



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 Environment* in an Annual Environmental Management Review (AEMR).

All monitoring specified under EPL 2262 was completed in the 2017/2018 annual reporting period, which covered the period between 6 December 2017 and 5 December 2018.

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	12/12/18	29/1/19	0.066	0.29	0.14
Exchangeable Calcium	(mg/kg)	Annual	1	12/12/18	29/1/19	224	916	518.18
Exchangeable Magnesium	(mg/kg)	Annual	1	12/12/18	29/1/19	1.4	472.64	139.97
Exchangeable Potassium	(mg/kg)	Annual	1	12/12/18	29/1/19	136.85	359.72	206.51
Exchangeable Sodium	(mg/kg)	Annual	1	12/12/18	29/1/19	23	646.30	229.16
Exchangeable Sodium Percentage	Percent	Annual	1	12/12/18	29/1/19	2.9	26	16.37
Extractable Phosphorus	(mg/kg)	Annual	1	12/12/18	29/1/19	8	182	100.36
Nitrate	(mg/kg)	Annual	1	12/12/18	29/1/19	1	57	13.66
Nitrogen (total)	(mg/kg)	Annual	1	12/12/18	29/1/19	181	2650	516.27
pH	pH	Annual	1	12/12/18	29/1/19	5.7	7.9	6.91
Phosphorus (total)	(mg/kg)	Annual	1	12/12/18	29/1/19	147	903	361.72
Phosphorus Sorption Capacity	(mg/kg)	Annual	1	12/12/18	29/1/19	103	551	241.9
Total Organic Carbon	(mg/kg)	Annual	1	12/12/18	29/1/19	1000	14000	3163.64

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	12/12/18	29/1/19	0.108	1.39	0.6217
Exchangeable Calcium	(mg/kg)	Annual	1	12/12/18	29/1/19	408	1590	1049.2
Exchangeable Magnesium	(mg/kg)	Annual	1	12/12/18	29/1/19	136.08	1603.80	748.3185
Exchangeable Potassium	(mg/kg)	Annual	1	12/12/18	29/1/19	179.86	236.555	297.16
Exchangeable Sodium	(mg/kg)	Annual	1	12/12/18	29/1/19	27.6	4186.00	1579.64
Exchangeable Sodium Percentage	Percent	Annual	1	12/12/18	29/1/19	1.7	46	24.19
Extractable Phosphorus	(mg/kg)	Annual	1	12/12/18	29/1/19	25	248	109.8
Nitrate	(mg/kg)	Annual	1	12/12/18	29/1/19	5	173	54.7
Nitrogen (total)	(mg/kg)	Annual	1	12/12/18	29/1/19	283	2470	948.1
pH	pH	Annual	1	12/12/18	29/1/19	6.1	9.2	7.8
Phosphorus (total)	(mg/kg)	Annual	1	12/12/18	29/1/19	228	566	357.8
Phosphorus Sorption Capacity	(mg/kg)	Annual	1	12/12/18	29/1/19	185	487	344.4
Total Organic Carbon	(mg/kg)	Annual	1	12/12/18	29/1/19	3900	26400	9732

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)

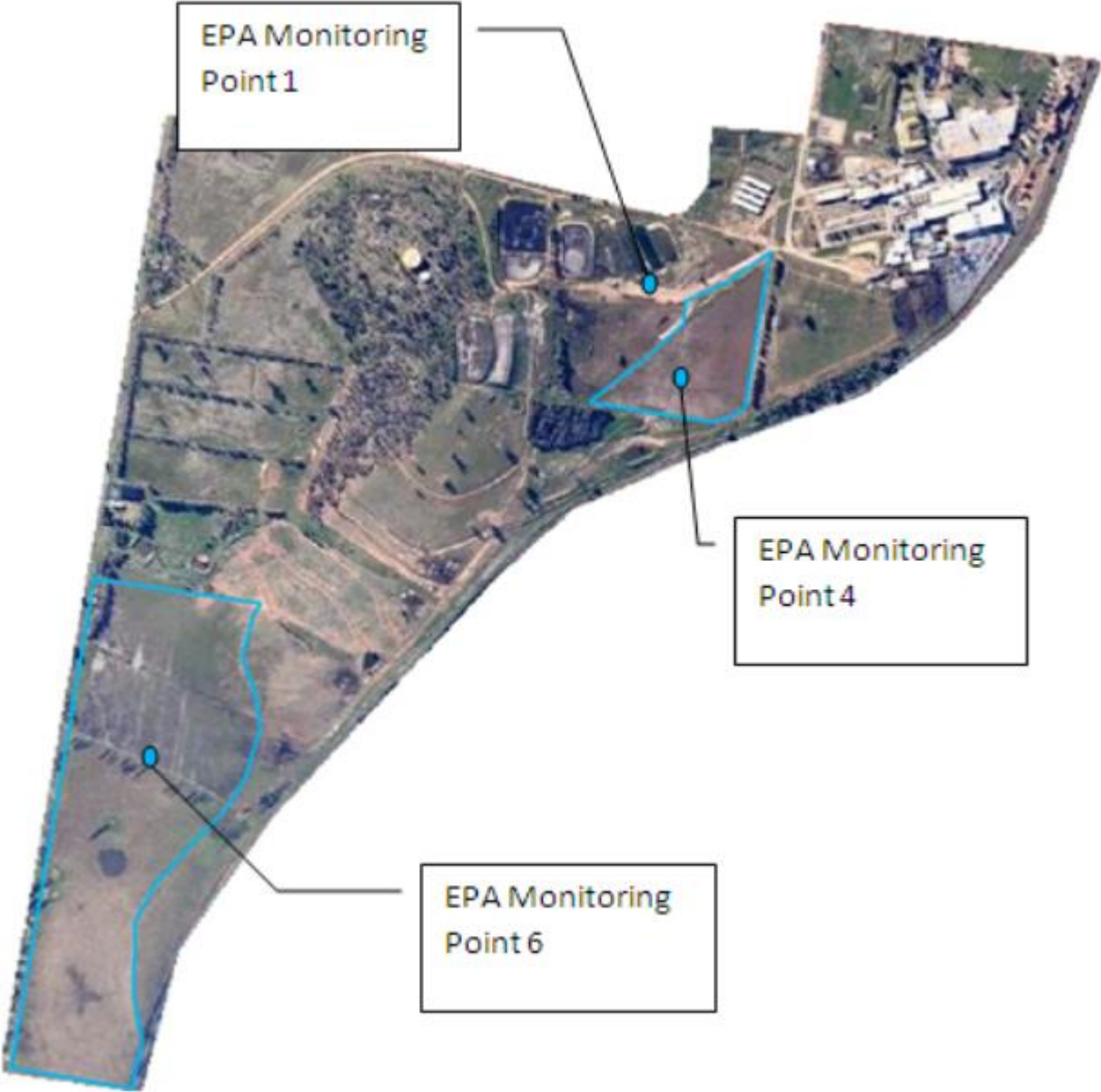
<i>Pollutant</i>	<i>Unit of measure</i>	<i>Monitoring frequency required by Licence</i>	<i>No. of times measured during month</i>	<i>100 percentile limit</i>	<i>Date of Sampling</i>	<i>Date data obtained</i>	<i>Value (mg/L)</i>	<i>Exceedance (Yes/no)</i>
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	December	6 th Dec 2018	14	No
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	January	4 th Jan 2018	12	No
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	February	21 st Mar 2018	12	No
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	March	21 st Mar 2018	12	No
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	April	20 th April 2018	3	No
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	May	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	June	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	July	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	August	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	September	N/A	N/A	N/A
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	October			
Biochemical Oxygen Demand	(mg/L)	Monthly	1	200	November			

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
the Figure 1 below.

points 1, 4 and 6 are shown in



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 meter, 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>Data Point</i>	<i>Sample Value</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.