



*Teys Australia Wagga Wagga*  
Dampier Street  
Wagga Wagga  
NSW 2650

## **Teys Australia Southern Property Pty Ltd (Teys Australia Wagga Wagga)**

### *Environmental Monitoring Data Summary*

### *Environmental Protection Licence number 2262*

#### *Executive Summary*

Teys Australia Wagga is the holder of Environmental Protection Licence (EPL) 2262. This Licence is administered by the *NSW Environmental Protection Authority (EPA)*, and includes conditions relevant to the site's operation, including environmental monitoring, as is outlined in this report. All environmental monitoring results required under EPL 2262 are submitted to the *EPA* each year in a formal annual return, and interpreted, and submitted to the *NSW Department of Planning and Infrastructure* in an Annual Environmental Management Review (AEMR).

All monitoring specified under EPL 2262 was completed in the 2015/2016 annual reporting period, which covered the period between 6 December 2015 and 5 December 2016.

Nil instances of non – compliance with any of the conditions in EPL 2262 occurred during the reporting period.

Further information is available by contacting the Teys Corporate Environmental team on (07) 3287 2188.

A full copy of EPL 2262 can be obtained on the EPA website from the following URL using the search function for licence number “2262”:

<http://www.environment.nsw.gov.au/prpoeoapp/>

**EPA Monitoring Point 4:** Summary of results for soil monitoring on CFA High irrigation paddock (EPA Monitoring Point 4)

<i>Pollutant</i>	<i>Units of measure</i>	<i>Monitoring frequency required by licence</i>	<i>No of times measured during year</i>	<i>Date of Sampling</i>	<i>Date data obtained</i>	<i>Minimum Value</i>	<i>Maximum Value</i>	<i>Mean Value</i>
Conductivity	(dS/m)	Annual	1	4/11/2016	6/12/2016	0.083	0.39	0.172
Exchangeable Calcium	(mg/kg)	Annual	1	4/11/2016	6/12/2016	660	1480	961.27
Exchangeable Magnesium	(mg/kg)	Annual	1	4/11/2016	6/12/2016	245.43	777.6	395.317
Exchangeable Potassium	(mg/kg)	Annual	1	4/11/2016	6/12/2016	187.68	559.13	274
Exchangeable Sodium	(mg/kg)	Annual	1	4/11/2016	6/12/2016	142.6	816.5	303.6
Exchangeable Sodium Percentage	Percent	Annual	1	4/11/2016	6/12/2016	6.2	20	11.95
Extractable Phosphorus	(mg/kg)	Annual	1	4/11/2016	6/12/2016	4.8	188	92.69
Nitrate	(mg/kg)	Annual	1	4/11/2016	6/12/2016	2	24	6.46
Nitrogen (total)	(mg/kg)	Annual	1	4/11/2016	6/12/2016	87	655	359.93
pH	pH	Annual	1	4/11/2016	6/12/2016	6.5	8.10	7.43
Phosphorus (total)	(mg/kg)	Annual	1	4/11/2016	6/12/2016	34	598	262
Phosphorus Sorption Capacity	(mg/kg)	Annual	1	4/11/2016	6/12/2016	278	911	442.91
Total Organic Carbon	(mg/kg)	Annual	1	4/11/2016	6/12/2016	600	4400	2536.36

The monitoring data in the table above has been taken from monitoring point 4 in EPL 2262. The monitoring point has been established to monitor the soil on which treated wastewater is applied. The monitoring point is located within in the 'CFA High' irrigation area.

**EPA Monitoring Point 6:** Summary of results for soil monitoring on CFA Low irrigation paddock (EPA Monitoring point 6).

<i>Pollutant</i>	<i>Units of measure</i>	<i>Monitoring frequency required by licence</i>	<i>No of times measured during year</i>	<i>Date of Sampling</i>	<i>Date data obtained</i>	<i>Minimum Value</i>	<i>Maximum Value</i>	<i>Mean Value</i>
Conductivity	(dS/m)	Annual	1	4/11/2016	6/12/2016	0.125	1.25	0.62
Exchangeable Calcium	(mg/kg)	Annual	1	4/11/2016	6/12/2016	652	2060	1189
Exchangeable Magnesium	(mg/kg)	Annual	1	4/11/2016	6/12/2016	287.95	1543.05	1118
Exchangeable Potassium	(mg/kg)	Annual	1	4/11/2016	6/12/2016	132.94	226.78	173.9
Exchangeable Sodium	(mg/kg)	Annual	1	4/11/2016	6/12/2016	195.5	3818	2131.4
Exchangeable Sodium Percentage	Percent	Annual	1	4/11/2016	6/12/2016	12	48	34.6
Extractable Phosphorus	(mg/kg)	Annual	1	4/11/2016	6/12/2016	13	74	27.9
Nitrate	(mg/kg)	Annual	1	4/11/2016	6/12/2016	1	26	8.1
Nitrogen (total)	(mg/kg)	Annual	1	4/11/2016	6/12/2016	222	905	455.5
pH	pH	Annual	1	4/11/2016	6/12/2016	6.9	9.6	8.77
Phosphorus (total)	(mg/kg)	Annual	1	4/11/2016	6/12/2016	169	594	385.5
Phosphorus Sorption Capacity	(mg/kg)	Annual	1	4/11/2016	6/12/2016	312	405	358.8
Total Organic Carbon	(mg/kg)	Annual	1	4/11/2016	6/12/2016	3600	6800	4560

The monitoring data in the table above has been taken from monitoring point 6 in EPL 2262. The monitoring point has been established to monitor the soil on which treated wastewater is applied. The monitoring point is located within in the 'CFA Low' irrigation area.

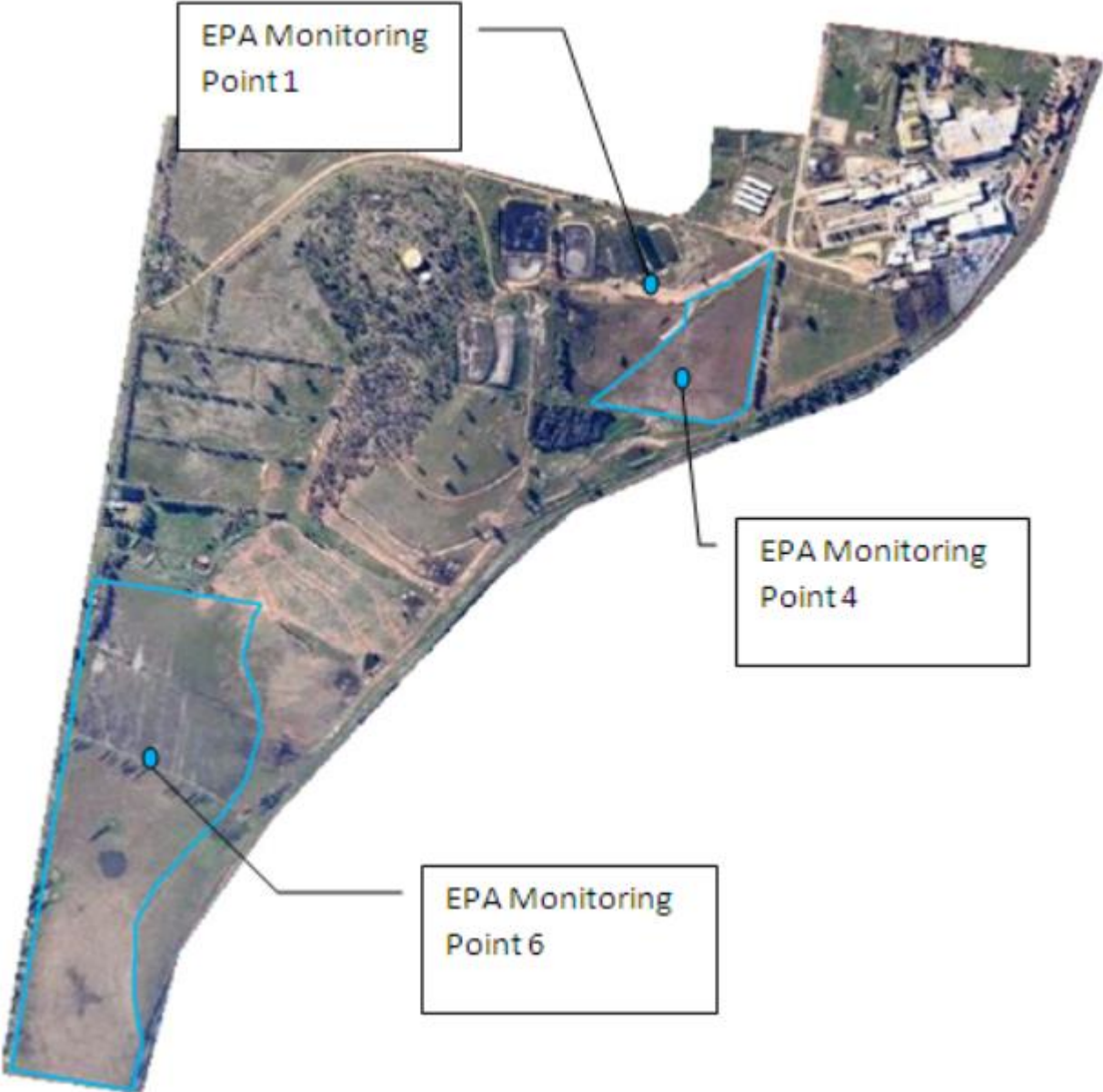
**Table 3: Summary of results for waste water applied to irrigation areas (monitoring point 1) under Environmental Protection Licence 2262 (monthly sample – required only when irrigating)**

<i>Pollutant</i>	<i>Unit of measure</i>	<i>Monitoring frequency required by Licence</i>	<i>No. of times measured during month</i>	<i>100 percentile limit</i>	<i>Date of Sampling</i>	<i>Date data obtained</i>	<i>Date Published</i>	<i>Value</i>	<i>Exceedance (Yes/no)</i>
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	December	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	January	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	February	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	March	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	April	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	May	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	June	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	July	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	August	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	September	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	October	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	November	N/A	N/A	N/A	N/A

The monitoring data in the table above has been taken from monitoring point 1 from EPL 2262. The monitoring point has been established to monitor effluent quality at the discharge from the wastewater treatment system, to the effluent utilisation area on the Teys site. The monitoring point is located at the equalisation pond, downstream of the biological nutrient removal (BNR) system.

The 100 percentile limit refers to a maximum concentration, which BOD concentrations must be below, in order for the water to be irrigated on site.

Locations of monitoring points 1, 4 and 6 are shown in the Figure 1 below.



**Units of measure – Abbreviations outlined in full**

**mg/L** = Concentration in milligrams per litre, which is equivalent unit of measure to parts per million (ppm)

**dS/m** = Decisiemens per metre, a measure of electrical conductivity, which gives an indication of the concentration of dissolved ions

**mg/kg** = Milligrams per kilogram, a measure of concentration of different parameters within a soil sample

**Correction Log**

This section is included to correct any incorrect data which may have been published in good faith.

*Teys Australia Southern Property Pty Ltd T/A Teys Australia Wagga Wagga*

*EPL number 2262*

*Pollutant:*

*Table 4: Correction log*

<i>Sample date and time</i>	<i>Original data</i>	<i>Corrected data</i>	<i>Date corrected</i>	<i>Date originally published</i>	<i>Reason</i>

*Note: No corrections required to date.*