# PKCT ANNUAL ENVIRONMENTAL MANAGEMENT REPORT

1 JULY 2021 - 30 JUNE 2022



# PKCT 2021-2022 AEMR

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# 1. TITLE BLOCK

Name of Operation	Port Kembla Coal Terminal Project	
Name of Operator	Port Kembla Coal Terminal Ltd	
Development consent / project approval #	08_0009	
Name of holder of development consent /	Port Kembla Coal Terminal Ltd	
project approval		
Land #	Lot 22 DP 1128396	
Name of holder of land lease	NSW Ports (rented from)	
Environment Protection Licence #	EPL 1625	
Planning Approval start date	12 <sup>th</sup> June 2009	
AEMR start date	1 <sup>st</sup> July 2021	
AEMR end date	30 <sup>th</sup> June 2022	

I, Michael Curley, certify that this audit report is a true and accurate record of the compliance status of Port Kembla Coal Terminal Ltd for the period 1<sup>st</sup> July 2021 to 30<sup>th</sup> June 2022 and that I am authorised to make this statement on behalf of Port Kembla Coal Terminal Ltd.

Note.

- a) The Annual Review is an 'environmental audit' for the purposes of section 122B (2) of the Environmental planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.
- b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement – maximum penalty 5 years imprisonment); sections 307A, 370B and 307C (False or misleading applications/information/documents – maximum penalty 2 years imprisonment or \$22,000, or both).

Name of authorised reporting officer	Michael Curley
Title of authorised reporting officer	HSE Manager
Signature of authorised reporting officer	
Date	28/07/2022



# 2. STATEMENT OF COMPLIANCE

Figure 1: Statement of compliance

Development Approval / Licence	Compliant?
Development Approval 08_0009	Yes
EPL 1625	Yes

Figure 2: Non-compliances

Development Approval / Licence	Condition #	Condition description (Summary)	Compliance status	Comment	Where addressed in Annual Review
EPL 1625	n/a	n/a	compliant	n/a	n/a
Development Approval 08_0009	n/a	n/a	compliant	n/a	n/a

# 3. INTRODUCTION

# 3.1. Purpose

The purpose of this Annual Environment Management Report (AEMR) is to provide the Department of Planning, Industry and Environment (DPI&E), formally Department Planning and Environment, and other stakeholders a report of Port Kembla Coal Terminal's (PKCT's) environmental performance together with actions taken in relation to environmental control and regulatory compliance across the July 2021 to June 2022 reporting period.

# 3.2. **Scope**

This AEMR provides information on PKCT's compliance with the requirements of the PKCT Major Project Approval 08\_0009 which was granted on the 12<sup>th</sup> June 2009. The approval requires PKCT to prepare an annual AEMR. By letter of 25<sup>th</sup> March 2010, The DPI&E (formerly the Department of Planning and Infrastructure (DP&I)) approved a PKCT request for the submission date to be the 31<sup>st</sup> July annually to facilitate financial year reporting.

This report has been prepared with reference to the NSW Department of Planning and Environment's guideline for the post-approval requirements for State significant mining developments – Annual Review Guideline (2015).

This report will be submitted to the DPI&E. Following DPI&E feedback, it will be forwarded to the Environment Protection Authority (EPA) and the Department of Trade and Investment (DT&I) or as required by the respective agencies. A copy of this AEMR will also be made available to the public via the <u>PKCT website</u>.

# 3.3. Background

PKCT is located on Lot 1 DP1125445, Lot 3 DP1125445, Lot 22 in DP 1128396 and Lot 8 DP 1154760 on the northern side of the Inner Harbour of Port Kembla, Wollongong.

On the 31<sup>st</sup> May 2013, NSW Ports acquired a long-term lease for Port Kembla and Port Botany through which the current leasing arrangement with PKCT remains. Land is leased to PKCT under a 20 year, plus 20 year option. The lease commenced in August 1990 and PKCT has executed this option taking the lease period to 2030.



In October 2020, NSW Ports, PKCT and Australian Industrial Energy (AIE) agreed to a surrender of the southernmost portion of the PKCT to AIE for construction and operation of a Liquid Natural Gas (LNG) Terminal. The surrender became active on 18 April 2021. As a result of the reduced site boundary, PKCT reviewed and resubmitted for approval all Management Plans required under Approval 09\_0009 and EPL 1625. Subsequently, the EPA and DPI&E approved the revised plans and Licence.

Six equal shareholders, namely Illawarra Services Proprietary Limited (South 32), Oakbridge Proprietary Limited (Glencore), Centennial Coal Company Limited, Simec Mining, Metropolitan Collieries Proprietary Limited (Peabody) and Wollongong Coal Limited (formerly Gujarat NRE), form the Board of PKCT. South 32, reporting to the PKCT Board, manages PKCT under a management contract. PKCT is the major coal intermodal facility in southern NSW for the transfer of coal from rail and road to ship.

PKCT is responsible for receiving, assembling and loading coal from the southern and western NSW coalfields and for transport by ship to international and domestic markets, see Figure 4. Following the surrender of Berth 101 and the southern portion of the terminal land to AIE on 18<sup>th</sup> April 2021, PKCT now has a single bulk handling facility being; a high capacity Coal Berth (Berth 102) that handles the loading of coal. See Figure 3





Figure 3: PKCT site boundary and surrounding land use



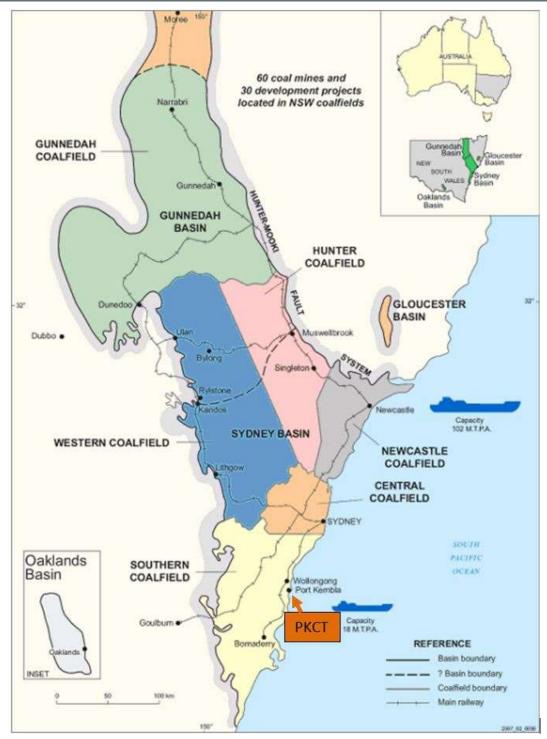


Figure 4: PKCT regional context (source; NSW Department of Planning and Environment Resources and Energy website 2017)



PKCT's Coal Berth 102 was constructed in the early 1980's following construction and opening of the Port Kembla Inner Harbour on 28<sup>th</sup> November 1960. A historical image of the harbour is shown below in Figure 5.

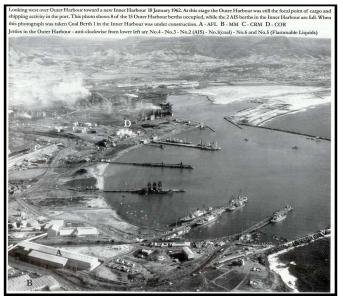


Figure 5: Early image of Port Kembla Inner Harbour. Image referenced from "Roadstead to World Class Port", Port Centenary Committee 1999.

PKCT entered the lease to operate the facility in accordance with a development consent from Wollongong City Council (WCC) and EPA Environment Protection Licence (EPL) number 1625.

In 2008, PKCT commenced preparation of a Major Project Application under Part 3A of the Environmental Planning and Assessment Act (EPAA) 1979, seeking consent to alter coal receival arrangements by public road.

Consultation with the DPI&E resulted in the remit of the application with the scope being increased to include consent for PKCT's existing operations. The Environmental Assessment (EA) submitted with the Major Project Application included an assessment of all environmental impacts associated with the current and ongoing PKCT activities.

In June 2009, the DPI&E conditionally approved PKCT's Major Project Application (08\_0009) for Existing Operations & Increased Road Receival Hours. This consent replaces the previous development approval from WCC and sets new conditions for environmental impacts, management and reporting.

# 3.4. **Objectives**

The objective of this AEMR is to provide a report that outlines the environmental monitoring, mitigation, assessments and management actions undertaken by PKCT over the July 2021 to June 2022 reporting period.

## 3.5. Environment Management

PKCT has an Environment Management System (EMS) in place to meet its environmental obligations. The EMS is certified to AS/NZS ISO 14001:2015 and is supported by policies, standards, an environment management strategy, management plans and procedures. Key documents of the EMS include the following:

- <u>Sustainable Development Policy PO.BM.291</u>
- Environment Policy PO.HS.85
- Quality Policy PO.BM.236



- Environment Management Strategy MP.HS.464
- Noise Management Plan MP.HS.387
- <u>Air Quality Management Plan MP.HS.386</u>
- Driver Code of Conduct Implementation Plan MP.BM.453
- Water Management Plan MP.HS.462
- Green and Golden Bell Frog Management Plan MP.HS.109
- Landscape Management Plan MP.HS.470
- Greenhouse Gas and Energy Efficiency Management Plan MP.HS.461
- Waste Management Plan MP.HS.460
- Fire Management Plan MP.HS.459

Policies are published on <u>PKCT's web site</u>. Management Plans required under Project Approval 08\_0009 are also published once DPI&E approval is obtained.

# 3.6. **Terminal Contact**

Figure 6 below identifies relevant contacts at PKCT.

PKCT Employee & Position	Contact Details
David Richards	(02) 4228 0288
General Manager	David.Richards@pkct.com.au
Darren Coleman	(02) 4228 0288
Operations Manager	Darren.Coleman@pkct.com.au
Mark Beale	(02) 4228 0288
Planning and Logistics Lead	Mark.Beale@pkct.com.au
Luke Pascot	(02) 4228 0288
Environmental Specialist	Luke.Pascot@pkct.com.au
Michael Curley	(02) 4228 0288
HSER Superintendent	Michael.Curley@pkct.com.au
Community Hotline	1800 111 448
	communitylinks@pkct.com.au

Figure 6: PKCT contacts

# 3.7. Actions Arising From Previous AEMR Review

The 2020/2021 AEMR was submitted to the DPI&E as required in July 2021.

There was no specific feedback or improvements suggested by the DPI&E following their review of that AEMR submission. All actions and recommendations from previous reviews by the DPI&E remain fully incorporated within the current AEMR reporting structure.

Action Required from Previous	Requested	Action taken by PKCT	Where discussed in
AEMR	by		AEMR
No actions required from the 2020/2021 Review			

Figure 7: Actions required from the previous AEMR



# 4. ADMINISTRATIVE CONDITIONS

Under Schedule 2 of PKCT's Major Project Approval 08\_0009, PKCT has 14 Administrative Conditions. The Administrative Conditions are listed under the headings outlined in Figure 8. The following section outlines PKCT's compliance with these across the reporting period.

Administrative Condition	AEMR Section
Obligation to Minimize Harm to the Environment	4.1
Terms of Approval	4.2
Limits on Approval	4.3
Management Plans / Monitoring Programs	4.4
Surrender of Consents	4.5
Structural Adequacy	4.6
Demolition	4.9
Operation of Plant and Equipment	4.8
Dispute Resolution	4.9

Figure 8: Administrative conditions

# 4.1. Obligation to minimize harm to the Environment

1. The Proponent shall implement all reasonable and feasible measures to prevent and/or minimize any harm to the environment that may result from the operation of the project.

The condition is consistent with PKCT's policies and management standards including a commitment to meet legal and other requirements.

PKCT has in place an Environmental Aspects and Impacts Register. This document provides a framework whereby PKCT identifies, records, risk-ranks and provides controls for activities associated with the operation that have the potential to cause harm to the environment. The register is reviewed at least annually. The register was last reviewed on 15th December 2021.

# 4.2. Terms of Approval

- 2. The Proponent shall carry out the project generally in accordance with the:
  - (a) EA;
  - (b) Response to Submissions;
  - (c) Statement of Commitments (See Appendix 2); and
  - (d) Conditions of this approval
- 3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
- 4. The Proponent shall prepare revisions of any strategies, plans or programs required under this consent if directed to do so by the Director-General. Such revisions shall be prepared to the satisfaction of, and within a timeframe approved by, the Director-General.
- 5. The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:
  - (a) Any reports, plans, programs, strategies or correspondence that are submitted in accordance with this approval; and
  - (b) The implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence.



The requirements of this condition were met across the reporting period. The Environment Management Strategy (EMS) has been developed to facilitate the means by which DPI&E approval conditions are met. The AEMR provides an annual compliance report.

# 4.3. Limits on Approval

- 6. The Proponent shall not receive more than 7.5 million tonnes of coal and bulk products at the site by public road in any calendar year without the written approval of the Director-General. In Seeking this approval, the Proponent shall submit a report to the Director-General that:
  - (a) reviews the transport related impacts associated with the trucks being used to deliver coal and bulk products to the terminal;
  - (b) demonstrates that these impacts are generally consistent with the predicted and/or approved impacts; and
  - (c) examines whether there are any other reasonable and feasible measures that could be implemented to minimise these impacts.

Once this approval has been obtained, the Proponent shall not receive more than 10 million tonnes of coal and bulk products at the site by public road in any calendar year.

- 7. The Proponent shall only receive coal dispatched from NRE No 1 Colliery at Russell Vale if that coal has been dispatched between the hours of:
  - (a) 7 am to 10 pm Monday to Friday; and
  - (b) 8 am to 6 pm Saturday and Sunday or Public Holidays
  - Unless in accordance with a project approval granted to that Colliery under Part 3A of the EP&A Act.
- 8. Subject to conditions 6 and 7 of this schedule, coal and bulk products may be received by the Proponent at the site by road delivery twenty four hours per day, seven days per week.

PKCT did not receive more than 7.5 million tonnes of coal and bulk products by public road during the 2021 calendar year.

With regard, Schedule 2, Condition 6, PKCT application to the Director General to receive 10 million tonnes per annum (mtpa) was approved on the 29<sup>th</sup> September 2013 subject to conditions.

# 4.4. Management Plans / Monitoring Programs

9. With approval of the Director-General, the proponent may submit any management plan or monitoring program required by this approval on a progressive basis.

In April 2021, PKCT relinquished the southern portion of the Terminal lease to AIE to build a gas import facility. As part of this change, PKCT consulted with the DPI&E and undertook a review of all Management plans to update them to include the renewed PKCT footprint and operational changes resulting from the lease relinquishment. The PKCT Water Management Plan, Drivers Code of Conduct, Green and Golden Bell Frog Management Plan, Air Quality Management Plan, Fire Management Plan, Environment Management Strategy, Greenhouse Gas and Energy Efficiency Management Plan, Landscape Management Plan, Noise Management Plan and Waste Management Plan were reviewed within the Reporting Period, and PKCT is currently finalising its document control process.

# 4.5. Surrender of Consents

10. Within 12 months of the date of this approval, the Proponent shall surrender all existing development consents and existing use rights associated with operations at the site in accordance with clause 97 of the EP&A Regulation.

Applicable consents have been surrendered. No action was required in this reporting period.

# 4.6. Structural Adequacy



11. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Facilities maintenance is carried out onsite in accordance with legal and other requirements including applicable Australian Standards and the Building Code of Australia.

## 4.7. **Demolition**

12. The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.

All demolition works are planned and carried out in accordance with the required Australian Standards. PKCT did not undertake any major demolition projects this period to trigger the criteria required within Standard 2601-2001: The Demolition of Structures. Small demolition projects that were completed were undertaken generally in accordance with the requirements.

## 4.8. **Operation of Plant & Equipment**

- 13. The Proponent shall ensure that all plant and equipment used onsite is:
  - (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper efficient manner.

PKCT management and staff have a responsibility to maintain equipment to ensure correct operation and efficiency. PKCT ensures all personnel are suitably qualified, trained and competent to ensure that equipment is operated in a proper and efficient manner.

## 4.9. **Dispute Resolution**

14. In the event that the Proponent and the Council or a Government agency, other than the Department, cannot agree on the specification or requirements of this approval, the matter may be referred by either party to the Director-General for resolution, whose determination of the disagreement shall be final and binding on the parties.

PKCT accepts the dispute resolution process. This condition is referenced in the PKCT Environment Management Strategy.

There were no disputes during the reporting period.



# 5. SPECIFIC ENVIRONMENTAL CONDITIONS

This section provides a summary of PKCT's compliance to the Specific Environmental Conditions outlined in Schedule 3 of the PKCT Major Project Approval 08\_0009.

Figure 9 below provides an overview of each of the Specific Environmental Conditions and a reference to their location in the AEMR.

Specific Environmental Condition	AEMR Section			
Noise	Section 5.1 Noise			
Transport	Section 5.2 Transport			
Air Quality	Section 5.3 Air Quality			
Meteorological Monitoring	Section 5.4 Meteorological			
Surface Water	Section 5.5 Surface Water			
Biodiversity	Section 5.6 Biodiversity			
Visual Amenity	Section 5.7 Visual Amenity			
Greenhouse and Energy Efficiency	Section 5.8 Greenhouse and Energy Efficiency			
Waste	Section 5.9 Waste			
Hazards	Section 5.10 Hazards			
Fire Control	Section 5.11 Fire Control			

Figure 9: Specific environmental condition overview

## 5.1. Noise

#### 5.1.1. Noise Standards and Performance Measures

EPL 1625 and Major Project Approval 08\_0009 pertain to noise emissions from PKCT's premises. Noise criteria are outlined as follows:

the criteria	nent shall ensure that the specified in Table 1 for th	noise generated by the project at any prive location nearest to that residence.	vately-owned residence does not exceed		
Table 1: Noise impact assessment criteria dB(A) LAeq (15 min)					
	Location	Time Period	Limits(LA dB(A)		

Location	Time Period	Limits(LA <sub>eq,15 min</sub> dB(A)
	Day	51
Cnr Swan St/Kembla St	Evening	50
	Night	49
	Day	51
Cnr Swan St/ Corrimal St	Evening	50
	Night	49
	Day	55
Cnr Keira St/ Fox St	Evening	49
	Night	45

Notes:

(a) To determine compliance with the LA<sub>eq. (15 min</sub>) noise level limits in the above table, noise from the project is to be measured at the most affected point within the residential boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.

- (b) The noise emission limits identified in the above table apply under meteorological conditions of:
  - wind speeds of up to 3 m/s at 10 metres above ground level; or
  - temperature inversion conditions of up to 3°C/100m, plus a 2 m/s source-to-receiver component drainage flow wind at 10 metres above ground level for those receivers where applicable

in accordance with the NSW Industrial Noise Policy.



However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 1, and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

#### Noise Monitoring Program

- 2. The Proponent shall prepare and implement a Noise Monitoring Program for the project to the satisfaction of the Director-General. This program must:
  - (a) be developed in consultation with DECC;
  - (b) be submitted to the Director-General for approval within 6 months from the date of this approval, or as otherwise agreed by the Director-General; and

#### (c) include a:

- o combination of attended and unattended noise monitoring measures;
- noise monitoring protocol for evaluating compliance with the noise impact assessment criteria in this approval; and
- reasonable and feasible best practice noise mitigation measures to ensure project specific noise criteria are met.

#### **Continuous Improvement**

- 3. The Proponent shall:
  - (a) continue to implement all reasonable and feasible best practice noise mitigation measures;
  - (b) continue to investigate ways to reduce the noise generated by the project, including maximum noise levels which may result in sleep disturbance; and
  - (c) report on these investigations and the implementation and effectiveness of these measures in the AEMR to the satisfaction of the Director-General.

#### 5.1.2. Noise Monitoring

#### 5.1.2.1. Noise Monitoring Methodology

Biannual noise monitoring began at PKCT in September 2009. Since this time, monitoring results have been compliant with the noise monitoring criteria set out in PKCT's EPL 1625 and Major Project Approval 08\_0009. As outlined in Section 8.2.3.1 of PKCT's approved Noise Management Plan, if no exceedance of the criteria occurs for 6 years, noise monitoring will not be required to continue.

In August 2016, PKCT made a formal request to the DPI&E to remove the requirement for biannual noise monitoring with the intent to undertake event-based monitoring if noise concerns are raised.

By letter dated 16<sup>th</sup> March 2017, PKCT received formal notification from the Department that biannual noise monitoring could be discontinued.

#### 5.1.2.2. Noise Monitoring Results and Compliance 2020/2021

Notwithstanding there is no longer a requirement to undertake routine noise monitoring, on 26<sup>th</sup> November 2020, PKCT engaged a consultant to undertake a noise survey to re-confirm that noise levels, following installation of the new yard machines, remained within the required limits outlined in our Planning Approval 08\_0009. The results of the survey confirmed that levels remained below the threshold limits. PKCT continues to maintain and utilise the DPIE approved Noise Management Plan MP.HS.387. The plan is publically available on PKCT's website.

#### 5.1.3. Trends in Noise Emissions

No biannual noise monitoring campaigns were undertaken. Results of the previous non-routine noise confirmation survey confirmed that levels remained below the threshold limits.



#### 5.1.4. Noise – Activities undertaken during 2021/2022 Reporting Period

A summary of the actions undertaken for the 2021/2022 reporting period relating to noise is presented below.

- PKCT continues to look for opportunities to improve noise levels across its operations.
- PKCT's Noise Management Plan remains a live document and is formally reviewed within the Triennial Independent Audit program.

#### 5.1.5. Noise - Activities Planned for 2022/2023 Reporting Period

A summary of actions proposed to be undertaken in the 2022/2023 reporting period is presented below.

• PKCT will continue to undertake noise surveys if noise complaints or issues are raised.

## 5.2. Transport

#### 5.2.1. Transport Standards and Performance Measures

#### Monitoring of Coal Transport

3. The Proponent shall keep records of the amount of coal and bulk products received at the site each year, and include these records in the AEMR.

#### **Traffic Management**

4. The Proponent shall ensure that vehicles waiting to deliver coal or bulk products to the site do not queue or park on public roads other than Port Kembla Road.

#### **Driver's Code of Conduct**

- The Proponent shall, in consultation with affected mines and principal haulage operators, develop a program to implement the Driver's Code of Conduct (see Appendix 3) to the satisfaction of the Director-General. This program must:

   (a) be submitted to the Director-General for approval within 6 months from the date of this approval, or as otherwise
  - agreed by the Director-General;(b) include a driver induction program to cover (but not be limited to) speed limits, compression braking, truck washing,
  - (b) include a driver induction program to cover (but not be limited to) speed limits, compression braking, truck washing, load covering and queuing on local roads; and
  - (c) include measures to ensure the Driver's Code of Conduct is enforced.

#### 5.2.2. Transport Monitoring

#### 5.2.2.1. Transport Monitoring Methodology

Shippers to PKCT are signatories to the PKCT Drivers Code of Conduct (DCC). This document was developed in consultation with the PKCT road receival customers, and their associated road transport providers, Roads and Traffic Authority (now Roads and Maritime Services), EPA, and the PKCT Community Consultative Committee (CCC). The document outlines specific measures focusing on opportunities to minimise, mitigate and manage traffic volume, traffic safety and acoustic impacts. Among others, it specifically covers items such as haulage routes, compression breaking, road delivery standards, truck washing, queuing on Springhill Road, load covering and incident management and reporting.

A Heavy Haulage Induction manual and induction program and a Drivers Code of Conduct Implementation Plan are in place to support DCC implementation.

PKCT monitors compliance against the DCC via an audit program. The monitoring of road transport operations is undertaken by PKCT personnel and by the shippers and their associated road transport providers. Audits are undertaken at the mine site, on route and at PKCT. Monthly compliance reports are supplied to PKCT. Road transport providers also undertake driver observations within their own businesses.



#### 5.2.2.2. Transport Monitoring Results and Compliance 2021/2022

In accordance with Schedule 3, Condition 4, PKCT is required to keep records of the amount of coal and bulk products received at the site each year. Figure 10 below provides a summary of throughput and receival over the reporting period.

Shiploading July 2021 to June 2022		Coal		Coke		Total		
Shipidadi gjuly Zizi toju je Zizi	Col	ing	Steaming	CORE		IOLAI		
Berth 101: Bulk Products Berth (Tonnes)	0		0		0	0	0	
Berth 102: Coal Berth (Tonnes)	7,497,438		7,497,438		1,469,202	0		8,966,640
				Total (tonnes)		8,966,640		
Receivals July 2021 to June 2022		Private Road		Public Rc	ad	Total		
Road Receival (Tonnes)			1,964,718	3,101,32	20	5,066,038		
Rail Receival (Tonnes)						2,303,512		
				Total Ton	nes	7,369,550		

#### Figure 10: Summary of PKCT throughput 2021/2022

Across the reporting period, truck companies undertook 1295 driver observations and 1050 audits were completed by PKCT personnel.

A summary of the auditing results is presented in Appendix A: Drivers Code of Conduct Summary.

As part of the monitoring regime, PKCT records and responds to complaints and incidents associated with coal transport to and from PKCT where required. PKCT did not receive any road transport related complaints across the reporting period and similarly no complaints associated with road haulage were made directly to the PKCT's Road Transport Providers.



# 5.2.3. Trends in Transport

Road receival at PKCT remained slightly below long-term average levels during the reporting period with 5.07Mt of combined private and public road receivals to end June 2022, Figure 11.

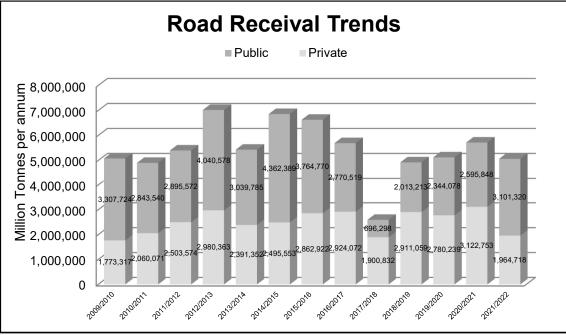


Figure 11: Road receival trends

# 5.2.4. Traffic – Activities Undertaken During 2021/2022 Reporting Period

A summary of the actions undertaken for the 2021/2022 reporting period related to traffic is presented below.

- Routine task observations and audits have continued, focussing on compliance against dust drag-out, the Driver's Code of Conduct and PKCT's approval conditions.
- Following successful trials of a high-pressure jet road-washing truck in 2020/21 reporting period, the use of this unit has been adopted on an ad-hoc basis to complement the existing road sweeper and water carts with the deep cleaning of the outbound roadways and other areas across site.
- Drivers' code of conduct was reviewed with no changes required, and prepared for DPI&E for approval.

# 5.2.5. Traffic - Activities Planned for 2022/2023 Reporting Period

A summary of the planned actions for the 2022/2023 reporting period related to Traffic is presented below.

- Continue to undertake additional routine Driver's Code of Conduct auditing.
- Focus on cleaning and auditing of outbound road. Continue to investigate options for cleaning public roadway outbound from coal terminal with local council/road owners.

# 5.3. Air Quality

## 5.3.1. Air Quality Standards and Performance Measures

EPL 1625 and Major Project Approval 08-0009 pertain to air quality and emissions from PKCT's premises. Air quality criteria are outlined as follows:



#### Impact Assessment Criteria

7. The Proponent shall ensure that dust generated by the project does not cause additional exceedances of the criteria listed in Tables 3 to 5 at any residence.

Table 3: Long term	imnact assessmen	t criteria fo	or particulate matter

Pollutant	Averaging Period	Criterion
Total suspended particulate (TSP) matter	Annual	90 μg/m3
Particulate matter < 10 $\mu$ m (PM10)	Annual	30 μg/m3

Table 4: Short term impact assessment criteria for particulate matter

Pollutant	Averaging Period	Criterion
Particulate matter < 10 μm (PM10)	24 hour	50 μg/m3

Table 5: Long term impact assessment criteria for deposited dust

Pollutant	Averaging Period	Maximum Increase in	Maximum Total Deposited
1 ondtarit	Averaging renou		
		Deposited Dust Level	Dust Level
Deposited Dust	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS 3580.10.1-1991: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

However, if the Proponent has a written negotiated air quality agreement with any landowner to exceed the air quality limits in Table 3, 4 and/or 5, and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the air limits in Table 3, 4 and/or 5 in accordance with the negotiated air quality agreement.

#### Operations

- 8. The Proponent shall:
  - (a) ensure any visible air pollution generated by the project is both minimised and recorded, and that operations are modified as required to minimise any resultant air quality impacts on nearby residences;
  - (b) ensure that the real-time air quality monitoring and meteorological monitoring data is assessed regularly; and
  - (c) where dust is generated by the project, that operations are modified and/or stopped as required to ensure compliance with the relevant air quality criteria

to the satisfaction of the Director-General.

- 9. During carrying out of the project, the Proponent shall ensure that:
  - (a) all loaded trucks entering or leaving the site have their loads covered; and
  - (b) trucks associated with the project pass through a truck wash before entering the public road network
  - to the satisfaction of the Director-General.

#### Air Quality Monitoring Program

- 10. The Proponent shall prepare and implement an Air Quality Monitoring Program for the project to the satisfaction of the Director-General. This program must:
  - (a) be developed in consultation with DECC;
  - (b) be submitted to the Director-General for approval within 6 months from the date of this approval, or as otherwise agreed by the Director-General; and
  - (c) include:
    - o real-time sampling to monitor the dust emissions of the project;
    - an air quality monitoring protocol for evaluating compliance with the air quality impact assessment criteria in this approval; and
    - reasonable and feasible best practice emissions mitigation measures to ensure project specific assessment criteria are met.



## 5.3.2. Air Quality Monitoring and Compliance

#### 5.3.2.1. Air Quality Monitoring Methodology

PKCT has an Air Quality Management Plan (AQMP) in place and is operational as follows;

- The AQMP, developed in consultation with the EPA, was submitted to DPI&E by the due date of 9<sup>th</sup> December 2009. The DPI&E approved the AQMP by letter of 25<sup>th</sup> March 2010.
- The EPA assisted in developing the AQMP though did not add any new air quality criteria to EPL 1625. In the 2014 EPL review, the EPA included new obligations on PKCT to report on continuous dust against the DPI&E Impact Assessment Criteria and this commenced in the 2014/15 EPL Annual Return.
- PKCT's AQMP contains dust monitoring, assessment, reporting and mitigation and management provisions to ensure necessary actions are undertaken and that dust from PKCT's premises does not exceed the criteria in the Impact Assessment Criteria outlined above.
- PKCT provides 24/7 site operational control via the Main Control Room (MCR). MCR operators monitor site conditions and weather forecasts. If dust is observed, action is taken through the operation of sprays or other available controls. Dust events observed which emanate beyond the immediate source with a potential to have off site impacts are entered into PKCT's event management system, requiring investigation and corrective action. PKCT also has an auditing process in place that includes site observations of dust, dust associated with truck movements and the assessment of associated controls.
- Following surrender of the southern portion of the Terminal to the AIE LNG Project in April 2021, rationalisation
  of the number and location of the existing depositional and continuous dust monitoring equipment was
  undertaken. PKCT removed two of the 14 depositional gauges and moved the location of the southern
  continuous dust monitor to within the new PKCT lease area. PKCT now has a total of 12 depositional dust gauges
  (9 Industrial and 3 residential) located on site and on adjacent port and residential areas, and two continuous
  dust monitors located to the north and south of the site, see Figure 12 below. These locations included in the
  revised EPL and Project Approval 08\_0009. Dust Samples from each dust deposition gauge are collected on a
  monthly basis by an environmental contractor and sample analysis is performed at a NATA accredited
  laboratory. Results from the residential depositional gauges are analysed on a monthly basis and compared to
  the EPA amenity criteria of 4 grams/m<sup>2</sup>/month. The results are reported on the <u>PKCT website</u>.





Figure 12: PKCT air quality monitoring sites

# 5.3.2.2. Air Quality Monitoring Results and Compliance 2021/2022

PKCT collects monthly depositional dust records at three residential sites and 9 industrial sites located on or near the PKCT premises.

PKCT engages air quality specialists to analyse a range of data obtained from gauges and instruments across the site and neighbouring areas.

The following conclusions have been made by the consultants from the measurements of dust deposition at the network of residential dust deposition gauges during the July 2021 to June 2022 period:

• The monthly average and annual average insoluble solids did not exceed the 4 g/m<sup>2</sup>/month trigger level at the Church Street and Vikings Oval sites for the July 2021 to June 2022 period.



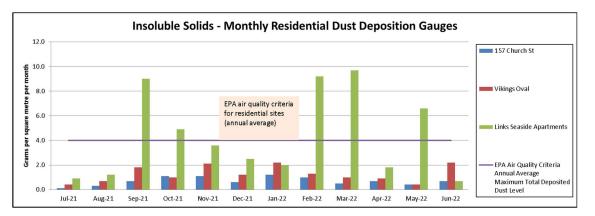
- The monthly average combustible matter did not exceed the 2 g/m<sup>2</sup>/month trigger level at the Church Street and Vikings Oval sites for the July 2021 to June 2022 period.
- The monthly average insoluble solids exceeded the 4 g/m<sup>2</sup>/month trigger level at the Links Seaside Apartment site during September and October 2021, and during February, March, and May 2022.
- The annual average insoluble solids exceeded the 4 g/m<sup>2</sup>/month trigger level at the Links Seaside Apartment site for the July 2021 to June 2022 period.
- The monthly average combustible matter exceeded the 2 g/m<sup>2</sup>/month trigger level at the Links Seaside Apartment site during September, October, and November 2021, and during February, March, and May 2022.

Dust characterisation of monthly dust deposition samples concluded:

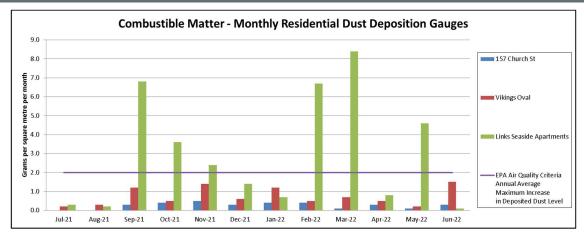
- Visual analysis of the sample collected during September 2021 indicated that total dust was comprised of 50% polysaccharide slime, 10% dirt, 20% coal, 20% vegetation, and less than 5% insects. The percentage of the total sample (9.0 g/m<sup>2</sup>/month) identified as coal (20%) is calculated to be 1.8 g/m<sup>2</sup>/month, above the trigger level of 1 g/m<sup>2</sup>/month considered as a potential moderate contribution from the coal terminal.
- Further analysis of the monitoring data at the northern monitoring site during September 2021 indicates that
  the contribution of the coal terminal to the dust deposition sample at Links Seaside Apartments during this
  month is estimated to be low to moderate. In particular, the absence of any exceedances of the 24-hour
  average TSP trigger level and PM10 air quality standard, along with the average composition of the TSP
  measured at the northern monitoring site (in relation to previous studies at the coal terminal) and low
  corresponding dust deposition levels at the other two residential dust deposition gauges, suggests that
  operations at the coal terminal did not contribute to elevated concentrations at the residences to the north
  during this month.
- Visual analysis of the samples collected at the Links Seaside Apartment site during October and November of 2021 and February, March and May of 2022 indicated that the percentage of the total samples identified as coal were calculated to be below the trigger level of 1 g/m<sup>2</sup>/month. Therefore, PKCT is considered likely to have made only a low contribution to the elevated insoluble solids deposition rates in these monthly results.

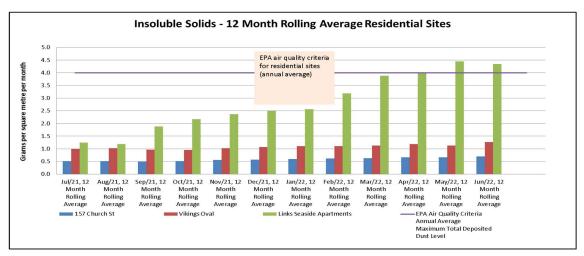
Individual monthly and 12-month rolling average dust deposition results for the three residential dust gauges are presented in Figure 13 below.

Twelve month rolling average Insoluble Solids and Combustible Matter results for the 9 PKCT industrial dust gauges are also presented below in Figure 14 and Figure 15.









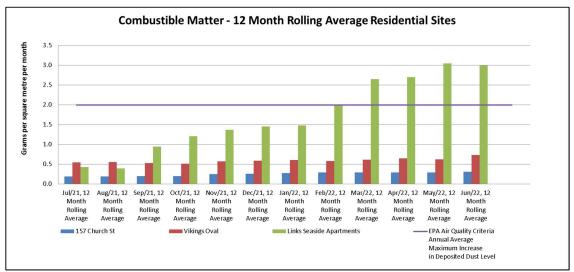


Figure 13: PKCT residential depositional dust gauges data

PKCT utilises nine Industrial Deposition Gauges around site to assist with managing dust. The results are not used for compliance purposes, however operational criteria are used to monitor and track deposition trends. A summary of these industrial deposition results is presented below.



Combustible Matter is typically an indicator of coal and organic deposits in a sample, and generally has the most relevance for internal monitoring within the site .During the reporting period all nine gauges recorded 12 month rolling average results for Combustible Matter well below the internal assessment criteria across each of the locations.

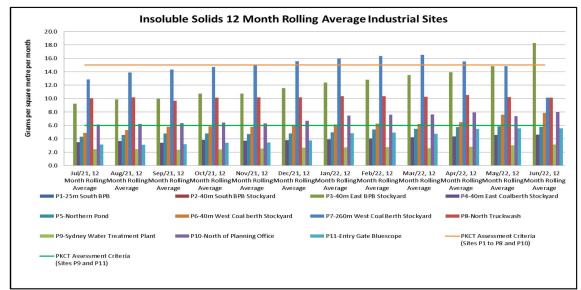


Figure 14: PKCT industrial dust deposition gauges insoluble solids 12 month rolling average

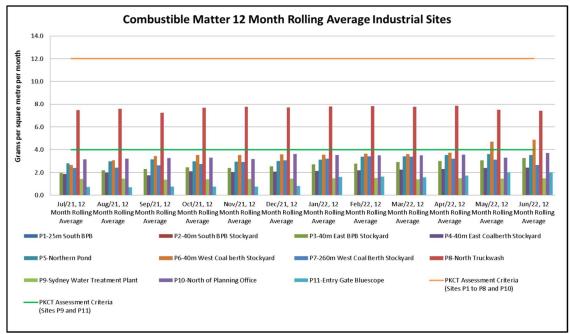


Figure 15: PKCT industrial dust deposition gauges combustible matter 12 month rolling average

In addition to the dust deposition gauges which are analysed monthly, PKCT has in place two continuous dust monitors used to monitor ambient dust conditions. One monitor is located at the southern end of PKCT's premises. The other monitor is located north of PKCT's premises, midway to the residential boundary. Data from these monitors is captured and analysed by specialist air quality consultants engaged by PKCT. Data and exceedances related to the northern monitor are presented with wind data in Appendix B: Consultant Dust Data Summary and in Figure 16 below. A summary of the air quality data at the northern dust monitor from PKCT's Air Quality consultant is provided below.



- The annual average TSP concentration of 18.3  $\mu$ g/m<sup>3</sup> at the PKCT northern monitoring site was below the air quality criterion of 90  $\mu$ g/m<sup>3</sup>.
- The annual average PM10 concentration of 12.6  $\mu$ g/m<sup>3</sup> at the PKCT northern monitoring site was below the air quality criterion of 30  $\mu$ g/m<sup>3</sup>.
- The 24-hour average TSP trigger level of 90 μg/m<sup>3</sup> and the 24-hour average PM<sub>10</sub> air quality standard of 50 μg/m<sup>3</sup> were both exceeded at the northern monitoring site on 17 January 2022, with 24-hour average TSP and PM<sub>10</sub> concentrations of 102.4 μg/m<sup>3</sup> and 73.5 μg/m<sup>3</sup>, respectively. (This represents a significant reduction in the number of exceedances compared to previous years, most likely due to the increased rainfall in the region.)
- There were no other exceedances of the TSP trigger level of 90 μg/m<sup>3</sup> and the 24-hour average PM<sub>10</sub> air quality standard of 50 μg/m<sup>3</sup> at the northern monitoring site during the reporting period.
- The TSP trigger level of 90 μg/m<sup>3</sup> and the 24-hour average PM<sub>10</sub> air quality standard of 50 μg/m<sup>3</sup> were also exceeded at the southern monitor on 17 January 2022, suggesting a regional episode of high concentrations.
- Moderate, but below the air quality standard, PM<sub>10</sub> levels were recorded at the DPIE Wollongong and Kembla Grange sites on 17 January 2022, indicating that regional particulate levels were elevated during the exceedance period; however, the regional levels are not likely to be the sole cause of the exceedance at the PKCT northern monitoring site.
- The proportion of TSP made up of PM<sub>10</sub> during the period exceeding the standard and trigger level was 72%, compared to the estimated 46% likely to be emitted from the coal terminal. The proportion made up of PM<sub>2.5</sub> was 55%, compared to the estimated 7% likely to be emitted from the coal terminal. This indicates that it is very unlikely that the coal terminal was the source of the elevated concentrations.
- It has been concluded that PKCT did not contribute significantly to the exceedance of the 24-hour average TSP trigger level and PM<sub>10</sub> air quality standard at the PKCT northern monitoring site on 17 January 2022.

PKCT contribution rating	Number of TSP exceedance days	Number of PM <sub>10</sub> exceedance days
None	1	1
Minimal (0% to 10%)	0	0
Minor (10% to 30%)	0	0
Moderate (30% to 70%)	0	0
Major (70% to 100%)	0	0
Unclassified (missing data)	0	0
Total exceedance days	1	1

Figure 16: PKCT contribution ratings for exceedance days during July 2021 to June 2022

Detailed analysis by the external air quality specialists demonstrates that PKCT contributed very little to this exceedance event.

# 5.3.3. Trends in Air Quality

Comparative data for the PKCT residential depositional dust gauges is presented in Figure 17 below. Each year, 12 samples are collected at each gauge. As is shown in the Figure, historically the number of exceedances occurring across each year is low and no adverse trend is apparent in the current data set that can be attributed to PKCT.

In this reporting period, several results were identified at a single location (R3 – Links Seaside Apartments) to be well outside of normal values for the location and were inconsistent adjacent sampling locations. Investigations



and petrographic analysis confirmed that these exceedances were caused by vegetation and extraneous matter not related to PKCT operations.

It should be noted that PKCT's Air Quality Management Plan triggers investigations into occasional or anomalous monthly dust levels exceeding the DPI&E criteria. Where these exceedances can be attributed to sources unrelated to PKCT's operations, the annual average levels are updated to reflect it. On this basis, the current and historical annual average levels continue to remain within the DPI&E criteria for the 12 month rolling averages.

		2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
inks Seaside Apartments	Criteria 4 g/m <sup>2</sup> /month	0	0	1	0	0	0	0	0	1	0	5 (a)
/ikings Oval	Criteria 4 g/m <sup>2</sup> /month	0	2	0	0	1	1	0	0	1	0	0
57 Church Street	Criteria 4 g/m <sup>2</sup> /month	0	0	0	0	1	0	0	0	1	0	0
inks Seaside Apartments	Criteria 2 g/m <sup>2</sup> /month	0	0	0	0	1	0	0	0	0	0	6 (a)
		2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
	Criteria 2 g/m <sup>2</sup> /month	0	2	0	0	2	1	0	0	1	0	6 (a)
/ikings Oval			4	0	0	-	0	0	0	0	0	0

Figure 17: Annual residential depositional dust gauge trends

A summary of the 2021/2022 depositional and continuous dust gauge data compared to historical records is presented below in Figure 18.

PKCT's Environmental Assessment on Air Quality undertaken in 2008 predicted that impacts to air quality from PKCT would be well below relevant DECC criteria based on existing PKCT operations and the proposal to receive coal by road over a 24/7 period up to a maximum of 10mtpa. Annual average results for the three residential depositional dust gauges show that for both total insoluble solids and for combustible matter, levels are well within the DECC guidelines on all occasions, see Figure 13. This aligns with the predictions in the Environmental Assessment.

Annual average results for TSP and PM<sub>10</sub> recorded at the continuous dust gauges are within the relevant DECC guidelines on all occasions except for the PM<sub>10</sub> annual average in FY2012/2013, and marginally in FY2014/2015 and FY2015/2016, see Figure 18. Both TSP and PM<sub>10</sub> were within the criteria for the 2021/2022 reporting period. The continuous dust monitors used to record this information cannot discern where the dust source is from, however the data is analysed by a consultant on behalf of PKCT and assesses the likely contribution by PKCT to the results. PKCT continues to utilise the collected data to minimise and manage dust from its operations

. Summary of depositional and continuous dust data against relevant standards

# 5.3.4. Air Quality – Activities Undertaken During 2021/2022 Reporting Period

A summary of the actions undertaken for the 2021/2022 reporting period related to Air Quality is presented below. PKCT has completed a suite of specific dust management environmental improvement initiatives associated with its EPL during the reporting period. A summary of each of these is provided below:

• Following successful trials of a high-pressure jet washing truck during FY20/21, it has now been adopted to complement existing road sweeper and water carts to assist with deep cleaning of the outbound roadways and



other areas across site. While the unit is significantly more expensive to hire than the existing units, however PKCT will periodically utilise the jet washing system when auditing identifies a need. See Figure 18 below.



Figure 18: Jet blaster truck now available to improve washing process of roadways and hardstand areas.

• PKCT has undertaken significant work in recent years at the road receival area including improved washing processes, increasing the areas of hardstand around the facility and planting of 600 trees on the western berm wall, adding a wash-down attendant on the outbound side of the wash and additional road cleaning processes. These improvements continue to assist in reducing dust generation from the area in this and future years.

## 5.3.5. Air Quality - Activities Planned for 2022/2023 Reporting Period

A summary of the planned actions during the reporting period related to air quality improvement is presented below.

• PKCT will continue to work on improving the effectiveness of its existing dust mitigation infrastructure and will continue the work already undertaken with expert consultants on this matter.

## 5.4. Meteorological

## 5.4.1. Meteorological Monitoring Standards and Performance Measures



11. During the life of the project, the Proponent shall ensure that there is a suitable meteorological station on or in the vicinity of the site that generally complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.

#### 5.4.2. Meteorological Monitoring

#### 5.4.2.1. Meteorological Monitoring Methodology

PKCT primarily utilises an on-site weather station to measure, monitor and record weather variables. The station measures wind speed and direction, rainfall, air pressure, temperature and humidity continuously at the site. Additionally, PKCT operates two continuous dust monitors that measure PM10, PM2.5, TSP, wind speed and wind direction, see Figure 19 below.



Figure 19: PKCT northern continuous dust monitor

Data from the monitoring stations is used by PKCT personnel to assist with environmental management on site.

#### 5.4.2.2. Meteorological Monitoring Results and Compliance 2021/2022

A summary of the rainfall data recorded at PKCT across the reporting period is presented below in Figure 20 and Figure 21. An annual wind summary from the northern and southern continuous dust monitors is presented in Appendix C: PKCT Annual Wind Summary

Year/Month	Rainfall (mm)
Jul-21	24.8
Aug-21	101.6
Sep-21	29.6
Oct-21	100.8
Nov-21	132.2
Dec-21	85.0
Jan-22	144.2
Feb-22	335.4
Mar-22	478.4
Apr-22	183.0
May-22	161.6
Jun-22	20.6

Figure 20: PKCT weather station monthly monitoring data 2021/2022



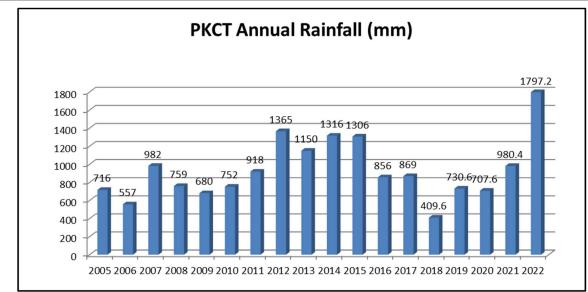


Figure 21: PKCT annual rainfall (financial year)

## 5.4.3. Trends in Weather

As is shown in Figure 21 above, the 2021/2022 reporting period had a significantly increased level of rainfall compared to historical levels with 1797.2 mm recorded during the financial year (the site's annual average for the past 17 years is only 885 mm/year). This increase is consistent with the Bureau of Meteorology's reporting of 'back to back' La Nina Events causing above average rainfall across large areas of eastern Australia – the first being between September 2020 and March 2021, and followed by a second La Nina from November 2021 to June 2022.

## 5.5. Surface Water

#### 5.5.1. Surface Water Standards and Performance Measures

EPL 1625 and Major Project Approval 08-0009 pertain to water quality and discharge limits from PKCT's premises. Water quality criteria are outlined as follows:

#### Discharge Limits

12. Except as may be expressly provided in an EPL for the project, the Proponent shall comply with Section 120 of the *Protection of the Environment Operations Act 1997.* 

#### Water Management Plan

- 13. The Proponent shall prepare and implement a Water Management Plan to the satisfaction of the Director- General. This Plan must:
  - (a) be prepared in consultation with DECC;
  - (b) be submitted to the Director-General for approval within 12 months of this approval or as otherwise agreed by the Director-General; and
  - (c) include:

0

- a site water balance, which includes details of sources of water supply, on-site water use and management and off-site water discharges and investigates and describes measures to minimise water use by the project;
- a sediment control plan for surface works on the site that is consistent with the requirements of the *Managing Urban Stormwater: Soils and Construction Manual* (Landcom 2004, or its latest version);
  - a surface water monitoring program that includes:
    - stormwater effluent discharge criteria;
    - > a monitoring protocol for evaluating compliance with the stormwater effluent discharge criteria; and
    - > reasonable and feasible mitigation measures to ensure the stormwater effluent discharge criteria are met.



#### 5.5.2. Surface Water Monitoring

#### 5.5.2.1. Surface Water Monitoring Methodology

PKCT has a Water Management Plan MP.HS.462 (WMP) which is in operation and DPI&E approved. This plan was submitted to the DPI&E within 12 months of Project Approval 08\_0009. PKCT reviewed and updated the plan during the reporting period as a result of the lease handover to the AIE LNG Project. The updated plan was subsequently approved by DPI&E.

This Plan outlines the processes operating currently with regard to water monitoring, assessment, reporting, mitigation and management provisions to ensure necessary actions are undertaken in accordance with DPI&E approval conditions.

The WMP includes reference to PKCT's Water Savings Action Plan (WSAP). This Plan was in place since 2006. PKCT has now met its regulatory obligations and no further reporting is required.

PKCT also operates under EPL 1625. Under this Licence, PKCT is required to measure water quality at its Licenced Discharge Point 16 (LDP16). Daily grab samples are taken from LDP16 when harbour discharges occur.

On a monthly basis, PKCT collates and reviews water usage across the site and discharge water quality. LDP16 discharge monitoring data is uploaded to the <u>PKCT website</u> as required under Schedule 4, Condition 9 of Project Approval 08\_0009.

In September 2014, PKCT completed a five-yearly review of EPL 1625 with the EPA. Related to water monitoring, the review process added an additional monitoring requirement to sample overflows from PKCT's satellite ponds and to report the data via the Annual Return process. PKCT's pH limits for LDP16 were removed and replaced with a monitoring and reporting requirement and LDP16's Oil and Grease limit was removed and changed to a "visible/not visible" reporting requirement.

In 2021, with the change on lease area, PKCT relinquished two pond locations "South Pond" and "Tower 3 Pond" from the site, and added two new sediment ponds, "South East Pond" and "TS8 Sump". The updates have been incorporated into a revised EPL by the EPA, see here. As a result of the change to the surface area of the site, PKCT reviewed and updated the Water Management Plan and incorporated to the plan a revised water balance model. The revised Management Plan can be found on PKCT's web site <a href="https://www.pkct.com.au/community-environment/regulatory-documents.">https://www.pkct.com.au/community-environment/regulatory-documents.</a>

#### 5.5.2.2. Surface Water Monitoring Results 2021/2022

PKCT's licence conditions and limits for LDP16 are presented below in (a) Exceeding the TSS limit is permitted when the discharge occurs solely as a result of high rainfall at the site, exceeding a 5 day rainfall depth value of 90mm over a consecutive 5 day period Figure 22.

Monitoring Parameter	100 percentile limits
рН	Monitoring only
TSS	50 mg/litre (a)
Oil and Grease	Visible

(a) Exceeding the TSS limit is permitted when the discharge occurs solely as a result of high rainfall at the site, exceeding a 5 day rainfall depth value of 90mm over a consecutive 5 day period

#### Figure 22: EPL 1625 water quality parameter limits and compliance

Across the reporting period, PKCT recorded a total of 212 discharges from LDP16. Of these discharges, 100% were compliant for TSS and 100% were compliant for Oil and Grease. pH was monitored as required, see Figure 23 below. A summary of all LDP16 discharge monitoring data is presented in Appendix D: LDP16 Discharge Data Summary



Monitoring Parameter	Number of Overflows	Maximum recorded value	Minimum recorded value	Mean recorded value	Compliant Samples (%)
рН	212	9.2	6.1	7.2	n/a
TSS (mg/l)	212	59	<5	12.2	100%
Oil and Grease (mg/l)	212	0	<0	0	100%

Figure 23: Water quality monitoring summary for LDP16 discharges

#### **PKCT Monthly Water Usage**

PKCT monitors water usage across the site on a monthly basis. A summary of the water usage for the site compared to the WSAP is presented below in Figure 24. As can be seen, the water usage remains significantly below the WSAP commitment of 42.5ML/month.

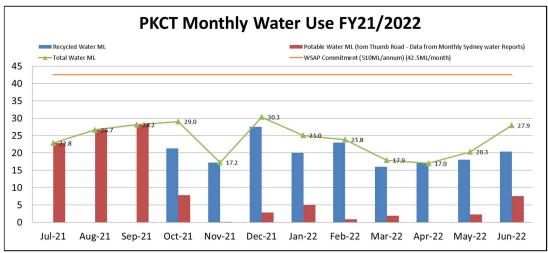


Figure 24: PKCT monthly water use for 2021/2022 reporting period

#### 5.5.2.3. Surface Water Monitoring Compliance

Of the 212 discharges from LDP16 recorded during the Reporting Period, PKCT was compliant with its EPL Licence Conditions for 212 (100%) Oil and Grease samples and 212 (100%) TSS samples, and pH was monitored on all 212 overflow occasions as required.

PKCT continues to undertake work on a suite of improvement initiatives associated with ensuring compliance with the LDP16 discharge licence conditions.

#### 5.5.3. Trends in Surface Water Monitoring

Figure 25 below highlights the trends in compliance measured at LDP16 for EPL 1625 water quality parameters of pH, TSS and Oil and Grease. As is shown in Figure 25, compliance remains high and above historical levels in this reporting period. The large increase in overflows recorded at LDP16 reflect the large number of heavy rainfall events throughout the 2021/2022 reporting period. In two instances discharges during heavy rain fall events exceeded the TSS concentration limit of 50mg/L, however since the rainfall exceeded the 5 day rainfall depth of 90mm, both discharges were permitted under PKCT's Licence Conditions.



	2012/	2013	2013	/2014	201	4/2015	201	5/2016	201	6/2017	20:	17/2018	201	8/2019	201	9/2020	202	0/2021	202	1/2022
Ionitoring Parameter			Number of Overflows				Number of Overflows		Number of Overflows	Compliant Samples %	Number of Overflows	Compliant Samples %	Number of Overflows		Number of Overflows		Number of Overflows	Compliant Samples %	Number of Overflows	Complian Samples 9
pH		96		93		Reporting only		Reporting only		Reporting only		Reporting only		Reporting only		Reporting only		Reporting only		Reporting o
TSS (mg/l)	68	91	91	95	143	94	72	100	54	100	17	100	86	98	84	98	128	100	212	99 (a)
Dil and Grease (mg/l)		100		100		100		100		100		100		100		100		100	1	100
	100 98					→ pł		Water Qu	ality Pa		Samp		iant %	5/1)			-8		-	
	10			<u> </u>	*	+ pł		Water Qua			Samp			5/1)			- 8		-	

Figure 25: Trends in EPL water quality data at LDP16

#### **Trends in Potable and Recycled Usage**

Total water (recycled + potable) used this reporting period remained historically low. During the 2021/2022 reporting period, the throughput of the plant increased to 9.0Mtpa, with a resulting increase in water demand from 294ML in 2020/2021 to 392 ML in 2021/2022, Figure 26 below. Potable water used at PKCT in the 2021/2022 period was significantly reduced (106ML) compared to the previous period (278ML), as Sydney Water resumed supply of TTE from its Coniston Water Treatment Plant after resolving issues that effectively stopped supply during most of 2020/2021.

Overall, the use of recycled water is considered a benefit to the environment in its provision of significant potable water savings. PKCT continues to look for water savings across its operations.

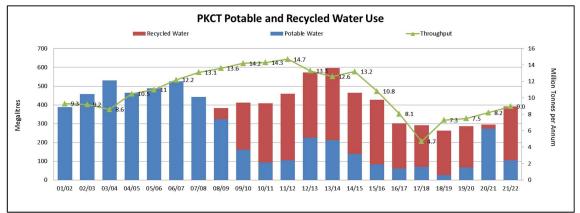


Figure 26: Trends in potable and recycled water use at PKCT

# 5.5.4. Surface Water – Activities Undertaken During 2021/2022 Reporting Period

A summary of the actions undertaken for the reporting period related to surface water is presented below.

- Investigation of processes for measuring the effectiveness of the flocculant and coagulant additions to the Settlement Pond - PKCT is currently undertaking a detailed engineering review for installing a proprietary control system for flocculant and coagulant dosing in water treatment and sediment capture applications. It is intended that the device will measure the settling rate in the system, which is then used to control flocculant dosing. The system takes samples and measures rate of settling using an optical sensor. Based on these measurements, the flocculant pump dose rate is varied to optimise sediment management. Should the sample settle too quickly, the flocculant dose rate is reduced. If the sample settles too slowly, the flocculant dose rate is increased.
- PKCT has initiated a project aimed at improving the site's surface water collection and treatment system. The project is assessing sediment movement across the site, and identifying opportunities to improve sediment



capture and removal at source and in "upstream" pits and ponds as early in the process as possible, leaving the operation of the "downstream" settlement lagoon to focus on water collection and treatment. The aim of the project is to improve the quality of water ultimately discharged from PKCT's Licenced Discharge Point (LDP16).

- A HMI system upgrade was completed in this reporting period which allowed for the inclusion of "Environmental Events" in order to better manage the existing "Super Critical" Alarms – i.e. Pond Overflows, Dosing System Faults, and Low Coal Moisture Events. Such Events have historically triggered alarms, but the upgrade will additionally create an Event in a database, allowing operators to record any samples taken, actions or other comments surrounding the event, without having to create the Event record manually.
- Continued sediment surveys and sediment removal as needed from the Central Pond and others on an increased frequency has helped to minimise the volume of sediment being transferred across to the Settlement Lagoon which in turn has helped to manage the quality of discharged water through LDP16.
- The lease surrender of the southern portion of PKCT to the AIE LNG Project required design and installation of two new sediment capture ponds on the site. The two new ponds named "TS8 Sump" and "South Eastern Pond" have been built at the southern end of the new PKCT lease to contain and capture sediment and water for initial settling prior to being transferred north into the existing PKCT contaminated water collection system. Both Ponds are operational and permanent pumps and electronic control systems have now been installed. See images below in Figure 27: TS8 Sump and Figure 28: South Eastern Pond below.



Figure 27: TS8 Sump





#### Figure 28: South Eastern Pond

Improvements to Contaminated Water Collection & Treatment (CWCT) system – following a review of
operations of the CWCT System at the sedimentation ponds, it was determined that the systems operations
could be further secured by the inclusion of non-return valves on each line. The modifications were
completed and communicated to all operators.



Figure 29: Upgrade to CWCT System – Non-return valves fitted to TS1 and North Pond Pumps.

PKCT has historically had problems with algal blooms in one of the settlement ponds since the introduction of
recycled water in 2009. Elevated algal counts have the potential to add TSS to our discharge water and in high
levels potentially exceed our licence conditions. PKCT engaged a specialist to assist in this space and
subsequently undertook a trial in the Settlement Lagoon of an algal control product called Biostim. The trial
demonstrated a reduction in the extent and number of algal blooms occurring in the Lagoon, reducing the
likelihood of potential Licence exceedances. The use of these natural (non-toxic) products has now been
adopted within PKCT's pond management practices. See Figure 30 below.





Figure 30: Biostim Powder satchel used to control algal blooms.

#### 5.5.5. Surface Water - Activities Planned for 2022/2023 Reporting Period

PKCT will continue to utilise the existing tools and measures to ensure non-compliances are avoided. The following activities are planned to improve surface water management in the next reporting period:

- Continue to identify and implement opportunities for improvement related to surface water at PKCT as they arise.
- During 2022/2023, PKCT will initiate an investigation into the potential for developing an Onsite Water Reuse Recirculation Program. Water managed through PKCT's surface water control system is not currently reused, and is instead discharged through its licenced discharge point. This water includes a mixture of the tertiary treated effluent (TTE) recycled water that is used on site (from Sydney Water), stormwater runoff, and rainwater after capture and processing through the PKCT site. Hence it is a blended water of variable quality. At present the water treated before discharge, however, in principle, the water in the lagoon could be recirculated to the storage tank for onsite reuse. This project will assess water quality as a result of recycling, and determine what additional monitoring and water management practices will be required to make the project viable.

# 5.6. Biodiversity

#### 5.6.1. Biodiversity Standards and Performance Measures

#### Green and Golden Bell Frog Management Plan

- 14. The Proponent shall prepare and implement a Green and Golden Bell Frog Management Plan for the project to the satisfaction of the Director-General. This program must:
  - (a) be developed in consultation with DECC; and
  - (b) be submitted to the Director-General for approval within 12 months from the date of this approval, or as otherwise agreed by the Director-General.

#### 5.6.2. Biodiversity Monitoring

#### 5.6.2.1. Biodiversity Monitoring, Results and Compliance

A Green and Golden Bell Frog Management Plan MP.HS.109 (GGBFMP) is implemented, in operation and DPI&E approved. The GGBFMP has been developed in consultation with the EPA, and PKCT is continuing to work closely with the authority as matters arise. Actions include:

- Maintenance and monitoring by Wollongong City Council of its Greenhouse Park frog ponds.
- Periodic surveys involving an expert consultant. Surveys to include PKCT premises and Wollongong City Council's greenhouse Park frog ponds.



- Monitoring and reporting by site personnel as part of site operations.
- Ongoing awareness for site personnel through inductions and site communications.

## 5.6.3. Trends in Biodiversity

PKCT undertakes GGBF surveys and records all sightings in a register. PKCT personnel have not identified any GGBF during normal operations or as a result of focused surveys since 2011. Figure 31below shows the trend in GGBF sightings at PKCT back to the 2007/2008 financial year.

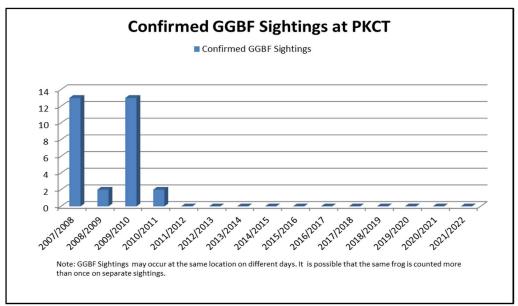


Figure 31: GGBF sightings at PKCT

# 5.6.4. Biodiversity – Activities Undertaken During 2021/2022 Reporting Period

A summary of the actions undertaken for the reporting period related to biodiversity is presented below.

- PKCT undertook a GGBF survey on the14<sup>th</sup> March 2022. The survey was supervised by an expert consultant, with assistance provided by the PKCT Environmental Specialist. The survey confirmed that GGBFs are not currently present on site. The Peron's Tree Frog and the Striped Marsh Frog were the only species of frog found on site during the survey.
- Workers at PKCT are instructed to report and record any GGBF (or other frog) sightings throughout the year. Any frog sightings are recorded in a site database. No GGBFs were identified by the PKCT site personnel in the reporting period. A number of Peron's Tree frogs were identified in various locations by the workforce during the year.

# 5.6.5. Biodiversity - Activities Planned for 2022/2023 Reporting Period

PKCT will continue to ensure that the biodiversity standards and performance measures are considered during any planning for future restoration and improvement works. A summary of the planned actions for the 2022/2023 reporting period related to biodiversity is presented below.

- Continued monitoring for GGBF populations at PKCT during site operations
- Undertake further surveys annually or when deemed necessary.



# 5.7. Visual Amenity

# 5.7.1. Visual Amenity Standards and Performance Measures

#### Lighting Emissions

- 15. The Proponent shall:
  - (a) ensure no external lights shine above the horizontal;
  - (b) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 Control of Obtrusive Effects of Outdoor Lighting, or its latest version, and
  - (c) take all reasonable and feasible measures to mitigate off-site lighting impacts from the project
  - to the satisfaction of the Director-General.

#### Landscape Management Plan

- 16. The Proponent shall prepare and implement a Landscape Management Plan to the satisfaction of the Director-General. This Plan must:
  - (a) be submitted to the Director-General for approval within 12 months of this approval, or as otherwise agreed by the Director-General; and
  - (b) include;
    - details of screening trees to be planted on the road receival earth bund and along the northern site boundary; and
    - o an implementation program.

## 5.7.2. Visual Amenity Monitoring

#### 5.7.2.1. Visual Amenity Monitoring, Results and Compliance

Lighting - A consultant, undertook a review of site lighting and assessment against the standard in 2011. A report of 4<sup>th</sup> October 2011 concluded that PKCT was compliant with AS 4282 and no evidence of any detrimental impact was found on residential areas.

PKCT has now completed a major restoration and compliance project on site. As part of the project, all new lighting complies with AS4282. Additionally, the project has generally used LED lighting and ensured light emission is either local to access and stairway areas or, elevated and directed towards the ground or stockpiles in other areas. The lights have been designed so that they are easily accessible allowing for quick adjustment if required.

Following the completion of the Upgrade Project and installation of the new yard machines, in December 2019 PKCT engaged a consultant to undertake a lighting audit of the site to confirm that the existing outdoor lighting system/s comply with Australian Standards AS/NZS 4282-2019. The audit concluded that there was no detrimental impact to residential areas, nor any significant areas of concern with the lighting systems on site.

Landscaping - PKCT's Landscape Management Plan MP.HS.470 (LMP) is in operation and DPI&E approved. This document includes details of proposed tree planting. Implementation is staged and processed through PKCT's project approval process.

PKCT utilises a landscaping contractor to maintain lawns and gardens and control weeds on site. Landscape contractor staff are trained in chemical application and use non-residual herbicides. All weed spraying undertaken considers prevailing weather conditions and locations, and PKCT is provided with a Weed Spraying Notification Form (WSNF) each time an herbicide is used on site. See Appendix E: Weed Spraying Notification Form for an example of a WSNF.



# 5.7.3. Trends in Visual Amenity

PKCT's lighting survey in 2011 and again in 2019 did not identify any offsite lighting impacts associated with the PKCT operation. There have been no recorded community complaints relating to lighting since PKCT commenced operations in 1990.

## 5.7.4. Visual Amenity – Activities Undertaken During 2021/2022Reporting Period

A summary of the actions undertaken for the reporting period related to visual amenity is presented below.

 PKCT's long-term Road Receival Landscaping Project was undertaken during January and February this 2019. This major landscaping project aimed at developing a visual screen for residents to the west of the terminal, shielding truck tipping activities through the planting of 600 trees and approximately 200 sedges on the adjacent berm. The trees planted were a mix of native trees, shrubs and sedges and will take around 3-5 years to become established, see Figure 32 and Figure 33 below for an update on the growth of the trees. In addition to the screening, as they grow, the trees will assist with dust reduction in the area.



Figure 32: Tree Planting - Northern Road Receival Berm 2019



Figure 33: Tree Plantings – Northern Road Receival Berm June 2022



• PKCT continued to manage the tree planting undertaken in June 2019 as part of the Administration Building Upgrade Project. Refer to Figure 34 below for an update on the growth of the garden.

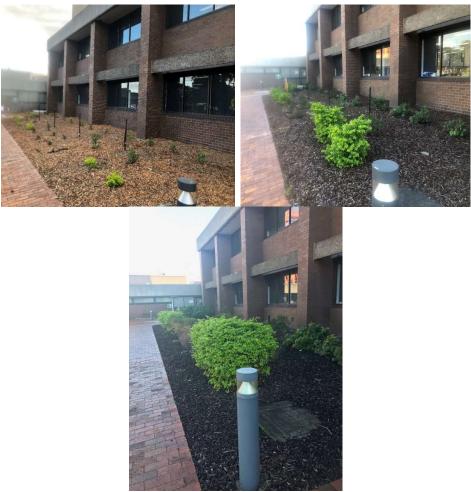


Figure 34: Main Administration Building landscaped gardens, June 2019, June 2020 and June 2022

• Ongoing maintenance of the landscaped area near the northern transfer station. The garden is now well established in this area, see Figure 35 below.



Figure 35: Landscaped area near Northern Transfer Station, June 2022



• All new lighting complies with AS4282 and is maintained to ensure minimise off-site impacts. There were no community complaints relating to lighting across the 2021/2022 reporting period.

## 5.7.5. Visual Amenity - Activities Planned for 2022/2023 Reporting Period

PKCT will continue to ensure that visual amenity and landscape management is maintained and included for consideration during any planning for future restoration and improvement works.

# 5.8. **Greenhouse and Energy Efficiency**

#### 5.8.1. Greenhouse and Energy Efficiency Standards and Performance Measures

#### **Operating Conditions**

17. The Proponent shall implement all reasonable and feasible measures to minimise:

- (a) energy use onsite; and
- (b) greenhouse gas emissions from the project
- to the satisfaction of the Director-General.

#### **Greenhouse and Energy Efficiency Plan**

- 18. Within 12 months of this approval or as otherwise agreed by the Director-General, the Proponent shall prepare and implement a Greenhouse and Energy Efficiency Plan for the project. This plan must:
  - (a) be prepared generally in accordance with the *Guidelines for Energy Savings Action Plans* (DEUS 2005, or its latest version);
  - (b) be submitted to the Director-General for approval;
  - (c) include a program to estimate/monitor greenhouse gas emissions and energy use generated by the project;
  - (d) include a framework for investigating and implementing measures to reduce greenhouse gas emissions and energy use at the project;
  - (e) describe how the performance of these measures would be monitored over time; and
  - (f) report on the project's greenhouse gas emissions and minimisation measures in the AEMR to the satisfaction of the Director-General.

#### 5.8.2. Greenhouse and Energy Efficiency Monitoring

#### 5.8.2.1. Greenhouse and Energy Efficiency Monitoring Methodology

In accordance with Condition 18, a Greenhouse Gas and Energy Efficiency Management Plan MP.HS.461 (GGEEMP) was included in the 0910 AEMR submission to DPI&E. It outlines the monitoring and management processes in place, including PKCT's Energy Savings Action Plan (Established under the Energy Administration (Water and Energy Savings) Act 2005), and regulated by EPA).

The GGEEMP remains in operation and is DPI&E approved.

In accordance with legal advice, PKCT, having operational control, is deemed to be the reporting entity under the referenced legislation. Accordingly, PKCT is currently under the reporting threshold.

A consultant was engaged to advise on applicable site activities and energy aspects and to develop a monitoring format. The format developed has been implemented. Though not reporting at this stage, PKCT is recording data and monitoring energy use and greenhouse gas generation. Figure 36 below outlines the volumes of reportable emissions from PKCT operations across the reporting period.



2021/2022 FY		А	В	С	D	E
(July-June)					Gigajoules	tonnes
		Amount				Reportable
	Reporting	consumed	Energy content (GJ	Emissions factor (kg	Reportable	emissions (tonnes
	unit	(reporting unit)	per reporting unit)	CO2-e per GI)	energy(GJ)	CO2-e)
Scope 1-direct emissions			_	_		
Diesel oil(transport)	kL	27	38.60	69.90	1038	73
Diesel oil (stationary energy)	kL	0	38.60	69.50	0	0
Biodiesel B20 (Transport)	k∟	0	30.88	69.51	0	0
Petrol (transport)	kL	8	34.20	69.60	267	19
Petroleumbasedoils	kL	0.62	38.80	27.90	24	1
Petroleumbasedgreases	kL	0.56	38.80	27.90	22	1
Acetylene	m8 *	0	0.0393	51.33	0	0
Scope 2-indirect emissions						
	Reporting		Energy content (GJ	Emissions factor (kg		
	unit		per kWh)	CO2-e per kWh)		
Electricity	k₩h	12,990,840	0.0036	0.83	46767	10782
Total					48117	10875
Threshold (as per 2021/2022)					100,000	25,000

Figure 36: Greenhouse gas report 2021/2022

#### 5.8.2.2. Greenhouse and Energy Efficiency Monitoring, Results and Compliance

Energy use is measured at PKCT on a monthly basis. Energy use generally follows the same trend as throughput at the site, i.e. when there is an increase in throughput, energy use also increases. Figure 37 below provides monthly energy consumption and tonnes (throughput) for the 2021/2022 reporting period, with month-to-month variation largely continuing to follow this expected correlation.

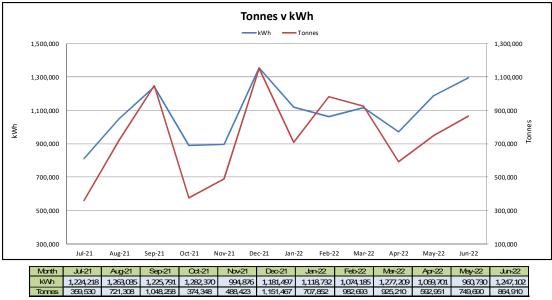


Figure 37: PKCT tonnes v kWh

#### 5.8.3. Trends in Energy Efficiency

PKCT measures energy efficiency against its baseline energy efficiency target of 1.655 kWh/tonne. This figure is calculated by dividing the energy used at the premises (kWh) by throughput (tonnes). The 2021/2022 reporting period saw three months where monthly kWh/tonne exceeded the baseline energy efficiency target, see Figure 38 below. These records correspond with lower than historical throughput across the reporting period. Overall, the site operated at an average monthly energy efficiency level of 1.57 kWh/tonnes for the 2021/2022 reporting period which is below the baseline energy efficiency target of 1.655kWh/tonne, reflecting a more efficient result as throughput at PKCT increases. PKCT will be at its most efficient when throughput is high.



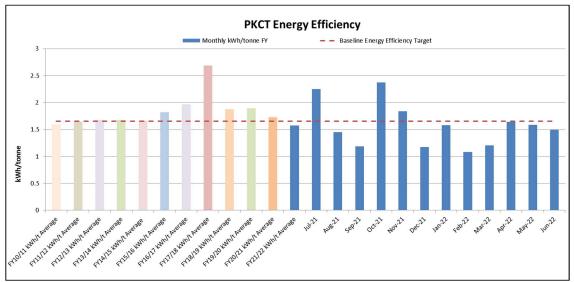


Figure 38: PKCT energy efficiency trends

PKCT monitors greenhouse gas generated by the site annually. At this stage, greenhouse gas emissions and reportable energy are below the legislated reporting thresholds, see Figure 36.

Reportable energy consumption and greenhouse emissions remain relatively low and well below reporting thresholds for this reporting period. Despite the small increasing trend in PKCT's throughput, there appears to be a slight reduction in Reportable Energy and GHG data for this reporting period at least. PKCT will continue to monitor this positive result. Figure 39 below shows these trends.

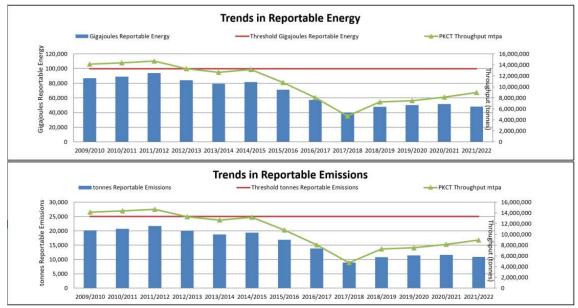


Figure 39: Trends in reportable energy and greenhouse gas emissions

# 5.8.4. Energy Efficiency – Activities Undertaken During 2021/2022 Reporting Period

A summary of the actions undertaken for the reporting period related to Energy Efficiency is presented below.

• PKCT continues to look for energy savings wherever possible. PKCT has revised the Greenhouse Gas and Energy Efficiency Management Plan and has reinstated the review group for the Energy Savings Action Plan.



 A maintenance program has been initiated in which energy efficient LED lighting is being installed across the plant as replacement of older units occurs

# 5.8.5. Energy Efficiency - Activities Planned for 2022/2023 Reporting Period

A summary of these actions planned for the 2022/2023 reporting period is presented below.

 PKCT will continue to ensure that energy efficiency is considered during any planning for future restoration works.

## 5.9. **Waste**

# 5.9.1. Waste Standards and Performance Measures

#### **Operating Conditions**

19. The Proponent shall:

- (a) monitor the amount of waste generated by the project;
- (b) investigate ways to minimise waste generated by the project;
- (c) implement reasonable and feasible measures to minimise waste generated by the project; and
- (d) report on waste management and minimisation in the AEMR to the satisfaction of the Director-General.

#### 5.9.2. Waste Monitoring

#### 5.9.2.1. Waste Monitoring Methodology

PKCT's Waste Management Plan MP.HS.460 (WSMP) was submitted to DPI&E with the 0910 AEMR. The plan is in operation. The WSMP contains waste monitoring, assessment, reporting, and mitigation and management provisions to ensure necessary actions are undertaken and that waste from PKCT premises comply with the criteria in the condition above.

The objectives of the WSMP are to:

- Identify waste streams from PKCT normal operations.
- Review waste streams to identify opportunities to reduce waste generation.
- Categorise identified waste streams into reuse, recycle, recovery or disposal.
- Provide a framework for managing waste and educating staff to reduce disposal.
- Provide methodology for waste handling to ensure implementation of framework.
- Ensure availability of waste related data for the PKCT AEMR.
- Monitor the success of the WSMP and continually improve it based on results
- Ensure suitable PKCT Managerial review of the waste management process leading to consideration and/or implementation of suitable improvement opportunities.

#### 5.9.2.2. Waste Monitoring Results and Compliance 2021/2022

PKCT records and tracks waste as it is generated across the site. Waste streams at PKCT are tracked via normal operations and through project specific operations.

General site waste is managed by a waste contractor on behalf of PKCT. An annual summary of the waste generated at PKCT across the reporting period is presented below in Figure 40



PORT KEMBLA COAL TERMINAL LIMITED (PKCT)	2.6	0.04	25.08	21.38	1.54	50.64	2.53	5.01%	8.23	16.3%

Figure 40: Waste Summary 2021/2022

#### 5.9.3. Trends in Waste

Figure 41 below shows trends in three different waste streams generated at PKCT; steel, general waste and cardboard. The 2021/2022 reporting period saw waste streams remaining low and relatively stable.

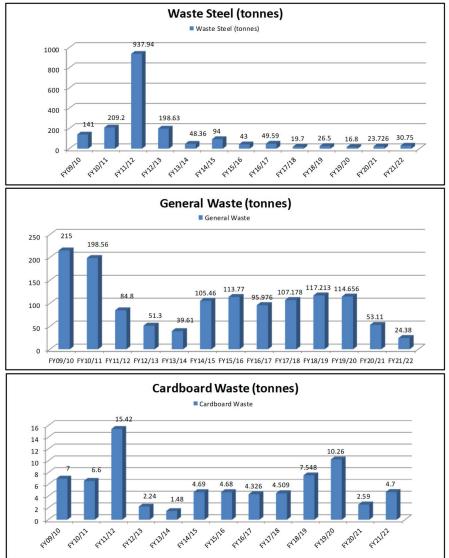


Figure 41: Waste Trends at PKCT

#### 5.9.4. Waste – Activities Undertaken During 2021/2022 Reporting Period

A summary of the actions undertaken for the 2021/2022 reporting period related to waste is presented below.

• In June 2021, PKCT installed an e-waste recycling bin on site which is proving successful and its operation continues. The bin is used as a common collection point for both PKCT business related e-waste as well as PKCT



personnel home generated e-waste. 95% of materials can be recovered from e-waste minimising the load on landfill. Greenacres Industries, who manage this waste recycling service, provide sustainable employment and training opportunities for people with disabilities within the Illawarra area.

# 5.9.5. Waste - Activities Planned for 2022/2023 Reporting Period

The waste related activities planned for the coming reporting period are outlined below.

- PKCT will undertake an annual review of the Waste Management Plan.
- PKCT will continue to identify areas of waste reduction across the operation.

# 5.10. Hazards

# 5.10.1. Hazards Standards and Performance Measures

#### Dangerous Goods

**20.** The Proponent shall ensure that storage, handling and transport of dangerous goods are done in accordance with the relevant *Australian Standards*, particularly *AS1940* and *AS1596*, and the *Dangerous Goods Code*.

#### 5.10.2. Hazards Monitoring

#### 5.10.2.1. Hazards Monitoring, Results and Compliance.

PKCT is aware of all dangerous goods onsite and ensures personnel are suitably trained to handle these. Any substances onsite are stored in accordance with AS1940 & AS1596.

PKCT utilises a proprietary chemical database system called ChemAlert to record information on chemicals at the site. Safety Data Sheets (SDS) and substance evaluation forms are available electronically from ChemAlert and PKCTs intranet systems.

Regular environmental auditing is undertaken at PKCT to ensure compliance with relevant standards.

PKCT continues to utilise a mobile refuelling system for its plant machinery and does not store any fuel on site. In February 2014, PKCT decommissioned the underground fuel storage tanks and completed remediation of the site.

# 5.11. Fire Control

#### 5.11.1. Fire Control Standards and Performance Measures

#### **Fire Control**

- 21. During the project, the Proponent shall:
- (a) ensure that it maintains suitable equipment to respond to any fires onsite; and
- (b) assist the fire and emergency services as much as possible if there is a fire onsite.
- 22. The Proponent shall ensure that it maintains a Fire Management Plan for the site.

#### 5.11.2. Hazards Monitoring

#### 5.11.2.1. Fire Control Monitoring, Results and Compliance.

PKCT has a Fire Management Plan MP.HS.459 (FMP) in place, which outlines the processes in place pertaining to fire management associated with the PKCT operations.

#### 5.11.3. Fire Control – Activities Undertaken During 2021/2022 Reporting Period



There were no reportable fires associated with the PKCT operation across the reporting period.

A summary of further activities undertaken associated with fire control across the reporting period is presented below:

• Ongoing servicing and compliance checks of fire-fighting systems in line with relevant standards, is undertaken by certified external service providers.

## 5.11.4. Fire Control - Activities Planned for 2022/2023 Reporting Period

PKCT will continue to utilise its FMP and ensure it complies with the stipulated fire control standards and performance measures.

• PKCT will continue to ensure ongoing servicing and compliance checks of fire-fighting systems remain in line with relevant standards and checks are undertaken by certified external service providers.

## 5.12. Community

#### 5.12.1. Community Engagement Activities

PKCT continues to utilise its Community Consultative Committee (CCC) as a forum for updating the community on its operations and receiving and providing feedback from/to local residents. A summary of the information presented to the PKCT CCC during the reporting period is presented below in Figure 42.

PKCT CCC meeting presentations can b	e found on the PKCT webs	e, <u>www.pkct.com.au</u> .
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Meeting Date	Presented Information
21 <sup>st</sup> May 2021	The number and frequency of face to face community meetings has been impacted by COVID restrictions and concerns. PKCT intend to reinstate a schedule of meetings once COVID concerns ease. At the last meeting, information covering PKCT Operational update, environmental compliance for air and water quality, recent environmental improvements, general business. Site Inspection of new pond and pump locations following AIE lease transfer.

Figure 42: PKCT CCC Meetings

#### 5.12.2. Community Contributions

PKCT continues to support the Port Kembla Branch of the Mission to Seafarers. In the 2021/2022 reporting period, PKCT donated \$5,000 to this community organisation.

PKCT also operates a "Win of the Month" program whereby members of the workforce who excel at work during the month are recognised and given the opportunity nominate their preferred charity to which the company then provides a donation.

#### 5.12.3. Community Complaints

PKCT continues to operate a website including a community hotline and contact email. Typically, any community complaints are received through our hotline. PKCT received two community complaints during the reporting period.

#### PKCT Event - 2/9/2021 - Dust on Springhill road reported

PKCT was contacted about road dust impacting personnel working at the COVID-19 testing station at J.J. Kelly Park. Two road sweepers were mobilised to assist with cleaning the area. No further concerns were raised.



#### PKCT Event - 20/1/2022 - Community complaint - dust and odours in local area

PKCT responded to an enquiry from a Wollongong resident who complained about dust and odours thought to be emanating from the PKCT site. The resident also raised the issue with the EPA.

In email exchanges the resident described the odour as foul smelling, having a 'rotten egg' smell. The odour issue was investigated and it was concluded that it was not PKCT related. There are no processes undertaken at PKCT that would generated such an odour. The resident was advised by PKCT (and the EPA), that the odour would most likely be from another site.

The resident was provided with the appropriate PKCT contact details, however no further issues were raised.

Any complaints received by PKCT are captured within PKCT's Event Management System for action tracking. A summary of community complaints by type as received over the past 10 years is presented below in Figure 43.

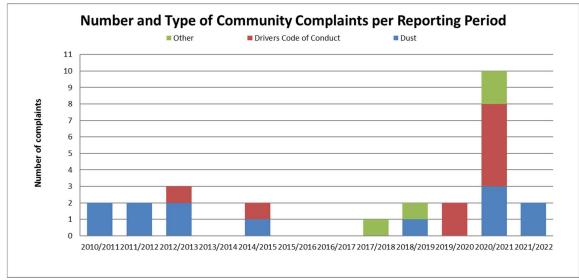


Figure 43: Community Complaints Summary



# 6. ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING

# 6.1. Environmental Management Performance Measures and Compliance

Environmental Management (Schedule 4, Condition 1)	Relevant section of PKCT EMS				
The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must:	Refer to the PKCT EMS				
a) be submitted to the Director-General for approval within 12 months of this project approval or otherwise agreed by the Director-General	EMS was submitted to the DPI&E with eth 2009/2010 AEMR by the due date of 31 <sup>st</sup> July 2010				
b) provide for the strategic context for the environmental management of the project;	Refer to Section 5				
c) identify the statutory requirements that apply to the project;	Refer to Section 6				
<ul> <li>d) describe the procedures that would be implemented to:</li> <li>keep the local community and relevant agencies informed about the operation and environmental performance of the project</li> <li>receive, handle, respond to, and record complaints;</li> <li>resolve any disputes that may arise during the course of the project;</li> <li>respond to any non-compliance;</li> <li>manage cumulative impacts; and</li> <li>respond to emergencies;</li> </ul>	Refer to Section 11 Refer to Section 11 Refer to Section 11.3 Refer to Section 7.6 Refer to Section 7.3 Refer to Section 8.1				
<ul> <li>e) include an environmental monitoring program for the project that includes all the monitoring requirements of the approval;</li> </ul>	Refer to Section 9				
f) describe how the various incident and approval reporting requirements of the project would be integrated into a single reporting system; and Refer to Section 9					
a) describe the role, responsibility, authority and accountability of all the key personnel involved in the environmental management of the project.	a) describe the role, responsibility, authority and accountability of all the key Refer to Section 4				

Figure 44: EMS compliance in the AEMR

PKCT has in place an approved Environmental Management Strategy (EMS). The EMS was submitted with the 2009/2010 AEMR to the DPI&E. The EMS details how PKCT complies which each line item of Schedule 4, Condition 1, Environmental Management of Project Approval 08\_0009. Figure 44 above references the specific EMS Sections that PKCT utilises for compliance with Schedule 4, Condition 1.

# 6.2. Reporting - Incident Reporting

#### Incident Reporting

- 2. Within 24 hours of detecting the occurrence of an incident that causes (or may cause) material harm to the environment, the Proponent shall notify the Department and other relevant agencies of the incident.
- 3. Within 21 days of notifying the Department and other relevant agencies of such an incident, the Proponent shall provide the Department and these agencies with a written report that:
  - a) Describes the date, time, and nature of the incident;
  - b) Identifies the cause (or likely cause) of the incident
  - c) Describes what action has been taken to date: and
  - d) Describes the proposed measures to address the incident.

Requirements associated with Schedule 4, Conditions 2 and 3 are referenced in PKCT's EMS and Event Management Procedure. There were no reportable incidents of "material harm" across the 2021/2022 reporting period. PKCT's Pollution Incident Response Management Plan was not activated during the period.



# 6.3. Reporting - Annual Reporting

#### **Annual Reporting**

- 4. Within 12 months of this approval, and annually thereafter, the Proponent shall submit and AEMR to the Director-General and all relevant agencies. This report must:
  - a) Identify the standards and performance measures that apply to the project
  - b) Describe the works carried out in the last 12 months;
  - c) Describe the works planned to be carried out in the next 12 months;
  - d) Include a summary of the complaints received during the past year; and compare this to complaints received in the previous years;
  - e) Include a summary of the monitoring results for the project during the past year;
  - f) Include an analysis of these monitoring results against the relevant:
    - Impact assessment criteria/limits;
    - Monitoring results from previous years; and
    - Predictions in the EA or other documents listed in condition 2 of schedule 2;
  - g) Identify and discuss all exceedances of approval and licence conditions and other applicable standards and performance measures;
  - h) Identify any trends in the monitoring results over the life of the project;
  - i) Identify any non-compliance during the previous year; and
  - j) Describe what actions were, or are being, taken to ensure compliance.

Following feedback from the DPI&E on the format of the 2012/2013 AEMR, PKCT revised the structure of the 2013/2014 AEMR to better align with the requirements of Schedule 4, Condition 4. Feedback following submission of the 2015/2016 AEMR requested additional inclusions to be added to the 2016/2017 AEMR. These additional inclusions were to:

- Add a map showing the regional context;
- Include a summary of any community engagement activities and contributions; and
- Detail (i.e. subject, timing or location) of any complaints over the previous reporting periods for the purpose of trend analysis.

Each of these additional components remain included within this AEMR.

There were no further requests from the DPI&E to change the formatting of the 2016/2017 report and this currently remains the standard for subsequent reports.

# 6.4. Independent Environmental Audit

#### Independent Environmental Audit

- 5. By 31 March 2011 and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an independent Environmental Audit of the Project. This audit must:
- a) Be conducted by a suitable qualified, experienced, and independent team of experts whose appointment has been endorsed by the Director-General;
- b) Include consultation with the relevant agencies;
- c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL (Including any strategy, plan or program required under these approvals); and
- review the adequacy of strategies, plans and/or programs required under these approvals; and, if appropriate
   recommend measures or actions to improve the environmental performance of the project, and/or any strategy
- e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals.

Note: This audit team should be led by a suitably qualified auditor, and include experts in the field of noise, air quality, and traffic management.

- 6. Within 6 weeks of completing this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General with a response to any recommendations contained in the audit report.
- 7. Within 3 months of submitting the audit report to the Director-General, the Proponent shall review and if necessary revise the strategies/plans/programs required under this approval, to the satisfaction of the Director-General.

The Triennial Audit was last conducted in 2020, and all actions and observations have been closed out and detailed in previous AEMR reports. The next Triennial Audit is scheduled for completion in 2023.



During the reporting period, PKCT underwent an external audit on its ISO14001 accreditation, with no major noncompliances identified. Minor improvement opportunities were agreed and will be progressed through PKCTs internal review processes.

It should be noted that as a measure of the maturity and application of PKCT's Environmental Management Systems, the external auditors have recommended that the frequency of surveillance audits be extended out from the current 6 monthly audits to an annual schedule for ISO14001 accreditation.

# 6.5. Access to Information

Access to Information

- 8. Within 3 months of the approval of any strategy/plan/program required under this approval (or any subsequent revision of these strategies/plans/programs), or the completion of the audits or AEMR, required under this approval, the Proponent shall:
  - a) provide a copy of the relevant document/s to the relevant agencies
  - b) place a copy of the document/s on its website; and
  - c) remove superseded copies of strategies/plans/programs from its website.
- During the project, the Proponent shall:

   a) make a summary of monitoring results required under this approval publically available on its website; and
  - b) Update these results on a regular basis (at least every 6 months).

As a result of the AIE LNG Project changing the operational area of PKCT, PKCT reviewed all Management Plans associated with the Project during the reporting period. All Plans were approved by the DPI&E and are available publically at <u>www.pkct.com.au</u>.

As required under Condition 9, PKCT makes a summary of its monitoring results publicly available on its website. Monthly monitoring results along with historical PKCT AEMR's can be found on <u>www.pkct.com.au</u>. Via letter dated 16<sup>th</sup> March 2017, the Department granted PKCT permission to cease continuation of the Interim EMR as it was deemed that that adequate environmental monitoring data was being made available via other reporting mechanisms (i.e. Annual Return and AEMR).



# 7. STATEMENT OF COMMITMENTS

PKCT prepared and submitted a Statement of Commitments as part of the Environmental Assessment submitted to the DPI&E for the 08\_0009 Major Project Application. The DPI&E accepted these commitments and they now form "Appendix 2" of the Approval.

PKCT's compliance with these commitments across the 2021/2022 reporting period is outlined in the following sections.

# 7.1. Statement of Commitments -Traffic and Transportation

Objective	Commitment
<ul> <li>Transport of coal and bulk products to PKCT to be conducted in a manner which does not adversely impa on public safety or amenity of road users.</li> <li>Safety standards to be maintained by trucks following designated routes procedures</li> <li>Internal PKCT roadways to be maintained to minimize coal and bulk products spillage and carry over onto public roadways.</li> </ul>	<ul> <li>Public road haulage of coal and bulk products to PKCT will not exceed 10 million tonnes per annum.</li> <li>Publication of annual throughput tonnes including inloading method (i.e. road and rail received coal and bulk products).</li> <li>All trucks delivering coal and bulk products to PKCT must follow designated heavy vehicle transport routes.</li> <li>A driver's code of conduct will be utilised for all transport companies delivering product to PKCT.</li> <li>Review effectiveness of truck wash facilities to be undertaken.</li> <li>Unless further or alternative Approval for NRE No 1 Colliery at Russell Vale is in place, PKCT will only receive coal from the NRE No 1 Colliery if that coal has been dispatched from that Colliery by public road between the hours of 7am to 10pm Monday to Friday and 8am to 6pm Saturday and Sunday or Public Holidays.</li> </ul>

A summary of actions undertaken across the 2021/2022 reporting period specific to this Statement of Commitments is presented below. Further details related to the Traffic and Transportation Statement of Commitments can be found under Section 5.2 of the AEMR.

- Coal throughput at PKCT and therefore road related transport remained at near long-term average levels this reporting period. Public road receivals for the reporting period were 5,066,038 tonnes.
- An AEMR is published on the PKCT website every 12 months, making throughput records publicly available.
- PKCT and its associated road transport providers utilise an auditing program to ensure compliance with the PKCT DCC. This includes monitoring of trucks adherence to the specified travel routes.
- PKCT receives monthly DCC compliance reports from its transport providers who provide coal haulage for Wollongong Coal when operating. Wollongong Coal must ensure that coal is dispatched within the designated dispatch hours. The reports highlight any breaches to the designated dispatch hours. No coal was delivered to PKCT from Wollongong Coal via Road this reporting period. No breaches were reported to PKCT as a result, or observed in the 2021/2022 reporting period.

# 7.2. Statement of Commitments -Air Quality

Objective	Commitment		
<ul> <li>Minimise dust emissions from activities carried out on the PKCT site.</li> </ul>	<ul> <li>Installation of two continuous dust monitors to monitor airborne dust emissions.</li> <li>Maintain appropriate dust suppression systems on site to effectively manage dust both on stockpiles and roadways.</li> </ul>		



A summary of actions undertaken across the 2021/2022 reporting period specific to this Statement of Commitments is presented below. Further details related to the Air Quality Statement of Commitments are found under section Air Quality –Activities Undertaken During 2021/2022 Reporting Period.

• PKCT has a preventative maintenance system in place (Works and Assets) which provides for the routine inspection and maintenance of environmental equipment including existing dust suppressions systems, stockpile sprays, truck wash and water cart. Operations shift teams monitor and operate the equipment and, where necessary, provide a breakdown response. Contractors maintain and calibrate our real time dust monitors on a monthly basis in line with the manufacturers' requirements.

# 7.3. Statement of Commitments - Water Management

Objective	Commitment		
<ul> <li>Minimise use of potable water on site.</li> <li>Effective management of on-site stormwater.</li> </ul>	• Reduction of freshwater use on site to be achieved through the implementation of recycled water (Tertiary Treated Effluent) for dust suppression on stockpiles and other non-domestic uses e.g. fire, spillage wash-down, conveyor sprays. Staged approach to be implemented which will result in a 360 Megalitre per annum reduction by the end of 2010.		

A summary of actions undertaken across the 2021/2022 reporting period specific to this Statement of Commitments is presented below. Further details related to the Water Management Statement of Commitments are found under Section Surface Water –Activities Undertaken During 2021/2022 Reporting Period of the AEMR.

• Recycled water use has continued at PKCT across the reporting period where possible. Supply issues from Sydney Water have been resolved, and the use of TTE has resumed at PKCT for dust suppression on stockpiles, fire protection, truck wash facilities, gardens and wash down equipment. A summary of volumes of potable and recycled water consumed are presented in Section Trends in Surface Water Monitoring.

# 7.4. Statement of Commitments - Noise Management

Objective	Commitment
<ul> <li>Responsible management of PKCT site operational noise.</li> </ul>	<ul> <li>Ensure that ongoing compliance is maintained to the NSW Industrial Noise policy.</li> <li>Development and implementation of a noise management plan for the PKCT site.</li> </ul>

By letter dated 16<sup>th</sup> March 2017, PKCT received formal notification from the Department that biannual noise monitoring could be discontinued. Subsequently, PKCT undertook no routine noise monitoring surveys across the reporting period. Further details related to the Noise Management Statement of Commitments are found under Section 5.1 of the AEMR.

- Notwithstanding there is no longer a requirement to undertake routine noise monitoring, on 26<sup>th</sup> November 2020, PKCT engaged a consultant to undertake a noise survey to re-confirm that noise levels, following installation of the new yard machines, remained within the required limits outlined in our Planning Approval 08\_0009. The results of the survey confirmed that levels remained below the threshold limits.
- PKCT continues to maintain and utilise Noise Management Plan MP.HS.387. The plan was reviewed during the reporting period as a result of the AIE lease transaction and subsequently approved by the Department. The plan is publically available on PKCT's website.

# 7.5. Statement of Commitments -Community Relations

Objective		Commitment		
•	PKCT to be regarded as a responsible corporate citizen by the community.	•	Continued operation of the PKCT Community Consultative Committee Continued advertisement and operation of the telephone hotline.	



A summary of actions undertaken across the 2021/2022 reporting period specific to this Statement of Commitments is presented below.

- PKCT utilises its Community Consultative Committee (CCC) as a forum for updating the community on its
  operations and receiving and providing feedback from local residents. With the continued presence of COVID
  in the community and associated lockdowns, PKCT held one face-to-face meeting within the reporting period
  on the 1<sup>st</sup> May 2021, with plans to resume as COVID concerns ease.
- PKCT received two community complaints associated with the operation during the reporting period. Details of these complaints are outlined under section Community Complaints.

PKCT continues to utilise its telephone hotline. The hotline and general contact details for the site are located on the PKCT website, <u>www.pkct.com.au</u>.

# 7.6. Statement of Commitments – Environmental monitoring

Objective	Commitment		
<ul> <li>To ensure compliance to the conditions of PKCT's</li></ul>	<ul> <li>Development and implementation of a management plan</li></ul>		
Department of the Environment and Climate Change	which documents the environmental monitoring		
licence.	requirement of PKCT.		

PKCT has in place Environmental Monitoring Strategy MP.HS.464. The Strategy outlines the various monitoring requirements together with references to applicable management plans. General descriptions of PKCT monitoring and monitoring methodology are found throughout the AEMR. Figure 45 below outlines the sections of the AEMR describing Environmental Monitoring.

Environmental Monitoring Area	Section of AEMR			
Noise	Section 5.1 Noise			
Transport	Section 5.2 Transport			
Air Quality	Section 5.3 Air Quality			
Meteorological	Section 5.4 Meteorological			
Surface Water	Section 5.5 Surface Water			
Biodiversity	Section 5.6 Biodiversity			
Visual Amenity	Section 5.7 Visual Amenity			
Greenhouse Gas and Energy Efficiency	Section 5.8 Greenhouse and Energy Efficiency			
Waste	Section 5.9 Waste			
Hazards	Section 5.10 Hazards			
Fire Control	Section 5.11 Fire Control			

Figure 45: Environmental monitoring area and reference in AEMR

# 7.7. Statement of Commitments – Environmental Management System

Ob	jective	Co	mmitment
•	PKCT to maintain certification o ISO 140001.	•	PKCT will continue to be certified to ISO 14001 and will be externally audited against the certification criteria on an annual basis.

A summary of actions undertaken across the 2021/2022 reporting period specific to this Statement of Commitments is presented below.

• PKCT has maintained its 6-monthly external surveillance audit schedule with no environmental noncompliances identified during the audits. Pleasingly, during the latest audit, the external auditors have recommended that the surveillance audit frequency can now be extended from 6 monthly to a 12 monthly



schedule. This is a reflection of the maturity and application of PKCTs sound environmental management systems. PKCT's ISO certification is included in Appendix G: ISO 14001 and 9001 Certificate.

• As previously reported, PKCT completed its triennial independent audit in August 2020. All actions have been completed, with the next audit planned for 2023.

# 7.8. Statement of Commitments – Greenhouse Gases

C	Dbjective	Commitment
•	Minimise the production of greenhouse gas emissions associated with PKCT operations	<ul> <li>PKCT to review onsite electricity use and identify and implement economically viable opportunities for reduced electricity usage.</li> </ul>

PKCT undertook a greenhouse gas emission and energy use assessment of the Terminal following the Major Project Approval. The report found that PKCT's use of electricity for powering coal handling infrastructure is by far the largest energy user. As a result, 97% of PKCT GHG emissions are Scope 2 emissions associated with electricity generated by power stations.

Opportunities for energy reduction are pursued when purchasing new equipment and considered when developing improvements.

Further details related to the Greenhouse Gas and Energy Efficiency Statement of Commitments can be found under Section 5.8.

# 7.9. Statement of Commitments – Landscaping

C	Dbjective	Commitment
•	Improve the visual amenity of PKCT on the surrounding community.	Improve onsite soft landscaping through the planting of trees on the road receival earth bund and along the northern site boundary.

With reference to the Landscape Management Plan MP.HS.460 (LMP), PKCT has developed a Landscape Concept Plan along the northern boundary. During this reporting period, maintenance of Stage 2 has continued and the area is now well established, see Figure 35.

The nature and timing of further landscaping works requires consideration of major remedial works in development and PKCT's strategic planning to ensure their compatibility. PKCT has continued to maintain the landscaped areas along the truck wash berm that were planted 2018/2019 reporting period. Refer to Section Biodiversity –Activities Undertaken During 2021/2022 Reporting Period for growth progress of these plantings.

# 7.10. Statement of Commitments – Flora and Fauna

Objective		Commitment				
•	Management of Green and Golden Bell Frogs (GGBF)	••	Implement Interim Management Plan Undertake a GGBF Survey and then develop a Long Term Plan of Management.			

A Green and Golden Bell Frog Management Plan MP.HS.109 (GGBFMP) is in place. It was developed in consultation with the EPA and is DPI&E approved.

A GGBF survey was undertaken by specialist consultants in March 2022. No GGBF's were found on site.

Further details related to the Flora and Fauna Statement of Commitments can be found under Biodiversity – Activities Undertaken During 2021/2022 Reporting Period.



# 7.11. Statement of Commitments – Waste

Ot	Objective		Commitment					
•	Minimise waste generated at the site to reduce the volume of waste requiring disposal to landfill. Prevent dispersal of waste from the site to receiving environments.	•	Develop a Waste Management Plan for the site.					

PKCT has a Waste Management Plan MP.HS.459 (WSMP) which identifies the various waste streams generated at PKCT. The Plan outlines the methods used to minimise waste via reuse, recycling and suitable disposal of waste when necessary.

Further details related to the Waste Statement of Commitments are found under Section Waste – Activities Undertaken During 2021/2022 Reporting Period.

# 8. ENVIRONMENTAL PROTECTION LICENCE 1625

PKCT holds EPL 1625 under the Protection of the Environment Operations Act 1997. This stipulates the emission criteria that PKCT must not exceed. Criteria are outlined for water, noise and dust. Pollution Reduction Programs (PRPs) are attached to the EPL to identify aspects which may require improvement.

PKCT is required to submit an Annual Return to the EPA reporting performance against licence requirements. The 2021/2022 Annual Return was submitted to the EPA via the online EPA "eConnect" system on the 30<sup>th</sup> May 2022. As the specific criteria for water, noise and dust are common to both the EPL and Project Approval 08\_0009, all data and discussion associated with these criteria are outlined in other sections of the AEMR.

Figure 46 below provides a summary of the EPL conditions, Project Approval 08\_0009 requirements and the section of the AEMR that discusses the criteria.

Component	Reference area in Project Approval 09_0009	Reference area in EPL 1625	Relevant Section of AEMR
Noise	Schedule 3, Condition 1, Condition 2 and Condition 3.	Limit Condition L4, L4.1	Section 5.1 Noise
Air	Schedule 3, Condition 7, Condition 8, Condition 9 and Condition 10.	Monitoring and Recording Conditions M2, M2.1, M2.2	Section 5.3 Air Quality
Water	Schedule 3, Condition 12 and Condition 13.	Limit Condition L2, L2.1, L2.2, L2.3, L2.4 And Monitoring and Recording Condition M2.3.	Section 5.5 Surface Water

Figure 46: Common Requirements of Project Approval 08\_0009 and EPL1625

# 8.1. Other EPL Matters in the 2021/2022 Reporting Period

- As part of incident preparedness, the site management team conducted an "Incident Management Team" desktop exercise during the reporting period. The EPL's PIRMP requirements were incorporated into the desktop approach.
- PKCT engaged a consultant to facilitate practical and theoretical training on use of spill kits on site. The sessions were held with all operations teams and were concluded at the start of this reporting period.
- As required in our EPL 1625, PKCT has continued to update its website with monthly monitoring data summaries throughout the reporting period, see <u>www.pkct.com.au</u>.



During the reporting period, PKCT submitted an Annual Return as required under its Environmental Protection Licence (EPL). The EPL reporting period is different to the AMER Reporting Period being the period from 1st April 2020 to 31st March 2021.

No non-compliances to PKCT's EPL licence conditions were reported within the Annual Return.

# 9. RESULTS COMPARED TO THE ENVIRONMENTAL ASSESSMENT 2008

An environmental assessment was undertaken as part of PKCT's application associated with Project Approval 08\_0009 and submitted to the DPE in a report titled "Environmental Assessment- Existing Operations and increased Road Receival Hours for Port Kembla Coal Terminal 2008" (EA).

This EA focussed on the key environmental issues of PKCT proposal to increase road deliveries to 24/7 for a maximum of 10mtpa. It has also addressed secondary environmental issues to ensure there was a rigorous review of PKCT's existing and proposed operations. It showed that existing and proposed PKCT operations have a small environmental footprint, which is minimised through existing environmental impact mitigation measures. The assessment included predictions for environmental aspects such as noise and dust.

Monitoring results obtained over the 2021/2022 reporting period align with predictions made in the EA. Traffic and noise studies undertaken associated with PKCT's application to the DPE for 7.5 MTPA to 10 MTPA approval also aligned.

Air quality monitoring results are compared to the predictions of the EA in section 5.3 of the AEMR.

# **10. COMPLAINTS**

Schedule 4, Condition 4d requires PKCT to include a summary of the complaints received during the past year and compare this to complaints received in previous years. Figure 47 shown below, provides a summary of complaints recorded at PKCT and reported to PKCT by road transport providers.

PKCT received two community complaints associated with the operation during the reporting period. Details of these complaints are outlined under section Community Complaints.

As can be seen in Figure 47, total complaints made to PKCT have remained relatively consistent at a low level since FY14/15. A. PKCT continues to record all complaints in its Event Management System and responds appropriately when a complaint is received. PKCT continues to work with its shippers and road transport providers to ensure complaints are recorded and handled appropriately.

			Number c	of Complair	nts recorde	d by PKCT		
Complaints	FY14/15	FY15/16	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22
General (PKCT)	2	0	0	1	2	0	5	2
Drivers Code of Conduct								
related	3	0	0	0	0	2	5	0
Total	5	0	0	1	2	2	10	2

Figure 47: PKCT and DCC complaints.



# **11. CONCLUSION**

This Annual Environmental Management Report (AEMR) identifies PKCT's approval and licence conditions and explains how PKCT complies with these requirements. It meets the specific AEMR requirements in Major Project Approval 08\_0009 Condition 4 of Schedule 4.

This AEMR demonstrates that PKCT has undertaken appropriate actions to manage its environmental impacts with the overall aim of minimising harm to the environment. This report forms part of PKCT's environmental management system which is directed by PKCT's Environmental Management Strategy. PKCT provides this AEMR to the DPI&E and other stakeholders using information taken from environmental monitoring, assessment and reporting activities undertaken on a regular basis through the reporting period.

This AEMR does not raise any concerns regarding the ongoing ability of PKCT to comply with environmental requirements in the Major Project Approval, Environment Protection Licence 1625 and other regulatory requirements. Further, this AEMR confirms PKCT's commitment to continual improvement in the mitigation of environmental impacts.



# 11.1. Appendix A: Drivers Code of Conduct Summary

Monthly Reports Summary FY 21/22	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	FY21/22 Total	Comment
Tonnes - Public Road	157,790	247,180	346,842	311,385	252,128	203,908	173,474	153,248	231,897	265,496	385, 150	372,822	3,101,320	
Tonnes - Private Road	190,896	203,318	157,795	41,558	34,023	169,583	222,488	222,061	172,472	228,923	115,240	206,361	1,964,718	
Total road tonnes	348,686	450,498	504,637	352,943	286,151	373,491	395,962	375,309	404,369	494,419	500,390	579,183	5,066,038	
Spillage - Public Road	0	0	0	0	0	0	0	0	0	0	0	0	1 ()	No spills reported by shippers or road transport providers
Incident - Other	0	0	0	0	0	0	0	1	0	0	1	0	2	
Impact with other vehicle	0	0	0	0	0	0	0	0	0	0	0	0	0	
Incidents Reported to RTA	0	0	0	0	0	0	0	0	0	0	0	0	0	
Complaints	0	0	0	0	0	0	0	0	0	0	0	0	0	Note: complaints related to DCC only
EPL/ regulatory breaches	0	0	0	0	0	0	0	0	0	0	0	0	0	
Inductions (%)	100	100	100	100	100	100	100	100	100	100	100	100	100	
Hours restrictions breach	n/a	n/a	n/a											
Road Transport Providers (RTP): Observations	258	134	253	187	197	42	36	2	0	2	142	42	1,295	
CTO / Audits at mine sites, at PKCT and on route to PKCT (Shippers & PKCT)														Includes data from Shippers and PKCT (via PKCT lAuditor)
RIP system audits														Onlyone transport company delivering by road this FY.



## 11.2. Appendix B: Consultant Dust Data Summary

Table 9 Exceedances of the 24-hour average TSP trigger level of 90 μg/m<sup>3</sup> at the northern PKCT monitoring site during the July 2021 to June 2022 reporting period

Date of	24-hour average TSP	Likelihood of PKCT contributing to	Percentage (%) of winds from direction of PKCT	Contribution 24-ho	of PKCT to our concentr	Wind speed (m/s) <sup>c</sup>		
exceedance	concentration (µg/m³)	exceedance levels <sup>a</sup>	(south) during period	µg/m³	%	Rating	Maximum	Average
17 January 2022	102.4	Unlikely	14.6	See table	note d	None	3.6	1.6

Table notes:

a Identified using scatter plots of 10-minute average TSP concentration versus wind direction and wind speed

<u>Identified</u> using scatter plots, percentage of winds from direction of PKCT (south) during exceedance period, and comparison of northern and southern TSP concentrations over periods when the wind is from the south. Contribution based on percentage of total 24-hour average TSP concentration (0% = no contribution, 0-10% = minimal, 10-30% = minor, 30-70% = moderate, >70% = major)
<u>Maximum</u> and average 10-minute average wind speed recorded at the northern PKCT monitoring site during 24-hour exceedance period

d Ear this exceedance day the pollutant concentration decreased on average during periods when the wind passed from the south over the PKCT site

# Table 10 Exceedances of the 24-hour average PM<sub>10</sub> air quality standard of 50 µg/m<sup>3</sup> at the northern PKCT monitoring site during the July 2021 to June 2022 reporting period

Date of exceedance	24-hour average PM <sub>10</sub>	Likelihood of PKCT contributing to	Percentage (%) of winds from direction of PKCT		n of PKCT to th our concentrat		Wind spe	ed (m/s) <sup>c</sup>
	concentration (µg/m³) exceedance levels <sup>a</sup> (south) during period		µg/m³	%	Rating	Maximum	Average	
17 January 2022	73.5	Unlikely	14.6	See table note d		None	3.6	1.6

Table note:

a Identified using scatter plots of 10-minute average PM<sub>10</sub> concentration versus wind direction and wind speed

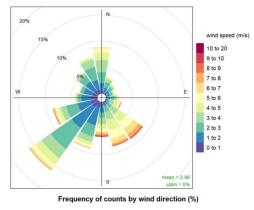
b Identified using scatter plots, percentage of winds from direction of PKCT (south) during exceedance period, and comparison of northern and southern PM<sub>10</sub> concentrations over periods when the wind is from the south. Contribution based on percentage of total 24-hour average PM<sub>10</sub> concentration (0% = no contribution, 0-10% = minimal, 10-30% = minor, 30-70% = moderate, >70% = major)

• Maximum and average 10-minute average wind speed recorded at the northern PKCT monitoring site during 24-hour exceedance period

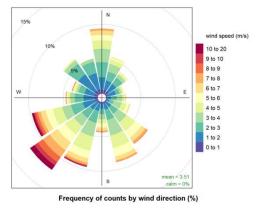
<u>For</u> this exceedance day the pollutant concentration decreased on average during periods when the wind passed from the south over the PKCT site



# 11.3. Appendix C: PKCT Annual Wind Summary



Wind rose for the 10-minute average winds recorded at PKCT northern monitoring site during the July 2021 to June 2022 period



Wind rose for the 10-minute average winds recorded at PKCT southern monitoring site during the July 2021 to June 2022 period



# 11.4. Appendix D: LDP16 Discharge Data Summary

	-	-			
Date	pH (pH Units)	TSS (mg/litre)	Oil and Grease (mg/litre)		
9/07/2021	6.3	7	Not Visible		
10/07/2021	7.6	13	Not Visible		
14/07/2021	7.4	5	Not Visible		
25/07/2021	7.5	7	Not Visible		
6/08/2021	6.9	15	Not Visible		
7/08/2021	7.0	14	Not Visible		
8/08/2021	6.3	11	Not Visible		
9/08/2021	6.8	8	Not Visible		
10/08/2021	7.7	6	Not Visible		
14/08/2021	7.5	7	Not Visible		
23/08/2021	7.7	6	Not Visible		
23/08/2021	7.7	6	Not Visible		
24/08/2021	6.7	<5	Not Visible		
26/08/2021	6.5	5	Not Visible		
25/08/2021	7.0	9	Not Visible		
27/08/2021	6.6	<5	Not Visible		
28/08/2021	7.8	12	Not Visible		
29/08/2021	7.7	12	Not Visible		
	7.3	8	Not Visible		
31/08/2021	7.3	8	Not Visible		
1/09/2021			Not Visible		
2/09/2021	8.0	<5 <5			
3/09/2021	6.9		Not Visible		
4/09/2021	7.2	<5	Not Visible		
5/09/2021	7.2	<5	Not Visible		
6/09/2021	7.3	<5	Not Visible		
7/09/2021	6.2	6	Not Visible		
8/09/2021	6.3	<5	Not Visible		
9/09/2021	7.2	<5	Not Visible		
14/09/2021	6.9	13	Not Visible		
15/09/2021	7.1	24	Not Visible		
16/09/2021	6.9	<5	Not Visible		
17/09/2021	6.4	<5	Not Visible		
18/09/2021	6.5	<5	Not Visible		
21/09/2021	6.1	<5	Not Visible		
22/09/2021	6.9	7	Not Visible		
23/09/2021	7.0	6	Not Visible		
28/09/2021	6.4	6	Not Visible		
12/10/2021	7.5	6	Not Visible		
14/10/2021	7.8	10	Not Visible		
15/10/2021	7.0	<5	Not Visible		
20/10/2021	6.7	7	Not Visible		
21/10/2021	6.5	5	Not Visible		
22/10/2021	6.4	10	Not Visible		
23/10/2021	7.8	9	Not Visible		
24/10/2021	7.6	7	Not Visible		
25/10/2021	7.5	7	Not Visible		
26/10/2021	6.3	11	Not Visible		
27/10/2021	7.7	19	Not Visible		
28/10/2021	7.1	18	Not Visible		
29/10/2021	7.8	16	Not Visible		
30/10/2021	8.5	24	Not Visible		
2/11/2021	9.3	29	Not Visible		
3/11/2021	6.7	24	Not Visible		
5/11/2021	7.9	<5	Not Visible		
7/11/2021	7.4	<5	Not Visible		
8/11/2021	7.7	<5	Not Visible		
6/11/2021	7.9	8	Not Visible		
9/11/2021	7.2	8	Not Visible		
10/11/2021	7.6	8	Not Visible		
12/11/2021	7.8	5	Not Visible		
11/11/2021	7.8	7	Not Visible		
13/11/2021	7.5	<5	Not Visible		
14/11/2021	7.6	<5	Not Visible		



Date	pH (pH Units)	TSS (mg/litre)	Oil and Grease (mg/litre)
16/11/2021	7.8	6	Not Visible
17/11/2021	7.5	<5	Not Visible
21/11/2021	7.9	10	Not Visible
22/11/2021	7.3	9	Not Visible
23/11/2021	7.2	10	Not Visible
24/11/2021	7.6	9	Not Visible
25/11/2021	7.7	10	Not Visible
26/11/2021	8.1	15	Not Visible
27/11/2021	7.8	11	Not Visible
28/11/2021	7.6	9	Not Visible
8/12/2021	6.8	9	Not Visible
9/12/2021	7.3	<5	Not Visible
10/12/2021	7.7	6	Not Visible
11/12/2021	6.6	6	Not Visible
12/12/2021	6.6	<5	Not Visible
13/12/2021	6.5	<5	Not Visible
13/12/2021	6.5	<5	Not Visible
16/12/2021	6.6	11	Not Visible
17/12/2021	7.9	10	Not Visible
20/12/2021	7.3	6	Not Visible
23/12/2021	7.6	8	Not Visible
24/12/2021	6.8	6	Not Visible
27/12/2021	7.2	6	Not Visible
28/12/2021	7.2	6	Not Visible
29/12/2021	7.2	6	Not Visible
6/01/2022	6.7	<5	Not Visible
7/01/2022	6.8	<5	Not Visible
8/01/2022	7.7	<5	Not Visible
9/01/2022	7.6	<5	Not Visible
10/01/2022	7.2	9	Not Visible
13/01/2022	6.9	<5	Not Visible
14/01/2022	7.5	5	Not Visible
15/01/2022	7.5	<5	Not Visible
16/01/2022	7.5	16	Not Visible
17/01/2022	6.3	7	Not Visible
18/01/2022	6.6	<5	Not Visible
23/01/2022	7.4	<5	Not Visible
24/01/2022	7.4	5	Not Visible
5/02/2022	7.7	<5	Not Visible
6/02/2022	8.2	<5	Not Visible
8/02/2022	7.0	<5	Not Visible
9/02/2022	7.5	<5	Not Visible
10/02/2022	6.8	<5	Not Visible
11/02/2022	7.5	<5	Not Visible
12/02/2022	7.1	<5	Not Visible
13/02/2022	7.1	<5	Not Visible
14/02/2022	7.1	<5	Not Visible
18/02/2022	7.4	<5	Not Visible
19/02/2022	7.3	15	Not Visible
20/02/2022	7.5	8	Not Visible
21/02/2022	7.5	18	Not Visible
22/02/2022	7.6	6 7	Not Visible
23/02/2022			Not Visible
24/02/2022	6.8	11	Not Visible
25/02/2022	7.2	58	Not Visible
26/02/2022	7.7	13	Not Visible
27/02/2022	7.6	30	Not Visible Not Visible
1/03/2022	8	<5	
2/03/2022	7.4	8	Not Visible
3/03/2022	7.5	<5 7	Not Visible
4/03/2022	7 7.1		Not Visible
5/03/2022		<5	Not Visible
6/03/2022	7.4	<5	Not Visible
7/03/2022	7.3	24	Not Visible
8/03/2022	7.6	46	Not Visible
9/03/2022	7.5	10	Not Visible
10/03/2022	7.5	<5	Not Visible



Date	pH (pH Units)	TSS (mg/litre)	Oil and Grease (mg/litre)
11/03/2022	7.8	<5	Not Visible
12/03/2022	8	<5	Not Visible
13/03/2022	7.9	<5	Not Visible
14/03/2022	8.1	<5	Not Visible
15/03/2022	8	<5	Not Visible
16/03/2022	7.9	<5	Not Visible
17/03/2022	7.9	<5	Not Visible
18/03/2022	7.8	<5	Not Visible
19/03/2022	7.8	25	Not Visible
20/03/2022	7.9	11	Not Visible
21/03/2022	8	<5	Not Visible
23/03/2022	8.2	<5	Not Visible
25/03/2022	7.9	5	Not Visible
26/03/2022	7.7	44	Not Visible
27/03/2022	7.8	59	Not Visible
28/03/2022	8	22	Not Visible
29/03/2022	7.5	6	Not Visible
30/03/2022	7.3	23	Not Visible
31/03/2022	7.4	<5	Not Visible
1/04/2022	7.34	<5	Not Visible
2/04/2022	6.67	<5	Not Visible
3/04/2022	6.9	<5	Not Visible
4/04/2022	7.08	<5	Not Visible
5/04/2022	8.16	<5	Not Visible
6/04/2022	6.78	8	Not Visible
7/04/2022	6.77	40	Not Visible
8/04/2022	6.46	30	Not Visible
9/04/2022	6.81	17	Not Visible
10/04/2022	7.33	12	Not Visible
11/04/2022	8.02	11	Not Visible
12/04/2022	7.27	6	Not Visible
13/04/2022	7.05	<5	Not Visible
14/04/2022	6.93	6	Not Visible
15/04/2022	7.39	<5	Not Visible
16/04/2022	7.56	<5 <5	Not Visible
17/04/2022	7.53	<5	Not Visible
18/04/2022 19/04/2022	7.55	<5	Not Visible Not Visible
20/04/2022	7.93	<5	Not Visible
21/04/2022	7.26	<5	Not Visible
22/04/2022	7.35	<5	Not Visible
23/04/2022	7.44	<5	Not Visible
24/04/2022	7.57	7	Not Visible
25/04/2022	7.19	<5	Not Visible
26/04/2022	7.24	<5	Not Visible
27/04/2022	7.52	5	Not Visible
28/04/2022	8.17	8	Not Visible
1/05/2022	7.67	7	Not Visible
10/05/2022	6.9	16	Not Visible
11/05/2022	7.77	<5	Not Visible
12/05/2022	7.58	16	Not Visible
13/05/2022	6.87	23	Not Visible
14/05/2022	7.21	11	Not Visible
15/05/2022	7.12	16	Not Visible
16/05/2022	7.29	12	Not Visible
17/05/2022	7.83	7	Not Visible
20/05/2022	8.17	<5	Not Visible
21/05/2022	7.8	<5	Not Visible
21/03/2022	7.67	12	Not Visible
	7.3	49	Not Visible
22/05/2022 22/05/2022 23/05/2022			Not Visible
22/05/2022	7.09	9	
22/05/2022 23/05/2022	7.09 7.24	8	Not Visible
22/05/2022 23/05/2022 24/05/2022			
22/05/2022 23/05/2022 24/05/2022 25/05/2022	7.24	8	Not Visible
22/05/2022 23/05/2022 24/05/2022 25/05/2022 26/05/2022	7.24 7.48	8 14	Not Visible Not Visible
22/05/2022 23/05/2022 24/05/2022 25/05/2022 26/05/2022 27/05/2022	7.24 7.48 7.8	8 14 <5	Not Visible Not Visible Not Visible



Date	рН	TSS	Oil and Grease (mg/litre)	
	(pH Units)	(mg/litre)		
31/05/2022	7.09	<5	Not Visible	
1/06/2022	6.99	<5	Not Visible	
3/06/2022	7.03	<5	Not Visible	
4/06/2022	7.16	6	Not Visible	
5/06/2022	7.72	<5	Not Visible	
6/06/2022	7.96	15	Not Visible	
11/06/2022	6.57	<5	Not Visible	
12/06/2022	6.94	<5	Not Visible	
17/06/2022	7.07	8	Not Visible	
17/06/2022	7.26	<5	Not Visible	
19/06/2022	7.51	<5	Not Visible	
20/06/2022	7.64	<5	Not Visible	
21/06/2022	8.18	6	Not Visible	
22/06/2022	8.16	6	Not Visible	

# 11.5. Appendix E: Weed Spraying Notification Form

Section	Details	
Date	26/5/22	
2 Responsible Person	Joe Delfino	5
3 Area Sprayed	Gardens on road one	
4 Start time	7.00 cm	
5 Finish time	2:30 pm	
6 Weather	fine & survey	
7 Frog sightings?	No	
8 Total amount sprayed	951	
9 Product used:		
Name	Glyphosute	
Signature	Soc Pellino	
Date	2615122	

# 11.6. Appendix F: Triennial Independent Audit Findings and Action Plan

# Port Kembla Coal Terminal (PKCT) Approval 08\_0009 - Action Plan

# Department of Planning Industry and Environment (DPI&E) – Independent External Audit 5<sup>th</sup> August 2020

On 4<sup>th</sup> and 5<sup>th</sup> August 2020, Environmental Resources Management Australia Pty Ltd (ERM) undertook a Triennial Independent Environmental Audit at Port Kembla Coal Terminal as per the requirements of Project Approval 08\_0009. By letter dated 26<sup>th</sup> March 2020, PKCT requested of the DPI&E that the Audit Report submission date be extended to the 30<sup>th</sup> September 2020 due to escalation of the COVID-19 Pandemic, associated border closures and social distancing directives. This request was approved by DPI&E by letter dated 21<sup>st</sup> April 2020.

As per Schedule 4, Condition 6, of Approval 08\_0009, PKCT's formal response (Action Plan) to the recommendations outlined in the submitted Audit Report have been completed, and were finalised and reported in the 2020/2021 AEMR – Appendix F.



The next Triennial Audit will be scheduled in 2023

# 11.7. Appendix G: ISO 14001 and 9001 Certificate

