



Teys Australia Southern Pty Ltd
trading as Teys Australia Wagga
PO Box 166, Wagga Wagga, NSW 2650, Australia
1 Dampier Street, Bomen, NSW 2650, Australia
+61 2 6938 3000 | teysgroup.com/au
ABN: 53 084 034 695 | ACN: 084 034 695

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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 2020/2021 annual reporting period, which covered the period between 6 December 2020 and 5 December 2021.

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 Group Environmental Manager on (07) 31989192

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”:

<https://apps.epa.nsw.gov.au/prpoeoapp/>



Analyte	Unit of Measure	Monitoring frequency required by License	Date of Sampling	Date Data Obtained	Sample Result
Biochemical Oxygen Demand	(mg/L)	Monthly	2/12/2020	12/12/2020	12
			7/01/2021	21/01/2021	11
			3/02/2021	17/02/2021	224
			2/03/2021	8/03/2021	18
			1/04/2021	13/04/2021	9
			5/05/2021	20/05/2021	13
			3/06/2021	17/06/2021	19
			6/07/2021	18/07/2021	6
			5/08/2021	13/08/2021	11
			1/09/2021	20/09/2021	8
			7/10/2021	20/10/2021	1
			3/11/2021	16/11/2021	4
8/12/2021	20/01/2022	23			

****Note: BOD sampled for EPA monitoring point 1 was 224 mg/L when sampled on 03 February 2021 and was found to be higher than discharge limits of 200 mg/L. However, no irrigation of effluent occurred around when the sample was obtained, therefore compliance was maintained.***

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

Analyte	Units of measure	Monitoring frequency required by licence	No of times measured during year	Date of Sampling	Date data obtained	Date Published	Value
Conductivity	(dS/m)	Annual	1	21/01/22	09/02/22	10/02/22	0.179
Exchangeable Calcium	(mg/kg)	Annual	1	21/01/22	09/02/22	10/02/22	953.4
Exchangeable Magnesium	(mg/kg)	Annual	1	21/01/22	09/02/22	10/02/22	261.954
Exchangeable Potassium	(mg/kg)	Annual	1	21/01/22	09/02/22	10/02/22	353.855
Exchangeable Sodium	(mg/kg)	Annual	1	21/01/22	09/02/22	10/02/22	362.02
Exchangeable Sodium Percentage	Percent	Annual	1	21/01/22	09/02/22	10/02/22	17.5
Extractable Phosphorus	(mg/kg)	Annual	1	21/01/22	09/02/22	10/02/22	205.8
Nitrate	(mg/kg)	Annual	1	21/01/22	09/02/22	10/02/22	7.8
Nitrogen (total)	(mg/kg)	Annual	1	21/01/22	09/02/22	10/02/22	281.2
pH	pH	Annual	1	21/01/22	09/02/22	10/02/22	7.7
Phosphorus (total)	(mg/kg)	Annual	1	21/01/22	09/02/22	10/02/22	282.4
Phosphorus Sorption Capacity	(L/kg)	Annual	1	21/01/22	09/02/22	10/02/22	179.4
Total Organic Carbon	(mg/kg)	Annual	1	21/01/22	09/02/22	10/02/22	2678

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).

Analyte	Units of measure	Monitoring frequency required by licence	No of times measured during year	Date of Sampling	Date data obtained	Minimum Value	Mean Value	Maximum Value
Conductivity	(dS/m)	Annual	1	21/01/22	09/02/22	0.224	0.3974	0.811
Exchangeable Calcium	(mg/kg)	Annual	1	21/01/22	09/02/22	710	1258.2	1822
Exchangeable Magnesium	(mg/kg)	Annual	1	21/01/22	09/02/22	315.9	802.5075	1482.3
Exchangeable Potassium	(mg/kg)	Annual	1	21/01/22	09/02/22	211.14	349.163	785.91
Exchangeable Sodium	(mg/kg)	Annual	1	21/01/22	09/02/22	126.5	1275.81	3657
Exchangeable Sodium Percentage	Percent	Annual	1	21/01/22	09/02/22	4.2	23.72	46
Extractable Phosphorus	(mg/kg)	Annual	1	21/01/22	09/02/22	20	141.7	355
Nitrate	(mg/kg)	Annual	1	21/01/22	09/02/22	1	20.3	104
Nitrogen (total)	(mg/kg)	Annual	1	21/01/22	09/02/22	423	867.6	1650
pH	pH	Annual	1	21/01/22	09/02/22	6.5	7.56	8.9
Phosphorus (total)	(mg/kg)	Annual	1	21/01/22	09/02/22	150	335.5	681
Phosphorus Sorption Capacity	(L/kg)	Annual	1	21/01/22	09/02/22	4	211.1	385
Total Organic Carbon	(mg/kg)	Annual	1	21/01/22	09/02/22	1730	8686	14900

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.

EPA Monitoring Point 7 (Effluent discharge to 59 Hillary St, Wagga Wagga)

No data available as no discharge to this area.

EPA Monitoring Point 9: Summary of results for groundwater monitoring on piezometer 1 - CFA High irrigation area

Analyte	Unit of measure	Monitoring frequency required by Licence	No. of times measured during year	Date of Sampling	Date data obtained	Date Published	Value
Conductivity	(uS/cm)	Annual	1	24/01/2022	08/02/2022	10/02/2022	1610
Nitrate	(mg/L)	Annual	1	24/01/2022	08/02/2022	10/02/2022	33
pH	(pH units)	Annual	1	24/01/2022	08/02/2022	10/02/2022	7.3
Standing Water Level	(m)	Annual	1	24/01/2022	08/02/2022	10/02/2022	9.9

EPA Monitoring Point 10: Summary of results for groundwater monitoring on piezometer 5 - CFA High irrigation area

Analyte	Unit of measure	Monitoring frequency required by Licence	No. of times measured during year	Date of Sampling	Date data obtained	Date Published	Value
Conductivity	(uS/cm)	Annual	1	24/01/2022	08/02/2022	10/02/2022	375
Nitrate	(mg/L)	Annual	1	24/01/2022	08/02/2022	10/02/2022	4.4
pH	(pH units)	Annual	1	24/01/2022	08/02/2022	10/02/2022	6.3
Standing Water Level	(m)	Annual	1	24/01/2022	08/02/2022	10/02/2022	5.47

The monitoring data in the table above has been taken from monitoring point 9 and 10 as stated in the EPL 2262. The monitoring point has been established to monitor the groundwater in areas on which treated wastewater is applied.

The monitoring points are located within in the 'CFA High' irrigation area, and can be seen on Figure 2 below.

EPA Monitoring Point 11: Summary of results for groundwater monitoring on piezometer 7 - CFA Low irrigation area

Analyte	Unit of measure	Monitoring frequency required by Licence	No. of times measured during year	Date of Sampling	Date data obtained	Date Published	Value
Conductivity	(uS/cm)	Annual	1	24/01/2022	08/02/2022	10/02/2022	2300
Nitrate	(mg/L)	Annual	1	24/01/2022	08/02/2022	10/02/2022	0.7
pH	(pH units)	Annual	1	24/01/2022	08/02/2022	10/02/2022	7.3
Standing Water Level	(m)	Annual	1	24/01/2022	08/02/2022	10/02/2022	7.85

The monitoring data in the table above has been taken from monitoring point 11 as stated in the EPL 2262. The monitoring point has been established to monitor the groundwater in areas on which treated wastewater is applied.

EPA Monitoring Point 12: Summary of results for groundwater monitoring on piezometer 8 - CFA Low irrigation area

Analyte	Unit of measure	Monitoring frequency required by Licence	No. of times measured during year	Date of Sampling	Date data obtained	Date Published	Value
Conductivity	(uS/cm)	Annual	1	24/01/2022	08/02/2022	10/02/2022	1100
Nitrate	(mg/L)	Annual	1	24/01/2022	08/02/2022	10/02/2022	0.4
pH	(pH units)	Annual	1	24/01/2022	08/02/2022	10/02/2022	7.1
Standing Water Level	(m)	Annual	1	24/01/2022	08/02/2022	10/02/2022	7.54

EPA Monitoring Point 14: Summary of results for groundwater monitoring on piezometer 9 - CFA Low irrigation area

Analyte	Unit of measure	Monitoring frequency required by Licence	No. of times measured during year	Date of Sampling	Date data obtained	Date Published	Value
Conductivity	(uS/cm)	Annual	1	24/01/2022	08/02/2022	10/02/2022	2020
Nitrate	(mg/L)	Annual	1	24/01/2022	08/02/2022	10/02/2022	16
pH	(pH units)	Annual	1	24/01/2022	08/02/2022	10/02/2022	7.5
Standing Water Level	(m)	Annual	1	24/01/2022	08/02/2022	10/02/2022	7.78

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

uS/cm = Microsiemens per centimetre, 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

L/kg = Litres per kilogram, a measure of the amount of mineral retained by the soil

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.