

# Annual Environmental Management Report



1<sup>st</sup> July 2011 to 30<sup>th</sup> June 2012

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AUTHORISED BY Peter Green, General Manager

Date Authorised: 30.10.12



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## 1.0 INTRODUCTION

### 1.1 Purpose

The purpose of this Annual Environment Management Report (AEMR) is to provide the Department of Planning and Infrastructure (DP&I) and other stakeholders a report of Port Kembla Coal Terminal (PKCT's) environmental performance together with actions taken in relation to environmental control and regulatory compliance across the July 2011 to June 2012 reporting period.

This final report replaces the original following feedback from the DP&I.

### 1.2 Scope

This AEMR provides information on PKCT's compliance with requirements of the PKCT Major Project Approval 08\_0009 which was granted on the 12<sup>th</sup> June 2009. The approval includes a requirement of PKCT to prepare an annual AEMR. By letter of 25<sup>th</sup> March 2010, the 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 Primary Industries (now Department of Trade and Industry) Guidelines and Format for Preparation of an Annual Environmental Management Report dated January 2006.

This report will be submitted to the DP&I, and following feedback, will be forwarded to the Environmental Protection Authority (EPA) and the Department of Trade and Industry (DTI). A copy of this AEMR will also be made available to the public via the [PKCT website](#).

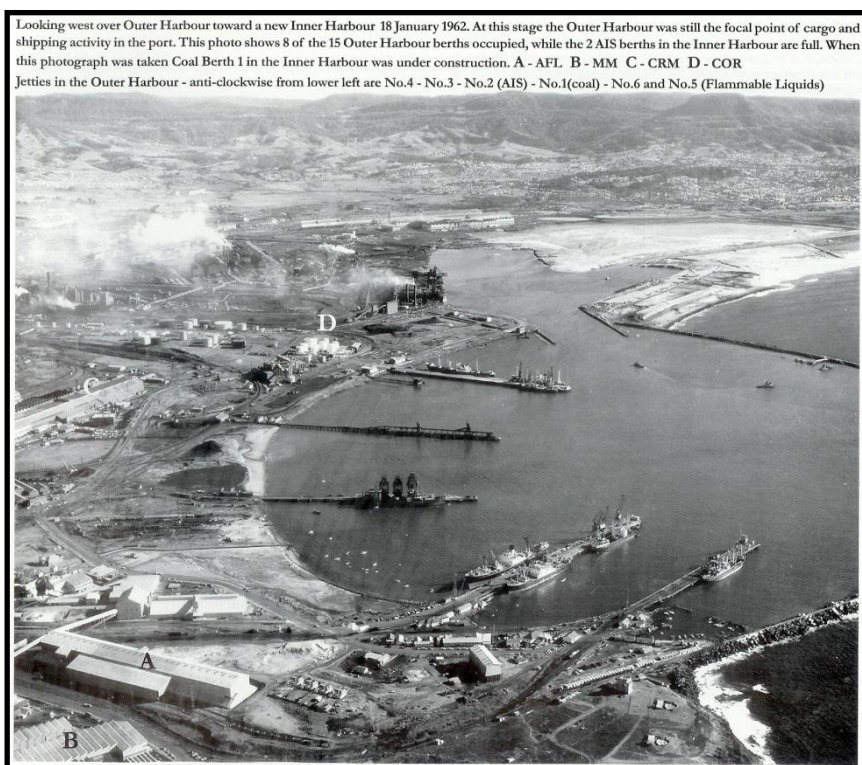
### 1.3 Background

PKCT is located on Lot 22 in DP 1128396 on the northern side of the Inner Harbour of Port Kembla, near Wollongong. PKCT land is owned by the Port Kembla Port Corporation (PKPC) and 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.

Six equal shareholders, namely BHP Billiton Illawarra Coal (BHPBIC), Oakbridge (Xstrata Coal), Centennial Coal, Tahmoor Coal and Metropolitan Collieries (Peabody) and Gujarat NRE, form the PKCT Board to operate the Terminal. BHPBIC has managed the Terminal since 1990. PKCT is the major coal intermodal facility in southern NSW for the transfer of coal from rail and road to ship.

The Terminal is responsible for receiving, assembling and loading coal from the Southern and Western New South Wales coalfields, for transport by ship to international and domestic markets. PKCT has two bulk handling facilities; a high capacity Coal Berth (Berth 102) that handles the loading of coal, and a Bulk Products Berth (Berth 101) that loads and unloads a range of bulk products (Refer to **Figure 1**).

The Bulk Products Berth was constructed in the early 1960's after construction of Port Kembla Inner Harbour (refer photo below). The Coal Berth was constructed in the early 1980's.



Reference: 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 and an Office of Environment and Heritage Environment Protection Licence (EPL) number 1625.

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

Consultation with the Department of Planning and Infrastructure (DP&I) 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 includes an assessment of all environmental impacts associated with the current and ongoing PKCT activities.

In June 2009, the DP&I conditionally approved PKCT’s Major Project Application (08\_0009) for Existing Operations & Increased Road Reveal Hours. This consent replaces the previous development approval from Wollongong City Council (WCC) and sets new conditions for environmental impacts, management and reporting.



Figure 1

**1.4 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 2011- June 2012 reporting period.



## 1.5 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 and is supported by policies, standards, an environment management strategy, management plans and procedures. Key documents include the following:-

- [Sustainable Development Policy PO.BM.291](#)
- [Environment Policy PO.HS.85](#)
- [Quality Policy PO.BM.236](#)
- [Environment Management Strategy MP.HS.464](#)
- [Noise Management Plan MP.HS.387](#)
- [Air Quality Management Plan MP.HS.386](#)
- [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 [PKCT's web site](#). Management Plans required under Project Approval 08\_0009 are also published once Department of Planning and Infrastructure approval is obtained.

## 1.6 Terminal Contact

**Table 1.2** identifies relevant contacts at PKCT

**Table 1.2 – PKCT Contact Details**

PKCT Employee & Position	Contact Details
Mr. Peter Green General Manager	(02) 4228 0288 <a href="mailto:Peter.Green@pkct.com.au">Peter.Green@pkct.com.au</a>
Mr. Alex Chalk Risk Manager	(02) 4221 1877 <a href="mailto:Alex.Chalk@pkct.com.au">Alex.Chalk@pkct.com.au</a>
Community Hotline	1800 111 448 <a href="mailto:communitylinks@pkct.com.au">communitylinks@pkct.com.au</a>



## 1.7 Actions Arising from Previous AEMR Review

This section reports on any actions arising from the DP&I's review of the 10/11 AEMR submitted by PKCT. By letter of 27<sup>th</sup> October 2011, the DP&I requested that the format of the AEMR report be revised as follows:-

- Consolidate all key data summaries;
- Provide key data summaries in the main body of the report;
- Follow each summary with an analysis of the results against:
  - Relevant limits/criteria
  - Previous years' results; and
- Predictions in documents listed in Condition 2 of Schedule 2;
- Identify any trends in monitoring results over the life of the project; and
- Include a summary of the complaints received during the year; and compare this to complaints received in previous years.

In the noting the DP&I's request, key data previously included as attachments have been included in the body of the report. Additional tables have been included to summarise data presented. Analysis and trends are addressed in Section 4.3 herein with some need for cross referencing. Consideration has been given to previous AMERs.

## 2.0 ADMINISTRATIVE CONDITIONS

This section identifies the Administrative Conditions in Schedule 2 of the PKCT Major Project Approval 08\_0009 and describes how PKCT complies with these requirements.

Table 2.1 provides an overview of the administrative conditions and references the applicable section of this AEMR.



**Table 2.1 – Administrative Condition Reference**

Administrative Condition	AEMR Section
Obligation to Minimise Harm to the Environment	2.1
Terms of Approval	2.2
Limits on Approval	2.3
Management Plan / Monitoring Programs	2.4
Surrender of Consents	2.5
Structural Adequacy	2.6
Demolition	2.7
Operation of Plant & Equipment	2.8
Dispute Resolution	2.9

**2.1 Obligation to Minimise Harm to the Environment**

**2.1.1 Consent Condition**

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

**2.1.2 Compliance Statement**

Consent condition is consistent with PKCT’s polices and management standards including a commitment to meet legal and other requirements.

PKCT has identified the aspects associated with PKCT’s operation which may result in environmental impacts and appropriate management plans and processes are in place providing monitoring, assessment and control.

In accordance with continual improvement, performance is monitored, reviewed and feasible improvement and mitigation measures are developed. PKCT implements reasonable and feasible measures within suitable time frames to minimise harm to the environment.

Environmental aspects including those referenced herein are considered and assessed in project development through PKCT’s capital works program and business planning process.

Further, the findings/ recommendations made in AECOM P/L's independent audit undertaken in March 2011 have been noted and actions are being progressed with the DP&I in accordance with Project Approval 08\_0009 (refer Section 4.4). A status report is included in Attachment F herein.

## 2.2 Terms of Approval

### 2.2.1 Consent Condition

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.

### 2.2.2 Compliance Statement

The requirements pertaining to this condition were met over the reporting period. The Environment Management Strategy has been developed to facilitate the means by which DP&I approval conditions are met. The AEMR provides an annual compliance report.

Findings/ recommendations made in AECOM P/L's independent audit undertaken in March 2011 were noted and actions are being progressed with the DP&I in accordance with Project Approval 08\_0009 (refer Section 4.4). A status report is included in Attachment F herein.



**2.3 Limits on Approval**

**2.3.1 Consent Condition**

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 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.

**2.3.2 Compliance Statement**

PKCT road deliveries by public road totalled 2,843,540 tonnes across the reporting period (refer Figure 2A below).

**Figure 2A Road Transport Report- 2011/2012**

Monthly Reports Summary FY 11/12	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	FY12 Total	Comment
Tonnes - Public Road	165,478	297,262	118,531	154,983	118,308	186,412	301,139	164,788	328,634	351,439	338,128	370,471	2,895,572	
Tonnes - Private Road	190,967	233,802	194,967	275,365	199,005	230,617	179,799	124,822	183,666	203,725	206,967	279,872	2,503,574	nb primarily rail delivered tonnes to Bluescope then internal road to PKCT
Total road tonnes	356,445	531,064	313,498	430,348	317,313	417,028	480,938	289,610	512,300	555,164	545,095	650,343	5,399,146	
Spillage - Public Road	0	0	0	0	0	0	0	0	0	0	0	1	1	
Incident - Other	0	0	1	1	0	0	0	0	0	1	1	1	5	
Impact with other vehicle	0	0	1	0	0	0	1	0	1	0	0	0	3	
Incidents Reported to RTA	0	0	1	1	0	0	1	0	0	1	0	1	5	
Complaints	2	0	1	1	2	1	1	1	3	4	2	1	19	
EPL/ regulatory breaches	0	0	0	0	0	0	0	0	0	0	1	0	1	EPA: incident re. truck wash not operating at NRE minesite
Inductions	100	100	100	100	100	100	100	100	100	100	100	100	100	
Hours restrictions breach	0	0	0	0	0	0	0	0	0	0	0	0	0	
Road Transport Providers (RTP): Observations/ Audits	11	11	7	11	10	18	13	9	67	36	59	50	302	
Road Transport Providers: Number of drivers observed	57	65	19	39	43	83	144	83	31	169	476	382	1,591	notable increase in number of observations undertaken by RTP
Road Transport Companies: Audits (minesites)	2	2	2	2	2	2	2	2	2	2	2	2	2	
PKCT CTO's (primarily at PKCT)	3	3	5	1	2	3	2	2	6	1	1	2	31	
PKCT mine to PKCT audits									1	1	8	4	14	undertaken by an external auditor for PKCT
PKCT RTP system audits									2					annual system audits to continue in FY13 for each RTP.

NB Private road is rail delivered coal to BlueScope Steel then private road delivery to PKCT.

If it is expected that the 7.5 million tonnes per annum limit will be exceeded, the necessary approval from the Director-General will be sought before doing so. Coal from NRE No. 1 Colliery is only received by PKCT when it is dispatched during the specified hours.

## 2.4 Management Plans / Monitoring Programs

### 2.4.1 Consent Condition

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

### 2.4.2 Compliance Statement

During the July 2011- June 2012 management plans were approved by the DP&I as follows:-

By DP&I letter of 27<sup>th</sup> October 2011 (refer PKCT letter of 10th August 2011), as follows:-

- Greenhouse Gas and Energy Efficiency Management Plan MP.HS.461
- Landscape Management Plan MP.HS.470

By DP&I letter of 5<sup>th</sup> April 2012 (refer PKCT letter of 12<sup>th</sup> December 2011 and Environment Protection Authority letter of the 5<sup>th</sup> December 2011) as follows:-

- Green and Golden Bell frog Management Plan MP.HS.109
- Water Management Plan MP.HS.462.
- Noise Management Plan MP.HS.387.

The revised management plans gave consideration to the findings and recommendations made in AECOM P/L's independent audit undertaken in March 2011 (refer Attachment F for a status report on actions).

## 2.5 Surrender of Consents

### 2.5.1 Consent Condition

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.

## 2.5.2 Compliance Statement

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

## 2.6 Structural Adequacy

### 2.6.1 Consent Condition

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.

### 2.6.2 Compliance Statement

Condition noted. No new significant building works or significant alterations or additions have been undertaken. A number of temporary demountable buildings have been installed to accommodate contract and project personnel to facilitate restoration and improvement works in progress and planned across future years.

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

## 2.7 Demolition

### 2.7.1 Consent Condition

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.

### 2.7.2 Compliance Statement

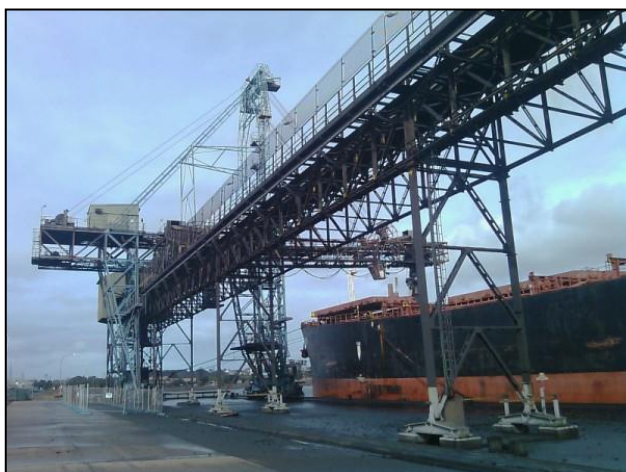
During the 2010/11 reporting period, PKCT assessed that the Bulk Products Berth shiploading system had reached the end of its life, was no longer safe to operate and demolition was required. It was decided that operations would continue through the Bulk Products Berth using a new mobile shiploading system.

In June 2011, demolition of the Bulk Products Berth Shiploader and sections of the associated conveyor system commenced. Demolition was completed in August 2011. The work was undertaken in accordance with AS 2601-2001.

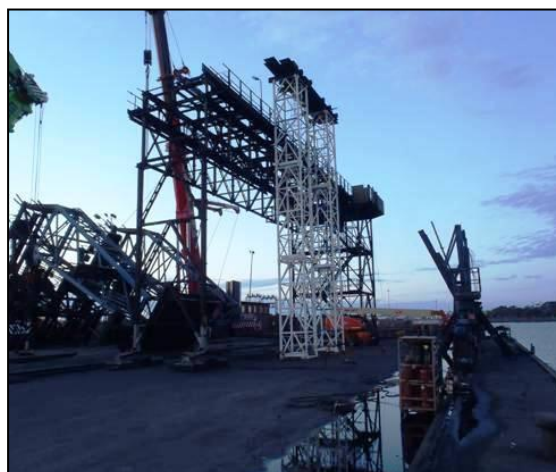
Key correspondence is referenced as follows:-

- Approval for the demolition was provided by the Port Kembla Port Corporation in its letter of 3<sup>rd</sup> June 2011.
- By letter of 3<sup>rd</sup> June 2011, Environmental Protection Authority advised it had no objection to the demolition subject to environmental protection licence compliance.
- PKCT letter of 30<sup>th</sup> May 2011 to the Department of Planning and Infrastructure advised of the demolition and the approval process.

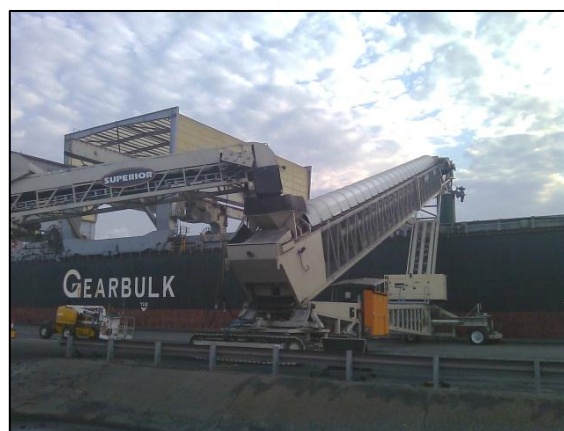
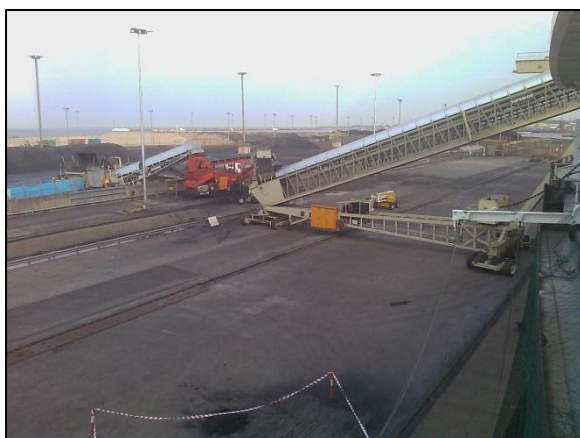
PKCT engaged Transfield to carry out the work. WorkCover notification was given and WorkCover provided approval no. 941R-00014850-01 on 15<sup>th</sup> March 2011. A mobile shiploader has been established, commissioned and has successfully handling coal and coke cargoes.



**Final ship Pontadamon- 14<sup>th</sup> April 2011**



**18<sup>th</sup> July 2011**



**Demolition complete / new mobile shiploader operational- November 2011**

## 2.8 Operation of Plant & Equipment

### 2.8.1 Consent Condition

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 and efficient manner.

### 2.8.2 Compliance Statement

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 equipment is operated in a proper and efficient manner.

## 2.9 Dispute Resolution

### 2.9.1 Consent Condition

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.

### 2.9.2 Compliance Statement

PKCT accepts the dispute resolution process. This condition is also referenced in the Environment Management Strategy. There were no disputes during the reporting period.





### 3.0 SPECIFIC ENVIRONMENTAL CONDITIONS

This section identifies the Specific Environmental Conditions in Schedule 3 of the PKCT Major Project Approval 08\_0009 and describes how PKCT complies with these requirements.

Table 3.1 provides an overview of the administrative conditions and references the applicable section of this AEMR.

**Table 3.1 – Specific Environmental Conditions Reference**

Specific Environmental Condition	AEMR Section
Noise	3.1
Transport	3.2
Air Quality	3.3
Meteorological Monitoring	3.4
Surface Water	3.5
Biodiversity	3.6
Visual Amenity	3.7
Greenhouse & Energy Efficiency	3.8
Waste	3.9
Hazards	3.10
Fire Control	3.11

### 3.1 Noise

#### 3.1.1 Consent Condition

EPL 1625 & Major Project Approval 08\_0009 pertains to noise emissions from PKCT’s premises. Noise criteria is outlined as follows:-



1. The Proponent shall ensure that the noise generated by the project at any privately-owned residence does not exceed the criteria specified in Table 1 for the location nearest to that residence.

*Table 1: Noise impact assessment criteria dB(A) LAeq (15 min)*

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

**Notes:**

- (a) To determine compliance with the LA<sub>eq</sub> (15 minute) 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:
  - o wind speeds of up to 3 m/s at 10 metres above ground level; or
  - o 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;
    - o noise monitoring protocol for evaluating compliance with the noise impact assessment criteria in this approval; and
    - o 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.

### 3.1.2 Compliance Statement

Routine noise surveys were undertaken in August 2011 and April 2012. Summary of monitoring data is provided in Attachment A herein. Noise surveys determined that PKCT noise levels were within the noise criteria in EPL 1625 and DP&I Approval 08\_0009.

Section 4.3 reports on the analysis of results and consideration of trends.

There were no noise related community complaints made during the reporting period associated with PKCT's site operations.

No notable noise reduction projects were undertaken during the reporting period. Noise from both an occupation health and safety (OHS) and environmental perspective is a key aspect and is taken into account in project development. In accordance with Section 2.1.2, noise was included in project assessment criteria most notably as follows:-

- (a) Bulk Products Berth demolition (completed in August 2011) - work was undertaken during day work hours with consideration to off site impacts. Demolition work method entailed using cranes to dismantle the ship loader and conveyor structures in large sections. An environmental assessment was carried out by PKCT's consultant, Cardno P/L and submitted to PKPC as part of PKCT's application requesting approval to demolish.
- (b) Bulk Products Berth mobile ship loading system- noise was included in the assessment criteria for the procurement of the new equipment. The new system has been installed and is operational. Noise in the vicinity of the ship's hatch during loading has required mitigation (hearing protection required) from an OHS perspective for personnel working in the area. There have been no adverse offsite/ community noise impacts.
- (c) Rail receival pneumatic vibrator- 3<sup>rd</sup> unit installed; noise study carried out for the original units which concluded associated noise would not adversely impact on noise limits applicable to PKCT's operations. Assessment of the third unit concluded it would not increase noise beyond current levels. The vibrator is in use and there have been no adverse offsite/ community noise impacts.



### 3.2 Transport

#### 3.2.1 Consent Condition

##### Monitoring of Coal Transport

4. 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

5. 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

6. 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, load covering and queuing on local roads; and
  - (c) include measures to ensure the Driver's Code of Conduct is enforced.

#### 3.2.2 Compliance Statement

In accordance with Condition 4, Figure 3A and 2A below provides a summary of throughput and receipt over the reporting period.

**Figure 3A Summary of PKCT Throughput and Receipts – 2011/2012  
Shiploading**

	Coal		Coke	Total
	Coking	Steaming		
Berth 101: Bulk Products Berth	91,433	0	231,293	322,726
Berth 102: Coal Berth	8,163,469	6,205,639	-	14,369,108
			<b>Total (tonnes)</b>	<b>14,691,834</b>



**Figure 3A Summary of PKCT Throughput and Receipts (Continued)**  
**Receipts**

Deliveries	private road	public road	Total
road receipt	2,503,574	2,895,572	5,399,146
rail receipt			9,095,957
		<b>Total (tonnes)</b>	<b>14,495,103</b>

Note: Private road is primarily rail transport to BlueScope Steel, then road transport by private road to PKCT (refer [Figure 2A](#) Road Transport Report- 2011/2012).

In accordance with Condition 5, this requirement is included in Drivers Code of Conduct Implementation Plan MP.BM.453 and is monitored operationally and reviewed as required during the road user meetings. There has been no incident of trucks queuing on Springhill Road over the July 2011- June 2012 reporting period.

The Drivers Code of Conduct Implementation Plan is implemented and includes driver inductions. The Driver's Code of Conduct (DCC) is enforced through the monitoring of trucks by PKCT and road transport companies and shippers.

A Heavy Haulage Induction manual and induction program is in place to support DCC implementation. Reviews are undertaken as required through the road user meetings (refer [Figure 2A](#) Road Transport Report- 2011/2012).

During this reporting period, meetings were held on 21<sup>st</sup> July 2011, 28<sup>th</sup> March 2012, 18<sup>th</sup> June 2012 (truck wash upgrade) and 5<sup>th</sup> July 2012 (deferred June 2012 meeting).

Figures 2A and 3B below provide a summary of monitoring results pertaining to road transport and the Drivers Code of Conduct. A Road Users Group (PKCT, truck companies and relevant coal and bulk products shippers) meet quarterly to review implementation and monitoring results.



Figure 3B Road Transport Complaints & Incidents Summary – 2011/2012

Incidents/Accidents	Minor Damage					Major Damage					Total	
	Transport Provider											
	BT	ME	BR	TB	SC	BT	ME	BR	TB	SC		
<b>Westcliff (PKCT/BHPB)</b>												
Appin	2											2
Bulli Tops	1											1
Mt Ousley	1											1
Masters Road												0
Springhill Road	2											2
<b>NRE/PKCT</b>												
Bellambi Lane												0
Northern Distributor												0
Masters Road												0
Springhill Road												0
<b>ICC/PKCT</b>												
Northern Distributor												0
Masters Road												0
Springhill Road												0
<b>Tom Thumb Road (private)</b>												
Port Kembla Road												0
PKCT Road Receival	1											1
PKCT Site												0
<b>Totals</b>	7	0	0	0	0	0	0	0	0	0	0	7

Key: BT: Bulk Trans    ME: ME Transport    BR: Brindles    TB: Trazblend    SC: South Coast Equipment

Complaints	Noise					Dust					Speed					Other					Total
	Transport Provider																				
	BT	ME	BR	TB	SC	BT	ME	BR	TB	SC	BT	ME	BR	TB	SC	BT	ME	BR	TB	SC	
<b>Westcliff (PKCT/BHPB)</b>																					
Appin Road	1					1					2					5					9
Bulli Tops																					0
Mt Ousley											2					2					4
Masters Road						1															1
Springhill Road																1					1
<b>NRE/PKCT</b>																					
Bellambi Lane			2																		2
Northern Distributor																					0
Masters Road																					0
Springhill Road																					0
<b>ICC/PKCT</b>																					
Northern Distributor																					0
Masters Road																					0
Springhill Road																					0
<b>Tom Thumb Road (private)</b>																					
Port Kembla Road																					0
PKCT Road Receival																					0
PKCT Site																2					2
<b>Totals</b>	1	0	2	0	0	2	0	0	0	0	4	0	0	0	0	10	0	0	0	0	19

Key: BT: Bulk Trans    ME: ME Transport    BR: Brindles    TB: Trazblend    SC: South Coast Equipment

(Refer [Figure 2A](#) Road Transport Report- 2011/2012)



Findings/ recommendations made in AECOM P/L’s independent audit undertaken in March 2011 have been noted and actions are being progressed with the DP&I in accordance with Project Approval 08\_0009 (refer Section 4.3.11). Attachment F provides a status report.

With regard to the Drivers Code of Conduct and road transport, actions have been taken to increase superintendence, monitoring and control from mine to PKCT. In summary, key actions taken are as follows:-

- Drivers Code of Conduct and the Drivers Code of Conduct Implementation Plan have been revised and agreed internally by road users (i.e. Drivers Code of Conduct signatories).
- The Drivers Code of Conduct (DCC) Critical Task Observation sheet has been revised to include three parts (a) PKCT (b) mine to PKCT (c) mine site.
- Road Users Monthly report form and the Drivers Summary sheet has been revised to more clearly define DCC requirements.
- Two DCC systems audits were completed by PKCT in March 2012 on road transport providers Bulktrans and Brindles to check their internal DCC processes. Processes were verified with appropriate records kept of DCC inductions, training, fatigue management, auditing/ monitoring activities and incident investigation and corrective action processes.
- Commencing June 2012- July 2013 reporting period, system audits will continue for all road transport providers by an external, appropriately accredited auditor.
- Increased mine to PKCT auditing commenced in April 2012 carried out by an external service provider engaged by PKCT.
- The requirement for monthly reporting to PKCT has been extended to include Road Transport Companies (i.e. shippers) to better ascertain audits and checks carried out by all road users. This will assist the review process undertaken at the Road User meeting.

**3.3 Air Quality**

**3.3.1 Consent Condition**

<b>Impact Assessment Criteria</b>		
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.		
<i>Table 3: Long term impact assessment criteria for particulate matter</i>		
Pollutant	Averaging Period	Criterion
Total suspended particulate (TSP) matter	Annual	90 µg/m3
Particulate matter < 10 µm (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/m <sup>3</sup>

*Table 5: Long term impact assessment criteria for deposited dust*

Pollutant	Averaging Period	Maximum Increase in Deposited Dust Level	Maximum Total Deposited 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;
    - o an air quality monitoring protocol for evaluating compliance with the air quality impact assessment criteria in this approval; and
    - o reasonable and feasible best practice emissions mitigation measures to ensure project specific assessment criteria are met.



### 3.3.2 Compliance Statement

PKCT has an Air Quality Monitoring and Management Plan in place and operational as follows:-

- The Plan, developed in consultation with OEH, was submitted to DP&I by the due date of 9<sup>th</sup> December 2009. The DP&I approved the plan by letter of 25<sup>th</sup> March 2010.
- OEH assisted in developing the plan though did not add any new air quality criteria to EPL 1625.
- Air quality monitoring methodology has been implemented and data is being assessed on a monthly basis. Dust deposition and continuous dust monitoring data is collected. Monitor locations are shown in Figure 3D below.

PKCT's Air Quality Management Plan contains dust monitoring, assessment, reporting, mitigation and management provisions to ensure necessary actions are undertaken and that dust from PKCT's premises does not exceed the criteria in the condition outlined above.

PKCT provides 24/7 site operational control via the Main Control Room. Main Control Room operators monitor site conditions and weather forecasts. If dust is observed, action is taken through 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 which includes site observations of dust and the assessment of associated controls.

The requirement that loads must be covered and that use of the truck wash is mandatory prior to leaving site forms part of the Drivers Code of Conduct Implementation Plan and associated inductions. Audits are undertaken and findings (refer [Figure 2A](#) Road Transport Report- 2011/2012).

Figure 3C Air Quality- Monitoring Sites

PORT KEMBLA COAL TERMINAL  
DUST & WEATHER MONITOR LOCATIONS

24<sup>th</sup> October 2012



#\_refer PKCT Environment Protection Licence(EPL) No. 1625 (EPA ID No.)

● Dust Gauges, EPL monitoring sites: "P" sites: industrial; "R" sites: residential

● Continuous Dust Monitor Sites

● (a) Bluescope High Volume Sampler & dust gauge (b) PKCT EPL Monitoring Site R2 (2 gauges)

PKCT Site Boundary

Weather stations (a) at each continuous dust monitor site ● (b) PKCT Main Control Room ●

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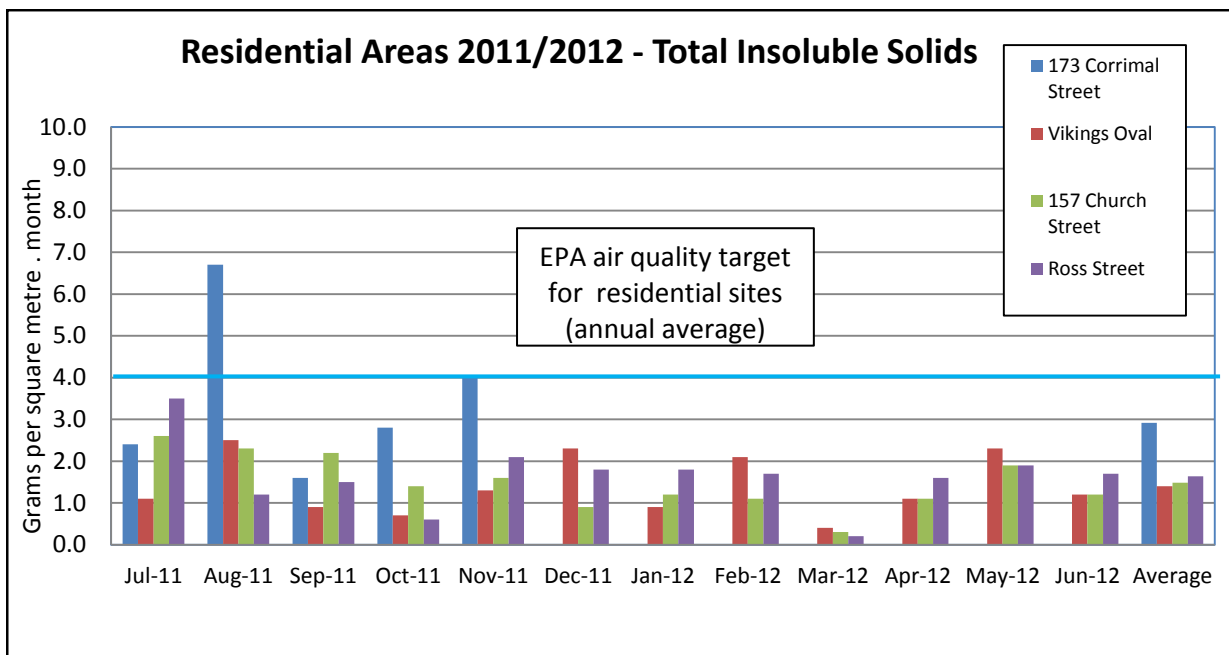
PKCT monitors air quality using dust deposition gauges and continuous dust monitors located on site, adjacent port and residential areas as shown on [Figure 3C](#) Air Quality- Monitoring Sites.

Figures “3D” and “3E” below provide a summary of findings, dust deposition results and trend graphs for PKCT’s residential sites.

**Figure 3D Air Quality: Continuous Dust Data**

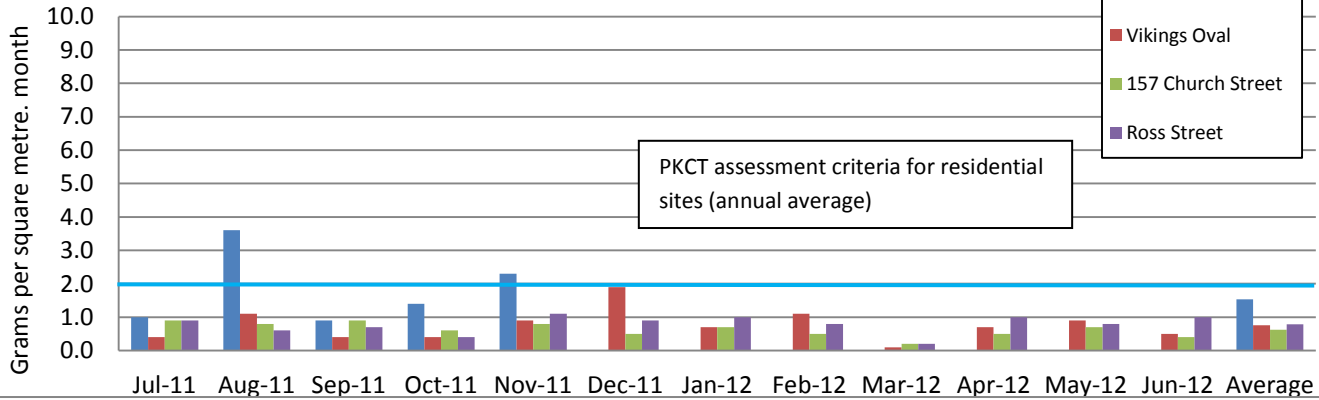
CONTINUOUS DUST MONITORING								
24 hour hour average dust concentrations						PKCT Number of Exceedances (Maximum Contribution %)		
Particle size	Standard (ug per m3)	number of compliant days	% compliant	number of exceedances	% not compliant	minimal	minor	moderate
TSP	90	343	94	22	6	10 (3%)	6 (11%)	6 (35%)
PM10	50	328	90	37	10	13 (4%)	10 (12%)	13 (33%)
Particle size	Standard (ug per m3)	monthly averages (micrograms per cubic metre)			compliance (yes/no)			
		minmum	mean	maximum				
TSP	90	33	34	37	yes			
PM10	30	26	27	29	yes			

**Figure 3E Air Quality: Dust Deposition: July 11 – June 12**





### Residential Areas 2011/2012- Combustible Matter



GAUGE NO.	Analysis g/m <sup>2</sup> month	Financial Year 2011/12												No. sample s collect	MIN	MEAN	MAX
		JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN				
MONTH DATE Sampler		Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	***	Apr-12	***	Jun-12				
P1 25m South No.1 Coalberth	Insoluble Solids	24.4	9.6	7.1	6.2	3.2	7.1	9.8	5.2	2.3	4.5	5.6	5.4	12	2.3	7.5	24.4
	Ash	20.6	7.1	4.9	4.7	1.0	3.8	5.3	3.1	1.1	2.2	4.0	3.6	12	1.0	5.1	20.6
	Combustible Matter	3.8	2.5	2.2	1.5	2.2	3.3	4.5	2.1	1.2	2.3	1.6	1.8	12	1.2	2.4	4.5
P2 40m South of Southern SIP Area	Insoluble Solids	5.6	7.4	15.3	6.7	1.7	BB	7.0	3.4	1.3	4.7	5.2	5.2	11	1.3	5.8	15.3
	Ash	3.9	5.2	10.8	4.8	0.8	BB	4.1	1.9	0.5	2.4	3.6	3.3	11	0.5	3.8	10.8
	Combustible Matter	1.7	2.2	4.5	1.9	0.9	BB	2.9	1.5	0.8	2.3	1.6	1.9	11	0.8	2.0	4.5
P3 40m East of Southern SIP Area	Insoluble Solids	78.6	18.7	57.1	7.4	2.1	12.3	7.1	7.6	4.0	7.2	23.7	0.3	12	0.3	18.8	78.6
	Ash	66.1	14.9	25.6	5.0	0.9	6.2	2.8	5.8	2.7	4.9	14.1	0.2	12	0.2	12.4	66.1
	Combustible Matter	12.5	3.8	31.5	2.4	1.2	6.1	4.3	1.8	1.3	2.3	9.6	0.1	12	0.1	6.4	31.5
P4 40m East No.2 Coalberth SIP Area	Insoluble Solids	15.3	2.0	12.4	BF	3.7	6.7	11.2	5.1	3.9	6.3	BM	20.7	10	2.0	8.7	20.7
	Ash	6.7	1.3	1.3	BF	2.0	1.9	3.1	2.1	1.4	2.1	BM	4.9	10	1.3	2.7	6.7
	Combustible Matter	8.6	0.7	11.1	BF	1.7	4.8	8.1	3.0	2.5	4.2	BM	15.8	10	0.7	6.1	15.8
P5 Northern Settling Pond	Insoluble Solids	11.9	12.0	15.3	1.9	6.2	BB	11.3	4.1	6.8	7.2	4.8	9.3	11	1.9	8.3	15.3
	Ash	6.4	5.4	6.1	0.4	1.6	BB	3.0	1.7	4.5	2.5	2.1	3.5	11	0.4	3.4	6.4
	Combustible Matter	5.5	6.6	9.2	1.5	4.6	BB	8.3	2.4	2.3	4.7	2.7	5.8	11	1.5	4.9	9.2
P6 40m West No.2 Coalberth SIP Area	Insoluble Solids	11.1	8.5	11.9	3.4	8.9	3.5	13.5	BB	5.7	7.6	5.0	6.8	11	3.4	7.8	13.5
	Ash	8.5	4.5	6.1	1.0	2.6	0.9	3.0	BB	2.2	2.5	2.8	3.5	11	0.9	3.4	8.5
	Combustible Matter	2.6	4.0	5.8	2.4	6.3	2.6	10.5	BB	3.5	5.1	2.2	3.3	11	2.2	4.4	10.5
P7 260m West No.2 Coalberth SIP Area	Insoluble Solids	60.2	13.6	6.9	2.4	8.6	2.9	2.9	4.4	2.6	5.9	120.5	8.5	12	2.4	20.0	120.5
	Ash	56.2	11.4	5.1	1.2	1.3	1.4	1.3	3.2	1.6	4.7	114.6	7.0	12	1.2	17.4	114.6
	Combustible Matter	4.0	2.2	1.8	1.2	7.3	1.5	1.6	1.2	1.0	1.2	5.9	1.5	12	1.0	2.5	7.3
P8 PKCT. North Truckwash	Insoluble Solids	36.3	12.8	18.3	4.9	5.4	5.5	17.7	3.9	5.6	10.8	15.6	19.6	12	3.9	13.0	36.3
	Ash	11.2	4.3	4.3	1.2	1.8	1.7	3.7	1.7	2.7	3.2	4.8	5.0	12	1.2	3.8	11.2
	Combustible Matter	25.1	8.5	14.0	3.7	3.6	3.8	14.0	2.2	2.9	7.6	10.8	14.6	12	2.2	9.2	25.1
P9 East Side of Water Board Property	Insoluble Solids	4.0	4.6	3.4	1.3	3.5	2.8	2.0	2.6	1.6	2.4	4.0	3.5	12	1.3	3.0	4.6
	Ash	3.1	3.0	1.9	0.6	2.0	1.2	0.7	1.6	0.9	1.1	2.4	2.0	12	0.6	1.7	3.1
	Combustible Matter	0.9	1.6	1.5	0.7	1.5	1.6	1.3	1.0	0.7	1.3	1.6	1.5	12	0.7	1.3	1.6
P10 173 Corrimal Street Wollongong	Insoluble Solids	2.4	6.7	1.6	2.8	4.0		IN	IN	IN	IN	IN	IN	5	1.6	3.5	6.7
	Ash	1.4	3.1	0.7	1.4	1.7		IN	IN	IN	IN	IN	IN	5	0.7	1.7	3.1
	Combustible Matter	1.0	3.6	0.9	1.4	2.3		IN	IN	IN	IN	IN	IN	5	0.9	1.8	3.6
P11 Vikings Oval Wollongong	Insoluble Solids	1.1	2.5	0.9	0.7	1.3	2.3	0.9	2.1	0.4	1.1	2.3	1.2	12	0.4	1.4	2.5
	Ash	0.7	1.4	0.5	0.3	0.4	0.4	0.2	1.0	0.3	0.4	1.4	0.7	12	0.2	0.6	1.4
	Combustible Matter	0.4	1.1	0.4	0.4	0.9	1.9	0.7	1.1	0.1	0.7	0.9	0.5	12	0.1	0.8	1.9
P12 157 Church St Wollongong	Insoluble Solids	2.6	2.3	2.2	1.4	1.6	0.9	1.2	1.1	0.3	1.1	1.9	1.2	12	0.3	1.5	2.6
	Ash	1.7	1.5	1.3	0.8	0.8	0.4	0.5	0.6	0.1	0.6	1.2	0.8	12	0.1	0.9	1.7
	Combustible Matter	0.9	0.8	0.9	0.6	0.8	0.5	0.7	0.5	0.2	0.5	0.7	0.4	12	0.2	0.6	0.9
P13 200m North of A.I.S. RO.RO Berth	Insoluble Solids	8.8	10.2	5.9	6.1	1.0	3.5	2.6	4.1	1.2	3.5	3.1	3.7	12	1.0	4.5	10.2
	Ash	7.4	8.2	4.3	4.7	0.1	2.4	1.7	3.0	0.9	2.4	2.2	2.6	12	0.1	3.3	8.2
	Combustible Matter	1.4	2.0	1.6	1.4	0.9	1.1	0.9	1.1	0.3	1.1	0.9	1.1	12	0.3	1.2	2.0
P14 Ross Street Wollongong	Insoluble Solids	3.5	1.2	1.5	0.6	2.1	1.8	1.8	1.7	0.2	1.6	1.9	1.7	12	0.2	1.6	3.5
	Ash	2.6	0.6	0.8	0.2	1.0	0.9	0.8	0.9	0.0	0.6	1.1	0.7	12	0.0	0.9	2.6
	Combustible Matter	0.9	0.6	0.7	0.4	1.1	0.9	1.0	0.8	0.2	1.0	0.8	1.0	12	0.2	0.8	1.1
P15 North of PKCT Canteen Building	Insoluble Solids	17.5	11.7	20.8	5.2	11.4	10.6	17.2	8.5	9.6	8.9	15.3	15.6	12	5.2	12.7	20.8
	Ash	9.7	5.7	9.7	2.0	4.3	3.6	4.3	3.1	4.4	2.2	6.4	6.1	12	2.0	5.1	9.7
	Combustible Matter	7.8	6.0	11.1	3.2	7.1	7.0	12.9	5.4	5.2	6.7	8.9	9.5	12	3.2	7.6	12.9

With reference to Figure 3D above, the annual average for Total Solids particulates (TSP) and PM10 (i.e. less than 10 microns) was within the air quality criteria.

The 24 hour average across the reporting period for TSP and PM10 was within the air quality criteria 94% and 90% of the time respectively.

PKCT was assessed as being a moderate contributor (33 to 35%) to 24 hour dust concentration exceedances for TSP and PM10 on 6 days and 10 days respectively.

Annual average dust deposition at residential sites were within the assessment criteria.

Attachment A and B provides an extract from PKCT's air quality consultant (Katestone P/L)'s report on continuous dust and dust deposition data collected across the reporting period. Attachment D provides an extract from PKCT's environment protection licence (EPL) 11/12 annual return which includes a commentary on dust results and trends. Section 4.3.2 and 4.3.3 herein provides an analysis of results and trends.

### 3.4 Meteorological Monitoring

#### 3.4.1 Consent Condition

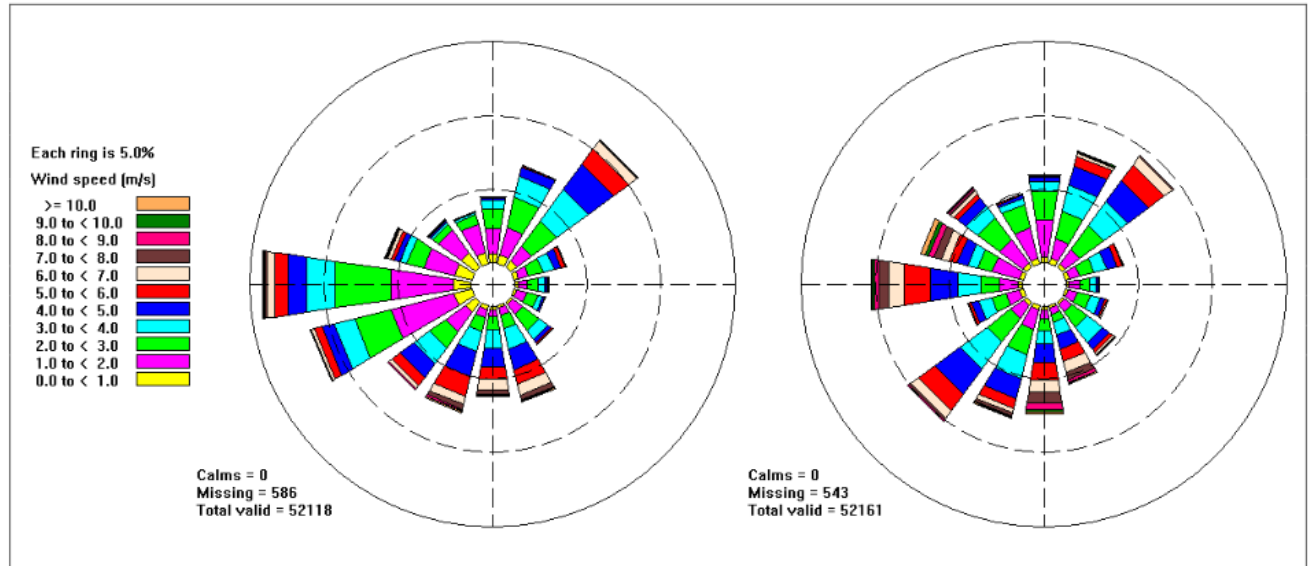
11. During the life of the project, the Proponent shall ensure that there is a suitable meteorological station on or in the vicinity of the site that generally complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.

#### 3.4.2 Compliance Statement

PKCT was compliant with this Condition during the reporting period. Meteorological monitoring is undertaken as follows:-

- Northern continuous dust monitor: monitors are calibrated annually and measure PM10, PM2.5, TSP, wind speed and wind direction.
- PKCT also has an anemometer on the Central Control Tower. It measures wind speed and direction as well as rainfall, pressure, temperature and humidity.
- Summary data is provided in Figure 3F below.

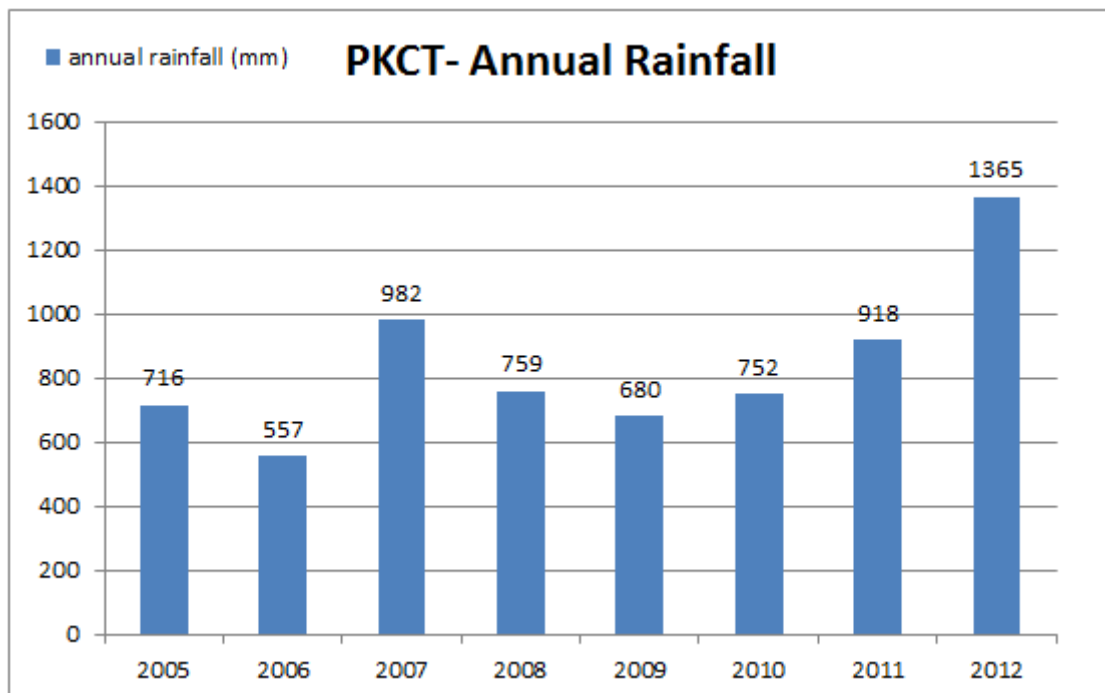
**Figure 3F Weather Monitoring Summary- 2012**  
**Wind Rose – Northern & Southern PKCT Monitoring Site**



**Figure 2 Annual wind roses for the 10-minute average winds recorded at the PKCT northern (left) and southern (right) monitoring sites during July 2011 to June 2012**

<b>Location:</b> PKCT northern and southern	<b>Period:</b> July 2011 – June 2012	<b>Data source:</b> PKCT	<b>Units:</b> m/s and °
<b>Type:</b> Annual wind rose	52,118 (Northern) and 52,161 (Southern) 10-minute average records	<b>Prepared by:</b> Sarah Menzel	<b>Date:</b> July 2012

year/month	Rainfall (mm)	Max Temperature degrees C	Min Temperature degrees C	WIND Max. Speed metres/ sec	Average Speed metres/s
2011/07	197	20	8.2	32.5	6.2
2011/08	57	24.9	9.9	24.3	4.5
2011/09	67	29.7	8.6	31.8	5.5
2011/10	185	30.9	11.4	22.8	4.7
2011/11	115	35.9	13.1	24.2	4.6
2011/12	47	23.7	12.1	22.6	5.3
2012/01	105	32.2	14.5	27	5.2
2012/02	262	26.5	16	20	4.6
2012/03	135	26.8	14.8	25.4	5
2012/04	89	26.6	11	27.2	4.7
2012/05	12	25.7	10.7	27.7	4.6
2012/06	93	19.5	0	32.7	5.3



### 3.5 Surface Water

#### 3.5.1 Consent Condition

##### 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:
    - o 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;
    - o 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);
    - o 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.



### 3.5.2 Compliance Statement

PKCT has a Water Management Plan MP.HS.462 which is in operation and DP&I approved (refer Section 2.4.2 herein). This plan was submitted to the DP&I within 12 months of project approval 08\_0009.

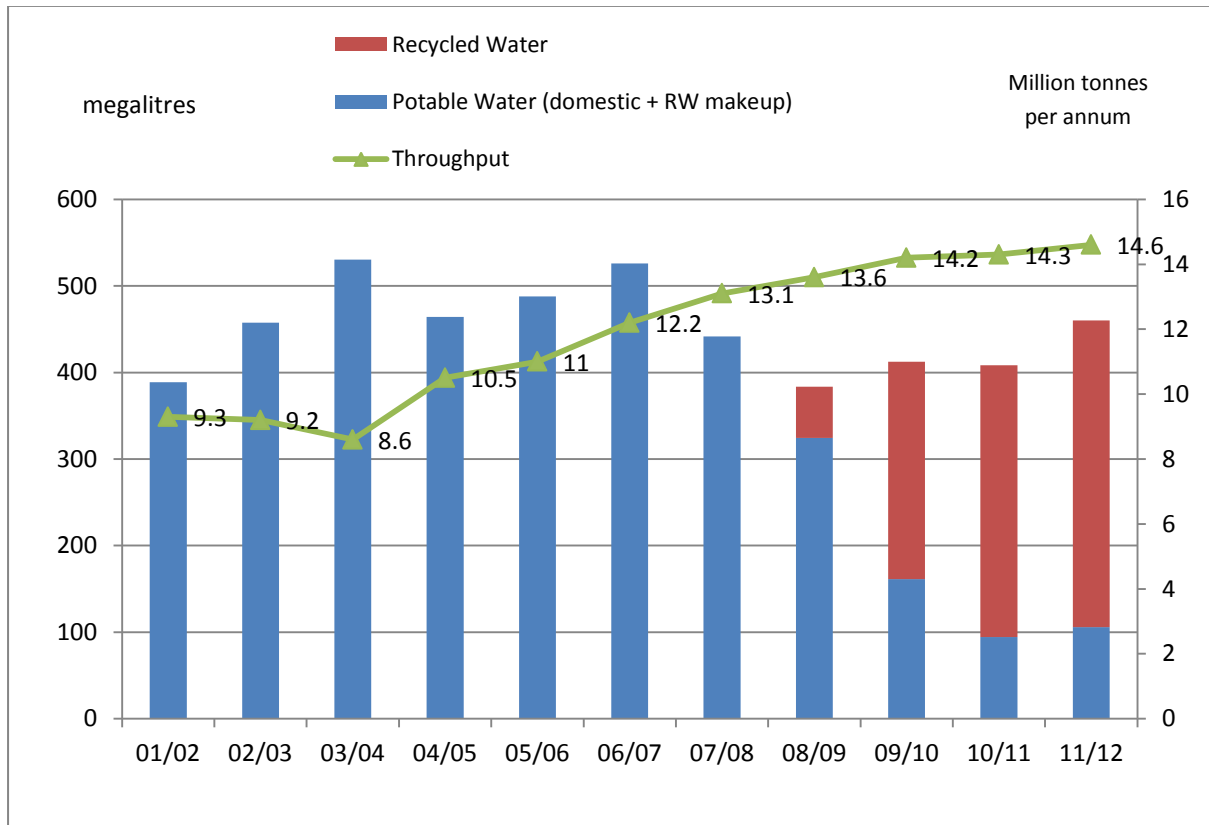
This plan outlines the processes operating currently with regard to water monitoring, assessment, reporting, mitigation and management provisions to ensure necessary actions are undertaken in accordance with DP&I approval conditions.

Plan includes reference to PKCT’s Water Savings Action Plan. This plan has been in place since 2006 and has most recently been revised in June 2012.

Work undertaken during the reporting period is outlined in Section 4.3.2 and 4.3.3 respectively.

**Figure 3G Water Usage Report**

Figure 3G below provides data on potable and recycled water usage.







Usage- megalitres	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Total FY12	Total FY11
recycled water- process	34255	26525	18479	29692	22491	37,460	36732	20604	29268	41273	27377	30028	354,184	313736
potable water- process	9,188	2982	24041	893	11895	7,741	6524	955	7474	1113	7043	3964	83,813	78657
potable water- domestic	1526	1575	1203	1721	1632	1458	3078	2010	2684	1412	1443	2493	22,235	15842
<b>Total</b>	<b>44969</b>	<b>31082</b>	<b>43723</b>	<b>32306</b>	<b>36018</b>	<b>46659</b>	<b>46334</b>	<b>23569</b>	<b>39426</b>	<b>43798</b>	<b>35863</b>	<b>36485</b>	<b>460,232</b>	<b>408,235</b>
% recycled water/ total process water used	78.9	89.9	43.5	97.1	65.4	82.9	84.9	95.6	79.7	97.4	79.5	88.3	80.9	80.0
													% total usage FY11/FY12	113

Findings/ recommendations made in AECOM P/L’s independent audit undertaken in March 2011 have been noted and actions are being progressed with the DP&I in accordance with Project Approval 08\_0009 (refer Section 4.4).

### 3.6 Biodiversity

#### 3.6.1 Consent Condition

##### 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.

#### 3.6.2 Compliance Statement

A Green and Golden Bell Frog (GGBF) Management Plan MP.HS.509 is implemented, in operation and DP&I approved (refer Section 2.4.2). The plan has been developed in consultation with the EPA and PKCT is continuing to work closely with the authority as matters arise.

### 3.7 Visual Amenity

#### 3.7.1 Consent Condition

##### 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;
  - o details of screening trees to be planted on the road receive earth bund and along the northern site boundary; and
  - o an implementation program.

#### 3.7.2 Compliance Statement

PKCT is not aware of any off site lighting impacts. Since PKCT commenced operations in 1990, there has been no community complaints made associated with lighting. Should any reports or complaints be received on this topic, PKCT will take immediate action to assess and resolve the matter.

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

PKCT's Landscape Management Plan MP.HS.470 is in operation and DP&I approved (refer Section 24.2.2). This document includes details of proposed tree planting. Implementation is staged and processed through PKCT's project approval process. Work undertaken in the reporting period is outlined in Section 4.3.2 herein.

Findings/ recommendations made in AECOM P/L's independent audit undertaken in March 2011 were noted and taken into account in the revision of the plan which was submitted to the DP&I on the 10<sup>th</sup> August 2011 and DP&I approved on the 27<sup>th</sup> October 2011.

### 3.8 Greenhouse & Energy Efficiency

#### 3.8.1 Consent Condition

##### 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.

#### 3.8.2 Compliance Statement

In accordance with Condition 18, a Greenhouse Gas & Energy Efficiency Management Plan MP.HS.461 was included in the 0910 AEMR submission to DP&I. The plan 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 OEH).

Findings/ recommendations made in AECOM P/L's independent audit undertaken in March 2011 were noted and taken into account in a revision of the plan which was submitted to the DP&I on the 10<sup>th</sup> August 2011 as part of the DP&I approval process. A status report on actions is provided in [Attachment F](#): Independent External Audit Actions Status Report - June 2012 herein.

PKCT's Greenhouse Gas and Energy Efficiency Management Plan MP.HS.461 is in operation and DP&I approved (refer Section 2.4.2).



The management plan also includes requirements under the National Greenhouse and Energy Reporting Act 2007 regulated by the Clean Energy Regulator (federal). In this regard, key actions undertaken in the reporting period are as follows:-

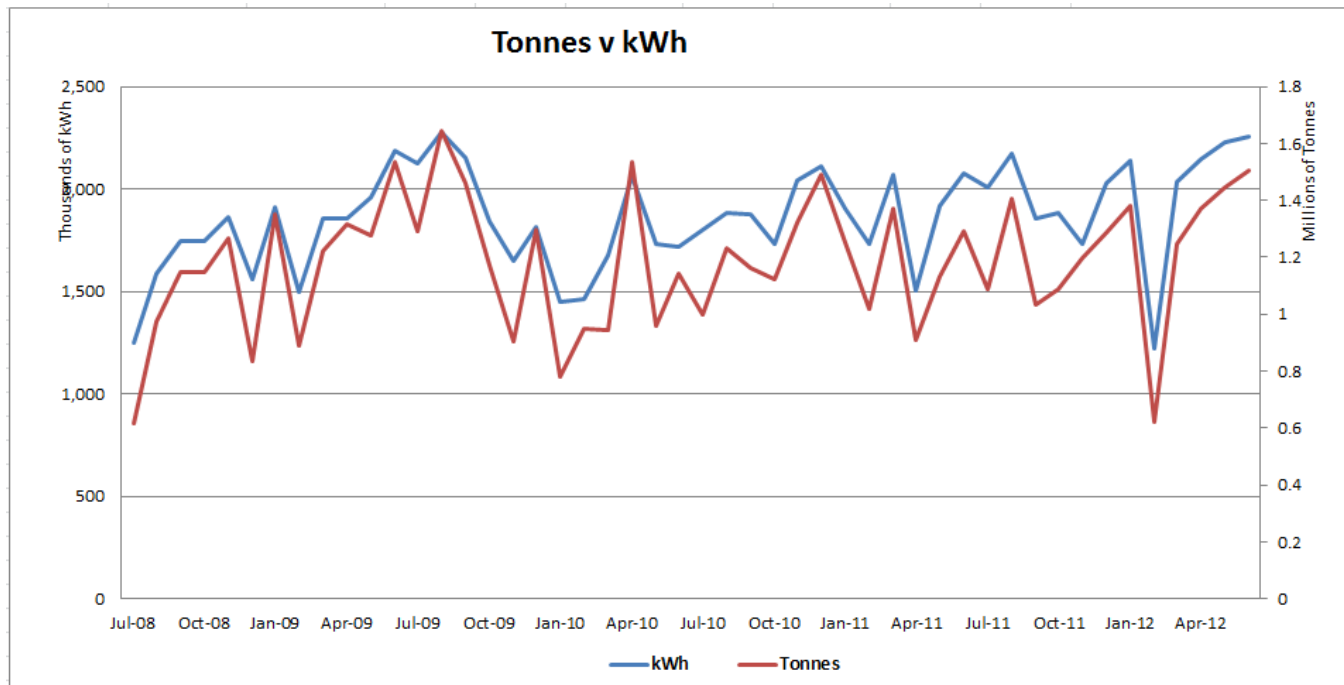
- In accordance with legal advice, PKCT, having operational control, is deemed to be the reporting entity under the referenced legislation. Accordingly, PKCT is currently under the reporting threshold.
- A consultant was engaged to advise on applicable site activities and energy aspects and to develop 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 (refer Figure 3H & 3I).

**Figure 3H Greenhouse Gas Report – 2011/2012**

2011/2012 FY	A		B	C	D	E
	Reporting unit	Amount consumed (reporting unit)	Energy content (GJ per reporting unit)	Emissions factor (kg CO2-e per GJ)	Reportable energy (GJ)	Reportable emissions (tonnes CO2-e)
<b>Scope 1 – direct emissions</b>					Gigajoules	tonnes
Diesel oil(transport)	kL	132	38.60	69.90	5095	356
Diesel oil(stationary energy)	kL	0	38.60	69.50	0	0
Biodiesel (April-June 2012)	kL	67	30.88	69.51	2069	144
Petrol (transport)	kL	27	34.20	69.60	923	64
Petroleum based oils	kL	11	38.80	27.90	427	12
Petroleum based greases	kL	4	38.80	27.90	163	5
Acetylene	m3	39	0.0393	51.33	2	0
<b>Scope 2 – indirect emissions</b>						
	Reporting unit		Energy content (GJ per kWh)	Emissions factor (kg CO2-e per kWh)		
Electricity	kWh	23,712,196	0.0036	0.89	85364	21104
<b>Total</b>					94043	21685
<b>Threshold</b>					100,000	25,000



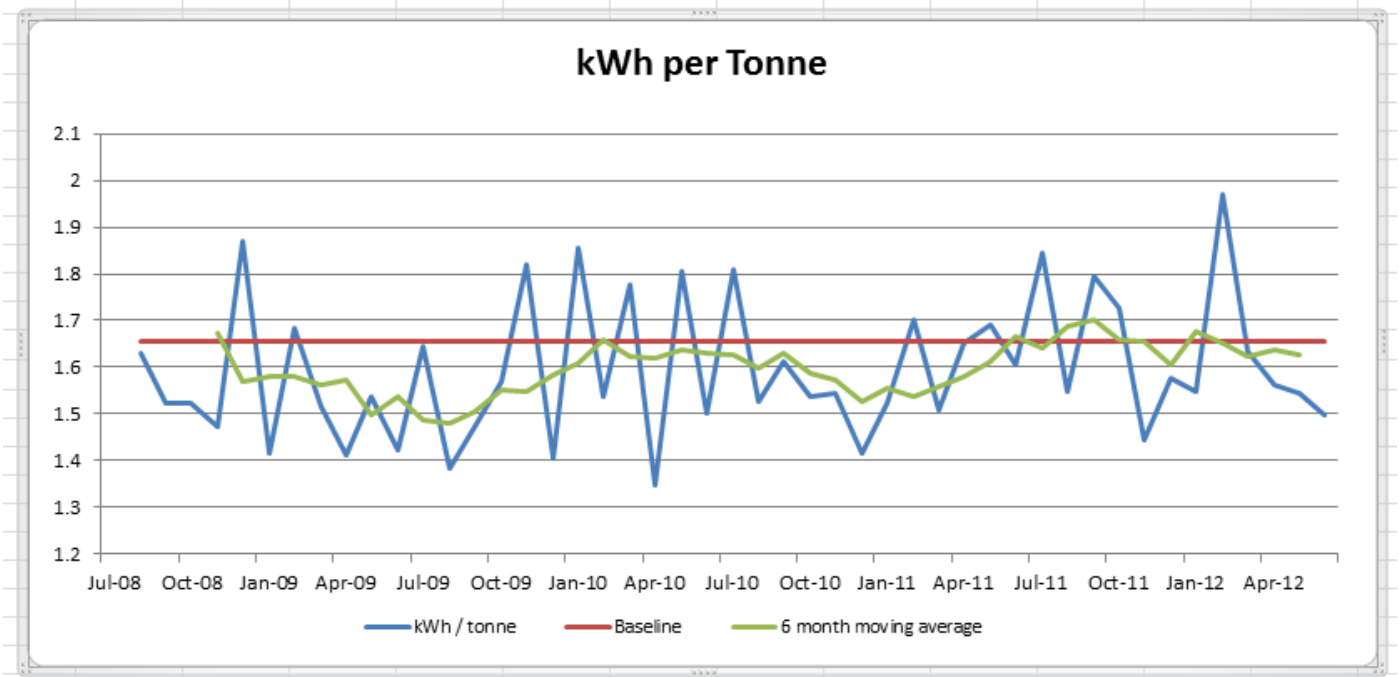
Figure 3i Energy Usage Report



Neither EPL 1625 nor DP&I Approval 08\_0009 specifies criteria for GHG emissions or energy reduction. However, it is noted that Greenhouse Gases - Scope 1 and Scope 2 emissions are below the National Greenhouse and Energy Reporting (NGER) scheme reporting threshold. Figures 3H and 3i above provide data covering the reporting period. Data shows increased efficiency through higher throughput months.

There was an incremental increase in calculated greenhouse gas emissions (2.5%) comparable to a 1.6% increase in activity (tonnes loaded) over the reporting period (compared to the previous reporting period).

Findings/ recommendations made in AECOM P/L's independent audit undertaken in March 2011 are noted and actions are being progressed with the DP&I in accordance with Project Approval 08\_0009 (refer Section 4.4).



	kw hr per tonne	Baseline	Improvement of Baseline
FY10	1.593	1.655	3.8%
FY11	1.594	1.655	3.7%
FY12	1.641	1.655	0.9%

**3.9 Waste**

**3.9.1 Consent Condition**

**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.

**3.9.2 Compliance Statement**

PKCT’s Waste Management Plan MP.HS.460, submitted to DP&I with 0910 AEMR, is in operation. The plan contains waste monitoring, assessment, reporting, mitigation and management provisions to ensure necessary actions and that waste from PKCT premises comply with the criteria in the condition above.



The objectives of this Management Plan 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 this management plan 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.

Figure 3J below reports on the types and quantities of waste generated in the reporting period. The table shows there are a number of waste streams segregated for general or special disposal or recycling. Waste management activities undertaken in this reporting period and proposed are outlined in Section 4.3.2 and Section 4.3.3 respectively.

**Figure 3J Waste Report**

WASTE	UNIT	2011						2012						DISPOSAL METHOD	
		JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN		TOTAL
General Waste - Bulk Bins (Roll On bins & Hook lift bins)	tonnes	N/A	N/A	3.64	2.06	4.52	10.44	10.04	4.24	3.6	3.76	27.38	N/A	69.68	Landfill
General Waste - Front Lift Bins - Main Workshop/Rear Administration Building/Contractors Shed	tonnes	N/A	N/A	1.85	1.33	2.08	0.47	1.19	1.4	2.25	1.16	1.55	1.84	15.12	Landfill
Cardboard Recycling Bin - Main Store & IT Building	tonnes	N/A	N/A	1.23	1.76	1.75	0.36	2.09	1.98	2.21	1.04	1.42	1.58	15.42	Recycled
Asbestos - all areas	tonnes	Nil	Nil	Nil	1.18	Nil	Nil	Nil	Nil	3.36	Nil	Nil	Nil	4.54	Landfill
Copper Wire Bin	tonnes	1.72	Nil	1.4	Nil	Nil	Nil	Nil	Nil	1.37	Nil	Nil	Nil	4.49	Recycled
Liquid Waste	litres	800	Nil	17758	Nil	30945	Nil	Nil	Nil	Nil	20187	Nil	23693	93383	Disposal/ sewer
Sewer Waste	litres	10576	5638	2928	2873	3149	2938	2876	2923	2933	2928	2973	2892	45627	Disposal/ sewer
Waste Steel Removal - all areas	tonnes	2.4	24.3	9.18	2.72	7.38	3.38	6.02	12.6	8.86	10.4	45.7	N/A	132.94	Recycled
Grease Cartridges	litres	Nil	205	Nil	Nil	Nil	Nil	Nil	205	Nil	Nil	Nil	Nil	410	Recycled
Oil Filters	litres	Nil	205	Nil	Nil	Nil	Nil	Nil	205	Nil	Nil	Nil	Nil	410	Recycled
Oily Rags	litres	Nil	205	Nil	Nil	Nil	Nil	Nil	205	Nil	Nil	Nil	Nil	410	Recycled
Coolant	litres	Nil	205	Nil	Nil	Nil	Nil	Nil	205	Nil	Nil	Nil	Nil	410	Recycled
Oil/Grease	litres	Nil	820	Nil	Nil	Nil	Nil	Nil	820	Nil	Nil	Nil	Nil	1640	Recycled



**Figure 3J Waste Report (Continued)**

PROJECT WASTE						
PROJECT	Waste Type	UNIT	Project Total	On Site	Recycled	Landfill
Bulk Product Berth Shiploader Demolition	Steel	tonnes	768		768	
	Copper	tonnes	3		3	
	Motors	tonnes	7		7	
	Concrete	tonnes	148		148	
	Excavated Spoil	tonnes	40	40		
Berth 101 Pavement Project	Excavated Spoil	tonnes	150	150		
NC8 Structural Refurbishment	Concrete	tonnes	30		30	
	Steel	tonnes	8		8	
Berth 102 Pile Refurbishment	Concrete	tonnes	95		95	
Berth 102 Midship Gangway Replacement	Concrete	tonnes	42		42	
Conveyor NC15 Partial Dismantlement	Steel	tonnes	15		15	
Stacker Reclaimer Rail Clip Replacement	Steel	tonnes	14		14	
TS4 & Stacker-Reclaimer Geotechnical Investigation	Excavated Spoil	tonnes	25	25		
Seawall Road Fencing	Excavated Spoil	tonnes	10	10		
Total concrete removed off site	Concrete	tonnes	315			
Tota steel removed off site	Steel	tonnes	805			

**3.10 Hazards**

**3.10.1 Consent Condition**

**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*.

**3.10.2 Compliance Statement**

PKCT is aware of all dangerous goods onsite and ensures personnel are suitably trained to handle these and that there is suitable site storage in accordance with AS1940 & AS1596. Actions carried out during the reporting period are as follows:-

- Groundwater testing was carried out for the underground fuel tanks in October 11 and the results indicated the tanks were sound with no evidence of leaks. Further testing is scheduled for July 2012.
- Consultant, GHD, carried out an investigation into the future of PKCT’s underground tanks and provided options to enable PKCT to be fully compliant with the regulations.

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AUTHORISED BY Peter Green, General Manager

Date Authorised: 30.10.12





- PKCT has reviewed options and a project is being developed to replace the underground fuel tanks with above ground, compliant facilities.
- Integrity tests confirm tanks are sound and ground water monitoring is continuing. Action is in line with consultant, Advitech’s recommendations.

**3.11 Fire Control**

**3.11.1 Consent Condition**

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.

**3.11.2 Compliance Statement**

PKCT has a Fire Management Plan in place which outlines the processes in place pertaining to fire management associated with PKCT operations.

Actions carried out in this reporting period and proposed relating to fire management are outlined in Section 4.3.2 and Section 4.3.3.

Findings/ recommendations made in AECOM P/L’s independent audit undertaken in March 2011 are noted and actions are being progressed with the DP&I in accordance with Project Approval 08\_0009 (refer Section 4.4).

**4.0 ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING**

**4.1 Environmental Management**

Condition 1 of Schedule 4 in the PKCT Major Project Approval 08\_0009 contains requirements for environmental management. Table 4.1 identifies these and explains how PKCT complies.

**Table 4.1 – Environmental Management Compliance**

Environmental Management (Condition 1, Sch. 4)	Reference/Comment
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 Environmental Management Strategy (EMS).
(a) be submitted to the Director-General within 12 months of this	EMS was submitted to DP&I by 31.7.10



project approval or otherwise agreed by the Director-General;	as part of 0910 AEMR; also refer Section 9.2 of EMS.
(b) provide for the strategic context for the environmental management of the project;	Refer to Section 5 of the PKCT EMS.
(c) identify the statutory requirements that apply to the project;	Refer to Section 6 of the PKCT EMS.
(d) describe the procedures that would be implemented to: <ul style="list-style-type: none"> <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 EMS Sections as follows: 11 11 11.3 7.6 7.3 8.1
(e) include an environmental monitoring program for the project that includes all the monitoring requirements of this approval;	Refer to Section 9 of the PKCT EMS.
(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 of the PKCT EMS.
(g) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project.	Refer to Section 4 of the PKCT EMS.

## 4.2 Reporting

### 4.2.1 Consent Condition

#### 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.

### 4.2.2 Compliance Statement

Requirements associated with this condition have been referenced in the Environment Management Strategy MP.HS.64 and PKCT’s Event Management procedure. There were no reportable incidents in the reporting period.

## 4.3 Annual Reporting

Condition 4 of Schedule 4 in the PKCT Major Project Approval 08\_0009 contains requirements for annual reporting. Table 4.2 identifies these requirements and explains how PKCT complies.



**Table 4.3 – Environmental Management Compliance**

AEMR Consent Condition (Condition 4, Schedule 4)	AEMR Section
Within 12 months of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and all relevant agencies. This report must:	N/A
(a) identify the standards and performance measures that apply to project;	4.3.1
(b) describe the works carried out in the last 12 months;	4.3.2
(c) describe the works planned to be carried out in the next 12 months;	4.3.3
(d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;	4.3.4
(e) include a summary of the monitoring results for the project during the past year;	4.3.5
(f) include an analysis of these monitoring results against the relevant: <ul style="list-style-type: none"> <li>• impact assessment criteria/limits;</li> <li>• monitoring results from previous years; and</li> <li>• predictions in the EA or other documents listed in condition 2 of schedule 2;</li> </ul>	4.3.6
(g) identify and discuss all exceedances of approval and licence conditions and other applicable standards and performance measures;	4.3.7
(h) identify any trends in the monitoring results over the life of the project;	4.3.8
(i) identify any non-compliance during the previous year; and	4.3.9
(j) describe what actions were, or are being, taken to ensure compliance.	4.3.10

**4.3.1 Environmental Standards & Performance**

The environmental standards and performance requirements applicable to PKCT’s operations are specified in the Environment Management Strategy and associated management plans.

PKCT’s EPL 1625 and DP&I Approval 08\_0009 are the primary statutory instruments.

**Noise**

EPL 1625 & Major Project Approval 08\_0009 control noise emissions from PKCT’s premises. Noise criteria is outlined in Section 3.1.1.

**Air Quality**

EPL 1625 contains a requirement for dust monitoring but there are no specified limits for dust, or other air quality, emissions. The EPL does require the following:

<p>O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.</p> <p>O3.2 Activities occurring in or on the premises must be carried out in a manner that will minimise the generation or emission, of wind blown or traffic generated dust.</p>
---

Major Project Approval 08\_0009 does contain air quality criteria which are outlined in Section 3.3.1.



**Surface Water**

The Protection of the Environment Operation (POEO) Act 1997 sets requirements and controls regarding pollution of the environment. Section 120 of this Act confirms it is an offence to cause or permit pollution of any waters. PKCT is required to comply with this requirement; however, PKCT’s EPL 1625 provides site specific water pollution permissions and requirements relating to their activities.

**EPL 1625 Water Quality Limits**

Pollutant	Unit of Measure	100 Percentile Concentration Limit
Oil and Grease	Milligrams per litre	10
pH	pH	6.5-8.5
Total Suspended Solids (TSS)	Milligrams per litre	50

However, in the event that rainfall, at the PKCT premises, exceeds a total of 90mm over a consecutive 5 day period the EPL permits exceedance of the TSS limit in Table 5.1 but only if the TSS discharge does not exceed a 5 day average of 100mg/l. Condition 12 of Schedule 3 of Major Project Approval 08\_0009 also specifies a surface water standard for PKCT activities. The following extract identifies the control.

**DP&I Approval 08\_0009 Water Quality Condition**

**SURFACE WATER**

**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*.

This replicates PKCT’s surface water requirement under the POEO Act and is therefore controlled by EPL 1625.

The Water Management Plan MP.HS.462 references applicable legal and other requirements.

**Figure 4A** Discharge Point P16 Performance Trend- Total Suspended Solids provide a summary of water quality results from PKCT’s EPL licenced discharge point. The results indicate the following:-

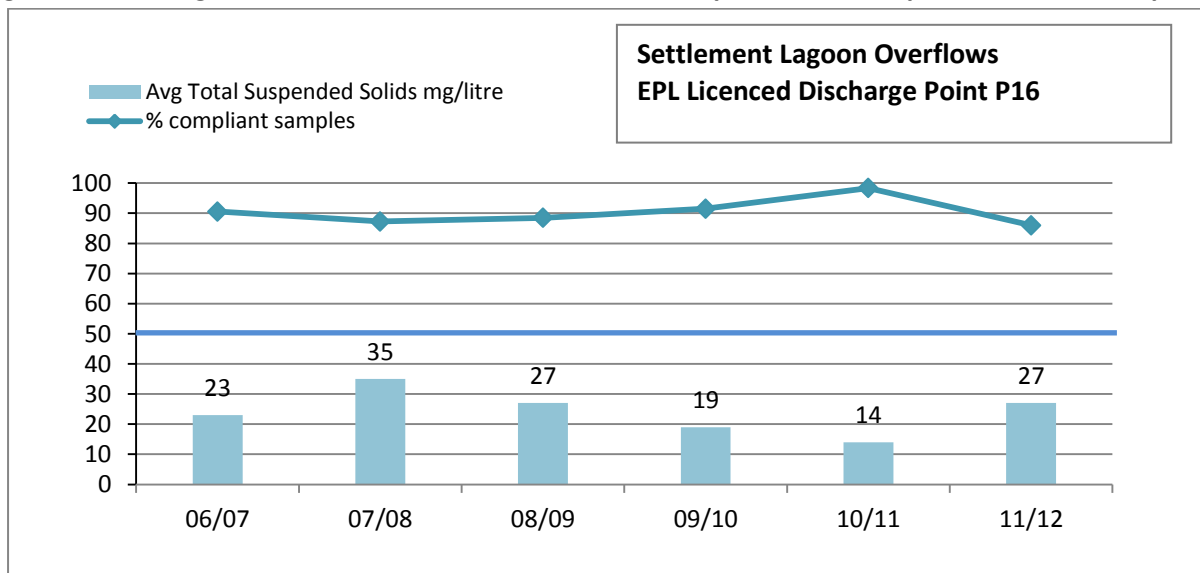
- 86% compliance for total suspended solids. Figure 4A shows an adverse trend though the average TSS water quality of 27 mg/litre across 96 samples is well within the EPL limit.
- 98% compliance was achieved for oil/ grease with two samples exceeding the EPL limit.
- 100% compliance was achieved for pH. The EPL range of pH has been extended by the EPA to 6.5- 9.5 while PRP9 progresses. As indicated in Figure 4B, a number of samples were outside the 6.5 to 8.5 pH range.



- Since commencement of recycled water use at PKCT, pH has been found, at times, to be outside EPL limits potentially due to the increased nutrient levels in collected water. Monitoring is continuing in consultation with the EPA to ascertain the cause and determine appropriate actions. Consultant advice indicates that periodic discharge, usually during storm conditions, of water with elevated pH doesn't adversely impact on receiving waters. Figure 4C provides an indication of the effect of algal counts and water temperature on elevated pH.

**Attachment D** Extract from OEH EPL Annual Return: 1.4.11 to 31.3.12 and Section 5.1 provides further details of circumstances of the exceedances and actions being undertaken. Actions have also been recorded in Sections 4.3.2 and 4.3.3).

**Figure 4A Discharge Point P16 Performance Trend- Total Suspended Solid & pH of Overflow Samples**



July11-June12	EPL Limit	unit	Compliant Samples	Total Samples	% Compliance	Average (mg/litre)
pH	6.5-9.5*		96	96	100%	not applicable
Total Suspended Solids	less 50	mg/litre	83	96	86%	27
Oil/grease	less 10	mg/litre	91	93	98%	less 5

\*pH range extended by EPA to 9.5



Figure 4B pH of Overflow Samples

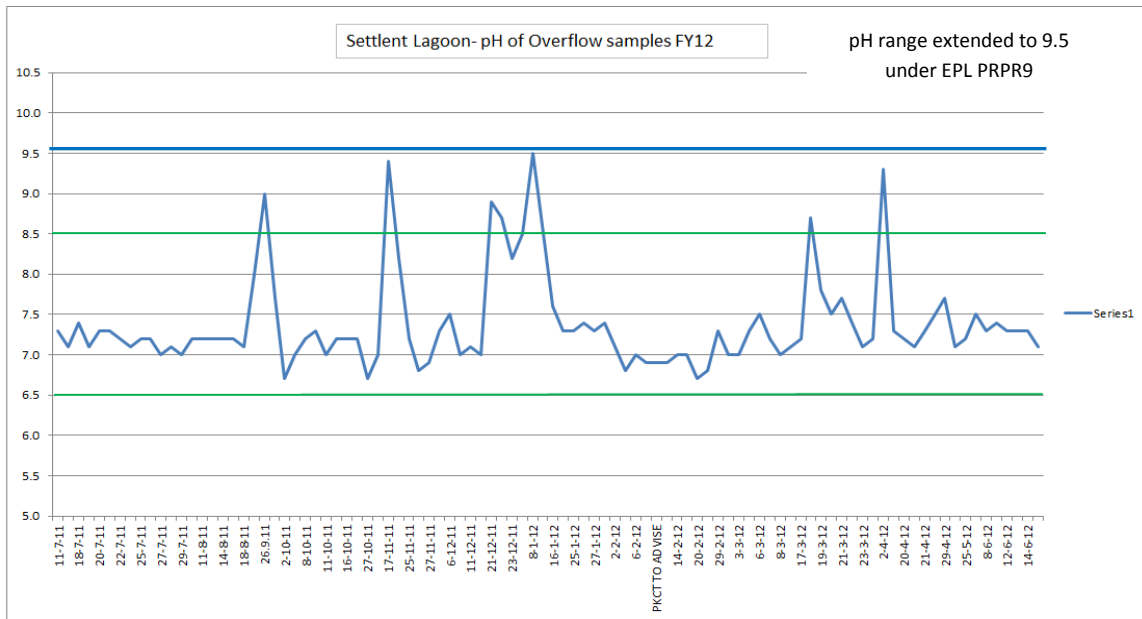
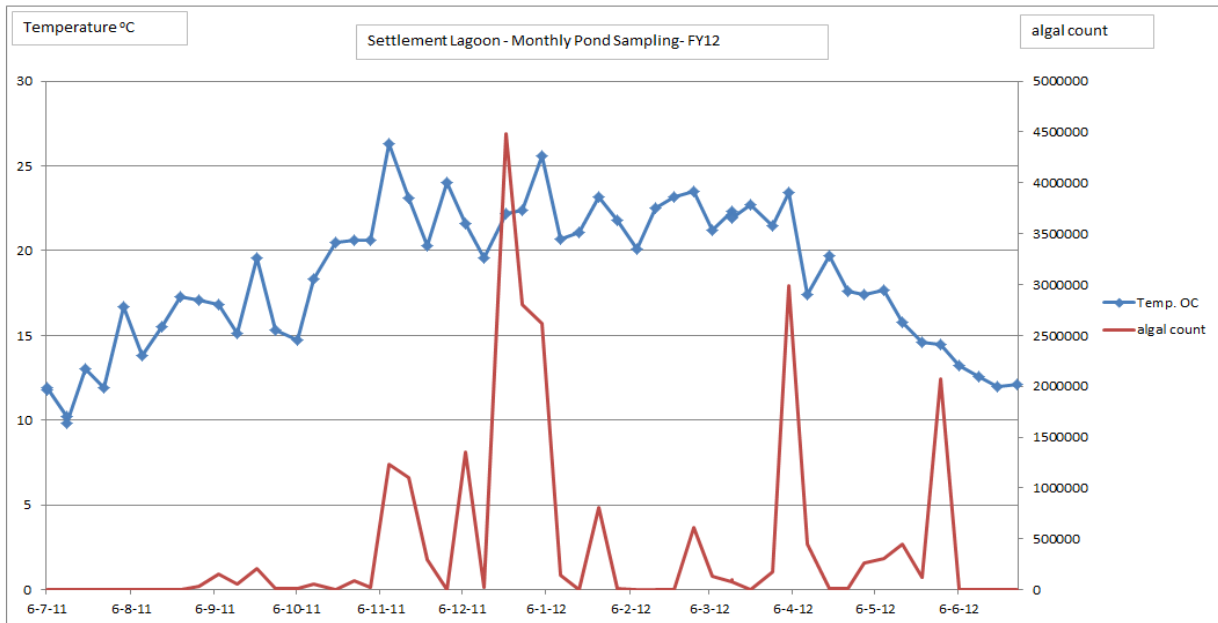


Figure 4C Algal Count



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### GHG & Energy Use

EPL 1625 does not include any requirements relating to GHG emissions or energy use.

Major Project Approval 08\_0009 has requirements relating to GHG and energy efficiency but does not set any prescriptive controls. Condition 18 of Schedule 3 requires the following.

Include a framework for investigating and implementing measures to reduce greenhouse gas emissions and energy use at the project.

Greenhouse Gas and Energy Efficiency Management Plan MP.HS.461 references applicable legal and other requirements.

### Waste

EPL 1625 does not include any standards or performance measures relating to waste.

Major Project Approval 08\_0009 has requirements relating to waste but does not set any prescriptive controls. Condition 19 of Schedule 3 requires the following.

Implement reasonable and feasible measures to minimise waste generated by the project.

Waste Management Plan MP.HS.460 references applicable legal and other requirements. The waste data in Figure 3J illustrates PKCT's efforts in recycling. It also highlights the importance of waste management for major projects which can involve significant quantities e.g. BPB Demolition project.



**4.3.2 Activities During Reporting Period**

NB this section reports on actions referenced in the previous AEMR for this reporting period.

1112 AEMR Action	
<b>Independent External Audit- March 11</b>	
<ul style="list-style-type: none"> <li>Report to DP&amp;I by 10<sup>th</sup> August 2011 on audit findings recommendations; advise of proposed and completed actions.</li> <li>Progress implementation of audit actions to completion. N.B many of the actions will pertain to the aspects listed below.</li> </ul>	<ul style="list-style-type: none"> <li>Report was submitted to the DP&amp;I by PKCT on 10<sup>th</sup> August 2011 providing a response to the audit findings and recommendations. The report sought clarification on aspects of PKCT's Project Approval conditions and provided advice on proposed actions.</li> <li>By letter of 27<sup>th</sup> October 2011, DP&amp;I provided a response to PKCT's report.</li> <li>Attachment F herein provided a status report on actions</li> </ul>
<b>Environmental Monitoring</b>	
<ul style="list-style-type: none"> <li>Carry out the required environmental monitoring as outlined in the Environmental Management Strategy MP.HS.464.</li> </ul>	<p>Complete- monitoring carried out over period (n.b. MP.HS.464 Table 9.1)</p> <ul style="list-style-type: none"> <li>air quality- EPL dust deposition (refer Figure 3E)</li> <li>air quality- continuous dust monitors (refer Figure 3D)</li> <li>water discharges- EPL water quality limits (refer Figure 4A)</li> <li>recycled water- water quality (refer Figure 3G)</li> <li>recycled water- water usage (refer Figure 3G)</li> <li>electricity- usage (refer Figure 3I)</li> <li>greenhouse gas- generation (refer Figure 3H)</li> <li>noise- DP&amp;I Approval 08_0009 and EPL (refer Attachment A)</li> <li>activity- shiploading and receivals data (refer Figure 3B)</li> <li>rainfall- EPL requirement (refer Attachment D)</li> <li>national pollution inventory report (submitted to OEH on 29<sup>th</sup> September 2011)</li> <li>Complaints-(refer Figure 3B &amp; Attachment D)</li> <li>Incidents-(refer Figure 3B)</li> <li>Cooling Tower- (refer Attachment E)</li> </ul>

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<ul style="list-style-type: none"> <li>As part of strategic planning and project development, carry out baseline and other assessments as required.</li> </ul>	<p>In progress, baseline environmental assessments needed for project development have been identified, have commenced and will need to be progressed across forthcoming reporting periods. Areas to be addressed are as follows:</p> <ul style="list-style-type: none"> <li>Air Quality</li> <li>Surface Water</li> <li>Groundwater</li> <li>Marine Water Quality</li> <li>Marine Ecology</li> <li>Site Contamination</li> <li>Noise</li> <li>GHG and EE</li> <li>Traffic and Transport</li> <li>Biodiversity</li> <li>Visual</li> <li>Waste</li> <li>Community Relations &amp; Stakeholder Communication</li> </ul>
<b>Noise</b>	
<p>Continue noise surveys in accordance with the Noise Management Plan MP.HS.387.</p>	<ul style="list-style-type: none"> <li>Noise surveys were carried out in August 2011 and April 2012- refer Attachment A</li> <li>A Traffic and Noise study simulation was carried out in August 2011 to assess against EA predictions.</li> </ul>
<b>Traffic and Transportation</b>	
<p>Continue to monitor application of Drivers Code of Conduct Implementation Plan MP.BM.453.</p>	<ul style="list-style-type: none"> <li>Refer Figures 3C and 2A and Section 3.3.2. With reference to Section 3.1.4 and Attachment F, improvements have been implemented to strengthen DCC implementation.</li> <li>By letter of 7<sup>th</sup> May 2012, PKCT submitted an application to the DP&amp;I seeking approval to receive up to 10 million tonnes by public road in accordance with the provisions of Project Approval 08_0009.</li> </ul>
<p>Progress the truck wash upgrade through the project approval process and complete OEH Pollution Reduction Program 10- Environmental Improvement</p>	<p>With reference to Section 6.1.2, a project to upgrade the northern truck wash has been approved and is proceeding with completion planned including effectiveness review. A Pollution Reduction program (PRP 11) has been established under PKCT's environment protection licence 1625.</p>

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<p>Program: Evaluate Truck Wash Performance.</p>	
<p><b>Air Quality</b></p>	
<p>Further refine the air quality methodology as it is implemented in the Air Quality Management Plan MP.HS.387 giving consideration to the following:</p> <ul style="list-style-type: none"> <li>○ Replacing the Corrimal St residential site with another less vulnerable to local dust sources and compliant with the applicable Australian Standard for siting dust deposition gauges.</li> <li>○ Establishing another continuous dust monitor on the residential boundary.</li> <li>○ Continuing to investigate petrographic and other techniques for differentiating dust sources impacting on residential areas.</li> <li>○ Revising dust gauge locations to improve data capture of dust fallout impacting on the car industry operating adjacent to PKCT's site.</li> <li>○ Enhancing site operational controls by using the continuous dust monitors to raise alerts when dust levels approach air quality triggers.</li> <li>○ Investigating use of dust monitors to better evaluate on site dust sources and quantify emissions e.g. exhaust from ventilation systems.</li> </ul>	<p>With reference to Attachment D, progress has been made across the reporting period as follows:-</p> <ul style="list-style-type: none"> <li>● The Corrimal Street residential site has been found to be unreliable and influenced by local effects. It has been proposed to the EPA that this gauge be replaced by the Ross Street site as an EPL monitoring point.</li> <li>● An assessment has been completed which has identified Vikings Oval site as a suitable site for another continuous monitor. This site also contains dust gauges and BlueScope Steel's high volume sampler. The site meets Australian Standards for ambient air monitoring and is located on the residential boundary.</li> <li>● PKCT's consultant Prominco undertook a petrographic analysis of annual dust deposition samples from the Vikings Oval and Church Street sites to enable PKCT to better understand the nature and contributions of the various dust sources impacting on the Wollongong airshed and community receptors. Report provided some insights into other dust sources such as particulate emissions associated with steel making which is particularly relevant as BlueScope Steel is a near neighbour.</li> <li>● A Community of Practice group was formed during the reporting period with representatives from coal terminals on the eastern seaboard. The aim of the group is to share information and benchmark to improve environmental performance. Petrography was a discussion topic at the 26<sup>th</sup> June 2012 meeting and the Prominco report has been tabled for review.</li> <li>● Dust gauges locations in relation to car industry neighbours have been determined to be satisfactory for the present.</li> <li>● Katestone have submitted a proposal for automating continuous dust data reporting. This will better enable the use of the data for operational control including the potential for raising operational alarms. The proposal also includes an improved weather forecasting service. Evaluation of the proposal is currently in progress.</li> <li>● Work has not progressed on the proposed investigation into the use of dust monitors to better evaluate on site dust sources and quantify emissions e.g. exhaust from ventilation systems. It remains an option within PKCT's Dust Improvement Strategy. Other actions are currently taking precedence.</li> </ul>
<p>Progress PKCT's Dust Management Improvement project, which is included in the 2011/12 Business Plan, through the project approval process with consideration to the following:-</p> <ul style="list-style-type: none"> <li>● Installation of moisture meters on the road</li> </ul>	<p>Dust Management Improvement project progressed as part of the 11/12 Business plan as follows:-</p> <ul style="list-style-type: none"> <li>● A moisture analyser was installed on the rail receipt system to determine the moisture level in coal received at the PKCT. This data is essential as part of Dust Extinction Moisture management. That is ensuring coal is at its optimum moisture level to prevent/ minimise lift off. The unit is commissioned and data is being collected. If successful, a moisture meter will also be installed on the road receipt system.</li> </ul>

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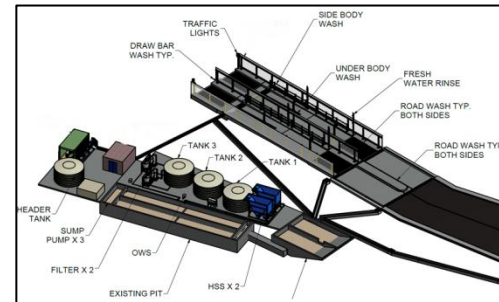
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and rail receival streams as the initial stage for implementation of dust extinction moisture management.

- Continue to collect coal and bulk product data from shippers to determine material handling properties such as dust extinction moisture and dustiness.
- Progress the north truck wash upgrade project as described above.
- Pave the northern transfer station area (currently unsealed) and a potential source of fugitive dust emissions.

- The North Truckwash Upgrade project has been approved and a contract has been awarded. This will provide a significant reduction in dust associated with traffic on exit roads.



Upgrade schematic

- A project has been approved for the asphaltic paving of the northern transfer station area. This will significantly reduce dust from this area which is located on PKCT's northern boundary adjacent to a perimeter roadway and in close proximity to the Wollongong Golf course.



Area to be paved



<ul style="list-style-type: none"> <li>Investigate use of a weather station (wind speed and evaporation) to control stockpile spray operations.</li> </ul>	<ul style="list-style-type: none"> <li>Work has not progressed on the use of a weather station to control stockpile spray operations. It remains an option within PKCT's Dust Improvement Strategy though other actions are currently taking precedence.</li> </ul>
<ul style="list-style-type: none"> <li>Continue to participate in Port User Group investigating dust fallout from the industrial precinct and liaise with car industry neighbours.</li> </ul>	<ul style="list-style-type: none"> <li>Across the reporting period, the car industry appears to be more accepting of its surrounds and industrial precinct. The group, chaired by the Port Kembla Port Corporation hasn't met.</li> </ul>
<p><b>Surface Water</b></p>	
<p>Progress actions under EPA EPL Pollution Reduction Program PRP9- Performance Upgrades to the Stormwater Pollution Control System, the key aspects of which are as follows:-</p> <ul style="list-style-type: none"> <li>Continue to monitor pH and algae and assess the value of the ultrasonic algae controller in operation in the settlement lagoon.</li> <li>Progress dosing unit improvements identified in FY11 reporting period through the project approval stage and implement.</li> <li>Investigate improvements in stockyard and spillage management to reduce the sediment load on collection ponds.</li> <li>Investigate improvements to collection pond infrastructure to facilitate easier sediments removal.</li> </ul>	<ul style="list-style-type: none"> <li>Attachment D provides a status report on action undertaken under PRP 9 across the EPL annual return period (April 2011-March 2012). PKCT has submitted a report to the EPA by 30.6.12 (in accordance with the PRP). This report was carried out by PKCT's consultant Cardno and consists of (a) a report on algae control options (b) a report on PKCT's water collections and recommendations for improvement taking a treatment train approach. Discussions with the EPA are progressing and further work will be required across FY13.</li> <li>As part of PRP 9, the settlement lagoon dosing unit is being upgraded including a backup dosing unit to ensure system is available and operation when required. The upgrade also includes a new polymer tank with level monitoring and alarming. Work is in progress and completion is expected in August 2012.</li> </ul> <div style="display: flex; justify-content: space-around; align-items: center;"> <div data-bbox="913 919 1285 1203" data-label="Image"> </div> <div data-bbox="1541 919 1912 1203" data-label="Image"> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div data-bbox="958 1206 1272 1235" data-label="Caption"> <p>Back up dosing unit installed</p> </div> <div data-bbox="1509 1206 1957 1235" data-label="Caption"> <p>new polymer storage tank to be installed</p> </div> </div>
<p>Progress further potable water savings through PKCT's Water Savings Action Plan and submit an annual Water Savings Action Plan status report in December 2011.</p>	<ul style="list-style-type: none"> <li>Water Savings Action plan was submitted in June 2012 and includes actions to install domestic supply metering to better track usage. Domestic consumption is increasing due to increasing numbers of project and contract personnel associated with restoration and improvement works.</li> </ul>

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<p>Implement actions identified by consultant, Water Futures, in its review of the implementation of the Recycled Water Project. Water Futures recommended that measures be implemented to reduce spray drift and overspray associated with truck wash operations.</p>	<ul style="list-style-type: none"> <li>• Scope for the Truckwash Upgrade has included reducing operating pressures and lowering sprays to reduce spray drift and overspray. A manual cleaning station will also be provided away from the truckwash reducing the need for people to be near it when it is operating thereby reducing exposure to overspray.</li> </ul>
<p><b>Biodiversity</b></p>	
<ul style="list-style-type: none"> <li>• In consultation with EPA, finalise the Green and Golden Bell Frog Management Plan MP.HS.502 and verify the agreed strategy for the northern port precinct. Actions which pertain are as follows:-             <ul style="list-style-type: none"> <li>○ Remove reed clumps in the settlement lagoon and confirm alternative arrangements.</li> <li>○ Confirm arrangements for frog removal, if sighted and at risk.</li> <li>○ Investigate options for establishing on site support from Symbio Wildlife Park if needed e.g. Bell frog microc hipping.</li> </ul> </li> <li>• Undertake frog surveys, in particular spring surveys at Greenhouse Park to follow up on the bell frog sighting in March 2011.</li> </ul>	<p>With reference to Section 2.4.2, the Green and Golden Bell Frog Management Plan has been revised in consultation with the EPA and is approved. Actions have occurred as follows:-</p> <ul style="list-style-type: none"> <li>○ Settlement lagoon has been desilted and the reed clumps removed.</li> <li>○ Management plan has confirmed arrangements for frog sightings and, if necessary, handling and relocation.</li> </ul> <p>There have been no Green and Golden Bell frog sightings at PKCT or at Greenhouse Park or any sign of their presence e.g. croaking. There have been some Peron Tree frog sightings (not endangered).</p> <ul style="list-style-type: none"> <li>• Advice from Wollongong City Council (Greenhouse Park landowners) and Conservation Volunteers Australia indicate that across inspections and in undertaking site activities and pond maintenance work, there have been no sightings or signs of the presence of Green and Golden Bell frogs. The same was found in PKCT inspections at Greenhouse Park across the reporting period..</li> <li>• Frog surveys at PKCT have been taken in the form of internal PKCT inspections undertaken by site personnel.</li> </ul>
<p><b>Visual Amenity/Landscaping</b></p>	
<p>Progress landscaping improvements as follows:-</p> <ul style="list-style-type: none"> <li>• Further progress northern landscaping improvements (Transfer Station 2 area)- Stage 2</li> </ul>	<p>Northern transfer station screening and landscaping improvements (Stage 2) are complete.</p> <p style="text-align: center;">Stage 1 plants- established <span style="float: right;">Stage 2 complete- work continuing to establish plants</span></p>



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<ul style="list-style-type: none"> <li>Review Stage 3 once Stage 2 is completed.</li> </ul>	<div style="display: flex; justify-content: space-around;">   </div> <ul style="list-style-type: none"> <li>Strategic planning is progressing associated with PKCT operations with consideration to restoration, upgrade and improvement works. Significant projects are under consideration with possible impacts across the site. Stage 3 Landscaping works is in an area which may require significant earthworks under an upgrade scenario and is currently “on hold”.</li> </ul>
<p>Review the findings/ recommendation of consultant, Lightpoint Consulting Services, and undertake actions as appropriate.</p>	<p>Lightpoint Consulting Services completed its review and submitted its report in October 2011. The consultant concluded that the site was compliant with AS 4242 and no adverse impact on residential amenity due to lighting was found.</p>
<p><b>Greenhouse Gas and Energy Efficiency</b></p>	
<p>Progress energy savings through PKCT’s Energy Savings Action Plan as follows:-</p> <ul style="list-style-type: none"> <li>Continue to consider energy savings and greenhouse gas reduction opportunities when developing improvement and remedial projects.</li> <li>Consider saving opportunities in the project scope for the Administration Building refurbishment/air conditioning upgrade.</li> <li>Investigate use of bio fuels for mobile plant operations.</li> </ul>	<ul style="list-style-type: none"> <li>PKCT project development process includes the consideration of energy savings and greenhouse gas reductions. PKCT contractor requirements for working on site also makes reference to these obligations.</li> <li>The Administration Building refurbishment project remains in the program but is yet to commence.</li> <li>Project Office project was developed entailing two storey accommodation to be located north of the store. Energy efficiency opportunities will considered in project scoping.</li> <li>The use of soya biodiesel has commenced for front end loader operations resulting in a 20% reduction in greenhouse gas. A soya biodiesel plant is proposed for construction adjacent to PKCT which will provide further opportunities.</li> </ul>



<ul style="list-style-type: none"> <li>○ As part of PKCT strategic planning which is giving consideration to growth options and plant upgrades, undertake a Greenhouse Gas and Energy Savings Review.</li> </ul>	
<p>Continue to check operations and greenhouse gas emissions versus the threshold for reporting to the OEH.</p>	<p>Monitoring has continued across the reporting period and PKCT remains below reporting threshold.</p>
<p>Investigate and identify actions and arrangements which will need to be put in place if the threshold is reached.</p>	<p>No further work has been undertaken on this at this stage.</p>
<p><b>Waste</b></p>	
<p>Continue the staged review and implementation of waste improvements identified in Transpacific's review of PKCT's waste management.</p>	<p>Oil transfer equipment has been installed to improve waste oil collection associated with site lubrication and front end loader activities and the decanting of lubricants from storage containers. This has assist in the recycling of waste oils, reduced spills associated with oil handling and reduced manual handling exposures.</p>



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<p>Monitor waste data, evaluate trends and the adequacy of current data capture.</p>	<ul style="list-style-type: none"> <li>•</li> <li>• With reference to Figure 3J, the monitoring of waste has continued across the reporting period with a continued focus on recycling and reuse across operations and major projects. Impact of major projects on total waste volumes has been noted together with a need to continue to segregate waste to realise recycling and reuse opportunities.</li> </ul>	
<p>Complete coal spillage screening projects and return to coal shipper for dispatch.</p>	<p>13,778 tonnes of coal was returned to customers as part of spillage screening and recycling activities undertaken during the reporting period.</p> <p>Spillage has accumulated particularly after pond cleaning activities undertaken since March 2012. Spillage screening and recycling of coal product to coal shippers will be needed in the next reporting period.</p>	
<p>Continue spillage reduction review.</p>	<p>Spillage reduction review has identified some key projects which have been developed and are progressing through the project evaluation and approval process. Most notable project offering significant environmental improvement are as follows:-</p> <ul style="list-style-type: none"> <li>• Shiploader 2 spillage reduction</li> <li>• Conveyor NC14 belt wash station</li> <li>• Road Reveal system- modification to chutes at transfers incl. Stackers 2 &amp; 4.</li> <li>• Rail Reveal system- modification to chutes at transfers incl. Stackers 1.</li> </ul>	

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<p>Continue onsite operations and projects applying waste minimisation and recycling principles.</p>	<p>Projects progressed through the reporting involving significant waste quantities include (a) BPB Shiploader Demolition (b) Conveyor NC8 Refurbishment (c) BPB Pile Refurbishment.</p>
<p><b>Fire control improvements</b></p>	
<p>Progress the fire panel communications project to increase the operator's ability to monitor the fire system and undertake system isolations.</p>	<p>Project is in progress. Fire sub panel communications are being upgraded and a graphics interface is being installed to improve fire system monitoring, management of fire system isolations and event history logging.</p>
<p>Progress fire protection upgrade for the north and south sub-station.</p>	<p>This project is progressing through PKCT's project development process though it is not as yet approved.</p>
<p>Complete upgrade of the fire detection for the water deluge system in Transfer Station 4.</p>	<p>This work is complete.</p> <div data-bbox="1182 703 1688 1086" data-label="Image"> </div> <p style="text-align: center;">Sprinkler control valve set</p>
<p>Consult with the NSW Fire Brigade to introduce an annual PKCT/ Fire Brigade review of the adequacy of site coordination and interface arrangements in case of a fire.</p>	<p>PKCT met with NSW Fire Brigade in November 2011 and it agreed there was merit in meeting on an annual basis (minimum) to improve site coordination. PKCT's Fire Management Plan has been updated accordingly.</p>

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<p><b>Dangerous Goods</b></p>	
<ul style="list-style-type: none"> <li>Finalise the new Environmental Protection Plan developed by consultant, GHD, during the reporting periods and carry out recommended actions associated with PKCT's underground storage tanks.</li> <li>Consider the findings of consultant, Advitech, from the firm's review of site's dangerous goods storage against applicable legal standards and associated guidelines and implement actions as appropriate.</li> </ul>	<p>Consultant ,GHD, has undertaken three studies (a) Targeted Contamination Assessment of Refuelling Area and Waste Tank January 2011 (b) work associated with the development of an Environment Protection Plan - June 2011 (c) investigation to consider the future of the underground tanks and options to enable PKCT to be fully complaint with the regulations. Options have been reviewed and a project is being developed to replace the underground fuel tanks with above ground, compliant facilities. Integrity tests confirm tanks are sound and ground water monitoring is continuing. Action is in line with Advitech's recommendations.</p>
<p><b>EPL Administration</b></p>	
<p>Continue to administer the EPL, complete annual return, progress pollution reduction programs.</p>	<p>EPL Annual Return was forwarded to the EPA on the 27th May 2012 (n.b. extract in Attachment D). Attachment D provides a summary of actions taken across the reporting period.</p> <p>Changes to environment protection legislation as a result of the Protection of the Environment Legislation Amendment Act 2011 (Amendment Act) came into effect on 6<sup>th</sup> November 2011. New requirements on EPL holders pertaining to (a) incident reporting (b) pollution incident response plans (c) publishing monitoring data. Actions taken by PKCT are as follows:-</p> <ul style="list-style-type: none"> <li>Changes have been communicated to PKCT management and site personnel</li> <li>A consultant was engaged to assist in implementing the new requirements and a draft Pollution Incident Response Plan has been developed for submission to the EPA.</li> <li>New reporting obligations have been adopted and implemented.</li> </ul>
<p><b>Community Relations</b></p>	
<p>Continue Consultative Committee actions.</p>	<ul style="list-style-type: none"> <li>PKCT Community Consultative Committee is in operation. Meetings were held on the 12<sup>th</sup> October 2011 and the 28<sup>th</sup> March 2012.</li> <li>Community Hotline and PKCT website operational.</li> </ul>



**4.3.3 Activities Proposed for the Next Reporting Period**

<b>1213 AEMR Action</b>
<b>Independent External Audit- March 11</b>
<ul style="list-style-type: none"> <li>• Attachment F provides a status report on actions being undertaken in response to audit findings and recommendations.</li> <li>• Progress implementation of audit actions to completion. N.B many of the actions will pertain to the aspects listed below.</li> </ul>
<b>Environmental Monitoring</b>
Carry out the required environmental monitoring as outlined in the Environmental Management Strategy MP.HS.464.
<p>Continue to progress baseline environmental assessments needed for project development. Areas being assessed are as follows:-</p> <ul style="list-style-type: none"> <li>• Air Quality</li> <li>• Surface Water</li> <li>• Groundwater</li> <li>• Marine Water Quality</li> <li>• Marine Ecology</li> <li>• Site Contamination</li> <li>• Noise</li> <li>• GHG and EE</li> <li>• Traffic and Transport</li> <li>• Biodiversity</li> <li>• Visual</li> <li>• Waste</li> <li>• Community Relations and Stakeholder Communication</li> </ul> <p>Review predications made in the EA undertaken as part of Project Approval 08_0009 against data records since approval was obtained for air quality and Greenhouse Gas and Energy Efficiency and report in the 2012/13 AEMR.</p>
<b>Noise</b>
Continue noise surveys in accordance with the Noise Management Plan MP.HS.387.

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**Traffic and Transportation**

Continue to monitor application of Drivers Code of Conduct Implementation Plan MP.BM.453.

Progress the truck wash upgrade to completion and carry out an effectiveness review in accordance with EPL PRP 11- Environment Improvement Program- Install Northern Truck Wash Upgrades.

**Air Quality**

Further refine the air quality methodology as it is implemented in the Air Quality Management Plan MP.HS.387 giving consideration to the following:

- Confirm replacement of the Corrimal St residential site with the Ross Street site as an EPL monitoring site and arrange for a variation to PKCT's EPL.
- Develop a project scope and seek approval to install a 3<sup>rd</sup> continuous dust monitor at the Vikings Oval site on the residential boundary.
- Continuing to investigate petrographic and other techniques for differentiating dust sources impacting on residential areas.
- Complete evaluation of Katestone's proposal to automate continuous dust data reporting and, if viable, seek project approval to proceed.

Progress PKCT's dust improvement initiatives through the Environmental Improvement Project which forms part of the 2012/13 Business Plan. Develop projects through the project approval process with consideration to the following:-

- Installation of a second moisture meter on the road stream to progress implementation of the dust extinction moisture management strategy.
- Collect moisture data from rail receival moisture meter and review water application rates at conveyor transfer points and evaluate spray adequacy.
- Continue to collect coal and bulk product data from shippers as required to determine material handling properties such as dust extinction moisture and dustiness.
- Progress the north truck wash upgrade project as described above.
- Pave the northern transfer station area (currently unsealed) and a potential source of fugitive dust emissions.

Continue to participate in Port User Group as required investigating dust fallout from the industrial precinct and liaise with car industry neighbours.

**Surface Water**

Progress actions under EPA EPL Pollution Reduction Program PRP9- Performance Upgrades to the Stormwater Pollution Control System, the key aspects of which are as follows:-

- Continue to monitor pH and algae levels.
- Progress trial of algae controls identified in the Cardno Report completed under PRP 9 and assess results.
- Continue to liaise with the EPA and seek to retain the extended pH range of 6.5- 9.5 for EPL purposes until appropriate and effective algae controls are identified and fully implemented.
- Develop projects scope for water collection pond improvements in accordance with the Cardno Report completed under PRP 9.
- Investigate improvements in stockyard and spillage management to reduce the sediment load on collection ponds.

Progress further potable water savings through PKCT's Water Savings Action Plan and submit an annual Water Savings Action Plan status report in June 2013.

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Implement actions identified by consultant, Water Futures, in its review of the implementation of the Recycled Water Project.

**Biodiversity**

As part of the Greenhouse Park stakeholders group, develop a management plan for the Garungaty Waterway and Greenhouse Park and participate in its implementation.

Carry out spring surveys on onsite and at the Greenhouse Park habitat to monitor frog activity.

**Visual Amenity/Landscaping**

Progress landscaping improvements by Identifying on site off set opportunities as major restoration and upgrade projects are developed.

Give consideration to requirements under the standard and Lightpoint Consulting Services findings in project development and plan restoration and upgrade projects to ensure there are no adverse lighting impacts on residential areas.

**Greenhouse Gas and Energy Efficiency**

Progress energy savings through PKCT's Energy Savings Action Plan as follows:-

- Continue to consider energy savings and greenhouse gas reduction opportunities when developing improvement and remedial projects.
- Consider energy saving opportunities in the project scope for the (a) Administration Building refurbishment/air conditioning upgrade (b) the Project Office construction and implement where reasonably feasible and practical to do so.
- Investigate the viability of using B20 biofuels for truck operations and B100 for portable onsite generators and pumps.
- As part of PKCT strategic planning which is giving consideration to growth options and plant upgrades, undertake a Greenhouse Gas and Energy Savings Review.

Continue to check operations and greenhouse gas emissions versus the threshold for reporting to the Clean Energy Regulator .

Investigate and identify actions and arrangements which will need to be put in place if the threshold is reached.

**Waste**

Continue the staged review and implementation of waste improvements identified in Transpacific's review of PKCT's waste management.

Monitor waste data, evaluate trends and the adequacy of current data capture.

Improve waste data capture and reporting.

Carry out coal spillage screening projects and return to coal shipper for dispatch.

Continue spillage reduction review and progress identified spillage reduction projects with particular note of the following:-

- Shiploader 2 spillage reduction

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- Conveyor NC14 belt wash station
- Road Receival system- modification to chutes at transfers incl. Stackers 2 & 4.
- Rail Receival system- modification to chutes at transfers incl. Stackers 1.

**Fire control improvements**

- Progress the fire panel communications/ graphics interface project to increase the operator's ability to monitor the fire system and undertake system isolations.
- Complete the approved project scope (design/ development) and progress the northern substation fire system upgrade through PKCT's project evaluation and approval process.
- Complete the approved project scope (design/ development) and progress the northern substation fire system upgrade through PKCT's project evaluation and approval process.

**Dangerous Goods**

- Finalise the new Environmental Protection Plan developed by consultant, GHD, during the reporting periods and carry out recommended actions associated with PKCT's underground storage tanks.
- Further consider the findings of consultant, Advitech, from the firm's review of site's dangerous goods storage against applicable legal standards and associated guidelines and implement actions as appropriate.

**EPL Administration**

- Continue to administer the EPL, complete annual return, progress pollution reduction programs.
- Complete implementation of actions required under the new Protection of the Environment Legislation Amendment Act 2011 (a) reporting incidents (b) having Pollution Incident Response Management Plans (c) publishing EPL monitoring data to PKCT's web site.

**Community Relations**

- Continue Consultative Committee actions.

#### 4.3.4 Summary of Complaints

Complaints received during the reporting period entail the following:

- (a) One community complaint conveyed via the EPA was received during the AEMR reporting period (refer Section 6.5).
- (b) Complaints to road transport providers are outlined in [Figure 3B](#) Road Transport Complaints & Incidents Summary – 2011/2012.

#### 4.3.5 Summary of Monitoring Results

This section references data in response to consent condition 4(e) in Schedule 4 of 08\_0009 Major Project Approval.

Summary of monitoring data is provided in the Figures. Table of Contents provides a list and page references. A list cross referencing various environmental aspects with results is provided as follows:-

- Noise - refer [Attachment A-](#) Noise Survey- July 11-June 12: Summary of Results–
- Coal & Bulk Products Road Transport
  - Refer [Figure 3A](#) Summary of PKCT Throughput and Receivals – 2011/2012,
  - Refer [Figure 3B](#) Road Transport Complaints & Incidents Summary – 2011/2012 and [Figure 2A](#) Road Transport Report- 2011/2012
- Air Quality –
  - Refer [Figure 3D](#) Air Quality: Continuous Dust Data
  - Refer [Figure 3E](#) Air Quality: Dust Deposition: July 11 – June 12.
  - Refer [Attachment B:](#) Extract from Katestone Air Quality AEMR July 2011- June 2012
- Meteorological Monitoring - refer Section 3.4
- Surface Water- refer Section 3.5
  - Refer [Figure 4A](#) Discharge Point P16 Performance Trend- Total Suspended Solid
  - Refer [Figure 4B](#) pH of Overflow Samples
  - Refer [Figure 4C](#) Algal Count
  - Refer [Attachment C:](#) EPL Licenced Discharge Point P16- Overflow Results
- Biodiversity (GGBF) - refer Section 3.6.
- GHG & Energy Efficiency –
  - Refer [Figure 3H](#) Greenhouse Gas Report – 2011/2012

- [Figure 3i](#) Energy Usage Report
- Waste - refer [Figure 3J](#) Waste Report
- Water Savings - refer [Figure 3G](#) Water Usage Report

#### 4.3.6 Analysis of Results

##### Noise

Noise surveys determined that PKCT noise levels at PKCT's 3 monitoring sites were within the noise criteria in EPL 1625 and DP&I Approval 08\_0009. As these criteria are taken from predictions in the Environmental Assessment (EA) for Major Project 08\_0009, PKCT noise emissions were in accordance with predictions in the EA.

A Noise and Transport study was undertaken to check alignment with the findings of the EA. Study was undertaken in August 2011 and operations simulated to a receivals level on public roads of 6.9 MTPA. No complaints were received across the period and the noise model in this study only predicted a minor exceedance at one location at the 10 MTPA level.

##### Coal & Bulk Products

PKCT did not receive more than 7.5 million tonnes of coal and bulk products by public road during the reporting period. This accords with approval thresholds in Major Project Approval 08\_0009 and the EA. EPL 1625 has no criteria for product receipt.

PKCT received one dust related complaint. Road Transport Providers received 19 complaints pertaining to noise, dust, speed and traffic interactions.

##### Air Quality

With reference to Section 3.3 and [Figure 3D](#) Air Quality: Continuous Dust Data and [Figure 3E](#) Air Quality: Dust Deposition: July 11 – June 12, comparison of air quality measures at residential sites against the air quality criteria in the DP&I Approval 08\_0009 indicated the following:-

(a) Continuous dust

- Annual average for PM10 and TSP was within the air quality criteria.
- 24 hour average exceedances occurred for both PM10 and TSP. PKCT's contribution was generally assessed from no to minor contribution.

(b) Dust deposition-

- Annual average dust deposition at residential sites were within the air quality criteria.



As PKCT is a minor contributor to these exceedances, the actual air quality impacts accord with the predictions in the EA. EPL 1625 does not contain any air quality criteria. As reported in 4.3.2 (Environmental Monitoring), a number of environmental assessments are being undertaken as part of project development by external consultants. An action has been included for the next reporting period to check air quality data in the three years since project approval against predictions made in the EA.

### Surface Water

As outlined in [Figure 4A](#) Discharge Point P16 Performance Trend- Total Suspended Solids (refer Section 4.3.1), EPL exceedances occurred from the settlement lagoon licenced discharge point. System performance was affected by wet weather across the AEMR reporting period and system vulnerabilities being addressed under PRP9.

Major Project Approval 08\_0009 does not contain any criteria for water quality as it relies on the EPL 1625 controls. The EA identifies that the PKCT water management system is appropriate for its onsite activities and uses EPL 1625 controls as the primary document for water quality predictions. Improvement is required to ensure PKCT is consistently compliant.

### GHG & Energy Efficiency

Neither EPL 1625 nor DP&I Approval 08\_0009 specifies criteria for GHG emissions or energy reduction. However, it is noted that:

- Greenhouse Gases - Scope 1 and Scope 2 emissions were below the National Greenhouse and Energy Reporting (NGER) scheme reporting threshold.
- Electricity – PKCT continue to seek opportunities to reduce electricity use, refer Section 4.3.8
- Whilst GHG emission calculations are not exact, the Scope 1 and Scope 2 emissions calculated by the August 2009 PKCT NGER report correspond with that calculated.
- GHG predictions in [Figure 3H](#) Greenhouse Gas Report – 2011/2012 of the EA compared against emissions across the reporting period indicate the following:-
  - Increased emissions associated with increased throughput
  - Reduced efficiency (KWhr per tonne)



Financial Year	Annual KWhrs	Annual Throughput	Annual Road Receival	Annual Rainfall (mm)	KWhrs per tonne
2005/06 (EA)	17,919,579	10,982,265			1.63
2009/10	22090524	14,128,245	5,081,041	752	1.56
2010/11	22,667,563	14,365,693	4,903,611	918	1.58
2011/12	23,712,196	14,631,834	5,399,146	1365	1.65

Considerations that (a) increased road receival utilisation may lead to increased energy efficiency i.e. consistently more coal to an operating belt and (b) increased rainfall may adversely impact on energy efficiency through belts slips, increased weight doesn't appear to be supported by data.

As reported in 4.3.2 (Environmental Monitoring), a number of environmental assessments are being undertaken as part of project development by external consultants. In noting the broader approach taken in the EA in assessing this aspect, an action has been included for the next reporting period to check air quality data in the three years since project approval against predictions made in the EA.

**Water Savings**

Neither EPL 1625 nor DP&I Approval 08\_0009 contains quantitative criteria for potable water use or reduction. However, the DP&I Approval requires PKCT to investigate opportunities to reduce water use. [Figure 3G](#) Water Usage Report shows the significant reduction in potable water which has been achieved through the commencement of recycled water use together with an overall reduction in water usage. Though overall usage increased in FY12 compared to FY11, gains against baseline are being sustained. Water usage was affected by increases in site project and contract work, Sydney Water recycled water supply outages due to water quality and increased coal throughputs.

This outcome is consistent with water use predictions in the EA and accords with the DP&I Approval condition.

**4.3.7 Justification of Exceedances**

**Air Quality**

With reference to Section 3.3, [Figure 3D](#) Air Quality: Continuous Dust Data and analysis of the air quality data indicated that PKCT was a minor contributor to 24 hr exceedances. The air quality methodology used to assess PKCT's compliance with DP&I TSP and PM10 criteria is new and entails an assessment which involves differentiating PKCT from other dust sources. Also, data from PKCT's northern continuous dust monitor is used in this assessment. This monitor is located midway between PKCT and the nearest residential boundary.

## Water Quality

pH exceedances are considered a minor negative when viewed in terms of the significant environmental improvement associated with the introduction of recycled water use which would otherwise have formed part of Sydney Water's ocean discharges.

Reliability of the water collection system's performance has been identified as a matter requiring attention and work is in progress under PRP9 to address. The system is currently operating at 86% compliance with an average total suspended solids result across FY12 of 27 mg/litre well within the EPL limit of 50 mg/litre. While PRP9 is progressing, significant, intense rainfall across the AEMR reporting period has resulted in exceedances. Similarly, pond desilting processes rely on dry weather access. The wet weather and the associated sediment loading together with inadequate pond cleanout facilities have resulted in reduced pond capacities.

The settlement lagoon dosing unit upgrade is complete and the actions to be implemented from PRP9 will restore system performance to compliance.

### 4.3.8 Monitoring Trends

Water Savings - introduction of recycled water use has established a significant, sustainable improvement trend of reduced potable water consumption (refer [Figure 3G](#) Water Usage Report). Total usage (460 ML) and potable water usage (105 ML) has increased on FY11, though remains below the baseline of 510 ML and 150 ML respectively.

Settlement Lagoon Discharges (EPL limits) - adverse trend was observed over the reporting period associated with total suspended solids and oil and grease. pH continues to be affected by algae during warmer months (refer [Attachment D](#) Extract from OEH EPL Annual Return: 1.4.11 to 31.3.12). Average total suspended solids over all samples taken is 27 milligrams per litre which is well within the EPL limit (50 mg/litre) though higher than the FY11 result of 14 milligrams per litre. This was achieved across a period of increased rainfall and demand on the water collection treatment system.

Electricity Usage - shows that electricity usage follows throughput closely at high throughputs though it does not drop off proportionally at lower throughputs. At lower throughputs, times when conveyor systems are running with less or no product on the belt may be more frequent. This may be more likely for the road receipt system if truck deliveries are light.



Data collection associated with the Drivers Code of Conduct Implementation Plan included complaints. [Figure 3B](#) Road Transport Complaints & Incidents Summary – 2011/2012 shows that community complaints were primarily to do with truck speed. The number of complaints reported by road transport companies was less for FY11 compared to the previous (19 to 16).

**Drivers Code of Conduct**

- Figure 2A reflects a significant, positive trend in DCC observations carried out by road transport providers.
- There is an improvement trend in Road Transport Provider complaints. Complaints primarily relate to speed and traffic interactions. There has been a positive decrease in speed related complaints.
- The majority of complaints were reported by Bulktrans Port Kembla (BT) though it is noted that this firm is PKCT’s primary road transport provider. Across the reporting period, BT delivered 85% of PKCT’s total road delivered product. An audit undertaken by PKCT in March 2012 established that BT has an effective complaints management system in place where all complaints received are investigated including follow up with driver and complainant. Where complaints are validated, corrective actions are implemented as appropriate.

Complaints	09/10	10/11	11/12
noise	2	2	3
dust	3	0	2
speed	19	5	4
Other/ traffic interaction	15	12	10
Total	39	19	19

**4.3.9 Identification of Non-Compliances**

EPL non compliances are referenced in [Attachment C](#): EPL Licenced Discharge Point P16- Overflow Results and [Attachment D](#) Extract from OEH EPL Annual Return: 1.4.11 to 31.3.12. [Figure 4B](#) pH of Overflow Samples provides pH results from settlement lagoon overflow samples (also refer Section 3.4 - Surface Water). Non compliances related to total suspended solids and oil/ grease exceedances from settlement lagoon discharges and desilting of collection ponds and maintenance of capacities.

#### 4.3.10 Actions to Reduce Exceedances

- Water Collection System exceedances: [Attachment D](#) Extract from OEH EPL Annual Return: 1.4.11 to 31.3.12 outlines actions (remedial and improvement).
- Dust Emissions: Dust improvement project forms part of the FY13 Business Plan and the 2015 strategic Business Plan.
- Actions included and detailed in Section 4.3.3 herein.
- Also note Independent External Audit actions: [Attachment F](#): Independent External Audit Actions Status Report - June 2012 herein.

#### 4.3.11 Consent Condition

- 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:
  - be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Director-General;
  - include consultation with the relevant agencies;
  - 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, 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.*

- 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.
- 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.

#### Compliance Statement

In accordance with Schedule 4, Condition 5 of DP&I approval, an independent external audit was undertaken by AECOM P/L in March 2011. A report was submitted to the DP&I on the 10<sup>th</sup> May 2011 under cover of PKCT's letter of the 10<sup>th</sup> May 2011.

PKCT carried out a review of audit findings and recommendations and, by letter of 10<sup>th</sup> August 2011, a report was submitted to the DP&I on proposed actions together with a request for clarification of some aspects of the approval conditions. DP&I provided advice by its letter of 27<sup>th</sup> October 2011.

**Attachment F:** Independent External Audit Actions Status Report - June 2012, reports on the status of PKCT actions.

#### 4.4 Access to Information

##### 4.4.1 Consent Condition

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.
9. During the project, the Proponent shall:
  - (a) make a summary of monitoring results required under this approval publicly available on its website; and
  - (b) update these results on a regular basis (at least every 6 months).

##### 4.4.2 Compliance Statement

Condition 8 - Documents were published to PKCT's web site during the reporting period as follows:-

- Noise Monitoring Report April 2012
- Environment Monitoring Report May 2012
- Noise Management Plan
- Green and Golden Bell Frog Management Plan
- Water Management Plan
- Interim Environment Management Report FY12
- Landscape Management Plan 2012
- Green House Gas and Energy Efficiency Management Plan
- PKCT Report and Actions: AECOM Audit
- Independent Environmental Audit Report
- Annual Environmental Management Report 2010/2011

Condition 9 – 1112 AEMR and an Interim Environment Management Report (covering the first six months of the reporting period) will be published within 3 months of the 30<sup>th</sup> June and 31<sup>st</sup> December respectively.

## 5.0 ENVIRONMENTAL PROTECTION LICENCE

PKCT hold Environmental Protection Licence 1625 under the Protection of the Environment Operations Act 1997. This stipulates emission criteria that PKCT must not exceed relating to applicable environmental aspects, in particular, water, noise and dust. Pollution Reduction Studies and Programs (PRPs) are attached to the EPL to identify aspects which may require improvement. PKCT is required to submit an annual return to the Environment Protection Authority analysing performance against relevant criteria. 1112 EPL Annual Return was forwarded to OEH on the 27 May 2012.

### 5.1 EPL Annual Return Summary

[Attachment D](#) Extract from OEH EPL Annual Return: 1.4.11 to 31.3.12 reports on environmental performance and actions undertaken across the EPL annual return period. In summary, the following is noted:

- (a) Non conformances were reported as follows:-
  - i. Excessive sediment in ponds- sediment build up in collection ponds exceeded the EPL limit of 20% capacity due to prolonged wet weather and upstream loading from stockyard run off.
  - ii. Water quality parameter exceeded EPL limit- settlement lagoon overflows at times have exceeded the total suspends solids and oil/grease limits.
- (b) Annual average dust deposition at residential sites were within 4 grams square metre per month.
- (c) No complaints were received during the annual return period- (July 2011- June 2012).
- (d) Status reports were provided on two open PRPs (a) PRP9 Performance Upgrades of the Stormwater Collection System (b) PRP10 Environmental Improvement Program, Review Truck Wash.
- (e) Noise surveys were compliant. (refer [Attachment A-](#) Noise Survey- July 11-June 12: Summary of Results)

### 5.2 Other EPL Matters in AEMR Reporting Period

- A community complaint was made on the 13<sup>th</sup> April 2012 to EPA regarding dust on Springhill Road. PKCT investigation confirmed that PKCT controls were operational. A report back to the EPA was given and no further action was required.

- New requirements have been introduced under the Protection of the Environment Legislation Amendment Act 2011. PKCT are progressing actions to address the new requirements which generally entail the following:-
  - New reporting incident requirements.
  - Requirement for EPL holders to have Pollution Incident Response Plans.
  - Requirement for EPL holders to make publically available monitoring results required under the EPL.
- Two incidents were reported to the EPA pollution line in April 2012 as follows:-
  - 5<sup>th</sup> April 2012: A polymer spill at the settlement lagoon dosing unit- incident was assessed as minor, spill was contained and cleanup. Impacts were minor and localised and there were no off site impacts.
  - 25<sup>th</sup> April 2012: TS1 collection pond overflowed in dry weather due to an inoperable transfer pump. The overflow was detected, a portable pump was installed and water level in the pond lowered to prevent further discharge. Receiving waters were inspected and no discolouration was observed.
  - Incident reports have been submitted to the EPA including remedial actions.
- In accordance with PRP9, PKCT submitted a report to the EPA on 30.6.12 (a) Algae Control Review June 2012 (b) Pollution Reduction program Response- Pond Maintenance. Reports were provided by PKCT's consultant, Cardno, and address the EPL non conformances and performance matters associated with the Water Collection System reported herein. The report is being reviewed by the EPA and will be the subject of further discussion and work to be undertaken across the next AEMR reporting period.
- PRP10 has been closed as complete and a new Pollution Reduction Program PRP11 Install Northern Truckwash Upgrades has been established to track progress of the project and ensure effective implementation.
- Actions herein have been included and referenced in Section 4.3.3.

## 6.0 PKCT COMMITMENTS

PKCT prepared a Statement of Commitments which forms part of the Environmental Assessment submitted to the DP&I for the 08\_0009 Major Project Application. The DP&I accepted these commitments and they now form Appendix 2 of the consent for this Major Project approval. Table 6.1 identifies the PKCT commitments and the section of this AEMR, which describes how PKCT will comply.





**Table 6.1 – PKCT Commitments & AEMR Section**

Specific Environmental Condition	AEMR Section
Traffic & Transportation	6.1
Air Quality	6.2
Water Management	6.3
Noise Management	6.4
Community Relations	6.5
Environmental Monitoring	6.6
Environmental Management System	6.7
Greenhouses Gases	6.8
Landscaping	6.9
Flora & Fauna	6.10
Waste	6.11

**6.1 Traffic & Transportation**

**6.1.1 Commitment**

Objective	Commitment
<ul style="list-style-type: none"> <li>Transport of coal and bulk products to PKCT to be conducted in a manner which does not adversely impact 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 minimise coal and bulk products spillage and carry over onto public roadways.</li> </ul>	<ul style="list-style-type: none"> <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 tonnages, including in-loading 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>



### 6.1.2 Compliance Statement

Actions undertaken during the reporting period as follows:

- Public road deliveries of coal and bulk products did not exceed 7.5 mtpa and the details are included in this AEMR (refer [Figure 3A](#) Summary of PKCT Throughput and Receivals – 2011/2012).
- An interim Environment Management Reports and the AEMR is published to PKCT’s websites so that information is made available to the public on a 6 monthly basis.
- The coal truck delivery route is as described and mapped in the Environmental Assessment for Major Project 08\_0009. Trucks to PKCT do not deviate from this route.
- A Drivers Code of Conduct and associated Drivers Code of Implementation Plan MP.BM.453 approved by the DP&I, is in place and operational (refer Section 3.2 and Sections 4.3.2 and Sections 4.3.3 for actions undertaken and those proposed.
- Truck wash upgrade has been approved and is being implemented.

Findings/ recommendations made in AECOM P/L’s independent audit undertaken in March 2011 have been noted and actions are being progressed with the DP&I in accordance with Project Approval 08\_0009. A status report is provided in [Attachment F](#): Independent External Audit Actions Status Report - June 2012.

## 6.2 Air Quality

### 6.2.1 Commitment

Objective	Commitment
<ul style="list-style-type: none"> <li>• Minimise dust emissions from activities carried out on the PKCT site.</li> </ul>	<ul style="list-style-type: none"> <li>• Installation of two continuous dust monitors to monitor airborne dust emissions.</li> <li>• Maintain appropriate dust suppression systems onsite to effectively manage dust both on stockpiles and roadways.</li> </ul>



### 6.2.2 Compliance Statement

PKCT’s two continuous dust monitors remain operational and these provide data used in air quality assessment.

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 such as the stockpile sprays, truck wash and water cart. Operations shift teams monitor and operate the equipment and, where necessary, provide a breakdown response.

### 6.3 Water Management

#### 6.3.1 Commitment

Objective	Commitment
<ul style="list-style-type: none"> <li>Minimise use of potable water onsite.</li> <li>Effective management of onsite stormwater.</li> </ul>	<ul style="list-style-type: none"> <li>Reduction in freshwater use onsite 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.</li> </ul>

#### 6.3.2 Compliance Statement

Recycled water use has continued during the reporting period. [Figure 3G](#) Water Usage Report provides water usage details. The target referenced in the commitment was based on a total annual usage of 510 megalitres (being a 70% reduction) which was adopted in the 2006 Water Savings Action Plan.

Positive results in FY12 have continued as follows:-

- Total potable water usage was 105 megalitres.
- Total water usage was 460 megalitres.
- Comparing to baseline total water usage of 510 megalitres, 405 megalitres less potable water was used during the reporting period which compares positively with the 360 megalitre target.



## 6.4 Noise Management

### 6.4.1 Commitment

Objective	Commitment
<ul style="list-style-type: none"> <li>Responsible management of PKCT site operational noise.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure that ongoing compliance is maintained to the New South Wales Industrial Noise Policy.</li> <li>Development and implementation of a noise management plan for the PKCT site.</li> </ul>

### 6.4.2 Compliance Statement

Section 3.1.2 outlines actions taken during the reporting period. Noise Management Plan MP.HS.387 is in place which references the NSW Industrial Noise policy. Relevant PKCT site personnel have been made aware of the compliance requirement.

## 6.5 Community Relations

### 6.5.1 Commitment

Objective	Commitment
<ul style="list-style-type: none"> <li>PKCT to be regarded as a responsible corporate citizen by the community.</li> </ul>	<ul style="list-style-type: none"> <li>Continued operation of the PKCT Community Consultative Committee.</li> <li>Continued advertisement and operation of the telephone hotline.</li> </ul>

### 6.5.2 Compliance Statement

One complaint was received during the July 2011 and June 2012 reporting period. The EPA received a complaint from a community member regarding dust along Springhill Road. Investigation indicated PKCT's truck wash was operational and road cleaning operations were in place. Water cart was dispatched to clean PKCT's entry road i.e. Port Kembla Road, as a precaution. No further action was sought from the EPA and the matter was closed.

- (a) Complaints to road transport providers are outlined in [Figure 3B](#) Road Transport Complaints & Incidents Summary – 2011/2012 and [Figure 2A](#) Road Transport Report-2011/2012
- (b) 19 complaints were received by road transport providers across the reporting period which is the same as the FY11 result (refer Section 4.3.8).



The following actions occurred during the reporting period:

- Community Consultative Committee met on the 12<sup>th</sup> October 2011 and the 28<sup>th</sup> March 2012.
- [PKCT web site](#) continues to include e-mail and phone contact details ([communitylinks@pkct.com.au](mailto:communitylinks@pkct.com.au)).

## 6.6 Environmental Monitoring

### 6.6.1 Commitment

Objective	Commitment
<ul style="list-style-type: none"> <li>• To ensure compliance to the conditions of PKCT's Department of the Environment and Climate Change licence.</li> </ul>	<ul style="list-style-type: none"> <li>• Development and implementation of a management plan which documents the environmental monitoring requirements for PKCT.</li> </ul>

### 6.6.2 Compliance Statement

Environmental Management Strategy MP.HS.464 is in place and outlines monitoring requirements together with references to applicable management plans.

## 6.7 Environmental Management System

### 6.7.1 Commitment

Objective	Commitment
<ul style="list-style-type: none"> <li>• PKCT to maintain certification to ISO 14001.</li> </ul>	<ul style="list-style-type: none"> <li>• PKCT will continue to be certified to ISO 14001 and will be externally audited against the certification criteria on an annual basis.</li> </ul>

### 6.7.2 Compliance Statement

During the reporting period, Lloyds carried out surveillance visits in July 2011 and April 2012. PKCT continues to hold certification to ISO 14001:2004 (refer Figure 6A below).



Figure 6A AS/NZ ISO 14001 Certification Renewal





## 6.8 Greenhouse Gases

### 6.8.1 Commitment

Objective	Commitment
<ul style="list-style-type: none"> <li>Minimise the production of greenhouse gas emissions associated with PKCT operations.</li> </ul>	<ul style="list-style-type: none"> <li>PKCT to review onsite electricity use and identify and implement economically viable opportunities for reduced electricity usage.</li> </ul>

### 6.8.2 Compliance Statement

PKCT has the results of a greenhouse gas (GHG) emission and energy use assessment of the Terminal which was prepared following the Major Project Approval. This identifies the GHG emissions from the various onsite activities allowing PKCT to understand which factors relate to electricity use. The report finds that PKCT’s use of electricity for powering the 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.

PKCT has an Energy Savings Action Plan in place. Options for significant reductions are limited as electricity usage relates closely to throughput. Opportunities for energy reduction are pursued when purchasing new equipment and considered when developing upgrades. Sections 4.3.2 and 4.3.3 outline work carried out in the reporting period and work proposed respectively.

## 6.9 Landscaping

### 6.9.1 Commitment

Objective	Commitment
<ul style="list-style-type: none"> <li>Improve the visual amenity of PKCT on surrounding community.</li> </ul>	<ul style="list-style-type: none"> <li>Improve onsite soft landscaping through the planting of trees on the road receival earth bund and along the northern site boundary.</li> </ul>



### 6.9.2 Compliance Statement

With reference to the Landscape Management Plan, PKCT has developed a Landscape concept plan along the northern boundary. During this reporting period, Stage 2 has been completed on the northern boundary with paving proposed adjacent (refer Section 4.3.2 and 4.3.3).

### 6.10 Flora & Fauna

#### 6.10.1 Commitment

Objective	Commitment
<ul style="list-style-type: none"> <li>Management of Green and Golden Bell Frogs (GGBF).</li> </ul>	<ul style="list-style-type: none"> <li>Implement Interim Management Plan.</li> <li>Undertake a GGBF Survey and then develop a Long Term Plan of Management.</li> </ul>

#### 6.10.2 Compliance Statement

PKCT implemented an interim plan of management for the GGBF prior to the Major Project Approval issue, which included GGBF surveys. A GGBF management plan is now in place, developed in consultation with the EPA and is DP&I approved (also refer Section 3.6.2, Section 4.3.2 and 4.3.3 for further details of current status).

### 6.11 Waste

#### 6.11.1 Commitment

Objective	Commitment
<ul style="list-style-type: none"> <li>Minimise waste generated at the site to reduce the volume of waste requiring disposal to landfill.</li> <li>Prevent dispersal of waste from the site to receiving environments.</li> </ul>	<ul style="list-style-type: none"> <li>Develop a Waste Management Plan for the site.</li> </ul>

#### 6.11.2 Compliance Statement

PKCT has prepared a Waste Management Plan which identifies the various waste streams from PKCT and explains the methods used to firstly reuse, secondly recycle and thirdly Suitably dispose of waste.

[Figure 3J](#) Waste Report provides a summary of wastes handled during the reporting period. The table lists the applicable waste streams and identifies the waste treatment employed.



## 7.0 CONCLUSION

This Annual Environmental Management Report (AEMR) identifies PKCT's approval and licence conditions and explains how PKCT complies with these requirements. It also 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 Department of Planning and Infrastructure and other stakeholders using information taken from environmental monitoring, assessment and reporting activities undertaken on a regular basis through the reporting period.

Reference is made at various locations in this AEMR to the independent external audit undertaken by AECOM P/L. The firm's audit was comprehensive and PKCT is addressing the audit findings and associated recommendations.

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

## 8.0 REFERENCES

- Australian / New Zealand Standard ISO 9001:2008 Quality Management Systems
- Australian / New Zealand Standard ISO 14001:2004 Environmental Management Systems
- Environmental Protection Licence 1625 – Port Kembla Coal Terminal
- Major Project Approval 08\_0009 for the Port Kembla Coal Terminal Project



**Attachment A- Noise Survey- July 11-June 12: Summary of Results**

**Table 5-1 Summary of Monitoring Results – Location 1 – Corner Swan & Kembra Streets**

Date & Start Time	Period	Criteria (dBA)	BarnOwl <sup>®</sup>	BarnOwl <sup>®</sup>	SLM L <sub>A90</sub> (dBA)	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations
			PKCT Direction L <sub>Aeq</sub> (dBA)	All Directions L <sub>Aeq</sub> (dBA)					
25 Aug 2011 11:30	Day	51	41	57	50	5.0 to 6.3 NNE to NE	C to D	YES Not Audible	At measurement location ambient noise primarily from road traffic with some domestic noise audible. PKCT activities not audible. On-site typically 10 truck movements witnessed and a broken down train.
24 Aug 2011 20:35	Evening	50	36	53	45	3.0 to 3.6 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 12 truck movements witnessed and a train leaving and one coming into receivals.
24 Aug 2011 20:50	Evening	50	35	53	44	3.0 to 3.6 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 12 truck movements witnessed.
24 Aug 2011 01:35	Night	49	31	44	42	4.0 to 5.1 NNW to N	D	YES	At measurement location ambient noise primarily from road traffic. Potential PKCT activities barely audible being truck and rail movements in the direction of PKCT. On-site typically 20 truck movements witnessed and a train unloading.
24 Aug 2011 01:50	Night	49	31	45	42	4.0 to 5.1 NNW to N	D	YES	At measurement location ambient noise primarily from road traffic. Some wind noise on occasion. Potential PKCT activities barely audible being rail movements in the direction of PKCT. On-site typically 14 truck movements witnessed.

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**Attachment A- Noise Survey- July 11-June 12: Summary of Results (continued)**

**Table 5-2 Summary of Monitoring Results – Corner Swan & Corrimal Streets**

Start Date & Time	Period	Criteria (dBA)	BarnOwl® PKCT Direction LAeq (dBA)	BarnOwl® All Directions LAeq (dBA)	SLM LA90 (dBA)	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations
25 Aug 2011 10:55	Day	51	41	56	53	5.0 to 6.3 NNE to NE	C to D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 18 truck movements witnessed and a train in idle at shed.
24 Aug 2011 19:45	Evening	50	37	54	49	3.0 to 3.6 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic, insects also audible. PKCT activities not audible. On-site typically 11 truck movements witnessed.
24 Aug 2011 20:00	Evening	50	38	54	47	3.0 to 3.6 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic, insects also audible. PKCT activities not audible. On-site typically 16 truck movements witnessed and a train moving at receivals.
24 Aug 2011 22:20	Night	49	39	54	45	3.3 to 5.1 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 13 truck movements witnessed
24 Aug 2011 22:55	Night	49	39	53	44	3.3 to 5.1 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 19 truck movements witnessed

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**Attachment A- Noise Survey- July 11-June 12: Summary of Results (continued)**

**Table 5-3 Summary of Monitoring Results – Corner Keira & Fox Streets**

Start Date & Time	Period	Criteria (dBA)	BarnOwl®	BarnOwl®	SLM L <sub>A90</sub> (dBA)	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations
			PKCT Direction L <sub>Aeq</sub> (dBA)	All Directions L <sub>Aeq</sub> (dBA)					
25 Aug 2011 12:00	Day	51	43	62	54	5.0 to 6.3 NNE to NE	C to D	YES Not Audible	At measurement location ambient noise primarily from road traffic, insects also audible. PKCT activities not audible. On-site typically 11 truck movements witnessed.
24 Aug 2011 21:25	Evening	50	49	58	46	3.0 to 3.6 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 13 truck movements witnessed.
24 Aug 2011 21:40	Evening	50	49	58	46	3.0 to 3.6 NW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 16 truck movements witnessed.
24 Aug 2011 02:20 <sup>1</sup>	Night	49	42	50	39	4.0 to 5.1 NNW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 5 truck movements witnessed.
24 Aug 2011 02:30 <sup>2</sup>	Night	49	42	54	38	4.0 to 5.1 NNW to N	D	YES Not Audible	At measurement location ambient noise primarily from road traffic. PKCT activities not audible. On-site typically 4 truck movements witnessed.

Notes: 1. Due to limited battery life, only a 10 minute measurement was taken.  
2. Due to limited battery life, only a 5 minute measurement was taken.

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**Attachment A- Noise Survey- July 11-June 12: Summary of Results (continued)**

**Table 5-1 Summary of Monitoring Results – Location 1 – Corner Swan & Kembla Streets**

Date & Start Time	Period	Criteria (dBA)	BarnOwl® PKCT Direction L <sub>Aeq</sub> (dBA)	BarnOwl® All Directions L <sub>Aeq</sub> (dBA)	SLM L <sub>A90</sub> (dBA)	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations
24 Apr 2012 10.20 – 10.35	Day	51	<43	58	48	2.6-3.1 m/s; W - NW	C	YES Not Audible	At measurement location noise primarily from road traffic and rail noise. PKCT activities not audible. On-site typically 17 truck movements witnessed and a waiting train.
23 Apr 2012 20.50 – 21.05	Evening	50	<37	52	41	3.4 - 3.6 m/s, NW – N	D	YES Not Audible	At measurement location noise primarily from road traffic and rail noise. PKCT activities not audible. On-site typically 12 truck movements witnessed and a train arrival.
23 Apr 2012 21:05 –21:20	Evening	50	38	51	45	2 – 3.5 m/s; NW - N	F	YES Not Audible	At measurement location noise primarily from road traffic and rail noise. PKCT activities not audible. On-site typically 14 truck movements witnessed and train movements on-site.
23 Apr 2012 22:45 – 23:00	Night	49	37	49	44	3 – 3.3 m/s; W - NW	D	YES Not Audible	At measurement location noise primarily from road traffic and rail noise. PKCT activities not audible. On-site typically 12 truck movements witnessed and a train arrival.
23 Apr 2012 23:00 – 23:15	Night	49	32	46	44	2.6– 3.1 m/s; W - NW	D	YES Not Audible	At measurement location noise primarily from road traffic, local industry and golf course. PKCT activities not audible. On-site typically 11 truck movements witnessed. On-site typically 11 truck movements witnessed.

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**Attachment A- Noise Survey- July 11-June 12: Summary of Results (continued)**

**Table 5-2 Summary of Monitoring Results – Location 2 – Corner Swan & Corrimal Streets**

Start Date & Time	Period	Criteria (dBA)	BarnOwl <sup>®</sup> PKCT Direction LAeq (dBA)	BarnOwl <sup>®</sup> All Directions LAeq (dBA)	SLM LA90 (dBA)	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations
24 Apr 2012 9:35 – 9:50	Day	51	<40	55	54	2.1-2.9 m/s; SW - W	C	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible On-site typically 9 truck movements witnessed and a train idling in the dumping area.
23 Apr 2012 20:05 – 20:20	Evening	50	<37	52	48	1.6-1.9 m/s; S - SW	E	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible On-site typically 16 truck movements witnessed and a train arrival.
23 Apr 2012 20:20 – 20:35	Evening	50	<33	48	48	1.6-1.9 m/s; S - SW	F	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible On-site typically 11 truck movements witnessed.
24 Apr 2012 1:05 – 1:20	Night	49	<34	49	46	3.3- 4.2m/s; SW – W	D	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible On-site typically 11 truck movements witnessed and a train arrival
24 Apr 2012 1:20 – 1:35	Night	49	<34	49	48	2.34 – 3m/s; S - SW	D	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible On-site typically 17 truck movements witnessed and a train unloading.

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**Attachment A- Noise Survey- July 11-June 12: Summary of Results (continued)**

**Table 5-3 Summary of Monitoring Results – Location 3 – Corner Keira & Fox Streets**

Start Date & Time	Period	Criteria (dBA)	BarnOwl® PKCT Direction LAeq (dBA)	BarnOwl® All Directions LAeq (dBA)	SLM LA90 (dBA)	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations
24 Apr 2012 10:50 – 11:05	Day	51	<47	62	56	3.5-4.4 m/s; NW - W	C	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible On-site typically 21 truck movements witnessed and a train unloading.
23 Apr 2012 21:30 – 21:45	Evening	50	<39	54	49	1.5 – 2.2 m/s; W - NW	E	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible On-site typically 11 truck movements witnessed and a train idling.
23 Apr 2012 21:45 – 22:00	Evening	50	<39	54	49	1.7 – 2 m/s; SW - W	F	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible On-site typically 19 truck movements and a train unloading.
23 Apr 2012 22:00 – 22:15	Night	49	<40	55	50	2 – 2.1 m/s; SW – W	E	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible On-site typically 17 truck movements witnessed.
23 Apr 2012 22:15 – 22:30	Night	49	<49	54	45	2.1-2.5 m/s; SW - W	D	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible On-site typically 14 truck movements witnessed and a train arrival followed by the train unloading.

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**Attachment B: Extract from Katestone Air Quality AEMR July 2011- June 2012****Executive Summary**

*Katestone Environmental has been commissioned by Port Kembla Coal Terminal Limited (PKCT) to report the results of its air quality monitoring program during each 12-month (July – June) period and to assess the compliance of the monitoring data with the Port Kembla Coal Terminal with the Approval Conditions. The Port Kembla Coal Terminal is located in the Inner Harbour at Port Kembla, NSW. This Annual Environmental Monitoring Report (AEMR) reports the results of ambient air monitoring and the compliance of the PKCT during the July 2011 to June 2012 period. This AEMR will be required for submission to the Department of Planning (DOP) by 31 July 2012 as part of the PKCT's Approval.*

*The current monitoring network includes the following:*

- *Continuous measurements of wind speed and wind direction, and concentrations of TSP, PM<sub>10</sub>, PM<sub>2.5</sub> and PM<sub>1.0</sub> at locations to the north and south of the PKCT (northern and southern monitoring sites)*
- *The northern monitoring station is located at the Wollongong sewage treatment plant and is approximately 400 metres north of the PKCT train unloading facility. Residences are about 700 metres north of the monitoring station and, consequently, the monitoring results will overstate the influence of PKCT on dust levels at residences.*
- *A network of residential dust deposition gauges*
- *Offsite measurements of TSP and PM<sub>10</sub> concentration provided by Bluescope and the OEH*

*The following conclusions can be drawn from the analysis of the air quality monitoring data during the July 2011 to June 2012 period:*

- *The annual average concentrations of TSP and PM<sub>10</sub> at the PKCT northern monitoring site were below the air quality criteria of 90 µg/m<sup>3</sup> and 30 µg/m<sup>3</sup>, respectively.*
- *At the northern PKCT monitoring site the trigger level of 90 µg/m<sup>3</sup> for the 24-hour average TSP concentration was exceeded on 22 occasions during the July 2011 to June 2012 period*
- *The standard analysis identified PKCT as having a moderate (30% to 70%) contribution to the exceedance of the 24-hour average TSP trigger level during 26 January 2012; however, a detailed analysis of the data indicated that the contribution may have been significantly lower*
- *PKCT was identified as having a minor contribution (i.e. 10% to 30%) to the exceedance of the 24-hour average TSP trigger level at the PKCT northern monitoring site during the following days:*
  - *30 November 2011*
  - *4, 5 and 9 January 2012*
  - *28 February 2012*



**Attachment B: Extract from Katestone Air Quality AEMR July 2011- June 2012 (continued)**

- *PKCT was identified as having minimal contribution (i.e. less than 10 percent) to the exceedance of the 24-hour average TSP trigger level at the PKCT northern monitoring site during the following days:*
  - 5 September 2011
  - 15 October 2011
  - 9, 26 and 29 November 2011
  - 26 December 2011
  - 8 January 2012
  - 1, 4 and 16 March 2012
  - 20 April 2012
- *PKCT was identified as having no contribution to the exceedance of the 24-hour average TSP trigger level at the PKCT northern monitoring site during the following days:*
  - 11 December 2011
  - 18 January 2012
  - 27 February 2012
  - 15 March 2012
- *On average, PKCT was estimated to have contributed 8.4% to TSP levels at the PKCT northern monitoring site on days when exceedances of the TSP trigger occurred (excluding days when data not available at southern monitoring site)*
- *At the northern PKCT monitoring site the air quality standard of 50 µg/m<sup>3</sup> for the 24-hour average PM<sub>10</sub> concentration was exceeded on 37 occasions during the July 2011 to June 2012 period*
- *The standard analysis identified PKCT as having a moderate (30% to 70%) contribution to the exceedance of the 24-hour average PM<sub>10</sub> air quality standard during 26 January 2012; however, a detailed analysis of the data indicated that the contribution may have been significantly lower than this*
- *PKCT was identified as having a minor contribution (i.e. 10% to 30%) to the exceedance of the 24-hour average PM<sub>10</sub> air quality standard at the PKCT northern monitoring site during the following days:*
  - 18 September 2011
  - 30 November 2011
  - 9 January 2012
  - 28 February 2012
- *PKCT was identified as having minimal contribution (i.e. less than 10 percent) to the exceedance of the 24-hour average PM<sub>10</sub> air quality standard at the PKCT northern monitoring site during the following days:*
  - 5 and 19 September 2011
  - 15 October 2011
  - 8, 9, 19, 26 and 29 November 2011
  - 19 and 26 December 2011
  - 4, 5 and 24 January 2012
  - 1, 4 and 16 March 2012
  - 18, 19 and 20 April 2012



**Attachment B: Extract from Katestone Air Quality AEMR July 2011- June 2012 (continued)**

**Table A1 Trend data summary: Northern PKCT monitoring site**

Variable	Averaging period	Value	Units	Standard	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12
TSP	24-hour	Max	µg/m <sup>3</sup>	90	29.7	58.9	91.3	100.4	291.1	114.8	166.4	141.9	233.1	119.1	43.4	39.8
		No. Exceedances	-	-	0	0	1	2	4	2	6	2	4	1	0	0
		Max % contribution to exceedance	%	-	0.0	0.0	0.2	3.2	10.2	1.0	35.3	11.7	5.1	6.3	0.0	0.0
		Mean	µg/m <sup>3</sup>	90	11.8	27.4	37.2	38.2	60.2	36.9	62.1	39.5	48.7	40.9	23.3	19.8
	Annual	Mean	µg/m <sup>3</sup>	90	31.8	33.0	33.8	33.1	34.1	33.3	34.0	33.5	34.6	36.7	37.1	37.1
PM <sub>10</sub>	24-hour	Max	µg/m <sup>3</sup>	50	25.8	47.1	68.7	82.6	250.0	97.9	114.1	114.6	217.0	92.6	28.8	30.1
		No. Exceedances	-	-	0	0	4	4	8	3	8	2	4	4	0	0
		Max % contribution to exceedance	%	-	0.0	0.0	29.2	2.7	11.4	0.9	35.9	13.3	5.7	8.5	0.0	0.0
		Mean	µg/m <sup>3</sup>	50	8.1	20.9	28.4	31.0	50.2	30.8	45.1	29.3	40.5	31.0	15.9	14.6
	Annual	Mean	µg/m <sup>3</sup>	30	25.6	26.5	27.1	26.5	27.3	26.6	26.6	26.0	27.0	28.6	28.8	29.0

**Table A2 Trend data summary: Southern PKCT monitoring site**

Variable	Averaging period	Value	Units	Standard	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12
TSP	24-hour	Max	µg/m <sup>3</sup>	90	120.2	108.5	115.1	62.5	125.1	114.8	96.7	102.6	167.8	119.8	135.9	116.9
		Mean	µg/m <sup>3</sup>	90	42.7	52.8	52.8	36.9	63.2	48.9	51.8	46.4	61.8	50.7	67.6	47.8
	Annual	Mean	µg/m <sup>3</sup>	90	54.0	55.8	57.2	56.1	56.4	54.4	52.9	50.5	50.6	51.6	52.1	52.4
PM <sub>10</sub>	24-hour	Max	µg/m <sup>3</sup>	50	82.9	77.8	82.2	56.7	104.4	82.5	76.5	81.9	144.4	89.1	77.7	73.2
		Mean	µg/m <sup>3</sup>	50	30.9	37.2	39.6	30.2	49.9	38.1	41.2	35.6	46.1	37.4	41.3	32.1
	Annual	Mean	µg/m <sup>3</sup>	30	40.9	42.0	43.0	42.1	42.2	40.6	39.5	37.9	37.9	38.7	38.4	38.5

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Attachment B: Extract from Katestone Air Quality AEMR July 2011- June 2012 (continued)

**Table A3 Trend data summary: Bluescope dust deposition gauge and high volume air sampler at Vikings Oval**

Variable	Averaging period	Value	Units	Standard	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12
TSP	24-hour	Maximum	µg/m <sup>3</sup>	90	39.5	65.6	99.6	66.6	74.2	65.4	101.0	110.0	74.0	61.0	58.0	53.0
		Date of maximum	-	-	1 Jul	6 Aug	23 Sep	29 Oct	16 Nov	28 Dec	5 Jan	28 Feb	5 Mar	4 Apr	17 May	15 Jun
Dust deposition	Monthly	Insoluble solids	g/m <sup>2</sup> /month	2.0	1.8	1.2	2.4	0.4	1.9	2.6	1.4	1.1	1.3	1.3	BF	3.1
		Ash	g/m <sup>2</sup> /month	2.0	1.1	0.5	1.6	0.1	0.5	1	0.6	0.7	0.4	0.5	BF	1.8
		Combustible matter	g/m <sup>2</sup> /month	2.0	0.7	0.7	0.8	0.3	1.4	1.6	0.8	0.4	0.9	0.8	BF	1.3

Table note:  
BF - Broken Funnel

**Table A4 Trend data summary: Monthly average dust deposition from PKCT residential dust deposition gauges**

Sample matter	Standard	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011	Jan 2012	Feb 2012	Mar 2012	Apr 2012	May 2012	Jun 2012	Annual average <sup>1</sup>
<b>Site P12 – 157 Church Street</b>														
Insoluble solids	2.0	2.6	2.3	2.2	1.4	1.6	0.9	1.2	1.1	0.3	1.1	1.9	1.2	1.5
Ash	2.0	1.7	1.5	1.3	0.8	0.8	0.4	0.5	0.6	0.1	0.6	1.2	0.8	0.9
Combustible matter	2.0	0.9	0.8	0.9	0.6	0.8	0.5	0.7	0.5	0.2	0.5	0.7	0.4	0.6
<b>Site P10 – 173 Corrimal Street</b>														
Insoluble solids	2.0	2.4	6.7	1.6	2.8	4.0	NA	IN	IN	IN	IN	IN	IN	3.5 <sup>2</sup>
Ash	2.0	1.4	3.1	0.7	1.4	1.7	NA	IN	IN	IN	IN	IN	IN	1.7 <sup>2</sup>
Combustible matter	2.0	1.0	3.6	0.9	1.4	2.3	NA	IN	IN	IN	IN	IN	IN	1.8 <sup>2</sup>
<b>Site P11 – Vikings Oval</b>														
Insoluble solids	2.0	1.1	2.5	0.9	0.7	1.3	2.3	0.9	2.1	0.4	1.1	2.3	1.2	1.4
Ash	2.0	0.7	1.4	0.5	0.3	0.4	0.4	0.2	1.0	0.3	0.4	1.4	0.7	0.6
Combustible matter	2.0	0.4	1.1	0.4	0.4	0.9	1.9	0.7	1.1	0.1	0.7	0.9	0.5	0.8

Table note:

IN – Inaccessible, NA – not available

<sup>1</sup> Twelve-month average July 2011 to June 2012

<sup>2</sup> Six-month average July 2011 to December 2011 due to data not available from site during January to June 2012

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**Attachment C: EPL Licenced Discharge Point P16- Overflow Results**

Settlement Lagoon Overflow July 11 – June 12

		2011	2011	2011	2011	2011	2011	2011	2011	2011
		JULY	JULY	JULY	JULY	JULY	JULY	JULY	JULY	JULY
WATER QUALITY	DATE	11-7-11	17-7-11	18-7-11	19-7-11	20-7-11	21-7-11	22-7-11	24-7-11	25-7-11
PARAMETER	Time	12.45PM	11.00AM	13.00PM	15.30PM	9.30AM	8.20AM	8.00AM	15.30PM	11.50AM
	Sampler	RG	KG	AB	AB	AB	AB	AC	AC	KG
	Report No	SE88798	SE88915	SE88915	SE88798	SE88798	SE88798	SE88798	SE88798	SE88798
(pH)	6.5-9.5*	7.3	7.1	7.4	7.1	7.3	7.3	7.2	7.1	7.2
(TSS)mg/L	>50	7.0	5.0	5	5	10	5.0	7.0	8.5	10.0
OIL & GREASE	<10	5	5	5	5	5	5	5	5	5
AMMONIA		0.16	0.22	0.13	0.29	0.06	0.10	0.08	0.08	0.11
TOTAL NITROGEN		4.7	6.1	5.5	4.7	4.2	2.3	0.97	1.3	0.92
TKN		0.790	2.00	0.950	0.270	0.290	0.270	0.240	0.360	0.280
TON		0.6	1.8	0.8	<0.2	0.20	<0.2	<0.2	0.3	<0.2
FILTERABLE PHOSPHORUS		0.25	0.45	0.36	0.34	0.30	0.23	0.14	0.12	0.096
TOTAL PHOSPHORUS		0.32	0.48	0.39	0.14	0.15	0.12	0.11	0.10	0.10

		2011	2011	2011	2011	2011	2011	2011	2011	2011
		JULY	JULY	JULY	JULY	AUGUST	AUGUST	AUGUST	AUGUST	AUGUST
WATER QUALITY	DATE	26-7-11	27-7-11	28-7-11	29-7-11	10-8-11	11-8-11	12-8-11	14-8-11	17-8-11
PARAMETER	Time	12.00PM	7.00AM	14.00PM	17.00PM	11.30AM	10.00AM	6.30AM	14.00PM	7.45AM
	Sampler	KG	KG	KG	JH	JH	RG	KG	SDG	SDG
	Report No	SE89134	SE89134	SE89134	SE89178	SE89448	SE89448	SE89448	SE89524	SE89524
(pH)	6.5-9.5*	7.2	7.0	7.1	7.0	7.2	7.2	7.2	7.2	7.2
(TSS)mg/L	>50	10	10.0	6.5	5	5	5	73	22	43
OIL & GREASE	<10	5	5	5	6	5	5	5	5	5
AMMONIA		0.05	0.07	0.04	0.05	0.28	0.29	0.26	0.16	0.19
TOTAL NITROGEN		1.1	1.6	2.2	2.0	3.0	3.1	3.7	3.1	4.3
TKN		0.372	0.771	1.04	0.595	0.517	0.521	1.18	0.819	2.36
TON		0.3	0.7	1.0	0.5	0.2	0.2	0.92	0.7	2.2
FILTERABLE PHOSPHORUS		0.11	0.11	0.12	0.14	0.20	0.21	0.19	0.17	0.27
TOTAL PHOSPHORUS		0.13	0.15	0.19	0.5	0.20	0.21	0.24	0.20	0.23

		2011	2011	2011	2011	2011	2011	2011	2011	2011
		AUGUST	SEPTEMBER	SEPTEMBER	SEPTEMBER	OCTOBER	OCTOBER	OCTOBER	OCTOBER	OCTOBER
WATER QUALITY	DATE	18-8-11	14-9-11	25-9-11	26-9-11	2-10-11	7-10-11	8-10-11	9-10-11	11-10-11
PARAMETER	Time	06.30AM	10.30PM	12.30PM		10.00AM	20.00PM	6.45AM	7.00AM	14.00PM
	Sampler	SDG	KG	TL	WB	SDG	WB	KG	KG	SDG
	Report No	SE89522	SE102235R0	SE102235R0	SE102235R0	SE102506R0	SE102506R0	SE102506R0	SE102506R0	SE102693R0
(pH)	6.5-9.5*	7.1	8.0	9.0	7.7	6.7	7.0	7.2	7.3	7.0
(TSS)mg/L	>50	19	23	75	5.0	41.0	13	9	5	5
OIL & GREASE	<10	5	5	5	5	5	5	5	5	5
AMMONIA		0.18	0.07	0.07	0.05	0.11	0.10	0.10	0.08	0.01
TOTAL NITROGEN		3.0	1.3	1.6	3.3	2.1	1.8	1.9	2.3	2.5
TKN		0.948	0.67	0.70	0.90	0.94	0.57	0.54	0.60	0.62
TON		0.8	0.60	0.62	0.85	0.83	0.47	0.44	0.52	0.61
FILTERABLE PHOSPHORUS		0.17	0.048	0.016	0.13	0.097	0.12	0.12	0.16	0.19
TOTAL PHOSPHORUS		0.22	0.16	0.13	0.18	<0.05	<0.05	0.06	0.14	0.20

		2011	2011	2011	2011	2011	2011	2011	2011	2011
		OCTOBER	OCTOBER	OCTOBER	OCTOBER	NOVEMBER	NOVEMBER	NOVEMBER	NOVEMBER	NOVEMBER
WATER QUALITY	DATE	15-10-11	16-10-11	17-10-11	27-10-11	3-11-11	17-11-11	23-11-11	25-11-11	26-11-11
PARAMETER	Time	8.50AM	12.40PM	8.15AM	14.30PM	07.30AM	6.09AM	9.20AM	7.30AM	7.30AM
	Sampler	WB	WB	RB	WB	JH	RB	WB	SDG	SDG
	Report No	SE102693R0	SE102693R0	SE102693R0	SE103047R0	SE103047R0	SE103357R0	SE103605R0	SE103605R0	SE103605R0
(pH)	6.5-9.5*	7.2	7.2	7.2	6.7	7.0	9.4	8.2	7.2	6.8
(TSS)mg/L	>50	110	59	48	9.0	8	15	10	5	9
OIL & GREASE	<10	5	5	5	5	5	5	5	5	5
AMMONIA		0.05	0.05	0.04	0.09	0.06	0.03	0.27	0.04	0.01
TOTAL NITROGEN		1.3	1.3	0.96	2.8	1.7	2.1	1.2	1.6	1.0
TKN		0.27	0.67	0.38	1.9	0.52	1.9	1.0	0.79	0.55
TON		0.22	0.62	0.34	1.8	0.46	1.9	0.97	1.56	0.99
FILTERABLE PHOSPHORUS		0.15	0.12	0.11	0.13	0.18	<0.002	0.056	0.064	0.048
TOTAL PHOSPHORUS		0.24	0.16	0.16	0.29	0.17	0.22	0.08	<0.05	0.35

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Attachment C: EPL Licenced Discharge Point P16- Overflow Results (continued)

		2012	2012	2012	2012	2012	2012	2012	2012	2012
		NOVEMBER	NOVEMBER	DECEMBER	DECEMBER	DECEMBER	DECEMBER	DECEMBER	DECEMBER	DECEMBER
WATER QUALITY	DATE	27-11-11	28-11-11	6-12-11	8-12-11	11-12-11	12-12-11	21-12-11	22-12-11	23-12-11
PARAMETER	Time	8.30AM		10.00AM	8.30AM	6.20PM	9.00AM	15.50PM	11.05AM	7.05AM
	Sampler	SDG	RG	AB	AB	RG	KG	AC	AC	AB
	Report No	SE103605R0	SE103911R0	SE103911R0	SE104240R0	SE104240R0	SE104240R0	SE104392R0	SE104392R0	SE104392R0
(pH)	6.5-9.5*	6.9	7.3	7.5	7.0	7.1	7.0	8.9	8.7	8.2
(TSS)mg/L	>50	6	6	5	18	44	63	11	30	12
OIL & GREASE	<10	5	5	5	5	5	5	5	5	5
AMMONIA		0.01	0.20	0.10	0.30	0.38	0.29	0.12	0.21	0.23
TOTAL NITROGEN		0.86	1.3	1.3	1.1	1.3	1.6	1.2	1.5	2.4
TKN		0.43	0.74	0.72	0.47	0.940	1.30	0.89	1.0	1.0
TON		0.85	1.10	1.2	0.80	0.92	1.31	1.08	1.29	2.17
FILTERABLE PHOSPHORUS		0.063	0.052	0.031	0.030	0.032	0.041	<0.002	0.003	0.002
TOTAL PHOSPHORUS		<0.05	0.23	0.09	<0.05	0.08	0.39	<0.05	<0.05	0.08

		2012	2012	2012	2012	2012	2012	2012	2012	2012
		DECEMBER	JANUARY	JANUARY	JANUARY	JANUARY	JANUARY	JANUARY	JANUARY	FEBRUARY
WATER QUALITY	DATE	24-12-11	8-1-12	15-1-12	16-1-12	17-1-12	25-1-12	26-1-12	27-1-12	1-2-12
PARAMETER	Time	6.45AM	7.30PM	6.45AM	10.25AM	7.05AM	15.15PM	06.45AM	06.45AM	08.45AM
	Sampler	AB		RG	RB	RB				
	Report No	SE104392R0	SE104507R0	SE104682R0	SE104682R0	SE104738R0	SE105184R0	SE105184R0	SE105184R0	SE105336R0
(pH)	6.5-9.5*	8.5	9.5	8.5	7.6	7.3	7.3	7.40	7.3	7.4
(TSS)mg/L	>50	13	27	22	23	6	51	81	75	31
OIL & GREASE	<10	5	16	5	5	14	5	5	5	I/S
AMMONIA		0.20	0.60	0.94	0.21	0.20	0.03	0.01	<0.01	I/S
TOTAL NITROGEN		4.1	4.3	2.7	2.0	1.9	3.5	3.0	2.8	2.8
TKN		1.8	3.5	2.5	0.90	0.44	1.8	1.3	1.2	0.73
TON		3.9	0.80	1.7	0.72	1.7	3.47	2.99	2.99	I/S
FILTERABLE PHOSPHORUS		8.60	0.004	0.22	0.11	0.12	0.096	0.056	0.052	0.098
TOTAL PHOSPHORUS		0.16	0.43	0.27	0.11	0.06	0.21	0.11	0.10	I/S

		2012	2012	2012	2012	2012	2012	2012	2012	2012
		FEBRUARY	FEBRUARY	FEBRUARY	FEBRUARY	FEBRUARY	FEBRUARY	FEBRUARY	FEBRUARY	FEBRUARY
WATER QUALITY	DATE	2-2-12	6-2-12	6-2-12	10-2-12		11-2-12	14-2-12	16-2-12	20-2-12
PARAMETER	Time		15.00PM	15.00PM	14.00PM		9.10AM	15.15PM	18.50PM	14.00PM
	Sampler		KC	KC	RG		AC			
	Report No	SE105336R0	SE105246R0	SE105336R0	SE105336R0	SE105882R0	SE105882R0	SE105882R0	SE105882R0	SE105882R0
(pH)	6.5-9.5*	7.1	6.8	7.0	6.9	6.9	6.9	7.0	7.0	6.70
(TSS)mg/L	>50	8	19	5	380	79	300	170	68	15
OIL & GREASE	<10	I/S	5	I/S	5	5	5	5	5	5
AMMONIA		I/S	0.03	I/S	0.09	<0.01	0.01	0.01	<0.01	0.03
TOTAL NITROGEN		2.0	1.6	1.7	5.2	1.3	4.2	2.2	2.1	1.5
TKN		0.61	0.95	1.1	5.0	0.44	3.80	1.40	1.2	0.47
TON		I/S	1.57	I/S	4.9	1.3	4.20	2.2	2.10	1.50
FILTERABLE PHOSPHORUS		0.063	0.041	0.036	0.031	0.074	0.057	0.083	0.083	0.068
TOTAL PHOSPHORUS		I/S	0.09	I/S	I/S	0.08	0.07	0.12	0.14	0.08

		2012	2012	2012	2012	2012	2012	2012	2012	2012
		FEBRUARY	FEBRUARY	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH
WATER QUALITY	DATE	22-2-12	29-2-12	1-3-12	3-3-12	5-3-12	6-3-12	7-3-12	8-3-12	11-3-12
PARAMETER	Time	9.40AM	7.30AM	8.00AM	7.40AM	6.45AM	6.45AM	6.30AM	6.30AM	15.00PM
	Sampler		SDG	AB	AC	KG	KG	KG	KG	RG
	Report No	SE105882R0	SE106034R0	SE106034R0	SE106034R0	SE106034R0	SE106126R0	SE106126R0	SE106474R0	SE106474R0
(pH)	6.5-9.5*	6.8	7.3	7.0	7.0	7.3	7.5	7.2	7.0	7.1
(TSS)mg/L	>50	7	12	13.0	10	24	5	11	11	20
OIL & GREASE	<10	5	5	5	5	5	5	5	5	5
AMMONIA		0.11	0.19	0.01	0.02	0.05	0.05	0.06	0.01	0.01
TOTAL NITROGEN		0.87	1.4	0.99	0.63	1.3	1.1	1.4	1.1	2.0
TKN		0.87	0.63	0.630	0.310	0.47	0.22	0.50	0.28	0.33
TON		1.8	1.21	0.98	0.61	1.25	1.05	1.34	0.16	0.20
FILTERABLE PHOSPHORUS		0.078	0.043	0.016	0.027	0.049	0.063	0.050	0.056	0.12
TOTAL PHOSPHORUS		0.09	0.09	<0.05	0.05	0.07	0.06	0.07	0.06	0.14



**Attachment C: EPL Licenced Discharge Point P16- Overflow Results (continued)**

		2012	2012	2012	2012	2012	2012	2012	2012	2012
		MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	APRIL
WATER QUALITY	DATE	17-3-12	18-3-12	19-3-12	20-3-12	21-3-12	22-3-12	23-3-12	24-3-12	2-4-12
PARAMETER	Time	15.00PM	13.00PM	11.30AM	13.10PM	12.15PM	6.45AM	6.30AM	7.30AM	9:30AM
	Sampler	SDG	SDG	TL	TL	TL	TL	SDG	SDG	KG
	Report No	SE106474R0	SE106558R0	SE106558R0	SE106558R0	SE106558R0	SE106682R0	SE106682R0	SE106682R0	SE106894R0
(pH)	6.5-9.5*	7.2	8.7	7.8	7.5	7.7	7.4	7.1	7.2	9.3
(TSS)mg/L	>50	14	8	7	15	7	5	13	8	11
OIL & GREASE	<10	5	5	5	5	5	5	5	5	5
AMMONIA		0.04	0.09	0.08	0.08	0.03	0.08	0.08	0.04	0.05
TOTAL NITROGEN		1.7	1.3	1.9	2.3	2.5	3.3	4.4	3.4	3.6
TKN		0.55	0.41	0.42	0.55	0.43	0.45	0.81	0.80	1.4
TON		0.10	0.32	0.34	0.47	0.40	0.37	0.73	0.76	1.35
FILTERABLE PHOSPHORUS		0.055	0.059	0.080	0.089	0.087	0.13	0.14	0.11	0.005
TOTAL PHOSPHORUS		0.09	0.08	0.10	0.11	0.12	0.14	0.18	0.14	<0.05

		2012	2012	2012	2012	2012	2012	2012	2012	2012
		APRIL	APRIL	APRIL	APRIL	APRIL	APRIL	APRIL	MAY	JUNE
WATER QUALITY	DATE	19-4-12	20-4-12	20-4-12	21-4-12	27-4-12	29-4-12	30-4-12	25-5-12	5-6-12
PARAMETER	Time	7:15AM	6:30AM	6:30AM	6:15AM	16:00PM	11:15AM	09:00AM	10:30AM	16:00PM
	Sampler	SDG	KG	AC	KG	TC	AC	KG	AC	AC
	Report No	SE107450R0	SE107733R0	SE107733R0	SE107733R0	SE107733R0	SE107843	SE109242R0	SE109242R0	SE109242R0
(pH)	6.5-9.5*	7.3	7.2	7.1	7.3	7.5	7.7	7.1	7.2	7.5
(TSS)mg/L	>50	12	5	23	5	5	5	10	8	5
OIL & GREASE	<10	5	5	5	5	5	5	5	5	5
AMMONIA		0.06	0.01	0.01	0.07	0.19	0.14	0.04	0.07	0.12
TOTAL NITROGEN		2.7	2.1	2.4	2.7	2.7	2.4	2.7	3.8	4.1
TKN		0.71	0.59	0.50	0.42	0.45	0.55	0.30	0.60	0.64
TON		0.71	0.58	0.49	0.35	0.26	0.41	0.26	0.53	0.51
FILTERABLE PHOSPHORUS		0.027	0.074	0.150	0.150	0.110	0.11	0.13	0.037	0.14
TOTAL PHOSPHORUS		0.06	0.08	0.11	0.14	0.12	0.11	0.14	0.09	0.17

		2012	2012	2012	2012	2012	2012
		JUNE	JUNE	JUNE	JUNE	JUNE	JUNE
WATER QUALITY	DATE	8-6-12	11-6-12	12-6-12	13-6-12	14-6-12	17-6-12
PARAMETER	Time	16.50PM	07.30AM	08.15AM	08.25AM	4.35PM	7.30AM
	Sampler	SDG	RB	RB	RB	TL	KG
	Report No	SE109242R0	SE109242R0	SE109242R0	SE109242R0	SE109384R0	SE109384R0
(pH)	6.5-9.5*	7.3	7.4	7.3	7.3	7.3	7.1
(TSS)mg/L	>50	5	5	8	5	5	10
OIL & GREASE	<10	5	5	5	5	5	5
AMMONIA		0.04	0.05	0.04	0.05	0.04	0.04
TOTAL NITROGEN		3.2	2.8	2.1	1.9	2.5	2.9
TKN		0.55	0.57	0.41	0.24	0.80	1.1
TON		0.52	0.52	0.36	0.19	0.75	1.1
FILTERABLE PHOSPHORUS		0.12	0.10	0.099	0.099	0.093	0.078
TOTAL PHOSPHORUS		0.16	0.14	0.14	0.12	0.12	0.13

\*pH range extended by EPA to 9.5

**Samplers:**

- RG - Ricky Gee
- KG - Klaus Grach
- AB - Aiden Beath
- AC - Alex Chalk
- JH - John Hennessy
- SDG - Sergio DiGenni
- WB - Wayne Brown
- TL - Terry Lynch
- RB - Rob Buckley
- KC - Kevin Cope
- TC - Tony Chapman



**Attachment D Extract from OEH EPL Annual Return: 1.4.11 to 31.3.12**

**PKCT Annual Return Report 2011/2012**

**1.1 Non Compliance Description: Excessive Sediment in Ponds**

**(a) Licence condition number not complied with:**

O4.1, The holding ponds must be maintained to ensure that sedimentation does not reduce their capacity by more than 20% of the design capacity.

O4.2 Water may only be discharged from a sedimentation pond as a result of excessive rainfall on the premises.

**(b) Summary of the particulars of the non-compliance.**

During severe rain events in January & February 2012 reduced capacity in ponds due to sediment build up contributed to the duration of overflows discharging into adjacent harbour waters..

**(c) Further details on particulars of the non compliance**

PKCT notified the EPA in April 2011 of difficulties being experience in maintaining capacity in sedimentation ponds due to frequent, intense rainfall events resulting in coal spillage and stockpile slumping increasing the rate of sediment build up in ponds and also hampering desilting operations. After discussions and site inspections, a pollution reduction program was established. Program U1 PRP 9, current in progress, includes work to investigate improvements.

Though sediment build up has occurred in sedimentation ponds overflows have not occurred as a result across this annual return period until the reported rain events. As a result of the storm events reported above, EPA was contacted and a meeting was sought to discuss. Meeting was held on 3<sup>rd</sup> April 2012 and PKCT has subsequently submitted a report (refer Attachment "B").



**Attachment D Extract from OEH EPL Annual Return: 1.4.11 to 31.3.12 (Continued)**

**PKCT Annual Return Report 2011/2012**

**(d) Dates when the non compliances occurred**

Date	Rainfall (mm)	overflow duration (minutes)		
		Central Pond	Tower 3	TS1 Pond
14.1.12	6	0	0	0
15.1.12	44	45	175	307
9.2.12	24	0	0	0
10.2.12	110	141	128	103
28.2.12	13	0	0	0
29.3.12	72	25	103	0
1.3.12	43	43	138	0
2.3.12	3	109	0	0

NB the storm events reported above reflect prolonged, intense rainfall beyond the system's capability to prevent overflow.

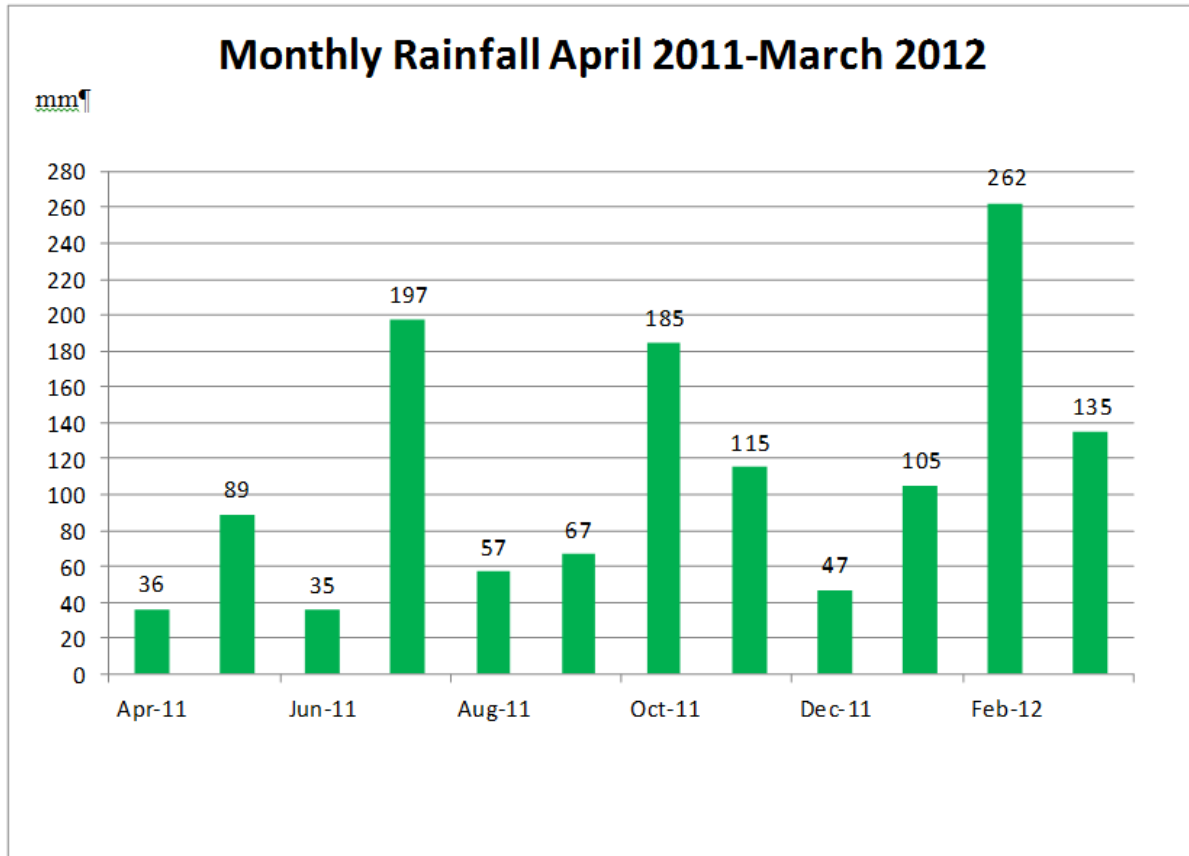
**(e) Causes of the non compliance**

Excess sediment in sedimentation ponds- Central Pond, TS1 pond, Tower 3 pond. PKCT's pond cleaning methods and facilities rely on periods of dry weather to enable material to dry out so that sediment is handleable. Prolonged, frequent wet weather events increased sediment loading on the system and adversely affected desilting operations.





**Attachment D Extract from OEH EPL Annual Return: 1.4.11 to 31.3.12 (Continued)**  
**PKCT Annual Return Report 2011/2012**



(f) Actions taken or will be taken to mitigate any adverse effects of the non-compliance.

Drier weather across March and April 12 has enable Tower 3 and Central Pond to be restored to capacity. Cleanout of TS1 pond together with the Settlement lagoon inlet (due) is scheduled across June and July 2012.

(g) Actions taken or will be taken to prevent recurrence of the non-compliance.

Work is proceeding under EPL Pollution Reduction Program U1 PRP 9 (refer Section 5b herein) to investigate improvements to cleanout facilities and to reduce the sediment loading on ponds. Interim pond modifications are also been investigated to assist while improvement plans are developed and implemented (refer Attachment "B")



**Attachment D Extract from OEH EPL Annual Return: 1.4.11 to 31.3.12 (Continued)**

**PKCT Annual Return Report 2011/2012**

**1.2 Non Compliance Description: Water quality parameter exceeded EPL limit**

(a) Licence condition number not complied with:

**L3 Concentration Limits**

L3.1 Monitoring Point 16- the concentration of a pollutant discharged at that point, or applied to an area, must not exceed the concentration limits specified.

(b) Summary of the particulars of the non-compliance.

There were 13 total suspended solids and oil/grease exceedances across the reporting period as detailed in (d) below.

(c) Further details on particulars of the non compliance

U1 PRP9 was established recognising there was a need for improvement to ensure reliable and effective system performance enabling EPL compliance of settlement lagoon discharges. The PRP is in progress and a status report is provided in Section5b herein.

(d) Dates when the non compliances occurred

**TOTAL SUSPENDED SOLIDS**

\* EPL permits an average TSS of 100 across a storm event where rainfall exceeds 90mm over a 5 day period.

(a) Oct.11: two samples listed but deemed complaint; average TSS across the two days was 85 mg/litre < 100 mg/litre

(b) Feb. 12: Average TSS across the 5 samples was 199 mg/litre.

Date	Rain Event (mm)	TSS (mg/litre)	EPL Limit (mg/litre)	Algae Count(monthly pond sample)
12/8/11	23	73	50	28,100
26/9/11	51	75	50	96,375
15/10/11	1	110*	100	21,431
16/10/11	113	59*	100	21,431
12/12/11	20	63	50	36,637

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AUTHORISED BY Peter Green, General Manager

Date Authorised: 30.10.12



25/1/12	22	51	50	227,849
26/1/12	1	81	50	227,849
27/1/12	5	75	50	227,849
9/2/12	24	No overflow		0
10/2/12	110	380*	100	0
11/2/12	1	300*	100	0
12/2/12	3	79*	100	0
14/2/12	9	170*	100	0
16/2/12	0	68*	100	0

**OIL/GREASE**

Date	Rain Event (mm)	Oil/ Grease(mg/litre)	EPL Limit (mg/litre)
8/1/12	16	16	10
15/1/12	54	5	10
16/1/12	1	5	10
17/1/12	0	14	10
25/1/12	21	5	10

NB oil and grease exceedance for two samples. Samples prior to and after the 17/1/12 exceedance were compliant.



**(e) Causes of the non compliance**

TSS exceedances prior to the Feb.12 storm event were marginal. Dosing unit was operational. Exceedances may have been affected by algae content in the lagoon. During the Jan. & Feb.12 storm events, dosing unit was required to operate for an extended period to accommodate the significant storm event and ongoing pond dewatering operating. The dosing unit was generally operational across the storm events but not fully effective.

It is unclear what the cause of the oil/grease exceedances were though it may have been due to pond dewatering operations. In dewatering ponds, water quality tends to lessen as pond water levels reduce with increase in sediment levels in the water being pumped. Disturbing the sediment may have activated oil residues.

**(f) Actions taken or will be taken to mitigate any adverse effects of the non-compliance.**

Remedial work is proceeding to desilt ponds. This will improve the water quality of water being transferred to the settlement lagoon during normal operations.

During wet weather discharges, the sediment loading of receiving waters is generally high due to sediments in catchment inflows. Impact of elevated levels of suspended solids in PKCT EPL discharges though not desirable is low. The average TSS of settlement lagoon discharges across the reporting period was 23 mg/litre which is well within the EPL limit of 50 mg/litre.

**(g) Actions taken or will be taken to prevent recurrence of the non-compliance.**

Work is progressing under PRP9 (refer Section 5c) to improve water collection system performance.

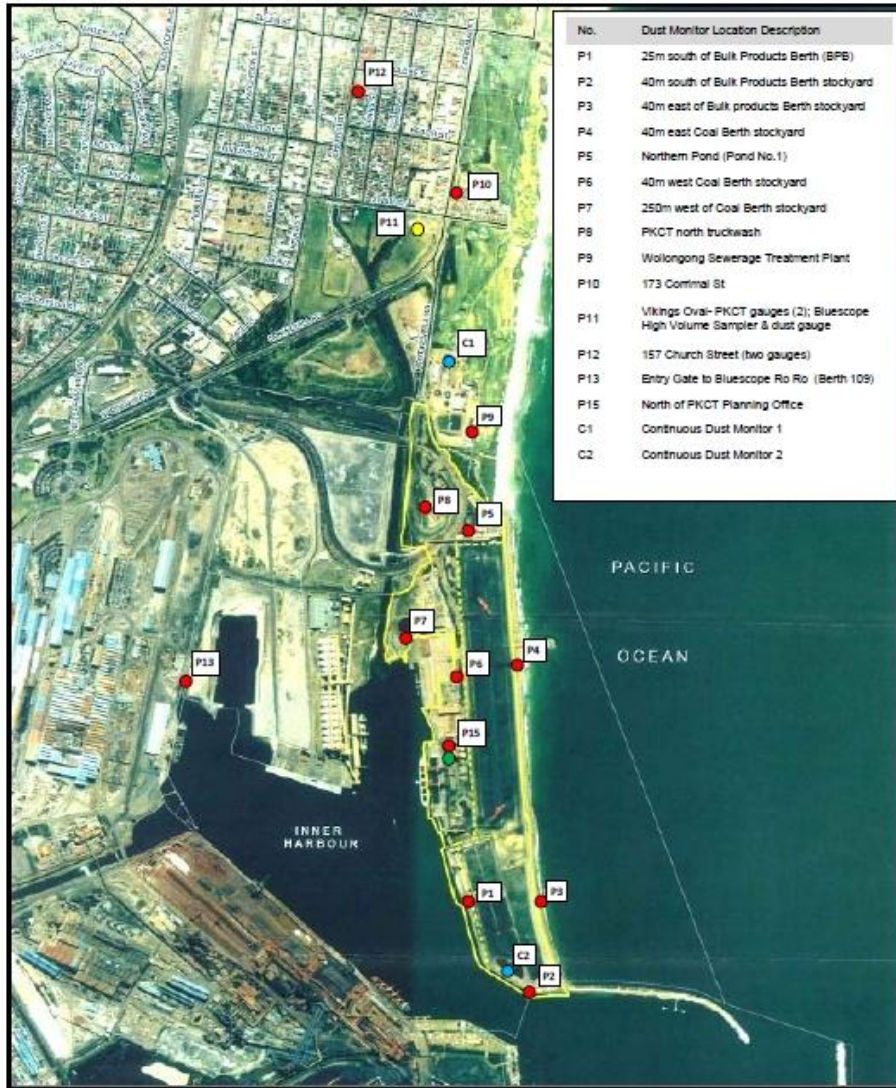
Attachment D Extract from OEH EPL Annual Return (continued)

PKCT Annual Return Report 2011/2012

2. Air Quality Monitoring Sites

PORT KEMBLA COAL TERMINAL  
DUST & WEATHER MONITOR LOCATIONS

14 March 2011



- Dust Gauges- DECCW EPL sites ●
- Continuous Dust Monitor Sites ●
- (a) Bluescope High Volume Sampler & dust gauge ●
- (b) PKCT DECCW EPL Dust Gauge P11 ●
- PKCT Site Boundary
- Weather stations (a) at each continuous dust monitor site ● (b) PKCT south control tower : ●

NB during the annual return period, a dust gauge was installed at Vikings Oval site denoted "P11" on the above plan (Monitoring Point 19 in EPL). Gauge was installed in May 2011 and 11 samples were taken across the annual return period.



Attachment D Extract from OEH EPL Annual Return (continued)

PKCT Annual Return Report 2011/2012

2.2 Dust Deposition Data

MONTH DATE Sampler	GAUGE NO.	Analysis gm <sup>3</sup> month	EPL Annual Return: April 011 to March 12												No. samples collected	MIN	MEAN	MAX
			APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR				
			Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12				
P1	25m South No.1 Coalberth	Insoluble Solids Ash Combustible Matter	6.4 4.3 2.1	6.6 4.7 2.1	12.3 9.0 3.3	24.4 20.6 3.8	9.6 7.1 2.5	7.1 4.9 2.2	6.2 4.7 1.5	3.2 1.0 2.2	7.1 3.8 3.3	9.8 5.3 4.5	5.2 3.1 2.1	2.3 1.1 1.2	12 12 12	2.3 1.0 1.2	8.4 5.8 2.6	24.4 20.6 4.5
P2	40m South of Southern S/P Area	Insoluble Solids Ash Combustible Matter	4.5 2.9 1.6	4.7 3.1 1.6	12.4 8.7 3.7	5.6 3.9 1.7	7.4 5.2 2.2	15.3 10.8 4.5	5.7 4.8 1.9	1.7 0.8 0.9	BB BB BB	7.0 4.1 2.9	3.4 1.9 1.5	1.3 0.5 0.8	11 11 11	1.3 0.5 0.8	6.4 4.2 2.1	15.3 10.8 4.5
P3	40m East of Southern S/P Area	Insoluble Solids Ash Combustible Matter	10.7 7.1 3.6	14.5 10.4 4.1	42.1 20.7 11.4	78.6 66.1 12.5	15.7 14.9 3.8	57.1 25.6 31.5	7.4 5.0 2.4	2.1 0.9 1.2	12.3 6.2 6.1	7.1 2.8 4.3	7.6 5.8 1.8	4.0 2.7 1.3	12 12 12	2.1 0.9 1.2	21.9 14.9 7.0	78.6 66.1 31.5
P4	40m East No.2 Coalberth S/P Area	Insoluble Solids Ash Combustible Matter	9.8 3.9 5.9	21.9 5.2 16.7	22.1 10.9 11.2	15.3 6.7 8.6	2.0 1.3 0.7	12.4 1.3 11.1	BF BF BF	3.7 2.0 1.7	6.7 1.9 4.8	11.2 3.1 8.1	5.1 2.1 3.0	3.9 1.4 2.5	11 11 11	2.0 1.3 0.7	10.4 3.6 6.8	22.1 10.9 16.7
P5	Northern Settling Pond	Insoluble Solids Ash Combustible Matter	10.8 4.0 6.8	10.5 4.6 5.9	11.7 5.2 6.5	11.9 6.4 5.5	12.0 5.4 6.6	15.3 6.1 9.2	1.9 0.4 1.5	6.2 1.6 4.6	BB BB BB	11.3 3.0 8.3	4.1 1.7 2.4	6.8 4.5 2.3	11 11 11	1.9 0.4 1.5	9.3 3.9 5.4	15.3 6.4 9.2
P6	40m West No.2 Coalberth S/P Area	Insoluble Solids Ash Combustible Matter	11.0 6.4 4.6	12.2 8.5 4.8	4.5 1.7 2.8	11.1 8.5 2.6	9.5 4.5 4.0	11.9 6.1 5.8	2.4 1.0 2.4	5.9 2.6 6.3	2.5 0.9 2.6	12.5 3.0 10.5	BB BB BB	5.7 2.2 3.5	11 11 11	3.4 0.9 2.4	8.7 4.1 4.5	13.5 8.5 10.5
P7	260m West No.2 Coalberth S/P Area	Insoluble Solids Ash Combustible Matter	10.2 1.0 9.2	9.4 6.5 2.9	43.4 37.9 5.5	60.2 56.2 4.0	13.6 11.4 2.2	6.9 5.1 1.8	2.4 1.2 1.2	8.6 1.3 7.3	2.9 1.4 1.5	2.9 1.3 1.6	4.4 3.2 1.2	2.6 1.6 1.0	12 12 12	2.4 1.0 1.0	14.0 10.7 3.3	60.2 56.2 9.2
P8	PKCT. North Truckwash	Insoluble Solids Ash Combustible Matter	9.1 3.2 5.9	18.5 6.3 12.2	44.4 9.4 35.0	36.3 11.2 25.1	12.8 4.3 8.5	18.3 4.3 14.0	4.9 1.2 3.7	5.4 1.8 3.6	5.5 1.7 3.8	17.7 3.7 14.0	3.9 1.7 2.2	5.6 2.7 2.9	12 12 12	3.9 1.2 2.2	15.2 4.3 10.9	44.4 11.2 35.0
P9	East Side of Water Board Property	Insoluble Solids Ash Combustible Matter	3.2 2.4 1.4	6.1 4.1 2.0	6.6 4.1 2.5	4.0 3.1 0.9	4.6 2.0 1.6	3.4 1.9 1.5	1.3 0.6 0.7	3.5 2.0 1.5	2.8 1.2 1.6	2.0 0.7 1.3	2.6 1.6 1.0	1.6 0.9 0.7	12 12 12	1.3 0.6 0.7	3.5 2.1 1.4	6.6 4.1 2.5
P10	173 Corrimal Street Wollongong	Insoluble Solids Ash Combustible Matter	3.4 1.8 1.6	20.3 10.3 10.0	6.8 2.2 4.6	2.4 1.4 1.0	6.7 3.1 3.6	1.6 0.7 0.9	2.8 1.4 1.4	4.0 1.7 2.3	IN IN IN	IN IN IN	IN IN IN	IN IN IN	8 8 8	1.6 0.7 0.9	6.0 2.8 3.2	20.3 10.3 10.0
P11	Yikings Oval Wollongong	Insoluble Solids Ash Combustible Matter	0.8 0.2 0.6	2.0 0.8 1.2	4.0 1.8 2.2	1.1 0.7 0.4	2.5 1.4 1.1	0.9 0.5 0.4	0.7 0.3 0.4	1.3 0.4 0.9	2.3 0.4 1.9	0.9 0.2 0.7	2.1 1.0 1.1	0.4 0.3 0.1	12 12 12	0.4 0.2 0.1	1.6 0.7 0.9	4.0 1.8 2.2
P12	157 Church St Wollongong	Insoluble Solids Ash Combustible Matter	2.4 1.7 0.7	1.6 1.0 0.6	15.7 14.8 9.9	2.6 1.7 0.9	2.3 1.5 0.8	2.2 1.3 0.9	1.4 0.8 0.6	1.6 0.8 0.8	0.9 0.4 0.5	1.2 0.5 0.7	1.1 0.6 0.5	0.3 0.1 0.2	12 12 12	0.3 0.1 0.2	2.8 2.1 0.7	15.7 14.8 0.9
P13	200m North of A.I.S. ROAD Berth	Insoluble Solids Ash Combustible Matter	7.2 5.9 1.4	5.2 4.0 1.2	7.9 6.1 1.8	8.8 7.4 1.4	10.2 8.2 2.0	5.9 4.3 1.6	6.1 4.7 1.4	1.0 0.1 0.9	3.5 2.4 1.1	2.6 1.7 0.9	4.1 3.0 1.1	1.2 0.9 0.3	12 12 12	1.0 0.1 0.3	5.3 4.1 1.3	10.2 8.2 2.0
P14	Fross Street Wollongong	Insoluble Solids Ash Combustible Matter		1.8 1.1 0.7	1.2 0.7 0.5	3.5 2.6 0.9	1.2 0.6 0.6	1.5 0.8 0.7	0.6 0.2 0.7	2.1 1.0 1.1	1.8 0.9 0.9	1.8 0.8 1.0	1.7 0.9 0.8	0.2 0.0 0.2	11 11 11	0.2 0.0 0.2	1.6 0.9 0.7	3.5 2.6 1.1
P15	North of PKCT Canteen Building	Insoluble Solids Ash Combustible Matter	26.5 12.3 14.2	5.9 3.2 2.6	15.1 7.8 7.2	17.5 9.7 7.9	11.7 5.7 6.0	20.8 9.7 11.1	5.2 2.0 3.2	11.4 4.3 7.1	10.6 3.6 7.0	17.2 4.3 12.9	8.5 3.1 5.4	9.6 4.4 5.2	12 12 12	5.2 2.0 2.6	13.3 5.9 7.5	26.5 12.3 14.2



**Attachment D Extract from OEH EPL Annual Return (continued)**

**PKCT Annual Return Report 2011/2012**

**2.2 Dust Deposition Data (continued)**

Dust deposition results are provided as follows:-

- refer Section B2 of the annual return
- Attachments “D” & “E” provide SGS P/L reports from PKCT’s service provider covering the reporting period.

**2.3 Sampling**

With reference to Section B2 of the annual return, 164 samples were taken from the 14 EPL monitoring points referenced therein.

4 samples were lost due to broken funnels/ bottles as follows:-

- Monitoring Point 2: “P2”- 1 samples: Dec.11
- Monitoring Point 7: “P4”- 1 sample: Oct.11
- Monitoring Point 15: “P5”- 1 sample: Dec. 11
- Monitoring Point 17: “P6” – 1 sample: Feb.12

Monitoring Point 19: “P11”: 4 samples were lost- Sampler was unable to obtain access from the resident to the gauge to enable samples to be collected (Dec.11 to March 11).



**Attachment D Extract from OEH EPL Annual Return (continued)**

**PKCT Annual Return Report 2011/2012**

**2.4 Dust Deposition Results**

Though PKCT is a potential dust source, there are a variety of sources contributing to the air quality within Wollongong’s air shed. Dust sources exist within the district and may also be external. Sources also extend beyond the industrial precinct e.g. traffic, construction activities, domestic combustion and incineration, sea spray.

With regard to industrial sources the following chart based on 2010/11 National Pollution Inventory data (PM10) illustrates the relative contributions reported.

BLUESCOPE STEEL (AIS) PTY LTD	1,704,653
HELENSBURGH COAL PTY LTD	78,292
ILLAWARRA COKE COMPANY PTY LTD	47,384
PORT KEMBLA COAL TERMINAL LIMITED	44,743
DENDROBIUM COAL PTY LTD	23,191
SYDNEY WATER CORPORATION	4,473
TRUENERGY TALLAWARRA PTY LTD	2,417
INDUSTRIAL GALVANIZERS CORPORATION PTY LTD	1,740
ONESTEEL TRADING PTY LTD	1,740
ORICA IC ASSETS PTY LTD	400
SHINAGAWA REFRACTORIES AUSTRALASIA PTY LTD	258
BOC LIMITED	98

Reference: National Pollution Inventory Data: 2011

Dust deposition testing includes a determination of ash and combustible matter. Combustible matter is taken as a guide relating to coal and coke dust though combustible particulates may also emanate from a variety of sources other than PKCT. Dust deposition results may also be affected by local effects from residential activities.

With reference to the charts herein, dust deposition recorded at PKCT’s residential monitoring sites indicate the following:-

- (a) Vikings Oval- all monthly results and the annual average were below the annual average target of 4 grams per square metre per month.
- (b) 157 Church Street- annual average is below the annual average target; one month (June 2011) exceeded the annual target. Ash was the primary component of total insoluble solids and very high. In view of the low combustible matter reading, a petrographic test wasn’t undertaken.





**Attachment D Extract from OEH EPL Annual Return (continued)**

**PKCT Annual Return Report 2011/2012**

(c) 173 Corrimal Street- this site has continued to provide variable results including one very high reading in May 2011. This result didn't correlate with results at other monitoring sites including Ross St which is located in close proximity. As the resident has not permitted a second gauge at the premises, a petrographic test was not able to be undertaken. The residence is located near a high traffic thoroughfare and may be impacted by local effects. The resident also indicated that there have been home renovations undertaken in the neighbourhood. In view of these results and the difficulties in collecting samples, it is proposed that this EPL monitoring point be replaced by the Ross St site.

(d) Ross Street- all monthly results and the annual average were below the annual average target of 4 grams per square metre per month. This gauge is located at the Linkside Apartments and is of interest to the residents there. One resident has joined PKCT's Community Consultative Committee as a representative of the residents and taking an active interest in PKCT's environmental management.

**Residential Dust Deposition Charts**

Charts illustrate residential dust trends over the annual return period and compares against Department of Planning assessment criteria for residential sites of 4 grams per square metre per month which forms part of Project Approval 08\_0009. It is also noted that this is an EPA guide for an average annual dust level at which residents may detect an impact on amenity.

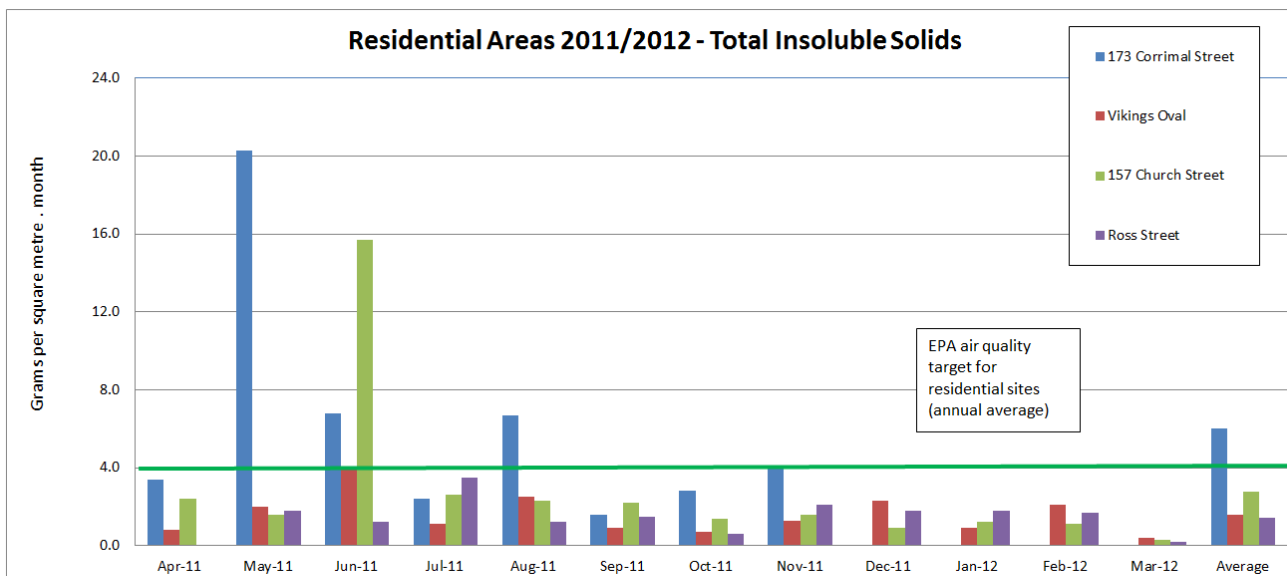


Chart 2.4 (a)



**Attachment D Extract from OEH EPL Annual Return (continued)**

**PKCT Annual Return Report 2011/2012**

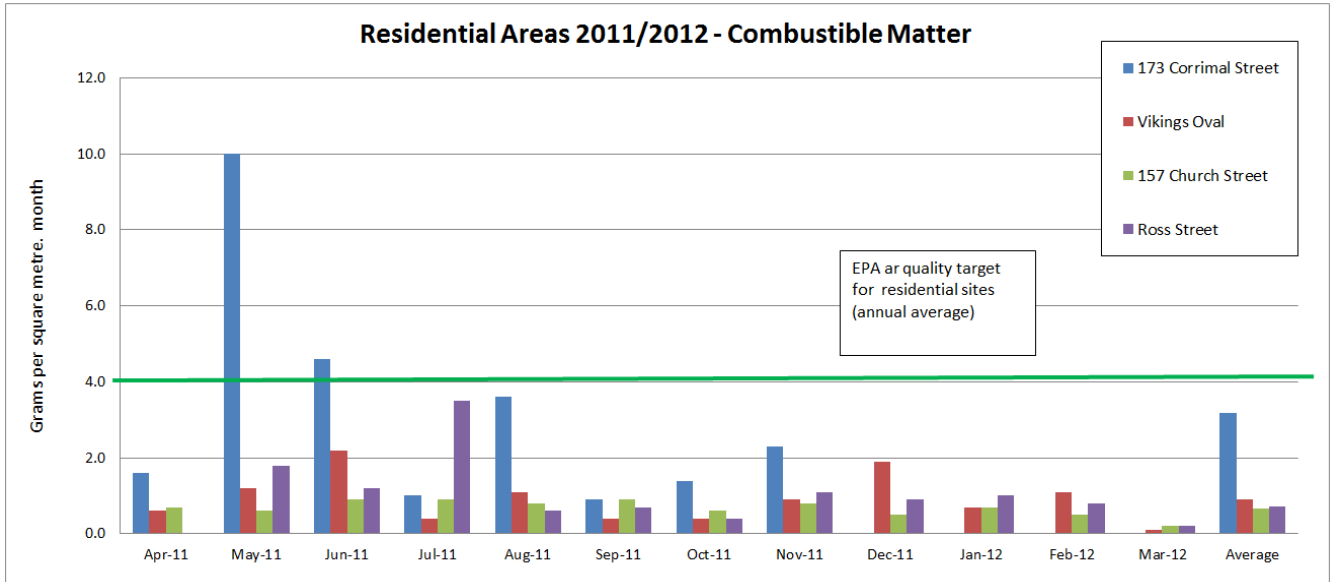


Chart 2.4 (b)

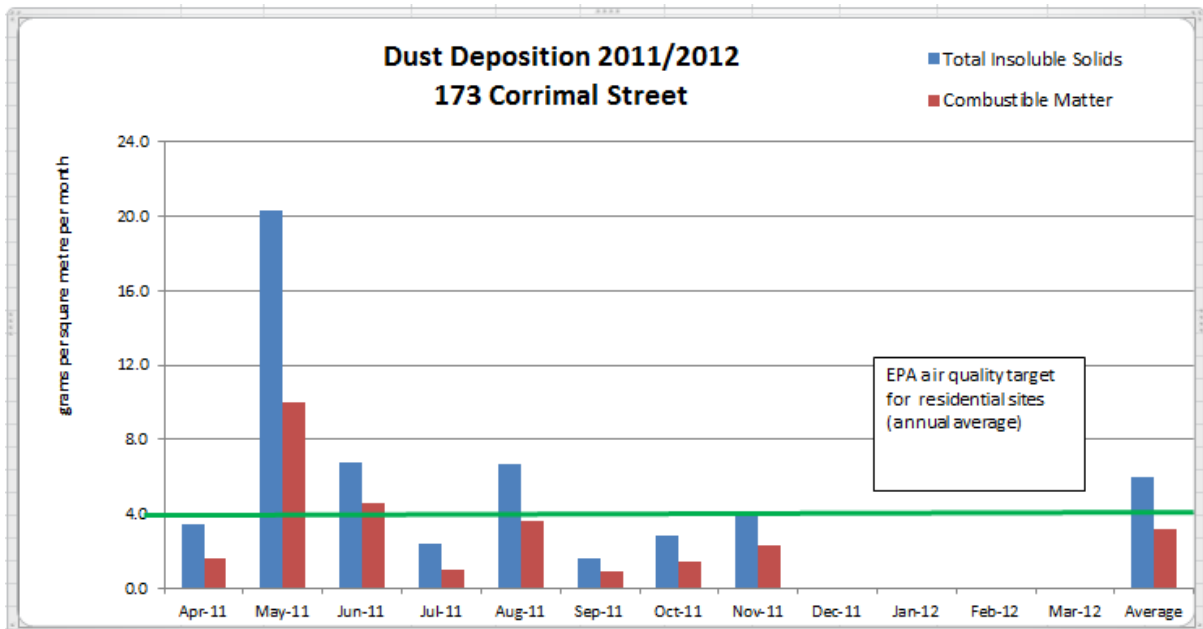


Chart 2.4 (c)



Attachment D Extract from OEH EPL Annual Return (continued)

PKCT Annual Return Report 2011/2012

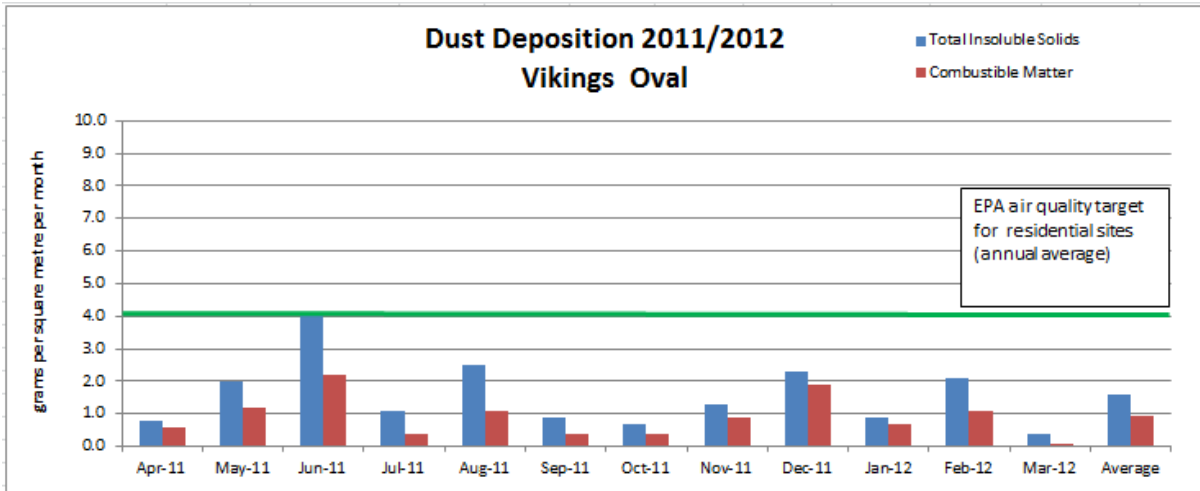


Chart 2.4 (d)

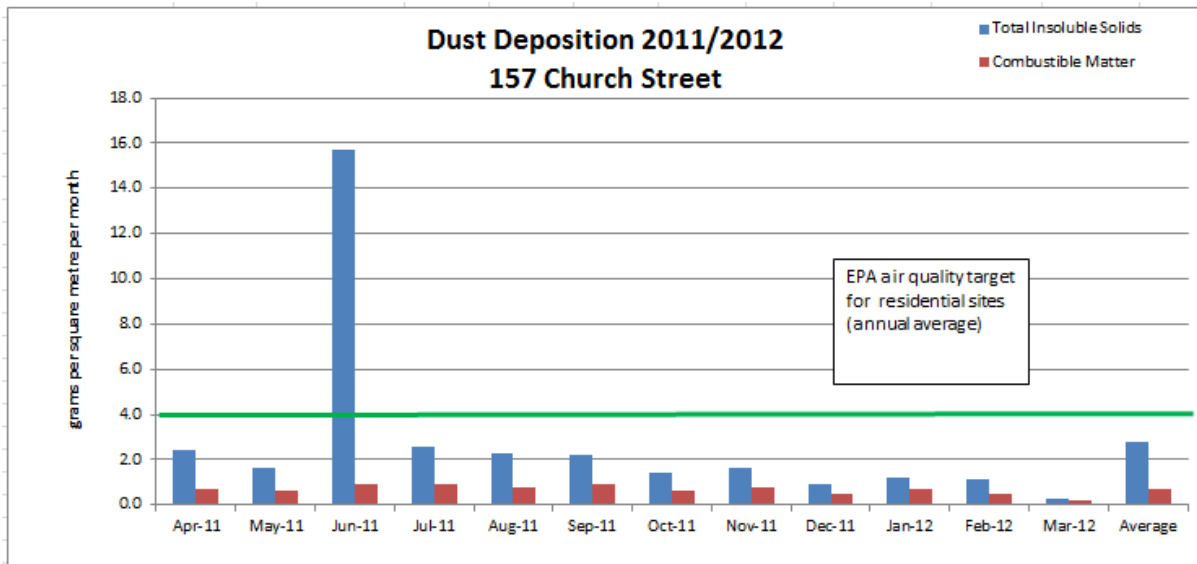


Chart 2.4 (e)



Attachment D Extract from OEH EPL Annual Return (continued)

PKCT Annual Return Report 2011/2012

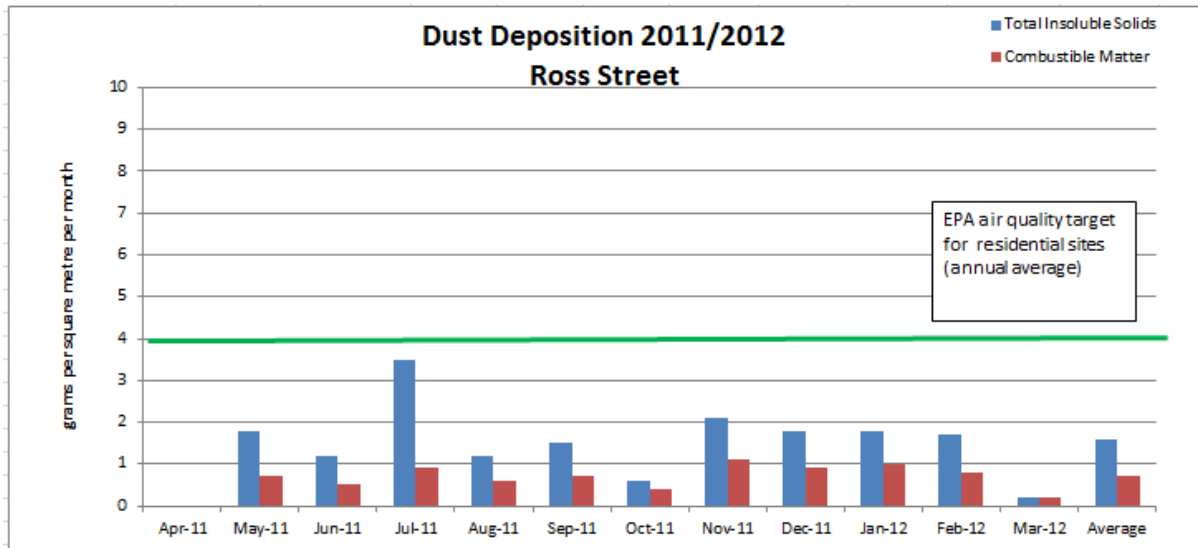


Chart 2.4 (f)

2.5 Petrographic Analysis

Consultant, Prominco P/L, undertook a petrographic analysis of annual dust sample from the Vikings Oval and Church St monitoring sites (refer Attachment “H”). The following tables are extracts from the report. It provides an indication of the various types of particulate matter and the contributions from other industrial sources.



**Attachment D Extract from OEH EPL Annual Return (continued)  
PKCT Annual Return Report 2011/2012**

**Table 1 Examination Results - Vikings Oval and Church Street Samples**

Group	Assessed Constituent	Vikings Oval Sample (Vol%)	Church Street Sample(Vol%)
Organic Matter	Botanic / Insect	18	9
Coal / Coke/Carbons	Coal	25	17
	Coke	3	9
	Pyrolitic Carbons	<1	1
	Char	<1	<<1
	Kish	<1	2
	Anthracite	1	<<1
Iron / Iron Oxides	Iron Ore - Hematite	2	5
	- Limonite	3	4
	Sinter	6	5
	Metallic Fe (Irregular)	<1	Tr
	Metallic Fe (Prill)	<1	Tr
	Metallic Prill (Oxidised)	1	1
	Undifferentiated Fe Oxides	<<1	<<1
Fe Sulphide	(Pyrite / Chalcopyrite)	<<1	<<1
Slags	Granulate (Blast Furnace)	3	4
	BOS (Steelmaking)	10	14
Silica / Silicates	Rounded Quartz	4	4
	Angular Quartz	8	5
	Irregular /Elongated Qtz/Silicate)	2	4
	Rock Silicate (Latite?)	<1	4
Fluxes	Limestone	1	1
Other	Clusters / Agglomerates	6	4
	Unidentified Matter	6	6

( Indicative Levels - <1 = 0.5 -0.8%, <<1 = 0.1 - 0.4%, Tr = Observed- nil count 'hit')

Calculation for Respective Volume and Weight Based Composition

Group	Vikings Oval		Church Street	
	Vol%	Wt%	Vol%	Wt%
Coal / Coke,	44	26	36	20
Iron/Steelmaking	35	53	41	59
Silica/Silicates	21	21	23	21

**Attachment D Extract from OEH EPL Annual Return (continued)****PKCT Annual Return Report 2011/2012****3. Noise Monitoring**

In accordance with PKCT's Noise Monitoring Management Plan, two noise surveys have been completed in April 11 and August 11 and noise results were within the specified limits. Associated reports are provided in Attachment "F" & "G" herein.

**4. Water Collection and Discharge Monitoring****4.1 General**

Water quality sampling and testing was undertaken during the reporting period of overflows from Point 16 specified in the EPL together with pond sampling and testing, as requested by the EPA (refer Attachment "C"), associated with the use of recycled water on site. Test results are provided in Attachments "D" and "E".

**4.2 Point 16**

Over the annual return period, 99 samples were taken of overflows from PKCT's EPL discharge point 16 (Settlement Lagoon) into Port Kembla Harbour. Table 4.1 provides a summary of the results. Working is progressing under U1 Pollution Reduction Program 9 (PRP9- refer Section 5b herein) to improve performance. Key points are noted as follows:-

(a) As part of PRP9, the EPA has extended the pH range to 6.5-9.5. All samples taken across the reporting period were within this range. 8 samples were outside the 6.5-8.5.

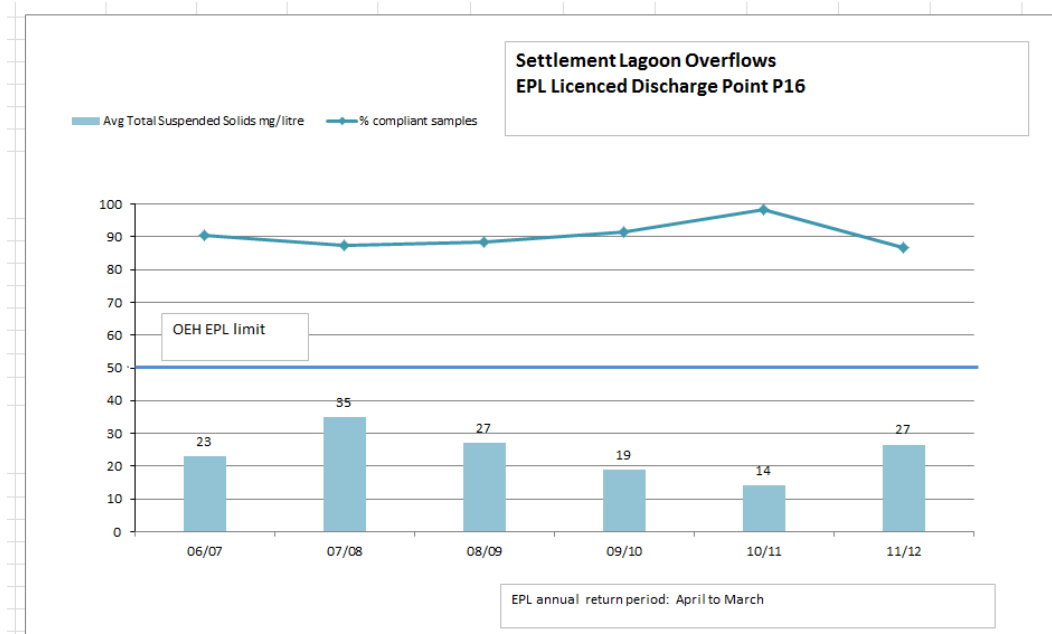
(b) TSS- though there were 11 TSS exceedances across the reporting period. It is envisaged that improvements being implemented under PRP9 will improve reliability and system performance. Effective algal controls will also assist in reducing algal counts which are contributing to total suspended solids content.

(c) Oil/ grease- there were 2 oil/grease non compliances. This is very unusual and may have been due to pond dewatering activities being undertaken at the time. Actions under PRP9 will assist in identifying more effective pond desilting methods.



**Attachment D Extract from OEH EPL Annual Return (continued)**

**PKCT Annual Return Report 2011/2012**



**Chart 4.1 TSS Performance Trend**

April 11- March 12	EPL Limit	unit	Compliant Samples	Total Samples	% Compliance	Average
pH*	6.5-9.5		99	99	100	not applicable
Total Suspended Solids	less 50	mg/litre	88	99	89	27
Oil/grease	less 10	mg/litre	94	96	97	less 5

\*pH range extended by EPA n.b. PRP9

**Table 4.1 Summary of Results**



**Attachment D Extract from OEH EPL Annual Return (continued)**

**PKCT Annual Return Report 2011/2012**

**4.3 Collection Pond Monitoring**

Prior to the commencement of recycled water use on site, the EPA requested that PKCT undertake additional water quality sampling and testing at various locations on site (refer Attachment “C”). This monitoring has continued and is contained in the reports referenced in Section 4.1 herein.

**Environment Protection Licence Pollution Reduction Programs**

**a. General**

By letter of 6<sup>th</sup> November 2011, the EPA issues a “Variation of Environment Protection Licence 1625” which included completion of the following reduction programs

Pollution Reduction Program Title	Completion Date
PRP6 Dust management Improvement	30 June 2010
PRP7 Green and Golden Bell Frog Management Plan	30 June 2009
PRP8 Identify options to improve the performance of the storm water pollution control system.	31 August 2010

There are two open pollution reduction programs on the EPL. Status reports are provided in Sections 5b and 5c herein.





**Attachment D Extract from OEH EPL Annual Return (continued)**

**PKCT Annual Return Report 2011/2012**

**U1 PRP 9: Performance Upgrades of the Stormwater Pollution Control System.**

DELIVERABLES	Status
<p>1. By 31 October, the licensee must:</p>	
<p>(a) Discuss with the supplier (Sydney Water Corporation) chlorine residual and total phosphorus concentrations in the recycled water received at the premises. The nominated water quality criteria for the recycled water formed the basis on which environmental assessments for its reuse were undertaken.</p>	<p>Sydney Water has adjusted its chlorination process and recycled water supplied is now compliant.</p> <p>In determining the water quality specification for recycled water, it was noted from the onset that, apart from using low nutrient water from the treatment plant, Sydney Water would have no further ability in its treatment processes to adjust nutrient levels. Sydney Water forecast that it would be able to supply nitrogen and phosphorus levels of 9 mg/litre and 2 mg/litre respectively (50 percentile).</p> <p>In commissioning the Recycled Water project, Sydney Water found it was unable to meet its forecast of &lt; 9 mg/litre (50 percentile) for total nitrogen. This was revised to 16 mg/litre (50 percentile) subject to confirmation of suitability by PKCT. The Total Phosphorus level remained unchanged.</p>



	<p>If not suitable, PKCT is not bound to use the recycled water and may revert to potable water supply or possibly reduce nitrogen through a recycle water/ potable water “mix”.</p> <p>Monitoring data has indicated Sydney Water is supplying recycled water in accordance with the recycled water specification as varied. PKCT is seeking to continue to do so to maximise potable water savings and address the algae/ pH issues through alternated controls.</p>
<p>(b) Upgrade the surface water level detector at the Settlement Lagoon discharge structure. This item has been reported by the licensee as un-reliable causing problems for sample collection during discharge.</p>	<p>Complete- After further review and servicing, it was decided to continue with this detector as it now appears to be satisfactory.</p> <p>It was noted across the reporting period that reliance on detector activated alarms to detect an overflow was not satisfactory particularly for low flow.</p> <p>Installation of a remote camera is being investigated. This will enable the Main Control Room to visually check/ verify that an overflow is occurring.</p>
<p>(c) Replace the in-line mixer in the chemical dosing unit.</p>	<p>Complete.</p>



<p>(d) Improve chemical mixing by installing a baffle in the Settlement Lagoon inlet channel.</p>	<p>Complete- in line mixer has improved dosing and provides the necessary mixing to activate the polymer.</p>
<p>(e) Thoroughly investigate the installation of a separate back-up chemical dosing unit that will operate when the primary dosing unit fails. Also provide for the installation a flow switch and conductivity meter at the chemical dosing unit to inform the licensee's operations staff when a dosing unit failure occurs. The flow switch alarms if the flow of chemical in the pipe ceases. The conductivity meter aims to detect and alarm if the dosing pump fails. The investigation must proceed to the point at which a decision could be made to purchase and install the dosing unit.</p>	<p>Complete- Project has been scoped and is in progress to install backup dosing unit. Work will include the installation of associated meters and alarming. A new polymer storage tank will also be installed with associated level alarming.</p>
<p>(f) Install a trash rack at the Workshop Pond to collect litter for proper disposal.</p>	<p>Complete.</p>
<p>2. By 30 June 2012, the licensee must install chemical dosing and/or implement Settlement Lagoon operation and/or management regimes to ensure pH in all discharges to Port Kembla Harbour is between 6.5 and 8.5. (Note: The upper limit for pH has been increased for the duration of this PRP.)</p>	<p>In progress- a draft report from PKCT's consultant, Cardno, was discussed with the EPA at a meeting held on the 8<sup>th</sup> May 12. A number of algae control options have been identified which PKCT will seek to trial. Report and proposed action plan to be finalised and submitted to the EPA for consideration.</p>



<p>3. 30 June 2012, the licensee must:</p>	
<p>Provide a written report to the EPA detailing the outcomes of review of the designs of the North Pond, Central Pond and TS1 Pond as a result of the removal of baffles and/ or underflow weirs. The report must:-</p>	<p>In progress- PKCT's consultant, Cardno, is engaged and undertaking the required investigation.</p>
<ul style="list-style-type: none"> <li>• Provide a list of works to be installed in each pond to improve the sediment settling capabilities of each of the ponds.</li> </ul>	
<ul style="list-style-type: none"> <li>• Consider the installation of improved facilities at the North Pond, Central Pond and TS1 Pond so that proper and efficient de-silting of the ponds can be conducted to ensure compliance with the limits in this licence applying to accumulated sediment volumes. During this investigation the ponds must still be regularly maintained to ensure capacity is not reduced by more than 20%</li> </ul>	
<ul style="list-style-type: none"> <li>• Review the stormwater inlet system within the coal stockyard with the aim of reducing the ingress of coal solids into the underground pipe network. Identify, list and report to the EPA, options to improve the retention of coal within the stockyard during rainfall events.</li> </ul>	
<p>4. By 30 June 2012, the Licensee must provide a written report to the EPA on actions completed as required by this PRP.</p>	<p>Noted.</p>



**U2: PRP10 – Environmental Improvement Program, Review Truck Wash.**

DELIVERABLES	Status
<p>By 30 July 2011 the licensee must:</p>	
<p>a) Review the effectiveness of the northern truck wash.</p> <ul style="list-style-type: none"> <li>• The review must include consideration of whether upgrades/modifications are required to improve the effectiveness of the northern truck wash.</li> <li>• The review must include, but not be limited to, consideration of upgrades/modifications to: truck wash water treatment, spray pressure, spray volume, spray operation, spray drift, vehicle speed, truck wash management, truck wash maintenance, truck wash auditing, and water/dust carryover.</li> </ul>	<p>An effectiveness review was carried out initially by consultant, Renewed Water Solutions in June 2010. Further work was then carried out by consultant, Project Portfolio Management to review and validate findings, consider improvement options and develop a control strategy to improve truck wash effectiveness.</p>
<p>Submit a written report to the EPA detailing the scope and findings of the review. The report must include options to improve the environmental performance of the northern truck wash, and a timetable for business case consideration.</p>	<p>By PKCT letter of 29<sup>th</sup> July 2011, report prepared by consultant Cardno “PKCT Northern Truckwash Review” was submitted to the EPA.</p> <p>By letter of 16<sup>th</sup> August 2011, the EPA provided feedback to PKCT on the report raising a number of points for PKCT’s consideration.</p> <p>By letter of the 30<sup>th</sup> August 2011, PKCT responded to the EPA’s letter providing further information to address the points raised therein.</p>



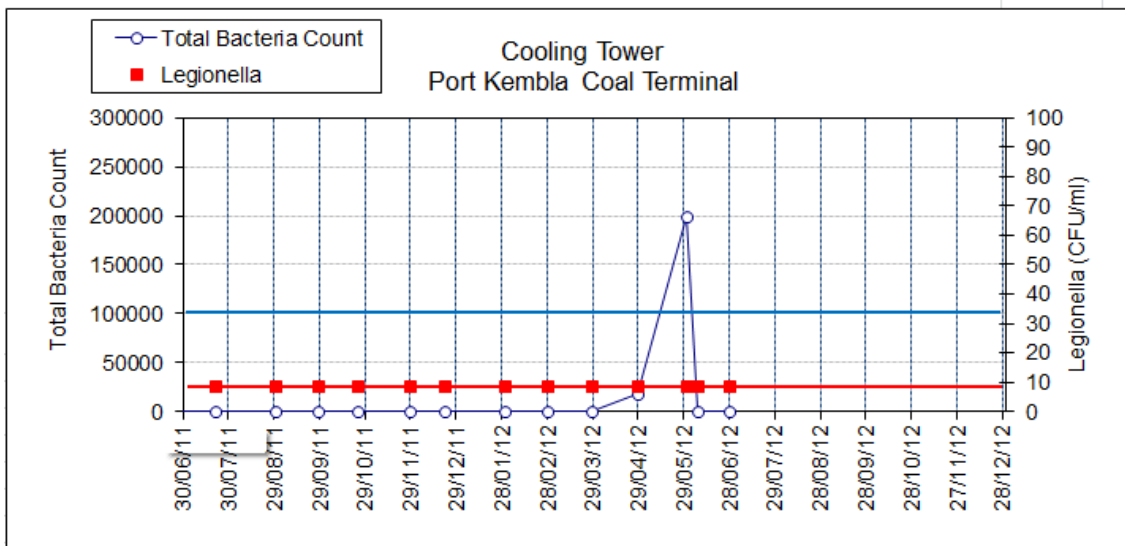
	<p>PKCT has progressed work done in the effectiveness review and developed an upgrade project. By email of 14<sup>th</sup> December 2011, PKCT provided advice to the EPA that a North Truckwash Upgrade project had been approved. Discussions are in progress to establish a Pollution Reduction Program to track the project to completion.</p>
<p>Due Date: 30 July 2011</p>	<p>Complete- PKCT has requested that the EPA close out this PRP as complete.</p>



**Attachment E Cooling Tower Data**

***Port Kembla Coal Terminal Cooling Tower Data***

Date	pH	Cond uS/cm	PO4 mg/l	Chlorides mg/l	TBC CFU/ml	Legionella CFU/ml
<b>Max</b>	9.5	1000	10	350	100,000	10
<b>Min</b>	7.0	600	3			
22/07/11	8.4	1511	0	220	<200	<10
31/08/11	10.5	1257	0	220	<200	<10
28/09/11	9.1	1026	0	250	<200	<10
25/10/11	8.5	1303	0	230	<200	<10
29/11/11	7.8	1200	0	220	<200	<10
22/12/11	8.3	813	0	250	<200	<10
31/01/12	8.7	800	4	220	<200	<10
28/02/12	9.2	900	5	220	<200	<10
29/03/12	8.4	889	3	220	<200	<10
29/04/12	7.9	832	3	250	18,000	<10
31/05/12	8.1	756	2	220	200,000	<10
8/06/12	7.9	878	2	220	<200	<10
29/06/12	8.1	1190	2	250	<200	<10
<b>Average</b>	8.5	1027	1.6	230.0	16,853	<10



NB high plate count identified on the 29th May 12 resulted in an inspection by Nalco, the service provider. Nalco verified that the dosing equipment was operating correctly. A remedial dose of biocide was added on the 5<sup>th</sup> June 12 and the Total Bacteria Count was reduced to below the required level (tested 8<sup>th</sup> June 2012).



**Attachment F: Independent External Audit Actions Status Report - June 2012**

**Independent External Audit : March 2011 (reference Department of Planning and Infrastructure Approval: 08\_0009**

**AECOM RECOMMENDATIONS FOR IMPROVEMENT**

**1.1. Compliance Actions: MCoA and EPL**

No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
1	MCoA	2.4	Term of Approval	<ul style="list-style-type: none"> <li>PKCT to maintain documentation of approval of WMP from DP&amp;I.</li> </ul> PKCT: Recommendation accepted.	WMP forms part of the DP&I submission of revised management plans submitted with this report. All MPs will need to be tracked with a record of DP&I approval kept. Where review and revision of a document is in progress, a proposed completion date is provided herein.  Status: 30.6.12 Complete WMP approved by EPA and DP&I (refer AEMR 2011/12 Section 2.4.2) with appropriate records kept.
2	MCoA	3.12	Discharge Limits	<ul style="list-style-type: none"> <li>Investigate and implement measures to bring pH and TSS levels into compliance with EPL.</li> </ul> PKCT: Recommendation accepted. <ul style="list-style-type: none"> <li>Continue to investigate continual improvements to dust management onsite to minimise off site dispersal.</li> </ul>	Action is progressing through OEH EPL Pollution Reduction Program 9. Completion date for the PRP is 30 <sup>th</sup> June 2012. Refer to 1011 AEMR Section 4.3.3 Activities Proposed for the Next Reporting Period n.b. Surface Water.  Dust improvement forms part of PKCT Strategic Business Plan. A strategy is in place and will progress through the 11/12 Business Planning period. Refer to 1011 AEMR Section 4.3.3 Activities

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
				PKCT: Recommendation accepted.	Proposed for the Next Reporting Period n.b. Air Quality.  Status: 30.6.12 In progress (a) Report submitted to EPA on 30.6.12 in accordance with PRP9 (b) Dust improvement is progressing in Business Plan FY13 under the Environment Improvement project (refer AEMR 2011/12 Section 4.3.2 and 4.3.3)
3	MCoA	3.13	Water MPlan	<ul style="list-style-type: none"> <li>Keep records of all conversations and consultation with OEH during creation of management plans.</li> </ul> <p>PKCT: Recommendation accepted in principle n.b. "all"</p> <ul style="list-style-type: none"> <li>Follow up revised WMP and seek written approval from DP&amp;I. Include in Section 9.1.3 reference to the Environmental Monitoring document, which details the monitoring procedure for discharge from the settlement lagoon. Include in this section the specific criteria for discharge from the lagoon, taken from the EPL, to ensure compliance with part (c) of this condition. Keep WMP updated with all</li> </ul>	<p>Records of conversations will be confirmed via e mail or letter as appropriate; to date, no incident has occurred where an unrecorded conversation has resulted in a dispute or disagreement with OEH though it is noted that record management requires strengthening.</p> <p>WMP has been revised. Water Management Plan MP.HS.462 is attached.</p> <p>Status: 30.6.12 Complete WMP approved by EPA and DP&amp;I (refer AEMR 2011/12 Section 2.4.2) with appropriate records kept.</p>

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
				<p>reasonable and feasible measures taken by PKCT to ensure that water quality criteria are being met, as discussed in the Cardno Rigby water systems review report. Formalise discussions with OEH in the plan. Include monitoring of water quality for dust, as described in the SGS report. Confirm with OEH and DP&amp;I whether new EPL condition will be undertaken.</p> <p>PKCT: Accepted that the management plan requires revision, that it needs to comply with DP&amp;I approval condition 13 and DP&amp;I approval of the plan will be required. The plan will reference “reasonable and feasible mitigation measures”, outline the “monitoring protocols” in place and outline the process for continual improvement. It is not considered appropriate or practical that the plan be used as a project tracking tool or to be prescriptive like a work instruction. Where appropriate, cross references are included in associated procedures. Task/ project and performance reporting is provide in the AEMR.</p>	

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
4	MCoA	3.14	GGBF MPlan	<ul style="list-style-type: none"> <li>Keep documentation of submission to Director-General.</li> </ul> <p>PKCT: Recommendation accepted</p>	<p>N.B Section 5.1 herein. Discuss administrative arrangements with DP&amp;I. Also Refer Action 16 below.</p> <p>Status: 30.6.12 Complete</p> <p>By PKCT letters of 10.8.11 and 18.11.11, DP&amp;I letter of 27.10.11 and the EPA letter clarification was obtained on administrative arrangements.</p>
5	MCoA	3.15	Lighting Emissions	<ul style="list-style-type: none"> <li>Undertake an inspection of external lighting to determine compliance against the Australian Standard, and implement any mitigation measures identified.</li> </ul> <p>PKCT: Recommendation accepted.</p>	<p>Lightpoint Consulting Services has been engaged and work is progressing checking site lighting against the standard. Refer to 1011 AEMR Section 3.7 and Section 4.3.3 Activities Proposed for the Next Reporting Period n.b. Visual Amenity.</p> <p>Status: 30.6.12 Complete. Consultant report submitted in October 11 confirming with AS 4282 with no evidence found of any detrimental lighting impact on residential areas.</p>
6	MCoA	3.16	Landscape MPlan	<ul style="list-style-type: none"> <li>Formalise submission process by sending dated letter to Director-General, for initial submission of management plans, and again with every re-submission of management plans.</li> </ul> <p>PKCT: Recommendation accepted; administrative arrangements require strengthening.</p>	<p>N.B Section 5.1 herein. Discuss administrative arrangements with DP&amp;I.</p> <p>LMP revised. Landscape Management Plan MP.HS.470 attached for DP&amp;I review/approval. LMP includes an implementation program.</p>

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
				<ul style="list-style-type: none"> <li>Devise an implementation program and include in LMP.</li> </ul> <p>PKCT: Accepted; Implementation program included in the LMP. As outlined in Section 5.2, this program does not normally form part of the Landscape Management Plan document. Implementation plan included as it was a specific project commitment made under the DP&amp;I Project Approval.</p>	<p>Status: 30.6.12 Complete</p> <p>LMP approved by the DP&amp;I (refer AEMR 2011/12 Section 2.4.2) with appropriate records kept. By PKCT letters of 10.8.11 and 18.11.11, DP&amp;I letter of 27.10.11 and the EPA letter clarification was obtained on administrative arrangements.</p>
7	MCoA	3.17	Operating Conditions	<ul style="list-style-type: none"> <li>Identify and implement reasonable and feasible measures to reduce energy and greenhouse gas emissions.</li> </ul> <p>PKCT: DP&amp;I clarification sought; refer Section 5.1</p> <ul style="list-style-type: none"> <li>Formally notify and seek approval from the Director-General, when condition includes this requirement.</li> </ul> <p>PKCT: DP&amp;I clarification sought.</p>	<p>Clarify intent and practical application of this condition with DP&amp;I.</p> <p>Clarify intent and practical application of this condition with DP&amp;I. AEMR is intended to be the means of reporting actions.</p> <p>Status: 30.6.12 Complete</p> <p>By PKCT letters of 10.8.11 and the DP&amp;I letter of 27.10.11, clarification in general terms was obtained.</p>

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
8	MCoA	3.18	Greenhouse Gas & Energy MPlan	<ul style="list-style-type: none"> <li>GGEEMP and ESAP must align, and be regularly updated with attention to detail from the ESAP translating to the GGEEMP. Revisions of the ESAP should be tracked (especially in ESAP as it was apparent that PKCT was not tracking revisions of the documents, or resubmitting them to DEUS/OEH).</li> </ul> <p>PKCT: DP&amp;I clarification sought; refer Section 5.1</p> <ul style="list-style-type: none"> <li>Update performance monitoring section of ESAP to clarify progress and completion of certain tasks.</li> </ul> <p>PKCT: Recommendation accepted.</p> <ul style="list-style-type: none"> <li>Formalise submission process with dated letter to Director-General to facilitate the Director-General being satisfied with the plan.</li> </ul> <p>PKCT: Recommendation accepted; administrative arrangements require strengthening.</p>	<p>GGEEMP revised in accordance with Section 5.1. Discuss Section 5.1 with DP&amp;I.</p> <p>2011 Energy Savings Action Plan has been updated and submitted to OEH. Performance monitoring is tracked by PKCT's Energy Savings group which meets quarterly. Actions tracked via PKCT event management system. Action reporting to continue via AEMRs and annual ESAP reports.</p> <p>N.B Section 5.1 herein. Discuss administrative arrangements with DP&amp;I.</p> <p>Status: 30.6.12 In progress.</p> <p>GGEEMP was approved by the DP&amp;I (refer AEMR 2011/12 Section 2.4.2) with appropriate records kept. By PKCT letters of 10.8.11 and 18.11.11, DP&amp;I letter of 27.10.11 and the EPA letter clarification was obtained on administrative arrangements. ESAP has been updated and submitted to OEH in August 11. Further work required regarding monitoring and action tracking.</p>

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
9	MCoA	3.19	Operating Conditions	<ul style="list-style-type: none"> <li>Complete implementation of Transpacific suggestions to improve waste management.</li> </ul> <p>PKCT: Recommendation accepted.</p> <ul style="list-style-type: none"> <li>Advise Director-General by letter of the waste summary in each AEMR.</li> </ul> <p>PKCT: DP&amp;I clarification sought.</p>	<p>Transpacific’s suggestions have been reviewed, prioritised and are being implemented as appropriate. Refer to Section 3.9 Waste, 4.3.2 and 4.3.3 in the 1011 AEMR for a report on action carried out to date and actions proposed.</p> <p>Discuss DP&amp;I expectations. AEMR includes a waste summary which is submitted with a covering letter.</p> <p>Status: 30.6.12 In progress.</p> <p>Improvements progressing (refer AEMR 2011/12 Section 2.4.2) with appropriate records kept. Further work required to improve waste monitoring and recording particularly in noting the increasing scale of projects being planned and undertaken.</p>
10	MCoA	3.20	Dangerous Goods	<ul style="list-style-type: none"> <li>Implement recommendation made in LRQA report: Identify the relevant legal &amp; other requirements for the storage of the different classes of dangerous goods / hazardous substances on the site, review and revise controls as necessary, communicate to relevant personnel &amp; verify the effective implementation of the controls. Date for completion was 12/10.</li> </ul> <p>PKCT: Recommendation accepted.</p>	<p>Consultant, Advitech P/L, has been engaged to review PKCT’s Dangerous Goods storage on site. A report has been submitted and recommendations are under review. Refer 1011 AEMR Sections 3.10 Hazards, 4.3.2 and 4.3.3 on actions carried out and proposed. Actions will be tracked in PKCT’s event management system and reported in the 11/12 AEMR.</p> <p>Status: 30.6.12 In progress.</p> <p>Requirements have been identified and work is progressing in particular in relation to the (a) underground fuel storage tanks (b) oxy acetylene storage shed. Refer 1112 AEMR Sections 3.10 Hazards, 4.3.2 and 4.3.3.</p>

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
11	EPL	L1.1	Pollution of Waters	<ul style="list-style-type: none"> <li>Investigate and implement measures to bring pH and TSS levels into compliance with EPL. PKCT: Recommendation accepted.</li> <li>Continue to investigate continual improvements to dust management onsite to minimise off site dispersal. PKCT: Recommendation accepted.</li> </ul>	Refer Action 2  Status: 30.6.12- In progress (refer Action 2)
12	EPL	L3.3	Concentration Limits	<ul style="list-style-type: none"> <li>Investigate improvements to dosing systems to increase flocculation/coagulation of sediments/algae prior to discharge. Implement sediment pond maintenance works. PKCT: Recommendation accepted.</li> </ul>	Refer Action 2  Status: 30.6.12- In progress (refer Action 2). Dosing unit has been upgrade across FY12.
13	EPL	O4.1	Operating Conditions	<ul style="list-style-type: none"> <li>Develop maintenance works program for sedimentation ponds to maintain silt to less than 20% of design capacity, and implement regular cleaning if required to achieve this, having regard to GGBF habitat requirements. PKCT: Recommendation accepted.</li> </ul>	Action is progressing through OEH EPL Pollution Reduction Program 9. Completion date for the PRP is 30 <sup>th</sup> June 2012. A number of sedimentation ponds are very difficult to clean out and are vulnerable to wet weather. This is hampering systematic cleaning at present.

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
					Status: 30.6.12- In progress (refer Action 2). Ongoing prolonged wet weather across the last 12 months has continued to hamper cleanout efforts. This has been reported to the EPA and is the subject of current discussions.
14	EPL	O4.2	Operating Conditions	<ul style="list-style-type: none"> <li>Maintain records of days of discharge from sedimentation ponds and compare to excessive rainfall events as recorded by onsite rain gauge.</li> </ul> <p>PKCT: OEH clarification required.</p>	<p>“Excessive rainfall” is not defined in the EPL. Sedimentation ponds are licenced as overflow drains. Overflow is permitted if pond capacity is maintained and equipment is operational during wet weather. That is, rainfall is excessive if the pond’s capacity is exceeded. PKCT to verify this EPL aspect and its practical application with OEH.</p> <p>Status: 30.6.12- In progress (refer Action 2). This was the basis of EPA approval of the water collection system and will be verified in the EPA discussions currently in progress.</p>
15	EPL	U2.1	GGBell Frog MPlan	<ul style="list-style-type: none"> <li>Keep records of all conversations and consultation with OEH during creation of management plans.</li> </ul> <p>PKCT: Recommendation accepted in principle n.b. “all”</p>	<p>Refer Action 3.</p> <p>Status: 30.6.12 Complete Appropriate records kept.</p>
16	EPL	U2.1	GGBell Frog MPlan	<ul style="list-style-type: none"> <li>Modify the GGBFMP to ensure that the Best Practice Guidelines have been included in the Plan, and that the Plan follows the template.</li> </ul>	<p>GGBFMP has been revised and is being reviewed by OEH. Refer 1011 AEMR Section 3.6 Biodiversity, 4.3.2 and 4.3.3 for actions undertaken and proposed. GGBFMP is attached.</p> <p>Status: 30.6.12 Complete</p>

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
				PKCT: Recommendation accepted.	GGBFMP is approved by EPA and DP&I (refer AEMR 2011/12 Section 2.4.2) with appropriate records kept.
17	DCC	8	Compliance Monitoring	<ul style="list-style-type: none"> <li>Review and update DCC as necessary based on audit recommendations.</li> </ul> PKCT: Recommendation accepted.	An initial review of the Drivers Code of Conduct and the Drivers Code of Conduct Implementation Plan MP.BM.453 (DCCIP) has been completed. Consideration was given to the audit findings/ recommendations and draft documents are currently being syndicated with road transport and shipper signatories.  Consultation will also be required with other signatories such as the RTA. Once finalised, DCC and the DCCIP will be submitted to the DP&I for review/approval. A completion date of 30.11.11 is proposed.  Status: 30.6.12 In Progress. DCC controls strengthened. DCC and DCCIMP and associated documentation have been revised and monitoring has been strengthened. DCC and DCCIMP require EPA, RMS consultation then approval will be sought. Refer AEMR 2011/12 (Sections 3.2, 4.3.2 and 4.3.3).
18	DCC	8	Compliance Monitoring	PKCT to coordinate and collate documentary evidence of audits/monitoring undertaken by signatories and Transport Providers to the DCC.  PKCT: Recommendation accepted.	Refer Action 17. Improved record management and administration is included in the review of DCC implementation.  Status: 30.6.12 Complete. Roles/accountabilities clarified in the revision of DCC and DCCIMP and verified through system audits.

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
19	MCoA	3.7	Impact Assessment Criteria	<p>Unable to verify compliance with dust generation criteria due to the complexity of the PKCT location. PKCT do attempt to understand their contribution.</p> <p>PKCT: Noted.</p>	<p>DP&amp;I discussion point; Air quality criteria is used as a management tool by PKCT. PKCT will continue to explore ways of improving understanding of the air shed and the variety of dust sources contributing. Refer Section 4.3.3 of 1011 AEMR for actions proposed.</p> <p>Status: 30.6.12 In Progress. Refer AEMR 2011/12 (Sections 4.3.2 and 4.3.3) benchmarking in progress with other coal terminals. No established methodology is apparent. Petrography work undertaken across the FY12 period to increase the knowledge base relating to steel making particulate emissions. This is important in noting the proximity of BlueScope Steel, a significant, potential dust source.</p>
20	MCoA	3.8	Operations	<ul style="list-style-type: none"> <li>PKCT to establish a record of visible air pollution and documentary evidence showing operational modification. PKCT should seek Director-General's formal acceptance of operational modification procedure.</li> </ul> <p>PKCT: DP&amp;I clarification sought.</p>	<p>DP&amp;I discussion point; clarify intent and practical application.</p> <p>Status: 30.6.12 In Progress.</p>
21	MCoA	3.9	Operations	<ul style="list-style-type: none"> <li>PKCT should seek the Director-General's satisfaction by a letter sent to the DP&amp;I</li> </ul>	<p>DP&amp;I discussion point; clarify intent and practical application. It is considered this isn't required.</p>

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
				<p>advising of the truck washing protocol.</p> <p>PKCT: DP&amp;I clarification sought; refer Section 5.1.</p>	<p>Status: 30.6.12 In Progress. Truckwash Upgrade project in progress and is the subject of an EPA EPL pollution reduction program. This program will include and effectiveness assessment. This work will provide inputs into a protocol for submission to the DP&amp;I.</p>
22	DCC	6	PKCT Road	<ul style="list-style-type: none"> <li>Develop a system to monitor speed through the truck wash. PKCT to coordinate the client mines to establish compliance with use of mine's truck wash.</li> </ul> <p>PKCT: Recommendation accepted.</p>	<p>Refer Actions 17 and 26. Critical Task Observation (CTO) process is able to provide a subjective assessment by observation. PKCT truck wash upgrade project currently in development addresses truck speed in the work scope.</p> <p>Status: 30.6.12 In Progress. Truckwash Upgrade project is in progress and is the subject of an EPA EPL pollution reduction program. This program will include and effectiveness assessment.</p>
23	MCoA	3.2	Noise Monitoring Program	<ul style="list-style-type: none"> <li>Maintain records of consultation with OEH. Add discussion to NMP regarding the reasons as to why unattended monitoring is not undertaken.</li> </ul> <p>PKCT: Recommendation accepted.</p>	<p>PKCT's noise consultant, Wilkinson Murray (WK), has provided a report, dated 4.8.11, in response to the AECOM audit. WK's noise monitoring program will be revised and changes reflected in PKCT's NMP. OEH consultation is required and records of OEH consultation will be kept. A copy of the WK report is attached. Proposed completion time is 30.11.11.</p> <p>Status: 30.6.12 Complete.</p> <p>NMP revised with consideration to audit findings and approved by EPA and DP&amp;I (refer AEMR 2011/12 Section 2.4.2) with appropriate records kept.</p>

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24	MCoA	3.3	Continuous Improvement	<ul style="list-style-type: none"> <li>Incorporate requirement to undertake investigations into continual improvement in NMP, and report findings in AEMR.</li> </ul> <p>PKCT: Recommendation accepted.</p>	<p>Refer Action 23. Recommendation to be included in the NMP revision.</p> <p>Status: 30.6.12 Complete. NMP revised with consideration to audit findings and approved by EPA and DP&amp;I (refer AEMR 2011/12 Section 2.4.2) with appropriate records kept.</p>
25	EPL	M10.1	Noise Monitoring	<ul style="list-style-type: none"> <li>Additional information is to be provided during onsite monitoring which details the onsite activities at the time of measurements and to what extent this is consistent with 'normal operations', to support only undertaking attended noise measurements in the future.</li> </ul> <p>PKCT: Recommendation accepted.</p>	<p>Refer Action 23. Recommendation to be included in the NMP revision.</p> <p>Status: 30.6.12 Complete. NMP revised with consideration to audit findings and approved by EPA and DP&amp;I (refer AEMR 2011/12 Section 2.4.2) with appropriate records kept.</p>
26	DCC	4 - Mt Ousley	Haulage Routes	<ul style="list-style-type: none"> <li>PKCT (or signatories) to include observations of coal truck noise on Mt Ousley during future monitoring.</li> </ul> <p>PKCT: Recommendation accepted.</p>	<p>Refer Action 17. Draft CTO has been developed and is being reviewed by signatories. CTO has 3 parts (a) mine site (b) haul routes (c) PKCT. It is intended that this be used by DCC signatories in a more robust audit program.</p> <p>Status: 30.6.12 Complete. New CTO adopted by signatories and supported by spot checks by an external service provider. Refer AEMR 2011/12 Section 4.3.2 and 4.3.3.</p>

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
27	DCC	4 – Bellambi Lane	Haulage Routes	<ul style="list-style-type: none"> <li>Include details regarding 3 Strikes policy for breaches in DCC.</li> </ul> <p>PKCT: Recommendation accepted in principle though the compliance monitoring and non conformance management is more appropriate for inclusion in the DCCIP. The 3 strike policy is PKCT’s policy. Consultation is required with DCC signatories on an agreed process. Road transport companies are contracted by shippers.</p>	<p>Refer Action 17. Compliance monitoring and non conformance management is included in the review of DCC implementation.</p> <p>Status: 30.6.12 Complete.</p> <p>Further to PKCT’s 3 strike policy, road transport providers have their own disciplinary processes. Effective operation to be confirmed by annual system audits. Refer AEMR 2011/12 Section 4.3.2 and 4.3.3.</p>
28	DCC	4 – Masters Road	Haulage Routes	<ul style="list-style-type: none"> <li>PKCT to coordinate expansion of monitoring and inductions by client mines to encompass compression braking on Masters Road.</li> </ul> <p>PKCT: Recommendation accepted.</p>	<p>Refer Action 17. Compliance monitoring and non conformance management is included in the review of DCC implementation. Monitoring will include all DCC requirements.</p> <p>Truck drivers are made aware in inductions of the noise impact compression braking has on residential areas and their associated obligations under the DCC. Truck drivers are appropriately licenced and responsible for the safe operation of their vehicles. To the extent it is practical to do so, compression brake use will be included in monitoring.</p> <p>Status: 30.6.12 In Progress. Refer Action 17.</p>

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
29	DCC	4 – Springhill Road	Haulage Routes	<ul style="list-style-type: none"> <li>Include details regarding 3 Strikes policy for breaches in DCC. Although condition doesn't require or identify the frequency of monitoring, it is required to shown the level of compliance with this condition. As such, repeat Truck Driver Observations monitoring e.g. annually.</li> </ul> <p>PKCT: Recommendation accepted in principle though the compliance monitoring and non conformance management is more appropriate for inclusion in the DCCIP. The 3 strike policy is PKCT's policy. Consultation is required with DCC signatories on an agreed process. Road transport companies are contracted by shippers.</p>	<p>Refer Action 17. Compliance monitoring and non conformance management is included in the review of DCC implementation.</p> <p>Status: 30.6.12 Complete.</p> <p>Further to PKCT's 3 strike policy, road transport providers have their own disciplinary processes. Effective operation to be confirmed by annual system audits. Refer AEMR 2011/12 Section 4.3.2 and 4.3.3.</p>
30	DCC	5 – Tailgate Noise	Noise Minimisation Controls	<ul style="list-style-type: none"> <li>Include details regarding 3 Strikes policy for breaches in DCC. Although condition doesn't require or identify the frequency of monitoring, it is required to shown the level of compliance with this condition. As such, repeat Truck Driver Observations monitoring e.g. annually.</li> </ul>	<p>Refer Action 17. Compliance monitoring and non conformance management is included in the review of DCC implementation.</p> <p>Status: 30.6.12 Complete.</p> <p>Further to PKCT's 3 strike policy, road transport providers have their own disciplinary processes. Effective operation to be confirmed by annual system audits. Refer AEMR 2011/12 Section 4.3.2 and 4.3.3.</p>

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				PKCT: Recommendation accepted in principle though the compliance monitoring and non conformance management is more appropriate for inclusion in the DCCIP. The 3 strike policy is PKCT's policy. Consultation is required with DCC signatories on an agreed process. Road transport companies are contracted by shippers.	
31	DCC	5 – Speed Hump Noise	Noise Minimisation Controls	<ul style="list-style-type: none"> <li>Speed hump to be re-painted to increase driver awareness and signage installed requiring reduced speeds.</li> </ul> PKCT: Recommendation accepted.	Complete.
32	DCC	8 – Compliance Monitoring	Compliance Monitoring	<ul style="list-style-type: none"> <li>Establish a monthly audit/monitoring program for DCC.</li> </ul> PKCT: Recommendation accepted. It is recognized that a more systematic, transparent audit/monitoring program is required involving all DCC signatories.	Refer Action 17. Compliance monitoring and non conformance management is included in the review of DCC implementation.  Status: 30.6.12 In Progress. Refer Action 17.
33	MCoA	3.5	Traffic Management	<ul style="list-style-type: none"> <li>Include details regarding 3 Strikes policy for breaches in DCC. Although condition doesn't require or identify the frequency of monitoring, it is required to shown the level of compliance with this condition. As</li> </ul>	Refer Action 17. Compliance monitoring and non conformance management is included in the review of DCC implementation.

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
				<p>such, PKCT to establish and coordinate an audit programme of truck queuing e.g. monthly.</p> <p>PKCT: Recommendation accepted in principle though the compliance monitoring and non conformance management is more appropriate for inclusion in the DCCIP. The 3 strike policy is PKCT's policy. Consultation is required with DCC signatories on an agreed process. Road transport companies are contracted by shippers.</p>	<p>Status: 30.6.12 Complete.</p> <p>Further to PKCT's 3 strike policy, road transport providers have their own disciplinary processes. Effective operation to be confirmed by annual system audits. Also refer AEMR 2011/12 Section 3.2, 4.3.2 and 4.3.3.</p>
34	MCoA	3.6	Driver's Code of Conduct	<ul style="list-style-type: none"> <li>Driver Summary Sheet to be expanded to cover queuing on local roads, and speed limits and compression braking in general, and any other requirements of the DCC not currently included.</li> </ul> <p>PKCT: Recommendation accepted.</p>	<p>Driver summary sheet has been revised with reference to the recommendation and currently under review by DCC signatories.</p> <p>Status: 30.6.12 Complete Drivers Summary sheet revised.</p>
35	DCC	Driver Summary Sheet – Travel Time	Road Delivery Standards	<ul style="list-style-type: none"> <li>Documentary evidence should be provided with timing of inbound trucks from NRE No. 1 Mine as monitored by PKCT; OR Modify DCC obligation to align with MCoA, which regulates dispatch of trucks from NRE rather than receipt of</li> </ul>	<p>NRE has developed a document "NRE Drivers Code of Conduct" which includes management of truck dispatch times and record keeping.</p>

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				trucks at PKCT. PKCT: Recommendation accepted.	Status: 30.6.12 Complete NRE also do monthly audits, annual system audits introduced, dispatch times from NRE mine site recorded by NRE and road transport provider.
36	DCC	Driver Summary Sheet – Observe all road rules	Road Delivery Standards	<ul style="list-style-type: none"> <li>PKCT to coordinate DCC signatories' compliance monitoring of driver's adhering to road rules and speed limits. PKCT to maintain records of compliance monitoring.</li> </ul> <p>PKCT: Recommendation that PKCT coordinate is accepted. The means of record management and each DCC signatory's respective record management accountability needs to be considered.</p>	Refer Action 17. Compliance monitoring, improved record management and administration is included in the review of DCC implementation.  Status: 30.6.12 In progress. Refer Action 17.
37	DCC	Driver Summary Sheet – Driver's Licence	Road Delivery Standards	<ul style="list-style-type: none"> <li>PKCT to undertake compliance reporting and periodic site checks of transport provider's induction/licensing records.</li> </ul> <p>PKCT: Recommendation accepted.</p>	Refer Action 17. PKCT to include this in the CTO process.  Status: 30.6.12 In progress. Refer Action 17.
38	DCC	Driver Summary Sheet – Compression Brakes	Road Delivery Standards	<ul style="list-style-type: none"> <li>PKCT to coordinate DCC signatories' to more regularly monitor compression braking by trucks.</li> </ul> <p>PKCT: Recommendation accepted in principle;</p>	Refer Action 17. Compliance monitoring and non conformance management is included in the review of DCC implementation. Monitoring to include all DCC requirements.  Truck drivers are made aware in inductions of the noise impact

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
					compression braking has on residential areas and their associated obligations under the DCC. Truck drivers are appropriately licenced and responsible for the safe operation of their vehicles. To the extent it is practical to do so, compression brake use will be included in monitoring.  Status: 30.6.12 In progress. Refer Action 17.
39	DCC	Driver Summary Sheet – Minimise Vehicle Noise	Road Delivery Standards	<ul style="list-style-type: none"> <li>PKCT to expand Critical Task Observations to encompass this requirement or create and implement a new auditing/documentation process by client mines.</li> </ul> PKCT: Recommendation accepted.	Refer Actions 17 and 26. Draft CTO includes all DCC requirements.  Status: 30.6.12 Complete. refer Actions 17 and 26.
40	DCC	Driver Summary Sheet – Truck Wash	Road Delivery Standards	<ul style="list-style-type: none"> <li>Develop a system to monitor speed through the truck wash. PKCT to coordinate the client mines to establish compliance with use of mine's truck wash.</li> </ul> PKCT: Recommendation accepted.	Refer Actions 17 and 22.  Status: 30.6.12. In Progress. Refer Actions 17 and 26.
41	DCC	4 – Major Arterial Roads	Haulage Routes	<ul style="list-style-type: none"> <li>PKCT to show evidence of truck driver's use of major arterial roads by coordinating compliance monitoring by client mines.</li> </ul>	Refer Action 17. Draft CTO has been developed and is being reviewed by signatories. CTO has 3 parts (a) mine site (b) haul routes (c) PKCT. It is intended that this be used by DCC signatories in a more robust audit program.

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
				PKCT: Recommendation accepted.	Status: 30.6.12. In progress. Refer Actions 17.
42	DCC	4 – Appin Road	Haulage Routes	<ul style="list-style-type: none"> <li>Include auditing/documentation process for driver behavior Appin Road in CTOs.</li> </ul> PKCT: Recommendation accepted.	Refer Action 41.  Status: 30.6.12. In progress. Refer Actions 17.
43	DCC	4 – Bellambi Lane	Haulage Routes	<ul style="list-style-type: none"> <li>Include details regarding 3 Strikes policy for breaches in DCC.</li> </ul> PKCT: Recommendation accepted in principle though the compliance monitoring and non conformance management is more appropriate for inclusion in the DCCIP. The 3 strike policy is PKCT’s policy. Consultation is required with DCC signatories on an agreed process. Road transport companies are contracted by shippers.	Refer Action 33.  Status: 30.6.12 Complete. Refer Action 33.
44	DCC	4 – Masters Road	Haulage Routes	<ul style="list-style-type: none"> <li>PKCT to coordinate expansion of monitoring and inductions by client mines to encompass compression braking on Masters Road.</li> </ul> PKCT: Recommendation accepted.	Refer Action 17. Compliance monitoring and non conformance management is included in the review of DCC implementation. Monitoring to include all DCC requirements.  Truck drivers are made aware in inductions of the noise impact compression braking has on residential areas and their

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
					associated obligations under the DCC. Truck drivers are appropriately licenced and responsible for the safe operation of their vehicles. To the extent it is practical to do so, compression brake use will be included in monitoring. Status: 30.6.12 In progress. Refer Action 17, also note actions under the 7.5 MTPA to 10 MTPA noise/ transport study undertaken in August 2011.
45	DCC	4 – Springhill Road	Haulage Routes	<ul style="list-style-type: none"> <li>Include details regarding 3 Strikes policy for breaches in DCC. Although condition doesn't require or identify the frequency of monitoring, it is required to shown the level of compliance with this condition. As such, repeat Truck Driver Observations monitoring e.g. annually</li> </ul> <p>PKCT: Recommendation accepted in principle though the compliance monitoring and non conformance management is more appropriate for inclusion in the DCCIP. The 3 strike policy is PKCT's policy. Consultation is required with DCC signatories on an agreed process. Road transport companies are contracted by shippers.</p>	<p>Refer Action 33.</p> <p>Status: 30.6.12 Complete. Refer Action 33.</p>



No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
46	DCC	6 – Speed Limits	Delivery Standards	<ul style="list-style-type: none"> <li>PKCT to coordinate DCC signatories' compliance monitoring of driver's adhering to speed limits.</li> </ul> <p>PKCT: Recommendation accepted.</p>	<p>Refer Actions 17 and 41.</p> <p>Status: 30.6.12 Complete. Refer Action 33.</p>
47	DCC	8 – Regular Audits	Compliance Monitoring	<ul style="list-style-type: none"> <li>PKCT to formalise and coordinate DCC signatories to undertake annual compliance monitoring of speed, compression braking, truck washing and load covering. Establish regular monitoring by client mines and PKCT (where relevant) of all other requirements of the Code (e.g. Monthly).</li> </ul> <p>PKCT: Recommendation accepted; frequency to be determined.</p>	<p>Refer Actions 17 and 41.</p> <p>Status: 30.6.12 Complete. Refer Actions 17 and 41.</p>
48	SoC	Designated Transport Route	Traffic and Transport	<ul style="list-style-type: none"> <li>PKCT to show evidence of truck driver's use of major arterial roads by coordinating and maintaining records of compliance monitoring by client mines</li> </ul> <p>PKCT: Recommendation accepted.</p>	<p>Refer Action 17 and 41.</p> <p>Status: 30.6.12 Complete. Refer Actions 17 and 41.</p>
49	SoC	Driver's Code of Conduct	Traffic and Transport	<ul style="list-style-type: none"> <li>PKCT to update DCC to include 2 additional signatories (SCE and Minion) and submit to DP&amp;I.</li> </ul>	<p>Record check indicated SCE &amp; Minion are, in fact, signatories to the DCC. Management of this aspect is being considered in the DCC review currently in progress. Once completed the DCC will be submitted to DP&amp;I. Proposed completion date is 30.11.11.</p>

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No	Approval	Condition/ Number	Topic	Recommendation	Actions: 10.8.11
				PKCT: Recommendation accepted.	Status: 30.6.12 All road users are signatories.
50	SoC	Coal Receiving from NRE Gujarat	Traffic and Transport	<ul style="list-style-type: none"> <li>Documentary evidence should be provided with regard to how the timing of inbound trucks from NRE No. 1 Mine is monitored by PKCT.</li> </ul> PKCT: Recommendation accepted.	Refer Action 35. PKCT to consider checks against NRE procedures.  Status: 30.6.12. Complete. Refer Action 35.

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**1.2 Improvement Actions: Adequacy of Management Plans, Strategies and Programs**

PKCT Plan	Improvement Summary	Action/ Comment
General	Include a commitment to implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the operation of the project in the position description for the General Manager and senior management staff of PKCT  PKCT: Recommendation accepted.	Complete
General	Improve and formalise documentation and record keeping where indicated by the audit recommendations e.g. where the satisfaction of the Director-General is required a letter should be sent to DP&I advising of the relevant milestone/outcome/report revision  PKCT: Recommendation accepted	DP&I discussion point; practical management of PKCT/DP&I interface; clarification of intent "to the satisfaction of Director-General"  Status: 30.6.12 Complete.
General	Seek new planning consents and conditions if proposed future developments trigger modifications outside the scope of the current approval	Noted; confirming current process Status: 30.6.12 Complete.
General	Review the EMS and all environmental management documents within its framework and make any modifications required to obligations and requirements to establish specific, measureable, achievable, realistic and time-based	Status: 30.6.12 Complete.
General	Submit a response to the recommendations made within this report along with the IEA audit report to DP&I within six weeks of the completion of the audit	Response provided by PKCT in letter of the 10 <sup>th</sup> May 2011 submitting the AECOM audit report. Status: 30.6.12 Complete.

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PKCT Plan	Improvement Summary	Action/ Comment
General	Implement the recommendations made by the IEA in readiness for and prior to any subsequent audits, and within 3 months of submitting the audit report to the Director-General, review and if necessary revise the strategies/plans/programs required under this approval, to the satisfaction of the Director- General	This report submitted by 10 <sup>th</sup> August 2011 partially meets this requirement. As this was PKCT's first IEA, actions are not yet complete due to the following:- (a) findings / recommendations were extensive. (b) some document reviews involve consultation with others prior to submission to the DP&I. (c) PKCT seeks to meet the DP&I to clarify interpretation, expectations and the means of practical application of some of the DP&I approval conditions n.b. references herein. This is needed for PKCT to complete actions for some of the audit findings. Status: 30.6.12 Complete.
General	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: (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	Noted; confirming current process  Status: 30.6.12 Complete.
WMP	Consolidate all documents related to water management into one revised Water Management Plan, including recommendations outlined in Section 5 of the Surface Water Systems Review by Cardno, and	Refer Action 3. Water Management Plan MP.HS.462 has been revised and is

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PKCT Plan	Improvement Summary	Action/ Comment
	<p>discharge criteria</p> <p>PKCT: Not accepted. Consolidation of documents into one is not considered practical or necessary. The plan currently entails 41 pages and is an overview document. There are other management plans e.g. Recycled Water Quality Management Plan which needs to be in a specific format and be “stand alone” for other regulatory purposes.</p> <p>As outlined in Section 5.2, it is not practical or appropriate for this plan to serve as a task/ project tracking tool. The Cardno report provided a far ranging list of options and recommendations which were risk assessed and discussed with OEH to determine what actions were to be progressed via the associated Pollution Reduction Program.</p>	<p>attached.</p> <p>Refer Section 5.1 and 5.2- DP&amp;I discussion point</p> <p>Status: 30.6.12 Complete.</p>
WMP	<p>Maintain records of the progress of the development, submission and review of the WMP to DP&amp;I, to ensure that water management measures are physically implemented and remain a priority for PKCT</p> <p>PKCT: Partially accepted; records of the development, submission and review of the WMP to DP&amp;I will be kept and the process strengthened. Records and reporting on the implementation of water management measures will be through AEMRs, Pollution Reduction Program reports or specific reports provided on request.</p>	<p>Refer Section 5.1 and 5.2- DP&amp;I discussion point</p> <p>Status: 30.6.12 Complete.</p>
WMP	<p>Complete the WMP to encompass reasonable and feasible mitigation measures to improve compliance against Section 120 of the POEO Act, with specific regard to the reduction of pH and mitigation of algae growth in the central settlement pond.</p> <p>PKCT: Refer Recommendation 3.</p>	<p>Refer Action 3. PKCT’s view- MP is not a project tracking tool.</p> <p>Status: 30.6.12 Complete.</p>

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PKCT Plan	Improvement Summary	Action/ Comment
WMP	Consult with the OEH during the re-development of the WMP, and record this contact with the agency to improve compliance against MCoA 3.13 (a)  PKCT: Recommendation accepted.	Refer Action 3.  Status: 30.6.12 Complete.
GGBFMP	Formalise the DP&I submission process, to track the progress of the report and ensure that compliance is met against 3.14 (b)  PKCT: Recommendation accepted.	Refer Action 4.  Status: 30.6.12 Complete.
GGBFMP	Record consultation and advice given by the OEH during the development of the plan, to ensure that this process is trackable.  PKCT: Recommendation accepted.	Refer Actions 3 and 15.  Status: 30.6.12 Complete.
GGBFMP	Prepare the GGBFMP in accordance with Appendix 3 of the 'Draft Recovery Plan: Green and Golden Bell Frog (Lesson 1829) Recovery Plan' (DECC 2005), Best Practice Guidelines: Green and Golden Bell Frog Habitat (DECC 2008) and the associated actions in the NSW Priorities Action Statement  PKCT: Recommendation accepted.	Refer Action 16.  Status: 30.6.12 Complete.
LMP	Execute the LMP from a more detailed approach to adequately fulfil this condition. For example, include an implementation program including dates, tasks and monitoring process.  PKCT: Recommendation accepted	Refer Action 6.  Status: 30.6.12 Complete.
GGEEMP	Align the GGEEMP and ESAP, and regularly update each with attention to detail from the ESAP translating to the GGEEMP;  PKCT: Recommendation accepted	GGEEMP MP.HS.461 has been revised and is attached for DP&I review/ approval.

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Date Authorised: 30.10.12



PKCT Plan	Improvement Summary	Action/ Comment
		Status: 30.6.12 Complete.
GGEEMP	Regularly update the ESAP, and the corresponding GGEEMP, and keep filed records of revisions of the document  PKCT: Recommendation accepted.	Refer Actions 7,8  Status: 30.6.12 Complete.
GGEEMP	Update the performance monitoring section of the ESAP to clarify progress and completion of certain tasks;  PKCT: Recommendation accepted.	Refer Action 8  Status: 30.6.12 In progress; monitor to verify effectiveness of action close out.
GGEEMP	Review the GGEEMP to include information gathered as part of the ESAP process, including a program for the management of energy efficiency measures in PKCT.  PKCT: Not accepted; n.b. Section 5.2 herein	Refer Action 8.  Status: 30.6.12 In progress; monitor to verify effectiveness of action close out.
GGEEMP	Formalise the submission process of the ESAP to DEUS to track reporting in accordance with the Guidelines;  PKCT: Recommendation accepted.	Refer Action 8; adopt DP&I process.  Status: 30.6.12 In progress; monitor to verify effectiveness of action close out.
FMP	Detail in the FMP how the organisation will assist the fire and emergency services as much as possible if there is a fire on site. Verbal assurance was given during the site audit that this does occur, however it would improve the FMP if this was included.  PKCT: Recommendation accepted	PKCT has initiated discussions with the NSW Fire Brigade re. the establishment of an annual review of PKCT/ NSW Fire Brigade arrangements. Outcome will be incorporated into the FMP. Proposed completion date is 30.9.11.

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PKCT Plan	Improvement Summary	Action/ Comment
		Status: 30.6.12 In progress; PKCT/ NSW agree to annual review, FMP updated, need to embed the process.
AQMP	<p>Revise the AQMP to define and include reasonable and feasible best practice emission mitigation measures, which may be implemented to ensure project specific air quality assessment criteria are met. Reasonable and feasible best practice measures may be developed by using the outcomes of PKCT’s reviews of comparable operations, which has included the PWCS facilities at Kooragang and Carrington, Hay Point and Dalrymple Bay facilities in Mackay, and the RG Tanna facility in Gladstone. Benchmarking with regards to air quality management may also be undertaken with facilities such as Eraring Energy’s Coal Fired Power Station</p> <p>PKCT: Recommendation accepted subject to Section 5.2.</p>	<p>Refer Action 7; AQMP to be reviewed. Proposed completion is 30.11.11.</p> <p>Status: 30.6.12 In progress; Refer Action3. Community of Practice forum established with Australian Coal terminal representatives to benchmark and share best practice knowledge.</p>
AQMP	<p>Further investigate air quality control strategies for fine particulate emissions resulting from:</p> <ul style="list-style-type: none"> <li>• truck wash water carry-over;</li> <li>• the No. 1 Stockpile area;</li> <li>• coal covered areas beneath conveyors (at the eastern side of facility);</li> <li>• the sludge dry out area;</li> <li>• rail unloader coal spillage external to the dump station; and</li> <li>• the truck wash bypass lane.</li> </ul> <p>PKCT: Recommendation accepted; include in PKCT’s Dust Management Improvement project.</p>	<p>Refer Action 2.</p> <p>Status: 30.6.12 In progress; Refer Action3. Community of Practice forum established with Australian Coal terminal representatives to benchmark and share best practice knowledge.</p>



PKCT Plan	Improvement Summary	Action/ Comment
AQMP	<p>The strategies identified should be included in the DMI following discussion and approval from OEH;</p> <p>PKCT: PKCT consults with OEH in strategy and project development as appropriate and considers OEH inputs in determining appropriate actions. PKCT has a project approval framework in place which includes business case development and project authorisations. It is not considered appropriate that OEH give prior approval to strategies PKCT might be contemplating.</p>	<p>Status: 30.6.12 In progress. Consultation processes in place with the EPA associated with EPL administration and pollution reduction programs.</p>
NMP	<p>Amend the NMP to identify representative operational scenarios for each INP period (day, evening, night), specifying the operations undertaken, the use of various equipment, the type of plant and machinery, and the average truck and rail deliveries anticipated;</p> <p>PKCT: Recommendation accepted.</p>	<p>Refer Action 25 and WK report.</p> <p>Status:30.6.12 Complete. Refer Action 25.</p>
NMP	<p>Require that noise monitoring equipment performance is field checked prior to each period of compliance monitoring, consistent with the requirements of AS1259.1, AS1259.2 or IEC 942. Consideration should be given to providing calibration certificates with the compliance monitoring reports;</p> <p>PKCT: Recommendation accepted.</p>	<p>Refer Action 23 and WK report.</p> <p>Status: 30.6.12 Complete.</p>
NMP	<p>Amend the NMP to provide further justification why unattended noise monitoring is not appropriate for this project;</p> <p>PKCT: Recommendation accepted.</p>	<p>Refer Action 23 and WK report.</p> <p>Status: 30.6.12 Complete.</p> <p>NMP revised with consideration to audit findings and approved by EPA and DP&amp;I (refer AEMR 2011/12 Section 2.4.2) with appropriate records kept.</p>

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PKCT Plan	Improvement Summary	Action/ Comment
NMP	Augment the NMP to include noise management measures, including the identification of reasonable and feasible best practice noise mitigation measures, and specify ongoing investigations and commitments to the continual improvement of noise reduction measures; PKCT: Recommendation accepted.	Refer Action 24.  Status: 30.6.12 Complete. NMP revised with consideration to audit findings and approved by EPA and DP&I (refer AEMR 2011/12 Section 2.4.2) with appropriate records kept.
NMP	Involve and document consultation with OEH during the modification of the NMP PKCT: Recommendation accepted.	Refer Action 23.  Status: 30.6.12 Complete. NMP revised with consideration to audit findings and approved by EPA and DP&I (refer AEMR 2011/12 Section 2.4.2) with appropriate records kept.
DCC	Align the DCC obligations to the MCoA, in particular in relation to truck dispatch times from NRE to PKCT. PKCT: Recommendation accepted.	Refer Action 17.  Status: 30.6.12 Complete. Refer Action 17.
DCC	Review the obligations within the DCC and modify to ensure that they are quantifiable (where possible) and measurable in all cases. PKCT: Recommendation accepted.	Refer Action 17.  Status: In progress. Refer Action 17.
DCC	Review the Driver Summary Sheet to ensure that all obligations within the DCC are included and provided to Road Transport Companies and Transport Providers, in the form of an updated DCC. PKCT: Recommendation accepted.	Refer Action 34.  Status: 30.6.12 Complete Refer Action 34.

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PKCT Plan	Improvement Summary	Action/ Comment
DCC	Review and modify the CTO to ensure that all obligations within the Program are included in the check-sheet. PKCT: Recommendation accepted.	Refer Action 26. Status: 30.6.12 Complete Refer Action 26.
DCC	Modify the categories within the CTO check-sheet to reflect environmental compliance or non-conformance with the DCC and Implementation Program PKCT: Recommendation accepted in principle though CTO is an operational check where as a check against the Implementation Program is a process audit.	Refer Action 17 and consider therein. Status: 30.6.12 Complete Refer Action 17.
DCC	Establish and implement a monitoring/auditing schedule for undertaking CTOs and intensive periods of monitoring of driver behaviour, within and external to the PKCT site; PKCT: Recommendation accepted. A reasonable level of monitoring will be undertaken compatible with findings. Driver behaviour is also monitored by NSW Police and the community on public road ways.	Refer Action 41. Status: 30.6.12 Complete Refer Action 17.
DCC	Within the Implementation Program, apportion responsibility to PKCT in relation to the coordination and collation of documentation relating to the DCC in particular the coordination of the implementation and monitoring, assessment and review of the DCC, and for ensuring that a response/follow-up of breaches of the Code is carried out; and PKCT: Recommendation that PKCT coordinate is accepted. Means of record management and each DCC signatory's respective record maintenance accountability needs to be considered.	Refer Action 36. Status: 30.6.12 Complete Refer Action 17.
DCC	Augment the Implementation Program to clearly identify the actions/investigations that will be undertaken when breaches of the DCC are reported (e.g. the '3 Strikes' process) PKCT: Recommendation accepted in principle though compliance monitoring and non conformance management is more appropriate for inclusion in the DCCIP. The 3 strike policy is PKCT's policy. Consultation is required with DCC signatories on an agreed process. Road transport companies are contracted by shippers.	Refer Action 29. Status: 30.6.12. Complete Refer Action 29.