns) which can be readily collected using standard sampling procedures (e.g. seine nets).	Penrhyn Estuary rehabilitation | Port Authority New South Wales (portauthoritynsw.com.au) Over the period of assessment there has been a reduction in area of seagrass cover along Foreshore Beach and the Penrhyn Estuary channel. This trend of decline at Foreshore Beach commenced prior to construction of port facilities so that the meadow was “no longer a functioning seagrass meadow”. Last seagrass monitoring was undertaken in August 2020 which reported, “Pre- and post-construction monitoring of seagrass done over the past 19 years at Foreshore Beach has detected changes to species composition, along with great spatial and temporal variability in the distribution and condition of seagrass of the species present. Perhaps the most important observation was that the most substantial changes (by far) to the seagrass beds at Foreshore Beach occurred prior to commencement of construction for the Port Botany Expansion, indicating that those changes, detected prior to 2009, can only be attributed to factors other than the construction works”. Seagrass monitoring at Foreshore Beach | Port Authority New South Wales (portauthoritynsw.com.au)	
20.8.4	**Habitat Enhancement** A Vegetation Management Plan (VMP) detailing methodologies for saltmarsh excavation, storage, propagation and transplantation would be prepared and would be incorporated as part of the Construction and Operational EMPs for the project. A Vegetation Management Plan (VMP) detailing methodologies for mangrove removal and control would be prepared and would be incorporated as part of the Construction and Operational EMPs for the project.	The Vegetation Management Plan forms part of the Penrhyn Estuary Habitat Enhancement Plan which has been uploaded to the Port Authority of NSW website at: Penrhyn Estuary rehabilitation | Port Authority New South Wales (portauthoritynsw.com.au) Monitoring has shown that mangroves were not present within saltmarsh areas in Penrhyn Estuary during the post-construction surveys, suggesting mangrove management had been successful.	☺

Section	Prediction / Conclusion	Comments / Evidence	Rating
20.8.4	**Control of Feral Animals** The following two measures would assist in the control of feral animals at Penrhyn Estuary, these include: • ensure rubbish is placed in appropriately covered bins at all times. Ensure rubbish is regularly disposed; and • should shorebird monitoring during construction and operation of the Port Botany Expansion reveal feral cat and fox predation (on shorebirds) to be an ongoing issue, a 1080 fox baiting program should be initiated in consultation with NPWS and an expert shorebird ecologist. A Feral Animal Management Plan (FAMP) would be prepared as part of the Construction and Operational EMP for the Port Botany Expansion. The FAMP would address fencing and the management of garbage, particularly in the habitat enhancement areas, and the viability of a baiting program to be initiated in conjunction with NPWS.	SICTL has prepared and implemented the following sub-plans under the OEMP: • section 7.7 Waste Management Plan • section 7.10 Feral Animal Management Plan These documents have been uploaded to the SICTL website at: http://www.hutchisonports.com.au/operations/monitoring-and-reporting/ The number of foxes sighted at the terminal remains low. However, if the occurrence of feral foxes increase, SICTL will consider 1080 Fox Baiting at the terminal.	☺
20.10	**Conclusion** Key impacts from the proposal on the 23 shorebird and one seabird species considered as regular or occasional visitors to Penrhyn Estuary could include disturbance to feeding and roosting from a change in lighting regime, increased movement, noise from construction and operation of the port (and associated infrastructure such as railway lines) and potential entry/exit flyway barriers due to the enclosure of Penrhyn Estuary. A range of shorebird and other monitoring studies are proposed which would assist in both the assessment of impacts on shorebirds and their habitats at Penrhyn Estuary and provide a measure of gauging the success of the enhanced shorebird habitat.	The results of the Shorebird Monitoring Program - Port Botany Post-Construction Environmental Monitoring can be accessed via Penrhyn Estuary rehabilitation | Port Authority New South Wales (portauthoritynsw.com.au)	☺
21.10	**Conclusion** It has been assumed that the volume moved by rail would be 30% of container throughput by 2006 and 40% by 2011.	The actual development timeframes of the Port Botany Expansion Project and the SICTL terminal is not in alignment with the expectations assumed at the time of the submission of the EIS. SICTL landside mode share for rail transport remains typically stable at 13during the reporting period.	☺

Section	Prediction / Conclusion	Comments / Evidence	Rating
22.4.2	**Operation Noise Impacts – Sleep Disturbance Impacts** All predicted noise levels would be below the external level of 65 dBA which some researchers consider would not result in awakening reactions.	Operational Noise Monitoring undertaken by SICTL in January and July 2021 did not identify any levels above 65dBA.	☺
22.5.2	**Mitigation Measures – Operation** A Noise Management Plan containing environmental management measures to assess and minimise noise from the operation of the new terminal would be developed. The Noise Management Plan would be included in the Operational EMP for the new terminal. Noise level emissions would be a criteria for selection of new plant for the site. The quietest possible plant that satisfied the operational performance specifications would be selected and noise control kits fitted where required. Regular maintenance of machinery would be carried out to ensure optimal and efficient operation. Audible safety alarms on some terminal equipment would be turned off during night hours (between 10.00 pm and 6.00 am) and replaced with visual alarms. It is understood that for certain types of equipment e.g. quay cranes (long travel alarm and high wind alarm) alarms are required to remain for safety reasons. In respect of other items of equipment, a safety assessment would be undertaken to identify where the audible alarms could be replaced with visual alarms without affecting safety. Operator awareness and training would be regularly conducted. Good training and awareness of noise issues would be implemented to minimise poor cargo handling practices. Complaints would be assessed and responded to in a quick and efficient manner. Noise monitoring would be conducted to assess impacts from the operation of the new terminal at locations most likely to be affected by the new terminal operations. The results of this monitoring would be discussed with the EPA and Planning NSW to identify any responses required, although the predicted noise levels would not be expected to occur for some years after the commencement of operations in about 2010. By this time, technological and operational changes are likely to be available which would reduce operational noise levels at the new terminal.	SICTL has prepared and implemented the Noise Management Plan (section 7.3 in the OEMP). This document has been uploaded to the SICTL website at: http://www.hutchisonports.com.au/operations/environmental-management-plans/ Noise level emissions and noise controls are part of the technical specifications for new plant. Maintenance is carried out on a regular basis in accordance with the OEM guidelines and the equipment use. The audible safety alarms are not turned off during night hours (Risk Assessment RA0025.3 reviewed 12 December 2016), however reversing “Quakers” instead of beepers have been installed on all equipment. Quay Crane alarms for the movement of deck lids may be switched to the visual only alarms during night hours. Training commences with the Employee Induction and the requirements to minimise noise in operations and cargo handling is carried through to all equipment training modules. SICTL responds to all complaints (see details in *Appendix D*). Noise Monitoring is conducted by SICTL and the monitoring results for January and July 2020 have been uploaded to the SICTL website at: http://www.hutchisonports.com.au/operations/monitoring-and-reporting/ Section 7.3 Noise Management Plan of the OEMP consider future option for shore based power.	☺

Section	Prediction / Conclusion	Comments / Evidence	Rating
	The Noise Management Plan would also contain the option for shore power to be provided to ships in the future. A Traffic Noise Management Plan would be developed for the new terminal. This plan would consider traffic route selection, traffic clustering and traffic rescheduling.		
23.8.2	**Mitigation Measures – Operation** Notwithstanding the fact that the proposed expansion is shown to result in acceptable impacts, the new terminal would be designed and constructed such that it could support the use of alternative energy for ships at berth (i.e. shore power), should ships be able to accept such power in the future. This would reduce ship emissions in the local area.	Although the infrastructure has been installed during construction of the SICTL terminal, Shore Based Power is not immediately available for use to reduce ship emissions or as a noise mitigation measure upon commencement. SICTL may commission Shore Based Power at all berths in future construction phases which will compliment other controls for noise mitigation and air quality improvements.	☺
24.8	**Assessment of Impacts During Operation** During the operational phase of the Port Botany Expansion there would be no impacts on Aboriginal, European or maritime heritage resources in the primary or secondary study area	SICTL terminal operation is consistent with this prediction as there have been no incidents of heritage impacts during the reporting period.	☺
25.5	**Mitigation Measures** Quay Crane specification – quay cranes for the new terminal would be approximately 50 m high. Container Stacking height – containers would not be stacked more than six high (18 m) and would typically be only three high (9 m), as is the case with the existing terminals. Noise Wall – the proposed noise wall near the edge of the new terminal would be approximately 4 m in height and would partially screen the operations of the new terminal when viewed from foreshore areas near the port.	Maximum operating height of the SICTL Quay Cranes of 70 meters AHD (for HD1) and 78 meters AHD for (HD2, HD3, HD4 has been approved Department of Infrastructure and Transport on 05-11-2020. The ASC utilised at SICTL terminal will be stacked no more than 5 high (as controlled by nGen software programming). The 4m high noise wall was erected during the construction phase on the northern and eastern boundaries of the SICTL terminal.	☺
26.5.6	**Employment Opportunities** Operation of the new terminal is expected to generate a substantial number of jobs, which is an important social benefit. The number of people employed directly in the operation of the new terminal has been estimated at more than 1,100 by 2010, increasing to more than 3,700 by 2025. This does not include any jobs created indirectly eg workers in	The actual development timeframes of the Port Botany Expansion Project and the SICTL terminal is not in alignment with the expectations assumed at the time of the submission of the EIS.	😐

Section	Prediction / Conclusion	Comments / Evidence	Rating
	the industries supplying materials to the port. The total number of jobs generated both directly and indirectly by the operations of the new terminal is estimated to be more than 2,800 by 2010 increasing to more than 9,100 by 2025		
28.10.1	**Risk Management – Mitigation Measures** The following mitigation measures would be implemented to manage the hazards and risks described above: (i). containers with dangerous goods would be handled and transported in accordance with the Australian Standard 3846 (1998): The Handling and Transport of Dangerous Goods in Port Areas and the NSW Dangerous Goods (General) Regulation 1999; (ii). an Occupational Health and Safety Plan would be developed by the terminal operator(s) to address the handling and transport of dangerous goods during the operation of the new terminal; (iii). a notification system for the arrival or delivery of dangerous goods would be implemented; (iv). restrictions on the time dangerous goods are allowed to be held within the port would be applied, supported by a loading/unloading plan and arrangement of transport to/from the berths; (v). various classes of dangerous goods would be separated by safe distances on the berth; (vi). suitable container handling equipment would be used to minimise risk of dropped containers; (vii). suitable container loading/unloading, handling and stacking systems would be employed to minimise double handling and attendant risk of damaging containers; (viii). the facility would be fitted with adequate yard signage and warning systems for mobile equipment; (ix). there would be adequate warning systems for ships moving in the vicinity of the facility; (x). a first flush drainage system would be installed and maintained to contain spills and contaminated runoff; (xi). bunds would be constructed around diesel storage tanks; (xii). fire fighting equipment would be provided and personnel trained in fire fighting and evacuation procedures; and (xiii). emergency and incident management procedures would be developed (refer to Chapter 32 Emergency and Incident Management).	(i) and (ii) of the Dangerous Goods Management Plan (section 7.6 of the OEMP) has been developed in accordance with AS3846 and the WHS Act and Regulation (the NSW Dangerous Goods (General) Regulation 1999 has been repealed; provisions saved under the WHS Regulation). (iii) the Sydney Ports ShiPS online system controls the movements of all dangerous goods (import and export) to the terminal. (iv) Dangerous Goods are classified as Red line or Green line cargo in the ShiPS system and truck bookings are controlled to limit the duration that cargo is held within the terminal. (v) SICTL uses nGen software to program DG separation into the ASC stacking plans, and container movements around the terminal. (vi) SICTL uses Quay Cranes, ASC and Shuttle Carriers with spreaders which lift containers from the top. Quay Cranes and ASC have automated and manual systems to prevent containers from uncontrolled falls/drops. (vii) SICTL's operations are designed to minimise double-handling. (viii) SICTL utilises line marking, signage and fish-eye mirrors around the terminal, and all terminal vehicles are fitted with flashing lights and reversing Quakers. (ix) SICTL does not control the berthing of vessels, this task is undertaken by the pilot and third party tug and line service providers. (x) SICTL has installed a SQIDs system – using SPEL 'Stormceptor' and Humes 'Aquaceptor' separator units. (xi) Bunding has been constructed around the diesel refuelling station. (xii) Fire Fighting equipment is installed at the SICTL terminal and SICTL staff has been trained in its use and in evacuation procedures. (xiii) SICTL has an existing Emergency Response Plan	☺

Section	Prediction / Conclusion	Comments / Evidence	Rating
29.3.3	**Assessment of Impacts – Operation** Sealed surfaces often provide ideal roost sites for large numbers of birds especially Silver Gulls. Bitumen surfaces provide a warm surface for roosting and are particularly attractive where areas are not subject to regular disturbance. These undisturbed open spaces have the potential to attract significant numbers of birds to the site, thereby potentially increasing the risk of bird strike at Sydney Airport. Areas illuminated at night are also likely to attract birds, especially Silver Gulls, as they provide a secure roosting environment and attract insects which birds feed upon. The additional port land may provide large areas of suitable roosting habitat for the Silver Gull. Flat surfaces of buildings, such as roofs, may provide suitable places for Silver Gulls to roost. Openings and ledges may provide roosting and nesting habitat for Feral Pigeons, Common Starlings, Common Mynas and other bird species associated with buildings. The pavements and buildings associated with the new terminal have the potential to attract significant numbers of birds to the site, thereby potentially increasing the risk of bird strike at Sydney Airport. It is therefore important to initiate deterrent strategies.	SICTL has adopted the following measures to discourage bird attraction to the terminal: • No eating is permitted outside of the buildings; • Closed bins to reduce the risk of bird attractant; • Control of littering through signage, induction training and regular toolbox talks; • the design of rooves and gutters of terminal buildings to deny birds the opportunities to make nests. SICTL staff are required to report any hazards or the presence of nesting or injured wildlife, including any eggs. There have been no reported incidents during this reporting period. Monitoring of the undeveloped future construction areas and terminal structures (i.e. light poles) for nesting birds is undertaken periodically and during the nesting season.	☺
29.4	**Mitigation Measures** Expansion to reduce the risk of increasing bird hazards arising from the proposal. The plan would be incorporated in the Construction and Operational EMP and would include: • measures to minimise the attraction of birds, especially high risk species such as Silver Gulls, Australian Pelicans and Australian White Ibises • use of deterrents to prevent the build-up of birds; • exclusion of activities that attract birds in certain areas; • measures to minimise disturbance of birds at Penrhyn Estuary; • education about bird hazards; and	SICTL has prepared and implemented the Aviation Operational Impacts Management Plan (section 7.2 in the OEMP). This document has been uploaded to the SICTL website at: http://www.hutchisonports.com.au/operations/environmental-management-plans/	☺

Section	Prediction / Conclusion	Comments / Evidence	Rating
	• monitoring.		
29.4.2	**Deterrent Action – Operations** Regular monitoring of the site, including after nightfall, would be undertaken to determine whether birds are attracted to the site. If required, deterrent systems would be employed to prevent the build-up of birds in the new terminal and public recreation areas. Examples of deterrent systems include: • flagging or streamers – this consists of material flapping in the wind and is fairly effective in deterring birds from landing close by. This method has been used successfully nearby at Molineux Point; • perch spikes – can be installed on structures such as posts which provide roosts for species such as Cormorants, Australian Pelicans and Silver Gulls; • fishing lines strung across bird landing paths – the lines frighten birds when they attempt to land and come into contact with the "invisible" line; • distress calls – designed to scare birds away; • cracker shells – are cartridges fired from a shotgun causing an explosion in mid-air to frighten birds. These have been known to be effective in most situations when used at random, but may need to be used in combination with other devices as a long term solution; and • strobes or moving spotlights – work best in a dark environment and may be less effective where there is a lot of light from other sources, for example wharf areas which are illuminated during the night. Bird deterrent methods like cracker shells, which are likely to have a significant deterrent impact on migratory shorebirds using Penrhyn Estuary, should only be used during periods when most migratory species are absent (i.e. from early May to late June), unless advised otherwise by an expert shorebird ecologist. In any case, these types of deterrents should be used only on advice from an expert shorebird ecologist. At the first signs of a deterrent system failing to work, alternative methods would be used to supplement or replace the existing bird deterrent system.	SICTL staff are required to report any hazards or the presence of nesting or injured wildlife, including any eggs. Monitoring of the undeveloped future construction areas and terminal structures (ie light poles) for nesting birds is undertaken periodically and during the nesting season.	☺

Section	Prediction / Conclusion	Comments / Evidence	Rating
30.4.2	**Assessment of Impacts – Operation** **Air Space** There would be no fixed or mobile structures in the new terminal that would intrude into the OLS. **Light Spill** It is anticipated that light spill from the Port Botany Expansion would not adversely impact operations at Sydney Airport due to the following lighting design measures: • High masts - lighting would be directed down to the intended application area with minimal light spill outside the area boundaries, by using asymmetric distribution horizontal flat glass floodlights, and would comply with CASA requirements • Quay cranes - lighting of shuttle boom quay cranes would be specified as downlight type to meet civil aviation regulations. Lighting elements for access/egress stairs and gangways would be mounted horizontal (no tilt) and have internal shielding of the lamps to ensure correct cut off. Obstruction lights would be placed on cranes to mark these in accordance with civil aviation regulations (CAR Regulation 95). • Straddle carriers – straddles carriers would move mostly in the secondary restriction zone but would pick up containers from beneath the quay cranes, thus entering Zone D for this period. The main task downlights would be specified to comply with civil aviation regulations. The impact of headlights and rotating beacon lights would need to be managed. • Buildings and associated areas – buildings and other external areas would be lit with floodlights that have a similar cut off lighting performance to those mounted on high masts. Internal building lighting would be similar to that used at the airport terminal and at the existing port facilities. Therefore, these areas would have a negligible impact on operations at Sydney Airport. • Ships - the floodlights on ships, once berthed, are used to provide working light on deck. Ships on the north south berths of the new terminal would fall within zone D. Floodlights and their direction of illumination could have the potential to affect use of the airport.	Maximum operating height of the SICTL Quay Cranes of 51.055m AHD has been approved by Aviation Environment, Aviation and Airports Division of the Department of Infrastructure and Transport on 04-09-2013. SICTL terminal lighting has been designed and installed to comply with the requirements of the Development Consent (see Development Consent clauses C2.23 and C2.24 above) Maritime Order 32 Schedule 1 (2) Lighting - requires adequate lighting during loading or unloading activities. In some cases the ship will be loaded/unloaded at night and require sufficient lighting to undertake the operations. When vessels are not under stevedore operations, the Quay Crane lights (except the beacon lights) will be switched off in order to minimise the light glare or distraction to aircraft pilots. Quay Cranes are fitted floodlights which are designed and positioned to provide adequate lighting to the stevedore operations. Lights are mounted to the crane trolley and beams so as to penetrate into the ship's cell and to illuminate the landside container face in the working lane. Quay Cranes are also fitted with obstruction lights which operate on a 24/7 basis. Shuttle Carriers (Straddle carriers) have floodlights positioned to provide the machine operator with good illumination of the travel route and the container. Floodlights are mounted at low level on the side frames. The terminal (including the buildings and roads) utilise cut-off lighting that will reduce light spill when there are no operations in that area. Internal lighting of buildings are	☺

Section	Prediction / Conclusion	Comments / Evidence	Rating
		also programmed for the normal operational hours, and with movement sensors that will turn off the lights.	
30.5.2	**Mitigation Measures – Light Spill** While future terminal operators would have no direct control over the design of lighting on board ships, there are some options by which they would be able to minimise light spill, including: • lighting on board ships whilst berthed to be provided primarily by the shuttle boom quay cranes with supplementary lighting on board only being provided where necessary; • ships to be berthed facing a specific direction (e.g. north or south) and to only use floodlights mounted on the bridge. The appropriateness of this option could be tested by CASA through a fly-over of the existing Brotherson Dock; and • provide restrictive temporary shielding to any permanent ship mounted floodlights whilst the ship was docked.	SICTL implements measures in compliance to Maritime Order 32 Schedule 1 (2) requirement to ensure adequate lighting during vessel loading or unloading activities. Occasions when vessels are not under stevedore operations, the Quay Crane lights (except the beacon lights) are switched off in order to minimise the light glare or distraction to aircraft pilots. Vessels are generally berthed facing south, unless otherwise directed to face north by the pilots. The HSEQ5.2.1.1 Ship Booklet was implemented on 31 January 2018 and is provided by the SICTL Shift Leader to the Ship Master of all vessels that berth at SICTL. The Environmental Requirements of the terminal (managing light spill and bird and best management) are outlined in section 5 of the Ship Booklet.	☺
32.1	**Introduction** The future operator(s) of the new terminal, with advice from Sydney Ports Corporation, would prepare an ERIMP to manage these potential emergencies prior to the new terminal commencing operations. The purpose of the ERIMP would be to provide an organised and practised response to incidents and emergency situations to protect employees, the public and the environment.	SICTL has developed and implemented the HSEQ 10.1.3 Emergency Response Plan (ERP). The latest version of the ERP has been uploaded to the SICTL website: http://www.hutchisonports.com.au/operations/environmental-management-plans/	☺
32.2.4	**Specific Sub-Plans – Spill Containment and Management** The proposed new terminal would be equipped with emergency response equipment typically comprising absorbent materials, absorbent pads to block drainage points and protective equipment consisting of gloves, rubber boots, eye protection etc.	Emergency Spill Kits are situated in key locations around the terminal – i.e., Quay Cranes, landside ASC, waterside ASC, Shuttle Bay, Dangerous Goods containment area, Truck Marshalling Area, Rail Siding, and Maintenance Workshop. SICTL have procured additional spill management equipment which is stored in a shipping container designated and fitted out for this purpose.	☺
32.2.4	**Specific Sub-Plans – Fire Fighting**	SICTL has developed and implemented the HSEQ 10.1.3 Emergency Response Plan (ERP).	☺

Section	Prediction / Conclusion	Comments / Evidence	Rating
	A Fire Management Plan would be developed and implemented at the site, which would incorporate signage and training requirements for all personnel at the new terminal. The principal firefighting system would include a fire hydrant system that could be utilised by emergency services. Clear access to all firefighting equipment would be maintained on the site as a requirement of the Fire Management Plan. All new terminal buildings would be fitted with heat or smoke detection equipment at appropriate locations, which would be connected to the fire alarm system and would be fitted with a sprinkler system and fire extinguishers as appropriate.	The latest version of the ERP has been uploaded to the SICTL website: http://www.hutchisonports.com.au/operations/environmental-management-plans/ Emergency Control Organisation including Chief Warden and Area Warden training is provided to appropriate staff (ensuring all areas are covered on a 24/7 basis). Terminal buildings are fitted with heat/smoke detection equipment, sprinkler systems, fire extinguishers and fire hoses which are inspected and subject to compliance auditing as part of the annual Fire Safety Statement.	
33.2.2	**Water Usage – Operation** Water used for operational activities that do not require potable water, would be sourced from treated surface water runoff stored in two 10,000 L tanks at the northern end of the new terminal. Operational reuse of this water would include maintenance activities, washdown and irrigation.	SICTL has installed 3 x 30,000L water storage tanks beneath the Operations Building. The stored water will be used to flush toilets/urinals and for plant wash down.	☺
33.2.2	**Water Usage – Operations** Once the new terminal is fully operational, the anticipated water use would be 42 ML per annum. Sydney Water Corporation advises that sufficient capacity exists in the water supply mains to provide the volumes of water required for the operation of the new terminal and recreation area.	SICTL estimated water usage for this reporting period is 3.7 ML. SICTL relies on the rainwater storage tanks for the cleaning of machinery and flushing of toilets.	☺
33.3.2	**Wastewater – Operation** All trade waste generated during the operation of the new terminal would discharge to the Sydney Water Corporation sewerage system under a Trade Waste Agreement. The Trade Waste Agreement would determine the level of treatment required prior to discharge. All areas where wash-down or maintenance activities are to be undertaken would be bunded and provided with sump pits, grit traps and oil/water separators. This would also be the case for any additional bunded storage areas, such as those used for refuelling and fuel storage. Water collected in these areas would be tested and disposed to the sewerage system, or if unsuitable for disposal to sewer would be disposed offsite by a licensed waste disposal contractor.	SICTL has a Commercial Trade Wastewater Permit (ref No: 37958 dated 17 July 2015). The plant wash-down area in the Maintenance building is bunded and the wastewater is collected in a separate pit with a separator unit for oil/water. A third party contractor is used to pump out the waste and contaminated water from the collection units when required. The refuelling area is also bunded with a separate pit for any spills that occur.	☺

Section	Prediction / Conclusion	Comments / Evidence	Rating
33.5	**Water and Wastewater Management** The following mitigation measures would be adopted for the proposed Port Botany Expansion: • water use and wastewater discharge at the site would be subject to a Water Resources Management Plan (WRMP), which would form part of the construction and operational EMPs. These plans would include water minimisation strategies as well as monitoring and testing schedules for wastewater as required; • clean, treated stormwater would be collected in two 10,000 L water storage tanks at the northern end of the new terminal to allow reuse for maintenance, washdown and irrigation; • dual flushing toilets, minimal flow shower heads and regular maintenance to identify leaking or dripping taps and pipes would be implemented during construction and operation; • monitoring and testing would be undertaken prior to discharge of treated wastewater, to ensure compliance with the site Trade Waste Agreement.	SICTL has prepared and implemented the Water and Wastewater Management Plan (section 7.8 of the OEMP). This document has been uploaded to the SICTL website at: http://www.hutchisonports.com.au/operations/environmental-management-plans/ SICTL has installed 3 x 30,000L water storage tanks beneath the Operations Building. The stored water will be used to flush toilets/urinals and for plant wash down. Dual-flushing toilets and minimal flow shower-heads have been installed. Maintenance of any leaking or dripping taps and pipes is undertaken as soon as it has been identified. Monitoring and testing is in line with SICTL's Commercial Trade Wastewater Permit (ref No: 37958 dated 17 July 2015). The Backflow Prevention Devices were last tested on 10 December 2020.	☺
34.4.2	**Waste Management and Disposal – Operational Waste** An Operational WMP would be developed and implemented for the new terminal in accordance with the requirements of the *Waste Avoidance and Resource Recovery Act* 2001, the *Protection of the Environment Operations Act* 1997, the EPA's *Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-Liquid Wastes* (1999), the *Botany Bay DCP 29* and the *National Minimisation and Recycling Strategy.* The plan would be incorporated into the Operational EMP for the terminal Recycling facilities would be provided at the new terminal and in public recreation areas to maximise recycling of waste materials such as plastic and glass bottles/containers, aluminium cans and	SICTL has prepared and implemented the Waste Management Plan (section 7.7 of the OEMP). This document has been uploaded to the SICTL website at: http://www.hutchisonports.com.au/operations/environmental-management-plans/ SICTL has implemented a recycling program where bins have been placed in the kitchen and lunchroom areas to separate plastic, glass and aluminium. Paper and cardboard are collected by the cleaners (paper is generally shredded) and placed in the appropriate recycling bin.	☺

<table>
<tr><th>Section</th><th>Prediction / Conclusion</th><th>Comments / Evidence</th><th>Rating</th></tr>
<tr><td></td><td>paper/cardboard. Separate bins would be provided for food waste and fish remains from fish cleaning facilities in the public recreation area. All domestic waste would be collected on a regular basis and transported off site for disposal to a licensed landfill or recycling facility as appropriate. Litter bins would be designed in accordance with the bird hazard guidelines

Waste oils and fluids from maintenance activities may be classified under the POEO Act as being Hazardous, Industrial or Group A Waste. The management of these substances may need to be regulated by an EPA Environment Protection Licence which would be obtained by the terminal operator(s). It is expected that these materials would be collected and stored in proprietary facilities and either be reused onsite or removed by a licensed waste contractor.</td><td>SICTL has an Environmental Protection Licence that regulates chemical storage as Scheduled Activity.

Any waste oils are removed by a licensed waste contractor. SICTL use Suez Recycling & Recovery Pty Ltd to remove waste materials such as oily rags and waste oils stored in containers.

Suez are licenced under the EPA for Resource Recovery, Waste Processing (non-thermal treatment) and Waste Storage.</td><td></td></tr>
<tr><td>35.3</td><td>Operational Phase
The estimated annual energy consumption over the operational life of the project is presented in Table 35.2 (summarised below)
<table><tr><th></th><th>2015</th><th>2020</th></tr><tr><td>Estimated consumption of electricity (MWh)</td><td>17,000</td><td>21,000</td></tr><tr><td>Estimated consumption of diesel fuel (litres)</td><td>3,656,000</td><td>4,570,000</td></tr></table></td><td>Electricity consumption for this reporting period: 8,844 MWh.

Diesel fuel consumption for this reporting period: 829,587L.</td><td>☺</td></tr>
<tr><td>35.4</td><td>Energy Conservation and Management
A key component of achieving energy conservation would be the development of an Energy Management Action Plan. This plan would be included as part of the Construction and Operational EMPs.</td><td>SICTL has prepared and implemented the Energy Management Plan (section 7.11 in the OEMP). This document has been uploaded to the SICTL website at: http://www.hutchisonports.com.au/operations/environmental-management-plans/</td><td>☺</td></tr>
<tr><td>35.4.2</td><td>Operational Phase
Design of buildings and terminal layout would aim to achieve the following energy efficiencies:
• Energy Efficient Design
• Energy Efficient Equipment</td><td>SICTL has installed energy efficient systems in the buildings including motion-sensors in the internal rooms and corridors to turn lights on and off, climate control air-conditioning with sensors in zones on each floor, external walls in the Operations Building are predominately fitted</td><td>☺</td></tr>
</table>

Section	Prediction / Conclusion	Comments / Evidence	Rating
	• Energy Efficient Work Scheduling and Practice	with large glass windows allowing additional light into the building (these glass windows are fitted with blinds and block-out blinds to control heat and light).	

Appendix C - Performance to Environmental Protection Licence – EPL 20322

Compliant: Complies with all requirements of the condition(s)

Non-Compliant: Does not fully comply with all requirements of the condition.

Observation: A situation identified that provides an opportunity for improvement, requires further consideration or could lead to a non-compliance or environmental impact if not addressed.

Not Applicable: There were either no compliance issues related to the condition, is a future required action, was not applicable at the time of the audit or was not related to a SICTL responsibility.

<table>
<tr><th>Condition No.</th><th>Details of Licence Requirement</th><th>Comment</th><th>Compliance Status</th></tr>
<tr><td>1</td><td>Administrative Conditions</td><td></td><td></td></tr>
<tr><td>A1.1</td><td>This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

<table><tr><th>Scheduled Activity</th><th>Fee Based Activity</th><th>Scale</th></tr><tr><td>Chemical storage</td><td>General chemicals storage</td><td>0 - 5000 kL storage capacity</td></tr></table></td><td>SICTL has only carried out activity as specified in this condition.</td><td>Compliant</td></tr>
<tr><td>A2.1</td><td>The licence applies to the following premises:
<table><tr><th>Premises Details</th></tr><tr><td>SYDNEY INTERNATIONAL CONTAINER TERMINALS PTY LTD</td></tr><tr><td>PORT BOTANY GATE, B150-153, SIRIUS ROAD, OFF FORESHORE ROAD</td></tr><tr><td>BOTANY</td></tr><tr><td>NSW 2019</td></tr><tr><td>LOT 200 DP 1183399</td></tr></table></td><td>SICTL terminal operates at this address.</td><td>Compliant</td></tr>
</table>

Condition No.	Details of Licence Requirement	Comment	Compliance Status
A3.1	This licence applies to all other activities carried on at the premises, including: **Ancillary Activity** Shipping Facilities	All activities during the reporting year were undertaken in accordance to this condition.	Compliant
A4.1	Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence. In this condition the reference to "the licence application" includes a reference to: a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.	All activities during the reporting year were undertaken in accordance to this condition.	Compliant
2	**Limit Conditions**		
L1 L1.1	**Pollution of waters** Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	SICTL has generally complied with the requirements under section 120 of the POEO.	Compliant

<table>
<tr><th>Condition No.</th><th>Details of Licence Requirement</th><th>Comment</th><th>Compliance Status</th></tr>
<tr><td>L2.1</td><td>Waste
The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column title “Waste” and meeting the definition, if any, in the column titles “Description” in the table below.
Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled “Activity” in the table below.
Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled “Other Limits” in the table below.
This condition does not limit any other conditions in this licence.
<table><tr><th>Code</th><th>Waste</th><th>Description</th><th>Activity</th><th>Other Limits</th></tr><tr><td>NA</td><td>General or Specific exempted waste</td><td>Waste that meets all the conditions of a resource recovery exemption under Clause 92 of the Protection of the Environment Operations (Waste) Regulation 2014</td><td>As specified in each particular resource recovery exemption</td><td>NA</td></tr><tr><td>NA</td><td>Waste</td><td>Any waste received on site that is below licensing thresholds in Schedule 1 of the POEO Act.</td><td>-</td><td>NA</td></tr></table></td><td>SICTL does not receive any waste at the terminal.</td><td>Compliant</td></tr>
<tr><td>L3
L3.1</td><td>Noise limits
Noise from the premises must not exceed the noise limits presented in the table below. Note the limits represent the noise contribution at the nominated receiver locations in the table.
<table><tr><th>Most Affected Residential Location</th><th>Day</th><th>Evening</th><th>Night</th><th>Night</th></tr><tr><td>-</td><td>LAeq(15minute)</td><td>LAeq(15minute)</td><td>LAeq(15minute)</td><td>LAeq(9 hrs)</td></tr><tr><td>Chelmsford Avenue</td><td>40</td><td>40</td><td>40</td><td>38</td></tr></table></td><td>Noise Monitoring Assessments were conducted during this reporting period.

Reports have been uploaded to the SICTL website at: http://www.hutchisonports.com.au/operations/monitoring-and-reporting/
No exceedances were recorded during the noise assessments.</td><td>Compliant</td></tr>
</table>

Condition No.	Details of Licence Requirement	Comment	Compliance Status
	<table><tr><td>Dent Street</td><td>45</td><td>45</td><td>45</td><td>43</td></tr><tr><td>Jennings Street</td><td>36</td><td>36</td><td>36</td><td>35</td></tr><tr><td>Botany Road (north of Golf Club)</td><td>47</td><td>47</td><td>47</td><td>45</td></tr><tr><td>Australia Avenue</td><td>35</td><td>35</td><td>35</td><td>35</td></tr><tr><td>Military Road</td><td>42</td><td>42</td><td>42</td><td>40</td></tr></table>		
L3.2	**Noise limits** Noise from the premises must not exceed the noise limits presented in the Table below. Note the limits represent the noise contribution at the nominated receiver locations in the table. <table><tr><th>Most Affected Residential Location</th><th>Night</th></tr><tr><td>-</td><td>LA1(1 minute)</td></tr><tr><td>Chelmsford Avenue</td><td>53</td></tr><tr><td>Dent Street</td><td>59</td></tr><tr><td>Jennings Street</td><td>55</td></tr><tr><td>Botany Road (north of Golf Club)</td><td>59</td></tr><tr><td>Australia Avenue</td><td>57</td></tr><tr><td>Military Road</td><td>60</td></tr></table>	Noise Monitoring Assessments were conducted during this reporting period. Reports have been uploaded to the SICTL website at: http://www.hutchisonports.com.au/operations/monitoring-and-reporting/ No exceedances were recorded during the noise assessments.	Compliant
L3.3	For the purpose of Condition L3.1 and Condition L3.2: *Day* is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays. *Evening* is defined as the period from 6pm to 10pm on any day. *Night* is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.	The Noise Monitoring Assessment Reports confirm that these definitions have been applied.	Compliant
L3.4	For the purposes of Conditions L3.1 and L3.2, noise from the premises must be measured or computed at the most affected point on or within the residential boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30metres from the boundary, to determine compliance with the noise level limits in Conditions L3.1 and L3.2 unless otherwise stated.	The locations for receivers were chosen to comply with the conditions of the EPL and Development Consent. All locations were at the most affected point within the residential boundaries.	Compliant

Condition No.	Details of Licence Requirement	Comment	Compliance Status
L3.5	Noise from the premises must be measured at 1m from the dwelling façade to determine compliance with the LA1 (1minute) noise limits at Condition L3.2	Monitoring loggers were placed outside the premises in accordance to this condition.	Compliant
L3.6	Where it can be demonstrated that direct measurement of noise from the premises is impractical, the EPA may accept alternative means of determining compliance *(see Chapter 11 of the NSW Industrial Noise Policy (INP))*	SICTL alternative methodology to calculate noise compliance was approved by the EPA, however this was not applied as direct measurement of noise was from the premises as loggers were placed outside the premises.	Compliant
L3.7	The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the contributed noise level from the premises where applicable.	SICTL alternative methodology to calculate noise compliance was approved by the EPA.	Compliant
L3.8	The noise limits specified at Conditions L3.1 and L3.2 apply under the following meteorological conditions: a) Wind speeds up to 3m/s at 10metres above ground level; and b) Temperature inversion conditions of up to 1.5C/100m.	Monitoring was undertaken during specified meteorological conditions.	Compliant
3	**Operating Conditions**		
O1 O1.1	**Activities must be carried out in a competent manner** Licensed activities must be carried out in a competent manner. This includes: a) The processing, handling, movement and storage of materials and substances used to carry out the activity; and b) The treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Chemical handling including dangerous goods are managed in accordance to condition O1.1.	Compliant
O2 O2.1	**Maintenance of plant and equipment** All plant and equipment installed at the premises or used in connection with the licensed activity: a) Must be maintained in a proper and efficient condition; and b) Must be operated in a proper and efficient manner.	Maintenance is carried out on a regular basis in accordance with the OEM guidelines and the equipment use. All equipment operators have been trained and (where required) licenced to operate the container handling equipment.	Compliant
O3.1	**Emergency response**	SICTL maintains and implements an Emergency Response Plan (ERP).	Compliant

Condition No.	Details of Licence Requirement	Comment	Compliance Status
	The licensee must maintain, and implement as necessary, a current emergency response plan for the premises. The licensee must keep the emergency response plan on the premises at all times. The emergency response plan must document systems and procedures to deal with all types of incidents (eg, spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment. If a current emergency response plan does not exist at the date on which this condition is attached to the licence, the licensee must develop an emergency response plan within three months of that date.	The latest version of ERP has been uploaded to the SICTL website: http://www.hutchisonports.com.au/operations/environmental-management-plans/	
O3.2	**Emergency Response** In relation to 4.1 Emergency Response: A Pollution Incident Response Management Plan (PIRMP) is the relevant document required.	The PIRMP forms part of the HSEQ10.1.3 Emergency Response Plan.	Compliant
4	**Monitoring and Recording Conditions**		
M1 M1.1	**Monitoring records** The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Monitoring records are retained in soft copy on the SICTL server and backed-up as per IT protocol. Hard copies of records are filed and stored in locked offices/cupboards.	Compliant
M1.2	All records required to be kept by this licence must be: a) In a legible form, or in a form that can readily be reduced to a legible form; b) Kept for at least 4 years after the monitoring or event to which they relate took place; and c) Produced in a legible form to any authorised officer of the EPA who asks to see them.	Monitoring records are retained in soft copy on the SICTL server and backed-up as per IT protocol. Hard copies of records are filed and stored in locked offices/cupboards.	Compliant
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) The date(s) on which the sample was taken; b) The time(s) at which the sample was collected;	All monitoring has been undertaken in accordance with licence requirement. Copies of analytical results include date, time, location and the name of whom completed the samples.	Compliant

Condition No.	Details of Licence Requirement	Comment	Compliance Status
	c) The point at which the sample was taken; and d) The name of the person who collected the sample.		
M2.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	All complaints are logged in the SICTL Complaints Register, and the actual complaint (scanned letter or email) is filed on the SICTL server or hard copies filed and kept in a locked office or cupboard.	Compliant
M2.2	The record must include details of the following: a) The date and time of the complaint; b) The method by which the complaint was made; c) Any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) The nature of the complaint; e) The action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) If no action was taken by the licensee, the reasons why no action was taken.	Complaint records are managed in accordance to the license requirement.	Compliant
M2.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Complaint records are managed in accordance to the license requirement.	Compliant
M2.4	The record must be produced to any authorised officer of the EPA who asks to see them.	There has been no request made by the EPA for records during the reporting year.	Compliant
M3 M3.1	**Telephone complaints line** The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	SICTL has a Community Complaints and Feedback Line – 1800 472 888	Compliant
M3.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	The Community Complaints and Feedback Line is displayed on the SICTL website at: http://www.hutchisonports.com.au/operations/	Compliant

Condition No.	Details of Licence Requirement	Comment	Compliance Status
		and http://www.hutchisonports.com.au/contact-us/ SICTL OEMP and the Quarterly Community Feedback Reports describe the process for members of the public to make a complaint to SICTL	
M3.3	The preceding two conditions do not apply until 3 months after: a) The date of the issue of this licence or b) If this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.	Not Applicable	N/A
5	**Reporting Conditions**		
R1 R1.1	**Annual return documents** The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: 1. a Statement of Compliance, 2. a Monitoring and Complaints Summary, 3. a Statement of Compliance - Licence Conditions, 4. a Statement of Compliance - Load based Fee, 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan, 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and 7. a Statement of Compliance - Environmental Management Systems and Practices. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	SICTL has completed Annual Returns in the approved form for the reporting periods of 2014, 2015, 2016, 2017, 2018, 2019, 2020. The next annual return submission is for periods from 14-October 2020 to 13 October-2021. This will be completed after the anniversary date of 14 October 2021 and shall be submitted to the EPA via the online eConnect EPA portal prior to the due date of 13-December-2021.	Compliant
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below. Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.	The next annual return submission is for periods from 14-October 2020 to 13 October-2021.	Compliant

Condition No.	Details of Licence Requirement	Comment	Compliance Status
R1.3	**Annual return documents** Where this licence is transferred from the licensee to a new licensee: a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period. *Note: An application to transfer a licence must be made in the approved form for this purpose.*	Licence has not been transferred.	N/A
R1.4	**Annual return documents** Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: a) In relation to the surrender of a licence – the date when notice in writing of approval of the surrender is given; or b) In relation to the revocation of the licence – the date from which notice revoking the licence operates.	Licence has not been surrendered or revoked.	N/A
R1.5	**Annual return documents** The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	The next annual return submission is for periods from 14-October-2020 to 13-October-2021.	Compliant
R1.6	**Annual return documents** The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA	Annual return documents are retained in SICTL server or hard copies filed and kept in a locked office or cupboard.	Compliant
R1.7	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:	Previous Annual Returns were signed in accordance to this license requirement.	Compliant

Condition No.	Details of Licence Requirement	Comment	Compliance Status
	a) The licence holder; or b) By a person approved in writing by the EPA to sign on behalf of the licence holder.		
R2 R2.1	**Notification of environmental harm** Notifications must be made by telephoning the Environment Line service on 131 555. Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	No incident causing of causing or threatening material harm to the environment occurred during this reporting period.	Compliant
R2.2	The license must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	No incident causing of causing or threatening material harm to the environment occurred during this reporting period.	Compliant
R3.1	Where an authorised officer of the EPA suspects on reasonable grounds that: a) Where this licence applies to premises, an event has occurred at the premises; or b) Where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	SICTL responded to EPA with two reports as requested by EPA regarding an incidents. The Incidents involved a venting ISO tanktainer valve and grain spill. Both events were managed appropriately and EPA were satisfied with the response.	Compliant
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	Reports to the EPA was in accordance to this condition.	Compliant

Condition No.	Details of Licence Requirement	Comment	Compliance Status
R3.3	**Written Report** The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters.	As required by the condition all reasonable enquiries have been made and provided as requested as part of this license requirement.	Compliant
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	All further details requested by the EPA were addressed in accordance to this license requirement.	Compliant
6	**General Conditions**		
G1 G1.1	**Copy of licence kept at the premises or plant** A copy of this licence must be kept at the premises to which the licence applies.	The copy of the SICTL EPL is filed in the safe with other company documents and on the company Server.	Compliant
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	No requests to produce a copy of the licence have been made during this reporting period.	Compliant

Condition No.	Details of Licence Requirement	Comment	Compliance Status
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	SICTL's EPA Licence has been uploaded to the SICTL website at: http://www.hutchisonports.com.au/operations/monitoring-and-reporting/	Compliant
7	**Special Conditions**		
E1 E1.1	**Noise Monitoring and Compliance Reporting** The Licensee must undertake noise monitoring: (a) the noise monitoring must be undertaken within the first 6 months of commencement of operations: (b) the noise monitoring must verify the assumptions and noise limits as outlined in the Port Botany Container Terminal Expansion Noise Assessment (2003), part of the Environmental Impact Statement submitted to the Department of Planning and Infrastructure in accordance with the Environmental Planning and Assessment Act 1979 for the approved container terminal development, and Conditions L3.1 and L3.2 of this licence.	Marshall Day Acoustics completed the Noise Monitoring in September and October 2014, and the report was finalised on 4 February 2015.	Compliant
E1.2	**Noise Monitoring and Compliance Reporting** Every 6 months, the Licensee must undertake a periodic noise monitoring program consisting of attended and unattended monitoring and provide a report within one month after completion of monitoring to the EPA's Manager, Sydney Industry at PO Box 668 Parramatta NSW 2124 containing the following information: a) unattended monitoring data for a continuous period of no less than 2 weeks; b) attended monitoring data during the period outlined in subsection (a); c) monitoring data from a minimum of 3 locations; d) an assessment of the noise levels against Condition L3 including a trend analysis; e) details of any feasible and reasonable noise mitigation measures that have been, or are proposed to be implemented to further reduce noise levels below the limits prescribed in this licence.	Noise Monitoring was carried out in January and July 2021 for a continuous period of not less than two weeks and included both unattended and attended monitoring data. The Noise Monitoring reports have been uploaded to the SICTL website: https://www.hutchisonports.com.au/operations/monitoring-and-reporting/	Compliant

Appendix D - Complaint Register

Date & time of notification	Source	Direct or indirect complaint	Type	Details of enquiry or complaint	Action taken by SICTL & follow up	SICTL Comments
23-Nov-2020 09.50am	NSW Ports	Indirect	Noise	NSW Ports contacted SICTL to investigate an alleged extremely loud noise that the complainant likened to thunder that occurred from 11pm previous night.	SICTL reviewed the terminal operations and replied to NSW Ports on 24-11-2020. There wasn't any usual activity or anything out of the ordinary that could possibly cause excessive noise at the terminal. There was no vessel operations at the time reported in the complaint.	The noises described are likely to have been originated from the other potential port and industrial activities within the immediate Precinct.
29-Oct-2020 10.30pm	NSW Ports	Indirect	Noise	NSW Ports contacted SICTL to investigate 3x noise complaints registered from 3 residents around Port Botany. The reported noise was a low frequency, vibrating, humming sounds.	SICTL reviewed the terminal operations and replied to the NSW on 2-11-20. Berthed vessels on the terminal ran their auxiliary engines which is unlikely to generate elevated noises.	The noises described are likely to have been originated from the other potential port and industrial activities within the immediate Precinct.

Appendix E - Dangerous Goods Analysis – C2.17

Reporting Period: 1 September 2020 to 31 August 2021

DG Class	Basis - Unit Type and number of shipping containers through PBE[NOTE 1] per year containing DG Class				Comments
	From 2te up to 12te NEQ[NOTE 2]		Greater than or equal to 12te NEQ[NOTE 2]		
	DC Condition Requirement	Actual	DC Condition Requirement	Actual	
Total Class 1.1 and 1.2	83	0	63	0	Number as per PHA (rev 7) Table 6.8
	Containers of Packaged material		Tanktainers (Bulk) (≤20m^3)		
	DC Condition Requirement	Actual	DC Condition Requirement	Actual	
Class 2.3	157	10	-	-	Packaged material is total of Class 2.3 as per PHA Table 6.8
Toxic gases, DG Class 2.3	-	-	26	0	Class 2.3 Tanktainers (bulk) - new figure developed from Technical Note Section 2.5[NOTE 3]
Very Toxic gases, DG Class 2.3 substances including Chlorine (1017), Sulphur Dioxide (1079), and Methyl Bromide (1062) or any Class 2.3 substance meeting GHS[NOTE 4] Acute Toxicity Category 1	-	-	1	0	
Class 8 only Hydrogen Fluoride (1052)	11	0	23	0	HF numbers as per PHA (rev 7) Table 6.8

Appendix F - Operational Environmental Management Plan

HSEQ MANAGEMENT SYSTEM
Operational Environmental Management Plan (OEMP)

HSEQ5.7

VERSION 05

HUTCHISONPORTS

DOCUMENT CONTROL:

Document control shall be in accordance with the HPA Document Control and Records Management Policy (HSEQ9.1) and the Document Control & Information Management Procedure (HSEQ9.1.1), ensuring that:

- An up to date version of this HSEQ Management System document is maintained;
- Records of superseded versions of the document are retained for a minimum of 7 years; and
- Current version of the document is readily available to all Managers, Employees and Key Stakeholders.

Register of Amendments

Ver No	Page no	Date	Description of amendments	Prepared by	Approved by
DRAFT 0	All	18 April 2013	Consultation Draft – internal	John Ieroklis	Trevor Ballantyne
DRAFT 1	All	13 May 2013	Consultation Draft – external	John Ieroklis	Trevor Ballantyne
1	All	31 July 2013	External stakeholder consultation comments incorporated	John Ieroklis	Trevor Ballantyne
2	All	3 Sept 2013	DPIE comments incorporated	John Ieroklis	Trevor Ballantyne
3	8	12 Sept 2013	Section 1.3.1 rewritten and updated, all page numbers changed	John Ieroklis	Trevor Ballantyne
4	All	04 May 2018 15 Feb 2019	Full review of the OEMP Amended Bayside City Council to Bayside Council. Amended DP&I to DPIE. Included references to Tables 19 and 20 in text for Sections 7.3 Noise Management.	Linthoingambi Ningthoujam Jennifer Stevenson	Blair Moses DPIE approved 19-02-2019
5	10, 28, 57, 59, 64 75, 76	18 Dec 2019	Review of OEMP to update: - the Incident Reporting process to replace paper-based forms with online Incident Reporting software. - the update of Incident Classification definitions; - clarify the process for the land-based supply of hydrocarbons to vessels. - the correction regarding stormwater testing and clean out requirements - minor corrections to descriptions and Pollu-Plug training requirements	Jennifer Stevenson	Dozie Egeonu

		25 August 2020	- Update of OEMP to reflect MOD17 of DA-494-11-2003i approved on 19-09-2019 - Changes to role titles and contact details of managers. - Update to remove references of the sandpiles from OEMP following the disposal of sand pile materials in early 2020. - Update to DG Cargo descriptions in alignment with the Dangerous Goods Management Guidelines for Ports in NSW, dated 27 June 2020		

A person using Hutchison Ports Australia documents or data accepts the risk of:

a) Using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version; and
b) Using the documents or data for any purpose not agreed to in writing by Hutchison Ports Australia

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GLOSSARY OF TERMS

ACRONYMS AND GLOSSARY

Term	Description
AEMR	The Annual Environmental Management Report
Automated Stacking Crane (ASC)	The SICTL terminal features Automated Stacking Crane (ASC) blocks where most of the containerised cargo moving between ship and shore will be placed whilst awaiting transit. Each ASC block contains 9 lanes of containers across its width, 68 rows across length and can stack containers 5 high.
Development Consent	Instrument of Development Consent DA-494-11-2003-i
DG	Dangerous Goods
DPIE	NSW Department of Planning, Industry and Environment
EIS	Environmental Impact Statement.
Exchange pad	An area of the terminal where forklifts and reachstackers can manage Out-of-Gauge, Dangerous Goods, non-containerised (break-bulk), rail cargo and empty containers.
HSEQMS	Health, Safety, Environment and Quality Management System.
HSR	Health and Safety Representative
NSWP	New South Wales Ports (NSW Ports)
PBCCC	The Port Botany Community Consultative Committee
OEH	The NSW Office of Environment and Heritage
OEMP	Operational Environmental Management Plan (this document)
PBEAR	Port Botany Emergency Alarm Radio used to alert and disseminate emergency warnings to all Port Botany terminals
Quay crane (QC)	A crane purpose-built for the loading and unloading of cargo from ships which is mounted on rails on the wharf and can move along the wharf on these rails
Reachstacker	An item of plant used to pick up and carry containers with its telescopic arm and spreader. Used to handle OOG cargo, rail cargo and any containers not travelling through the ASC area
TfNSW(RMS)	Transport for NSW (Roads and Maritime Services)
Shuttle carrier (SC)	An item of mobile plant used to transport containers from the quay cranes to the ASC stacks, manual stacks or to the exchange pads
Spreader	A device used by quay cranes, shuttle carriers or reachstackers which enables these machines to lift and carry containers safely
TEU	Twenty-foot Equivalent Unit, the accepted measure of container throughput and equal to one 20-foot (6.1m) long container. One 40-foot container is equals 2 TEU
EPA	Environmental Protection Authority
OLS	Obstacle Limitation Surface – defines the airspace surrounding an airport that must be protected from obstacles to ensure aircraft flying in good weather during the initial and final stages of flight, or in the vicinity of the airport, can do so safely
VTS	Port Authority of NSW – Vessel Traffic Services – provides a continuous service to monitor the movement of participating vessels within the area of Sydney Harbour and Botany Bay

1 INTRODUCTION

1.1 BACKGROUND

In 2009, Hutchison Ports, the world's leading port developer, investor and operator signed an agreement with the New South Wales State Government providing Hutchison Ports with a 30 years lease on newly reclaimed land in Sydney's Port Botany. Sydney International Container Terminals Pty Ltd (SICTL), is the entity that manages the new Port Botany terminal.

The SICTL terminal is located between the existing port and the parallel runway at Sydney International Airport, extending approximately 550 metres west and 1,300 metres north of the existing northern quay of Brotherson Dock container terminal and covering an area of approximately 63 hectares (Refer to Figure 1).

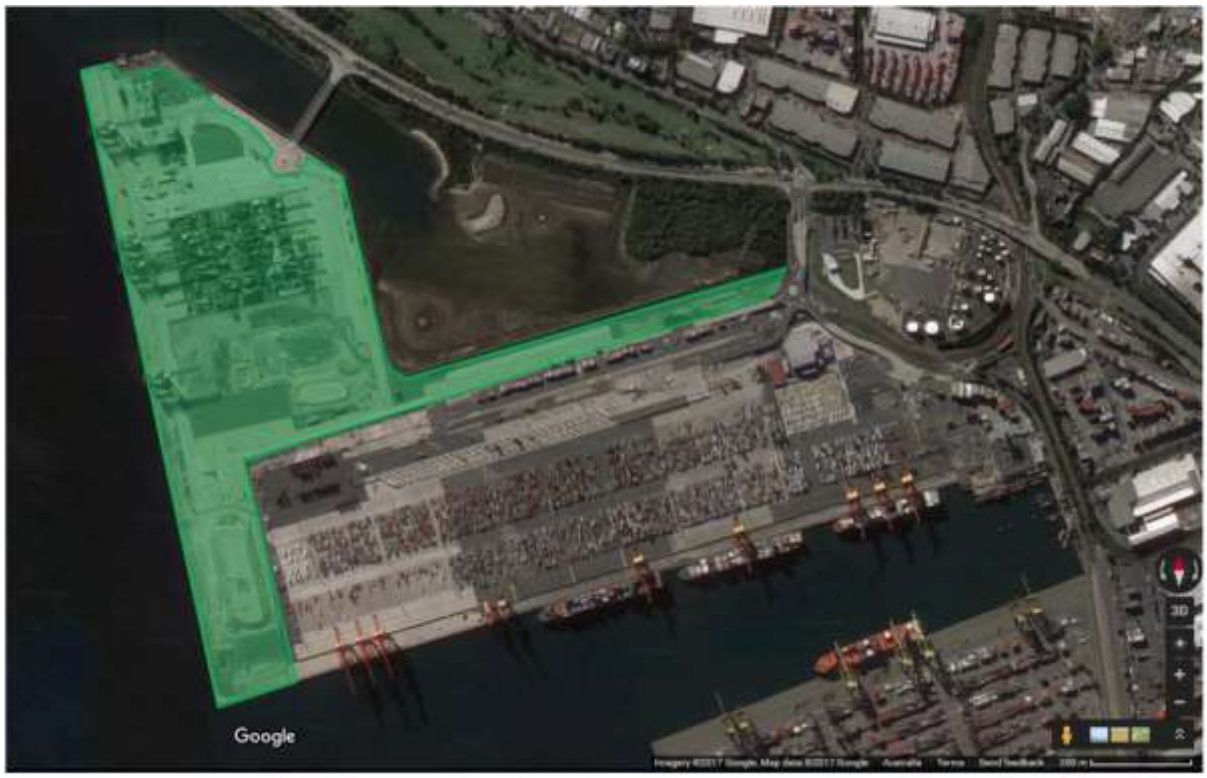


Figure 1 Development Consent Area – leased by Sydney International Container Terminals Pty Ltd

SICTL operates a modern international container terminal on a 45-hectare site, with key features being a 1300 m Quay Line operating four Berths (when complete) and two Rail Sidings equal to 1.6 Km of track. Automated stacking cranes are being introduced into the port for the first time and is a prominent feature of the SICTL terminal. Use of the cranes provides greater on-site container capacity to manage peak demands, improved security and greater employee safety. The terminal is connected to the rail freight network which will greatly reduce the reliance on road transport and help overcome road congestion issues near the port.

The address of SICTL is given below:

SYDNEY INTERNATIONAL CONTAINER TERMINALS PTY LTD

PORT BOTANY GATE, B150-153,

SIRIUS ROAD, OFF FORESHORE ROAD

BOTANY NSW 2019

1.2 OVERVIEW OF OPERATIONS

The SICTL terminal will undergo progressive phases of development in its program to become fully operational, as outlined in Table 1. The commencement process for each phase is volume-driven and will be adjusted to meet operational demands. The current operational area and future development areas are illustrated in Figure 2.

The overview of the SICTL terminal during operation is illustrated in Figure 3.

Table 1 Phases of the SICTL terminal development

Phase No.	Area (ha)	Total Site Area (ha)	Description	Operational Date
1	25	45	• Temporary office sheds established on the North end of the quay until the terminal office building was completed; • Containers stacked on the quay until the Automated Stacking Crane (ASC) stacks were commissioned; • Vessel berths 1 and 2 commissioned and operational; • Quay Cranes (QCs) 1 - 4 installed and commissioned; • ASC blocks 1 – 3 commissioned and operational; – the first shuttle carriers, reachstackers and small plant delivered.	Completed in September 2013
			– vessel and truck container services commenced.	Completed in November 2013
			– the maintenance building and terminal office building completed.	Completed in March 2014
			– the new railway sidings constructed and commissioned; – freight trains begin service to the SICTL terminal.	Completed in July 2014
2	4	45	• ASC blocks 4 – 6 constructed and operational.	Completed in April 2015
3	Future Phases (include the increase of container handling equipment and the development of the berths 3 and 4 to support commercial and operational needs) *This OEMP shall undergo a review once the future operational phases commence.			
4				

The site operates for 24 hours all through seven days in a week. At any given time, the site will potentially accommodate operations and engineering managers, maintenance and stevedoring employees, office administration staff, vessel planners, and security workers.

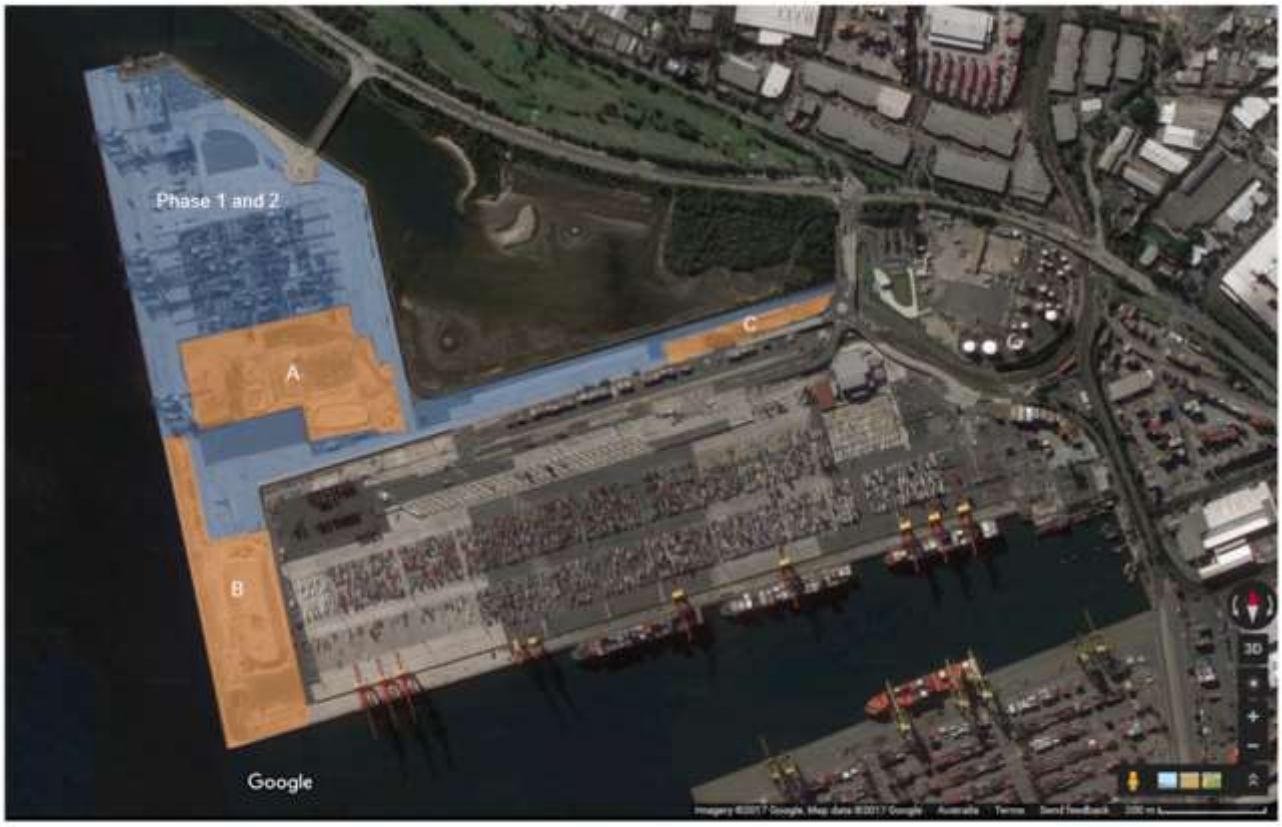


Figure 2 Current Operational Areas Future Construction Areas

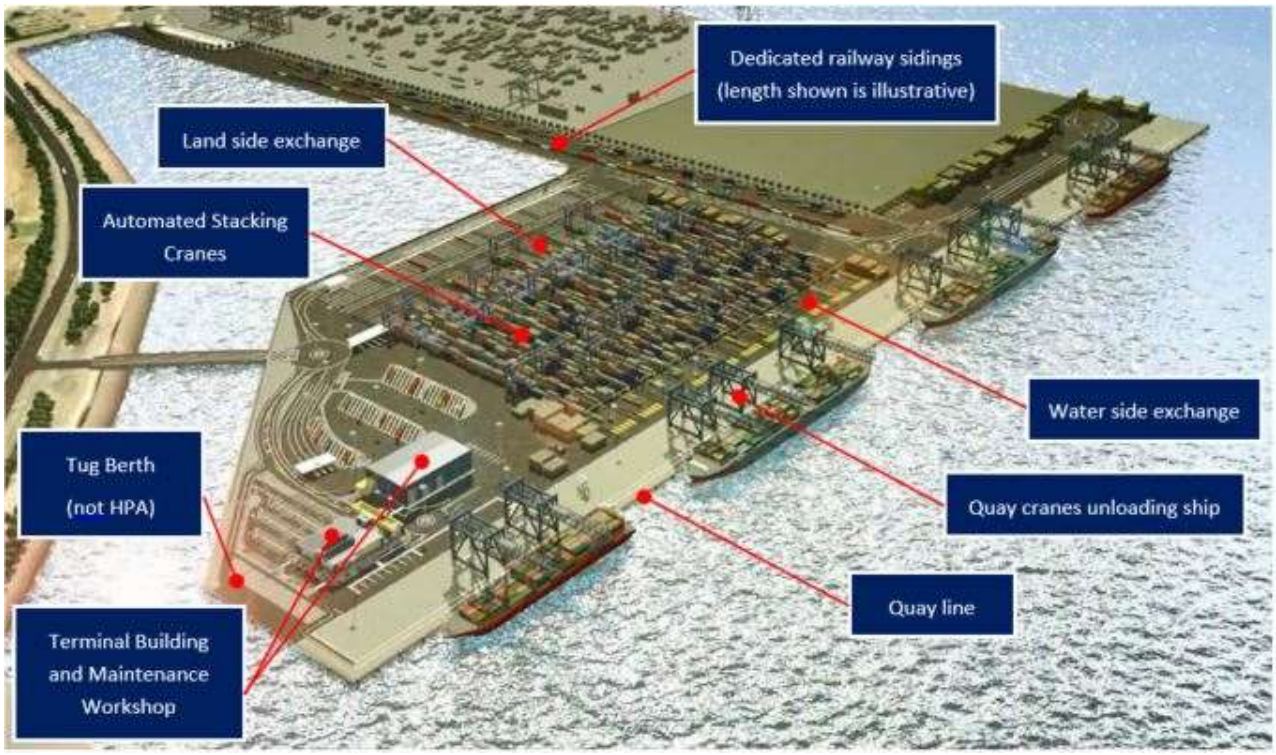


Figure 3 Overview of SICTL Terminal when fully developed

1.3 PURPOSE AND SCOPE OF OEMP

This Operational Environmental Management Plan (OEMP) has been created as a means by which SICTL terminal can manage the environmental risks associated with operating the new terminal. It has been prepared in accordance with conditions stated under Schedule C (Terminal Operations) of DA 494-11-2003-(i) as modified, the SICTL Lease Agreement and the SICTL Environmental Protection License No. #20322.

The OEMP has also been prepared in accordance with relevant legislative and policy requirements in respect of safety and the environment. It defines the organizational strategy of environmental management and the responsibilities of all employees to address the key issues arising from the terminal operations.

The actual and potential environmental issues relevant to the SICTL terminal in both current operational and undeveloped land areas have been identified through the analysis of activities to be undertaken at the terminal and are the issues that will be managed by the OEMP. This OEMP seeks to address:

- environmental management interface with work health and safety;
- training personnel in environmental management;
- quality of stormwater runoff/ separator tank discharges;
- odour and dust management;
- management of existing undeveloped areas;
- noise and traffic management;
- waste management;
- the handling and transit of chemicals and dangerous goods containers;
- storage of fuels on site;
- landside supply of hydrocarbons to vessels (bunkering)
- maintenance activities;
- impacts on Sydney Airport;
- the management of native and feral animals;
- energy usage and
- community & complaints handling.

1.3.1 EXCLUSIONS TO THE SCOPE OF THIS OEMP

Unless noted otherwise, this OEMP does not cover:

- anything not listed in the Development Consent;
- any activities on board vessels;
- any actions by vessels (movements, noise, emissions etc)
- any pollution originating from vessels;
- seaside refuelling (bunkering) of vessels (undertaken via the Port Authority of NSW);
- waste and sullage disposal from vessels;
- any activities in Botany Bay beyond the quay line of the SICTL terminal;
- any activities outside the lease area of the SICTL terminal;
- active construction phases (covered in separate CEMPs), and
- any activities beyond the control or responsibility of SICTL terminal or Hutchison Ports.

1.4 OBJECTIVES OF THE OEMP

This document aims to provide a management framework for SICTL terminal to control the terminal operations to

- Ensure that environmental management is undertaken in accordance with relevant legislative and policy requirements.
- Prevent, reduce and effectively manage potential impacts to the environment resulting from operations at SICTL terminal.
- Identify all appropriate environmental safeguards and demonstrate how they will be implemented on-site.
- Identify suitable emergency preparedness and response procedures.
- Provide details of complaints management procedures.
- Monitor and manage environmental and social impacts.
- Promote environmental awareness amongst employees and contractors to ensure that operation and maintenance carried out do not harm the environment.
- Ensure that the plan is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the plan is regularly tested for accuracy, currency and suitability.

1.5 OEMP CONSULTATION

During the preparation of the OEMP, SICTL has contacted and consulted relevant parties including government agencies and the broader community impacted by the SICTL terminal development and operations. The list of stakeholders who are consulted include:

- NSW Department of Planning, Industry and Environment
- NSW Ports
- NSW Environmental Protection Authority
- Bayside Council
- TfNSW(RMS)
- Randwick City Council
- Sydney Airport
- SafeWork NSW
- Port Botany Community Consultative Committee
- Department of Transport and Regional Services

1.6 HUTCHINSON PORTS HSEQ POLICY

The company is committed towards environmental protection and the commitment is stated in the objectives outlined in the Hutchinson Ports HSEQ Policy.

HUTCHISONPORTS

HEALTH, SAFETY ENVIRONMENT AND QUALITY POLICY

This policy is applicable to the business units and legal entities of the Hutchison Port Holdings Group operating in Australia, collectively known as Hutchison Ports Australia (HPA) and is relevant to all employees, contractors and visitors to HPA.

HPA is committed to providing a workplace that is healthy, safe and environmentally sustainable, whilst delivering efficient and effective services to our customers. This commitment is embraced in our company core values and beliefs:

- Protecting the safety and wellbeing of every employee, contractor and visitor is a fundamental principle of the way we do business. We strive to foster a culture of safety, resilience and high reliability that focuses on the prevention of incidents, injuries and illness;
- The environment is important to us and the community within which we operate. We recognise our responsibility for limiting the environmental impact of our operation. We undertake initiatives that support greater environmental protection and preservation; and
- We value our customers and are committed to providing a high value, efficient and effective service to satisfy their needs. We will endeavour to continuously improve our operating and maintenance standards through methods of monitoring, measurement, review and the implementation of change.

HPA expects commitment from everyone involved in our business activities to take responsibility and be accountable for ensuring compliance with this policy, our HSEQ Management Systems and applicable legislation.

The ultimate responsibility lies with the Chief Executive Officer who will ensure the organisation is resourced to enable implementation and continual improvement of the HSEQ Management System.

Through the application of HSEQ Management System, HPA will strive to consistently meet stakeholder expectation and deliver on our key commitments to:

- continually pursue a reduction in incidents and injuries, whilst adhering to industry best practice as it relates to Health and Safety and the Environment; ;
- continuously improve our environmental, social and economic sustainability footprint encompassing values, principles and practices, working towards a sustainable future;
- ongoing hazard identification, risk assessment and management through the identification and implementation of effective control measures;
- ensuring HSEQ considerations are integral throughout the planning, procurement, design construction, operation, maintenance and disposal of our assets;
- compliance with applicable legislation, guidelines, codes, standards and relevant operational approval conditions and requirements;
- providing information, instruction and training that is relevant to our operation and employees; and
- communicate and consult with key stakeholders to assist us to improve our business.

The Management Team will continuously promote and reinforce this commitment and ensure this policy is regularly reviewed, published and communicated to drive performance and maintain effectiveness.

John Willy
Acting Chief Executive Officer
Date: 23 February 2018

Document Reference: HSEQ1.1
Version: 06

2 APPROVAL AND LICENSING REQUIREMENTS

2.1 DEVELOPMENT CONSENT CONDITIONS

As part of the conditions of development consent, preparation of an OEMP is required. The Instrument of DA 494-11-2003-(i) as modified (referred to throughout this document as the Development Consent) sets out the conditions in Schedule C under which the SICTL terminal is permitted to operate and is a major influence on the content of the OEMP and its management plans.

Table 2 describes the Development Consent's clause numbers and the SICTL terminal's management plans that are implemented to ensure compliance to the stipulated conditions. The section of the development consent pertaining to Terminal Operations is provided in **Appendix A1**.

Table 2 SICT Terminal's Compliance to DC Conditions

Condition	Implementation Evidence
C1 General Requirements	
Application of Schedule	
C1.1	SICTL's activities are outlined in this OEMP.
C1.2	SICTL terminal is a "party undertaking the activities and works referred to under condition C1.1" and thus commits to comply with the conditions, as relevant. A formal commitment is given in section 1.6 of this document.
Interim Uses Port, Maritime and Waterway Related Uses – Hayes Dock Services Area	
C1.2A - F	SICTL will not undertake activities or works associated with Interim Uses within the meaning of this condition.
Operation Environmental Management Plan (OEMP)	
C1.3	The HSEQ 5.7 Operational Environmental Management Plan was prepared based on this condition. The OEMP has been uploaded to the company website at http://www.hutchisonports.com.au/operations/environmental-management-plans/
Compliance Certification	
C1.4	The Pre-Operational Compliance Report was prepared based on this condition. The Pre-Operational Compliance Report (version 02 dated 3 September 2013) was approved by the Director-General on 16 September 2013.and has been uploaded to the company website at http://www.hutchisonports.com.au/operations/environmental-management-plans/
C1.5	SICTL terminal is committed to comply with the Development Conditions, as relevant.
C2 Operational Environmental Performance	
Air Quality Management	
C2.1 – 2.4	Provisions to manage odour and dust emissions are included in the **Air Quality Management Plan** (section 7.1 of the OEMP).

Condition	Implementation Evidence
Noise Management	
C2.5 – 2.11	The **Noise Management Plan** (section 7.3 of the OEMP) was prepared based on and to satisfy this condition through extensive consultation with stakeholders regarding noise management, monitoring and response. The Noise Management Sub-Plan (Version 2 dated 30 August 2013) was approved by the Director-General on 16 September 2013 prior to the commencement of operations at the terminal.
Operational Traffic Management Plan	
C2.12	The **Operational Traffic Management Plan** (section 7.4 of the OEMP), was prepared based on and to satisfy this condition through extensive consultation with stakeholders regarding operational traffic management, monitoring and response. The Operational Traffic Management Sub-Plan (Version 2 dated 30 August 2013) was approved by the Director-General on 16 September 2013 prior to the commencement of operations at the terminal.
Waste Management On-site	
C2.13 and C2.13A	The **Waste Management Plan** (section 7.7 of the OEMP) was prepared based on and in support of this condition. The EPA Licence 20322 has been issued to Sydney International Container Terminals Pty Ltd
Water and Wastewater Management	
C2. 14	The **Water and Wastewater Management Plan** (section 7.8 of the OEMP) was prepared based on and in support of this condition.
C2.15	The SICTL EPA Licence does not specify monitoring of discharge points or concentration limits which must be applied to the terminal operations. Provisions to monitor stormwater quality and SICTL's internal limits are nonetheless included in the **Stormwater Management Plan** (Section 7.5 of the OEMP)
C2.15A	SICTL terminal will not undertake activities or works associated with Interim Uses within the meaning of this condition.
Hazards and Risk Management	
C2.16	The **Dangerous Goods Management Plan** (section 7.6 of the OEMP) was prepared based on and in support of this condition. Prior to the commencement of operations at the terminal, SICTL submitted the Handling of Dangerous Goods and Hazardous Substances Plan (version 2 dated 9 September 2016) for approval. The letter from DPIE dated 25 October 2013 notes that the Department is satisfied that the requirements of condition C2.16 has been adequately addressed.
Hazards and Risk Management – Storage and Handling of Dangerous Goods	
C2.17 and C2.18	The **Dangerous Goods Management Plan** (section 7.6 of the OEMP) was prepared based on and in support of this condition.
C2.19	Deleted

Condition	Implementation Evidence
Emergency Incident Management	
C2.20.	The **HSEQ10.1.3 Emergency Response Plan - SICTL** was prepared to satisfy this condition through extensive consultation with stakeholders regarding terminal emergency response plans. The Emergency Response Plan (Version 3 dated 17 October 2013) was approved by the Director-General on 4 November 2013 prior to the commencement of operations at the terminal.
Aviation Operational Impacts	
C2.21 – 2.24	The **Aviation Operational Impacts Management Plan** (section 7.2 of the OEMP), was prepared on the basis of and in support of this condition. An approval was granted by Aviation Environment, Aviation and Airports Division of the Department of Infrastructure and Transport on 04 September 2013 prior to the commencement of operations for the intrusion of four Quay Cranes into prescribed airspace, subject to conditions of maximum operating height and obstacle lighting at night and during daylight hours.
C2.25.	The **Aviation Operational Impacts Management Plan** (section 7.2 of the OEMP), was prepared on the basis of and to satisfy this condition regarding bird hazard management/ minimisation of bird attractants, monitoring of bird presence on the terminal and response through active management measures. The Bird Hazard Management Plan (Version 2 dated 3 September 2013) was approved by the Director-General on 16 September 2013 prior to the commencement of operations.
C3 Community Information, Involvement and Consultation	
C3.1	The **Complaints Management** (section 3.10 of the OEMP) was prepared on the basis of and in support of this condition.
C3.2 and C3.3	The **Community Consultation** (section 3.9 of the OEMP) was prepared on the basis of and in support of this condition.
C4 Environmental Monitoring and Auditing	
C4.1	Section 3.7 of the OEMP addresses the requirements for **Incident Reporting**
C4.2	Section 3.5 of OEMP addresses the requirements for **Environmental Reporting**
C4.3	Deleted
C4.4	Section 3.6 of the OEMP addresses the requirements for **Environmental Training**
C4.5	Section 6.2 of the OEMP addresses the requirements for **Environmental Auditing**

2.2 LICENSING REQUIREMENTS

SICTL terminal operates under an Environmental Protection Licence (EPL) issued by the *Protection of the Environment Operations Act 1997 (NSW).* The EPL #20322 commenced on 14 October 2013. The current version of the EPL (effective 1 September 2016) is publicly available on the company website.

Table 3 describes the conditions under EPL (effective 1 September 2016) and the SICTL terminal's management plans implemented to ensure compliance.

Table 3 SICTL Terminal's Compliance to EPL Conditions (effective 1 September 2016)

Condition	Implementation Evidence
Limit Conditions	
L1 Pollution of Waters	
L1.1	The **Water & Wastewater Management Plan** (section 7.8 of the OEMP) addresses this requirement.
L2 Waste	
L2.1	The **Waste Management Plan** (section 7.7 of the OEMP) addresses the requirements.
L3 Noise Limits	
L3.1 - 3.2	Details of these operational noise limits are included in the **Noise Management Plan** (section 7.3 of the OEMP).
L3.3	The definitions of day, evening and night are included in the **Noise Management Plan** (section 7.3 of the OEMP).
L3.4 -3.6	Details of the noise monitoring requirements are included in the **Noise Management Plan** (section 7.3 of the OEMP).
L3.7	SICTL terminal submitted a proposed methodology for conducting noise measurements and modelling as an alternative to conducting environmental noise monitoring at all six noise monitoring locations on 5 June 2014. The EPA approved the use of a calibrated noise model on 11 July 2014. Details of the noise monitoring requirements are included in the management plan for **Noise Management** (section 7.3 of the OEMP).
L3.8	Details of the noise monitoring requirements are included in the management plan for **Noise Management** (section 7.3 of the OEMP).
Operating Conditions	
O1 Activities must be carried out in a competent manner	
O1.1	All personnel related to operations undergo defined continuous training. Section 3.6 of the OEMP addresses the requirements for **Induction and Training**.

Condition	Implementation Evidence
O2 Maintenance of Plant and Equipment	
O2.1	All plant and equipment undergo scheduled preventive maintenance and are maintained in good condition. The procedures given in the O & M manuals are followed.
O3 Emergency Response	
O3.1	**Emergency Response Plan HSEQ 10.1.3** addresses the requirements.
O3.2	**Emergency Response Plan HSEQ 10.1.3** addresses the requirements.
4 Monitoring and Recording Conditions	
M1 Monitoring Records	
M1.1	Each management plan of OEMP addresses the requirements of Monitoring.
M1.2	Section 3.5 of OEMP addresses the requirements for Reporting and Records.
M1.3	The monitoring results are recorded containing the information listed out.
M2 Recording of Pollution Complaints	
M2.1 – M2.4	Section 3.10 of OEMP addresses the requirements for Complaints Management.
M3 Telephone Complaints Line	
M3.1 – M3.3	Section 3.10 of OEMP addresses the requirements for Complaints Management.
5 Reporting Conditions	
R1 Annual Return documents	
R1.1 – R1.2	Section 3.5 of OEMP addresses the requirements for Reporting and Records.
R1.3	Not applicable in the current status
R1.4	Not applicable in the current status
R1.5	Section 3.5 of OEMP addresses the requirements for Reporting and Records.
R1.6	Section 3.5 of OEMP and HSEQ 9.1 Document Control and Records Management Policy fulfil the requirements for Reporting and Records.
R1.7	Section 3.5 of OEMP fulfil the requirements for Reporting and Records.
R2 Notification of Environmental Harm	
R2.1– R2.2	Section 3.7 of OEMP fulfil the requirements for Incident Reporting and Management.
R3 Written Report	
R3.1-R3.4	Section 3.5 fulfils the requirements for Reporting and Records

Condition	Implementation Evidence
6 General Conditions	
G1 Copy of licence kept at the premises or plant	
G1.1-G1.3	Copy of licence is available at the site
7 Special Conditions	
E1 Noise Monitoring and Compliance Reporting	
E1.1	Noise monitoring was conducted
E1.2	Details of the noise monitoring requirements are included in the **Noise Management Plan** (section 7.3 of the OEMP).

2.3 LEGISLATIVE REQUIREMENTS

Legislation that may apply to the operation of the SICTL terminal is listed below in Table 4. These should be consulted regarding the need for additional approvals if the conditions or operations change at SICTL terminal.

Table 4 List of Applicable Legislation

Protection of the Environment (Operations) Act 1997 (NSW)	Protection of the Environment Operations Act 1997 (NSW), Section 120 Prohibition of pollution of waters
Environmental Planning and Assessment Act, 1979 (NSW)	Work Health and Safety Act 2011 (NSW)
Civil Aviation Regulations, 1988 (Cth)	Work Health and Safety Regulation 2017 (NSW)
Civil Aviation Safety Regulations, 1998 (Cth)	Dangerous Goods (Road and Rail Transport) Regulation 2014 (NSW)
Airports Act 1996 (Cth)	Ports Assets (Authorised Transactions) Act 2012 (NSW)
Airports (Protection of Airspace) Regulations 1996 (Cth)	State Environmental Planning Policy (Three Ports), 2013 (NSW)
Marine Order 32 (Cargo Handling Equipment) 2011 (AMSA)	Waste Avoidance and Resource Recovery Act 2001 (NSW)
Environment Protection and Biodiversity Conservation Act 1999 (Cth)	Water Act 1912 (NSW)
Threatened Species Conservation Act 1995 (NSW)	Water Efficiency Labelling and Standards Act 2005 (Cth)
National Parks and Wildlife Act 1974 (NSW)	Biodiversity Conservation Act 2016 (NSW)
Ports and Maritime Administration Act 1995 (in particular Schedule 4)	Local Land Services Act 2013 (NSW)
Ports and Maritime Administration Regulation 2012 (in particular Part 3) Port Authority —Land Traffic Control Regulations—N.S.W.	Biosecurity Act 2015 (NSW)
Port Botany Landside Operations, Mandatory standards under Part 3 of the Ports and Maritime Administration Regulation 2012	Agricultural and Veterinary Chemicals Code Regulations 1995 – specifically schedule 4 – Restricted Pesticides
Pesticide Regulation 1999 (NSW)	Greater Sydney Regional Strategic Pest Animal Management
Pesticide Control Order	

2.4 ADDITIONAL CONDITIONS

Addition to the conditions stipulated in the Development Consent and the EPL, there are obligations and additional conditions related to protection of environment in the Deed of Agreement for Lease, Annexure I, Part 2. These requirements have been evaluated by SICTL terminal and the compliance is ensured through the implementation of SICTL's environmental management plans. The details of the requirements and compliances achieved are provided in **Appendix A2**.

3 ENVIRONMENTAL MANAGEMENT

3.1 COMPONENTS OF OEMP

Based on the operations of the terminal, the actual or potential issues have been identified. The OEMP has been prepared keeping each issue in the focus and the various activities that are required to be addressed during the terminal operations. The OEMP will cover the following components addressed throughout the entire document:

- Identification of environmental issues
- Performance Indicators
- Responsibilities
- Control measures
- Reporting and Records
- Induction & Training
- Incident Management
- Emergency Controls measures
- Monitoring and Corrective Action
- Community Consultation
- Complaints Management

An overview of the above components is presented in the following sections.

3.2 ACTUAL OR POTENTIAL ENVIRONMENTAL ISSUES

The actual and potential environmental issues relevant to the operations of the SICTL terminal have been identified through the analysis of available documents including SICTL terminal's Environmental Risk Assessment. The identified issues are listed below.

- odour, dust and air quality management;
- impacts on Sydney Airport;
- noise and traffic management;
- quality of stormwater runoff/ separator tank discharges;
- the handling and transit of chemicals and dangerous goods containers;
- storage of fuels on site;
- waste management;
- the management of native and feral animals; and
- energy usage

A management plan has been developed for each of these identified issues and follows in Section 7 of this OEMP. Targeted management of these issues by the OEMP and controls combined with objective measurement of its effectiveness by the KPI's provides for a closed-loop management and reporting process.

3.3 OPERATIONAL KEY PERFORMANCE AREAS AND INDICATORS

A Key Performance Indicator (KPI) is a measurable value that demonstrates how effectively a company is achieving key business objectives. SICTL will use KPI's to evaluate their success at reaching targets and communicate a concise measurement of compliance to the OEMP and to the conditions of the Development Consent, the SICTL Environmental Licence and the relevant environmental legislation.

i. KPIs should be quantitative in nature, for example, targets can be set to reduce a particular emission or to reach a certain goal. In this way the effectiveness of environmental policies and management systems can be substantiated.

ii. KPIs should also seek to provide comparable, comprehensive and quantitative data. As far as possible SICTL shall report data in a comparable format, so the performance may be assessed over time, and relative to its competitors.

To quantify the KPIs of the stevedore industry, KPIs are often expressed in terms of units of production output – i.e., in the number of containers handled in one year. A universal unit of measurement within the stevedore industry that is applied to different sizes of intermodal container is the 'TEU' or Twenty-foot Equivalent Unit – corresponding to one 20-foot (6m) container. This unit (rather than tonnage) is the preferred basis for shipping and logistics calculations and descriptions worldwide because it relates to tangible container 'traffic'. Measuring KPIs against throughput gives SICTL the opportunity to integrate environmental obligations with operational and business performance and growth.

In terms of the environmental KPIs outlined in this OEMP, SICTL terminal has utilised a number of different types of performance indicators to provide information about the management efforts to influence the organisation's environmental performance, for example:

- numbers of inspections;
- numbers of complaints;
- handling or consumption per TEU; and
- specific environmental goals driven by the various compliance requirements.

For every environmental issue identified, a KPI has been identified in the corresponding management Plan which is provided in Section 7.

3.4 ENVIRONMENTAL MANAGEMENT STRUCTURE AND RESPONSIBILITIES

Roles and responsibilities for personnel relevant to the implementation of this OEMP are detailed in this section.

3.4.1 ORGANISATION STRUCTURE

The organisational chart below (Figure 4) illustrates the structure and relationships between key roles that provide support to achieve effective implementation of the OEMP.

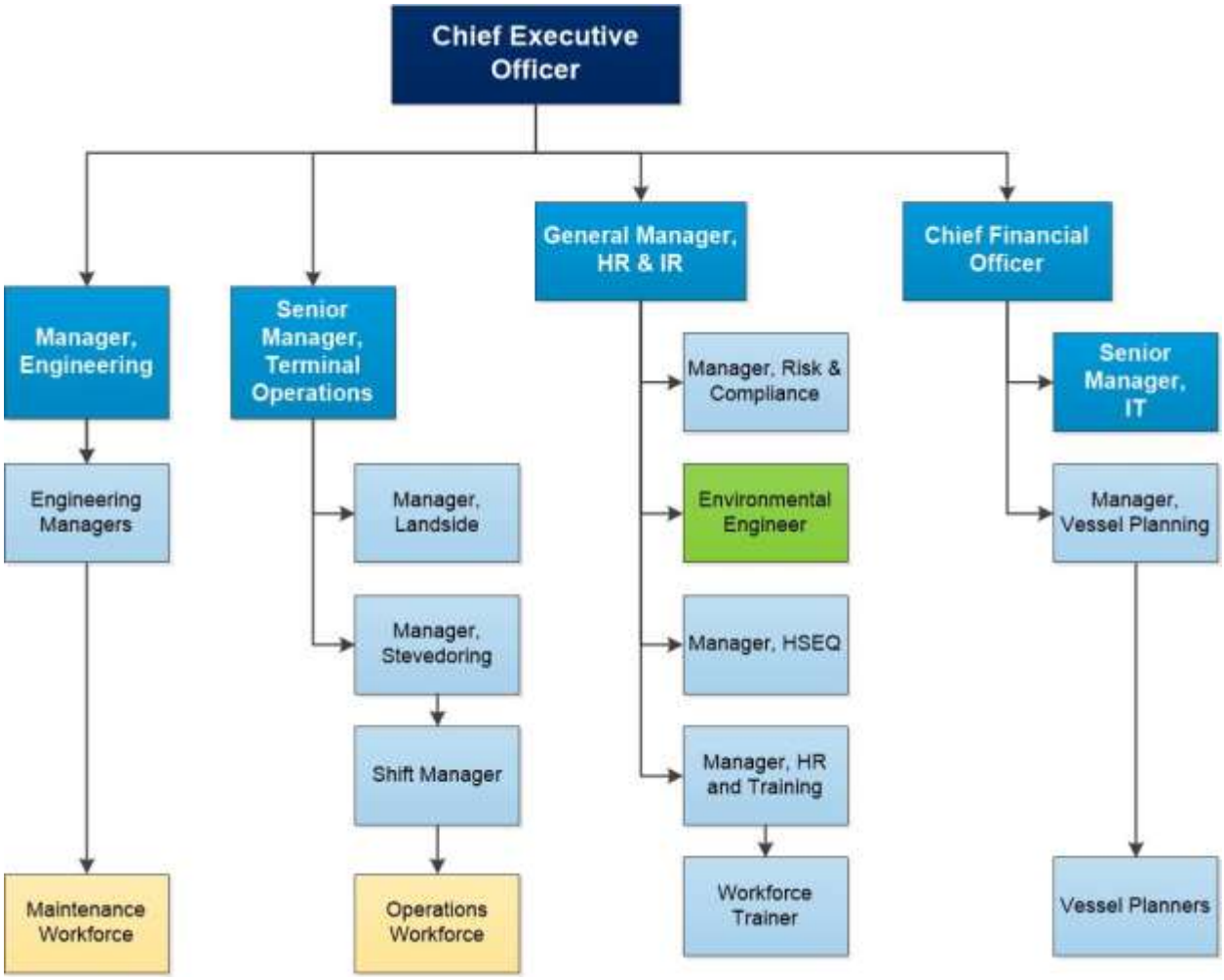


Figure 4 Organisational Structure

3.4.2 KEY RESPONSIBILITIES

The successful implementation of this OEMP is reliant on clearly defined responsibilities, accountabilities and authorities. This system of delegation ensures the objectives of this OEMP are achieved through a collaborative approach.

This section details the responsibilities, accountabilities and authorities of the operational management team.

Table 5 Roles and Responsibilities for OEMP Implementation

Role	Responsibilities
Chief Executive Officer **(02) 9578 8500**	• Provide overall direction on HPA's policies to achieve compliance with the Development Consent; • Liaison with SICTL managers on environmental matters as required, and • Annual review of all operating environmental data, improvement opportunities and subsequent remedial action and the corrective and preventative actions.

Role	Responsibilities
Environmental Engineer **(02) 9578 8417**	• Ensuring the implementation of the OEMP on a day to day basis; • Monitor operations against the OEMP to evaluate compliance with the Development Consent, EPA Licence, environmental legislation and environmental KPI's; • Monitoring deficiencies in environmental control strategies and implementation of controls, managing their resolution and controlling further work activities until deficiencies are rectified; • Undertaking regular reviews of all operating environmental data, improvement opportunities and subsequent remedial action and the corrective and preventative actions; • Considering and advising on matters specified in the Development Consent and all other licenses and approvals relating to the environmental performance and impacts of the terminal operations; • Organising audits and to assist in ensuring that any issues found as a result of an audit are dealt with in an appropriate and timely manner; • Maintenance of register of environmental complaints and the subsequent remedial action; • Compile and provide quarterly reports to DPIE, where relevant, outlining details of complaints received; • Reporting on environmental incidents; undertaking investigations of environmental incidents and providing recommendations for corrective and preventative actions and the review of these actions; • Compiling and submitting the Annual Environmental Management Report; Acting as the primary 24-hour contact point in relation to environmental performance of the terminal operations; • Attending the Port Botany Community Consultative Committee Meetings as a representative of HPA.

Role	Responsibilities
Manager, Risk & Compliance **(02) 9578 8528**	• Supporting the Environmental Engineer, Manager - HSEQ and terminal management by advising on the legislative and Development Consent requirements applicable to operations; • Measuring operational data, assessing trends and KPI's and facilitating reviews; • Review of the environmental audits and reports outlined in this OEMP; • Providing assistance in the assessment of environmental improvement opportunities, including recommendations for corrective and preventative actions and the review of these actions; • Managing the internal audit program and conducting audits; • Reporting on non-conformances, improvement opportunities, and subsequent corrective actions from audits; • Assisting with the review and amending the OEMP and management plans, and • Liaising with SICTL management and external stakeholders to determine compliance requirements.
Workforce Trainer **(02) 9578 8502**	• Working together with the Environmental Engineer to develop appropriate environmental training for operations personnel; • Assisting in the delivery of the environmental awareness training program; • Ensuring training/induction of personnel is carried out and that staff operate in an environmentally responsible manner, and • Keeping training records for all personnel having completed the environmental awareness training program and induction.

Role	Responsibilities
Senior Manager, Terminal Operations **(02) 9578 8513,** **Shift Manager** **(02) 9578 8592** **and** **Manager - Engineering** **(02) 9578 8559**	• Liaison with the Environmental Engineer and Manager, Risk & Compliance on environmental matters as required; • Undertaking regular reviews of all operating environmental data, improvement opportunities and subsequent remedial action and the corrective and preventative actions; • Promoting HPA's policies and be responsible for their implementation; • Monitoring daily work routines so that environmental protection requirements are communicated to all personnel and contractors working within the SICTL terminal; • Providing toolbox talks on environmental issues to personnel under their supervision; • Ensuring that the workforce understands and implements the requirements of the OEMP during operations; • Ensuring that preventative maintenance and pre-start checks on equipment is carried out; • Has the authority to stop work processes to prevent environmental non-conformances from occurring; • Ensuring all incidents are reported to the Environmental Engineer via the Rapid Incident online portal in accordance with the company policies and OEMP.

3.5 REPORTING AND RECORDS

3.5.1 REPORTING TIMELINE

During the operation of the SICTL terminal, it is necessary to record and communicate key data to various stakeholders at various time intervals through the year in line with the conditions stipulated by different agencies. The following Table 6 summarises the different types of environmental reporting that are stipulated under the Development Consent and EPL.

Table 6 Reporting Obligations

Report Type	Report Description	Timeframe	Recipient
Annual Environmental Management Report (AEMR)	In compliance with the Development Consent (C4.2), an Annual Environmental Management Report (AEMR) comprising a review of all OEMP, EPL and Development Consent conditions and KPIs shall be prepared and submitted to DPIE	Yearly	DPIE, NSW Ports, SICTL website
Environmental Protection Licence (EPL)	Annual Return Documents to the EPA no later than 60 days after the end of each reporting period. The Annual Return Documents will comprise: • a statement of compliance, and • a monitoring and complaints summary	Yearly	EPA

Report Type	Report Description	Timeframe	Recipient
Actual Dangerous Goods Movement Report (Development Consent - C2.17)	Twelve months after the determination of DA-494-11-2003-I MOD 16, SICTL shall submit an annual report to the DPIE (via NSW Ports) which provides details on actual Dangerous Goods movements listed in the Table 1 provided in Schedule 4 of the Development Consent.	Yearly	DPIE, NSW Ports
Independent Environmental Audit Report	Annual audit report conducted within 12 months from the previous audit	Yearly	NSW Ports, DPIE, SICTL website
Community Consultative Committee Meeting	Minutes of the PBCCC meeting	14 days	NSW Ports website, DPIE
	Responses to the PBCCC recommendations	1 month	
Pollution Incident	Verbal notification of a pollution incident where material harm to the environment is caused or threatened	Immediately	EPA, NSW Ports, VTS
	Notification of an incident with actual or potential significant off-site impacts on people or the biophysical environment	12 hours	DPIE
	Full written details of the environmental or pollution incident	24 hours	NSW Ports
	Full written details of the incident with actual or potential significant off-site impacts on people or the biophysical environment	7 days	DPIE
Community Complaint & Feedback	Provide initial feedback and acknowledgement for complaints lodged by phone or in person	Immediately	Complainant
	Provide initial feedback and acknowledgement for complaints received by other means	24 hours	Complainant
	Verbal notification that a complaint has been lodged with SICTL about any environmental issue (including pollution)	2 hours	NSW Ports
	A written report detailing the complaint and action taken to investigate, alleviate or rectify the problem and the timing of such actions	24 hours	NSW Ports
	Quarterly Complaints Report outlining details of Complaints received	3 monthly	DPIE, EPA, NSW Ports, SICTL website
Update Report	An Update Report detailing compliance with all or any part of the conditions of consent	As directed by DPIE	DPIE, NSW Ports
Internal Reporting	The internal reporting documents provided for the monthly, quarterly and annual review	Monthly Quarterly Yearly	HPA Managers

3.5.2 COLLECTION OF OPERATIONAL DATA

Various information is collected for inclusion into the different reports that are required to be submitted to different agencies namely EPA and DPIE. The information that are collected include:

- a general overview of terminal operations including;
  - recorded TEU throughput including DG cargo throughput;
  - the proportions of different classes of DG cargo handled by SICTL terminal and the breakdown in tonnages, TEU and DG cargo weight for the previous five years;
  - the number of vessels loaded/ unloaded;
  - the proportions of cargo moved by rail or road;
  - the status and numbers of operational plant in service;
- results of monitoring of noise and stormwater;
- performance of operational traffic management, waste and waste water management, dangerous goods management and aviation operational management
- reports of any actual or potential environmental incidents, and the recommendations for corrective and preventative actions and the review of these actions;
- results of any environmental audits;
- any general enquiries/ complaints/ comments received from the public; and
- the performance of environmental KPIs, and the EPL and Development Consent conditions

The collected information are graphed (wherever possible) so that trends and proportions can be identified and understood in the appropriate context. Most of the above information are collected from the Network Control System for the terminal infrastructure and the 'nGen' Terminal Operating System for all freight. These two sources of information will be supplemented by other sources including logbooks, utility bills, meter readings, invoices and register entries. The data collection and reporting of information is presented in Figure 5.

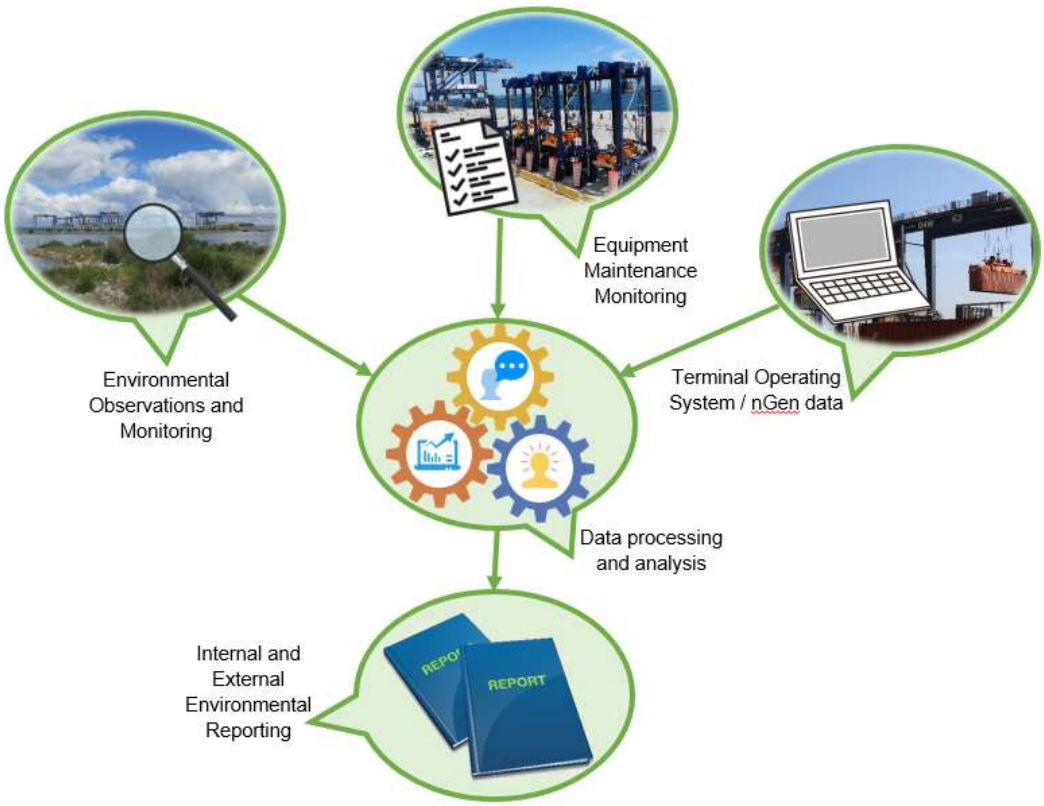


Figure 5 Data Collection and Reporting Flowchart

3.6 INDUCTION AND TRAINING

SICTL terminal is committed to providing appropriate training to all its employees to enable them to perform their roles without risks to health, safety and the environment. All operating and maintenance personnel are required to be suitably qualified and trained before handling the tasks. Records of all induction and training details and attendees are maintained within the induction system.

3.6.1 TRAINING FRAMEWORK

SICTL terminal has developed a training framework that is based on a role-specific training system. This structure allows for different types of training to be provided to relevant employees in different roles. The amount of exposure to environmental hazards and the involvement in environmental management is the criteria for selecting the training.

Table 7 Environmental Training Framework

Training Module	Relevant Employees	Training Content
Employee Induction	All SICTL staff attend the induction, which takes place in the first week of commencing work at SICTL.	Aims to ensure employees are aware of the OEMP and can recognise and communicate environmental incidents and hazards to relevant personnel. This training includes: • the HPA HSEQ Policy; • the environmental issues relevant to the SICTL terminal and how they are managed; • evacuation procedures; • recognising actual or potential incidents, and • reporting of incidents to the relevant personnel.
Equipment Operation and Stevedore Roles	Primarily for stevedore roles and operators of plant. Training takes place as part of the employee development program and based on operational requirements.	Aims to make relevant employees competent in identifying, reporting and managing environmental incidents such as spills from containers or leaking plant. This training includes: • plant refuelling operations; • incident response; • spill control, containment and clean up; • protection of the terminal's drainage systems; • the use of specialised spill equipment such as the bunded trailer; • evacuation procedures; • communication of actual or potential incidents to the relevant personnel, and • investigation and information gathering for notification and reporting.

Training Module	Relevant Employees	Training Content
Pollu-Plug	Maintenance personnel, senior Operations Managers, Security Officers and HSEQ staff shall be trained and refreshed every 2 years.	The Pollu-Plug is a pollution control system which is installed in the drainage outlets facing the Penrhyn Estuary and deployed in the event of a spill incident in the ASC or rail siding. This is a specialised training module comprising of in-situ instruction in how to deploy the Pollu-plug and advice on when to deploy the Pollu-plug.
IMDG Code	Planners, Shift Managers and other operational supervisors shall be trained in accordance with the IMDG Code.	Aims to educate relevant employees in the classification and management of dangerous goods and ensure their competence in implementing response plans and co-ordinating resources to manage dangerous goods incidents. The training is in accordance with the IMDG Code (chapter 1.3) and includes both General Awareness/Familiarization training and Function-Specific training. The IMDG Code is an advanced training module which will be completed and assessed online.

Based on the exposure to environmental hazards and levels of accountability, the training needs for targeted personnel will be analysed by the Workplace Trainer in consultation with the Environmental Engineer. The training will focus on environmental compliance during general operations in accordance with the OEMP and anticipated incidents. The targeted training topics include:

- Quay Crane Program
- Shuttle Program
- Reachstacker
- Team Leader Programs

3.7 INCIDENT REPORTING AND MANAGEMENT

All environmental incidents during the operational period of the SICTL terminal will be reported and investigated in accordance with the **HSEQ8.1 Incident Management and Investigation Policy**. A copy of the Incident Management and Investigation Policy is available at all times to all staff via the SharePoint document management system that is the repository for all HSEQ policies, procedures, plans and templates. The record of a complaint in relation to pollution arising from SICTL terminal's activities will be retained for at least four years after the complaint is reported.

Incidents are categorised into two groups based on their severity:

- Incident – Low severity
- Serious Incident – Medium to High severity

3.7.1 DEFINITIONS

Incidents
An incident which causes either minor or no injury with no apparent complications; minor damage or disruption to operations; environmental spills which are contained. Examples are: – An incident that results in on site first aid treatment being provided by a first aider or an emergency services paramedic; – An incident that results in medical treatment provided by an offsite medical facility, hospital or doctor; – An incident that results in damage to HPA assets or property (less than $10,000); – An incident relating to damage to or caused by third party trucks on the terminal; – A security related incident which is not notifiable to Authorities; – An information security incident resulting in the release of sensitive internal company information to external parties; – Loss or damage of HPA Information Technology hardware or IT systems (ie mobile phones, laptop, radio, internet outage, system failure, etc) – Environmental incidents which are not notifiable to Authorities – eg, insignificant spill to land that is contained using the company spill kits or spill trailer, with little or no harm to local environment; It also includes a near miss, which could have led to an incident.

Serious Incidents
Serious Incidents are categorised in 3 ways:
Fatality
Major Incident Admittance to, and treatment in, hospital for more than 24 hours, irrespective of injury type, OR at least 1 of the following: – full or partial amputation of an arm, hand, finger, thumb, leg, foot or toe; – dislocation of shoulder, hip knee or spine; – any injury likely to cause permanent blinding or reduction in sight in one or both eyes; – any burn injury which covers more than 10% of the body's surface area, or causes significant damage to the eyes, respiratory system or other vital organs; – electric shock or burn from explosion or fire caused by an electrical short circuit or overload; – any bone fracture, other than to a finger, thumb or toe; – any crush injury to the head or torso causing damage to the brain or internal organs; – any degree of scalping; – loss of consciousness caused by head injury or asphyxia; – any injury arising from working which leads to hypothermia or heat-induced illness, or requires resuscitation.

Dangerous Occurrence Incident

Any incident that has the potential for serious injury or loss of life, OR at least 1 of the following:

- collapse, overturning, or failure of any load bearing part of any lift, hoist, crane, mobile elevating work platform or forklift truck;
- IMDG Dangerous Goods incident (eg fire, uncontrolled release, serious damage) either inside the terminal or on a vessel alongside;
- any fall of a person into water;
- explosion or fire inside the terminal which results in operations stoppage for more than 6 hours;
- vessel/quay crane collision, regardless of cause;
- vessel hit the terminal quay deck;
- cranes blown down by strong wind;
- falling wire rope and/or associated parts from a crane without any injury;
- the unintentional collapse or partial collapse of any structure, including temporary works;
- other incidents having potential for serious injury or loss of life, material environmental harm, or which are otherwise notifiable incidents under the respective legislation.

3.7.2 EXTERNAL REPORTING OF INCIDENTS

SICTL terminal is obliged to notify and report incidents occurring or originating within the terminal to the appropriate regulatory organisations within the timeframes prescribed in legislation, EPL, Lease Conditions and the Development Consent. Unless noted otherwise, incidents that occur beyond the limits of the SICTL Terminal (including on board ships berthed at the SICTL terminal) are outside the scope of the OEMP. SICTL terminal's protocol for external notifications is described in the document **HSEQ8.1 Incident Management and Investigation Policy**.

3.8 EMERGENCY CONTROL AND RESPONSE

Broadly the potential emergencies that can be identified include but not limited to:

- Pollution incident within the terminal on land;
- Containers damaged by plant then leaking gases, fluids or solids;
- Containers arriving damaged then leaking gases, fluids or solids;
- Managed substances overwhelming bunding;
- Pollution incident originating from the terminal affecting the water of Botany Bay;
- Any pollution runoff from within the terminal;
- Discharges above specified limits, and
- Any solids or waste originating from the terminal entering the water.

3.8.1 EMERGENCY RESPONSE ACTION

The emergency control and response required to deal with the types of environmental incident is generally co-ordinated through the Chief Warden with the assistance of members of the Emergency Control Organisation and/or the Environmental Engineer or Manager - HSEQ.

Each emergency is actioned as deemed required in accordance to the **HSEQ10.1.3 Emergency Response Plan - SICTL**. A copy of the Emergency Response Plan is available at all times to all staff via the SharePoint document management system that is the repository for all HSEQ policies,

procedures, plans and templates. The Emergency Response Plan is also available on the company website at: http://www.hutchisonports.com.au/hutchisonports-sydney/

The general method for emergency response that applies to environmental incidents involving compliance or pollution is given below:

1. Danger - Perform a Quick Assessment
2. Rescue – If safe to do so
3. Alarm - Alert all Persons in the Immediate Area
4. Contain – If safe and trained to do so
5. Evacuate

All terminals at Port Botany have been provided with a common frequency Radio and Alarm System, (PBEAR), which is owned and maintained by NSW Ports. The system is intended to provide a quick method of alerting and advising and then updating all the other terminals at Port Botany of any event /incident / accident / emergency in the port area. Due to the sensitivity of the port area this system shall be used to communicate to all other terminals the reason for attendance of any of the emergency services (i.e. Police, Fire Brigade and Ambulance) at the port. The Radio and Alarm System has been installed at the location on each site which is continuously manned, typically the Security Office.

3.8.2 EMERGENCY CONTACT NUMBERS

The details for the 24-hour contact personnel and other contact numbers that should be called in the event of an emergency or incident are given in Table 8 below.

Table 8 SICTL Emergency Contact Numbers

SICTL Contacts		
Chief Warden	Shift Manager	Phone: 9578 8592
Communications Officer	Security Supervisor	Phone: 9578 8505

For details on Emergency Response external contacts and notification requirements, please refer to the **HSEQ10.1.3 Emergency Response Plan – SICTL**.

3.9 COMMUNITY CONSULTATION

3.9.1 THE OPERATIONAL COMMUNITY CONSULTATIVE COMMITTEE

The primary mechanism used by SICTL to interface with the community is the Port Botany Community Consultative Committee (PBCCC). Following agreement between its members and approval from DPIE on 16 September 2013, the Port Botany Expansion Community Consultative Committee combined with the Port Botany Neighbourhood Liaison Group to form the Port Botany Community Consultative Committee (PBCCC). The PBCCC, as a minimum includes the following members:

- two representatives from the Applicant (NSW Ports or SICTL or Patrick) including the person(s) responsible for environmental management;
- one representative from Bayside Council, approved by DPIE;

- at least 3 representatives from the local community, approved by DPIE, and
- one chairperson approved by DPIE.

The PBCCC meets at least four times each year to review and provide advice on the environmental performance of the SICTL terminal, including any construction or environmental management plans, monitoring results, audit reports or complaints.

3.9.2 OBLIGATIONS OF SICTL AT THE PBCCC MEETINGS

Meetings are held in a meeting room of the SICTL terminal building or a facility provided by NSW Ports. The –Environmental Engineer (or delegate), will attend and provide the PBCCC with regular information on the environmental performance and management of the SICTL terminal. Site inspections of the SICTL terminal may be organised through these meetings if required. Minutes of these meetings are recorded by NSW Ports, and these minutes are made available on the NSW Ports website within 14 days of the meeting, or as agreed with the PBCCC. A copy of the minutes of each PBCCC meeting and any responses to the PBCCC's recommendations will be forwarded to the DPIE within one month of each meeting by NSW Ports.

3.9.3 PUBLICLY AVAILABLE INFORMATION AND COMPLAINTS LODGEMENT

All audit, monitoring, management and reporting documents required under the Development Consent and EPL are made publicly available on the SICTL website.

Public comments, inquiries and complaints can be received by the following means:

- in person at the SICTL terminal building at Gate 150-153, Sirius Road (off Foreshore Rd) Botany;
- by mail, sent to Sydney International Container Terminals, PO Box 734, Botany NSW;
- by phone on the HPA complaints 1800 telephone number 1800 472 888, or
- by email, communityfeedback@hutchisonports.com.au

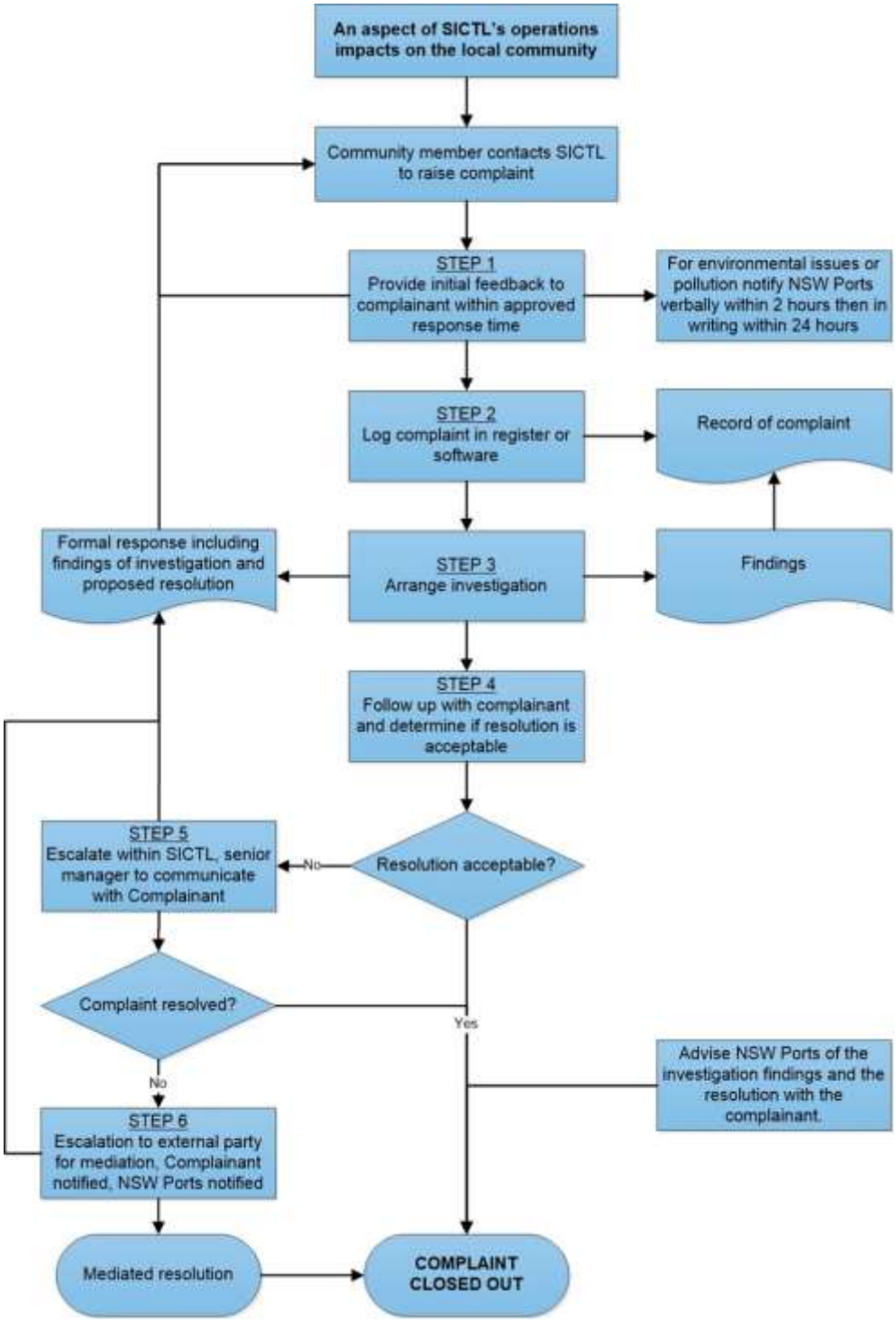
The above details will be publicised on the HPA website http://www.hutchisonports.com.au/ under the 'Contact Us' page.

3.10 COMPLAINTS MANAGEMENT

SICTL terminal is committed to managing community feedback in a manner that achieves good operational and community outcomes. SICTL operates a toll-free community complaints and feedback line (1800 472 888) which operates on a 24/7 basis. In addition, the SICTL website also has a "Contact Us" feature allowing the community to report complaints and provide feedback via email. SICTL continues to monitor all community feedback and complaints and responds promptly to all parties.

An overview of the complaints management and investigation process is outlined below:

Figure 6 Complaint Management Process



The complaints management process is comprised of six steps which aim to ensure beneficial resolution following a complaint lodged with SICTL. Other stakeholders can also lodge complaints with SICTL, the process followed will be the same:

Step 1: SICTL will receive the complaint and provide initial feedback and acknowledgement to the Complainant. This initial feedback will be within the following timeframes:

- (verbal) immediately for complaints lodged by phone or in person with a written follow-up within 2 hours (email or fax);

- (in writing) within 24 hours for complaints received by other means, and
- In the event of a complaint about an environmental issue or pollution, SICTL will verbally notify NSW Ports within 2 hours of receiving the complaint and then in writing within 24 hours.

Step 2: SICTL will log the complaint in the Community Feedback and Enquiries register. Complaint information shall include:

- the date and time of the comment, enquiry or complaint;
- the means by which the comment, inquiry or complaint was made (telephone, fax, mail, email or in person);
- any personal details of the commenter, enquirer or complainant that were provided, if no details were provided a note to that effect;
- the nature of the complaint;
- any actions taken by SICTL in relation to the comment, inquiry or complaint;
- If no action was taken by SICTL in relation to the comment, inquiry or complaint, the reasons why no action was taken, and
- any follow up actions with the date and time of follow up communications to the commenter, enquirer or complainant.

Step 3: SICTL will arrange an investigation to determine the cause of the complaint and if this cause is a product of SICTL's actions or under SICTL's responsibility. The Environmental Engineer will investigate in conjunction with terminal operations management. The operations underway at the time of the complaint will be reviewed to identify the cause. The findings, proposals and the resolution (including any resolutions already implemented) will be communicated to the complainant and NSW Ports in writing. The investigation may collect information through the following sources:

- Speaking with the workforce, plant operators, shift managers and yard managers about the activities underway at the time of the complaint;
- Review of shift manager's diary entries or prestart forms for information;
- Review of operations against the documented and approved work methods to be followed:
- Review of work records/ logged entries within the Terminal Operating System which controls the movement of freight within the terminal;
- Review of records of when trucks or ships were being serviced at the time of the complaint;
- Review of any relevant maintenance records for plant;
- Review of environmental conditions at the time of the complaint from weather records online;
- Review of monitoring data, if available, and
- Advice from independent consultants, if required

Step 4: Where a resolution was proposed to be implemented, SICTL will arrange for follow up with the complainant within an agreed timeframe (relative to the complaint and the resolution) to collect feedback on the effectiveness of the resolution.

Step 5: If the resolution is not acceptable to the complainant, SICTL will escalate the matter internally whereby a senior-level manager will contact the complainant and discuss the issue including existing or further resolution options. At this stage:

- a negotiated resolution which will satisfy the complainant and SICTL's operational needs can be implemented;
- if the senior manager and the complainant do not agree on a negotiated resolution, the senior manager will offer the Complainant the opportunity for external mediation, and
- if the Complainant elects mediation, SICTL will respond to the Complainant in writing advising them of the details of the mediation venue and appointment.

Step 6: SICTL will arrange mediation by an impartial external party. SICTL will fund the mediation process and accept the mediated solution. The outcome of the mediation will be communicated to the Complainant in writing by SICTL. The mediation will be documented and all documents from this and the previous five steps will be included in the record of the complaint.

4 IMPLEMENTATION

4.1 RISK ASSESSMENT

Risk management is a continuous, forward-looking process that is an important part of corporate, operational and technical engineering management processes. Risk management should address issues that could endanger achievement of critical objectives. A continuous risk management approach is applied to effectively anticipate and mitigate foreseeable risks that have critical impact on organisational success.

As part of this OEMP, a risk assessment has been undertaken to ensure that the outcomes of the environmental assessment, conditions of approval, and any other site investigations are effectively translated into operation at SICTL. The identified risks and the corresponding controls are documented in the RA0025 Environmental Risk Assessment.

The risk assessment uses qualitative measures to estimate the consequence or impact of an event, along with the estimate of likelihood. Each risk was assessed as being low (L), medium (M) or high (H) in terms of both consequence and likelihood. The Risk Assessment Matrix is provided in **Appendix B**.

4.2 ENVIRONMENTAL MANAGEMENT PLANS

The environmental management plans have been prepared for the environmental issues identified under section 3.2 of this OEMP. The environmental management activities and management measures are undertaken or complied with during operations of SICTL and it is ensured that the personnel responsible for implementing the OEMP are aware of their roles and responsibilities.

Environmental management plans have been presented separately under Section 7 of the OEMP. Each management plan will specify:

- the objective and the regulatory requirements that need to be complied with;
- the impacts and operational controls identified from the risk assessment;
  - the monitoring measures and the performance indicators;
  - the review mechanism; and
  - the responsibility necessary for the implementation of the control measures.

5 ENVIRONMENTAL FORMS, RECORDS AND REGISTERS

Environmental forms, records and registers used to document compliance with the OEMP. Provided below is a summary listing of these schedules.

A copy of all documents is always available to all staff via the SharePoint document management system that is the repository for all HSEQ policies, procedures, plans and templates.

Table 9 Environmental Documentation

Record No.	Record Title
HSEQ2.1.1.4	Risk Assessment Register
HSEQ2.1.1.2	Risk Assessment Tool
HSEQ11.2.1.2	Environmental Workplace Inspection Checklist - Sydney
HSEQ8.1	Incident Management and Investigation Policy
HSEQ8.1.1.5	Incident Notice Form
HSEQ10.1.3	Emergency Response Plan - SICTL
HSEQ10.1.1.1	Emergency Report
NA	Community Feedback and Complaints Register
NA	PBCCC Meetings Minutes
NA	Training Matrix
NA	Rapid Incident - online incident reporting software

6 MONITORING, AUDIT AND REVIEW

6.1 MONITORING

The environmental monitoring of the SICTL terminal operations will be carried out by the Environmental Engineer in conjunction with the Manager, Risk & Compliance, and relevant management representatives from Operations and Engineering through regular terminal inspections, monitoring programs and general surveillance of operations. Further details of monitoring are provided in each management plan. The OEMP management plans are the primary instruments controlling monitoring and reporting of results.

6.2 AUDITING

Auditing of the OEMP will be undertaken to ensure its implementation and effectiveness. Both internal audits and external audits shall be the instruments to determine whether the OEMP is properly implemented and maintained.

6.2.1 INTERNAL AUDITS

Internal audits are used as an in-house check of compliance as outlined in the **HSEQ11.4.1 Internal Audit Plan**, the report of which is submitted to the Executive Management Team for review and tabled in the Weekly Management Meeting. The records and processes relating to the environmental management of the SICTL terminal are assessed in the **Annual Environmental Management**

Report (AEMR), which is required in condition C4.2 of the Development Consent. The AEMR is prepared every twelve months and is made publicly available on the SICTL website.

6.2.2 EXTERNAL AUDITS

An external audit (as required by condition C4.5 of the Development Consent) is conducted every twelve months to check HPA's operational compliance with the Development Consent conditions. The audit is conducted by an auditor who is appointed by HPA and approved by the DPIE.

External audits involve a review of all environmental documents, records, and reports to ensure compliance with the requirements of the Conditions of Consent and OEMP. The audit reports are made publicly available on the SICTL website and also provided to the Secretary-General of the Department of Planning.

6.3 REVIEW AND CONTINUOUS IMPROVEMENT

The OEMP is a 'live' document and will be constantly reviewed and updated as required. Continuous improvement of the OEMP and the management plans aims to ensure that the OEMP remains current with SICTL's operations.

The factors that will necessitate the review of OEMP are listed below:

- Any changes to the operations and thereby change in the environmental risk assessment
- Where there is a need to improve the environmental performance
- As a result of changes to applicable legislation applicable to the SICTL terminal
- Incident or complaint that requires review of the management plans.
- Review opportunities identified through audits
- Any changes to the EPL and Development Consent conditions

Minor changes including but not limited to grammar, spelling, legislative references, contact details or changes in document titles, etc will be made to the OEMP as required and the new version provided to NSW Ports, DPIE and published on the website.

Major changes to the OEMP will require a re-submission process and incorporate stakeholder consultation.

Any update made will be recorded on the Revision History record (Page 2 of this OEMP) with the reasons for the update recorded along with a summary of the changes made.

The various instruments that are adopted by SICTL to continually improve the OEMP and the management plans are summarised in the below Table.

Table 10 Instruments for OEMP Review

Workplace Inspections	• Shall be conducted primarily by the Environmental Engineer assisted by SICTL Operations and Maintenance personnel (including HSRs). • Shall scrutinise the environmental impacts of the general running of the terminal and issues identified will be documented, photographed and discussed with members of the HSEQ team, terminal management and WHS Committee. Improvements can then be developed and implemented. • Inspections of the terminal will be conducted at least monthly.

Documenting opportunities for Improvement	• Document the opportunities for improvement in accordance with the **HSEQ2.2 Hazard and Improvement Opportunity Reporting Policy** • The control of non-conformities arising from audits, incidents or routine inspections will be documented in full to comply with legal and procedural requirements. • This documentation can be used in future scenarios such as training or decision-making
Auditing	• SICTL will use the results to drive the continuous improvement process with the goal of total compliance
Management Review	• All operating and environmental data collected during the operation of the SICTL terminal, including information on current activities, incident investigations and root causes, operational Environmental Data, AEMRs and KPIs will be reviewed by the HSEQ department and HPA Executive Management Team so that all levels of management are aware of the ongoing environmental performance of the terminal.

7 ENVIRONMENTAL MANAGEMENT PLANS

This section details the environmental management plans for each of the identified actual/potential issues identified that are associated with SICTL's operations.

- Objective
- Statutory Requirements and Legislative framework
- Responsibilities
- Operational Impacts and Control Measures
- Monitoring and Reporting
- Performance Expectations
- Review and Improvement

7.1 AIR QUALITY MANAGEMENT PLAN

OBJECTIVE

The objective of this management plan is to guide the direction of SICTL's operations so that operational staff can carry out their duties whilst remaining aware that their work may impact local air quality. Through this awareness, SICTL can best manage foreseeable impacts successfully and minimise emissions to atmosphere using efficient plant and equipment and through efficient operations always.

STATUTORY REQUIREMENTS AND LEGISLATIVE FRAMEWORK

This management plan has been prepared to fulfil the requirements defined under Development conditions C2.1, C2.2, C2.3 and C2.4 (Refer to **Appendix A1**).

The legislation that applies to the implementation of this management plan is listed below:

- Protection of the Environment (Operations) Act 1997 (NSW)
- Environmental Planning and Assessment Act, 1979 (NSW)

RESPONSIBILITIES

A comprehensive list of responsibilities, accountabilities and authorities is provided in section 3.4 of this OEMP. The key responsibilities for the implementation of this management plan is provided below.

Table 11 Tasks and Responsibilities (Air Quality Management)

Task	Responsibility
Induction and training of SICTL staff, contractors and visitors	Workforce Trainer
Maintenance of operational plant and vehicles	Maintenance Department and relevant service providers/contractors.
Checking each item of plant prior to use	Plant Operators
Monitoring of air quality impacts and effectiveness of controls	Operations staff / HSRs
Compile and analyse air quality monitoring results	Environmental Engineer
Management of Corrective Actions	Environmental Engineer

OPERATIONAL IMPACTS AND CONTROL MEASURES

The various operational impacts that have the potential to affect the air quality due to SICTL terminal and the details of the overall management methods and procedures that are implemented to control odour and dust are listed in the table below:

Table 12 Operational Impacts and Controls Measures (Air Quality Management)

Operational Impact	Operational Control Measures
Odours from the On-Site Fuel Storage Tank	
Breather pipes to allow for the ventilation of diesel fumes.	The diesel odours originating from the on-site fuel storage tank are not expected to impact the local air quality. Notwithstanding, the on-site fuel storage tank is situated far from the boundaries of the SICTL Terminal. The intent of this control is for the concentration of any diesel odours to have dissipated before they are carried beyond the boundaries of the terminal. Breather pipes of the fuel storage tank are positioned on the top of the tank, away from workers, and fitted with filters to prevent contamination of the fuel. These filters also help to minimise odour impacts.
Odours from Hazardous Freight/Dangerous Goods	
Most Dangerous Goods are usually shipped in sealed containers however some are in ventilated containers so that fumes do not accumulate and over pressurise the container	There are designated Dangerous Goods storage areas within the SICTL Terminal where spill containment systems are fitted. These areas are separated from the boundary of the terminal by the internal service roads and the landside exchange which allow for any odours to dissipate before they reach the boundary. In the event of dangerous goods being spilled, odours may be controlled by the application of absorbent materials which stabilise the spilled liquid. Additionally, the Dangerous Goods spill containment area is located on the far end of the SICTL Terminal, away from residential receptors.
Emissions from Operational Plant, Machinery and Equipment to Air	
The general operation of the terminal and for maintenance activities including site vehicles (utes, yard trucks, bus); reach stackers; shuttle carriers, and small plant (forklifts, elevated work platforms).	The necessary emission control devices are fitted to the operational plant and vehicles used by SICTL by the manufacturers. The continued operation of these devices are checked by every plant operator as part of the pre-start check for each item of plant and referred to the SICTL maintenance personnel if repairs or replacements are required. The SICTL maintenance department services operational plant and vehicles at scheduled intervals to ensure that manufacturer-fitted emission control devices or systems are working adequately. All vehicles, plant and machinery are operated efficiently in accordance with their specifications and instances of unnecessary idling will be minimised.
Dust	
Dust emissions are not anticipated from any operational activities; however, controls have been identified to mitigate risks from the undeveloped areas.	Although dust is not anticipated from operational activities, dust may be generated through the actions of wind on the undeveloped areas or by traffic on the terminal. Current control measures for the mitigation of dust disturbance on the terminal include the isolation of all undeveloped land areas from any container traffic or vehicle access, and the application of a dust suppressant to the affected areas when required.

	SICTL will monitor any airborne or accumulation of dust on the terminal and arrange for the suppression of dust by the following methods: • Cleaning of internal roads and sealed areas using road sweeper trucks; • The stabilisation of existing undeveloped areas on the terminal which will include the application (and reapplication when necessary) of an appropriate sealant, including polymer emulsions, bituminous emulsions, wood fibre mulch binders and other suitable synthetic products. The terminal will select the appropriate sealant on the basis of the environmental impact, water conservation, cost-effectiveness and longevity of the suppression; • Other dust mitigation activities. NOTE: Future stages of the SICTL terminal will be under construction adjacent to the operational areas. The control of dust in construction areas is managed by the Construction Environmental Management Plans relevant to those areas and is outside the scope of this document.

MONITORING AND REPORTING

Except for the undeveloped areas, the overall opportunity for odour and dust generation from the operational areas of the SICTL terminal is very low. In addition, the potential for surrounding roadworks and other construction areas, neighbouring stevedores and nearby industry each emitting their own odours and dust in a variety of environmental conditions make the isolation of SICTL's contribution difficult.

The method of monitoring adopted by SICTL is in the diligence of all operational staff and operators to identify odour and dust sources within the terminal, and the regular monthly terminal inspections conducted by the Environmental Engineer.

These monitoring records, observations and inspections will be documented and reported by the Environmental Engineer who will analyse the results and propose subsequent rectification actions. The results will be reviewed by the HSEQ department on an ongoing basis and will be used for various reporting obligations provided in Section 3.5.

PERFORMANCE EXPECTATIONS

The measure of how well this management plan is implemented and the effectiveness of the control measures described above shall be identified in the monthly monitoring and in any complaints returned by residents or other stakeholders.

The details of the overall management methods and procedures that are implemented to control odour and dust are listed in the table below:

Table 13 KPI's (Air Quality Management)

Key Performance Area	KPI
Air quality complaints received from residents or other members of the community.	Zero
Regular visual inspection of the terminal to verify that control measures are in place and functioning correctly and to identify any air quality issues or the presence of any deposited dust/sand.	Monthly visual inspection – 12 annually
Implementation of appropriate corrective actions following a non-conformance in relation to air quality controls.	Within 8 weeks of the identified non-conformance.

REVIEW AND IMPROVEMENT

The review and amendment of this management plan will be in accordance with section 6 of the OEMP. The management of complaints pertaining to the air quality due to SICTL shall be in accordance with Section 3.10 of this OEMP.

7.2 AVIATION OPERATIONAL IMPACTS MANAGEMENT PLAN

OBJECTIVE

The potential/actual environmental issues are already discussed under Section 3.2 of this OEMP. The objective of this management plan is to guide the direction of SICTL's operations so that operational staff can carry out their duties whilst remaining aware that their work may impact Sydney Airport. Through this awareness, SICTL can best manage foreseeable impacts successfully. Ultimately, awareness and management of impacts will lead to compliance with the Development Consent.

The implementation of this management plan will help SICTL in the following ways:

- Provides a basis for consultation with Sydney Airport Corporation Limited (Sydney Airport) regarding minimising or eliminating light-spill effects on pilots;
- Acts as a tool for promoting an ongoing relationship between Sydney Airport and SICTL so that any operational problems can quickly be solved directly between the two organisations, and
- Provides a basis for consultation with Airservices regarding all the SICTL terminal equipment being within the Obstacle Limitation Surface (OLS) for Sydney Airport and the quay line being within the CASA Lighting Control Zone D.

STATUTORY REQUIREMENTS AND LEGISLATIVE FRAMEWORK

The Conditions of Development Consent pertaining to managing impacts on aviation operations can be found in the clauses C2.21, C2.22, C2.23, C2.24 and C2.25 (Refer to **Appendix A1**).

The legislation that applies to the implementation of this management plan is listed below:

- Civil Aviation Regulations, 1988 (Cth)
- Civil Aviation Safety Regulations, 1998 (Cth)
- Airports Act 1996 (Cth)
- Airports (Protection of Airspace) Regulations 1996 (Cth)
- Environmental Planning and Assessment Act, 1979 (NSW)
- Marine Order 32 (Cargo Handling Equipment) 2011 (AMSA)
- Environment Protection and Biodiversity Conservation Act 1999 (Cth)
- Threatened Species Conservation Act 1995 (NSW)
- National Parks and Wildlife Act 1974 (NSW)

SICTL shall also have regard to the National Airports Safeguarding Framework (NASF) and its guidelines, when considering any aviation operational impacts or implementing any controls.

RESPONSIBILITIES

A comprehensive list of responsibilities, accountabilities and authorities is provided in section 3.4 of this OEMP. The key responsibilities for the implementation of this management plan is provided below.

Table 14 Tasks and Responsibilities (Aviation Operational Impacts Management)

Task	Responsibility
Induction and Training of SICTL staff, contractors and visitors	Workforce Trainer
Manage the controls on OLS and maintenance of Terminal Lighting	Operations and Engineering Managers, Maintenance department and relevant service providers/contractors
Monitoring of aviation impacts and effectiveness of controls	Operations staff / HSRs
Monitor light spill from ships and liaison with Ship Master	Shift Manager
Compile and analyse aviation monitoring results	Environmental Engineer
Point of contact for Sydney Airport and has the authority to direct a corrective action be implemented within the SICTL terminal.	Environmental Engineer and Engineering Manager

OPERATIONAL IMPACTS AND CONTROL MEASURES

The various operational impacts that have the potential to affect the aviation operations at Sydney Airport due to SICTL terminal and the details of the overall management methods and procedures that are implemented are listed in the table below:

Table 15 Operational Impacts and Control Measures (Aviation Operational Impacts Management)

Operational Impact	Operational Control Measures
Fixed operating infrastructure	
The fixed operating infrastructure for the SICTL terminal may have a constant offset from the Parallel Runway however the Quay Cranes will have movable booms and may also move along the wharf to accommodate ships of different sizes, the large aperture of the design of the cranes is not expected to pose a problem for the Airport radar. Cargo ships moored alongside the wharf are expected to have some impact on the Sydney Airport Radar.	SICTL has undertaken the following measures: • location of the fixed terminal operating infrastructure adequately considers the required lateral separation distances to minimise the interference to Sydney Airport's radar and navigational systems. • it selects quay cranes with a reach that satisfies the lateral separation requirement • it selects appropriately sized low-profile cranes • it consults with Airservices and co-ordinating with NSW Ports so that the airport radar and navigational systems can be tested when the fixed terminal operating infrastructure is in place and recalibrated if necessary. • it establishes a system of interface and cooperation for ongoing monitoring by Sydney Airport. The Environmental Engineer and Engineering Manager are the main points of contact for Sydney Airport and have the authority to direct corrective action be implemented within the SICTL terminal.

Obstacle Limitation Surface	
The Obstacle Limitation Surface (OLS is a flat plane with a height of 51m above the Australian Height Datum (AHD). This acts as a ceiling for the height of the quay cranes and the ships to be serviced at the SICTL terminal. Under the Airports (Protection of Airspace) Regulations 1996, all penetrations of the OLS are classified as obstacles. No penetrations of the OLS are allowed under the legislation without the approval of the Australian Department of Infrastructure and Transport. The height of ships is a separate issue to the height of the fixed terminal equipment and is not specified in the Development Consent.	Large ships with tall masts or antennae penetrating the Obstacle Limitation Surface (OLS) are required to be managed. Approval by the Australian Department of Infrastructure and Transport are required prior to any ships operating at the SICTL terminal. Any conditions specified by CASA must be complied with by Sydney Ports. SICTL has selected low profile cranes for stevedoring ships. In the case of large ships that have masts or antennae which penetrate the OLS, SICTL will collaborate with NSW Ports, the Port Authority of NSW and the Shipping Line in the submission of an application to Sydney Airport, CASA and the Australian Department of Infrastructure, Regional Development and Cities for approval to penetrate the OLS. Any conditions specified by the authorities must be complied with by the Shipping Line, the Port Authority of NSW, NSW Ports and SICTL.
Terminal Lighting and Light Spill	
Pilots are reliant on the specific patterns of aeronautical ground lights during inclement weather and outside daylight hours. These aeronautical ground lights, such as runway lights and approach lights, play a vital role in enabling pilots to align their aircraft with the runway in use. They also enable the pilot to land the aircraft at the appropriate part of the runway. It is therefore important that lighting in the vicinity of airports is not configured or is of such a pattern that pilots could either be distracted or mistake such lighting as being ground lighting from the airport. The design of the terminal lighting complies with CASA's Manual of Standards Part 139 – Aerodromes, section 9.21; Lighting in the vicinity of Aerodromes. The design of the lighting of the SICTL terminal will be primarily horizontally mounted and facing downwards. The quay cranes have lighting installed on each crane boom to illuminate the area of the container ship they are working. These lights will face	The terminal lighting has been designed to primarily support terminal operations and allow safe work at night for stevedoring in accordance with Marine Order 32 (Cargo handling equipment). The design specifications of the terminal lighting conforms to the requirements of: • Schedule 1, Section 2 of Marine Order 32 (Cargo Handling Equipment): 2016. • Regulation 94 of the Civil Aviation Regulations 1988 regarding 'Dangerous lights' in the neighbourhood of aerodromes'. • CASA's Manual of Standards Part 139 – Aerodromes, section 9.21; Lighting in the Vicinity of Aerodromes • The quay line of the SICTL terminal is situated 732 metres from the centreline of the Parallel Runway placing it 18 metres inside Lighting Control Zone D of the Primary Runway Area as defined in the Civil Aviation Safety Authority's Manual of Standards Part 139 – Aerodromes (shown as the area shaded yellow in Figure 7 below). The maximum intensity of light sources inside Zone D (measured at 3° above the horizontal plane) permitted under this Manual is 450 candela. The lighting specifications for the SICTL terminal is communicated to the SICTL Maintenance department so that replacement light bulbs will have the same intensity as those specified in the design and controls.

downwards. The lights from vehicles and plant operating on the wharf will be shielded by the berthed vessels.	When undertaking significant lighting changes at the terminal, SICTL shall first consult with Sydney Airport and seek advice from CASA where required.
Light Spill	
It is anticipated that light spill from the SICTL terminal would not adversely impact operations at Sydney Airport due to the lighting design measures considered in the project.	The transfer of goods to or from vessels, including the use of cranes must comply with Marine Order 32 (Cargo Handling Equipment) 2016 issued by the Australian Maritime Safety Authority. In complying with MO32 SICTL adopts the below measures as far as reasonably practical: • minimising ship board lighting while berthed, and/ or • providing temporary shielding on the ship mounted floodlights while berthed. SICTL will liaise with vessels and ensure non-essential lighting on board is extinguished and essential lighting is screened or shielded where necessary. These controls are facilitated through SICTL's service agreement with each Shipping Line and supported through the Ship Booklet provided to the Ship Master on arrival to the SICTL terminal.
Bird Attraction to the Terminal	
The estuary area adjacent to the SICTL terminal provides feeding and nesting opportunities for local and migratory species of birds. However, the risk of collisions between birds and aircraft at or near airports, many be increased by the presence of a number of bird attractants that such as: • open rubbish bins where birds can pick food scraps opportunistically, • littering by the staff of the terminal, • ponding of surface water, • the structure of cranes, light poles and buildings providing an opportunity for birds to make nests, and • the terminal lighting attracting insects which are food for birds. Birds attracted to the estuary or SICTL terminal can migrate onto the airport or across flight paths, increasing the risk of strikes.	SICTL will use a number of means to control bird attraction. The below list is by no means an exhaustive list, but it gives an indication of the many measures undertaken: • enclosure of rubbish collection areas/ use of closed bins and regular collection of bins; • control of littering and bird feeding through inductions and toolbox talks;  • control of littering by erecting signage within the terminal; • surveillance of litter and surface water ponding through workplace inspections; • SICTL personnel to strictly eat meals in the terminal – no food to be consumed outside of the terminal buildings; • monthly inspections of the terminal structures by SICTL employees and Environmental Engineer to check for nest formation. If any nests discovered, SICTL will apply to the National Parks and Wildlife Service for permission to destroy any eggs; • the design of rooves and gutters of terminal buildings to prevent formation of birds' nests; • installation of bird deterrents such as predator mannequins, netting, tape, bio-acoustics (natural

	predator calls) in quiet areas of the terminal at strategic locations (when required); • the engagement of a specialist lighting consultant to provide advice on terminal lighting to deter insects which are food for birds; • the engagement of a consulting avian ecologist to provide advice to SICTL on active management methods such as flock dispersal, nest removal, use of trained predators etc; • no bird-attracting cargo (such as livestock or bulk grain) handled at the SICTL Terminal; • liaison between the SICTL Environmental Engineer and the Sydney Airport Wildlife Management Group for implementation of any dispersal or harassment protocols (or any other method of bird removal). Management of Penrhyn Estuary bird populations falls outside the scope of SICTL operations and this OEMP.
Bird Attraction to Container Ships	
When disoriented or tired, birds may land on ships at sea to recover. There is a small risk of ships bringing birds into Botany Bay that have remained on board in large numbers (especially after bad weather). The risks include: • large groups of birds may remain on board ships until berthing, then fly off; • the attraction of birds to the rubbish disposal areas on ships; • littering into Botany Bay by ships crews presenting a food opportunity for fish and therefore birds; • shipboard lighting (deck lights) attracting insects which are food for birds, and • the structure of ships, i.e., mast arms and handrails.	SICTL liaises with the Shipping Line/ Ship Master of each vessel so that: • there are no large groups of birds present on board ships before berthing; • ships' crew do not feed birds or engage in fishing activities from the vessel while berthed, and • minimising ship board lighting while berthed to the amount required to allow safe work. These controls are facilitated through SICTL's service agreement with each Shipping Line and supported through the Ship Booklet provided to the Ship Master on arrival to the SICTL terminal.

Figure 7 Area of the quay line within Sydney Airport's Lighting Control Zone D.

MONITORING AND REPORTING

Monitoring of the potential impacts arising from operations at the terminal and the effectiveness of the controls implemented by SICTL is generally carried out by the Environmental Engineer. Additionally, the following sources of information are monitored:

- SICTL personnel reporting aviation impacts (including detection of roosting birds) to the Environmental Engineer;
- Complaints from pilots or Airservices relayed through Sydney Airport, and
- Maintenance monitoring of the Aviation Obstacle Lights installed at the top of the Quay Cranes and when changes to equipment occur.

SICTL will interface with the Sydney Airport Airfield Operations Co-ordinator to manage any bird hazards originating from the SICTL terminal with the potential to affect Sydney Airport.

The results of monitoring will be compiled by the Environmental Engineer who will analyse the results. The results will be reviewed by the HSEQ department on an ongoing basis and will be used for various reporting obligations as discussed in Section 3.5 of this OEMP.

PERFORMANCE EXPECTATIONS

The measure of how well this management plan is implemented and the effectiveness of the control measures described above shall be identified in the monthly monitoring and in any complaints returned by residents or other stakeholders.

Table 16 KPI's (Aviation Operational Impacts Management)

Key Performance Area	KPI
Airport-related complaints including light-spill, bird hazards received from Sydney Airport or other members of the community.	Zero
Regular visual inspection of the terminal to verify that control measures are in place and functioning correctly and to identify the presence of any bird hazards.	Monthly visual inspections – 12 annually

Note:

* Implementation of Corrective Actions in relation to terminal lighting, light spill or bird hazards shall be undertaken following consultation with Sydney Airport officers who have the authority to enforce compliance of specific aviation-safety related breaches.

REVIEW AND IMPROVEMENT

The review and amendment of this management plan will be in accordance with section 6 of the OEMP. The management of complaints pertaining to impacts on operations of Sydney Airport shall be in accordance with Section 3.10.

7.3 NOISE MANAGEMENT PLAN

OBJECTIVE

The objective of this management plan is to guide the direction of SICTL's operations so that operational staff can carry out their duties whilst remaining aware that their work may impact nearby residents. Using this management plan will help SICTL:

- as a basis for consultation with relevant stakeholders regarding minimising or eliminating noise impacts,
- as a tool for promoting an ongoing relationship between the relevant stakeholders and SICTL so that any operational problems can quickly be solved and
- in providing compliance to environmental legislation.

STATUTORY REQUIREMENTS AND LEGISLATIVE FRAMEWORK

The Conditions of Development Consent pertaining to managing noise from SICTL's operations can be found in the clause C2.5 to C2.11 (Refer to **Appendix A1**). This management plan also addresses the conditions of L3.1 to L3.8 and E1.1 to E1.2 under EPL #20322 issued to SICTL (**Appendix A3**).

The legislation that applies to the implementation of this management plan is listed below:

- Protection of the Environment (Operations) Act 1997 (NSW)
- Environmental Planning and Assessment Act, 1979 (NSW)

RESPONSIBILITIES

A comprehensive list of responsibilities, accountabilities and authorities is provided in section 3.4 of this OEMP. The key responsibilities for the implementation of this management plan is provided below:

Table 17 Tasks and Responsibilities (Noise Management)

Task	Responsibility
Induction and Training of SICTL staff, contractors and visitors	Workforce Trainer
Maintenance of operational plant and vehicles to ensure the noise control devices such as reversing quackers, alarms, mufflers and insulated panels are always working and are set to comply with noise limits.	Maintenance Department and relevant service providers/contractors
Proper landing of containers from operational plants	Plant Operators
Monitoring of noise impacts and effectiveness of controls	Operations staff / HSRs
Six monthly noise monitoring	Independent Noise Consultant
Analyse the noise monitoring results	Environmental Engineer

OPERATIONAL IMPACTS AND CONTROL MEASURES

Details of the overall management methods and procedures that will be implemented to control noise from the SICTL Terminal are explained in the below Table.

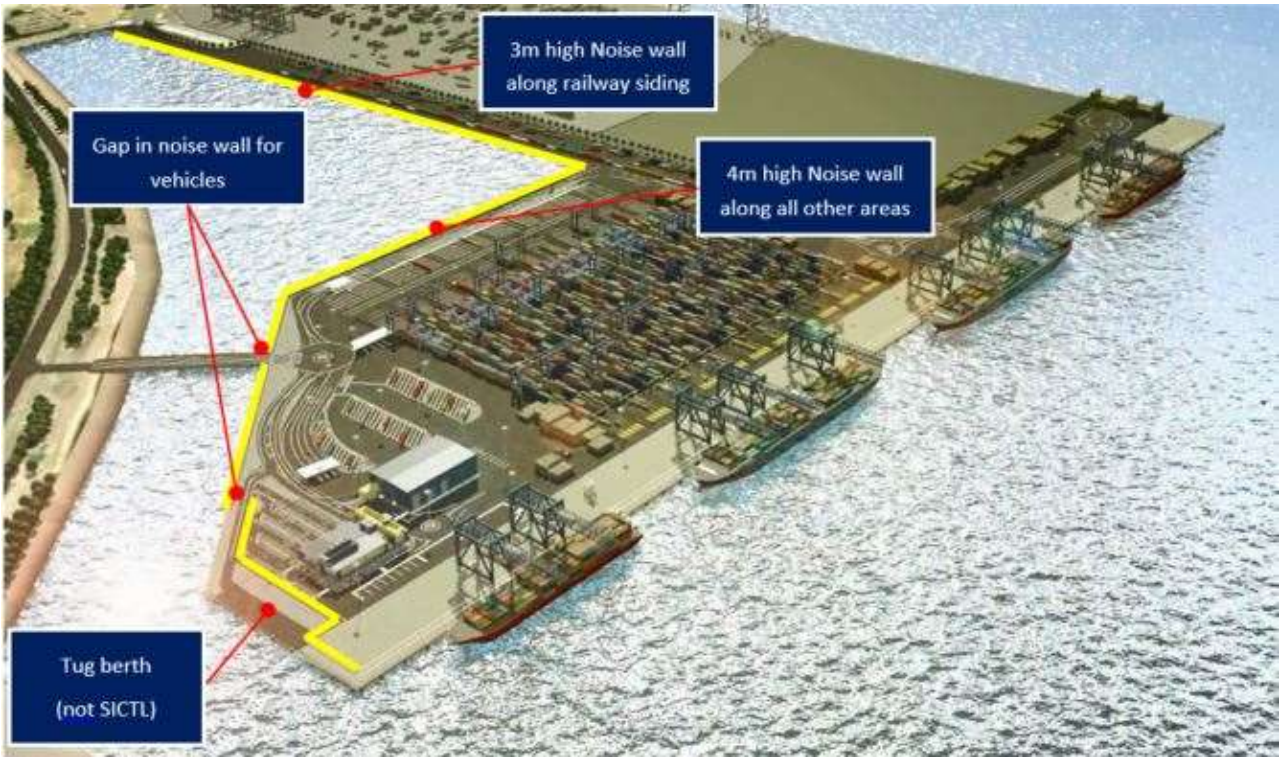
Table 18 Operational Impacts and Control Measures (Noise Management)

Operational Impact	Operational Control Measures
Noise from SICTL terminal	
General terminal operation activities generate noise that has the potential to disturb shorebirds in the Penrhyn Estuary, local residents and other stakeholders.	The terminal is built with a noise wall along its northern edge as depicted in Figure 8. The noise wall is designed in accordance with the acoustic modelling detailed in chapter 22 of the Port Botany Expansion Environmental Impact Statement (EIS) and is: • 3 metres high when parallel to the railway siding, and • 4 metres high along other areas of the terminal. A key assumption in the modelling was the absence of stacked containers within the terminal. During operation, containers will be stacked up to five high in the ASC blocks thus further shielding noise sources and minimising the impact beyond the modelling.
Noise from Operational Plant, Machinery and Equipment	
The SICTL Terminal will feature a combination of electric and diesel plant, machinery and equipment (assets) used in the general operation of the terminal and for maintenance activities. It is expected that noise from these assets will have some impact on nearby residents unless adequately managed. The main areas of concern are engine noise and reversing alarms.	• The plant selected for use at the Terminal are fitted with the manufacturer's noise control devices. • SICTL in-house maintenance personnel will ensure the noise control devices such as mufflers and insulated panels are always working adequately or that defective units are replaced. • All plant owned or operated by SICTL must be fitted with reversing alarms. The type of alarms fitted will be the broadband 'quacker' type as opposed to the alternative tonal 'beeper' type. • Prior to operating an item of plant, the operator will check the fitted noise control devices and reversing alarms are adequate and are working correctly as part of the pre-start checking procedure for each machine. • Equipment found to be producing excessive noise will be identified to Maintenance and taken out of use and repaired. • Carrier's trucks will arrive at the terminal to load or unload containers and will be fitted with a variety of reversing alarms (broadband and tonal types). SICTL will encourage its customers to fit broadband type reversing alarms to their trucks. • Management methods for minimising the noise will be communicated to visitors, operators and contractors through the SICTL induction program.

Operational Impact	Operational Control Measures
	• Equipment idle time will be minimised through throttling down and switching off idle equipment. • Operators and truck drivers will be encouraged to identify practices and opportunities to reduce operational noise emanating from plant. • Plant or vehicles that have malfunctioning or damaged noise control devices will be removed from service, documented and referred to the SICTL maintenance department for repairs. • Generally, the SICTL operational noise will be assessed by the Environmental Engineer or the Manager, Engineering during regular terminal inspections and internal process audits.
Noise from Container Landing	
The noise from containers landing on hard surfaces is expected to occasionally impact nearby residents in certain environmental conditions such as wind direction and high speeds. SICTL anticipates the noise levels from container handling to be lower than existing terminals because most of the handling will be done by the Automated Stacking Cranes (ASCs) which have more control than a manual operation.	The majority of the controls to minimise noise from containers landing on hard surfaces are built into the machines that lift them. Soft landings are achieved by programming the machine control systems to slowly lower containers when approaching ground level. The Automated Stacking Cranes will do this as they are guided by laser systems which track the progress of a container being lowered. Similarly, the Quay Crane enters 'slow mode' when approaching the level of the quay apron.
Noise from Freight Train and Rail Activities	
SICTL shall move a percentage of cargo using the rail network. Marshalling of locomotives and train wagons through the rail siding (including uncoupling processes) are expected to create some noise that may impact nearby residents.	The noise wall erected alongside the entire length of the rail sidings is the main management measure that will attenuate most noise emanating from trains and rail activities. SICTL has not implemented a gate alarm system – instead the Rail Team Leader will communicate with ARTC and the Train Operator via mobile phone to arrange for the rail gate to be opened when the train is at the final approach to the SICTL terminal. The unnecessary use of whistles or horns by trains on the SICTL rail siding is not permitted, to prevent disturbances to shorebirds in Penrhyn Estuary and local residents. Under the requirements for safe work, the use of train horns (where necessary) will prevail.
Noise from Ships	
Noise emanating from ships is outside the control of SICTL. When underway, the vessel Master is required to sound the ship's horn to communicate his intentions to other vessels under NSW maritime law	SICTL will liaise with the Shipping Lines so that noise emanating from ships deemed to have adverse impacts on nearby residents is mitigated as much as practicable. If a ship is identified as particularly noisy, the Port Authority of NSW, VTS Centre may be contacted and port officers can

Operational Impact	Operational Control Measures
and the International Regulation for the Prevention of Collisions at Sea. When berthed, the usual practice is for crews to shut down their main engines and run smaller engines powering generators for the operation of the ship's systems and the preservation of refrigerated cargo. This practice generates significantly less noise than using the main engines.	be dispatched to the ship to attempt to identify and remedy the noise issues. Proposed controls on noise from ships whilst berthed include shutting off the main engine(s) and running smaller engines to drive generators or the (future) use of Shore Based Power. Although the infrastructure has been installed during construction of the Terminal, Shore Based Power is not immediately available for use as a noise mitigation measure upon commencement. SICTL will commission Shore Based Power at all berths in future construction phases which will compliment other controls for noise mitigation.

Figure 8 Diagram showing the extent of the noise wall.



MONITORING AND REPORTING

In accordance with SICTL's EPA Licence and the Consent Conditions, SICTL will engage acoustic consultants accredited by the Association of Australian Acoustical Consultants (AAAC) for the monitoring of noise from the SICTL Terminal.

For the operational noise monitoring, the six locations identified in SICTL's EPA Licence and the Development Consent (Figure 9) will be used.

- Chelmsford Avenues, Botany
- Dent Street, Botany
- Jennings Street, Matraville
- Botany Road, Banksmeadow (North of Golf Club)
- Australia Avenue, Matraville
- Military Road, Matraville

Figure 9 Noise Monitoring Locations (numbers 1 to 6, adapted from EIS figure 22.1).

To isolate the noise contribution by SICTL as much as is possible and to measure in accordance with SICTL's EPA Licence and the Consent Conditions, additional noise monitoring locations may be included, or residential receiver locations adjusted based on the Assessment of Operational Noise Impacts (described in Table 19) and in consultation with the noise consultant (but still in compliance with conditions).

Table 19 Assessment of Noise Impacts

Relevant Receiver	No. on Map	Assessment of Operational Noise Impacts
Chelmsford Avenues	1	The location is not expected to be impacted as there are many roads, residences and industrial sites between this location and the SICTL Terminal. This location is also close to Sydney Airport.
Dent Street	2	This location is expected to be the most impacted because it is the closest residential receiver to the SICTL Terminal. This area is the most suitable for operational noise monitoring and will be treated as representative of other locations.
Jennings Street	3	This location is not expected to be impacted as there are many roads, residences and industrial sites between this location and the SICTL Terminal.
Botany Road (North of Golf Club)	4	This location is expected to be impacted due to the proximity to the SICTL Terminal.
Australia Avenue	5	This location is not expected to be impacted as there are many roads, residences and industrial sites between this location and the SICTL Terminal.
Military Road	6	This area is not expected to be impacted as there are two other stevedores and various industrial sites between this location and the SICTL Terminal.

During operations, SICTL will undertake periodic attended and unattended noise monitoring to develop a representation of the terminal noise received by residential receivers. The operational noise monitoring program will:

- Continuously record for a duration of two weeks at a time;
- Take place at a frequency of every six months;
- Additionally, take place at the commencement of a new phase of operations or at appropriate operational milestones;
- Take place in support of any application made by NSW Ports to increase the throughput at the terminal;
- Take place at any other additional time as determined by SICTL for example, in relation to noise complaints or the introduction of different equipment, and
- Be used to verify the noise contribution of the terminal against the noise modelling predictions stated in the EIS and investigate and explain differences.

The results of noise monitoring will be compiled by the acoustic consultant into the Noise Compliance Assessment Report and reviewed by the Environmental Engineer. The Noise Compliance Assessment shall be submitted to NSW Ports and uploaded to the HPA website within 14 days of receipt as per SICTL's environmental protection licence conditions.

The results of the Noise Compliance Assessment Report will be included in the AEMR along with any trends, key management implications and proposed management actions.

The raw data that is captured on the complaints register will go directly into the AEMR together with copies of the complaint reports including times, dates, photos and follow up.

PERFORMANCE EXPECTATIONS

The measure of how well this management plan is implemented and the effectiveness of the control measures described above shall be identified in the 6 monthly noise monitoring and in any complaints returned by residents or other stakeholders.

The details of the management methods and conditions that are implemented to monitor and control noise are listed in the table below.

Table 20 KPI's (Noise Management)

<table>
<tr><th>Key Performance Indicators</th><th>Goal</th></tr>
<tr><td>Noise complaints received from residents or other members of the community.</td><td>Zero</td></tr>
<tr><td>EPA Licence condition L3.1
<table>
<tr><th>Most Affected Residential Location</th><th>Day</th><th>Evening</th><th>Night</th><th>Night</th></tr>
<tr><td>-</td><td>LAeq(15minute)</td><td>LAeq(15minute)</td><td>LAeq(15minute)</td><td>LAeq(9 hrs)</td></tr>
<tr><td>Chelmsford Avenue</td><td>40</td><td>40</td><td>40</td><td>38</td></tr>
<tr><td>Dent Street</td><td>45</td><td>45</td><td>45</td><td>43</td></tr>
<tr><td>Jennings Street</td><td>36</td><td>36</td><td>36</td><td>35</td></tr>
<tr><td>Botany Road (north of Golf Club)</td><td>47</td><td>47</td><td>47</td><td>45</td></tr>
<tr><td>Australia Avenue</td><td>35</td><td>35</td><td>35</td><td>35</td></tr>
<tr><td>Military Road</td><td>42</td><td>42</td><td>42</td><td>40</td></tr>
</table></td><td>Noise from the premises must not exceed the noise limits presented in the adjacent table.

(additional EPA Licence conditions L3.3, L3.4, L3.5, L3.6, L3.7, L3.8 apply to noise monitoring specifications)</td></tr>
<tr><td>EPA Licence condition L3.2.
<table>
<tr><th>Most Affected Residential Location</th><th>Night</th></tr>
<tr><td>-</td><td>LA1(1 minute)</td></tr>
<tr><td>Chelmsford Avenue</td><td>53</td></tr>
<tr><td>Dent Street</td><td>59</td></tr>
<tr><td>Jennings Street</td><td>55</td></tr>
<tr><td>Botany Road (north of Golf Club)</td><td>59</td></tr>
<tr><td>Australia Avenue</td><td>57</td></tr>
<tr><td>Military Road</td><td>60</td></tr>
</table></td><td>Noise from the premises must not exceed the noise limits presented in the adjacent table.

(additional EPA Licence conditions L3.3, L3.4, L3.5, L3.6, L3.7, L3.8 apply to noise monitoring specifications)</td></tr>
<tr><td>EPA Licence condition E1.2
Every 6 months, the Licensee must undertake a periodic noise monitoring program consisting of attended and unattended monitoring and provide a report within one month after completion of monitoring to the EPA's Manager, Sydney Industry at PO Box 668 Parramatta NSW 2124 containing the following information:
(a) unattended monitoring data for a continuous period of no less than 2 weeks;
(b) attended monitoring data during the period outlined in subsection (a);
(b) monitoring data from a minimum of 3 locations;
(c) an assessment of the noise levels against Condition L3 including a trend analysis;
(d) details of any feasible and reasonable noise mitigation measures that have been or are proposed to be implemented to further reduce noise levels below the limits prescribed in this licence.</td><td>Every 6 months</td></tr>
</table>

If SICTL anticipates operational activities likely to affect the noise amenity of nearby residents a suitable notification will be selected from the following methods:

- Messages communicated to passing motorists on VMS boards located on Foreshore Rd and/ or near Botany shops on Botany Rd
- Broadcasting notification emails to the addresses on the SICTL community mailing list (visitors to the company website can register their email address)
- Letterbox drops through the surrounding areas of Banksmeadow and Botany
- Attaching a notification to the Community notice boards at Botany Shops
- Advertising notifications on the company website
- Advertising notifications in the local newspapers
- Door knocks for the residents likely to be most affected

REVIEW AND IMPROVEMENT

The review and amendment of this management plan will be in accordance with section 6 of the OEMP. The management of complaints pertaining to the noise levels due to SICTL operations shall be in accordance with Section 3.10 of this OEMP.

7.4 OPERATIONAL TRAFFIC MANAGEMENT PLAN

OBJECTIVE

The objective of this management plan is to guide the direction of SICTL's operations so that the effects of operational traffic on the surrounding area and local community are mitigated as far as reasonably practicable. This plan will help in providing a basis for consultation with relevant stakeholders regarding minimising traffic impacts.

STATUTORY REQUIREMENTS AND LEGISLATIVE FRAMEWORK

The Conditions of Development Consent pertaining to managing noise from SICTL's operations can be found in the clause C2.12 (Refer to **Appendix A1**).

The legislation that applies to the implementation of this management plan is listed below:

- Environmental Planning and Assessment Act, 1979 (NSW)
- Ports and Maritime Administration Act 1995 (in particular Schedule 4)
- Ports and Maritime Administration Regulation 2012 (in particular Part 3) Port Authority—Land Traffic Control Regulations—N.S.W.
- Protection of the Environment Operations Act 1997 (NSW)
- Port Botany Landside Operations, Mandatory standards under Part 3 of the Ports and Maritime Administration Regulation 2012

RESPONSIBILITIES

A comprehensive list of responsibilities, accountabilities and authorities is provided in section 3.4 of this OEMP. The key responsibilities for the implementation of this management plan is provided below:

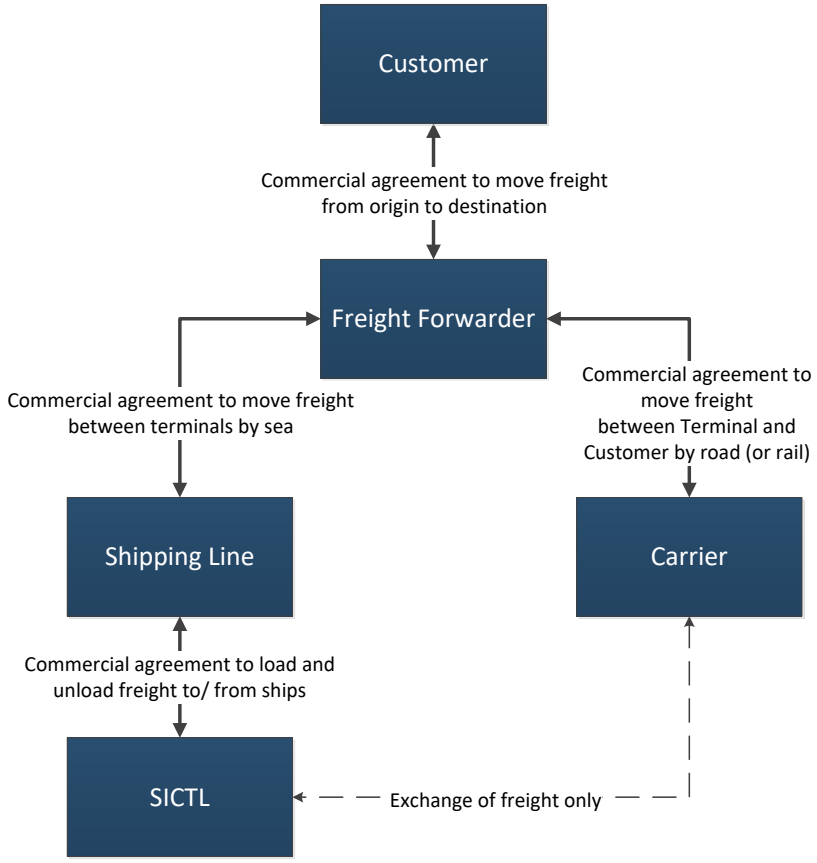
Table 21 Tasks and Responsibilities (Operational Traffic Management)

Task	Responsibility
Induction and Training of SICTL staff, contractors and visitors	Workforce Trainer
Adhere to the traffic controls at terminal	Truck drivers
Communication with Carriers and Truck Drivers	Operations Shift Leader and Yard Team Leader
Inspection and Monitoring of traffic outside the terminal	Operations managers
Analyse the truck noise and congestion observations	Environmental Engineer

OPERATIONAL IMPACTS AND CONTROL MEASURES

The importing and exporting process involves a variety of participants connected through different mechanisms. The explanation of these mechanisms helps to understand the involvement of SICTL within the context of the supply chain. The overall relationships between the different participants are explained in Figure 10:

Figure 10 Supply Chain Relationship



The Freight Forwarder is at the centre of the supply chain process connecting the sea and land components of the transport system. There is no relationship between the Terminal (SICTL) and the Freight Forwarder because the Shipping Line controls this part of the process. Similarly, there is no relationship between the Terminal and the Carrier as both parties have commercial agreements with their respective clients. The absence of a formal agreement between the Terminal and the Carrier means that the Terminal does not have direct control over the actions of the Carrier. To the extent possible, SICTL will influence and encourage Carriers to be environmentally responsible and will educate carriers to promote good driver habits to minimise potential noise and traffic issues.

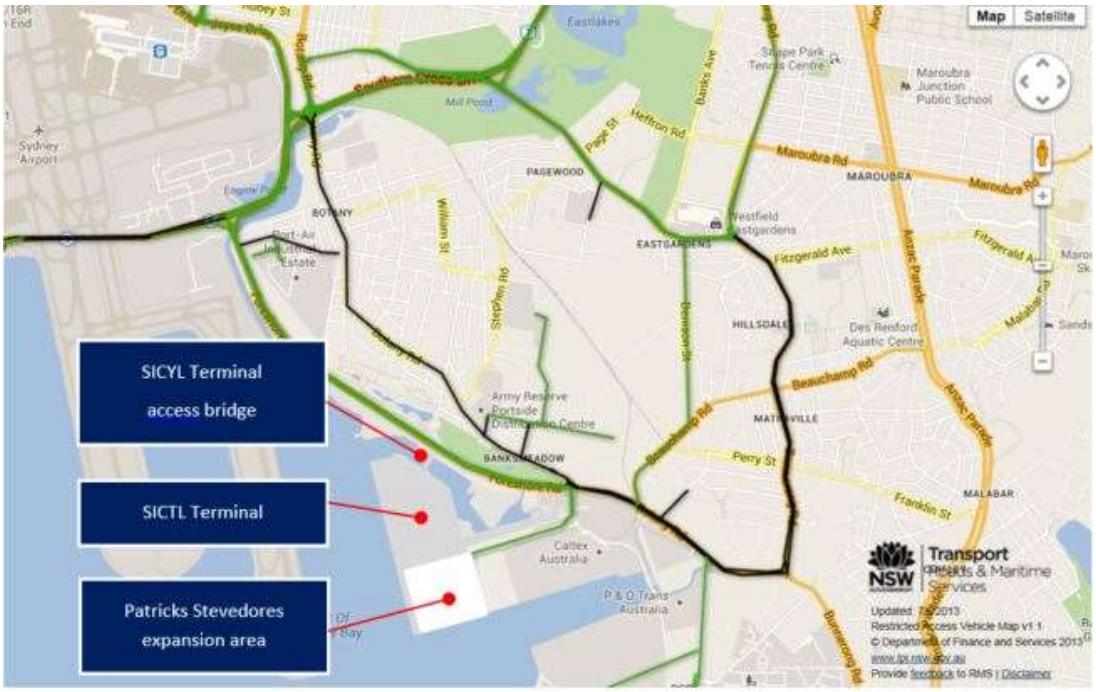
The operational impacts of truck traffic originating from the 24/7 operations of SICTL Terminal will be similar to the impacts arising from neighbouring stevedores. These impacts are listed below:

- Noise emanating from trucks such as engine noise, compression braking and rattling of unloaded trailers affecting resident
- The SICTL Terminal will be accessed by a dedicated road bridge crossing the Penrhyn Estuary which will intersect with Foreshore Rd and be managed by traffic signals. This is expected to cause minor delays to through traffic using Foreshore Road during peaks as the phasing of the traffic signals allows vehicles to turn into and out of the SICTL Terminal.
- SICTL will have an on-site diesel storage tank for the refuelling of plant and terminal vehicles. Fuel deliveries to the terminal will be by truck but are envisaged to be a small proportion of the overall truck traffic.

Operational Impact	Operational Control Measures
Noise caused by trucks entering or leaving SICTL terminal	
Loaded trucks naturally emanate more engine noise when setting off and drivers are more likely to use compression braking when slowing. The trailers of unloaded trucks entering or leaving the SICTL Terminal may rattle as their moving parts are not secured by a container. This noise may impact nearby residents.	• Educate drivers through the online driver's induction (completed by drivers before they arrive at the SICTL Terminal and part of the Maritime Security Identification Card control mechanism). • Awareness on 'Restricted Access Vehicles Routes' endorsed by the Roads and Maritime Services (refer to Figure 11) • Broadcasts to drivers via the Truck Appointment System. • Erect conspicuous signage before the exit of the terminal advising drivers to minimise their noise impacts such as compression braking and avoid using residential roads. • Encourage Carriers to fit broadband 'quacker' type reversing alarms by communicating this requirement to Shipping Lines and Freight Forwarders who service the SICTL terminal. • Refer to Noise Management Plan for more noise mitigation measures. 
Traffic impacts caused by trucks entering or leaving the SICTL terminal	
The SICTL Terminal will be accessed by a dedicated road bridge crossing the Penrhyn Estuary which will intersect with Foreshore Rd and be managed by traffic signals. This is expected to cause minor delays to through traffic using Foreshore Road during peaks as the phasing of the traffic signals allows vehicles to turn into and out of the SICTL Terminal.	• Compulsory use of the Port Botany Landside Improvement Strategy (PBLIS) and the Truck Appointment System, thus spreading the traffic load evenly throughout the day. • Storage capacity for trucks within the SICTL terminal, thus avoiding queues. • Use of the roundabout near the terminal access bridge to turn away trucks in overflow situations that would otherwise queue. • Drivers Amenities Building to be used by drivers, thus negating the need to use local amenities in surrounding areas. • Encouragement of back loading. • Increase in the rail modal share (lease condition). • SICTL Truck Management (Explained below)
Fuel consumed by Operational vehicles	
The amount of fuel consumed by the operational vehicles and plant is a function of the Terminal's throughput (which dictates how	• Fuel efficiency is one of the selection criteria before purchasing any operational plant.

Operational Impact	Operational Control Measures
many items of plant are needed to throughput). SICTL will have an on-site diesel storage tank for the refuelling of plant and terminal vehicles. Fuel deliveries to the terminal will be by truck but are envisaged to be a small proportion of the overall truck traffic.	• Monitor the fuel usage by operational plant and vehicles by the SICTL operational staff and the plant operators. • Maintenance personnel will check the fuel usage during servicing of the vehicles on-site or whenever fuel system problems are encountered. • The fuel delivery system will meter and log the quantities of fuel delivered to each vehicle. • Maintenance personnel will monitor these trends as part of their normal fleet management processes. Quantities of fuel pumped will be correlated with invoice information from the fuel supplier.

Figure 11 RMS' Restricted Access Vehicles Map: B-Doubles are permitted (green) and permit conditions apply (black), Port Botany Expansion area included



SICTL Trucks Management

All Stevedores in the Port Botany area are obliged to comply with the Port Botany Landside Operations, Mandatory standards under Part 3 of the Ports and Maritime Administration Regulation 2012 as a condition of their lease. This legislation supports the Port Botany Landside Improvement Strategy (PBLIS) administered by Transport for NSW. The PBLIS and the Mandatory Standards set a framework and protocols where the scheduling of trucks is controlled to guarantee reliability and minimise waiting times and truck queues.

The process introduced by the Mandatory Standards is for each terminal to operate a Truck Appointment System (TAS) and for each Carrier to book an available 'Slot' through this TAS.

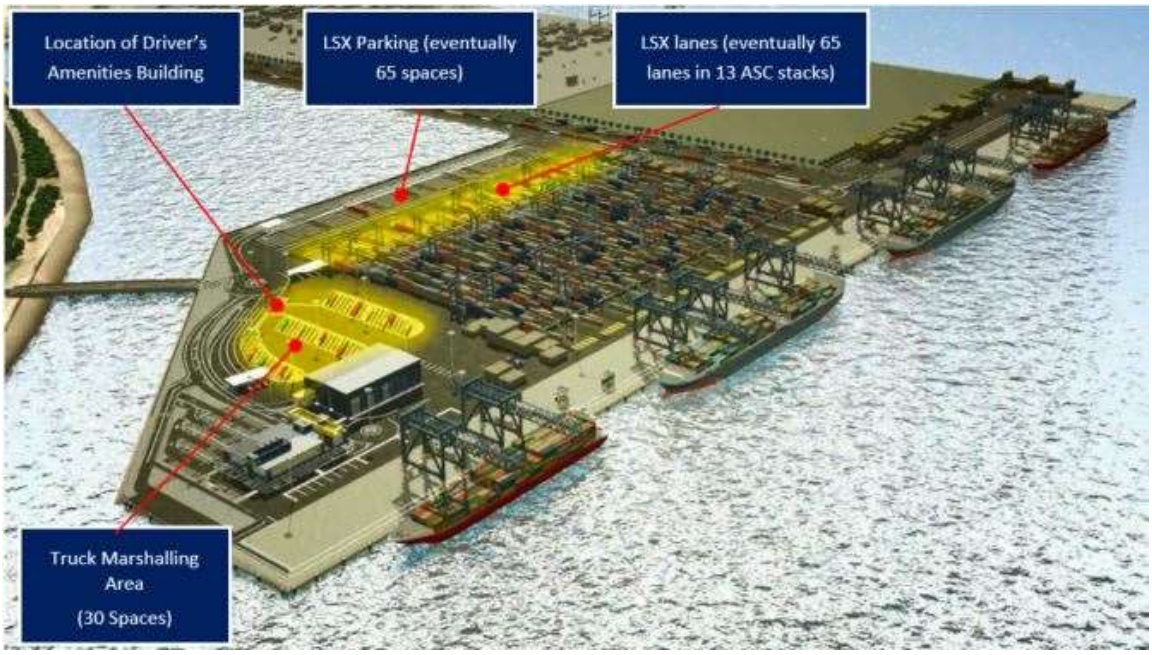
Within the PBLIS/ Mandatory Standards framework there are incentives for arriving on time and financial penalties for arriving early or late (there are also financial penalties to Stevedores if they

load or unload a truck late). The TAS ensures that truck traffic is distributed throughout the day, waiting times are minimised and turnaround is regular.

The Mandatory Standards specify that Stevedores must service at least 55 Slots each hour, 24 hours a day. SICTL will encourage the booking of Slots outside the daytime and business hours periods with the aim of further spreading the demand (and therefore truck traffic impacts on the surrounding road network) throughout the whole 24-hour period.

In the unlikely event that SICTL reaches its capacity of trucks (this may occur due to a Truck Appointment System failure or other emergency), additional trucks arriving at the terminal can be turned away at the entrance roundabout so as not to queue back onto Foreshore Road.

Figure 12 - Trucks Movement Area



The layout of the SICTL Terminal has been designed to minimise truck reversing as much as possible whilst achieving the best productivity and use of available land. Reversing is necessary at only one point in the truck loading/ unloading process where trucks must reverse into the LSX lanes to be serviced.

The truck marshalling area will contain the Driver's Amenities Building which will lessen the truck traffic impacts on the surrounding area in the following ways:

- By featuring dedicated toilet facilities for drivers so that they do not have to park in local or community areas to use toilets in shopping centres;
- Fitted with computer terminals allowing truck drivers to query the status of their import (pickup) if there are any delays such as quarantine inspection or customs hold.

SICTL will encourage Carriers to use higher productivity vehicles such as B-Doubles as much as possible. These vehicles have the capacity to carry more containers than a standard semi-trailer and operate more efficiently. The choice of vehicles sent by the Carriers to service SICTL will depend entirely upon the Carrier's fleet and the End Customer's operational requirements; SICTL has no direct control over the types of vehicles used.

It is also beneficial for Carriers to back-load their trucks as this is more profitable than one-way freight. SICTL will identify opportunities for back-loading and encourage Carriers to back-load as much as possible. Ultimately, back-loading depends on the availability of containers destined for End Customers who may be serviced by different Carriers or Freight Forwarders and as such SICTL does not control this process directly.

There is an intention by the NSW State Government to increase the proportion of freight moved by rail to 28% of all freight originating from Port Botany to minimise the proportion of truck traffic and truck-related noise impacts. Also, as mandated in SICTL's lease agreement, SICTL will endeavour to move as much freight as practicable using the dedicated rail sidings at the SICTL Terminal.

The decision to utilise rail or road transport remains with the shipper (Shipping Line, importer or exporter) however improvements in the rail network (including the Port Botany Freight Line duplication) and the growth of intermodal terminals servicing Port Botany will help to grow the rail transport component of landside operations.

Transport for NSW (TfNSW) holds the Port Botany Rail Optimisation Group (PBROG) meeting each quarter with representatives from SICTL and other stevedore operators, ARTC, rail providers, 1-Stop, NSW Ports and freight and logistics operators. The purpose of the meeting is to discuss rail operational targets and performance, and work on actions to improve container movement efficiency.

MONITORING AND REPORTING

SICTL will monitor the congestion and noise impacts from its operations through the following ways:

- Monitor the congestion and noise impacts on the Foreshore Rd intersection immediately outside the terminal if required, by Environmental Engineer or Manager - Landside.
- SICTL personnel reporting impacts to the Environmental Engineer or Manager - Landside;
- Complaints from the local community or other stakeholders investigated by SICTL;
- Consultation and co-ordination of port traffic issues with NSW Ports, Roads and Maritime Service, NSW Police, other stevedores, and other Port Botany lessees, and
- Feedback from carriers and truck drivers on the congestion impacts.

Additional to the above, SICTL would monitor parameters such as:

- The spread of truck loading/ unloading across the 24-hour and 7-day week;
- Number of slots available per hour per day;
- PBLIS penalties;
- Percentage of trucks back loaded;
- Percentage of trucks that are high-productivity vehicles (B-Doubles and Super B-Doubles);
- Proportional split between road and rail modes of transport, and
- Percentage of days where traffic congestion affects terminal operations.

The truck noise and congestion observations will be compiled by the Manager - Landside, with analysis of the results by the Environmental Engineer. This analysis will be reviewed by the HSEQ department on an ongoing basis and will be used in various reporting obligations as explained in Section 3.5.

PERFORMANCE EXPECTATIONS

The measure of how well this management plan is implemented and the effectiveness of the control measures described above shall be identified in the TAS monitoring and in any complaints returned by residents or other stakeholders.

SICTL aims to meet this KPI goal to the extent possible by influencing and encouraging Carriers to be environmentally responsible and educating carriers to promote good driver habits to minimise potential noise and traffic issues.

Table 22 KPI's (Traffic Management)

Key Performance Indicators	Goal
Number of complaints related to traffic noise disturbance and traffic impacts such as congestion or trucks parking in residential streets.	Zero
Average Truck Turnaround Time (PBLIS Compliance Requirement)	45 minutes or less
Number of slots available per hour	55 slots (minimum)

REVIEW AND IMPROVEMENT

The review and amendment of this management plan will be in accordance with section 6 of the OEMP. The management of complaints pertaining to the traffic congestion and noise levels due to SICTL operations shall be in accordance with Section 3.10 of this OEMP.

7.5 STORMWATER MANAGEMENT PLAN

OBJECTIVE

The objective of this management plan is to guide the direction of operations so that site stormwater can be managed to regulatory standards and minimise off-site environmental impacts, in particular the Penrhyn Estuary and Botany Bay. Through this process, SICTL can best manage foreseeable impacts successfully. Ultimately, awareness and management of impacts will lead to compliance with legislation, the EPA Licence and Development Consent.

STATUTORY REQUIREMENTS AND LEGISLATIVE FRAMEWORK

The Conditions of Development Consent pertaining to managing water and waste water generation due to SICTL's operations can be found in the clause C2.14 and C2.15(Refer to **Appendix A1**) and L1.1 under the EPL #20322 issued to SICTL (**Appendix A3**).

The legislation that applies to the implementation of this management plan is given below:

- Protection of the Environment Operations Act 1997 (NSW), Section 120 Prohibition of pollution of waters

RESPONSIBILITIES

A comprehensive list of responsibilities, accountabilities and authorities is provided in section 3.4 of this OEMP. The key responsibilities for the implementation of operational controls are provided below.

Table 22 Tasks and Responsibilities (Stormwater Management)

Task	Responsibility
Induction and Training of SICTL staff, contractors and visitors Pollu-Plug	Workforce Trainer
Maintenance of Stormwater drains, SQIDs and Pollu-Plug	Maintenance Department and relevant service providers/contractors
Regular cleaning and housekeeping of the terminal	Through relevant service providers/contractors
Directing the designated personnel to activate specific Pollu-Plug units in the event of an emergency such as a Dangerous Goods spill or fire within areas draining to Penrhyn Estuary.	Chief Warden or Environmental Engineer
Correct activation or deactivation of the Pollu-Plug system Communicating the status of the Pollu-Plug system to the Chief Warden or Environmental Engineer during operation	Designated Personnel (Operations Managers, Security and Maintenance Personnel)
Monitoring the effectiveness of stormwater management controls – SQIDs – through water sampling and testing	Environmental Engineer
Analyse the stormwater monitoring results	Environmental Engineer

OPERATIONAL IMPACTS AND CONTROL MEASURES

SICTL anticipates the operation of the terminal could impact local water quality. Discharging stormwater into a natural waterbody (see Figure 13) introduces a change in the local water quality because stormwater carries with it many pollutants that may accumulate within urban catchments. Unmitigated, the impacts on the local waters have the potential to:

- alter the pH;
- increase turbidity;
- increase toxicity;
- introduce an excess of nutrients, and/ or
- alter the concentration of dissolved oxygen in the water.

These changes can affect all levels of marine life present in the local waters and may become complex problems affecting bird species and other compounded ecological effects. The waters surrounding the SICTL terminal are also heavily used by recreational boaters who will notice the effects of any pollution first hand.

Table 23 Operational Impacts and Control Measures (Stormwater Management)

Operational Impact	Operational Control Measures
Site runoff containing pollutants entering the Penrhyn Estuary or Botany Bay	
The terminal's stormwater drainage system captures water from the following sources: • roadways and marshalling areas for container trucks; • parking areas for employee's cars; • internal terminal access roads for container handling equipment and general vehicles; • quay areas where cargo is landed to and from vessels; • container stacking areas including the Dangerous Goods stacking areas; • spill containment area; • diesel refuelling area; • rail siding area; • roof drainage from terminal buildings; and • other sources of dissolved metals on site, including buildings, fencing and other equipment.	The potential for contaminants to enter the waterways is controlled at the SICTL terminal through: • the construction of the terminal is almost entirely comprised of concrete hardstand areas. Other areas that are not concrete are likely to be gravel or ballast (ASC yard/ rail siding), asphalt (vehicle areas) or sprayed seal. These areas do not erode; • the design of the SICTL drainage system incorporates 36 operational Stormwater Quality Improvement Devices (SQID) made by two manufacturers, SPEL and Humes. These units continually separate sediments and heavy metals from stormwater flows and trap these pollutants so they are not discharged into Botany Bay or the Penrhyn Estuary (see **Appendix C** for more details); • regular cleaning of hardstand areas by sweeper truck to remove dust and debris; • special sweeper/scrubber services for the Maintenance Workshop, equipment wash-bay and equipment parking areas; • pump out and removal of catchment waste water occurring in the workshop and equipment wash-bay and Dangerous Goods spill containment traps; and • waste removal services.

Operational Impact	Operational Control Measures
Leaking or damaged containers	
Approximately 4% of all containers handled by SICTL hold Dangerous Goods. Dangerous Goods are subject to special work practices that govern their movement, separation and handling	The SICTL terminal operating system manages the storage of dangerous goods in the following way: • Odd-numbered ASC blocks will handle solid, liquid and gaseous DG cargo, and • Even numbered ASC blocks will handle solid and gaseous DG Cargo only, not liquid DGs The stormwater drainage system servicing ASC blocks 1, 3 and 5 have been fitted with a Liquid Detention Unit (LDU) which has been designed to protect the health of the adjoining Penrhyn Estuary habitat (see Appendix C for more details). The LDU uses a combination of physical, biological and chemical processes to analyse, classify and isolate stormwater and possible contaminated spill materials. The LDU has been designed to continually monitor the stormwater flows in order to detect contaminants which cannot be treated by the SQID units - upon detection an alarm is generated, and the contaminated stormwater is isolated and contained within the stormwater collection network. A notification will be sent from the LDU PLC to the terminal's Network Control System indicating that the valves are closed and that pollutants have been caught in the system. SICTL can then arrange for the drainage lines to be pumped out, cleaned and pollutants disposed by an approved licenced contractor. The procedure for cleaning and draining any contaminated drainage line after a spill or leak will be determined by assessing the nature and classification of the Dangerous Goods or pollutant. The servicing of the system will be done, and the sensors will be recalibrated after each event of necessity. Additional to the LDU system described above, stormwater drainage outlets leading onto the Penrhyn Estuary from the ASC landside and Rail Operations areas are also fitted with a manually controlled stop valve in the form of an inflatable bladder within each drainage pipe called 'Pollu-Plug' (see **Appendix C** for more details). These Pollu-Plugs are situated downstream of the SQID unit and provide a further safeguard against pollutants entering the Penrhyn Estuary as they can be manually closed (inflated) by terminal staff in the event of a chemical spill or an alarm raised by the LDU system. Closing these valves would ensure that all pollutants are trapped within the drainage lines, SICTL can arrange a licenced contractor to pump out the trapped pollutants and dispose accordingly. SICTL terminal also operates a Dangerous Goods spill containment area located on the far end of the SICTL Terminal. Leaking or damaged containers will be transported to the spill containment area via a dedicated

Operational Impact	Operational Control Measures
	spill trailer operated by SICTL employees (see **Appendix C** for more details).
Onsite use of chemicals for cleaning and maintenance	
Engineering and Maintenance departments at Hutchison Ports Sydney use chemicals for cleaning, as well as oils, lubricants, coolant, grease, fuel (diesel), paint (road-marking and rust protectant), thinners and pest control substances which will find way into the drainage system.	Drains in the Maintenance Workshop and cleaning bay are isolated from all other stormwater drainage systems. Removal of waste water from the Maintenance catchment will be arranged with a licenced contractor to pump out the trapped pollutants and dispose accordingly.

MONITORING AND REPORTING

Ongoing monitoring of the terminal's separator units shall be undertaken by SICTL, to ensure that the units operate effectively and to provide ongoing assessment as to the effectiveness of the operational environmental management controls implemented by the terminal.

Samples shall be collected at the outlet of the separator units so that it is representative of the stormwater being released from the terminal into Botany Bay and the Penrhyn Estuary. The method shall be consistent with the collection, handling and preservation principles enunciated in Standards Association of Australia (1998) AS/NZS 5667.1:1998, and APHA (1998) section 1060. If there is any inconsistency between these references, Standards Association of Australia (1998) prevails. Separator unit clean out records shall be maintained and reviewed in case of issue with the desired output of water quality.

The water monitoring program implemented at SICTL is designed to test for those key elements which would have the greatest effect on the Penrhyn Estuary and Botany Bay waterways.

- Total Nitrogen (TN)
- Total Phosphorous (TP)
- Turbidity (NTU)
- Total Suspended Solids (TSS)
- pH
- heavy metals – Copper (Cu), Lead (PB), Zinc (Zn)
- Oil and Grease

The water testing shall be undertaken by suitable consultants and laboratories accredited by the National Association of Testing Authorities, Australia (NATA) using methods approved in the document Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales (March 2004). The monitoring results be used for various reporting obligations explained in section 3.5 of this OEMP.

PERFORMANCE EXPECTATIONS

The effectiveness of this management plan will be measured through the performance measures given below.

Table 24 KPI's (Stormwater Management)

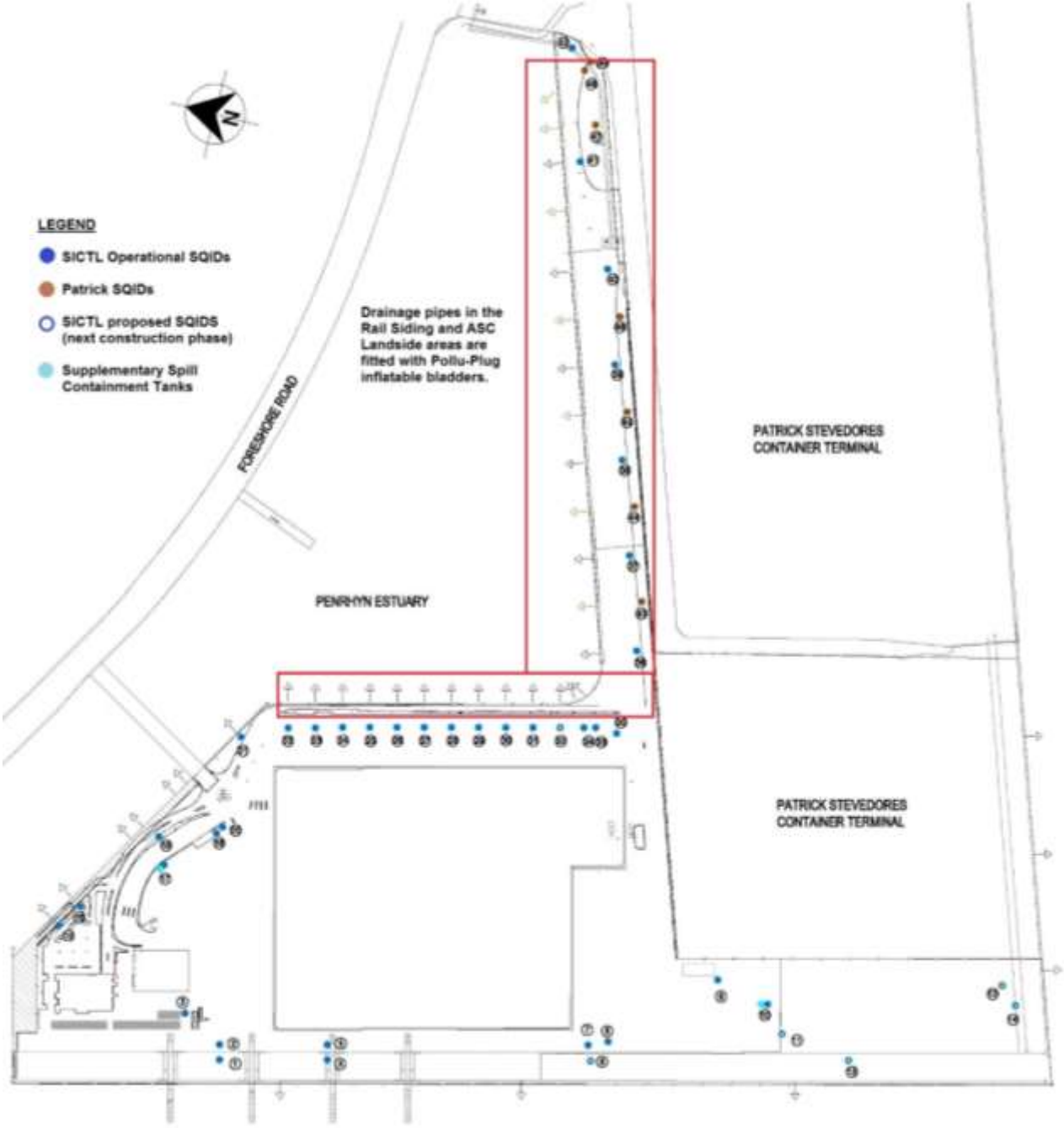
<table>
<tr><th>Key Performance Area</th><th>KPI</th></tr>
<tr><td>The effectiveness of the separator units to be assessed through the testing and analysis of outlet sampling on an annual basis.
<table>
<tr><th>Key Performance Area</th><th>Goal</th><th>Acceptable Limit</th></tr>
<tr><td>Total Nitrogen (TN)</td><td>120 - 300 µg/L [2]</td><td>5 mg/L [3]</td></tr>
<tr><td>Total Phosphorous (TP)</td><td>< 30 µg/L [2]</td><td>0.1 mg/L [3]</td></tr>
<tr><td>Turbidity (NTU)</td><td>2.2 – 3.3 NTU [1]</td><td>0.5 – 10 NTU [2]</td></tr>
<tr><td>Total Suspended Solids (TSS)</td><td>< 30 mg/L [3]</td><td>50 mg/L [3]</td></tr>
<tr><td>pH</td><td>7.0 – 8.5 [2]</td><td>6.5 – 8.5 [3]</td></tr>
<tr><td>Copper (Cu)</td><td>< 1.3 µg/L [2]</td><td>10 µg/L [3]</td></tr>
<tr><td>Lead (Pb)</td><td>< 4.4 µg/L [2]</td><td>< 4.4 µg/L [2]</td></tr>
<tr><td>Zinc (Zn)</td><td>< 15 µg/L [2]</td><td>< 15 µg/L [2]</td></tr>
<tr><td>Oil & Grease</td><td>< 5 mg/L [3]</td><td>10 mg/L [3]</td></tr>
</table>
[1] Botany Bay & Catchment Water Quality Improvement Plan 2011, prepared by the Sydney Metropolitan Catchment Management Authority
[2] Marine Water Quality Objectives for NSW Ocean Waters – Sydney Metropolitan and Hawkesbury-Nepean (October 2005) published by Department of Environment and Conservation NSW, and Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000), Australian and New Zealand Environment Conservation Council (ANZECC)
[3] Developed based on local conditions and previous water quality test results.</td><td>3 units tested per annum</td></tr>
<tr><td>Cleanout will be undertaken where the water quality results indicate an Acceptable Limit exceedance.</td><td>Cleanout within 6 weeks of Acceptable Limit exceedance</td></tr>
<tr><td>After every spill event where it is reasonable to assume that pollutants have entered the stormwater system units.</td><td>After Spill Event</td></tr>
</table>

REVIEW AND IMPROVEMENT

The review and amendment of this management plan will be in accordance with section 6 of the OEMP. The management of complaints pertaining to water quality due to SICTL operations shall be in accordance with Section 3.10 of this OEMP.

The review and amendment of this management plan will be in accordance with section 6 of the OEMP. The management of complaints pertaining to the traffic congestion and noise levels due to SICTL operations shall be in accordance with Section 3.10 of this OEMP.

Figure 13 Illustration showing the locations of SQID separator units, and drainage outlets fitted with the "Pollu-Plug' inflatable bladders



7.6 DANGEROUS GOODS MANAGEMENT PLAN

OBJECTIVE

The objective of this management plan is to guide the direction of SICTL's operations so that operational staff can carry out their duties whilst remaining aware of the possible dangers of handling Dangerous Goods (DG) and Hazardous Substances (HS). This management plan will help in addressing the environmental issues while handling the dangerous goods. For the purposes of this management plan, Hazardous Substances are taken to be included in all descriptions of Dangerous Goods.

STATUTORY REQUIREMENTS AND LEGISLATIVE FRAMEWORK

The Conditions of Development Consent pertaining to Storage and Handling of Dangerous Goods during SICTL's operations can be found in the clauses C2.16, C2.17 and C2.18 (Refer to **Appendix A1**) and L1.1 under the EPL #20322 issued to SICTL (**Appendix A3**). Under the EPL #20322, SICTL is permitted to store chemical up to 5000 KL within its premises.

Additionally, SICTL has identified the legislation that applies to the implementation of this management plan:

- Protection of the Environment (Operations) Act 1997 (NSW)
- Environmental Planning and Assessment Act, 1979 (NSW)
- Work Health and Safety Act 2011 (NSW)
- Work Health and Safety Regulation 2017 (NSW)
- Dangerous Goods (Road and Rail Transport) Regulation 2014 (NSW)
- Ports Assets (Authorised Transactions) Act 2012 (NSW)
- State Environmental Planning Policy (Three Ports), 2013 (NSW)

This management plan also aims to achieve outcomes consistent with the intent of:

- The International Maritime Dangerous Goods (IMDG) Code current Edition; Incorporating current amendments;
- IMO Recommendations on the Safe Transport of Dangerous Cargoes and Related Activities in Port Areas (IMO Recommendations)
- AS 3846- 2005, The Handling and Transport of Dangerous Cargoes in Port Areas
- The Port Authority of New South Wales *Dangerous Goods Management Guidelines for Ports in NSW* (27 June 2020);
- The Australian Dangerous Goods Code (ADG) Edition 7.6, 2018 and
- Port Botany Precinct Emergency Sub Plan.

RESPONSIBILITIES

A comprehensive list of responsibilities, accountabilities and authorities is provided in section 3.4 of this OEMP. The key responsibilities for the implementation of operational controls are provided below.

Table 25 Tasks and Responsibilities (Dangerous Goods Management)

Task	Responsibility
Induction and Training of SICTL staff, contractors and visitors	Workforce Trainer
Management of dangerous goods used during plant and equipment maintenance and servicing	Maintenance Department and relevant service providers/contractors
Obtain the SDS for dangerous goods purchased	Purchasing Officer and Storeman
Review of dangerous goods information (including the MO41 declaration) submitted by Carriers and Shipping Lines	SICTL Landside Co-ordinator and Planners
Reporting of all spills, and the clean-up of all non-hazardous spills on the terminal	Plant Operators and Maintenance Department
Investigation of leaks detected or suspected to originate from dangerous goods containers	Operations managers Environmental Engineer
Monitoring of dangerous goods throughput in compliance to OEMP	Manager, Risk & Compliance Environmental Engineer
Analyse the dangerous goods monitoring results	Environmental Engineer

OPERATIONAL IMPACTS AND CONTROL MEASURES

The handling of DG cargo poses a specific threat to the surrounding environment because of the consequences and possibility of pollution incidents. The quantities involved are also relatively large (being shipping containers) which highlights the scale of the impact. The principle of containment is the basis for most risk management methodologies related to DGs. However, in situations where containment is lost or compromised, leaks of liquid or gas are likely to affect the environment through alteration of ecosystems by acute and/ or persistent pollution. This raises the need for adequate handling methods and response protocols to be developed and implemented by SICTL.

The context of potential operational impacts has been restricted to Dangerous Goods containers on the quay apron and within the terminal footprint only. Management of DG cargo or DG emergencies outside the terminal will be undertaken by others.

Table 26 Operational Impacts and Control Measures (Dangerous Goods Management)

Operational Impact	Operational Control Measures
Off-site Risks arising from Dangerous Goods within the SICTL terminal	
The off-site risks arising from the handling of DGs within the SICTL terminal have been assessed in the Port Botany Expansion Preliminary Hazard Analysis authored by Qest Consulting - Revision 7, June 2004 (PHA). The DG classes identified in	SICTL shall comply to the ***Dangerous Goods Management Guidelines for Ports in NSW*** (27 June 2020) published by the Port Authority of New South Wales in which the various classes are categorised into Red, Amber and Green Line cargoes. These divisions specify permissible time limits for the cargo to remain within the terminal. This system is consistent with the aims of the

Operational Impact	Operational Control Measures
the PHA as posing an elevated risk are Class 2.3 Toxic Gas and Class 6 Toxic Substances. In the event of an incident, these two classes of DG are likely to affect the surrounding area as they may be spread by wind. The off-site risks calculated in the PHA are based on the quantities of DGs transited through the terminal annually. The detail of the PHA risk analysis and types of risk scenarios are beyond the scope of this management plan.	IMDG, the IMO Recommendations and AS 3846. The residence time limits stipulated in the Port Authority of NSW ***Dangerous Goods Management Guidelines for Ports in NSW*** are programmed into the SICTL Terminal Operating System so that cargo would be moved in accordance with these time limits. The ***Dangerous Goods Management Guidelines for Ports in NSW*** also mandate separation and segregation rules for different classes of DGs as they may not be compatible, these requirements are also programmed into the SICTL Terminal Operating System to guide the placement of Dangerous Goods within the ASC blocks. The off-site risks arising from Dangerous Goods handled within the terminal were assessed in revision 7 of the Preliminary Hazard Analysis (PHA) authored by Qest Consulting in 2004 (Appendix W of the EIS). The PHA determined that the off-site risks associated with the operation of the Port Botany Expansion were primarily dependent upon the actual quantities of Dangerous Goods present. SICTL is obliged to limit the annual DG throughput to quantities listed in the Table 1 and 2 of Schedule 4 of the Development Consent. SICTL manages compliance to these conditions through the analysis of data in the SICTL Terminal Operating System (TOS). The TOS is the control mechanism governing all container movements within the SICTL terminal and can recognise classes and UN numbers of Dangerous Goods in containers as manifested by the Shipping Lines (any information not manifested by the shipping line or the sender of the goods would not be known to SICTL). The TOS can when required produce stack reports as to current locations of DGs; the Port Authority of NSW DG Regulator has access to these reports through the weekly inspection of the terminal SICTL management can use these stack reports to regulate the arrival of DG containers so that the annual threshold limits in the Development Consent are not exceeded.
Damage to containers carrying Dangerous Goods by SICTL Operational Plant	
Although shipping containers are designed to withstand the mechanical stresses involved in transport and handling, they remain vulnerable to damage from a variety of causes. Most cases of container damage arise from incorrectly packed or inadequately braced goods shifting during transport or handling (this is beyond the control of SICTL).	DG containers shall not be handled by forklift because of the risk of the forklift tines potentially creating a leak by piercing the sides and even the inner packaging of the container. DG containers are only handled by top-lift systems called spreaders fitted to all plant and cranes. The majority of container handling within the terminal is performed by the Automated Stacking Cranes. These cranes are guided by laser systems and programmed to soft-land containers to avoid noise and damage. Manual plant such as Quay Cranes and Shuttle Carriers are fitted with governors that regulate the speed of a descending container, thus lessening the risk of damage from a hard

Operational Impact	Operational Control Measures
There is the low possibility that containers carrying Dangerous Goods may be damaged by SICTL plant if they are landed abruptly, stacked incorrectly or collided. Damage to the outside of the container will not usually result in a leak or spill of product as most DG cargo is packaged cargo – meaning that the dangerous materials are contained in packages within the shipping container (such as drums or aerosol cans).	landing. All spreader units (the implement that engages the top of a container) are designed with safety mechanisms that do not permit the four twistlocks to release during hoisting.
Spills or leaks of Dangerous Goods	
In the unlikely event that the shipping container body and the inner packaging are compromised during handling, a container may leak its contents within the SICTL lease area.	All SICTL plant operators will be trained to handle Dangerous Goods with care and in a manner where the risk of damage is as low as reasonably practicable. All leaks detected or suspected to originate from Dangerous Goods containers (or containers with suspected damage) will be investigated by Operations managers and the Environmental Engineer to pre-empt any spills or leaks. Such investigations may require the involvement of the Consignee / Consignor, Shipping Agent, Port Authority of NSW or other third parties. In all cases, the Port Authority of NSW (Sydney VTS) will be notified of any damage to or deterioration of containers carrying Dangerous Goods as soon as practicable. The management of containers carrying Dangerous Goods leaking on board ships (berthed or not) is outside the scope of this management plan as there are a multitude of factors and decisions that are not under the control or responsibility of SICTL. These incidents are managed by the Shipping Line through the ship's own Vessel Management Plan and may require the involvement of the terminal (SICTL), the Port Authority of NSW, HAZMAT, EPA and/ or the Consignee. SICTL will identify how each occurrence is likely to affect the terminal and accordingly respond as described in Section 3.7 of this OEMP. The SICTL management process for spills or leaks is shown in *Figure 14*. In the case of a Dangerous Goods container leaking liquid, SICTL may move the container from the quay apron to the spill containment area (see *Figure 15*). This is a purpose-built area capable of containing the volume of a leaking container in a collection trench. In cases where the wind direction at the time of the emergency could cause off-site impacts by gases originating from the designated Spill Containment Area, the leaking container will stay on board the bunded Spill Trailer and be moved to an area of the terminal where off-site effects would be mitigated.

Operational Impact	Operational Control Measures
	Dangerous Goods (Especially of Class 2.3 Toxic Gas and Class 6 Toxic Substances) that emit vapours or are in a gaseous form pose a unique risk to SICTL personnel in addition to off-site receivers in the surrounding area. In the event a gas or vapour leak from any cargo is detected or suspected by SICTL then the cargo should not be moved or approached. The process in Figure 13 should be followed and the incident should be managed under the **HSEQ10.1.3 Emergency Response Plan – SICTL**. SICTL personnel can isolate the leaking container by communicating to all personnel, vehicles and plant operators to remain away from the leaking container. Quay cranes can also be moved away from the leaking container if the leak occurs on the Quay apron. If warranted in consultation with Emergency Services and the SICTL Chief Warden, evacuation can be organised in accordance with **HSEQ10.1.3 Emergency Response Plan – SICTL**. SICTL will notify the consignee/ consignor and also notify neighbouring stevedores if any exclusion zones affect their operations. At its own discretion or upon the advice of the consignee/ consignor, SICTL may call Fire Brigade HAZMAT who is properly equipped to deal with Dangerous Goods. In the event of a liquid spill involving non-hazardous or hydrocarbons SICTL will deploy spill control measures to bund, absorb, stabilise and remove the liquids spilt within the terminal. Emergency Spill Kits and Fire Fighting equipment will be situated in key locations at the terminal and SICTL staff have been trained in its use. Regular workplace Inspections of the terminal including checks of the Fire Extinguishers and Spills Kit will be undertaken by HSRs and HSEQ Department members. If liquids are spilled on the ballast in the rail siding area, conventional spill kit absorbent granules or powders may not be effective as the spilled liquid would have percolated through the ballast. In these situations, SICTL may use an oil dispersant liquid such as ‘OilGone’ (or some other product recommended by the Consignee) to clean up the spill.
Site Runoff containing Pollutants	
Any DG substances spilt have the potential to contaminate stormwater runoff and therefore impact upon the ecology of Penrhyn Estuary and/ or Botany Bay	The SICTL terminal features three Automated Stacking Crane (ASC) areas called ‘blocks’ where most of the containerised cargo moving between ship and shore will be placed whilst awaiting transit. The ASC blocks are the dominant area where Dangerous Goods may be placed while on their journey from ship to Consignee and are used as follows:

Operational Impact	Operational Control Measures
	• **Odd-numbered** ASC blocks will handle solid, liquid and gaseous DG cargo, and • **Even numbered** ASC blocks will handle solid and gaseous DG cargo only, not liquid DGs Each ASC block contains nine (9) lanes of containers across its width, 68 rows across length and can stack containers 5 high. Liquid DG cargo is destined for ASC Blocks 1, 3 or 5. Other types of cargo can still be placed in these ASC Blocks, so long as they are compatible DGs, non-DGs and empties and the correct separation and segregation rules apply. A stormwater drainage system has been installed under each ASC block leading to a heavy-metals separator unit (SQID). To control the risk of spilled DG pollutants entering the drainage system from ASC blocks 1, 3 and 5 and being discharged into the surrounding waters, these ASC blocks have an additional semi-automatic shut off system installed called the Liquid Detention Unit or LDU. The LDU works by using a suite of sensors to constantly monitor and detect pollutants within the stormwater flow and a microprocessor controlling a valve within the drainage line. If the criteria for pollutants are met the unit closes the valve within the drainage line, trapping the polluted water within. Trapped pollutants can then be pumped out and disposed by a contractor. Additional to the LDU system described above, all drainage outlets facing the Penrhyn Estuary (draining the ASC area and the rail siding) are also fitted with a manually controlled stop valve in the form of an inflatable bladder within each drainage pipe called '**Pollu-Plug**' (see **Appendix C** for more details). These bladders are situated downstream of each separator unit and provide a further safeguard against pollutants from spills or firewater entering Penrhyn Estuary as they can be manually closed (inflated) by SICTL personnel in the event of a chemical spill or fire within the ASCs or rail sidings. SICTL would arrange a contractor to pump out the trapped pollutants and dispose accordingly. The ASC Blocks are the default priority destination for DG cargo handled within SICTL however there may be circumstances where SICTL will need to adopt a flexible approach to yard planning to meet operational needs. This would be achieved by temporarily transiting DG cargo in the designated 'overflow' area (next to the DG Spill Containment Area). The anticipated situations would include but not be limited to: • If the DG locations within the operational ASC Blocks are fully occupied;

Operational Impact	Operational Control Measures
	• If the Automated Stacking Cranes are operating at capacity or the landside or waterside exchanges are congested; • If the Automated Stacking Cranes have suffered a malfunction; • If the DG Cargo arrives in break-bulk or if the DG cargo is in tanks that are loaded onto 'Flat-Rack' containers or is otherwise considered out-of-gauge; • If the DG cargo is in a 'frameless' type of Tanktainer; • If the DG container needs to be set aside for any reason (including damage) or inspection.
On-site Dangerous Goods used for Maintenance	
Dangerous Goods are used in maintenance activities for the servicing of plant and equipment and for painting/road marking on the terminal.	SICTL's maintenance department is the primary custodian of the workplace dangerous goods used during the servicing of plant and equipment. The SICTL purchasing personnel shall obtain the relevant Safety Data Sheets (SDS) for workplace dangerous goods purchased through that department. All SDS will be entered into the SDS register kept by Maintenance and will be audited by the HSEQ Department. SDSs older than 5 years old will be replaced. When not in use, all workplace dangerous goods will be stored in a bunded container capable of holding 120% of the volume of the largest container stored therein. Minimum requirement for all contractors undertaking any work relating to hazardous substances or chemicals within the terminal include the following documents: Safe Work Method Statements, SDS and Permit to Work.
On-site Diesel Storage and Refuelling	
The potential operational impacts are fuel spills from the refuelling of SICTL container handling and other light vehicles - a spill during replenishment or a spill from failure of the storage tank itself. The potential for a system or equipment failure during the provision of hydrocarbons (including lube oils and fuels) by fuel suppliers to berthed vessels - hydrocarbon liquids may spill onto the wharf or water.	Bunding for the on-site diesel storage and refuelling area is achieved through two methods: • Bunding of the actual storage tank to contain spills or leaks in the event of tank failure, and • Bunding of the refuelling area to contain spills from refuelling vehicles and plant. The system chosen for the SICTL terminal is a proprietary system incorporating integrated fuel storage and delivery manufactured by TransTank. This unit is a double-walled, self-bunded tank with capacity of up to 67,120L (safe fill volume). The refuelling areas adjacent to the diesel tank will also be bunded to contain any spills from plant or light vehicles during refuelling (for instance in the case of over-fills or leaking bowser guns/ hoses). The light vehicle refuelling side will feature prefabricated trays with grates fitted on top that are cast into the concrete slab to be flush with the finished surface level.

Operational Impact	Operational Control Measures
	The heavy plant refuelling side will feature a 'speed-hump' style perimeter bund with a central drainage pit. This area can be isolated by closing the stop valve fitted to the drainage junction pit. Any fluids caught in these bunds will be pumped out and disposed by an approved contractor. The TransTank system will also feature a leak detection capability connected to the fuel management system with alerts. Landside supply of hydrocarbons to berthed vessels is undertaken by the Shipping Line/Vessel Master in accordance with their contractual arrangements with the hydrocarbon supplier. SICTL reviews all requests for landside 'bunkering' and ensures that the supplier Permits, Safe Work Method Statements, Emergency and Spill Control Procedures and Safety Data Sheets are in order prior to granting approval and access to the terminal.

Figure 14 – Spill management process

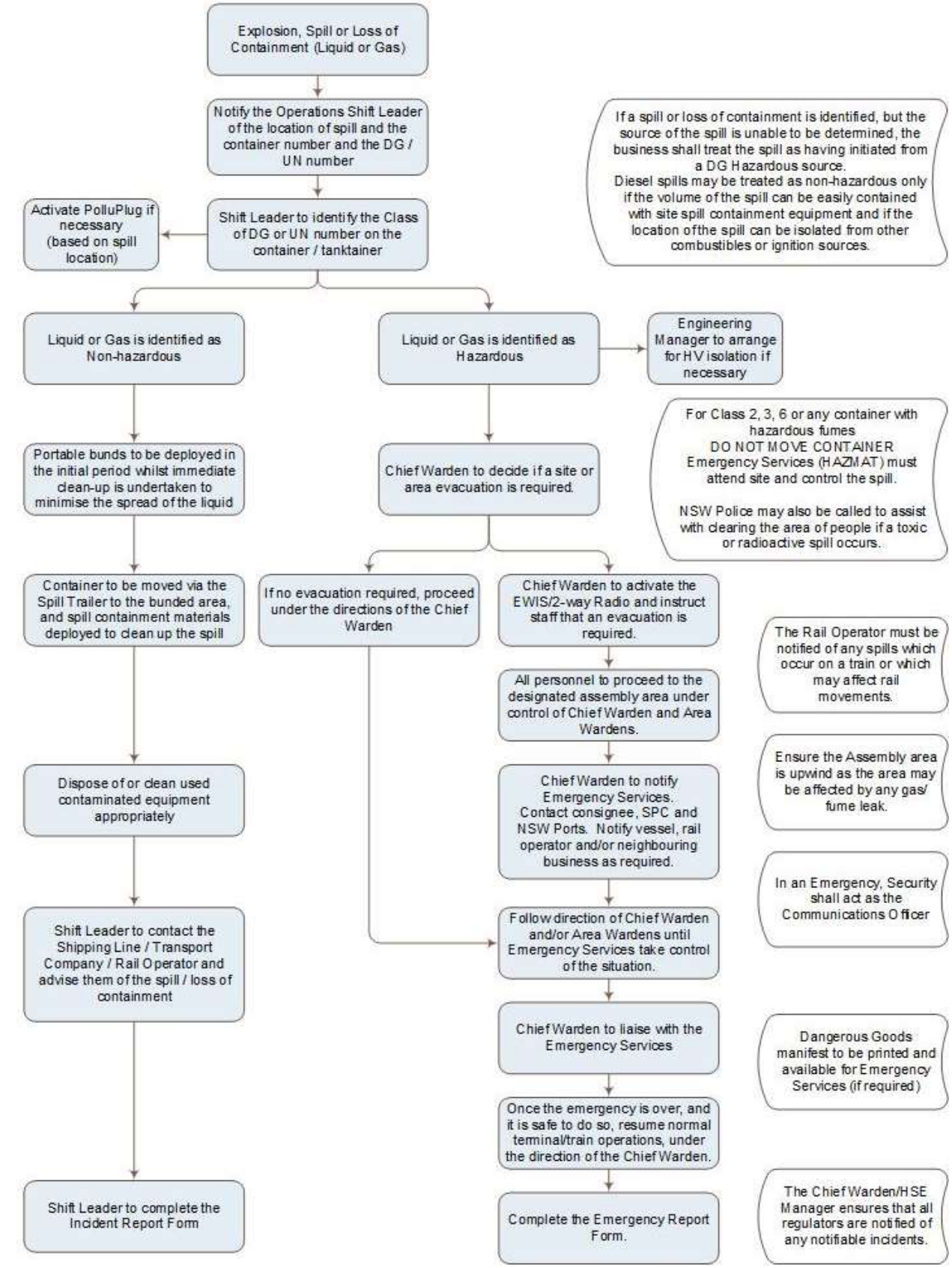


Figure 15 Location of Spill containment area

MONITORING AND REPORTING

The SICTL Terminal Operating System (TOS) can recognise and monitor the classes of dangerous goods transiting through the terminal and can monitor at any given time the DGs that are currently within the block. This information will be used to ensure SICTL remains below the threshold limits specified in the Development Consent.

The TOS can generate reports showing actual tonnages, numbers of TEUs for each class of Dangerous Goods handled at the terminal. This information will be included in the AEMR and submitted to the DPIE through NSW Ports. In addition, the TOS threshold measurements and the DG incident KPI data will be collected, analysed and included in the various SICTL reporting obligations as explained in Section 3.5 of this OEMP.

There are limits on the quantities of certain dangerous goods permitted on a vessel and at the various berths in Botany Bay. In addition, dangerous cargo shall have a set time permitted to remain on a terminal (classified as either Red (2 hour limit), Amber (12 hour limit) or Green (5 day limit) line cargo). The Port Authority of NSW must be advised of all dangerous goods to be imported or exported by vessel, including transhipments and/or goods transiting the ports. The method of notification of the dangerous goods is through electronic lodgement in Sydney's Integrated Port System (ShIPS). ShIPS is an electronic booking and approval system which is accessed through the internet.

Classifying the cargo as Red, Amber or Green line cargo is an automated process within ShiPS once a lodgement has been made. Lodgement of dangerous goods must be made at least 24 hours prior to the vessel entering port (at least 48 hours for class 1 dangerous goods).

If, during advance notification of the DG cargoes, it is determined that the quantity of DGs on a vessel or berth will exceed the corresponding quantity limit specified in the ***Dangerous Goods Management Guidelines for Ports in NSW***, then the Port Authority of NSW should be contacted immediately by the consignor or agent for the DG cargo (Note: a warning that the quantity limits will be exceeded may be flagged in the ShiPS system). Depending on the circumstances, entry of the vessel into Port Botany may be refused and the vessel may have to be redirected.

The Port Authority of NSW is the approving authority for DGs in a Port Operational Area. Therefore DG exemptions are ONLY valid when confirmation has been obtained from the Port Authority of NSW in writing. Currently, exemptions are not issued for Red or Amber line cargoes in Port Botany.

The Transport Company and Rail Operator is responsible for ensuring the declaration of the correct dangerous goods information to SICTL and to ensure their respective drivers are correctly qualified to transport dangerous goods to or from the terminal. Each Transport Company and Rail Operator is asked to declare this when booking a truck timeslot or rail window and emailing it to the SICTL Landside Co-ordinator or Rail Manager.

It is the responsibility of the Transport Company/Rail Operator to ensure the driver/operator complies with

- Part 11 of the ADG,
- segregation requirements (also in the ADG)
- the Dangerous Goods (Road and Rail transport) Act 2008 and Regulation 2014,
- Marine Orders 41 and
- any other law or regulation requiring documentation to be carried.

SICTL has implemented processes to verify:

- The accuracy of the dangerous goods import, and export information received by SICTL from the Shipping Agent/Transport Company and the DG manifest information lodged with the Port Authority of NSW.
- Compliance to Dangerous Goods (Road and Rail Transport) Regulations 2014 (NSW) and the Australian Dangerous Goods Code v7.4. On a random basis, before leaving the terminal, SICTL will conduct an out-gate audit to ensure that the information declared is valid including a check that the correct placards are on the container(s) being transported and the correct trailers are being used. The **HSEQ5.2.1.1 Import DG Truck Checklist** shall be used to verify this process.

These processes are explained in the flowcharts on the following pages.

SICTL DANGEROUS GOODS CHECKING PROCESS

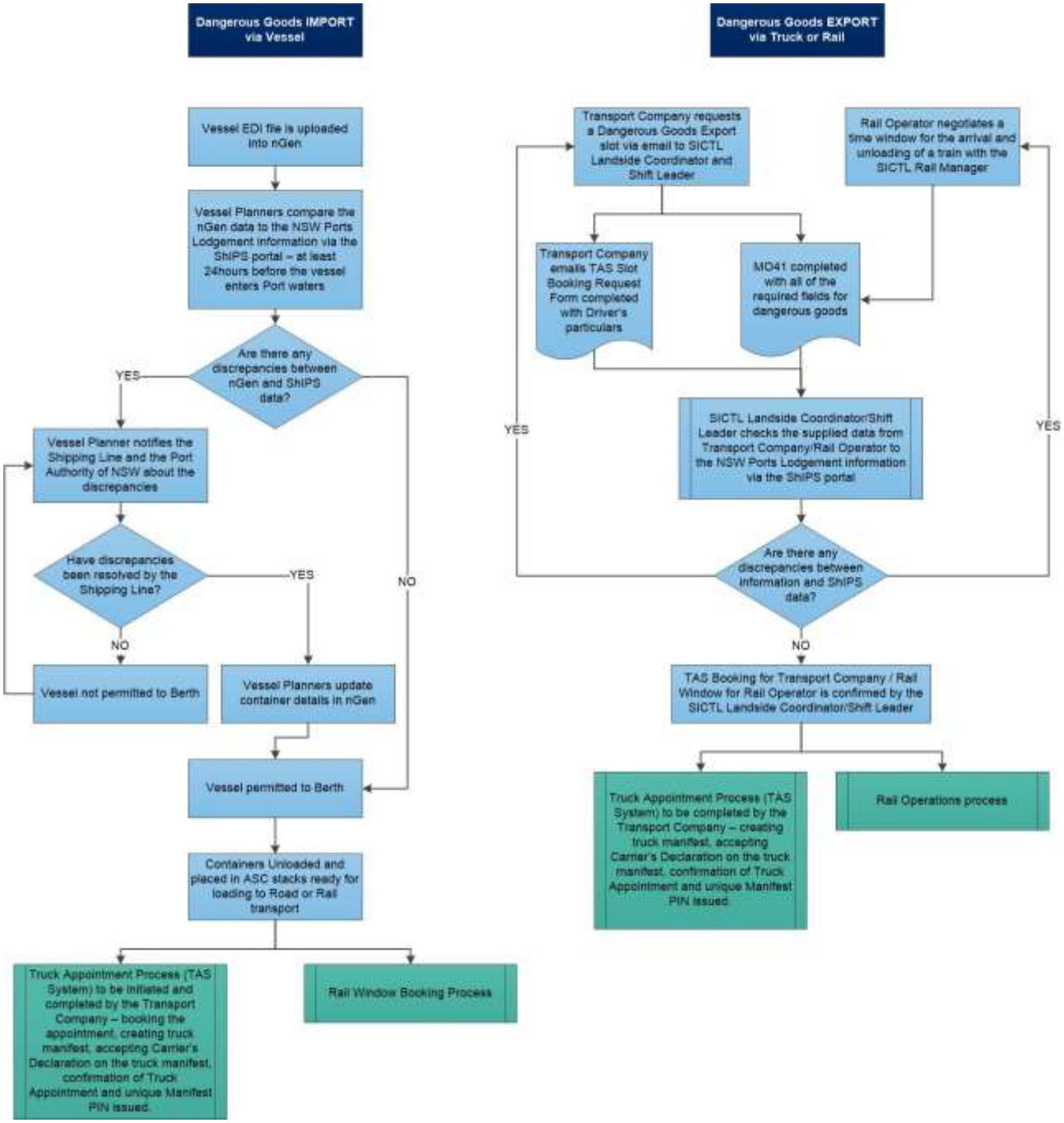


Figure 16 Process used by SICTL to verify dangerous goods information before containers are brought onto the terminal

Compliance to Dangerous Goods (Road and Rail Transport) Regulations 2014 (NSW) and the Australian Dangerous Goods Code v7.5 2017.

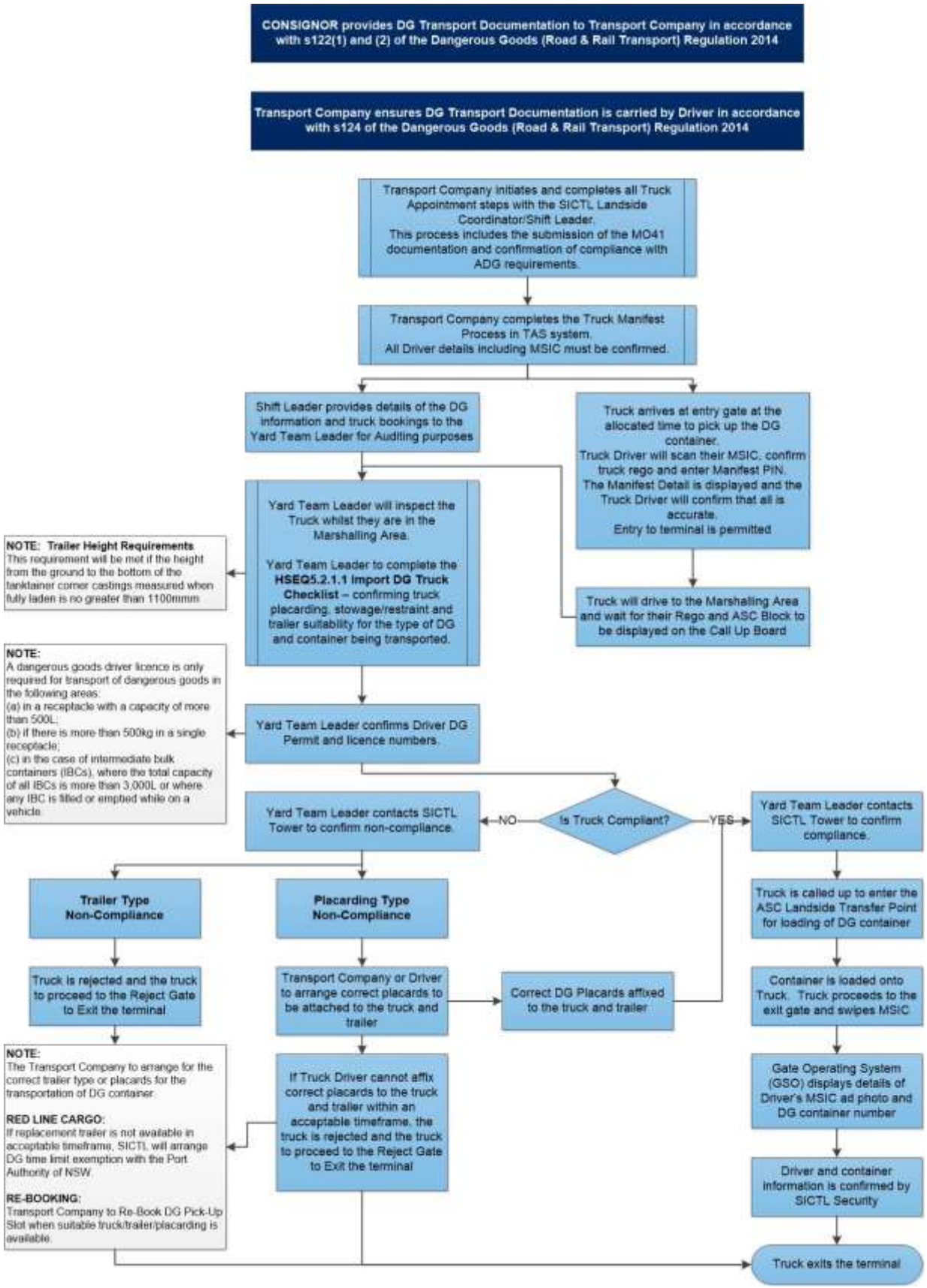


Figure 17 Audit Process used by SICTL to verify compliance to ADG and legislative requirements

PERFORMANCE EXPECTATIONS

The measure of how well this management plan is implemented and the effectiveness of the control measures described above shall be identified in the DG monitoring and the instances of any DG incidents.

Table 27 KPIs (Dangerous Goods Management)

Key Performance Indicators	Goal
Number of Pollution Incidents involving solid or liquid spills or gas leaks during the handling of dangerous goods and hazardous substances on the terminal.	Zero
Analysis of DG throughput limits specified in **Development Consent Condition C 2.17** (Table 1 in Schedule 4 of the Development Consent)).	Zero exceedances
The amount specified in **Development Consent Condition C 2.18** (storage or handling of Dangerous Goods Class 2.3, toxic compressed or liquefied gases above the quantities stored or handled in 1995/96 except in accordance with recommendations 1.1 and 1.2 in the Port Botany Land Use Safety Study (1996)) shall not be exceeded.	Zero exceedances

REVIEW AND IMPROVEMENT

The review and amendment of this management plan will be in accordance with section 6 of the OEMP. The findings from incidents, monitoring results and inspections shall drive the continual improvement of this management plan.

7.7 WASTE MANAGEMENT PLAN

OBJECTIVE

The objective of this management plan is to guide the direction of SICTL's operations and promote awareness of management methods so that waste from the terminal can be minimised and managed appropriately to control the impacts on the environment.

STATUTORY REQUIREMENTS AND LEGISLATIVE FRAMEWORK

The Conditions of Development Consent which states the requirements of managing wastes generated due to SICTL's operations can be found in the clause C2.13 and C2.13A (Refer to **Appendix A1**) and L2.1 under the EPL #20322 issued to SICTL (**Appendix A3**).

The legislation that applies to the implementation of this management plan is listed below:

- Protection of the Environment (Operations) Act 1997 (NSW)
- Waste Avoidance and Resource Recovery Act 2001 (NSW)
- Environmental Planning and Assessment Act, 1979 (NSW)

RESPONSIBILITIES

A comprehensive list of responsibilities, accountabilities and authorities is provided in section 3.4 of this OEMP. The key responsibilities for the implementation of operational controls are provided in the below figure.

Table 28 Tasks and Responsibilities (Waste Management)

Task	Responsibility
Induction and Training of SICTL staff, contractors and visitors	Workforce Trainer
Management of waste from the SICTL terminal	Through licensed waste operator
Upholding recycling initiatives and maintaining good housekeeping within the terminal	All SICTL staff and contractors
Analyse the waste and recycling monitoring results	Environmental Engineer

OPERATIONAL IMPACTS AND CONTROLS

In accordance with the Waste Classification Guidelines, Part 1: Classifying Waste 2008 published by the NSW Environment Protection Authority (November 2014), waste will be classified into one of five groups in the table below.

At SICTL, most of the waste generated on site are 'General Solid Waste (non-putrescible)' and 'General Solid Waste (putrescible)'. A small proportion of waste is expected to be 'Special Waste', 'Liquid Waste' or 'Hazardous Waste'.

Table 29 Waste Classification

Waste Classification	Description
Special Waste	• Waste tyres (any used, rejected or unwanted tyres including shredded or tyre pieces). • Clinical and related wastes (e.g., sharps waste, blood and blood-stained materials or equipment) from First Aid treatments.
Liquid Waste	• Waste oil • Grease trap sludge
General Solid Waste (Putrescible)	• Food waste • Waste wrappers • Waste paper towels
General Solid Waste (Non-Putrescible)	• Glass, plastic, rubber, concrete or metal • Paper or cardboard • Grit, sediment, litter and gross pollutants from stormwater treatment devices, stormwater management systems that has no free liquids • Containers previously containing dangerous goods, where residues have been appropriately removed by washing or vacuum drained • Oil filters (mechanically crushed), rags and oil-absorbent materials that only contain non-volatile petroleum hydrocarbons and have no free liquids • Drained motor oil containers that do not contain free liquids • Synthetic fibre waste from fibreglass, polyesters and other plastics and is packaged securely to prevent dust emissions, that is confirmed as not being asbestos waste • Glues, paints, coatings and inks • Drained and crushed oil filters and grease tubes • Used and defective parts • Oil soaked rags • Used oil absorbent materials
Hazardous Waste	• Waste with pH ≤ 2.0 or ≥ pH 12.5 • Containers, having previously contained a substance of Class 1, 3, 4, 5 or 8 within the meaning of the Transport of Dangerous Goods Code, or a substance to which Division 6.1 of the Transport of Dangerous Goods Code applies, from which residues have not been removed by washing or vacuuming • Waste lead-acid or nickel-cadmium batteries, being waste generated or separately collected by activities carried out for business

Following the best practises as set out in the Waste Avoidance and Resource Recovery Act 2001, SICTL's preference will be to avoid and reduce waste wherever possible. Where feasible, recycling or recovery through contractors shall be followed. Induction training and tool box talks will be held with SICTL personnel to promote best practises for reducing waste.

Collection and disposal of waste from the terminal will be by a licensed contractor and disposed of at a licensed waste disposal facility.

All waste and rubbish at the terminal is contained in bins or other appropriate containers. Receptacles for all types of waste at the terminal is clearly labelled and sign posted, and waste storage areas are designed so that wind and pests including birds and other animals cannot spread waste. Recycling facilities have been provided for the recycling of paper, glass, aluminium, plastic, steel, batteries, electrical devices, waste oil, oily rags, mechanical parts and fluorescent tubes.

Quarantine wastes from vessels entering the port will not be disposed of or managed onsite. The SICTL terminal does operate a quarantine waste bin which is used to dispose of any foreign material that may be identified on the terminal as potentially originating offshore (such as waste found on top of containers) and any materials found on the terminal which have been identified by Biosecurity Officers as quarantine waste.

Information on the correct use of each waste storage facility is displayed on the Noticeboards and included in the site Induction training.

Details of the overall management methods and procedures that will be implemented to control waste management on site at the SICTL Terminal are explained in the below table

Table 30 Operational Impacts and Control Measures (Waste Management)

Operational Impact	Operational Control Measures
Office Waste	
Glass, aluminium cans, paper and cardboard, plastic milk bottles, soft drink bottles and food waste from lunchroom facilities.	• Separate bins will be provided in the lunchroom facilities in all terminal buildings for the disposal of domestic waste and separation of recyclable waste. • The bins wills be regularly emptied into industrial skip bins near the maintenance and operations building. The industrial bins will be kept closed and will not be overfilled. • Separate bins will be maintained for recyclables and non-recyclable items. • A licensed waste operator (SUEZ Recycling & Recovery Pty Ltd) has been contracted to remove the waste from the terminal regularly to an approved waste facility.
Workshop waste from the Maintenance Building	
Waste items such as: • disused parts and components, machinery and scrap metal; • waste oil and oily rags; • grease trap sludge from the workshop and washing bay.	• Old parts will be reused or repaired where possible. A separate scrap metal bin has been installed at the rear of the Maintenance building to collect all ferrous waste items from the terminal. • Waste oils and oily rags will be kept in approved containers. • The grease trap sludge shall be pumped out when required.

Operational Impact	Operational Control Measures
	• All Workshop waste is removed by specialist licensed waste operators under the terms of SICTL's contract with SUEZ.
Hazardous Waste	
Waste items such as: • Waste lead-acid or nickel-cadmium batteries; • Fluorescent tubes, HID, CFL and LED light globes	• Waste batteries are stored on a bunded pallet in the DG area of the Maintenance Yard. Removal is by specialist licensed waste operators under the terms of SICTL's contract with SUEZ. • All fluorescent tubes, HID, CFL and LED light globes are collected and recycled by specialist licensed waste operators under the terms of SICTL's contract with SUEZ.
Special Waste	
Waste items such as: • waste tyres; • clinical waste arising from First Aid Treatment (blood-stained materials or equipment, and sharps waste). • Quarantine waste	• Waste tyres are removed from the terminal under the terms and conditions of SICTL's Tyre Goods and Services Contract with Bridgestone Earthmover Tyres Pty Ltd. • A clinical waste bin and sharps container has been placed in the terminal First Aid Room. The removal of all clinical waste is by specialist licensed waste operators under the terms of SICTL's contract with SUEZ. • All quarantine and ship waste from the vessel is managed by the Shipping Line (not dealt with by SICTL). Specialised waste removalists contracted by the Shipping Lines will remove and dispose of this waste. • SICTL does maintain a dedicated Quarantine waste bin for the purposes of holding any materials found on the terminal which have been identified by Biosecurity Officers as quarantine waste. The removal of all quarantine waste is by specialist licensed waste operators under the terms of SICTL's contract with SUEZ.

MONITORING AND REPORTING

Housekeeping within the terminal will be monitored by the Environmental Engineer and Manager, Risk & Compliance both supported by the Operations and Engineering managers and the SICTL workforce who will arrange for the clean-up of any litter within the terminal. Attention will be paid to the hazardous and special waste removal process.

The waste generated by SICTL will be weighed by SICTL's waste disposal contractor when collected from the terminal.

On a monthly basis, the waste disposal contractor will submit the waste data to SICTL who will analyse the results showing trends over time. These trends will be reviewed regularly by the HSEQ department and included in the various SICTL reporting obligations as explained in Section 3.5 of this OEMP.

PERFORMANCE EXPECTATION

The measure of how well this management plan is implemented and the effectiveness of the waste management control measures described is monitored through the KPI.

Table 31 KPIs (Waste Management)

Key Performance Indicators	Goal
The amount of waste generated is analogous to the amount of operations, personnel and maintenance activities conducted on the terminal. The KPIs below have been developed so that that they are in accordance with the expected changes in the level of operations at the terminal.	
Amount of waste recycled expressed as a % compared to the total waste generated.	50% or better
No reports of hazardous or special waste being mixed with general waste.	Zero

REVIEW AND IMPROVEMENT

The review and amendment of this management plan will be in accordance with section 6 of the OEMP. The findings from incidents, monitoring results and inspections shall drive the continual improvement of this management plan.

7.8 WATER AND WASTE WATER MANAGEMENT PLAN

OBJECTIVE

The objective of this management plan is to assist SICTL in sustainably managing its water use and wastewater discharges to sewer from the Terminal. This sustainable management will lead to compliance with the conditions under Development Consent and EPL.

STATUTORY REQUIREMENTS AND LEGISLATIVE FRAMEWORK

The Conditions of Development Consent stipulating the management of water and wastewater from the Terminal are given under clause C2.14 in Development Consent and L1.1 in EPL #20322 (Refer to **Appendix A1**).

Additionally, the legislation that applies to the implementation of this management plan is listed below:

- Protection of the Environment (Operations) Act 1997 (NSW)
- Environmental Planning and Assessment Act, 1979 (NSW)
- Water Act 1912 (NSW)
- Water Efficiency Labelling and Standards Act 2005 (Cth)

RESPONSIBILITIES

A comprehensive list of responsibilities, accountabilities and authorities is provided in section 3.4 of this OEMP. The key responsibilities for the implementation of operational controls are provided in the below figure.

Table 32 Tasks and Responsibilities (Water and Wastewater Management)

Task	Responsibility
Induction and training of SICTL staff, contractors and visitors	Workforce Trainer
Regular maintenance of water pipes, fittings and rainwater tanks	Maintenance Department and relevant service providers/contractors
Monitor the wastewater from maintenance Areas	Maintenance Department
Quantify and analyse the water consumption through water service meter records	Environmental Engineer

OPERATIONAL IMPACTS AND CONTROL MEASURES

Table 33 Operational Impacts and Control Measures (Water and Waste Water)

Operational Impact	Operational Control Measures
Potable water used on site	
Resource depletion and wastewater from the buildings and maintenance areas causing water contamination. Use of potable water in the Operation and Maintenance buildings for: • drinking; • washing of hands; • showering and change rooms; • cleaning; • washing of machine parts; • servicing of machines; • fire water in the fire hydrant system	All SICTL terminal kitchen and toilet areas will be fitted with water efficient fittings compliant with the Water Efficiency Labelling and Standards (WELS) scheme as follows: • Taps - – minimum 4-star (preferably 5 star) WELS water rating and timed flow taps where required • Toilets – 4-star WELS water rating/ dual flush • Urinals – 6-star WELS water rating, and • Shower heads – minimum 4-star WELS water rating • regular maintenance to identify leaking or dripping taps and pipes. SICTL has installed 3 x 30,000L rain water storage tanks beneath the Operations Building. The stored water will be used to flush toilets/urinals and for plant wash down in the Maintenance Wash Bay.
Waste water generated on site	

Wastewater generated by the SICTL Terminal office building will be disposed to sewer, including all sewage from toilets, hand basins, shows and kitchens.	• All wastewater from maintenance areas used for washing of machine parts, washing of plant, or servicing of plant will be collected within the maintenance shed and disposed to sewer after being processed to remove pollutants.
	• The wash bay will feature a settling tank and oil separator system which will remove solid and oil pollutants prior to discharge. The system is comprised of:
	  ○ grated drains in the wash and service bays and under slab drainage;
	  ○ silt arrestor and settling tank for the wash bay for the removal of settable pollutants;
	  ○ Coalescing Plate Separator (CPS) for the removal or oil, and
	  ○ a 600mm diameter sewer pipe.
	• The CPS and the separator tank will be serviced according to the manufacturer's guidelines and will be cleaned out whenever the pollutant load requires it. The pollutant loading is proportional to the amount of workshop activating, the number of plants that are operating and other cleaning treatments undertaken in the workshop area.
	• By design, no solid waste or stormwater will be disposed through the sewerage system.
	• SICTL operates under a Commercial Trade Wastewater Permit #37958.

MONITORING AND REPORTING

The data necessary to quantify the water consumption KPI will be obtained from the water service meter for the SICTL Terminal. The meter readings will be obtained from NSW Ports (the Landlord) regularly by the Manager, Risk & Compliance and readings will be entered the KPI spread sheet which will graph usage over time.

The quantities of liquid waste removed from the Coalescing Plate Separator and disposed will be recorded as given under the section **7.7 Waste Management**. The analysis results will be reviewed regularly by the HSEQ department and will be included in the various SICTL reporting obligations as explained in Section 3.5 of this OEMP.

PERFORMANCE EXPECTATIONS

The singular measure of how well this management plan is implemented and the effectiveness of the control measures described above is the amount of potable water used per TEU.

Table 34 KPI's (Water and Wastewater Management)

Key Performance Indicators	Goal
The amount of potable water used is analogous to the amount of operations, personnel and maintenance activities conducted on the terminal. The KPI's below have been developed so that that they are in accordance with the expected changes in the level of operations at the terminal	
The amount of potable water used per TEU per month.	Not to exceed 9L per TEU per month

REVIEW AND IMPROVEMENT

The review and amendment of this management plan will be in accordance with section 6 of the OEMP. The findings from incidents, monitoring results and inspections shall drive the continual improvement of this management plan.

7.9 SHOREBIRD MANAGEMENT PLAN

OBJECTIVE

The objective of this management plan is to guide the direction of SICTL's operations so that operational staff can carry out their duties whilst remaining aware that their work may impact native shorebirds using Penrhyn Estuary. Through this awareness, SICTL can best manage foreseeable impacts successfully.

STATUTORY REQUIREMENTS AND LEGISLATIVE FRAMEWORK

Although there are no Schedule C (Terminal Operations) conditions explicitly calling for the preparation of a Shorebird Management Plan, condition A 1.1 in the Development Consent decrees that the requirements of the EIS shall be complied with. In addition to condition A 1.1, Part 2 of Annexure I in the Agreement for Lease lists the EIS requirements (under the heading Terrestrial Ecology) that SICTL is obliged to comply with. These details of the EIS requirements can be referred to **Appendix A2**.

Additionally, SICTL has identified the legislation that applies to the implementation of this management plan:

- Environment Protection and Biodiversity Conservation Act 1999 (Cth)
- Threatened Species Conservation Act 1995 (NSW)
- National Parks and Wildlife Act 1974 (NSW)
- Environmental Planning and Assessment Act, 1979 (NSW)

RESPONSIBILITIES

A comprehensive list of responsibilities, accountabilities and authorities is provided in section 3.4 of this OEMP. The key responsibilities for the implementation of operational controls are provided in the below figure.

Table 35 Tasks and Responsibilities (Shorebird Management)

Task	Responsibility
Induction and training of SICTL staff, contractors and visitors	Workforce Trainer
Maintenance activities related to terminal assets in Penrhyn Estuary such as drainage outlets or the noise wall to not affect the migratory birds	Maintenance Department and relevant service providers/contractors
Monitoring of shorebird management impacts and the effectiveness of controls	Environmental Engineer
Contacting Avian Ecologist in case of injured or juvenile shorebirds	Environmental Engineer

OPERATIONAL IMPACTS AND CONTROL MEASURES

Section **7.3 Noise Management** already discusses the controls for Noise Management on the terminal. The terminal is built with a noise wall along its norther and edge. The noise wall was designed in accordance with the acoustic modelling detailed in chapter 22 of the Port Botany Expansion Environmental Impact Statement (EIS) and is:

- 3 metres high when parallel to the railway siding, and
- 4 metres high along other areas of the terminal.

In accordance with the EIS:

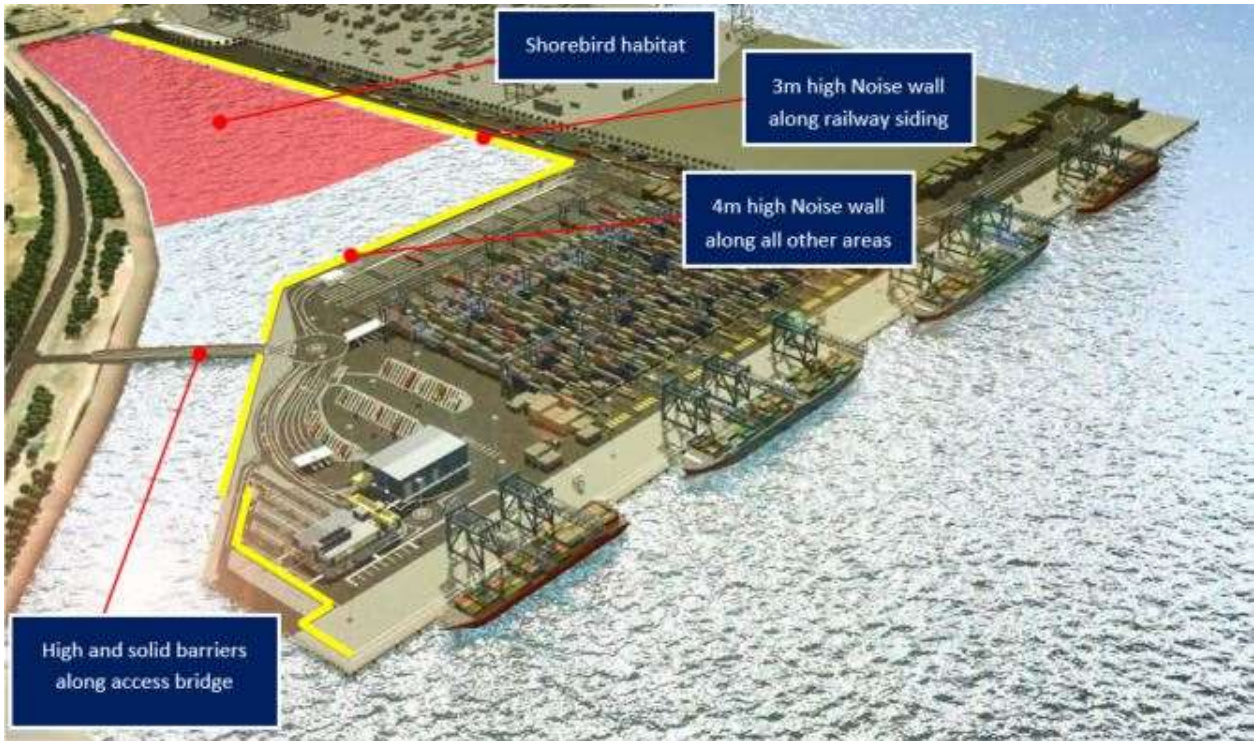
- For the 4-metre-high noise wall, the bottom 2 metres is solid (aerated concrete) and the upper 2 metres is translucent panels, and
- For the 3-metre-high noise wall, the bottom 2 metres is solid (aerated concrete) and the upper 1 metre is translucent panels.

Table 36 Operational Impacts and Control Measures (Shorebird Management)

Operational Impact	Operational Control Measures
Disturbance of Shorebirds by Light Impacts	
Potential sources of disturbance may originate from: • moving lights such as vehicle headlights from vehicles entering, exiting and moving around the terminal, and • high mast lighting immediately adjacent to or spilling light into shorebird habitat	The noise wall is to work in conjunction with the solid concrete barriers along each side of the access bridge. Owing to this construction, the noise wall and bridge barriers are expected to: • block light from moving vehicles entering, exiting and moving around the terminal; • block and attenuate the majority of light spill from mast lighting within the terminal. High mast lighting adjacent to the Penrhyn Estuary may be directed to shine away from the Estuary to further avoid light spill.
Disturbance of Shorebirds by Noise Impacts	
Transient loud noise originating from the terminal may frighten shorebirds and discourage the use of the Penrhyn Estuary habitat.	The noise wall is to work in conjunction with the solid concrete barriers along each side of the access bridge. Owing to this construction, the noise wall and bridge barriers are expected to: • attenuate noise from vehicles and operations within the terminal; • attenuate noise from trains, shunting and train loading activities.
Disturbance of Shorebirds by Flight Path Barriers	
Flight barriers to shorebirds may act to confine their movements and stress the animals, flight barriers such as: • Crane structures and container stacks, and • Terminal buildings.	The noise wall is not expected to become a flight path barrier as it is shorter (3m as opposed to 4m) nearest to the shorebird habitat. The design layout of the terminal has allowed for adequate set back between structures such as buildings and container stacks from the terminal boundary where it adjoins Penrhyn Estuary. Terminal buildings are a maximum of 3 storeys and are located at the North-western corner of the new terminal in accordance with

Operational Impact	Operational Control Measures
	the EIS to be less of a flyway barrier to shorebirds than if located closer to the Estuary. Container stacking areas are set back more than 100m from the edge of the Estuary and can only be stacked a maximum of five containers high (one less than the EIS provisions).
Disturbance of Shorebirds by Terminal Operations	
The movements of terminal mobile plant and trucks close to the Estuary may serve to frighten shorebirds and discourage the use of the Penrhyn Estuary habitat.	A suitable buffer zone between operations areas and the Estuary has been designed into the layout of the terminal to separate the two and lessen the shorebird disturbance potential, consistent with the intent of the Penrhyn Estuary Habitat Enhancement Plan and 5-year monitoring program carried out by the Port Authority of NSW. Terminal operations are carried out more than 20 metres from the Estuary. Road access/egress and truck movements are permitted within the 20m buffer zone. In conjunction with NSW Ports, SICTL will schedule maintenance activities related to terminal assets in Penrhyn Estuary such as drainage outlets or the noise wall to take place according to shorebird breeding and migratory seasonal habits such as between late March and early August to correspond with the period when most migratory shorebirds are on migration or at their northern hemisphere breeding grounds.
Disturbance of Shorebirds by Predators	
There is a potential for feeding and roosting shorebirds to be prey for predator birds. NOTE: section 7.10 discusses the Feral Animal Management Plan	SICTL has previously been a site for predator bird nesting (a lightpole in the landside area was used as an Osprey nest for at least 2 consecutive years). SICTL undertook to remove the nesting material and thereby deter the Osprey from returning to the area. This action was completed by SICTL on 26 July 2016 and since that time the Osprey has not returned to nest at the terminal. SICTL will continue to monitor any nests on the terminal and will participate and liaise with the Port Authority of NSW in predator reduction campaigns.

Figure 18 – Extent of Noise Wall



MONITORING AND REPORTING

The Environmental Engineer supported by the general SICTL workforce will be responsible to conduct routine monitoring of the potential impacts on shorebirds arising from operations at the terminal and the effectiveness of the controls implemented by SICTL.

If roosting, injured or juvenile shorebirds are found within the terminal alive, SICTL may engage an avian ecologist who can provide advice where required.

The results of monitoring will be logged and actioned (including implementing light spill mitigation such as shielding or screening or engaging an avian ecologist) by the Environmental Engineer in accordance with this management plan.

The analysis results will be reviewed regularly by the HSEQ department and will be included in the various SICTL reporting obligations as explained in Section 3.5 of this OEMP.

PERFORMANCE EXPECTATIONS

The singular measure of how well this management plan is implemented and the effectiveness of the control measures described above is the number of shorebird management events involving SICTL.

Table 37 KPIs (Shorebird Management)

Key Performance Area	KPI
Regular monitoring of the terminal to identify the presence of any roosting, injured or juvenile shorebirds.	Monthly monitoring – 12 annually
Regular monitoring of the terminal to identify the presence of any predatory birds	Monthly monitoring – 12 annually

REVIEW AND IMPROVEMENT

Under this management plan opportunities for improvement will be identified by the Environmental Engineer during general inspections of the terminal and inspections of the implemented controls. Additionally, stakeholders can raise issues directly with SICTL where the disturbance or disruption of shorebird movements has been observed or is expected. These will be treated as opportunities for improvement by the Environmental Engineer and rectified within agreed timeframes. The management of complaints pertaining to disturbance to shorebirds management due to SICTL operations shall be in accordance with Section 3.10 of this OEMP.

7.10 FERAL ANIMAL MANAGEMENT PLAN

OBJECTIVE

The objective of this management plan is to guide the direction of SICTL's operations so that operational staff can carry out their duties whilst remaining aware that their work may attract feral animals. Through this awareness, SICTL can best manage foreseeable impacts successfully.

STATUTORY REQUIREMENTS AND LEGISLATIVE FRAMEWORK

Although there are no Schedule C (Terminal Operations) conditions explicitly calling for the preparation of a Feral Management Plan, condition A 1.1 in the Development Consent decrees that the requirements of the EIS shall be complied with. In addition to condition A 1.1, Part 2 of Annexure I in the Agreement for Lease lists the EIS requirements (under the heading Terrestrial Ecology) that SICTL is obliged to comply with. These details of the EIS requirements can be referred to **Appendix A2**.

Additionally, SICTL has identified the legislation that applies to the implementation of this management plan:

- Environment Protection and Biodiversity Conservation Act 1999 (Cth)
- Biodiversity Conservation Act 2016 (NSW)
- National Parks and Wildlife Act 1974 (NSW)
- Environmental Planning and Assessment Act, 1979 (NSW)
- Local Land Services Act 2013 (NSW)
- Biosecurity Act 2015 (NSW)
- Agricultural and Veterinary Chemicals Code Regulations 1995 – specifically schedule 4 – Restricted Pesticides
- Pesticide Regulation 1999 (NSW)
- Pesticide Control Order
- Greater Sydney Regional Strategic Pest Animal Management

RESPONSIBILITIES

A comprehensive list of responsibilities, accountabilities and authorities is provided in section 3.4 of this OEMP. The key responsibilities for the implementation of operational controls are provided in the below figure.

Table 38 Tasks and Responsibilities (Feral Animal Management)

Task	Responsibility
Induction and Training of SICTL staff, contractors and visitors	Workforce Trainer
Maintaining good housekeeping within the terminal	All SICTL staff and contractors
Monitoring of feral animal management impacts and the effectiveness of controls	Environmental Engineer
Liaison with NSW Ports, the Port Authority of NSW and other stevedores etc for feral animal management	Environmental Engineer

OPERATIONAL IMPACTS AND CONTROL MEASURES

There is the potential for disturbance or even predation of shorebirds using Penrhyn Estuary by feral animals such as foxes, rats, mice, and feral or stray cats or dogs. Local vegetation may potentially be damaged or destroyed by feral animals such as rabbits. The primary attraction for feral animals at the SICTL terminal is the opportunity of food present as discarded litter or in rubbish collection areas.

Table 39 Operational Impacts and Control Measures (Feral Animal Management)

Operational Impact	Operational Control Measures
Feral Animal Attractants	
The primary attraction for feral animals at the SICTL terminal is the opportunity of food present as discarded litter or in rubbish collection areas.	• The noise wall along the Northern boundary of the terminal acts as a separation fence • control of waste collection areas to discourage feral animals picking at waste; • the use of covered or closed bins so that feral animals cannot pick food scraps opportunistically; • education of SICTL employees, contractors and visitors through inductions and toolbox talks on feral animal feeding, waste management and housekeeping • surveillance of poor housekeeping by all SICTL employees; • waste management control through the installation of adequate waste bins. SICTL will engage specialist pest control contractors following consultation with OEH, DPI Fisheries, Local Land Services, NSW Ports, the Port Authority of NSW, local council and Sydney Airport. The following methods will be considered: • Baiting/ poisoning; • Trapping (soft jaw trapping); • Netting or waste collection areas; • den fumigation; • use of trained predators; • biological control, and • exclusion fencing
Pest Controls at the terminal	
Pests may be attracted to the terminal due to the presence of any discarded litter or in rubbish collection areas. Pests may also nest in quiet areas of the terminal, or during seasonal nesting periods.	Pest management programs will be tailored to the type and scale of feral animal problem and will vary. The application of pesticides will generally be undertaken by licensed contractors. SICTL will manages these contractors to ensure their work complies with the regulations set by the EPA and is managed in accordance with the EPA's Pesticide Control Orders including any notification or training requirements. The SICTL Environmental Engineer may interface with and coordinate the SICTL pest management program

Operational Impact	Operational Control Measures
	with neighbouring stevedores, NSW Ports and the Port Authority of NSW on predator reduction campaigns so that a holistic approach can be achieved.

MONITORING AND REPORTING

The Environmental Engineer supported by the general SICTL workforce will be responsible to conduct routine inspections of the terminal and the implemented controls.

PERFORMANCE EXPECTATIONS

The singular measure of how well this management plan is implemented and the effectiveness of the control measures described above is the number of feral animal management events involving SICTL.

Table 40 KP's (Feral Animal Management)

Key Performance Area	KPI
Feral Animal complaints received from NSW Ports, the Port Authority of NSW, adjoining stevedores or other members of the community.	Zero
Regular monitoring of the terminal to identify the presence of any feral animal hazards.	Monthly monitoring – 12 annually

REVIEW AND IMPROVEMENT

Under this management plan opportunities for improvement will be identified by the Environmental Engineer during general inspections of the terminal and inspections of the implemented controls. Additionally, stakeholders can raise issues directly with SICTL where the disturbance or disruption from feral animals has been observed or is expected. These will be treated as opportunities for improvement by the Environmental Engineer and rectified within agreed timeframes. The management of complaints pertaining to the observation, increase or spread of feral animals due to SICTL operations shall be in accordance with Section 3.10 of this OEMP.

7.11 ENERGY MANAGEMENT PLAN

OBJECTIVE

Many of the site operations at the terminal are powered by electricity or diesel. The objective of this management plan is to guide the direction of SICTL's operations so that operational staff can carry out their duties whilst remaining aware that their work is a demand on energy and resources. Through this awareness, SICTL can best manage foreseeable impacts successfully.

STATUTORY REQUIREMENTS AND LEGISLATIVE FRAMEWORK

Although there are no Schedule C (Terminal Operations) conditions explicitly calling for the preparation of Energy Management Plan, condition A 1.1 in the Development Consent decrees that the requirements of the EIS shall be complied with. In addition to condition A 1.1, Part 2 of Annexure I in the Agreement for Lease lists the EIS requirements (under the heading Energy) that SICTL is obliged to comply with. These details of the EIS requirements can be referred to **Appendix A2**.

Additionally, SICTL has identified the legislation that applies to the implementation of this management plan:

- Protection of the Environment (Operations) Act 1997 (NSW)
- Environmental Planning and Assessment Act, 1979 (NSW)

RESPONSIBILITIES

A comprehensive list of responsibilities, accountabilities and authorities is provided in section 3.4 of this OEMP. The key responsibilities for the implementation of operational controls are provided in the below figure.

Table 41 Tasks and Responsibilities (Energy Management)

Task	Responsibility
Induction and Training of SICTL staff, contractors and visitors	Workforce Trainer
Maintenance of operational plant and vehicles	Maintenance Department and relevant service providers/contractors
Upholding energy saving initiatives such as switching off equipment when not in use	Plant Operators
Purchase of energy efficient equipment	Manager, Engineering
Monitoring of the energy consumption data	Manager, Engineering Environmental Engineer

OPERATIONAL IMPACT AND CONTROL MEASURES

The potential for wastage of energy is a major concern for SICTL as this wastage decreases the efficiency of the terminal and does not contribute to SICTL's pursuit of environmentally sustainable operations.

The various energy management controls which will be implemented to manage energy use at SICTL Terminal are given below:

Table 42 – Operational Impacts and Control Measures (Energy Management)

Operational Impact	Operational Control Measures
Waste of diesel fuel	
Diesel fuel wasted through engine idling when trucks, plant or other vehicles are not in operational use. Poor maintenance of engines or machinery leading to inefficiencies in operation, inefficient fuel consumption or breakdowns.	• Training operators to throttle down or switch off terminal equipment/vehicles when waiting or not in use for extended periods of time; • Encouraging Truck drivers to switch off truck engines while they are waiting to be called up for container loading/unloading; • Truck drivers to switch off truck engines while they are waiting to be loaded or unloaded in the ASC; • Regular inspection and maintenance of plant, machinery and equipment (assets) to ensure optimum operations and fuel efficiency
Waste of electricity	
Poor energy management by SICTL personnel – such as leaving lights and computers switched on outside of normal business hours or when not in use.	SICTL terminal building and layout has been designed to achieve: • a reduction of lighting loads through building design to make best use of natural light and shade; and the fitting of large glass windows on the majority of all external walls; • a reduction of heating and cooling loads through the installation of blinds and block-out blinds on all windows; • using optimum lighting intensity for security and safety purposes; • specification of energy efficient terminal equipment considered during procurement; • motion-sensors in the internal rooms and corridors to turn lights on and off; • climate control air-conditioning with sensors in zones on each floor. SICTL has installed a Grid Connected Photovoltaic Solar Power System for the heating of water for showers. SICTL employees are encouraged to switch off site office equipment and lights when not in use.
Operational inefficiencies	
Poor or no planning of work activities involving double handling, inefficient travel, stop/ start	• The use of modern container yard management systems for the efficient stacking and retrieval of containers and to minimise truck marshalling times and ship working windows; • Promoting the increase in rail mode share of container freight movement (a condition of the lease agreement); • Regular operational reviews to improve efficiencies in plant/equipment and work procedures.

MONITORING AND REPORTING

SICTL will monitor the use of diesel fuel and electricity, analyse trends and respond to inefficiencies.

SICTL plant and site vehicles will refuel on site at the on-site diesel storage tank. The tank will be replenished regularly by a contract fuel supplier and feature a dedicated fuel metering and management system. The fuel supplier will provide monthly invoices to SICTL stating the quantity of fuel provided in each month.

All high voltage used by SICTL will be metered at the High Voltage substations constructed within the SICTL lease Area.

To measure the KPIs, the following information will be recorded:

- Total fuel bought by SICTL;
- Fuel used by site vehicles;
- Total SICTL Electricity consumption including plant, buildings and structures.

PERFORMANCE EXPECTATIONS

The measures of how well this management plan is implemented and the effectiveness of the control measures described above are expressed by the performance indicators as given in able:

Table 43 KPIs (Energy Management)

Key Performance Indicators	Goal
The amount of diesel and electricity used is analogous to the amount of operations, personnel and maintenance activities conducted on the terminal. The KPI's below have been developed so that that they are in accordance with the expected changes in the level of operations at the terminal.	
The amount of diesel expressed in litres used per TEU.	2.5L per TEU
The amount of electricity expressed in kilowatt hours used per TEU	25kWh per TEU

NOTE: The historical data of electricity usage at the terminal suggests a greater energy efficiency at higher numbers of TEU handled by the terminal. The KPI above has been set at the current TEU volumes predicted; changes in commercial and operational strategy will have a direct impact on energy efficiency and electricity consumption.

REVIEW AND IMPROVEMENT

The review and amendment of this management plan will be in accordance with section 6 of the OEMP. The findings from incidents, monitoring results and inspections shall drive the continual improvement of this management plan.

8 LIST OF TABLES

9 LIST OF FIGURES

10 REFERENCES

Guideline for the Preparation of Environmental Management Plans, Department of Infrastructure, Planning and Natural Resources, 2004

Annual Independent Environmental Compliance Audit, SICTL Terminal 3, Port Botany Expansion Project, November 2019

Dangerous Goods Management Guidelines for Ports in NSW, 27 June 2020

Development Consent MOD 17 – DA-494-11-2003-i MOD 17 approved 19 September 2019

Environmental Protection License No. #20322, 1 September 2016

SICTL Deed of Agreement for Lease, Annexure I, Compliance Schedule Part 2

HSEQ10.1.3 Emergency Response Plan SICTL, Version 6, March 2018

HSEQ8.1 Incident Management and Investigation Policy, Version 5, August 2020

11 APPENDICES