

# Annual Environmental Management Report

## 2009/2010





**Contents**

1.	Introduction.....	4
1.1	Purpose	4
1.2	Scope	4
1.3	Background	4
1.4	Objectives	7
1.5	Environment Management	7
1.6	Terminal Contact	8
1.7	Actions Required at Previous AEMR Review	8
2.	Administrative Conditions.....	8
2.1	Obligation to Minimise Harm to the Environment	9
2.2	Terms of Approval	9
2.3	Limits on Approval	10
2.4	Management Plans / Monitoring Programs	10
2.5	Surrender of Consents	11
2.6	Structural Adequacy	11
2.7	Demolition	12
2.8	Operation of Plant & Equipment	12
2.9	Dispute Resolution	12
3.	Specific Environmental Conditions.....	12
3.1	Noise	13
3.2	Transport	15
3.3	Air Quality	16
3.4	Meteorological Monitoring	17
3.5	Surface Water	18
3.6	Biodiversity	19
3.7	Visual Amenity	20
3.8	Greenhouse & Energy Efficiency	21
3.9	Waste	22
3.10	Hazards	24
3.11	Fire Control	24
4.	Environmental Management, Monitoring, Auditing and Reporting.....	25
4.1	Environmental Management	25
4.2	Reporting	26
4.3	Annual Reporting	26
4.4	Independent External Audit	34
4.5	Access to Information	35



5.	Environmental Protection Licence .....	35
5.1	EPL Annual Return Summary	36
6.	PKCT Commitments .....	36
6.1	Traffic & Transportation	37
6.2	Air Quality	38
6.3	Water Management	38
6.4	Noise Management	39
6.5	Community Relations	39
6.6	Environmental Monitoring	40
6.7	Environmental Management System	40
6.8	Greenhouse Gases	40
6.9	Landscaping	41
6.10	Flora & Fauna	41
6.11	Waste	41
7.	Conclusion .....	42
8.	References.....	42
	Attachment “A” Summary of PKCT Throughput and Receivals: 2009/2010 .....	43
	Attachment “B” Road Transport Complaints & Incidents Summary: 2009/10.....	44
	Attachment “C” Waste Report: 2009/1 .....	45
	Attachment “D” Road Transport Report- 2009/10 .....	46
	Attachment “E” Water Usage Report- 2009/10.....	47
	Attachment “F” AS/NZS ISO 14001 Certification Renewal .....	48
	Attachment “G” Greenhouse Gas Report- 2009/10 .....	49
	Attachment “H” Electricity Usage Report 2009/2010.....	50
	Attachment “I” Extract from DECCW EPL Annual Return: 1.4.09 to 31.3.10 .....	51
	Attachment “J” Noise Monitoring Report- 2009/10 .....	61
	Attachment “K” Air Quality Report: 2009/10- Continuous Dust Data .....	67
	Attachment “L” Air Quality Report: 2009/10- Dust Deposition Residential.....	68
	Attachment “M” Settlement Lagoon Discharges Performance Trend- Total Suspended Solids .....	69
	Attachment “O” Settlement Lagoon Discharges: Extract from SGS June 2010 .....	70
	Attachment “P” Noise Contour Plan.....	71

## 1. Introduction

### 1.1 Purpose

The purpose of the Annual Environment Management Report (AEMR) is to provide the Department of Planning and other stakeholders a report of Port Kembla Coal Terminal (PKCT)'s environmental performance, actions taken in relation to environmental control and compliance with DoP Approval 08\_0009.

### 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 included a requirement of PKCT to prepare an annual AEMR. Accordingly, this is the first PKCT AEMR and applies to the period of 1<sup>st</sup> July 2009 – 30<sup>th</sup> June 2010 (the reporting period).

This report has been prepared with reference to the NSW Department of Primary Industries (now Department of Industry & Investment) Guidelines and Format for Preparation of an Annual Environmental Management Report dated January 2006.

This report will be submitted to the DoP, and following feedback, will be forwarded to the Department of Environment, Climate Change and Water (DECCW) and the Department of Industry & Investment (DII). A copy of this AEMR will also be made available to the public via the PKCT website ([www.pkct.com.au](http://www.pkct.com.au)).

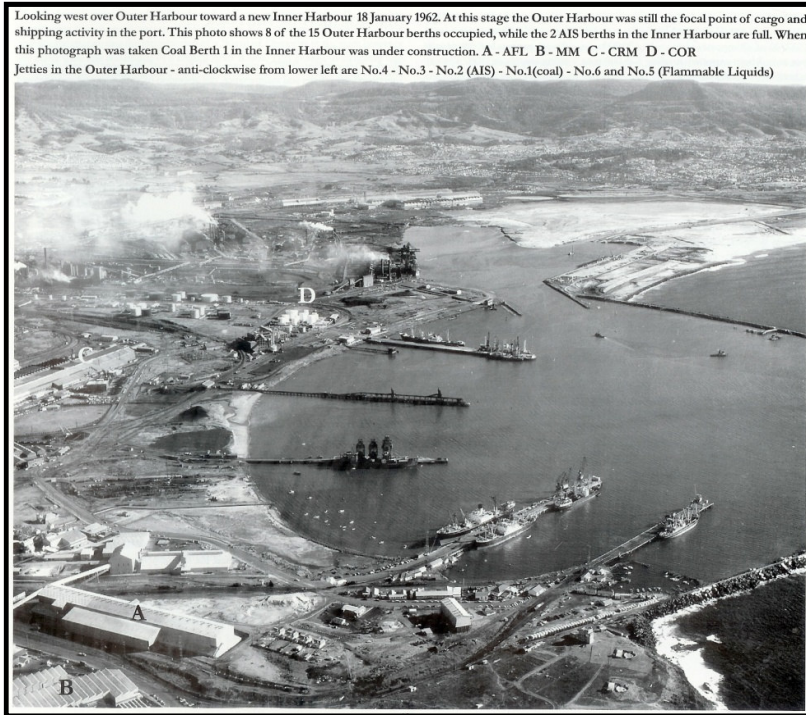
### 1.3 Background

Port Kembla Coal Terminal 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. Lease commenced in August 1990 and PKCT is currently in the process of executing this option which will take the lease period to 2030.

PKCT is owned by six shareholders, namely BHP Billiton Illawarra Coal (BHPBIC), Xstrata Coal, Centennial Coal, Tahmoor Coal, Peabody and Gujarat NRE. 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 80'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 a Department of Environment, Climate Change and Water Environmental 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 increase road receipt hours and the amount of coal receipt.

Consultation with the Department of Planning (DoP) resulted in the remit of the application 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 DoP conditionally approved PKCT's Major Project Application (08\_0009) for Existing Operations & Increased Road Receipt Hours. This consent replaces the previous development approval from Wollongong City Council and sets new conditions for environmental impacts, management and reporting.

Figure 1



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AUTHORISED BY Peter Green, General Manager

Date Authorised: 29<sup>th</sup> July 2010

## 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 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.HS.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
- Biodiversity Management Plan MP.HS.463
- Green and Golden Bell Frog Management Plan MP.HS.509
- 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 ([www.pkct.com.au](http://www.pkct.com.au)). Management Plans required under Project Approval 08\_0009 are also published once Department of Planning 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 Required at Previous AEMR Review**

As this is the first PKCT AEMR, there are no actions arising from the previous AEMR review.

**2. 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 policies 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 shall implement reasonable and feasible measures within suitable time frames to minimise harm to the environment.

## 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 DoP approval conditions are met. The AEMR will provide an annual compliance report.

## 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 totaled 3,307,724 tonnes across the reporting period (refer Attachment "A"). 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 reporting period, the Noise Management Plan, Air Quality Management Plan and the Drivers Code of Conduct Implementation Plan were submitted to DoP in accordance with DoP requirements and the plans were approved on 25.3.2010.

## 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

In accordance with this condition, the following action was taken during the reporting period:

- Wollongong City Council (WCC) Development Consent D79/44 has been surrendered. PKCT's request by letter of 16.9.09 was approved by WCC on 12.10.09.
- Infrastructure SEPP - DoP advice, received in February 2010, indicated that no action by PKCT was required. This was based on a DoP review of the wording of Clause 73. The DoP also advised that a review of the Infrastructure SEPP was planned during which Clause 73 will be removed altogether. DoP advice on the 9.7.10 indicated that Clause 73 will be repealed in July 2010.

## 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 building works or significant alterations or additions have been undertaken. 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

There were no structures demolished during the reporting period. Relevant PKCT personnel have been made aware of the consent and note associated standard.

## 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. 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

- 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)  $L_{Aeq}$  (15 min)

Location	Time Period	Limits ( $L_{Aeq,15\ min}$ 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:**

- To determine compliance with the  $L_{Aeq}$  (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.
- The noise emission limits identified in the above table apply under meteorological conditions of:
  - wind speeds of up to 3 m/s at 10 metres above ground level; or
  - temperature inversion conditions of up to 3°C/100m, plus a 2 m/s source-to-receiver component drainage flow

*wind at 10 metres above ground level for those receivers where applicable in accordance with the NSW Industrial Noise Policy.*

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

#### **Noise Monitoring Program**

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

During the reporting period the following actions occurred:

- A Noise Management Plan was developed and submitted to DoP by due date of 12.12.09.
- The plan was developed in consultation with DECCW.
- PKCT's EPL 1625 was revised to include the noise criteria.
- PKCT's Annual EPL return submitted to DECCW included a report on noise.
- Two noise surveys were carried out in September 09 and March 10 in accordance with the plan. Noise levels recorded were within limits. Attachment "J" includes an extract from the noise surveys.
- DoP approved the Noise Management Plan on 25/3/2010.
- An onsite noise survey was completed in April 2010 providing a noise map for the site (refer Attachment "P").

The new noise criteria has been communicated to site personnel. Noise criteria is considered when undertaking site operations and considered when planning new work and opportunities for reducing noise sought.

## 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, Attachment "A" provides a summary of throughput and receipt over the reporting period.

In accordance with Condition 5, this requirement has been included in Drivers Code of Conduct Implementation Plan and is monitored operationally and reviewed as required during the quarterly road user meetings.

The Drivers Code of Conduct Implementation Plan was submitted to DoP by the due date of 12.12.09. DoP approved the plan on 25.3.2010. Plan is implemented and includes driver inductions. The Driver's Code of Conduct is enforced through monitoring of trucks by PKCT and road transport companies and shippers. Reviews are undertaken as required through the road user meetings (refer Attachment "D" Road Transport Report).

### 3.3 Air Quality

#### 3.3.1 Consent Condition

##### Impact Assessment Criteria

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

Table 3: Long term impact assessment criteria for particulate matter

Pollutant	Averaging Period	Criterion
Total suspended particulate (TSP) matter	Annual	90 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM10)	Annual	30 µg/m <sup>3</sup>

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:
- 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;
  - ensure that the real-time air quality monitoring and meteorological monitoring data is assessed regularly; and
  - 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:
- all loaded trucks entering or leaving the site have their loads covered; and
  - 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:
- 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:
- real-time sampling to monitor the dust emissions of the project;
  - an air quality monitoring protocol for evaluating compliance with the air quality impact assessment criteria in this approval; and
  - reasonable and feasible best practice emissions mitigation measures to ensure project specific assessment criteria are met.

### 3.3.2 Compliance Statement

The following actions occurred during the reporting period:-

- PKCT developed an Air Quality Monitoring and Management Plan which was submitted to DoP by the due date of 12.12.10.
- Plan was developed in consultation with DECCW.
- DECCW 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 Attachment “I”.

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 breach the criteria in the condition outlined above.

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 reviewed (refer Attachment “D”).

## 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: calibrated annually measures 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.

### 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:
- be prepared in consultation with DECC;
  - be submitted to the Director-General for approval within 12 months of this approval or as otherwise agreed by the Director-General; and
  - 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 developed a Water Management Plan, which is included in the 09/10 AEMR submission. Following approval from the Director-General, the plan will be fully formalised. 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 DoP approval conditions.

Plan includes PKCT's Water Savings Action Plan 2006 which is provided as part of this AEMR submission. The plan was revised and resubmitted to DECCW on 15.5.07. PKCT's Recycled Water project was the primary water saving initiative and DECCW received status reports as the project progressed. DECCW has requested that PKCT submit a Water Savings Action Plan status report in December 2010.

PKCT has commissioned a review of onsite surface water management to identify potential deficiencies and to recommend improvement options. Review is undertaken by consultant, Cardno Forbes Rigby, and includes a site water balance model.

Other work carried out in the reporting period includes:

- Monitoring of recycled water supply system operations resulted in modification to water reservoir controls to minimize potable water makeup inflows.
- Water quality monitoring undertaken on potable water and recycled water supplies and surface water runoff to check for any adverse impacts.
- Installation of water meters including a Sydney Water continuous monitoring service (Elogit). This provides continuous data enabling PKCT to better monitor domestic (potable water) and process water (recycled/ potable water makeup) usage (Attachment "E" includes a chart showing daily usage).

### 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 Management Plan was submitted to DECCW in June 2009 in accordance with Pollution Reduction Plan U4 attached to PKCT's EPL 1625.

Further work has progressed during the reporting period as follows:-

- New sightings have occurred and an onsite habitat identified.
- A DECCW/PKCT night survey was undertaken in March 2010 at the onsite habitat and seven frogs were observed.
- Off site Greenhouse Park habitat (PKCT/Wollongong City Council project) was completed in April 2010 as part of the GGBF management plan.
- A GGBF display has been established at Symbio Wildlife Park to promote GGBF conservation and increase community awareness.

- A broader flora and fauna survey was undertaken by Biosis Research, expert consultant, to assess the likelihood of the existence of other threatened or endangered species on PKCT premises. No new species were detected.
- GGBF management plan has been revised and submitted to DECCW for review. A copy of the revised plan is included in this AEMR submission.
- The revised management plan is included in this AEMR submission.
- A Biodiversity Management Plan has been developed to cover flora and fauna in general.

### 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 receival earth bund and along the northern site boundary; and
    - o an implementation program.

#### 3.7.2 Compliance Statement

PKCT has reviewed the onsite lighting since this Major Project Approval and is confident no external lights shine above the horizontal and that all these lights comply with AS4282. PKCT is not aware of any off site light impacts. Should any reports or complaints be received on this topic, PKCT will take immediate action to assess and resolve the matter.

A Landscape Management Plan has been developed and is included in the AEMR submission to DoP. This document includes details of proposed tree planting. An initial stage is complete (refer photo below); future stages will be scoped and processed through PKCT's project approval process over the next reporting period.



### 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, PKCT has developed a Greenhouse Gas & Energy Efficiency Management Plan, which is included in this AEMR submission to DoP. 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 DECCW. The management plan also includes requirements under the National Greenhouse and Energy Reporting Act 2007 regulated by Department of Climate Change (federal). In this regard, key actions undertaken in the reporting period are as follows:-

- Legal advice was sought to ascertain who was the appropriate reporting entity. Advice indicated that PKCT, having operational control, is the entity. Accordingly, PKCT is currently under the reporting threshold.
- A consultant was engaged to advise applicable site activities and energy aspects and to develop a monitoring format. Monitoring format developed has been implemented. Though not reporting at this stage, PKCT is recording data and monitoring energy and greenhouse gas generation (refer Attachment "G" & "H").

PKCT's Energy Savings Action Plan 2006 is included as a separate document in this AEMR submission.

### 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 has developed a Waste Management Plan over the 09/10 reporting period. 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.

Attachment "C" 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. A further analysis of waste trends and quantities generated historically is proposed for the 10/11 reporting period.

In addition, a spillage screening operation which has commenced recycling waste spillage coal back to coal shippers. It is estimated that 10,000 tones will be recycled. Spillage coal is currently being screened to remove contaminated material. Project will be completed in 2010/11 reporting period. Similarly, a Spillage Reduction project has commenced involving expert consultant, Materials Handling Optimisation, reviewing current operations to assist in developing improvement strategies. This work will be progressed over the 2010/11 reporting period.

PKCT 's waste collection facilities enable segregation of waste to enable more effective disposal and to encourage recycling. Assessments during the reporting period identified a need to improve site practices associated with oil and grease spills and cleanup practices. Spill kits are established on site at various locations though there is no routine inspections to ensure they are maintained and fit for purpose. Also, communications to site personnel on the importance of housekeeping and waste management was sound but not sufficiently supported by site instructions outlining specific requirements. Actions to address these matters are proposed for the 10/11 reporting period.

With regard to the age of PKCT's facilities, asbestos materials exist in various builds and structures. Audits have identified locations and asbestos has either been removed or is monitored to ensure it is in a sound condition. Recently, previously unidentified asbestos was found in a air conditioning heating element. The material was sound but was removed as a precaution. This has prompted further inspections in buildings and, where practical, materials containing asbestos are being removed. This work will continue into 10/11. Work is being carried out by licenced contractors in accordance in accordance with regulations.

### 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 good onsite and ensures personnel are suitably trained to handle these and that there is suitable storage site in accordance with AS1940 & AS1596. Actions which have occurred in the reporting period are as follows:-

- AS/NZS ISO 14001 surveillance audit carried out in February 2010 (undertaken by Lloyd's Register Quality Assurance (LRQA) Ltd).
- Legal Compliance Audit carried out in June 2010 (undertaken by Environment Essentials P/L).
- Environmental Protection Plan has been developed in accordance with the Protection of the Environment (Underground Petroleum Storage Systems) Regulation 2008.
- Audits have identified some non conformances. Actions are in progress and will be completed in the first quarter of 2010/11 reporting period.

### 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 developed a Fire Management Plan, which is included in this AEMR submission to the DoP. The plan outlines processes in place pertaining to fire management.





Actions carried out in this reporting period are as follows:-

- Work progressing to replace Inergin cylinders in accordance with a 10 year change out program.
- A review of fire system documentation and drawing was undertaken to ensure information is current and up to date.

**4. 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 comply.

**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 project approval or otherwise agreed by the Director-General;	Submit EMS by 31.7.10 Note: EMS included as part of AEMR submission to DoP; 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 EMS 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 comply.

**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 DoP 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 no specified limits for dust, or other air quality, emissions. The EPL does require the following:

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

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.

Major Project Approval 08\_0009 does contain specifications for air quality limits 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.

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AUTHORISED BY Peter Green, General Manager

Date Authorised: 29<sup>th</sup> July 2010

### DoP 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.

Water Management Plan references applicable legal and other requirements.

#### 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 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 references applicable legal and other requirements.

#### 4.3.2 Activities During Reporting Period

- Noise - refer Section 3.1.2
- Drivers Code of Conduct Implementation Plan - refer Section 3.2.2
- Air Quality - refer Section 3.3.2 and Section 6.2.2
- Surface Water - refer Section 3.5.2 and Section 6.3.2
- Biodiversity - refer Section 3.6.2 & 6.10.2
- Visual Amenity / Landscaping - refer Section 3.7.2 & 6.9.2

- Greenhouse Gas and Energy Efficiency - refer Section 3.8.2 & Section 6.8.2
- Waste - refer Section 3.9.2 and Section 6.11.2
- Fire Control - refer Section 3.11.2
- Independent External Audit - scheduled for March 2011
- EPL Administration - refer Section 5.1
- Traffic and Transportation - refer Section 2.3.2, 3.2.2 and 6.1.2
- Community Relations - refer Section 6.5.2
- Environment Management Strategy - refer Section 4.1 & Section 6.6.2
- Hazards - refer Section 3.10.2

#### 4.3.3 Activities Proposed in Next Reporting Period

- Environmental Monitoring - carry out the required environmental monitoring as outlined in the Environmental Management Strategy.
- Noise - continue noise surveys in accordance with the Noise Management Plan.
- Traffic and Transportation
  - Continue to monitor application of Drivers Code of Conduct Implementation Plan.
  - Continue the truck wash effectiveness review, develop and implement improvements action through a staged process.
- Air Quality
  - Further refine the air quality methodology as it is implemented in the Air Quality Management Plan.
  - Progress PKCT's Dust Management Improvement project, which is included in the 2010/11 Business Plan.
  - Continue to participate in Port user group investigating dust fall out from the industrial precinct.
  - Upgrade Early Warning Wind System.
  - Obtain a replacement, improved water cart.
- Surface Water
  - Develop improvement actions from the Water Collection System review carried out in accordance with DECCW EPL Pollution Reduction Plan and implement.
  - Progress further potable water savings through PKCT's Water Savings Action Plan and submit an annual Water Savings Action Plan status report in December 2010.

- Review recycled water quality monitoring results since commencement of use and check against the initial risk assessment to evaluate control effectiveness and identify any further actions required.
- Biodiversity
  - Revise and finalise Green and Golden Bell Frog Management Plan with DECCW.
  - Carry out spring surveys onsite and at the Greenhouse Park habitat to monitor frog activity.
- Visual Amenity/ Landscaping - progress the landscaping improvement concept plan - scope the work and obtain approval for staged implementation.
- Greenhouse Gas and Energy Efficiency
  - Progress energy savings through PKCT's Energy Savings Action Plan.
  - Continue to check operations and greenhouse gas emissions versus threshold for reporting to the Department of Climate Change.
- Waste - refer Section 3.9.2
  - Engage a consultant with necessary expertise to assist PKCT in implementing improvements in hydrocarbon management in the area of spill avoidance and sound site practices, maintenance of spill equipment and developing instructions on associated site requirements.
  - Review historical waste data, evaluate trends and the adequacy of current data capture.
  - Complete coal spillage screening projects and return to coal shipper for despatch.
  - Continue spillage reduction review.
  - Building alterations including removal of materials containing asbestos.
- Fire control improvements
  - Develop a project for continued improvement of fire panel communications to increase the operator's ability to monitor the fire system and undertake system isolations.
  - Develop a project to upgrade fire detection for the water deluge system in Transfer Station 2.
  - Continue gas suppression Inergen cylinder 10 year replacement.
- Dangerous Goods - refer Section 3.10.2
- Independent External Audit - engage consultant for March 2011 and complete audit to schedule.
- EPL Administration - continue to administer the EPL, complete annual return, progress pollution reduction programs.

- Community Relations - refer Section 6.5.2; continue consultative committee actions.
- Environment Management Strategy - refer Section 6.6.2

#### 4.3.4 Summary of Complaints

Complaints received during the reporting period entail the following:

- (a) Complaints associated with PKCT site operations are outlined in Attachment "I".
- (b) Complaint to road transport providers are outlined in Attachment "B" and "D".

#### 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 Attachments and supporting documents provided with the AEMR. A list cross referencing various environmental aspects with results is provided as follows:-

- Noise - refer Attachment "J", Noise Surveys provided as separate documents
- Coal & Bulk Products - refer Attachment "A", "B", "D".
- Air Quality - refer Attachment "I", "K" and "L"; Katestone Air Quality Report: July 09-June 2010 provided as a separate report.
- Surface Water Quality - refer Attachment "I", "M" and "O"
- GHG & Energy Efficiency - refer Attachment "G" & "H"; PKCT Energy Savings Action Plan 2006 provided as a separate document.
- Waste - refer Attachment "C".
- Water Savings - refer Attachment "E"; PKCT Water Savings Plan 2006 provided as a separate document.

#### 4.3.6 Analysis of Results

##### Noise

Noise surveys determined that PKCT noise levels were within the noise criteria in EPL 1625 and DoP 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.

## 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.

## Air Quality

Attachments "K" & "L" reported exceedances of criteria in DoP Approval 08\_0009. PKCT was assessed as a minor contributor. Other key points are noted as follows:

- Very high dust readings for September 09 related to severe dust deposition from inland NSW. This affected Sydney, Wollongong and other coastal areas. This was well documented in media reports.
- Investigation of high dust deposition readings at 173 Corrimal Street in December 09 and April 10 indicated that the results were affected by backyard activities.

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.

## Surface Water Quality

As outlined in Attachment "I", EPL exceedances occurred from the settlement lagoon licenced discharge point and corrective actions are progressing through the referenced Pollution Reduction Plan.

Attachment "O" is an extract from June 2010 report providing water quality data for settlement lagoon discharges which occurred over the April - June 2010 (Note: Attachment "I" reports to 31.3.2010). Test results over this period indicated the following:-

- Total suspended solids and oil and grease were well within EPL limits.
- Two pH readings were outside the EPL range.

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 their onsite activities and uses EPL 1625 controls as the primary document for water quality predictions. Therefore, the actual water quality results accord well with the DoP Approval and EA predictions as there were only minor exceedances.

## GHG & Energy Efficiency

Neither EPL 1625 nor DoP 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 is not exact the Scope 1 & Scope 2 emissions calculated by the August 2009 PKCT NGER report correspond with the calculated
- GHG predictions in Attendix L of the EA as an increase in emissions has occurred.

### Water Savings

Neither EPL 1625 nor DoP Approval 08\_0009 contains quantitative criteria for potable water use or reduction. However, the DoP Approval requires PKCT to investigate opportunities to reduce water use. Attachment “E” and “I” shows the significant reduction in potable water achieved through the commencement of recycled water use. A reduction in overall water usage was also recorded.

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

#### 4.3.7 Justification of Exceedances

Air Quality: DoP criteria - exceedances were reported, though PKCT’s contribution was generally assessed as minor. Dust deposition at one residential site was found to be very high on two occasions during the reporting period (December 2009 and March 2010). PKCT investigated and discussions with the resident indicated that backyard activities such as burning and renovations occurring at the time which are likely to have affected the results.

The air quality methodology used to assess PKCT’s compliance with DoP TSP and PM10 criteria is new and entails an assessment, which needs to differentiate 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. Methodology shall be monitored in implementation to determine where further enhancements can be made.

#### 4.3.8 Monitoring Trends

Water Savings / potable water usage - introduction of recycled water use has established a significant improvement trend of reduced potable water consumption (refer Attachment “E”).

Settlement Lagoon Discharges (EPL limits) - improvement trend observed over the reporting period though still not 100% compliant (refer Attachment “I” and “M”). Average total suspended solids over all samples taken are 15 milligrams per litre which is well with the EPL limit (50 mg/litre).

Electricity Usage - Attachment “H” shows that electricity usage follows throughput closely at high throughputs though it does not drops 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. Attachment "D" shows that community complaints were primarily to do with truck speed.

#### 4.3.9 Identification of Non-Compliance

EPL non compliances are referenced in Attachment "I". With regard to Attachment "O", two pH readings were also found to be outside the DECCW EPL range (refer Section 4.3.8 - Surface Water).

#### 4.3.10 Actions to Reduce Exceedances

- Surface Water - EPL settlement lagoon discharges - refer Attachment "I" which outlines actions, which are progressing.
- Dust Emissions - PKCT assessed as being a minor contributor; Dust management project forms part of the 2009/10 Business Plan (Note: Section 3.5.2 and 4.3.3 seeking to achieve dust improvement).

### 4.4 Independent External Audit

#### 4.4.1 Consent Condition

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

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

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

#### 4.4.2 Compliance Statement

Audit scheduled for March 2011. Audit will meet the requirements of this condition.

#### 4.5 Access to Information

##### 4.5.1 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).

##### 4.5.2 Compliance Statement

Condition 8 - The following documents, approved by the DoP on the 25.3.10, have been uploaded to PKCT's web site:

- Air Quality Monitoring and Management Plan - May 2010.
- Noise Management Plan - May 2010.
- Drivers Code of Conduction Implementation Plan - May 2010.

Condition 9 - AEMR will be published once DoP approved. An interim six monthly report will be published mid way through the reporting period.

#### 5. Environmental Protection Licence

PKCT hold Environmental Protection Licence 1625 under the Protection of the Environment Operations Act 1997. This stipulates emission criteria that PKCT may not exceed relating to water, waste, noise, offensive odours and dust. There are also requirements relating to Green & Golden Bell Frogs. PKCT is required to submit an annual return to the Department of the Environment, Climate Change & Water analysing its performance against the relevant criteria.

## 5.1 EPL Annual Return Summary

Appendix “I” contains an extract from PKCT’s annual return for 09/10 (reporting period 1.4.09-31.3.10) reporting on compliance over the period. In summary, the following is noted:

- (a) there were some exceedances from PKCT’s Settlement lagoon EPL discharge point which resulted in a Pollution Reduction Program being put in place. Work is progressing in consultation with DECCW.
- (b) 2 complaints were received relating to dust.
- (c) Green and Golden Bell Frog Management Plan was submitted to DECCW in accordance with PRP U4. A revised plan is included in the documents submitted with this AEMR.
- (d) Noise surveys were compliant. Attachment “J” provides a summary of results. Survey reports are included in the documents submitted with this AEMR.
- (e) Recycled water project was successfully implemented completing the actions required under PRP U5.

## 6. PKCT Commitments

PKCT prepared a Statement of Commitments which forms part of the Environmental Assessment submitted to the DoP for the 08\_0009 Major Project Application. The DoP 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 10mtpa and the details are included in this AEMR (refer Attachment 'A').
- 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 Implementation Plan approved by DoP and implemented has been established and approved by the Director-General.
- A review of effectiveness of the truck wash is in progress. Consultant, Renewed Water Solutions P/L, is undertaking the review. The truck wash is a recirculating water system and the water requires flocculation to accelerate settling to improve water quality. Nalco, PKCT's dosing unit service provider, has reviewed dosing unit performance and has made some recommendations. PKCT will consider improvement options as part of the truck wash effectiveness review. This will be done in the 2010/11 reporting period.



- In accordance with Major project Approval 08\_0009 and as indicated in the Drivers Code of Conduct Implementation Plan, PKCT did not receive any coal from NRE No 1 Colliery at Russell Vale outside the approved hours.

**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 have installed the two continuous dust monitors and these now provide data used in air quality assessments. The monitors were operational during the reporting period.

PKCT has a preventative maintenance system in place (Works and Assets) which provides for the routine inspection and maintenance of environmental equipment including existing dust suppressions systems 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**

PKCT commenced recycled water use in April 2009. Recycled water use has continued during the reporting period. Attachment "E" provides water usage details. Target referenced in the commitment was based on a total annual usage of 510 megalitres (70% reduction) which was adopted in the 2006 Water Savings Action Plan.



The project’s first year (2009/10) has achieved excellent results as follows:

- Total water usage was 420 megalitres. This represents a 65% reduction in potable water usage due to alternate use of recycled water (270 megalitres).
- Comparing to baseline total water usage of 510, 90 megalitres less potable water was used during the reporting period.

**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. A Noise Management Plan is now in place which references the NSW Industrial Noise policy.

**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**

The following actions occurred during the reporting period:

- Community Consultative Committee has met 3 times.
- A newsletter was prepared and distributed to residents in the vicinity and to the north of PKCT in February 2010. This included information on how to contact PKCT directly or via web site.
- PKCT web site ([www.pkct.com.au](http://www.pkct.com.au)) 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 submitted with this AEMR outlines monitoring requirements together with specific 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 undertook a triennial recertification audit and PKCT's certification was renewed (refer Attachment "F").

**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. The trend reported in Section 4.3.8 may also provide an opportunity for improvement by reducing the time running empty belts.

**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. Stage 1 was completed in 2009/10.

**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 and actions are progressing. Section 3.6.2 provides further details.

**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 the waste. This Management Plan is included in this AEMR submission.

## 7. Conclusion

This Annual Environmental Management Report (AEMR) identifies PKCT 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 now forms an aspect of the PKCT environmental management system, which is directed by the PKCT Environmental Management Strategy. PKCT will be able to provide this AEMR to the Department of Planning and other stakeholders as appropriate using information taken from environmental monitoring, assessment and reporting undertaken on a regular basis and co-ordinated by their Environmental Management Plans.

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. 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  
PKCT Health, Safety, Environment & Community (HSEC) Standards



**Attachment "A" Summary of PKCT Throughput and Receptions: 2009/2010**

Shiploading: 2009/10

	Coal		Coke	Slag Sand	Total
	Coking	Steaming			
Berth 101: Bulk Products Berth			328121	51288	379409
Berth 102: Coal Berth	6864840	6883996			13748836
				Total (tonnes)	14,128,245

Receival: 2009/10

Deliveries	private road	public road	Total
road receival	1,773,317	3,307,724	5,081,041
rail receival			8,770,811
		Total (tonnes)	13,851,852



**Attachment “B” Road Transport Complaints & Incidents Summary: 2009/10**

INCIDENTS/ACCIDENTS	Minor Damage					Major Damage				
	Transport Provider									
	BT	LH	Br	TB	SC	BT	LH	Br	TB	SC
<b>Westcliff/ PKCT (BHPB)</b>										
Appin Road	2									
Bulli Tops	3									
Mt Ousley	1									
Masters Road	1									
Springhill Road	6									
<b>NRE/ PKCT</b>										
Bellambi Lane										
Northern distributor								1		
Masters Road										
Springhill Road										
<b>ICC/PKCT</b>										
Northern distributor										
Masters Road										
Springhill Road										
<b>Tom Thumb Road (private)</b>	1									
Port Kembla Road	2									
PKCT Road Receival	2									
PKCT site	2				1			1		

Key: BT: Bulk Trans LH: Lodehaul Br: Brindles TB: Trazblend SC: South Coast Equipment

COMPLAINTS	Noise				Dust				Speed				Other			
	Transport Provider															
	B	L	B	T	B	L	B	T	B	L	B	T	B	L	B	T
<b>Westcliff/ PKCT (BHPB)</b>																
Appin Road								4				4				8
Bulli Tops								1							1	2
Mt Ousley								4				3				7
Masters Road					1			3								4
Springhill Road								2				1				3
<b>NRE/ PKCT</b>																
Bellambi Lane			2					2						1		5
Northern distributor										2						2
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												1	3			4
PKCT Road Receival												1		1		2
PKCT Site												1			1	2
<b>Totals</b>			2		1		2	14		2	3	11		2	2	39

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AUTHORISED BY Peter Green, General Manager

Date Authorised: 29<sup>th</sup> July 2010



**Attachment "C" Waste Report: 2009/1**

Waste	unit	2009						2010						Total
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Roll-on Bin - Main Store	tonnes	7.1	6.4	8.2	5.98	9.12	7.4	3.16	9.18	7.4	10.3	5.4	10.42	81
Roll-on Bin - Rail Reveal Shed	tonnes	0	0	0	0	4.9	0	0	0	0	0	0	0	5
Frontlift Bins - Main Workshop	tonnes	4	4	4	4.5	4	4.5	4	4.5	3.5	3	4	3.5	48
Frontlift Bin - Rear Administration Building	tonnes	3	3.5	4	3.5	4	3.5	4	4	3	3	3.5	3.5	43
Frontlift Bin - Contractors Shed	tonnes	3.5	3	3	3	3	3	3	3	3	3.5	3.5	3	38
Cardboard Recycling Bin - Main Store	tonnes	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.2	3
Cardboard Recycling Bin - IT Building	tonnes	0.3	0.2	0.3	0.2	0.5	0.3	0.5	0.3	0.2	0.3	0.3	0.2	4
Asbestos - all areas	tonnes	1.5	0	0	0	0	0	0	0	2.12	0	0	0	4
Copper Wire Bin	tonnes							0	0	0	0			0
Liquid waste	litres	12,091	0	0	16,750	0	0	0	17950	0	0	0	0	46791
Sewer Waste	litres	12,500	13,000	19,500	13,000	13,000	13,000	12,000	13,000	13,000	13,000	13,000	13,000	161000
Waste steel removal - all areas	tonnes	0	9.14	0	tba	21.74	8.14	see Feb	56.74	0	18.02	0	27.56	141



**Attachment "D" Road Transport Report- 2009/10**

Monthly Reports Summary	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	YTD	%
Tonnes - Public Road	496,382	454,310	409,732	172,960	316,268	150,128	49,621	108,015	291,867	322,441	294,604	241,396	3,307,724	66
Tonnes - Private Road	194,314	242,249	167,917	162,377	136,604	198,358	51,941	41,678	146,890	163,161	144,140	123,688	1,773,317	34
Total road tonnes	690,696	696,559	577,649	335,337	452,872	348,486	101,562	149,693	438,757	485,602	438,744	365,084	5,081,041	Avg per mth
Spillage - Public Road	3	0	3	0	0	0	0	0	0	0	0	2	8	2
Incident - Other	0	0	0	0	0	0	0	0	0	1	1	2	4	0
Impact with other vehicle	1	0	3	2	1	0	0	0	0	1	0	0	8	1
Incidents Reported to RTA	2	0	3	2	1	0	0	0	0	2	0	0	10	1
Complaints	7	1	5	4	0	1	3	0	4	5	6	3	39	5
Inductions	100%	100%	100%	100%	100%	100%	100%	100%	98%	99%	100%	100	99.5%	0
Hours restrictions breach	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Observations	13	10	14	3	4	1	2	2	30	49	58	6	192	12
Number of Drivers Observed	55	50	57	84	34	10	27	9	176	186	215	209	1,112	66

### Attachment "E" Water Usage Report- 2009/10

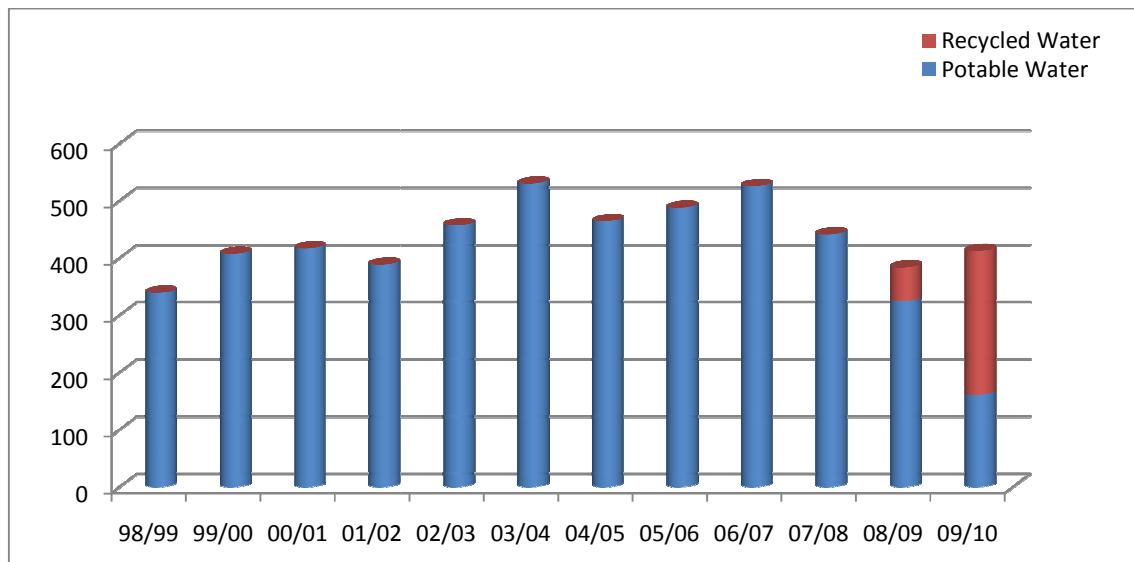


Chart "E1" Historical Water usage

1. Chart shows the trend in potable water reduction.
2. Chart shows a trend in overall water usage reduction.

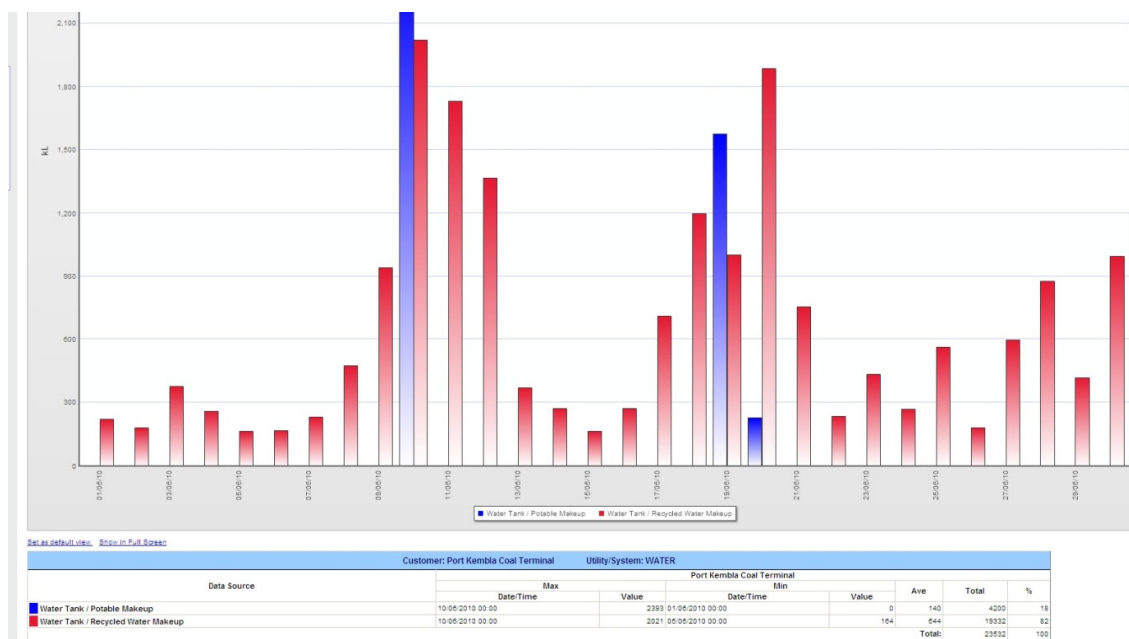


Chart "E2" Daily Water Usage June 2010

1. new meters installed; continuous usage data available via a web based service
2. recycled water/ potable water split: 82%/ 18%
3. most days, potable water make up not required

**Attachment "F" AS/NZS ISO 14001 Certification Renewal**



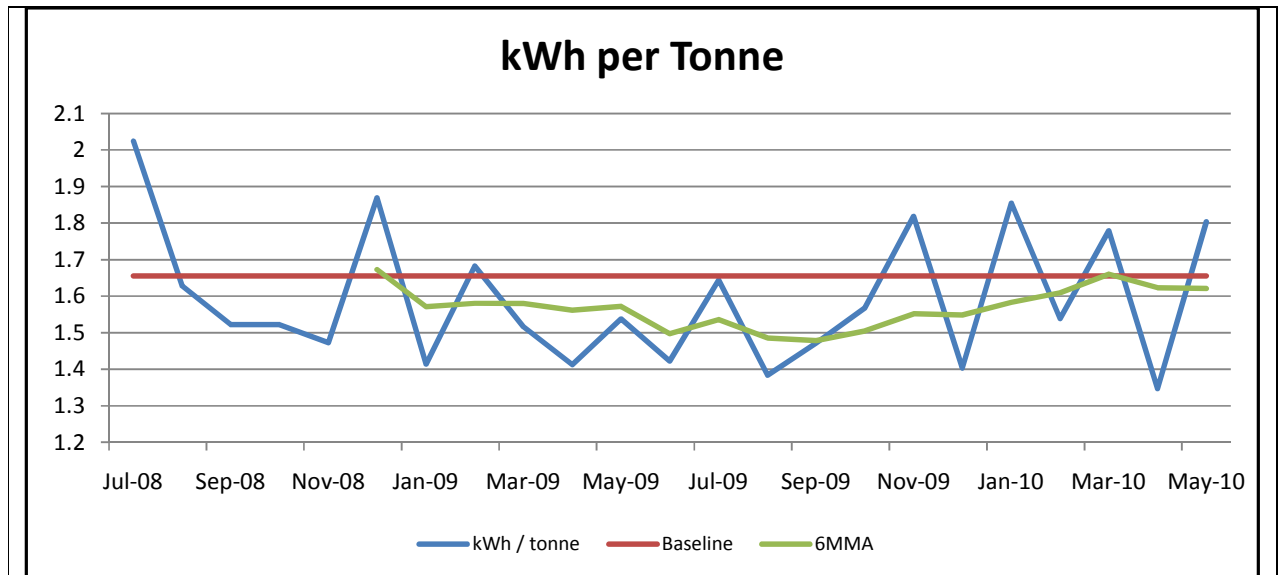
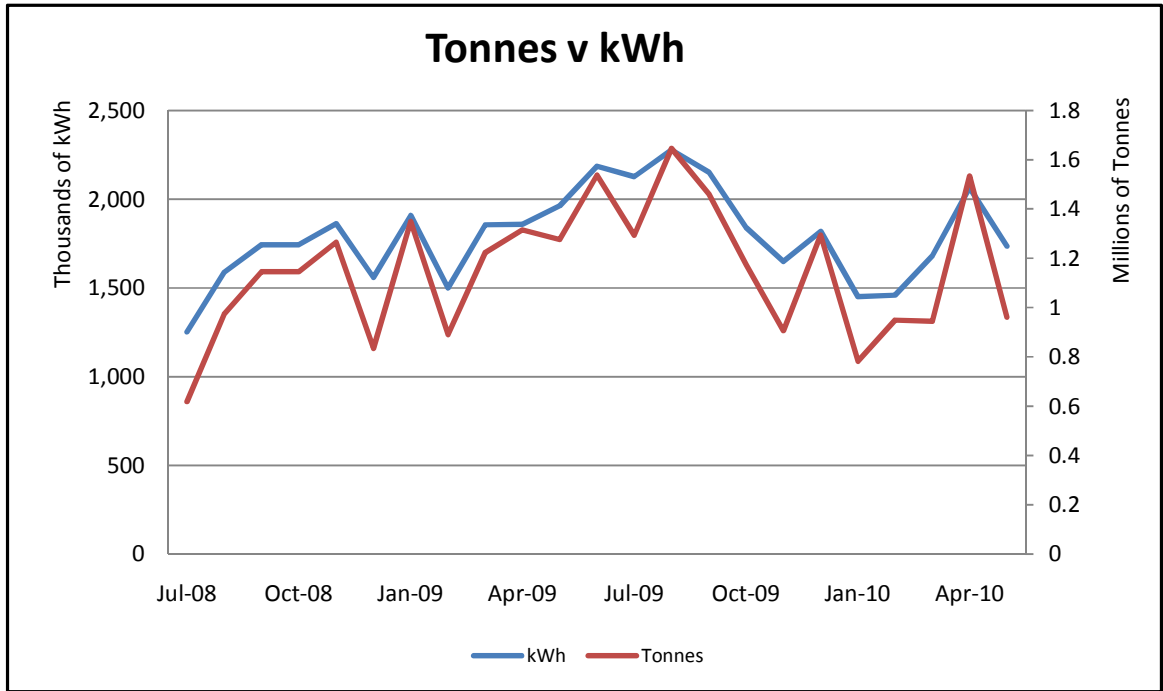




**Attachment "G" Greenhouse Gas Report- 2009/10**

2009/2010	Reporting unit	A	B	C	D	E
		Amount consumed (reporting unit)	Energy content (GJ per reporting unit)	Emissions factor (kg CO <sub>2</sub> -e per GJ)	Gigajoules Reportable energy (GJ)	tonnes Reportable emissions (tonnes CO <sub>2</sub> -e)
<b>Scope 1 – direct emissions</b>						
Diesel oil(transport)	kL	169	38.60	69.90	6532	457
Diesel oil(stationary energy)	kL	0	38.60	69.50	0	0
Petrol (transport)	kL	26	34.20	69.60	886	62
Petroleum based oils	kL		38.80	27.90	0	0
Petroleum based greases	kL		38.80	27.90	0	0
Acetylene	m3 *		0.0393	51.33	0	0
<b>Scope 2 – indirect emissions</b>						
	Reporting unit		Energy content (GJ per kWh)	Emissions factor (kg CO <sub>2</sub> -e per kWh)		
Electricity	kWh	22,090,524	0.0036	0.89	79526	19661
<b>Total</b>					86945	20179
<b>Threshold</b>					100,000	25,000

**Attachment "H" Electricity Usage Report 2009/2010**



**Attachment “I” Extract from DECCW EPL Annual Return: 1.4.09 to 31.3.10****PKCT Annual Return Report: 09/10****1. Statement of Compliance-C2: Details of Non Compliance with Licence**

(a) Licence condition number not complied with:

L1 Pollution of Waters

M2 Requirements to Monitor Concentration of Pollutants Discharged

O4 Sedimentation Ponds

(b) Summary of particulars of the non compliance (also refer Attachment “B” for copies of correspondence referenced herein).

Water Collection System (WCS)

During storm events, the water quality of PKCT’s discharge from the settlement lagoon (P16) exceeded the licence limit of 50 mg/litre (total suspended solids). Events occurred as follows:

Total Suspended Solids: EPL limit 50 milligrams per litre

7<sup>th</sup> October 09: 76 milligrams per litre

8<sup>th</sup> October 09: 56 milligrams per litre

6<sup>th</sup> November 09: 77 milligrams per litre

pH: EPL range: 6.5- 8.5

2<sup>nd</sup> April 09: 9.3

3<sup>rd</sup> October 09: 5.9

5<sup>th</sup> November 09: 8.9

27<sup>th</sup> November 09: 8.8

29<sup>th</sup> December 09: 9.4

(c) Further details on Particulars of Non Compliance

TSS events were reported to DECCW. A pollution reduction program has been developed and work is in progress. Attachment B provides key documents as follows:-

- PKCT letter of 27<sup>th</sup> November 09 reporting on investigation findings and proposed corrective actions
- DECCW letter of 7<sup>th</sup> May 10 providing draft Pollution Reduction Program U3

**Attachment "I" Extract from DECCW EPPL Annual Return (continued)****PKCT ANNUAL RETURN REPORT: 09/10**

Historically, pH exceedances are unusual and the cause is not known. The only significant change during the return period has been the commencement of recycled water use onsite. DECCW has requested that PKCT monitor additional water quality parameters to identify and assess any associated impacts. A review of monitoring data is currently in progress and includes pH.

(d) Dates when the non - compliance occurred

As above

(e) If relevant, precise location where the non - compliance occurred

PKCT's DECCW environmental protection licence defines location of Settlement Lagoon (P16).

(e) Causes of non - compliance

Total Suspended Solids exceedances

- Lightning strike, solution tank level sensor fault- refer Attachment 'B' for report.

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

Impact of the non compliances was minor. Exceedances in turbidity and pH of harbour discharges were marginal. Discharges occurred during storm events during which the water quality of receiving waters is poor containing sediment and other contaminants from the harbour catchment's storm water run off.

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

With reference to Section 6 herein, a consultant is reviewing PKCT's water collection system to identify improvement opportunities. Completion date for the review is 31<sup>st</sup> August 2010.

Attachment "I" Extract from DECCW EPPL Annual Return (continued)

PKCT ANNUAL RETURN REPORT: 09/10

1. EPL Air Monitoring Sites

Dust Gauges- DECCW EPL sites

Bluescope High Volume Sampler/ DECCW EPL P11

Continuous Dust Monitor Sites

PKCT Site Boundary





**Attachment "I" Extract from DECCW EPPL Annual Return (continued)**

**PKCT ANNUAL RETURN REPORT: 09/10**

**(b) Dust Deposition Results**

Samplers		April 2009 to March 2010															
JH	Justin Hughes	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR				
NF	Nicholas Fields	30-4-09	28-5-09	29-6-09	28-07-09	26-08-09	29-Sep-09	30-10-09	26-11-09	24-12-09	27-1-10	24-2-10	26-3-10				
GH	Glen Harrison	MH	GH	JH	JH	BA	SA	JH	JH	BA	BA	BA	BA				
MH	Michael Hoare	PKCT Monitoring Sites: EPL No. 1625												MEAN	MIN	MAX	RAN.
P1 25m South No.1 Coalberth	Insoluble Solids	2.3	2.6	0.8	2.3	2.1	9.5	20.2	3.0	13.8	6.0	3.6	6.8	6.1	0.8	20.2	19.4
	Ash	1.4	1.1	0.3	1.7	1.4	6.4	10.9	1.8	8.4	3.5	1.4	3.8	3.5	0.3	10.9	10.6
	Combustible Matter	0.9	1.5	0.5	0.6	0.7	3.1	9.3	1.2	5.4	2.5	2.2	3.0	2.6	0.5	9.3	8.8
P2 40m South of Southern S/P Area	Insoluble Solids	2.0	2.1	1.4	1.7	7.0	15.1	9.1	2.0	10.4	6.0	1.4	4.9	5.3	1.4	15.1	13.7
	Ash	1.8	1.2	0.7	1.1	5.4	10.8	2.2	1.3	6.6	3.0	0.3	3.0	3.1	0.3	10.8	10.5
	Combustible Matter	0.2	0.9	0.7	0.6	1.6	4.3	6.9	0.7	3.8	3.0	1.1	1.9	2.1	0.2	6.9	6.7
P3 40m East of Southern S/P Area	Insoluble Solids	5.2	13.8	5.8	BF	16.6	57.0	8.4	14.3	12.8	4.8	BF	4.0	14.3	4.0	57.0	53.0
	Ash	3.3	6.8	2.6	BF	8.4	23.1	5.1	10.3	9.6	3.1	BF	2.6	7.5	2.6	23.1	20.5
	Combustible Matter	1.9	7.0	3.2	BF	8.2	33.9	3.3	4.0	3.2	1.7	BF	1.4	6.8	1.4	33.9	32.5
P4 40m East No.2 Coalberth S/P Area	Insoluble Solids	25.0	44.6	16.3	49.4	30.6	33.9	37.0	2.0	BF	8.3	20.1	8.9	25.1	2.0	49.4	47.4
	Ash	7.9	7.4	2.9	9.5	6.9	12.7	7.2	0.6	BF	3.2	4.4	3.8	6.0	0.6	12.7	12.1
	Combustible Matter	17.1	37.2	13.4	39.9	23.7	21.2	29.8	1.4	BF	5.1	15.7	5.1	19.1	1.4	39.9	38.5
P5 Northern Settling Pond	Insoluble Solids	6.3	7.0	5.0	5.4	13.3	17.9	9.4	17.2	19.5	19.1	10.3	14.7	12.1	5.0	19.5	14.5
	Ash	2.7	1.8	1.8	0.9	4.5	7.6	3.4	5.9	6.6	5.9	3.4	5.2	4.1	0.9	7.6	6.7
	Combustible Matter	3.6	5.2	3.2	4.5	8.8	10.3	6.0	11.3	12.9	13.2	6.9	9.5	8.0	3.2	13.2	10.0
P6 40m West No.2 Coalberth S/P Area	Insoluble Solids	5.2	15.4	3.5	2.2	5.5	15.0	6.1	7.7	20.3	11.1	10.6	18.9	10.1	2.2	20.3	18.1
	Ash	2.6	3.3	1.3	0.9	2.3	8.6	2.7	3.3	9.2	3.0	3.4	6.3	3.9	0.9	9.2	8.3
	Combustible Matter	2.6	12.1	2.2	1.3	3.2	6.4	3.4	4.4	11.1	8.1	7.2	12.6	6.2	1.3	12.6	11.3
P7 260m West No.2 Coalberth S/P Area	Insoluble Solids	1.0	1.2	1.7	19.2	57.2	13.2	2.3	2.4	8.2	27.3	24.9	16.8	14.6	1.0	57.2	56.2
	Ash	0.7	0.4	0.5	16.8	51.0	10.6	1.9	1.4	6.2	17.5	21.1	8.4	11.4	0.4	51.0	50.6
	Combustible Matter	0.3	0.8	1.2	2.4	6.2	2.6	0.4	1.0	2.0	9.8	3.8	8.4	3.2	0.3	9.8	9.5
P8 PKCT. North Truckwash	Insoluble Solids	4.1	15.5	21.4	25.4	46.8	66.5	8.9	13.4	12.5	5.9	3.3	11.9	19.6	3.3	66.5	63.2
	Ash	1.2	2.8	4.9	4.4	10.0	11.6	3.1	4.9	4.4	2.5	1.2	4.4	4.6	1.2	11.6	10.4
	Combustible Matter	2.9	12.7	16.5	21.0	36.8	54.9	5.8	8.5	8.1	3.4	2.1	7.5	15.0	2.1	54.9	52.8
P9 East Side of Water Board Property	Insoluble Solids	5.3	6.0	1.8	2.3	3.8	6.6	1.6	2.7	7.4	1.6	2.7	3.2	3.8	1.6	7.4	5.8
	Ash	4.2	2.6	0.8	1.0	2.5	4.6	1.4	1.6	4.8	0.8	1.3	1.9	2.3	0.8	4.8	4.0
	Combustible Matter	1.1	3.4	1.0	1.3	1.3	2.0	0.2	1.1	2.6	0.8	1.4	1.3	1.5	0.2	3.4	3.2
P10 173 Corrimal St	Insoluble Solids	**	1.5	1.4	2.0	2.2	6.5	3.1	3.2	28.6*	0.7	2.7	0.9	2.4	0.7	6.5	5.8
	Ash	**	0.7	0.5	0.7	1.2	5.1	2.4	2.0	0.6	0.4	1.4	0.0	1.4	0.0	5.1	5.1
	Combustible Matter	**	0.8	0.9	1.3	1.0	1.4	0.7	1.2	28*	0.3	1.3	0.9	1.0	0.3	1.4	1.1
P12 157 Church St Wollongong	Insoluble Solids	0.9	0.6	1.1	0.8	1.5	BF	1.7	1.8	3.2	2.6	2.1	2.8	1.7	0.6	3.2	2.6
	Ash	0.8	0.2	0.5	0.6	1.0	BF	1.6	1.3	2.2	1.7	1.3	2.0	1.2	0.2	2.2	2.0
	Combustible Matter	0.1	0.4	0.6	0.2	0.5	BF	0.1	0.5	1.0	0.9	0.8	0.8	0.5	0.1	1.0	0.9
P13 200m North of A.I.S. RO.RO Berth	Insoluble Solids	5.7	3.0	3.0	BF	6.2	11.6	4.5	9.2	5.6	11.0	3.9	5.3	6.3	3.0	11.6	8.6
	Ash	4.0	1.8	1.9	BF	4.9	9.6	4.0	7.2	4.5	8.0	2.7	3.9	4.8	1.8	9.6	7.8
	Combustible Matter	1.7	1.2	1.1	BF	1.3	2.0	0.5	2.0	1.1	3.0	1.2	1.4	1.5	0.5	3.0	2.5
P15 North of PKCT Canteen Building	Insoluble Solids	21.0	22.9	25.0	10.3	32.5	44.0	20.2	20.9	62.5	50.2	17.8	20.3	29.0	10.3	62.5	52.2
	Ash	5.0	4.0	4.7	3.0	9.0	13.2	5.6	7.7	34.4	12.8	5.1	5.9	9.2	3.0	34.4	31.4
	Combustible Matter	16.0	18.9	20.3	7.3	23.5	30.8	14.6	13.2	28.1	37.4	12.7	14.4	19.8	7.3	37.4	30.1

FM- Funnel Missing      GM-Gauge Missing      OF-Gauge Overflowed      E/B-Empty Bottle      GR-Gauge Removed  
 GCA-Gauge Contaminated with Algae      B/C-Broken Crucible      In-Inaccessible      B/F-Broken Funnel      G/C - Gauge Contaminated  
 \* after investigation, high result discounted due to local contamination  
 \*\* gauge site established in May 2009

**(c) Sampling**

During the return period it was necessary to make the following changes to PKCT's monitoring program:-

- EPL site P18- 173 Corrimal Street commenced in May 09 replacing 177 Corrimal Street) after the resident requested the gauge be removed.

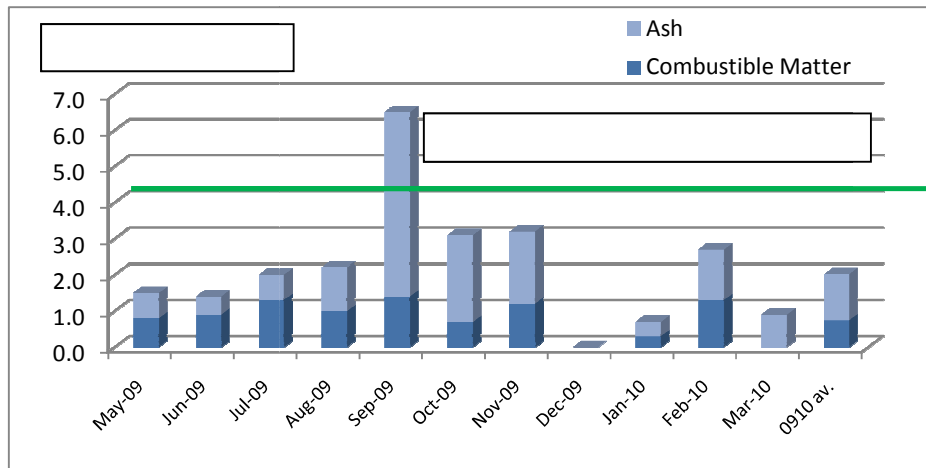
The following samples were lost during the sample period:

- P3: July 09, February 10- broken funnel      P12: September 09- broken funnel
- P4: December 09- broken funnel      P13: July 09- broken funnel

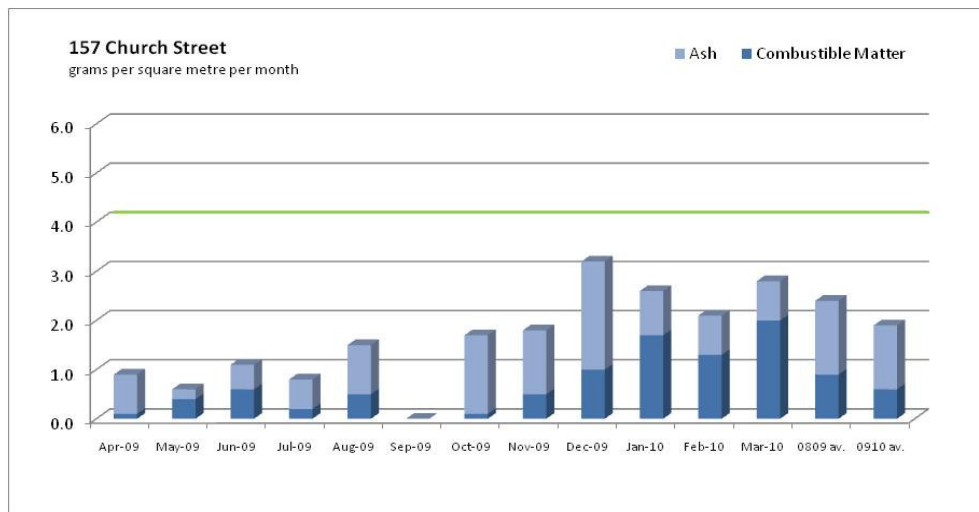
**Attachment "I" Extract from DECCW EPPL Annual Return (continued)**

**PKCT ANNUAL RETURN REPORT: 09/10**

**Residential Dust Deposition**



1. During Sept.09, Oct.09 Wollongong experienced severe westerly winds resulting in significant dust emissions from inland NSW. This was extensively reported in the media at the time.
2. December 09 sample recorded a very high reading of 28.6. Site visit and discussions with the resident indicate that sample may have been affected by burning and building activities carried out in the back yard in close proximity to the gauge. This data result has hence been removed.
3. Apart from the Sept. 09 and Dec.09 results, monthly dust deposition was below 4 grams per square metre per month; the annual average dust deposition.

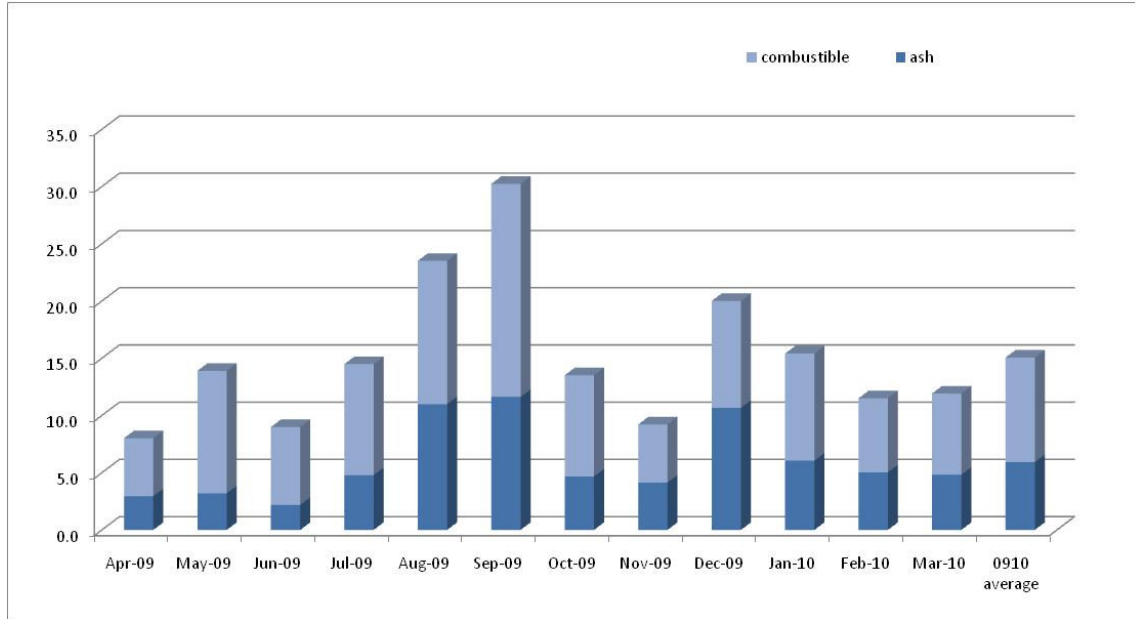


1. During Sept.09, Oct.09 Wollongong experienced severe westerly winds resulting in significant dust emission from inland NSW. This was extensively reported in the media at the time.
2. Monthly dust deposition was below 4 grams per square metre per month; the annual average dust deposition was 1.9 grams per square metres per month.
3. Annual average monthly dust deposition was 20% less than 08/09 result.



**Attachment "I" Extract from DECCW EPPL Annual Return (continued)**

**PKCT ANNUAL RETURN REPORT: 09/10**



1. During Sept.09, Oct.09 Wollongong experienced severe westerly winds resulting in significant dust emissions from inland NSW. This was extensively reported in the media at the time.





**Attachment “I” Extract from DECCW EPPL Annual Return (continued)**

**PKCT ANNUAL RETURN REPORT: 09/10**

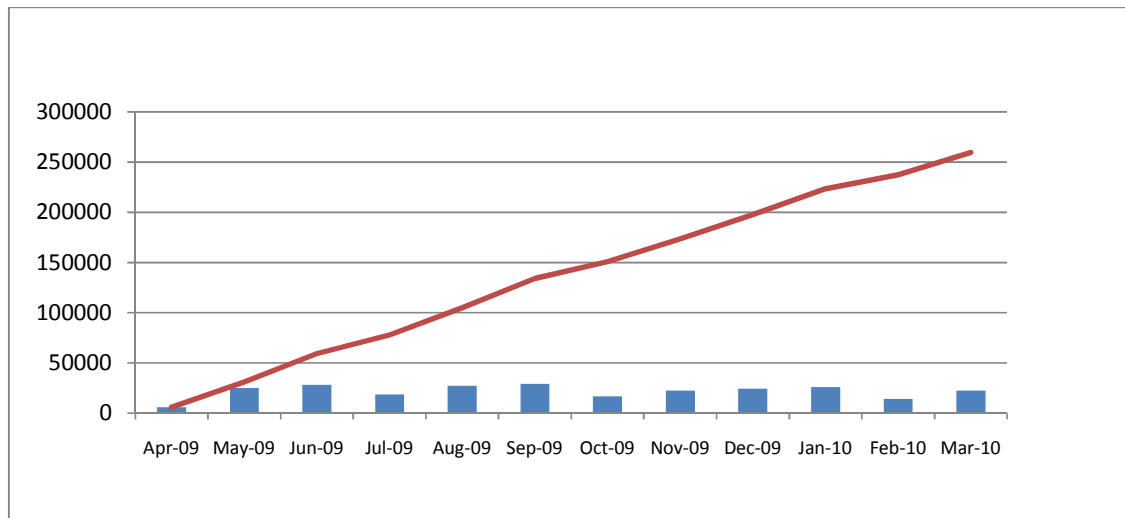
3. Noise

During the licence period, DECCW revised PKCT’s EPL 1625 to include noise criteria in line with Minister of Planning’s Project Approval 08\_0009 given on 12<sup>th</sup> June 2009.

In accordance with PKCT’s Noise Monitoring Management Plan, two noise surveys have been completed in September 09 and March 10 and noise results were within the specified limits. Associated reports are provided in Attachment “F” & “G” herein.

4. Recycled Water: PRP U5

Use of recycled water commenced in April 2009 and, to date, 200 megalitres of recycled water has been used. No adverse OHS or environmental impacts have been detected to date. Attachments “D” and “E” include additional monitoring requested by DECCW (refer Attachment “C”).



PKCT has engaged consultant, Cardno Forbes Rigby, to review monitoring data collected to date. Work is in progress.

Pollution Reduction Program 5 (PRP 5) was closed by DECCW in June 2009.

**Attachment "I" Extract from DECCW EPPL Annual Return (continued)****PKCT ANNUAL RETURN REPORT: 09/10**

## 1. Green and Golden Bell Frogs: PRP U2

In accordance with PRP, PKCT submitted a management plan to DECCW in June 09 and has been progressing actions since. Actions

(a) a frog habitat has been constructed in Greenhouse Park, adjacent to the northern boundary of PKCT's site. Habitat is on Wollongong City Council land. Construction of the habitat was undertaken by PKCT, Conservation Volunteers Australia and Wollongong City Council with the support of DECCW.

(b) 7 Green and Golden Bell frogs found on PKCT and kept in care have been established in a display at Symbio Wildlife Gardens. This was undertaken in accordance with recommendations of consultant, Biosphere and coordinated by DECCW.

(c) Further frog sightings have occurred and a cluster of frogs have appeared in a patch of reeds in the settlement lagoon



Greenhouse Park habitat



Symbio display



Night Survey: DECCW/PKCT- 4/3/2010

DECCW has requested that PKCT update its management plan. Discussions with DECCW on 21/5/10 indicate the DECCW is seeking to keep the Pollution Reduction Program (PRP) open and intend to extend the completion date.

**Attachment "I" Extract from DECCW EPPL Annual Return (continued)****PKCT ANNUAL RETURN REPORT: 09/10****6. Water Collection System: PRP U3**

Under cover of DECCW letter of 7<sup>th</sup> May 2010 (Attachment "B"), a revised EPL has been submitted to PKCT containing a draft Pollution Reduction Program PRP U3- Identify Options to Improve the Performance of the Stormwater Pollution Control System.

PKCT has engaged Cardno Forbes Rigby, a consultant, and the review is progressing. Support is also being provided by Nalco Australia, PKCT's service contractor for the settlement lagoon's dosing unit and flocculent supplier.

Completion date for the PRP is 31<sup>st</sup> August 2010.

**7. Complaints**

(a) 2 community complaints were received relating to dust emissions on the 23<sup>rd</sup> January 10 as follows:-

- a resident from 177 Corrimal Street on 24<sup>th</sup> January 10
- DECCW contacted PKCT on 8<sup>th</sup> March 10 advising of a complaint from a resident in Stewart Street.

(b) An investigation was undertaken after the initial complaint indicating the following:-

- Severe southerly winds were experienced during the afternoon.
- Southerly change was forecast and arrived as forecast.
- PKCT's Main Control Room personnel were aware the southerly was coming and prepared by running sprays in the morning and prior to its arrival. This was done primarily on an hourly cycle to avoid coal slumps.
- Misting sprays were operated in preparation and were on when the southerly hit
- Auto isolate feature of the stockpile spray system was turned off ensuring spray guns weren't isolated around operating machines.
- Dust emissions were evident from the industrial precinct in general, adjacent to and upstream from PKCT (this is supported by a review of dust monitoring data-refer last dot point below).
- Dust problem areas were localised at south end of the yard around the spillage area and remnant coal stockpile; dust was also noticed from the settlement lagoon area (south side).
- Elevated levels were recorded at the southern monitoring site and, hence, dust sources external to PKCT has contributed.

**Attachment "I" Extract from DECCW EPPL Annual Return (continued)****PKCT ANNUAL RETURN REPORT: 09/10**

- Water cart was deployed and primarily used to control the problem BPB areas; it took about 40 minutes to get these areas under reasonable control.
- After the southerly hit, Main Control Room also operated some sprays in manual focussing on problem areas.
- The Coal berth stockyard was quite good from a dust emission perspective.
- PKCT contact with one resident community member acknowledged the severity of the southerly and indicated visible dust was general across the industrial precinct and was predominantly red.
- Dust monitoring results assessed by Katestone Environmental suggest that PKCT did not have a major contribution to the dust levels recorded at the northern PKCT monitoring site during the afternoon hours of 23 January 2010.

(c) investigation findings were conveyed as follows:-

- Verbal and e mail advice was provided to the Corrimal Street resident. The resident indicated no further action was required. Complaint has been closed out.
- DECCW was advised by e mail report and has advised it is satisfied with PKCT's efforts on the day and information provided. Complaint has been closed out.



**Attachment “J” Noise Monitoring Report- 2009/10**

**Table 5-1 Summary of Monitoring Results – Cnr Swan and Kembla Streets**

Start Date & Time	Period	Criteria (dBA)	Barnowl All Directions L <sub>Aeq</sub> (dBA)	Barnowl PKCT Direction L <sub>Aeq</sub> (dBA)	SLM L <sub>Aeq</sub> (dBA)	SLM L <sub>A90</sub> (dBA)	Wind Direction	Stability Class	Compliance	Subjective Assessment
11/9/09 3.40pm	Day	51	54	35	54	48	NE	D	YES	PKCT inaudible. Noise environment was dominated by traffic on Springhill Rd.
11/9/09 3.55pm			56	35	56	49	NE	C	YES	PKCT inaudible. Noise environment was dominated by traffic on Springhill Rd.
11/9/09 8.55pm	Evening	50	57	40	57	49	NNE	F	YES	PKCT inaudible. BarnOwl clearly showed a discrete noise source in the PKCT direction but this may have been contributed to by traffic noise. Audible noise environment was dominated by traffic on Springhill Rd.
11/9/09 9.15pm			57	40	57	48	NNE	F	YES	PKCT inaudible. BarnOwl clearly showed a discrete noise source in the PKCT direction but this may have been contributed to by traffic noise. Audible noise environment was dominated by traffic on Springhill Rd.
11/9/09 11.00pm	Night	49	53	38	52	43	NNE	F	YES	PKCT inaudible. PKCT direction 33dBA without obvious traffic noise (determined in a lull in traffic at the start of the measurement). Audible noise environment was dominated by traffic on Springhill Rd.
11/9/09 11.15pm			56	39	55	43	N	D	YES	PKCT inaudible. Noise environment was dominated by traffic on Springhill Rd.

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Date Authorised: 29<sup>th</sup> July 2010



**Attachment “J” Noise Monitoring Report-2009/10**

**Table 5-2 Summary of Monitoring Results – Cnr Swan and Corrimal Streets**

Start Date & Time	Period	Criteria (dBA)	Barnowl All Directions	Barnowl PKCT Direction	SLM L <sub>Aeq</sub> (dBA)	SLM L <sub>A90</sub> (dBA)	Wind Direction	Stability Class	Compliance	Subjective Assessment
			L <sub>Aeq</sub> (dBA)	L <sub>Aeq</sub> (dBA)						
11/9/09 5.45pm	Day	51	57	42	58	52	N	C	YES	PKCT inaudible. Noise source in PKCT 40° segment appeared to come from the right of PKCT – possibly traffic or another industrial source. Noise environment was dominated by traffic on Springhill Rd.
11/9/09 6.50pm	Evening	50	57	42	58	53	N	D	YES	PKCT inaudible. Insects became audible and may account for the discrete source described above. Application of the 1kHz low-pass filter was unnecessary as compliance was demonstrated regardless. Noise environment was dominated by traffic on Springhill Rd and some insect noise.
11/9/09 6.25pm			56	41	57	51	N	E	YES	PKCT inaudible. Noise environment was dominated by traffic on Springhill Rd and some insect noise.
11/9/09 11.45pm	Night	49	53	38	53	46	N	D	YES	PKCT inaudible. Discrete noise source in PKCT 40° segment appeared to come PKCT and included coal trucks on Port Kembla Rd. Noise environment was dominated by traffic on Springhill Rd.
12/9/09 12.05pm			53	36	53	44	N	D	YES	PKCT inaudible. Discrete noise source in PKCT 40° segment appeared to come PKCT and included coal trucks on Port Kembla Rd. Noise environment was dominated by traffic on Springhill Rd.

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Date Authorised: 29<sup>th</sup> July 2010



Attachment “J” Noise Monitoring Report-2009/10

Table 5-3 Summary of Monitoring Results – Cnr Keira and Fox Streets

Start Date & Time	Period	Criteria (dBA)	Barnowl All Directions LAeq (dBA)	Barnowl PKCT Direction LAeq (dBA)	SLM LAeq (dBA)	SLM LA90 (dBA)	Wind Direction	Stability Class	Compliance	Subjective Assessment
11/9/09 4.40pm	Day	55	58	41	58	53	NE	D	YES	PKCT inaudible. PKCT segment clearly affected by traffic noise on Springhill Rd. Noise environment was dominated by traffic on Springhill Rd.
11/9/09 5.15pm			58	41	59	55	NNE	D	YES	PKCT inaudible. PKCT segment clearly affected by traffic noise on Springhill Rd. Noise environment was dominated by traffic on Springhill Rd.
11/9/09 9.45pm	Evening	49	54	37	56	50	SW	F	YES	PKCT inaudible. PKCT segment clearly affected by traffic noise on Springhill Rd. Noise environment was dominated by traffic on Springhill Rd.
11/9/09 10.10pm	Night	45	54	43	53	49	SE	F	YES	PKCT inaudible. PKCT segment clearly affected by traffic noise on Springhill Rd. Noise environment was dominated by traffic on Springhill Rd.
11/9/09 10.30pm			54	44	54	49	NW	F	YES	PKCT inaudible. PKCT segment clearly affected by traffic noise on Springhill Rd. Noise environment was dominated by traffic on Springhill Rd.

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**Attachment “J” Noise Monitoring Report-2009/10**

**Table 5-1 Summary of Monitoring Results – Cnr Swan and Kembla Streets**

Start Date & Time	Period	Criteria (dBA)	Barnowl All Directions LAeq (dBA)	Barnowl PKCT Direction LAeq (dBA)	SLM LAeq (dBA)	SLM LA90 (dBA)	Wind Direction	Stability Class	Compliance	Subjective Assessment
25/3/10 5.40pm	Day	51	53	30	54	50	NE	D	YES	PKCT inaudible. Noise environment was dominated by traffic on Swan St.
25/3/10 9.20pm	Evening	50	49	30	49	40	N	D	YES	PKCT inaudible. Audible noise environment was dominated by traffic on Swan St and also distant urban hum from Wollongong CBD.
25/3/10 11.10pm	Night	49	45	29	45	40	NE	D	YES	PKCT inaudible. Audible noise environment was dominated by traffic on Swan St and also distant urban hum from Wollongong CBD.
25/3/10 11.25pm			43	27	43	39	NE	D	YES	PKCT inaudible. Audible noise environment was dominated by traffic on Swan St and also distant urban hum from Wollongong CBD.

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Date Authorised: 29<sup>th</sup> July 2010





Attachment "J" Noise Monitoring Report-2009/10

Table 5-2 Summary of Monitoring Results – Cnr Swan and Corrimal Streets

Start Date & Time	Period	Criteria (dBA)	Barnowl All Directions LAeq (dBA)	Barnowl		Wind Direction	Stability Class	Compliance	Subjective Assessment	
				PKCT Direction LAeq (dBA)	SLM LA90 (dBA)					
25/3/10 5.10pm	Day	51	59	37	59	53	NE	D	YES	PKCT inaudible. Noise source in PKCT 40° segment appeared to come from the right of PKCT – possibly traffic or another industrial source. Noise environment was dominated by traffic on Springhill Rd.
25/3/10 8.40pm	Evening	50	56	29	56	47	NE	F	YES	PKCT inaudible. Noise environment was dominated by traffic on Springhill Rd.
26/3/10 12.00am	Night	49	50	33	49	39	NE	D	YES	PKCT inaudible. Discrete noise source in PKCT 40° segment appeared to come from PKCT and included coal trucks on Port Kembla Rd. Noise environment was dominated by traffic on Springhill Rd and also urban hum from Wollongong CBD.
26/3/10 12.20am			49	31	48	40	NE	D	YES	Truck exiting Port Kembla Rd 44dBA LAmax on Springhill Rd.

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Date Authorised: 29<sup>th</sup> July 2010



Attachment “J” Noise Monitoring Report-2009/10

Table 5-3 Summary of Monitoring Results – Cnr Keira and Fox Streets

Start Date & Time	Period	Criteria (dBA)	Barnowl All Directions L <sub>Aeq</sub> (dBA)	Barnowl		Wind Direction	Stability Class	Compliance	Subjective Assessment	
				PKCT Direction L <sub>Aeq</sub> (dBA)	SLM L <sub>A90</sub> (dBA)					
25/3/10 9.45pm	Evening	49	49	32	48	41	N	E	YES	PKCT inaudible. PKCT segment clearly affected by traffic noise on Springhill Rd. Noise environment was dominated by traffic on Swan St and Keira St. Coal truck audible leaving Port Kembla Rd.
25/3/10 10.00pm	Night	45	53	34	54	42	N	E	YES	PKCT inaudible. PKCT segment clearly affected by traffic noise on Springhill Rd. Noise environment was dominated by traffic on Swan St and Keira St.
25/3/10 10.15pm			49	33	49	40	N	E	YES	PKCT inaudible. PKCT segment clearly affected by traffic noise on Springhill Rd. Noise environment was dominated by traffic on Swan St and Keira St. 2 coal trucks audible leaving Port Kembla Rd. Coal/Freight train audible to the northwest of the monitoring location – 50dBA.

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**Attachment “K” Air Quality Report: 2009/10- Continuous Dust Data**

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

Variable	Averaging period	Value	Units	Standard	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-20	Jun-10	
TSP	24-hour	Max	µg/m³	90	37.2	51.2	362.2	56.9	134.2	106.4	93.8	115.2	56.8	37.8	39.0	43.8	
		No. Exceedances	-	-	0	0	3	0	5	1	1	1	0	0	0	0	0
		Max % contribution to exceedance	%	-	0.0	0.0	6.5	0.0	4.0	0.7	2.8	5.9	0.0	0.0	0.0	0.0	0.0
		Mean	µg/m³	90	15.1	26.3	50.0	30.0	59.6	41.4	48.5	48.0	33.4	20.9	19.4	16.7	
	Annual	Mean	µg/m³	90	40.4	41.4	42.3	41.2	43.7	42.4	40.4	38.8	36.2	33.7	35.2	34.5	
PM10	24-hour	Max	µg/m³	50	26.1	40.0	327.6	44.9	107.1	89.5	78.2	97.8	49.2	25.5	28.0	37.5	
		No. Exceedances	-	-	0	0	6	0	10	5	7	8	0	0	0	0	
		Max % contribution to exceedance	%	-	0.0	0.0	8.0	0.0	9.0	10.7	2.5	6.1	0.0	0.0	0.0	0.0	
		Mean	µg/m³	50	10.1	19.1	39.7	18.2	46.1	33.5	38.8	39.2	26.5	14.9	14.1	12.0	
	Annual	Mean	µg/m³	30	26.8	27.6	28.5	27.8	29.9	29.6	28.5	28.0	27.3	26.2	27.3	26.8	

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**Attachment “L” Air Quality Report: 2009/10- Dust Deposition Residential**

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

Variable	Averaging period	Value	Units	Standard	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
TSP	24-hour	Maximum	µg/m³	90	28.8	69.4	78.7	85.5	157.0	90.3	144.4	99.4	89.5	61.9	66.7	33.9
		Date of maximum	-	-	17th	10th	15th	21st	20th	8th	13th	12th	26th	1st	1st	24th
Dust deposition	Monthly	Insoluble solids	g/m²/month	2.0	0.3	0.6	5.0	2.3	2.7	3.6	2.6	2.4	3.9	1.4	0.9	1.1
		Ash	g/m²/month	2.0	0.2	0.3	3.9	1.6	1.8	2.4	1.2	1.3	2.9	0.8	0.6	0.6
		Combustible matter	g/m²/month	1.0	0.1	0.3	1.1	0.7	0.9	1.2	1.4	1.1	1.0	0.6	0.3	0.5

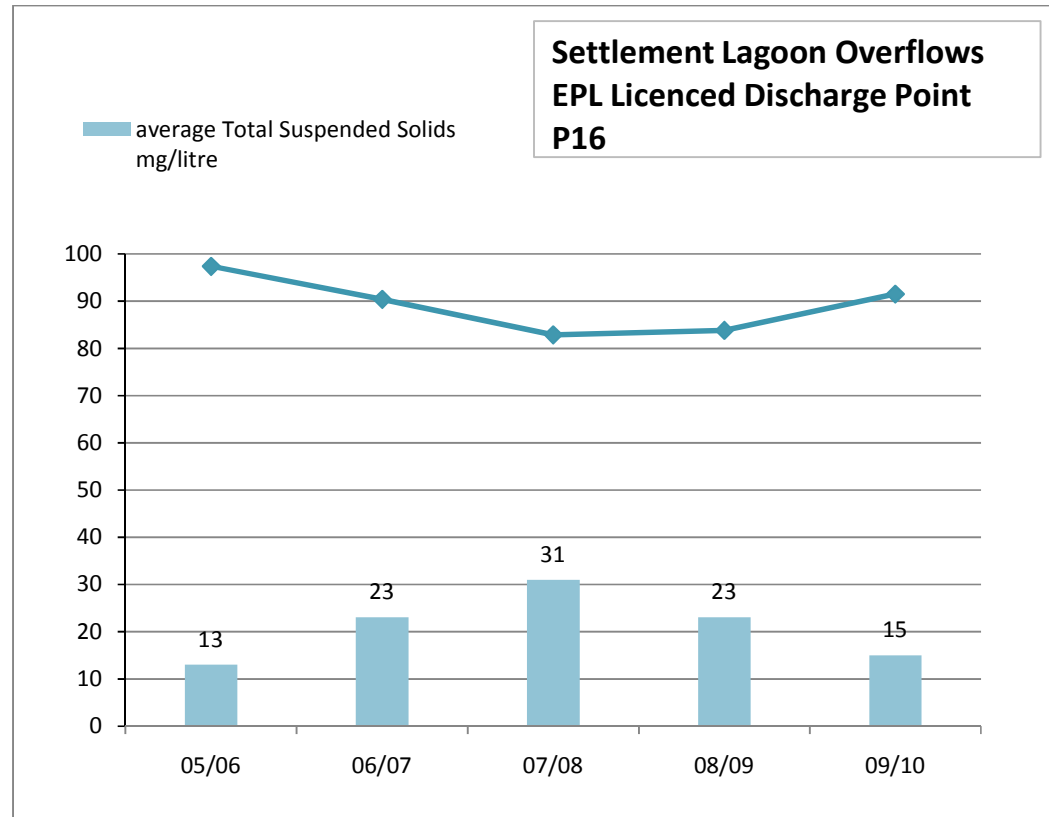
**Table A4 Trend data summary: PKCT/SGS residential dust deposition gauges**

Variable	Averaging period	Value	Units	Standard	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
<b>Site P12 – 157 Church Street</b>																
Dust deposition	Monthly	Insoluble solids	g/m²/month	2.0	0.8	1.5	BF	1.7	1.8	3.2	2.6	2.1	2.8	2.6	2.1	1.8
		Ash	g/m²/month	2.0	0.6	1.0	BF	1.6	1.3	2.2	1.7	1.3	2.0	1.9	1.4	1.3
		Combustible matter	g/m²/month	1.0	0.2	0.5	BF	0.1	0.5	1.0	0.9	0.8	0.8	0.7	0.7	0.5
<b>Site P10 – 173 Corrimal Street</b>																
Dust deposition	Monthly	Insoluble solids	g/m²/month	2.0	2.0	2.2	6.5	3.1	3.2	28.6	0.7	2.7	0.9	9.5	0.2	0.2
		Ash	g/m²/month	2.0	0.7	1.2	5.1	2.4	2.0	0.6	0.4	1.4	0.0	2.5	GO	GO
		Combustible matter	g/m²/month	1.0	1.3	1.0	1.4	0.7	1.2	28.0	0.3	1.3	0.9	7.0	GO	GO
<b>Site P11 – Vikings Oval<sup>1</sup></b>																
Dust deposition	Monthly	Insoluble solids	g/m²/month	2.0	-	-	-	-	-	-	4.3	3.1	2.3	NA <sup>2</sup>	1.9	2.4
		Ash	g/m²/month	2.0	-	-	-	-	-	-	2.7	1.9	1.3	NA <sup>2</sup>	0.9	1.5
		Combustible matter	g/m²/month	1.0	-	-	-	-	-	-	1.6	1.2	1.0	NA <sup>2</sup>	1.0	0.9

Table note:  
 BF - Broken Funnel, GO – Gauge overflowed  
<sup>1</sup> SGS dust deposition gauge at Vikings Oval commenced January 2010  
<sup>2</sup> Deposition results not available from SGS site at Vikings Oval for April 2010. No explanation was given.



**Attachment “M” Settlement Lagoon Discharges Performance Trend- Total Suspended Solids**



Discharge samples not 100% compliant; average TSS well within the EPL limit; improvement trend over 09/10

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AUTHORISED BY Peter Green, General Manager

Date Authorised: 29<sup>th</sup> July 2010



**Attachment “O” Settlement Lagoon Discharges: Extract from SGS June 2010**



WATER QUALITY PARAMETER	DATE Time Sampler Report No	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	
		Feb	Feb	Feb	Feb	Feb	Feb	Feb	Feb	March	March	March
		5-2-10 14.15PM A.CHAP SE75741	6-2-10 6.45AM A.CHAP SE75741	7-2-10 6.45AM A.CHAP SE75741	7-2-10 19.00PM T.W SE75741	9-2-10 7.00AM T.W SE75872	10-2-10 6.45AM T.W SE75872	14-2-10 7.00AM JH SE76098	15-2-10 6.30AM A.CHAP SE76098	2-3-10 1.30AM A.CHAP SE76331	2-3-10 7.45AM SDG SE76331	31-3-10 SDG SE77222
(pH)		8.5	7.4	7.2	7.3	7.5	7.4	7.5	7.7	7.4	7.5	6.9
(TSS)mg/L		23	13	6	6	<5.0	9.0	6.5	8.5	6.0	6.5	12.0
OIL & GREASE		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
AMMONIA		0.33	0.07	0.07	0.03	0.03	0.23	0.66	0.05	0.15	0.09	0.14
TOTAL NITROGEN		1.7	1.7	2.2	1.1	1.1	1.4	1.7	1.0	2.0	1.8	2.3
TKN		1.6	0.99	1.6	0.4	0.5	0.6	0.8	0.3	1.7	1.4	1.2
TON		1.37	1.63	2.13	1.07	1.07	1.17	1.04	0.95	1.55	1.31	2.16
FILTERABLE PHOSPHORUS		<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	0.06	0.01	<0.005	<0.005	0.03
TOTAL PHOSPHORUS		0.06	<0.05	0.12	<0.05	<0.05	0.06	0.22	<0.05	0.35	0.08	0.099

WATER QUALITY PARAMETER	DATE Time Sampler Report No	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	
		April	April	May	May	May	May	May	June	June	June	June
		1-4-10 SE77222	6-4-10 4PM KGRACH SDG SE77278	20-5-10 11AM SDG SE78676	22-5-10 1.45PM A.CHAP SE78676	27-5-10 7.40AM SDG SE78676	30-5-10 2.00AM JH SE78676	31-5-10 6.30AM K.GRACH SE78676	1-6-10 6.45AM K.GRACH SE78765	2-6-10 7.30AM K.GRACH SE78765	3-6-10 6.15AM K.GRACH SE78975	4-6-10 8AM JH SE78975
(pH)		7.0	7.2	9.3	7.6	7.6	8.6	7.6	6.7	6.9	7.4	7.2
(TSS)mg/L		<5.0	<5.0	18	24	9	11	9	5	<5.0	<5.0	<5.0
OIL & GREASE		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
AMMONIA		0.29	0.26	0.12	0.48	0.13	0.14	0.21	0.20	0.14	0.17	0.092
TOTAL NITROGEN		1.2	1.4	5.1	15.0	2.9	2.5	2.4	2.0	1.1	1.8	1.3
TKN		0.4	0.6	2.9	13.0	1.4	0.9	1.0	0.8	0.7	0.7	0.7
TON		0.91	1.14	4.98	14.52	2.8	2.36	2.19	1.80	0.96	1.63	1.208
FILTERABLE PHOSPHORUS		0.07	0.54	0.220	0.54	0.18	0.19	0.19	0.16	0.14	0.220	0.069
TOTAL PHOSPHORUS		0.07	0.09	0.47	2.60	0.27	0.21	0.22	0.27	0.16	0.14	0.15

Nb: Attachment “I” - DECCW Annual Return period ends March 10. This Attachmnet covers the April-June 1020 quarter.

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AUTHORISED BY Peter Green, General Manager

Date Authorised: 29<sup>th</sup> July 2010

Attachment "P" Noise Contour Plan

