Annual Review

Erskine Park Waste Transfer Facility

Date:	November 2022
Prepared by:	Talis Consultants Pty Ltd and Cleanaway Waste Management Pty Ltd
Version:	Final

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Title block

Name of Operation	Erskine Park Waste Transfer Station (Stage 1)
Name of Operator	Cleanaway Waste Management Pty Ltd
Development consent / project approval #	SSD 7075
Name of holder of development consent / project approval	Cleanaway Waste Management Pty Ltd
Annual Review start date	1 November 2021
Annual Review end date	31 October 2022

I, Stuart Baird certify that this audit report is a true and accurate record of the compliance status of the Erskine Park Waste Transfer Station site for the period 1 November 2021 to 31 October 2022 and that I am authorised to make this statement on behalf of Cleanaway Waste Management Pty Ltd.

Note.

a) The Annual Review is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, $1 million and for an individual, $250,000.

b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or $22,000, or both).

Name of authorised reporting officer	Stuart Baird
Title of authorised reporting officer	Regional Manager
Signature of authorised reporting officer	
Date	30 Nov 2022

1. Statement of Compliance

During the reporting period the Erskine Park Waste Transfer Station (WTS) had a high level of compliance with its major approvals. A summary of compliance against the major approvals is provided in **Table 1.**

Table 1 – Statement of Compliance

Relevant Erskine Park WTS Approvals	Compliance (Yes/No)
SSD 7075	No
EPL 20986	Yes

The non-compliance identified during the 2021-2022 reporting period is outlined in **Table 2** and discussed further in **Section 11**. The non-compliance has been defined in accordance with the *Annual Review* Guideline (2015) presented in **Table 3**.

Table 2 – Non-Compliances

Relevant Approval	Condition #	Condition Requirement	Compliance Status	Comment	Relevant Section of Annual Review
SSD 7075	Schedule C, Condition B38	*The Applicant shall:* *(b) inspect the Site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on-site in sufficient numbers to pose an environmental hazard, or cause the loss of amenity in surrounding areas.*	Non-Compliant	Pest monitoring not undertaken during January 2022.	Section 6.5

Table 3 – Compliance Status Categories

Risk Level	Colour Code	Description
High	Non-Compliant	Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium	Non-Compliant	Non-compliance with potential for serious environmental consequences, but is unlikely to occur; or potential for moderate environmental consequences, but is likely to occur
Low	Non-Compliant	Non-compliance with potential for moderate environmental consequences, but is unlikely to occur; or potential for low environmental consequences, but is likely to occur
Administrative non-compliance	Non-Compliant	Non-compliance which does not result in any risk of environmental harm

Section 6 provides detail on environmental performance for aspects including noise and air quality. Detail on the management of surface water and ground water at the Erskine Park WTS is provided in **Section 7.**

2. Introduction

2.1 Annual Review

This document represents the fifth Annual Review for the site, as required under Condition C10 (Schedule C) of Development Consent SSD 7075, as modified. The Annual Review covers the period from 1 November 2021 until 31 October 2022.

2.2 Background

The Planning Assessment Commission (PAC), acting as delegate of the Minister for Planning, approved an application for the Erskine Park Waste and Resource Management Facility (WRMF) Staged Development Application (SSD 7075) on the 5 October 2016, comprising:

- A concept proposal for a Waste and Resource Management Facility with a maximum processing capacity of 300,000 tpa. All waste received at the WRMF shall enter the Waste Transfer Station (Stage 1), up to 150,000 tpa of this waste may be recycled at the Resource Recovery Facility (RRF) (Stage 2).
- Construction and operation of the Stage 1 Waste Transfer Station with a maximum processing capacity of 300,000 tpa.

The WRMF is being developed in two stages, the first being a Waste Transfer Station (WTS), to which this Annual Review relates, and the second being a Resource Recovery Facility (RRF).

The WTS is currently in Stage 1, receiving commercial and household waste from the Western Sydney region which is transported to a licenced waste management facility off-site. During Stage 2, a proportion of the waste received at the WTS would be diverted to the RRF for recycling and recovery of saleable products. The design capacity of the completed WRMF is 300,000 tonnes per annum, inclusive of both stages.

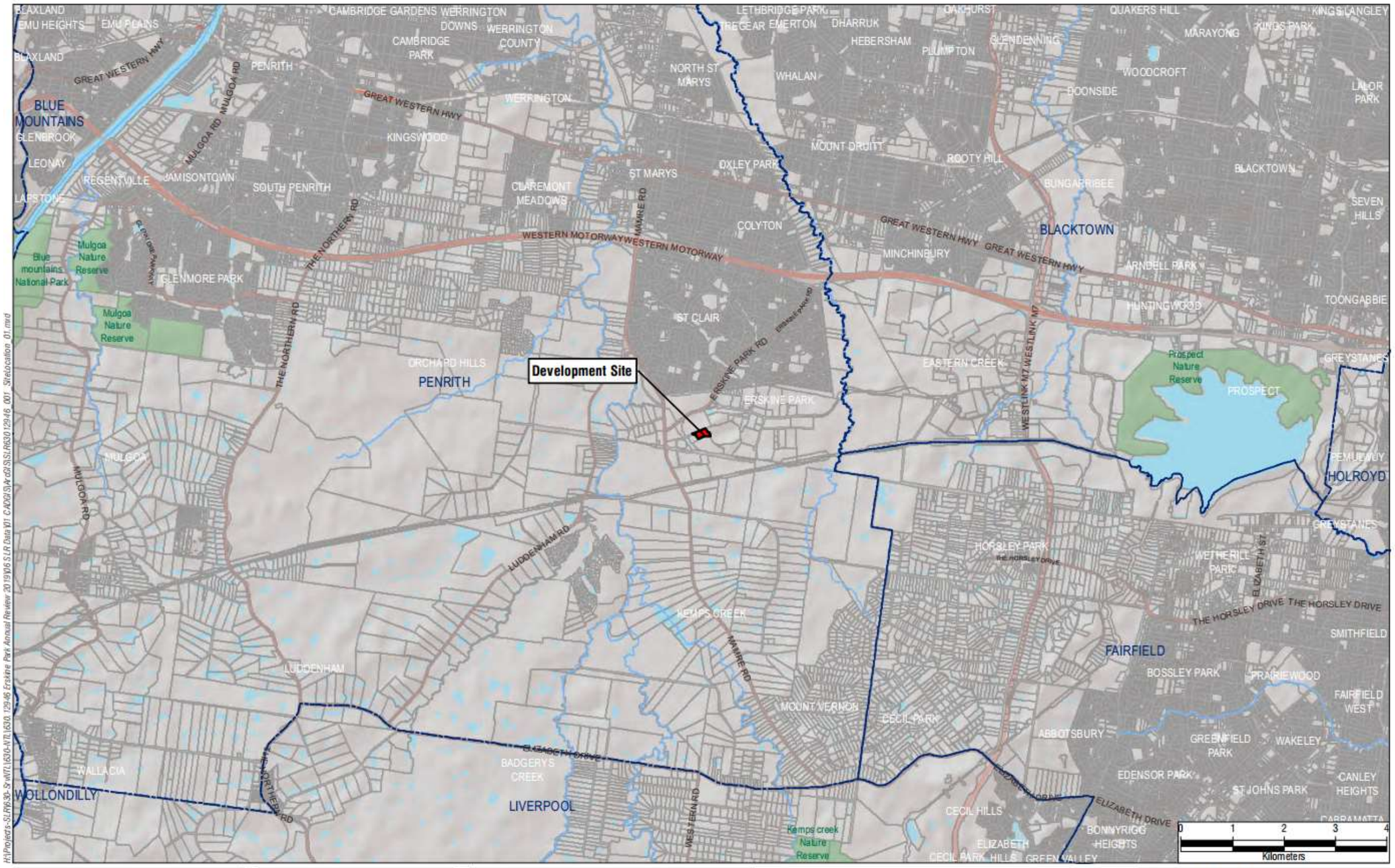
A key consideration in the planning and design of the WTS has been to avoid impact on the amenity of the surrounding residential community, particularly in relation to odour, noise and traffic issues.

The WTS was opened on the 14 December 2018 and commenced accepting waste on the 27 December 2018. Stage 2 (the RRF) will be developed at a later point. The WTS used a manual sorting line where recyclables were harvested, operating 6 am till 5 pm Monday to Friday. The sorting line worked until December 2022, when it was finally dismantled.

Cleanaway will communicate with the Department of Planning and Environment (DPE) prior to commencing works in association with Phase 2.

2.3 Site Description

The site is located approximately 11 kilometres south-east of Penrith in western Sydney, NSW (see **Figure 1**). It is addressed to 85-87 Quarry Road, Erskine Park NSW, and is identified as Lot 1 in Deposited Plan (DP) 1140063 in the Penrith Local Government Area (LGA). The title comprises approximately 3 hectares. As shown, the site is adjacent to the Erskine Park Landfill (Lot 4, DP 1094504).



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Date:	13-Nov-2019
Drawn by:	KC
Scale:	1:100,000
Sheet Size:	A4
Projection:	GDA 1994 MGA Zone 56

Notes:
1. All features are approximate only and subject to detailed survey.
2. Aerial Imagery courtesy Nearmap.
3. DCDB courtesy NSW LPI.

Cleanaway Waste Management Pty Ltd

Erskine Park Waste Transfer Station

Site Location

FIGURE 1

Figure 1 Site Location in Regional Context

The area surrounding the site is primarily used for industrial land uses, including Stramit Building Products, Dutt Transport, Viscount Plastics, Dincel Construction Systems, Saputo and Stockland to the south, Cleanaway Depot to the west, and the Cleanaway Erskine Park Landfill to the east.

The nearest residential dwellings are located within the suburb of St. Clair, approximately 0.7 km to the north of the site, and rural-residential properties located in Orchard Hills, approximately 0.7 km to the west of the site.

A childcare centre is located approximately 670m to the west of the closest boundary of the site.

The layout of the WTS and site boundary (that encompasses Stage 1 and Stage 2 of the Development) is shown in **Figure 2.** The Site Layout for the Concept Plan and Full Site Development is provided in **Figure 3**.

The key components of the WTS are:

- A steel framed and clad waste transfer station building with associated offices, amenities and lower-level transfer vehicle load-out area;
- A manual sort line within the WTS building for basic resource recovery;
- Glass Plant Area;
- Fast acting roller shutter doors which will be normally closed;
- Transfer station working floor with concrete and asphalt peripheral roads;
- An active ventilation system and air treatment system with controlled discharge as part of the overall approach to air emissions and odour management;
- Associated infrastructure including all hardstand areas, car park, weighbridges, and sealed roads; and
- Ancillaries including perimeter security fencing, security gates, rainwater harvesting, fire suppression system, signage, landscaping, drainage and services.

The WTS has a nominal daily volume of approximately 1,040 tonnes of putrescible and non-putrescible waste per day (design capacity 300,000 tonnes per annum [tpa]). However, subject to market factors, initially around 90,000 tpa of putrescible waste will be received at the site. During this reporting period, 101,791.4 tonnes of non-putrescible and putrescible waste was received at the site.

Waste delivery vehicles enter the site from Quarry Road and weigh on the incoming weighbridge located adjacent to the office. Delivery vehicles then proceed to the eastern side of the building where they align with one of the roller shutter door entrances on the eastern elevation. The vehicles reverse through one of the rapid acting roller shutter doors, discharge their waste and then drive out of the building, down a ramp and proceed to the south of the transfer station towards the outgoing weighbridge, exiting the site onto Quarry Road. The majority of the material received is waste from commercial waste collection trucks, stationary compactor (packer) hooklift loads and side-loader collections (e.g., 240L mobile garbage bin collections from commercial premises).

Waste offloaded on the tipping floor is separated into two categories: putrescible and non-putrescible waste, including wood, masonry, rigid plastics, and old corrugated cardboard. The non-putrescible waste is sorted for recycling, while the remaining waste is consolidated with the putrescible waste and transferred into transfer vehicles by a front-end loader which lifts the material over a wall opening for top loading.

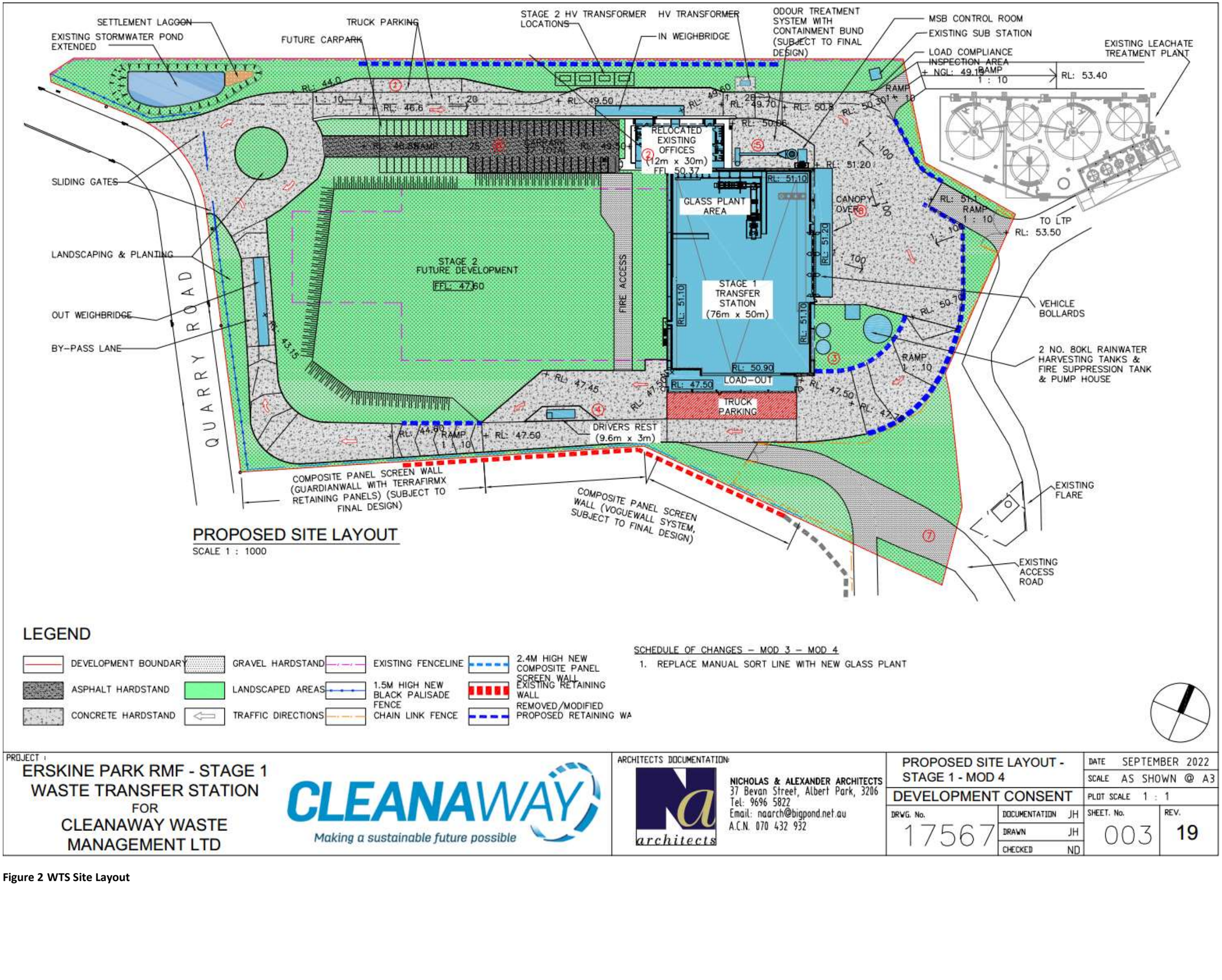

Figure 2 WTS Site Layout

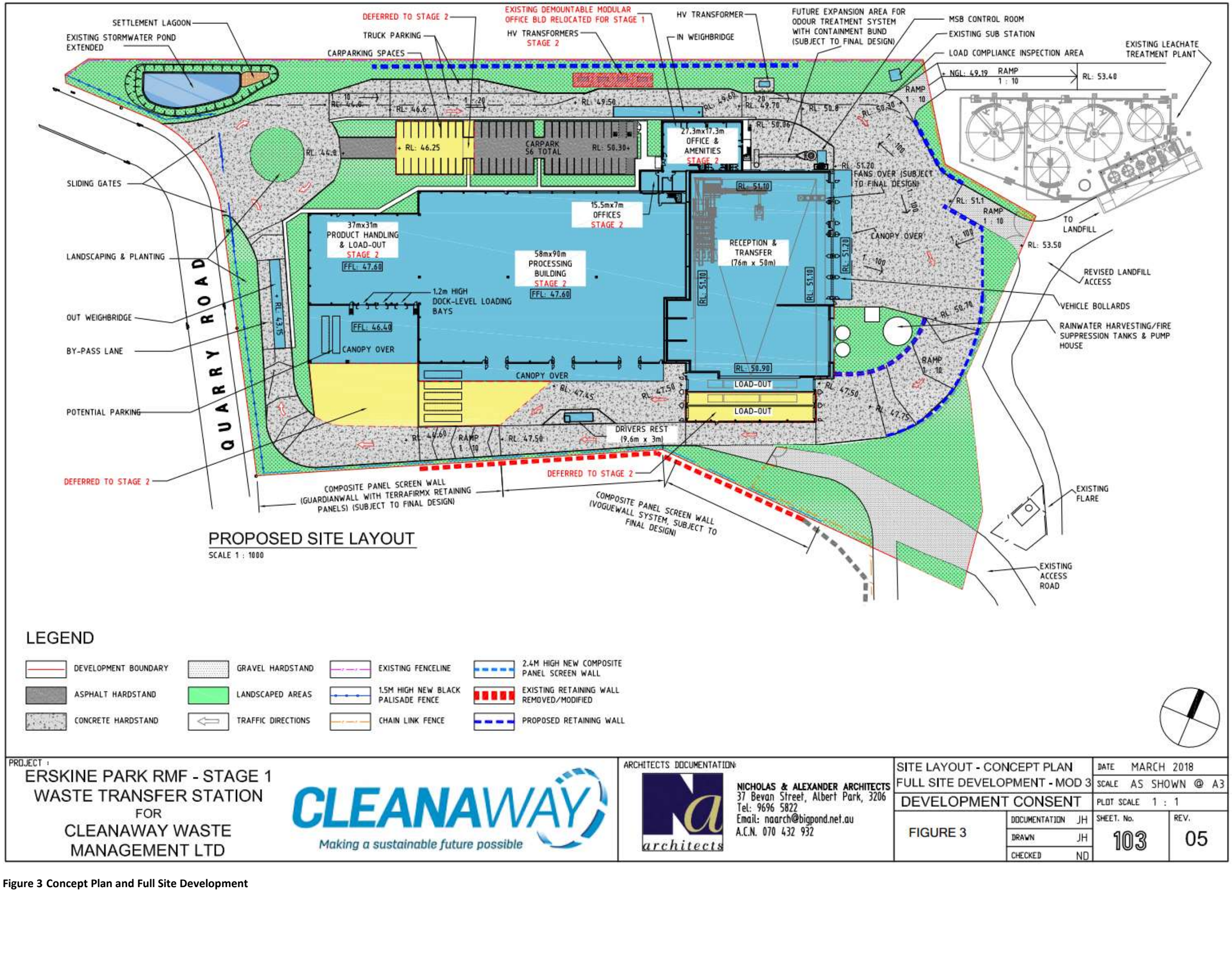

Figure 3 Concept Plan and Full Site Development

Waste is transferred from the site using B-Doubles or single trailers to an appropriately licensed waste management facility in accordance with relevant waste management regulations. Recyclables are transported off-site by semi-trailers to various offtake markets.

When the RRF is operational, waste deemed suitable (recyclable) would be diverted to the RRF for recycling and recovery of saleable products.

The site does not have any required biodiversity/conservation offset areas.

2.4 Key Contact Details

The contact details for the person responsible for environmental management and community relations of Cleanaway is provided in **Table 4.**

Table 4 –Contacts for Erskine Park WTS

Contact	Position	Contact Details
1. Paul Spolder	Branch Manager	Ph: (+61) 400 738 197 Email: Paul.Spolder@cleanaway.com.au

3. Approvals

3.1 Development Consent

As mentioned in **Section 2.2** above, the construction and operation of the Stage 1 WTS was approved on the 5th of October 2016. Since the approval of the Development, four modifications (Mods) to the Development Consent (SSD 7075) have been approved by the DPE, as below:

- In July 2017 a Development Approval (DA) Modification document (Mod 1) was submitted to the DPE to request several modifications to the Development design and Concept Plan. These modifications included changes to site levels, construction of an interim carpark, use of a temporary office, removal of truck parking, construction of landfill entry and exit ramps, amendment to the load out area and amendment to the stormwater management system. The DA Mod 1 was approved by the DPE on 28th of August 2017;
- Modification 2 (Mod 2) was approved on 26th of February 2018. Mod 2 sought to increase site levels and relocate the car park, to a location adjacent to the inbound road;
- Modification 3 (Mod 3) was approved by the DPE on the 24th of October 2018, to install a manual sorting line in the WTS; and
- Modification 4 (Mod 4) was approved by the DPE on the 25th of October 2018, to extend construction hours.

A recent modification application was submitted on 11th of October 2022. This modification seeks three changes to the development consent:

- Update the waste stored at any one time from 1,040 tonnes to 3,000 tonnes (either by reference to the Modification Environment Assessment Report or inclusion of a new condition).
- Include a new condition that allows the receival of 35,000 tonnes per year of glass waste within the 300,000 tonnes per year maximum capacity.
- Update the site layout plan with the manual sort line removed and replaced with the glass breaking line.

Subject to the approval of the application to modify the consent, an application to vary EPL 20986 will be required to make the following changes:

- Update condition L2.4 from 1,040 tonnes of waste not to be exceeded at any time to 3,000 tonnes.
- Add “Resource recovery” to the Scheduled Activity table and “Recovery of general waste” to the Fee Based Activity table.

3.2 Environment Protection Licence

Environmental Protection Licence (EPL) 20986 was obtained from the EPA on the 18th September 2017, which covered the construction phase of the WTS.

An application was submitted by Cleanaway to vary the EPL, to support the operational phase of WTS. The EPL variation was granted on the 30th November 2018.

During the reporting there were no variations to EPL 20986.

3.3 Sydney Water Approvals

In accordance with Condition B23 of Development Consent SSD 7075, as modified, a Section 73 Compliance Certificate covering water and sewer requirements for the Development was obtained from Sydney Water for the site. A Building Plan approval was also obtained from Sydney Water.

A Trade Waste Agreement exists between Cleanaway and Sydney Water for the adjacent landfill, allowing for a maximum discharge volume of 1036kL/day and average daily discharge of 750kL/day average. The Trade Waste Agreement was maintained for the operation of the WTS during the reporting period.

4. Operations Summary

The WTS operated during the entire reporting period.

A summary of operational activities is provided in the sections below.

4.1 Waste Received and Processed

The amount of waste received at the WTS for the reporting period is outlined in **Table 5**, below. The total amount of waste received and processed at the site was 101,792 tonnes. This amount was within the site's maximum processing capacity of 300,000 tpa, set by SSD 7075, as modified, and EPL 20986. All waste received at the WTS was a combination of recyclables, non-putrescible and putrescible waste from commercial, industrial and municipal sources.

Table 5 – Waste Volumes Received at the WTS

Month	Waste (tonnes)
November 2021	6,598.62
December 2021	7,306.18
January 2022	6,029.76
February 202	7,114.08
March 2022	10,216.84
April 2022	8,093.72
May 2022	9,808.55
June 2022	7,811.30
July 2022	9,441.60
August 2022	10,076.53
September 2022	9,440.52
October 2022	9,853.72
Total	**101,792**

Resource Recovery

The amount of recyclables that was recovered by the sorting line during November and December 2021 reached the 448.3 tonnes. Values between January 2022 and June 2022 correspond to the pre-sorted recyclable income. From July 2022 values increased due to the glass collection. The total amount of recyclables during the reporting period was 8,826 tonnes, as outlined by **Table 6**.

Table 6 – Recyclables Recovered at the WTS

Month	Waste (tonnes)
November 2021	240.75
December 2021	207.55
January 2022	146.10
February 2022	123.74
March 2022	151.56
April 2022	132.18
May 2022	183
June 2022	139.94
July 2022	1,247.84
August 2022	1,999.96
September 2022	2,023.15
October 2022	2,230.56
Total	**8,826**

Transportation Rates

The number of trucks that entered and left the site with waste and recyclables, during the reporting period, is provided in **Table 7**. A total of 22,133 waste trucks entered the site and a total of 4,769 trucks left the site with compacted waste. 604 trucks left the site with recyclables. Numbers from July 2022 include transportation rates of Glass disposal.

The Environmental Impact Statement (EIS) (SLR 2015a) predicted approximately 200 inbound waste delivery vehicles per day (or 72,800 incoming trucks per year) and approximately 30 outbound waste transfer vehicles would depart the site each day (or 10,920 outgoing trucks per year). These predicted totals are inclusive of Phase 1 and 2 of the Development. Actual numbers of incoming and outgoing waste transfer vehicles are currently less than those predicted in the EIS.

Table 7 – Transportation Rates during the reporting period 2021-2022

Operation Month	Number of Refuse Collection Vehicles Entering the site with Waste	Number of Trucks Leaving the site with Waste	Number of Trucks Leaving the site with Recyclables
November 2021	1434	312	36
December 2021	1610	365	36
January 2022	1315	288	34
February 2022	1342	305	30
March 2022	1901	462	34
April 2022	1638	381	31
May 2022	1981	471	34

Operation Month	Number of Refuse Collection Vehicles Entering the site with Waste	Number of Trucks Leaving the site with Waste	Number of Trucks Leaving the site with Recyclables
June 2022	1838	419	36
July 2022	2034	406	62
August 2022	2533	485	89
September 2022	2406	430	88
October 2022	2,101	445	94
Total	**22,133**	**4,769**	**604**

Employees

During the reporting period, 8 people were employed at the WTS. This number of employees is less than the anticipated number of employees at the site (25 people), as outlined in the *Erskine Park Waste and Resource Management Facility Modification to Approved SSD 7075 Environmental Assessment Report* (EME 2018).

Operational hours

The WTS is permitted to operate 24/7, in accordance with Condition B28, Schedule C, of SSD 7075, as modified. The site operates 24/7, with waste importation generally undertaken between 3am and 10pm, Monday to Friday and 5am until 10 pm on Saturdays and Sundays.

Since 08/07/2022 the site commenced receiving glass disposal between 5am-10pm Monday to Sunday.

Site waste handling hours directly relate to what is imported/exported each day. In general, waste handling hours are between 3am and 6pm, Monday to Friday, and from 6am to 6pm on Saturdays and Sundays.

4.2 Glass Collection

Since the 8th of July 2022 the site commenced receiving glass disposal. Container Deposit Scheme (CDS) glass containers are collected by the dedicated Cleanaway NSW CDS fleet. The vehicles only collect approved containers from Reverse Vending Machines (RVM) and CDS collection points.

Glass currently collected from CDS outlets and directed into transfer station via rear loading and hooklift trucks and tipped on floor. The glass is then reloaded into large truck and dogs and sent to the Visy Recycling Smithfield material recovery facility (MRF) for recycling.

Glass intake hours is 5am to 10pm Monday to Sunday.

4.3 Next Reporting Period

Works and operations to be undertaken at the site during the next reporting period are discussed in **Section 12.**

5. Previous Annual Review and Independent Environmental Audit Actions

5.1 Previous Annual Review

Following lodgement of the previous Annual Review to the DPE, no further actions or requests were received, to Cleanaway's understanding.

5.2 Independent Environmental Audit

The last Independent Environment Audit (IEA) was commissioned by Cleanaway during the 2019-2020 reporting period, in accordance with Condition C8 and C9 (Schedule C) of SSD 7075 (as modified). Refer to **Section 10** for further details regarding IEA requirements. **Table 8** provides the status of IEA action items.

Table 8 – Status of IEA Action Items

Item No.	Reference	Observation / Non-compliance	Recommended Action	Timeframe for Completion / Implementation	Status
SSD 7075 Conditions of Consent					
1	Consent Condition B33	Landscaping	Implement post-establishment maintenance program as per the approved Landscape Plan to ensure landscaped areas remain sufficiently vegetated to prevent erosion.	30 November 2020	Landscaping works are ongoing at the site.
EIS Statement of Commitments					
2	Statement of Commitment 7.4.5	Landscaping	Implement post-establishment maintenance program as per the approved Landscape Plan to ensure landscaped areas remain sufficiently vegetated to prevent erosion.	30 November 2020	Landscaping works are ongoing at the site.
3	Condition O3.3		Establish vegetation in the areas that is consistent with Appendix I (Landscape Plan) of the OEMP to control sediment generation from the Stage 2 area.	31 October 2020	Landscaping works are ongoing at the site.

6. Environmental Performance

6.1 Meteorological

Environmental Management

Condition A9 (Schedule C) of SSD7075, as modified, and Condition M2.2 of EPL 20986 require continuous meteorological monitoring at the site. Cleanaway has established a weather station south-east of the site, adjacent to the landfill. During the reporting period, the weather station was fully operational.

Environmental Performance

Rainfall Monitoring

Monthly rainfall recorded at Erskine Park WTS during the reporting period is provided in Table 9.

Table 9 – Monthly Rainfall Totals recorded for the 2021-2022 reporting period

Month	Rainfall (mm)
November 2021	198.2
December 2021	94.6
January 2022	158
February 2022	115.2
March 2022	608.2
April 2022	98.6
May 2022	87
June 2022	2.8
July 2022	348.4
August 2022	8
September 2022	14
October 2022	14
Total	**1747**

From November 2021 to October 2022, 1,747 mm of rainfall was recorded at the site. The majority of the rainfall was recorded during the first half of 2022, with the highest monthly rainfall recorded as 608.2 mm in March 2022.

Wind Monitoring

Wind velocity and direction are measured at the Erskine Park weather station. Monthly wind roses indicating wind speed and wind direction are provided in **Appendix A**. Wind was generally from a northly direction, from November 2021 to May 2022. Between August and September 2020 wind was generally from a southerly direction.

Comparison against EIS Predictions

No relevant predictions for weather/climate are provided in the EIS (SLR 2015a).

Incidents and Improvements

There were no incidents related to weather monitoring during the reporting period.

6.2 Noise and Vibration

Environmental Management

Noise

Noise mitigation measures as outlined in the OEMP (SLR 2018a) and included in **Table 10** were implemented at the site during the reporting period to control the operation's noise. Until July 2022, hours of operation of the WTS, were between 3 am till 5 pm, Monday to Friday, between 6 am till 1 pm on Saturdays and on Sundays the operation was closed. Since Glass intake, site operation hours have changed to 3 am to 10 pm Monday to Friday and between 6 am to 10 pm on Saturdays and Sundays.

Table 10 – Noise Mitigation Measures implemented during the 2021-2022 reporting period

Development Consent Condition	Mitigation Measure
Condition B29, Schedule C	Best management practice is implemented at the site, including all reasonable and feasible noise management and mitigation measures to prevent and minimise operational, low frequency and traffic noise.
Condition B29, Schedule C	Noise impacts of the Development are minimised during adverse meteorological conditions.
Condition B29, Schedule C	Noise suppression equipment on plant is maintained.
Condition B29, Schedule C	Defective plant is not used, until it is fully repaired.
Statement of Commitments	All Cleanaway owned vehicles operating on the site are fitted with the High and Low Buzzer system, designed to minimise noise associated with reversing alarms.
Condition B29c), Schedule C	Cleanaway regularly assess noise emissions and relocate, modify and/or stop operations to ensure compliance with the relevant conditions of consent (SSD 7075).
Statement of Commitments	All mobile plant operating inside the WTS building are fitted with low frequency white noise reversing alarms.

Both the Development Consent and EPL 20986 do not require noise monitoring to be conducted at the site, although condition L3.1 of EPL 20986 sets the noise limit for the site. Noise emissions from the WTS are required to comply with the requirements of the NSW EPA's Industrial Noise Policy, in accordance with Condition L3.1, EPL 20986. The Policy recommends that LA_{eq} noise levels arising from industrial noise sources should not exceed the levels included in **Table 11**.

Table 11 – Recommended LA_{eq} Noise Levels from Industrial Noise Sources in NSW

Receiver	Noise Amenity Area	Time of Day[1]	Recommended Amenity Noise Level LA_{eq} (period)
Residence	Rural	Day	50 dBA
		Evening	45 dBA
		Night	40 dBA
	Suburban	Day	55 dBA
		Evening	45 dBA
		Night	40 dBA
	Urban	Day	60 dBA
		Evening	50 dBA
		Night	45 dBA
Hotels, motels, caretakers' quarters, holiday accommodation, permanent resident caravan parks	See column 4	See column 4	5 dB(A) above the recommended amenity noise level for a residence for the relevant noise amenity area and time of day
School classrooms - internal	All	Noisiest 1-hour period when in use	35 dBA
Hospital ward internal external	All	Noisiest 1-hour	35 50
Area specifically for passive recreation	All	When in use	50 dBA
Active recreation area (e.g. School playground, golf course)	All	When in use	55 dBA
Commercial premises	All	When in use	65 dBA
Industrial premises	All	When in use	70 dBA
Industrial (applicable only to residential noise amenity areas)	All	All	Add 5 dB(A) to recommended noise amenity area

Noise monitoring was undertaken at the site during August 2022 in order to characterise site operations as currently conducted. Please refer to Appendix B for the full Noise and Vibration Impact Assessment (NVIA). Noise assessment results are summarised in Section 6.2.

Vibration

Vibration limits have been set for the site. The vibrations limits are continuous or impulsive vibration criteria included in EPA's *Assessing Vibration: A Technical Guideline* (February 2006) at residential receivers. These criteria are provided in **Table 12**.

Table 12 – Preferred and maximum weighted root mean square (rms) values for continuous and impulsive vibration acceleration (m/s²) 1–80 Hz in NSW

Location	Assessment period[1]	Preferred values		Maximum values	
		z-axis	x- and y-axes	z-axis	x- and y-axes
Continuous vibration	Day- or night-time	0.0050	0.0036	0.010	0.0072
Critical areas[2]	Daytime	0.010	0.0071	0.020	0.014
Residences	Night-time	0.007	0.005	0.014	0.010
Offices, schools, educational institutions and places of worship	Day- or night-time	0.020	0.014	0.040	0.028
Workshops	Day- or night-time	0.04	0.029	0.080	0.058
Impulsive vibration					
Critical areas[2]	Day- or night-time	0.0050	0.0036	0.010	0.0072
Residences	Daytime	0.30	0.21	0.60	0.42
	Night-time	0.10	0.071	0.20	0.14
Offices, schools, educational institutions and places of worship	Day- or night-time	0.64	0.46	1.28	0.92
Workshops	Day- or night-time	0.64	0.46	1.28	0.92

1 Daytime is 7.00 am to 10.00 pm and night-time is 10.00 pm to 7.00 am
2 Examples include hospital operating theatres and precision laboratories where sensitive operations are occurring. There may be cases where sensitive equipment or delicate tasks require more stringent criteria than the human comfort criteria specified above. Stipulation of such criteria is outside the scope of this policy, and other guidance documents (e.g., relevant standards) should be referred to. Source: BS 6472–1992

Vibration monitoring is not required to be undertaken at the site.

Environmental Performance

A NVIA was undertaken during August 2022 (Appendix B), for the modification application. This report combines the noise assessment from the original consent, DA SSD 7075, with an assessment of the additional noise and vibration impacts associated with the proposed glass breaking sort line.

The assessment concluded that noise and vibration were kept within reasonable levels at the site by implementing mitigation measures, with no noise or vibration complaints received, and no remedial actions/additional mitigation measures required to be implemented during the reporting period.

Comparison against Predictions

A comparison against predictions made in the EIS or trends in data is not provided as there was no noise or vibration monitoring required to be undertaken at the site, during the reporting period.

Incidents and Improvements

No reportable incidents associated with noise or vibration occurred during the reporting period. Subsequently, no improvements relating to these aspects will be implemented during the next reporting period.

6.3 Blasting

Blasting was not required for operational works.

6.4 Air Quality

Environmental Management

Air Quality (dust and odour) mitigation measures were undertaken at the site during the reporting period, as specified by the OEMP (SLR 2018a).

In accordance with Condition B10 (Schedule C) of SSD 7075, as modified, an Odour Management Plan (OMP) was prepared for the Development. Relevant mitigation measures in the OMP were implemented at the site during the reporting period.

Prior to the commencement of operations of the site, the Odour Management System (OMS) was installed, tested and commissioned. The OMS consists of:

(i) A wet scrubber;

(ii) Dilution stacks (Tri-stack system);

(iii) Fast acting roller doors; and

(iv) Water sprays/misters.

The OMS was maintained during the operation of the site.

A meteorological station has also been installed at the site that complies with the requirements in the latest version of the Approved Methods for Sampling of Air Pollutants in New South Wales. Cleanaway continuously operated the meteorological station during the reporting year and maintained records of meteorological data.

Dust monitoring was not required to be undertaken during site operations.

Odour monitoring was required to be undertaken twice a day, quarterly during the reporting period in accordance with the OEMP, the OMP and SSD 7075 Conditions B10 and B11. Monthly surveys were also required to be undertaken during Autumn, when there is an inversion layer that increases the potential for odour impacts offsite. Monitoring was undertaken during December 2021, March 2022, April 2022, May 2022, June 2022 and September 2022.

Environmental Performance

Results from Morning and Evening odour monitoring sessions are provided in **Table 13**. Odour monitoring determined the WTS did not have any reasonable potential to impact the adjacent residential communities of Erskine Park, St Clair and Minchinbury.

Table 13- Odour Monitoring Results for the 2021-2022 reporting period at Erskine Park WTS

Date	Cells	
	Morning Session	Evening Session
7,8 &13 December 2021	Odour of character A (MSW) was detected at MLP 2, near the entrance to the WTS Facility, at intensities 1 (Very Weak) and 2 (Weak) and a frequency of 7%, below the frequency threshold; and No odour was detectable at other MLPs that can be related to the activities being conducted at the WTS Facility at the time.	No odour was detectable beyond the boundary that can be related to the activities being conducted at the WTS Facility at the time.
10 March 2022	Odour of MSW character was detected at MLP 2 at intensities 1 (Very Weak) and 2 (Weak) at a frequency of 6% throughout the measurement duration. This detection was below the nominated odour impact frequency criterion of 10% or less. This odour was not detectable at any other MLP; and Otherwise, no odour was detectable beyond the boundary that can be related to the activities being conducted at the WTS Facility at the time.	No odour was detectable beyond the boundary that can be related to the activities being conducted at the WTS Facility at the time.
4 April 2022	Not conducted	Odour of MSW character was detected at MLP 2 at intensities of 1 (Very Weak) to 3 (Distinct) with a frequency of 100%. This detection is above the nominated odour impact frequency criterion of 10% or less but was localised to the western site boundary. This odour was not detectable at any other MLP and is suspected to be related to the vehicle/storage depot (as identified in previous surveys); and Otherwise, no odour was detectable beyond the boundary that can be related to the activities being conducted at the WTS Facility at the time.
5 April 2022	No odour was detectable beyond the boundary that can be related to the activities being conducted at the WTS Facility at the time.	Not conducted
9 May 2022	Odour of MSW character was detected at MLP 2 at intensities of 1 (Very Weak) to 3 (Distinct) with a frequency of 17%. This detection was marginally above the odour impact frequency criterion of 10% or	No odour was detectable beyond the boundary that can be related to the activities being conducted at the WTS Facility at the time.

Date	Cells	
	Morning Session	Evening Session
	less. This odour was not detectable at any other MLP; and Otherwise, no odour was detectable beyond the boundary that can be related to the activities being conducted at the WTS Facility at the time.	
7 June 2022	Not conducted	Odour of MSW character was detected at MLP 2 at an intensity of 1 (Very Weak) with a frequency of 63%. This detection was above the nominated odour impact frequency criterion of 10% or less. This odour was not detectable at any other MLP and is suspected to be related to the vehicle/storage depot (as identified in previous surveys); and Otherwise, no odour was detectable beyond the boundary that can be related to the activities being conducted at the WTS Facility at the time.
17 June 2022	No odour was detectable beyond the boundary that can be related to the activities being conducted at the WTS Facility at the time.	Not conducted
5 September 2022	Odour of MSW character was detected at MLP 2 at an intensity of 2 (Weak) with a frequency of 3%. This detection was below the nominated odour impact frequency criterion of 10% or less. This odour was not detectable at any other MLP and is suspected to be related to the vehicle/storage depot (as identified in previous surveys); and Otherwise, no odour was detectable beyond the boundary that can be related to the activities being conducted at the WTS Facility at the time.	No odour was detectable beyond the boundary that can be related to the activities being conducted at the WTS Facility at the time.

During the 4th of April and 7th of June 2022 odour survey, monitoring was conducted only during the evening session, while on 5 April and 17 June 2022 odour monitoring was only undertaken during the morning.

Comparison against Predictions

The Erskine Park WTS EIS (SLR 2015a) stated that with air pollution controls the odour impact would be contained within the industrial area and would avoid impact on residential areas. The findings of odour monitoring undertaken during the reporting period is in accordance with this prediction.

Incidents and Improvements

A community report was received by NSW Environment Protection Authority on the 31th March 2022, with allegations of hydrogen sulfide (rotten egg gas) odours from the Erskine ark Transfer Station.

Odour monitoring will continue to be undertaken during the next reporting period.

6.5 Biodiversity

Environmental Management

The site is highly disturbed. There is little remnant vegetation at the site. Areas of vegetation are predominantly maintained lawns of exotic grasses (Couch and Kikuyu) and weeds (Paddy's Lucerne, Cobblers Peg Red-flowered Mallow), with scattered planted trees (Sydney Blue Gum, Blackbutt, Lemon-scented Gum and Spotted Gum). Most of this remnant vegetation was cleared to make way for the construction of the WTS, although no trees were removed from the site.

The SSD approval does not prescribe the establishment or management of any biodiversity/conservation offset areas. Additionally, the Development did not require referral under the *Environment, Protection and Biodiversity Conservation Act, 1999* (EPBC Act) (C'wealth).

During the reporting period Spotless installed baits around the WTS to control vermin.

In accordance with Schedule C, Condition B38, pest, vermin and noxious weed inspections are undertaken at the WTS.

Environmental Performance

Inspections were undertaken to ensure pest/vermin management measures were working effectively, and where required, baits were restocked/replaced and pesticides applied. The January 2022 inspections were not conducted due to COVID19 restrictions and lack of personnel. The inspections and pest/vermin control activities which were undertaken ensured populations at the site did not posed an environmental hazard. Summarised results of regular pest and vermin inspections are included in **Appendix C**. As indicated, vermin and pest activity appeared to peak in September 2022, with the most baits restocked/replaced at this point of time.

Monthly workplace inspections were also undertaken at the WTS that cover various aspects of the site, including weeds. Inspections undertaken throughout the reporting period confirmed that weeds were under control. Completed Workplace Inspection Forms are provided in **Appendix D**.

Comparison against Predictions

No relevant predictions for pests, vermin nor noxious weeds are provided in the EIS (SLR 2015a).

No complaints related to vermin, pest and noxious weed management were received during the reporting period.

Improvements

Vermin, pest and weed monitoring and control will continue to be undertaken during the next reporting period.

6.6 Heritage

The site does not contain any Aboriginal and Non-Aboriginal heritage sites.

6.7 Traffic

Environmental Management

During the reporting period traffic was managed in accordance with the OEMP (SLR 2018a). **Table 14** lists additional management and mitigation measures that have been implemented during the reporting period to minimise the impacts of traffic and access.

Table 13 –Traffic Mitigation Measures implemented during the 2021-2022 reporting period

Development Consent Condition	Mitigation Measure
EIS Appendix A (Section 7.5)	Methods of communication are by two-way radio, mobile phone, visual and verbal. Site supervisors, traffic controllers and employees/contractors (as appropriate) have a two-way radio to be contactable at all times. The communication channels for two-way radio are advised.

Environmental Performance

Transport rates during the reporting period are presented in **Section 4.1**.

No complaints related to construction or operations traffic were received during the reporting period.

Comparison against Predictions

The EIS (SLR 2015a) predicted that at full operation the total number of inbound vehicles delivering waste to the Erskine Park WRMF would be in the vicinity of 200 per day. The number of outbound waste transfer vehicles from the WTS was estimated at approximately 30 semi-trailers and B-doubles per day. Incoming traffic volumes were 69% less than predicted while outgoing traffic were 43% less.

Incidents and Improvements

No reportable incidents relating to traffic occurred during the reporting period.

6.8 Waste Management

During the reporting period waste was managed in accordance with the Operational Waste Management Plan (OWMP) (SLR 2018a). Additional waste management measures implemented at the site are included in **Table 15**. Waste generated at the site was managed appropriately.

Table 14 – Waste Management Measures implemented at Erskine Park WTS during the 2021-2022 reporting period

Development Consent Condition	Mitigation Measure
Development Consent Condition B1	Only materials and waste are received at the site, which are permitted by the site's EPL 2093.
Waste Reuse, Recycling and Disposal	
EIS Appendix I (Section 5.5) EIS Section 7.12.4	Green waste is mulched and re-used in landscaping on-site or used off-site.
	Waste oil was recycled or disposed of in an appropriate manner.
	All used crates were stored for reuse, unless damaged.
	All asbestos, hazardous and/or intractable wastes would be disposed of in accordance with WorkCover Authority and EPA requirements.
	Provision is made on-site for the collection of batteries, fluorescent tubes, smoke detectors and other recyclable resources.
	Container and paper/cardboard recycling is provided on-site for employee use. Alternatively, these items are separated at an appropriately licensed facility and sent for recycling.
	All waste generated at the site is disposed of via a council approved system.

Environmental Performance

Bins and waste storage areas were inspected (monitored and audited) during monthly workplace inspections. Results from these inspections are provided in **Appendix D** Workplace Inspections were undertaken for all months from November 2021 to October 2022. These inspections ensured there was provision for waste recycling, there was no litter present and waste was stored on sealed ground. These inspections ensured that waste was being managed appropriately and any identified deficiencies were rectified.

No complaints were received about waste and there were no incidents relating to waste.

Incidents and Improvements

During the next reporting period the site's waste management program will continue to be implemented, in accordance with the site's OWMP. In accordance with this Plan, operations waste will continue to be sent to a licenced landfill facility and disposed of in an approved manner. Operations waste will also be recycled, where possible.

During the next reporting period inspections of bins and waste storage areas will continue to be undertaken.

6.9 Visual Amenity

Environmental Management

Management and mitigation measures were implemented at the site during the reporting period to minimise direct and indirect impacts on visual amenity, in accordance with the OEMP (SLR 2018a). The screen adjacent to the site office (refer to Photo 1, below) and the landscaping at the site was maintained during the reporting period.

Photo 1 Screen and Landscaping Adjacent to the Site's Office

Environmental Performance

No complaints regarding visual impacts were received by the site.

Comparison against Predictions

A Visual Impact Assessment (VIA) (Green Bean Design 2015) was undertaken (as part of the EIS) to assess the impact of the Development on the existing landscape character of the surrounding environment. The VIA found the Development is consistent with the existing industrial development and with the implementation of mitigation measures it would have limited visual impacts during operations. The Development would therefore have negligible impact on the visual amenity of people living in or traveling through the landscape of the surrounding area. All the required mitigation measures were maintained during the reporting period; therefore, the visual impacts of the Development were consistent with the EIS predictions.

Incidents and Improvements

No reportable incidents relating to visual impacts occurred during the reporting period. Therefore, no visual amenity improvements are proposed for the site during the next reporting period.

6.10 Contamination

Environmental Management

Mitigation measures were implemented during the operation of the site in accordance with the OEMP (SLR 2018a) to minimise the potential for contamination.

Any non-conforming waste transported to the WTS was separated, managed and disposed of appropriately.

Environmental Performance

During the reporting period, 651.5 tonnes of non-conforming waste (mattresses, tyres etc) was received by the site. How non-conforming is managed is provided in **Table 16**.

Table 15 – Non-conforming Waste Management at Erskine Park WTS during 2021-2022 reporting period

Non-conforming Waste Type	How Disposed	Where Disposed
Tyres	Collected in a 30m³ cage monthly	Commonwealth Steel Company Pty Ltd EPL 21294 1 Turners Lane, Cootamundra, NSW
Mattress	Collected in five 30m³ bins weekly	Mattress Recycle Australia Ltd EPL 21294 1 Turners Lane, Cootamundra, NSW

During the reporting period no complaints regarding contamination or non-conforming waste were received.

Comparison against Predictions

The EIS (SLR 2015a) did not quantify (predict) the amount of non-conforming waste that could potentially be brought to the site. No comparison is therefore made.

Incidents and Improvements

During the reporting period there were no accidental spills of chemicals/hydrocarbons.

Any non-conforming waste that is brought to the site in waste loads will be managed appropriately, during the next reporting period.

7. Water Management

The sections below provide details regarding water management and water monitoring results for the site, during the reporting period.

The site does not have any water licences therefore water take is not reported. In addition, the site does not discharge water (besides sewage), belong to a salinity trading scheme or provide compensatory water to other users.

7.1 Surface Water

Environmental Management

During the reporting period, mitigation measures were implemented to minimise direct and indirect impacts on surface water. These were undertaken in accordance with the OEMP (SLR 2018a). Cleanaway also complied with Section 120 of the *Protection of Environment Operations (POEO) Act 1997*, during the reporting period.

A Stormwater Management Scheme (SMOP) (SLR 2018b) has been prepared for the site, consistent with the Stormwater Management Plan for the catchment, in accordance with Condition B16 (Schedule C) of SSD 7075, as modified. Implementation of the scheme will mitigate the impacts of stormwater run-off from and within the site. The SMOP stormwater controls were implemented during the reporting period.

The SMOP also outlines the stormwater quality monitoring for the site, as summarised in **Table 17**.

Table 16 – Stormwater Water Quality Monitoring Program implemented at Erskine Park WTS during the 2021-2022 reporting period

Parameter	Default Trigger Value*	Inspection Frequency	Responsibility
Chlorophyll a (Chl a) (mg/L)	0.003	Monthly during discharge for first year and bi-annually during discharge thereafter	Cleanaway
Total Phosphorous (TP) (mg/L)	0.025		
Filterable reactive phosphate (FRP) (mg/L)	0.02		
Total Nitrogen (TN) (mg/L)	0.35		
Oxides of Nitrogen (NOx) (mg/L)	0.04		
Ammonium (NH4+) (mg/L)	0.02		
Dissolved oxygen (DO) (daytime % saturation)	85% - 110%		
pH	6.5 – 8.5		
Salinity (µS/cm)	125 – 220 **		
Turbidity (NTU)	6-50 ***		
Total Suspended Solids	50mg/L		

The SMOP also outlines the stormwater structures monitoring and maintenance program. This is summarised in **Table 18**.

Table 17 – Stormwater Structures Monitoring and Maintenance Program

System / Device	Inspection / Maintenance Tasks	Responsibility	Inspection Frequency	Mitigation Actions
Bioretention Vegetation	Check for weeds. Check health of plants. Note – the health of the plants is crucial to the treatment process.	Landscape Contractor	Monthly for first 6 months and quarterly thereafter	Control weeds Replacement of plants as required. Investigate causes of significant die back / dead plants.
Bioretention Filter Media Surface	Inspect filter media for sediment build up, litter, erosion or scour damage.	Cleanaway	Monthly and after heavy rainfall events (>30mm in 24 hours) for first 6 months and quarterly thereafter	Removal of any litter from bioretention filter media surface. Scrape away small amounts of isolated sediment build up (if required). Seek advice from a suitably qualified stormwater engineer or consultant where significant erosion, scour or filter media damage is observed.
Basin Inlet Forebay	Inspect forebay for litter and sediment build up. Check depth of sediment in forebay.	Cleanaway	Quarterly	Remove any litter from forebay. Schedule removal of sediment to rock level if greater than 50% of forebay is full of sediment.
Basin Inlets and Outlets	Inspect inlets and outlets for blockage and debris.	Cleanaway	Monthly and after heavy rainfall events (>30mm in 24 hours)	Unblock inlets and outlets if required. Seek advice from a suitably qualified stormwater engineer or consultant where inlets or outlets are significantly damaged.
Bioretention Underdrainage	Inspect for blockages and isolated surface ponding.	Cleanaway	Quarterly	Flush underdrainage at flush points if required.
Humeceptors	Inspection in accordance with Humeceptor inspection procedures.	Cleanaway / Contractor	Quarterly for first year. Establish appropriate frequency based on findings of first year of inspections.	Schedule cleaning as required.
	Cleaning in accordance with Humeceptor cleaning procedure	Vacuum / eductor truck contractor	Annually – subject to inspection observations.	Not applicable

System / Device	Inspection / Maintenance Tasks	Responsibility	Inspection Frequency	Mitigation Actions
Atlantis Flow-Tank OSD System	Inspect for blockages and sediment build up including inlet and outlet pipes	Cleanaway	Bi-annually	Remove blockages and de-silt as required.
Pits and Pipes (including trash racks and Ecosol Litter Baskets)	Inspect for blockages and debris, or excessive build-up of sediment	Cleanaway	Quarterly for first year. Establish appropriate frequency based on findings of first year of inspections.	Remove blockages and debris as required manually or via vacuum.
Rainwater tanks	Inspect the structural integrity of the tank, blockages, sediment build up and evidence of animal access including the associated pipework, inlets / outlets, insect proofing and leaf filters.	Cleanaway	Quarterly for first year and bi-annually thereafter.	Cleaning and repair of tank as required. Seek advice from a suitably qualified consultant where structural damage is observed. If significant issue is observed, then the access points will be temporarily closed.
Roof gutters	Check for accumulated debris including leaf litter.	Cleanaway	Annually	Clean out of gutters.
Bunded areas	Inspect for spills and integrity of bunds.	Cleanaway	Weekly	Disposal of any spilled hazardous materials in a suitable manner. Re-instate bunds as required.

Leachate is managed at the WTS in accordance with the Leachate Management System (Protocol), in accordance with Condition B17 of SSD 7075. In accordance with the Protocol, leachate from the WTS operations was transferred to the adjacent leachate treatment plant (LTP) for treatment, refer to **Figure 2**. Once treated, the leachate was then discharged into the Sydney Water sewer system in accordance with the existing trade waste discharge agreement with Sydney Water. No leachate was sent off-site for treatment, during the reporting period.

Water quality monitoring of the treated leachate in the LTP is undertaken in accordance with the existing trade waste agreement.

Environmental Performance

The LTP is managed by Cleanaway's landfill operations. This includes the leachate monitoring program. Subsequently, leachate monitoring results are not provided. They are reported to Sydney Water separately under the terms of the Trade Waste Agreement.

To improve surface water management at the site a stormwater shutoff/isolation valve was installed, to act as an emergency stop. This improvement was identified by Cleanaway and was not a requirement of the DPE or EPA.

Cleanaway has engaged with relevant subconsultants in order to assess the best way to sample stormwater at the bioretention basin. Based on client's investigations, it has been determined that bioretention basin should be sampled during rain events.

Comparison against Predictions

The Erskine Park WTS EIS (SLR, 2015a) predicts there will be no impacts on local water resources including the flow and quality of surface water. The factors which contributed this prediction included:

- Absence of floodable land shown on Broader Western Sydney Employment Area draft Structure Plan 2013;
- Water requirements of WTS will be serviced by existing infrastructure;
- Stormwater runoff will be captured by the existing bioretention basin which overflows to the Council's stormwater system by an outlet structure;
- The absence of on-site waste disposal or long-term waste stockpiling; and
- No Acid Sulphate Soils (ASS) with moderate salinity levels are present on-site (SLR, 2015a).

Incidents and Improvements

A run off from the landfill occurred after a severe storm hit the site from west, on 17 February 2022.

Mitigation measures for stormwater and leachate will continue to be implemented, during the next reporting period. Stormwater and leachate monitoring will also be undertaken, during the upcoming year.

7.2 Groundwater

Environmental Management

The Statement of Commitments in Appendix 3 of SSD 7075, as modified, requires a program of groundwater monitoring to be undertaken at the site, building on the ongoing groundwater monitoring program undertaken for the adjacent Erskine Park landfill.

Monitoring is undertaken at 13 groundwater bores surrounding the Erskine Park landfill in accordance with the site's EPL (EPL 4865). Two of the groundwater bores (BH17D and BH17E) are within the WTS site. Quarterly groundwater monitoring at these bores was undertaken during the reporting period. Samples were analysed for the same parameters as those monitored for the landfill groundwater monitoring program.

Groundwater quality criteria/limits have not been set for the site. However, EPL 4865 sets a detection limit for ammonia (15 mg/L). In accordance with EPL 4865, if an ammonia level of 15 mg/L or more is detected, confirmation sampling will occur, and Cleanaway will prepare a report that proposes actions that will be implemented to prevent the release of contaminated groundwater from the premises.

Environmental Performance

Groundwater monitoring results for the bores within the site are provided in **Table 19**. Other groundwater bores, as depicted on **Figure 4**, are monitored as part of the Erskine Park Landfill EPL 4865 requirements, therefore the results of these are not reported here.

Table 18 – Average Quarterly Results for Groundwater Monitoring Bores registered at Erskine Park WTS during the 2021-2022 reporting period

Parameter	BH17D	BH17E	LOR
Total Dissolved Solids (TDS) (mg/L)	3,018	1125	10
TOC (mg/L)	8	2.57	1
Ammonia (mg/L)	7	1.14	0.01
Calcium (mg/L)	129	69	1
Magnesium (mg/L)	98	88.25	1
Sodium (mg/L)	873	255	1
Potassium (mg/L)	37	15.5	1
Chloride (mg/L)	1,247	92.5	1
Sulphate (mg/L)	52	84.5	1
Alkalinity (mg/L)	645	852.5	1

Parameters as Hydroxide, Carbonate and Bicarbonate were not monitored during the reporting period.

The ammonia level for the groundwater monitoring bores was below the EPL 4865 detection limit. Baseline groundwater data for BH17D and BH17E is included in **Appendix E.** Groundwater quality levels for BH17D were generally lower than baseline levels, except for ammonia, calcium, magnesium and sodium. For BH17E groundwater quality levels, more than half of the parameters tested were higher than baseline levels (TDS, calcium, magnesium, potassium, chloride, sulphate) while the rest were lower (TOC, ammonia, sodium and alkalinity).

Average groundwater depths for BH17D and BH17E during the reporting period were 14.2 m and 9.4 m, respectively[1]. These depths were very similar as those recorded during the last reporting period.

Comparison against Predictions

The Erskine Park EIS (SLR, 2015a) predicted the local groundwater was unlikely to be impacted by the Development. The site performed in accordance with EIS predictions.

Incidents and Improvements

No reportable incidents relating to groundwater occurred during the reporting period, therefore no improvements are proposed by Cleanaway.

[1] Groundwater depths based on Quarter 1 and 3 results.

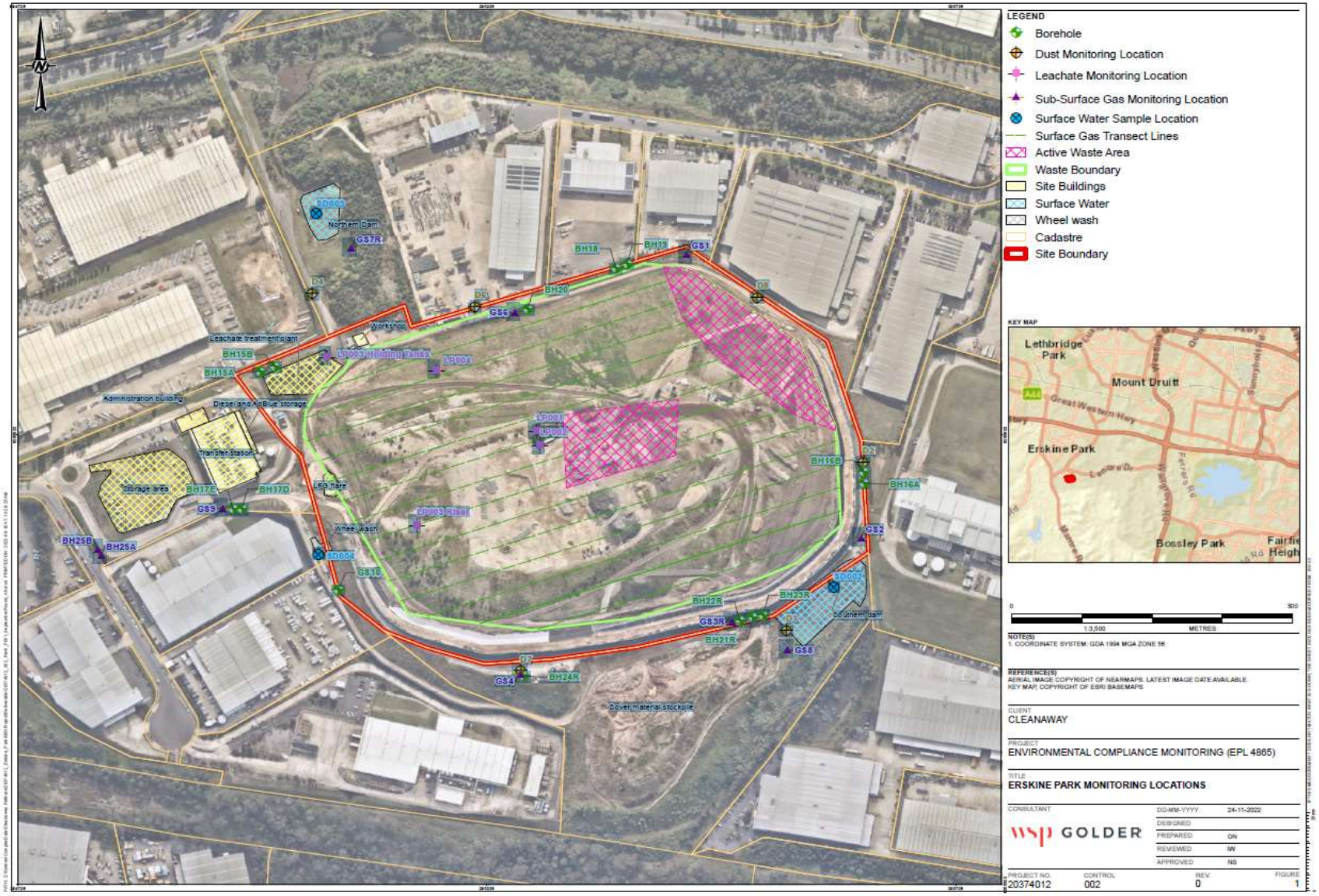
LEGEND
Borehole
Dust Monitoring Location
Leachate Monitoring Location
Sub-Surface Gas Monitoring Location
Surface Water Sample Location
Surface Gas Transect Lines
Active Waste Area
Waste Boundary
Site Buildings
Surface Water
Wheel wash
Cadastre
Site Boundary
KEY MAP
Lethbridge Park
Mount Druitt
Great Western Hwy
Erskine Park
Bossley Park
METRES
NOTE(S)
1. COORDINATE SYSTEM: GDA 1994 MGA ZONE 56
REFERENCE(S)
AERIAL IMAGE COPYRIGHT OF NEARMAPS. LATEST IMAGE DATE AVAILABLE.
KEY MAP COPYRIGHT OF ESRI BASEMAPS
CLIENT
CLEANAWAY
PROJECT
ENVIRONMENTAL COMPLIANCE MONITORING (EPL 4865)
TITLE
ERSKINE PARK MONITORING LOCATIONS
CONSULTANT
GOLDER
DD-MM-YYYY
24-11-2022
DESIGNED
PREPARED
DN
REVIEWED
IW
APPROVED
NS
PROJECT NO.
20374012
CONTROL
002
REV.
0
FIGURE
1
Northern Dam
Southern Dam
Workshop
Leachate treatment plant
Administration building
Diesel and AdBlue storage
Transfer Station
Storage area
LFG flare
Wheel Wash
Cover material stockpile
LP003 Holding Tanks
LP003 Riser

Figure 4 Groundwater Monitoring Locations

The groundwater monitoring program will continue to be undertaken during the next reporting period.

8. Rehabilitation (Landscaping)

Since landscaping was undertaken at the site during December 2018, these landscaped areas have been maintained monthly during wintertime and fortnightly in summer.

Community

9.1 Community Sponsorship

Cleanaway provides support to several community organisations and groups.

9.2 Community Consultation and Information Strategy

In accordance with Condition C1 and C3 of SSD 7075, as modified, a Community and Information Strategy was prepared for the Site and is included in the OEMP (SLR 2018a).

Ongoing consultation is held with neighbours from the nearby neighbourhood, during the reporting period. The consultation focused on neighbours' opinions about EPTS activities. During these brief discussions, no complaints were made.

9.3 Project Websites

In accordance with Condition C3 of SSD 7075, as modified, the community is kept informed of the operation and environmental performance of the Site, with all Annual Reviews posted on the corporate website:

https://www.cleanaway.com.au/about-us/environmental management/

In accordance with condition C13 SSD 7075, as modified, the website also provides the following information:

- Staged Development application;
- EIS (SLR 2015a);
- RTS (SLR 2015b);
- Statutory approvals;
- Monitoring results;
- Management plans;
- Complaints Register; and
- Independent Audits.

The website also includes Community Newsletters and updates on information discussed at community briefing sessions.

9.4 Complaints

Only one complaint was received on 1 April 2022 by the NSW EPA. The complaint referred to the presence of hydrogen sulfide (rotten egg gas) odours from the WTS.

During the last two reporting period (2020-2021 and 2019-2020), no complaints were received by Cleanaway about the site. During the 2018-2019 reporting period nine complaints were received. **Table 20** summarises complaints over the last four reporting periods.

Table 19 – Complaints Received during the last three Reporting Periods

Complaint Type	2018-2019	2019-2020	2020-2021	2021-2022
Odour	9	0	0	1
Dust	0	0	0	0
Hazardous Materials	0	0	0	0
Total	**9**	**0**	**0**	**0**

9. Independent Audit

In accordance with Condition C8 and C9 (Schedule C) of SSD 7075 (as modified) Cleanaway commissioned an IEA during the 2019-2020 reporting period. This audit was conducted within 1 year of the date of the commencement of operation of the Development. During this IEA a total of sixteen non-compliances were observed. A status update regarding audit action items is provided in **Section 5.2.**

The next IEA is due to be commissioned on 17 December 2022.

10. Incidents and non-compliances during the reporting period

11.1 Non-compliances

One (1) non-compliance occurred during the reporting period. The non-compliance is related to Pest Monitoring not being undertaken during January 2022. This was due to an unavailability and oversight by contractors. Cleanaway will ensure all odour monitoring is undertaken in accordance with SSD 7075 Schedule C Condition B11, during the next reporting period.

11.2 Incidents

Sediment and water run off occurred at approximately 6:15pm on 17 February 2022. A severe storm hit the site from the west causing significant run off from the landfill. Water ran off into sediment dam which was empty and did not require shut off. The incident was archived as Incident #1283081 and reported the day after by the Branch Manager, Paul Spolder.

11.3 Other

Based on the revised Annual Review submitted to DEP on the 29th of September 2022, for the period of 1st November 2020 to the 31st October 2021 there was a single non-compliance reported by Cleanaway. This non-compliance relates to no odour monitoring being undertaken during April 2021 and May 2021.

On the 5th of October 2022, Cleanaway received a Warning Letter indicating breach of Section 4.2(1)(b) of the *Environmental Planning and Assessment Act 1979*. The letter indicate Cleanaway has committed an offence against section 4.2 (1)(b) of the *Environmental Planning and Assessment Act* 1979 carrying out development not in accordance with the conditions of development consent.

12 Activities to be completed in the next reporting period

The WTS will receive and process approximately 197,600 tonnes of waste during the next reporting period.

Activities to be completed during the next reporting period, to manage the environmental performance of the operation include:

- Maintain landscaping at the site;
- Continue groundwater monitoring at the site;
- Conduct stormwater monitoring at the site, in accordance with the SMOP;
- Undertake quarterly odour monitoring at the site;
- Continue to operate the weather monitoring station at the site;
- Manage any complaints received at the site;
- Consult with the DPE regarding Stage 2 of the Development;
- Undertake inspections of bins and waste storage areas;
- Undertake vermin, pest and weed monitoring and control;
- Submit the site's fourth Annual Return to the EPA;
- Remove the sort line and replace it with a glass breaking sort line;
- Relocate the CDS from Blacktown WTS to the Erskine Park WTS; and
- Undertake concrete slab replacement works.

References

Cleanaway (2018) Operational Waste Management Plan - Erskine Park Waste Transfer Station – Stage 1.

DPIE (2015) Annual Review Guideline. Post-approval Requirements for State Significant Mining Developments.

EPA (2006) Assessing Vibration: A Technical Guideline.

Green Bean Design (2015) Erskine Park Waste Transfer Station. Visual Impact Assessment.

Jackson Environment and Planning (2020) Erskine Park Waste Transfer Station Independent Environmental Audit.

Jocelyn Ramsay & Associates (2018) Erskine Park WTS Landscape Site Plan.

SLR (2015a) Erskine Park Resource Management Facility. Staged SSD (SSD – 7075) Concept Plan and Stage 1 Waste Transfer Station. Environmental Impact Statement (EIS).

SLR (2015c) Erskine Park Resource Management Facility Staged SSD. Air Quality Impact Assessment (AQIA).

SLR (2018a) Operational Environmental Management Plan - Erskine Park Resource Management Facility Stage 1 Waste Transfer Station.

SLR (2018b) Stormwater Maintenance and Operations Plan. Erskine Park Transfer Station – Stage 1.

The Odour Unit (TOU) (2019) Erskine Park Resource Management Facility – Waste Transfer Station Odour Audit.

Appendix A Wind roses

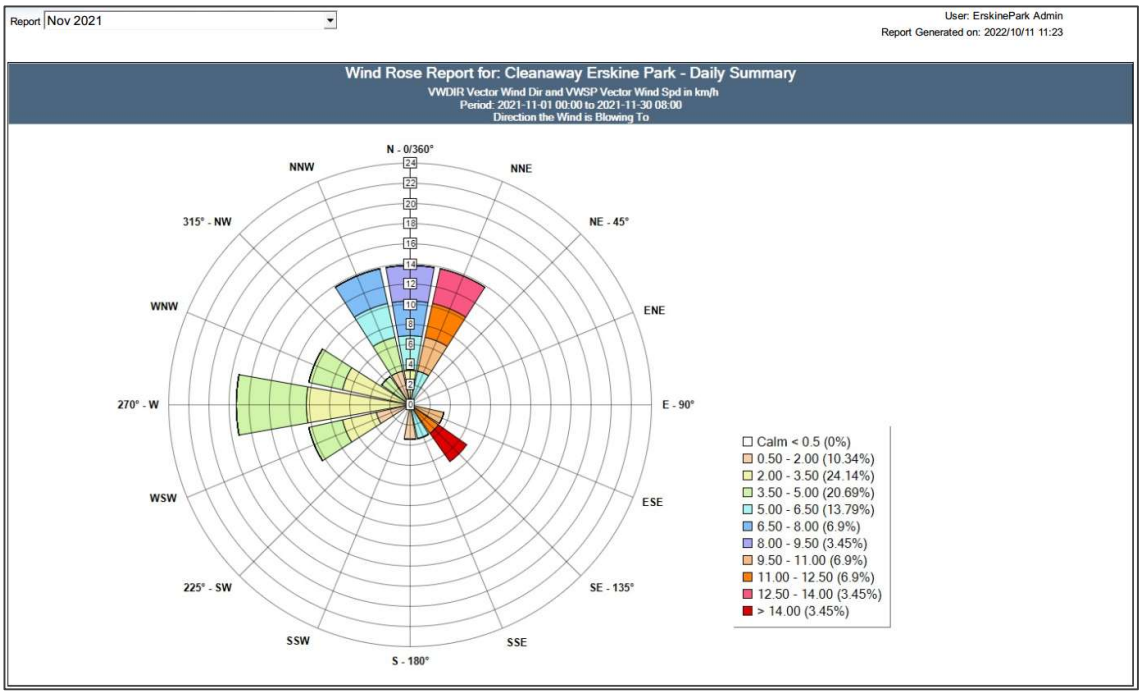

Figure A1 November 2021 Wind Rose

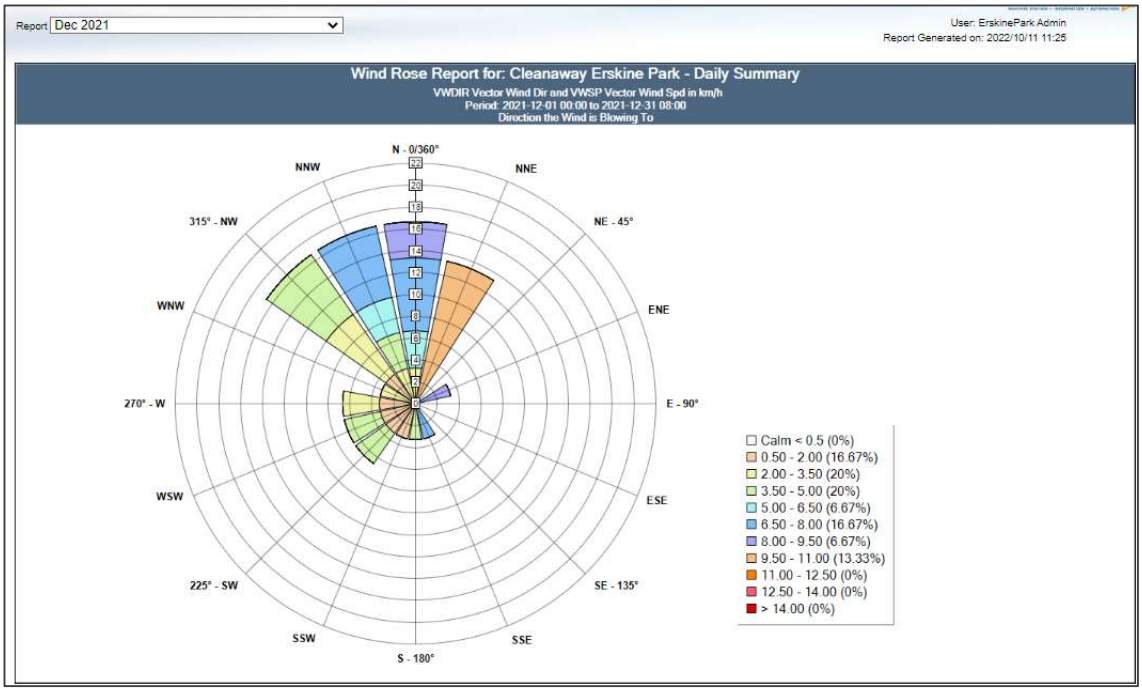

Figure A2 December 2021 Wind Rose

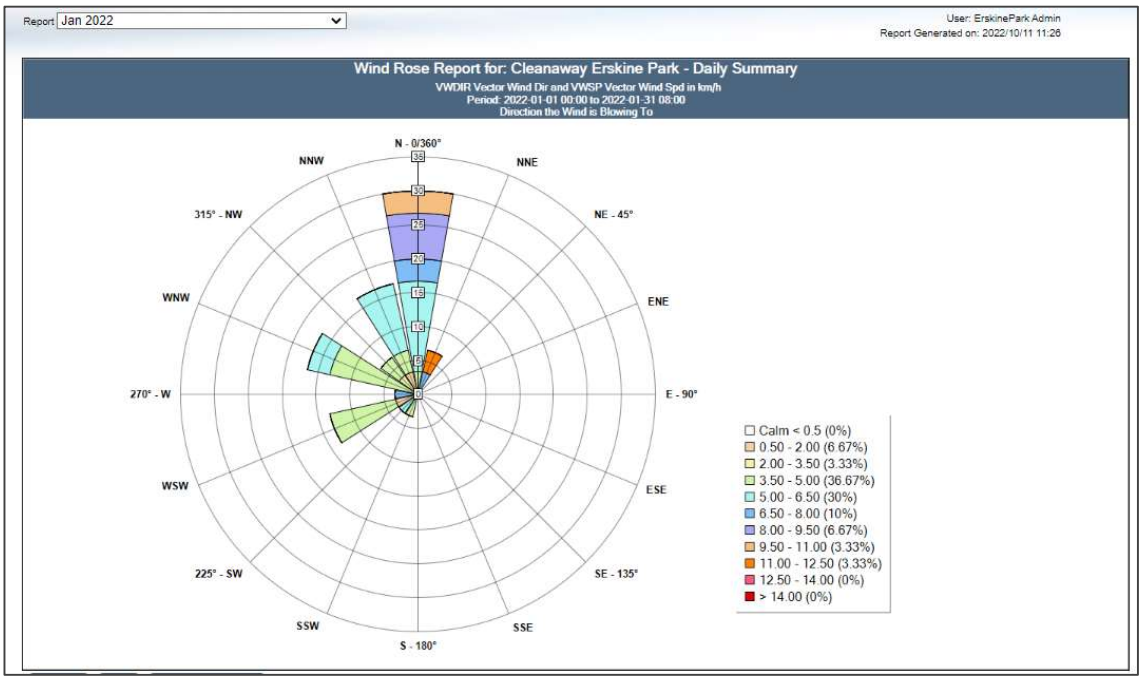

Figure A3 January 2022 Wind Rose

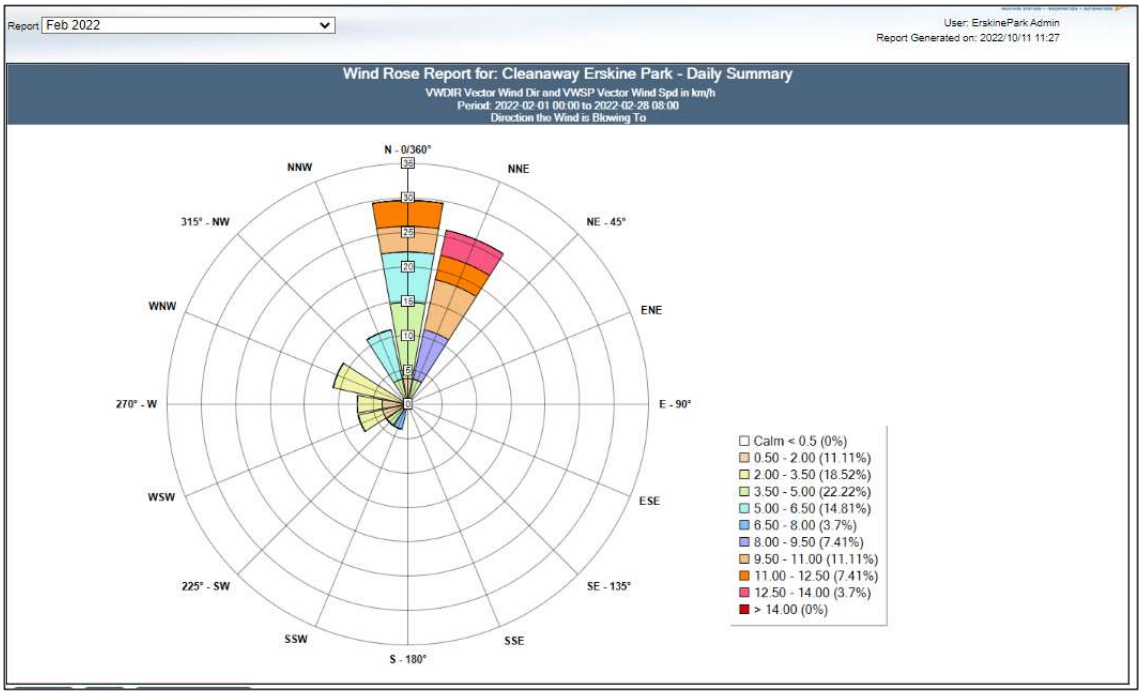

Figure A4 February 2022 Wind Rose

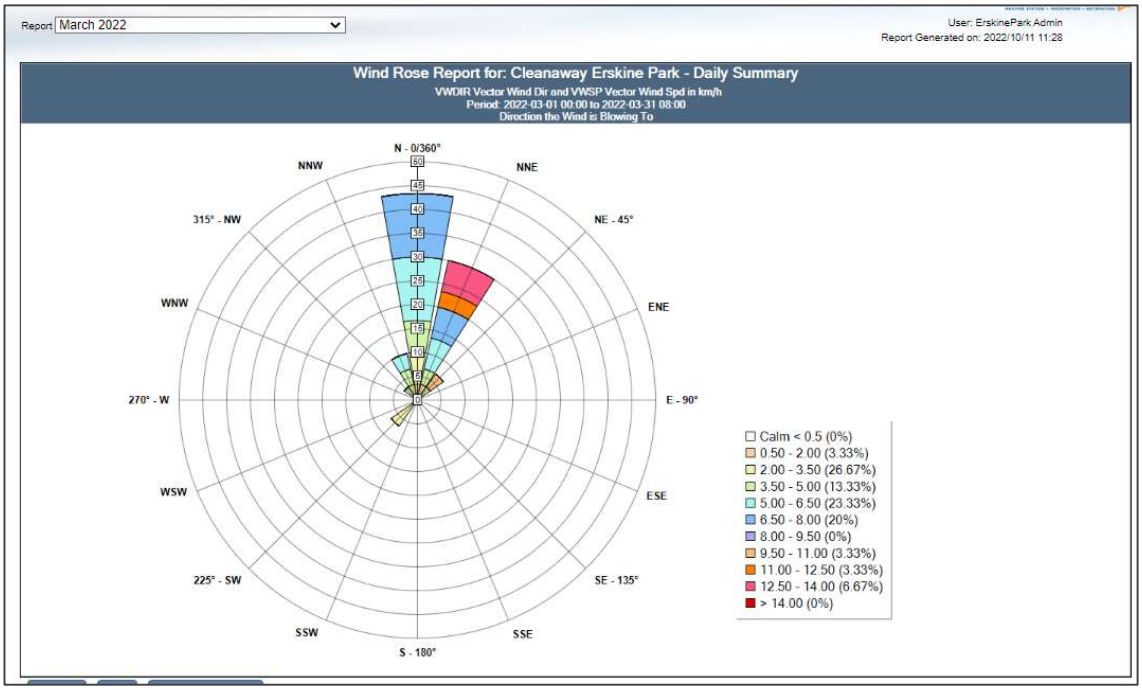

Figure A5 March 2022 Wind Rose

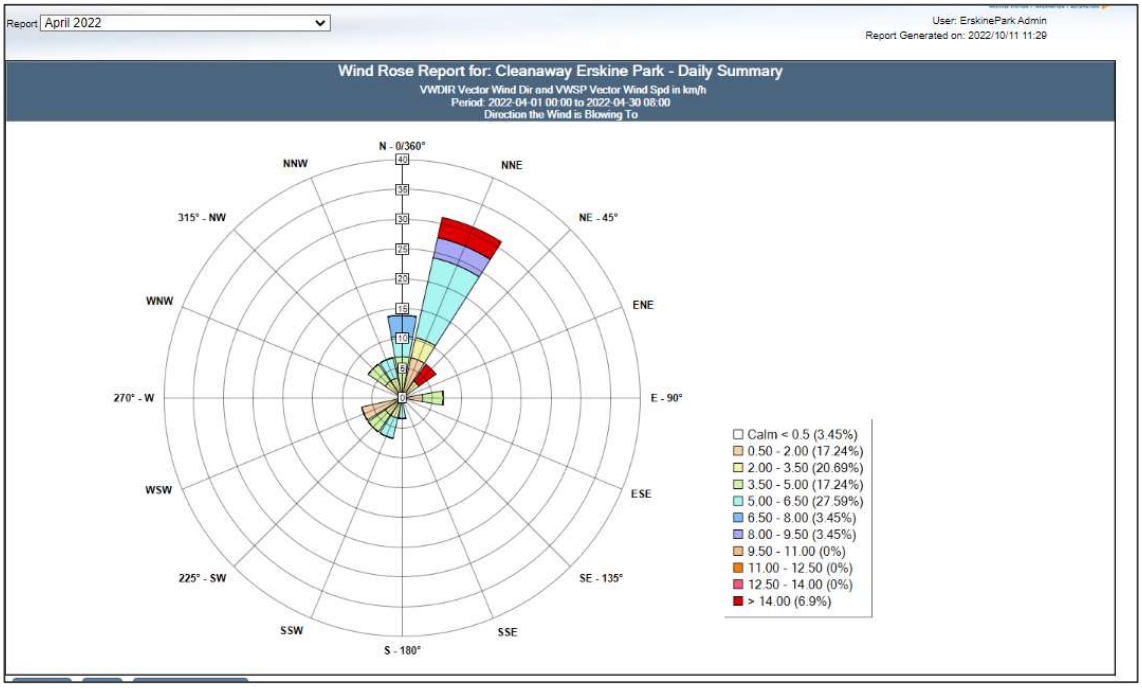

Figure A6 April 2021 Wind Rose

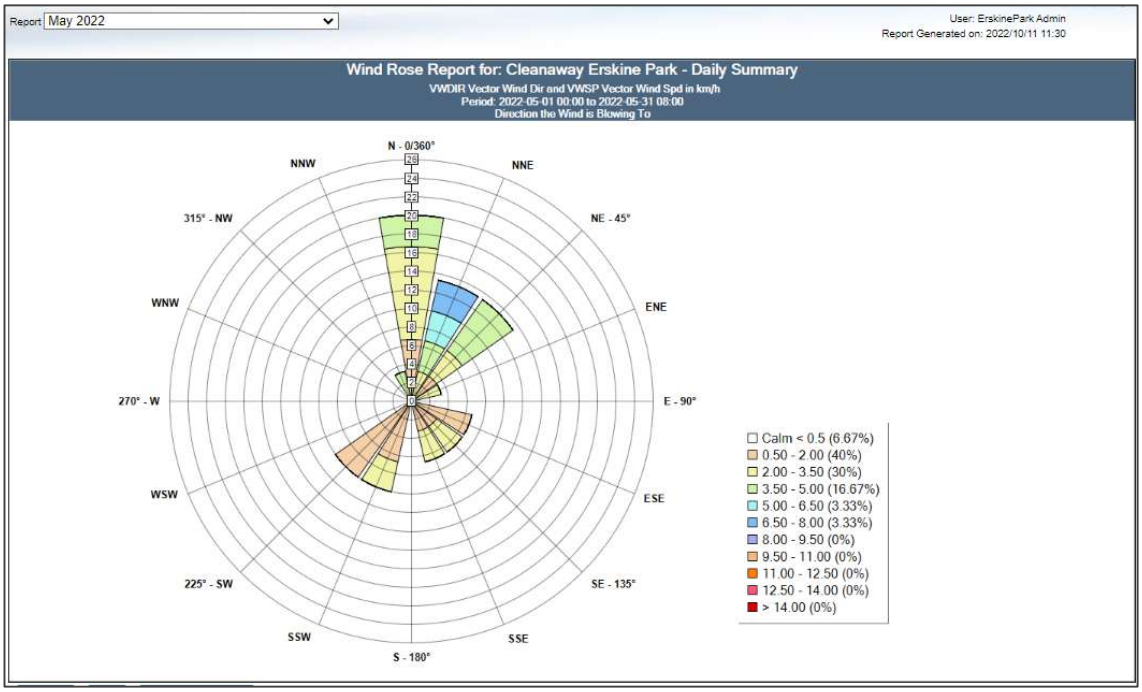

Figure A7 **May 2022 Wind Rose**

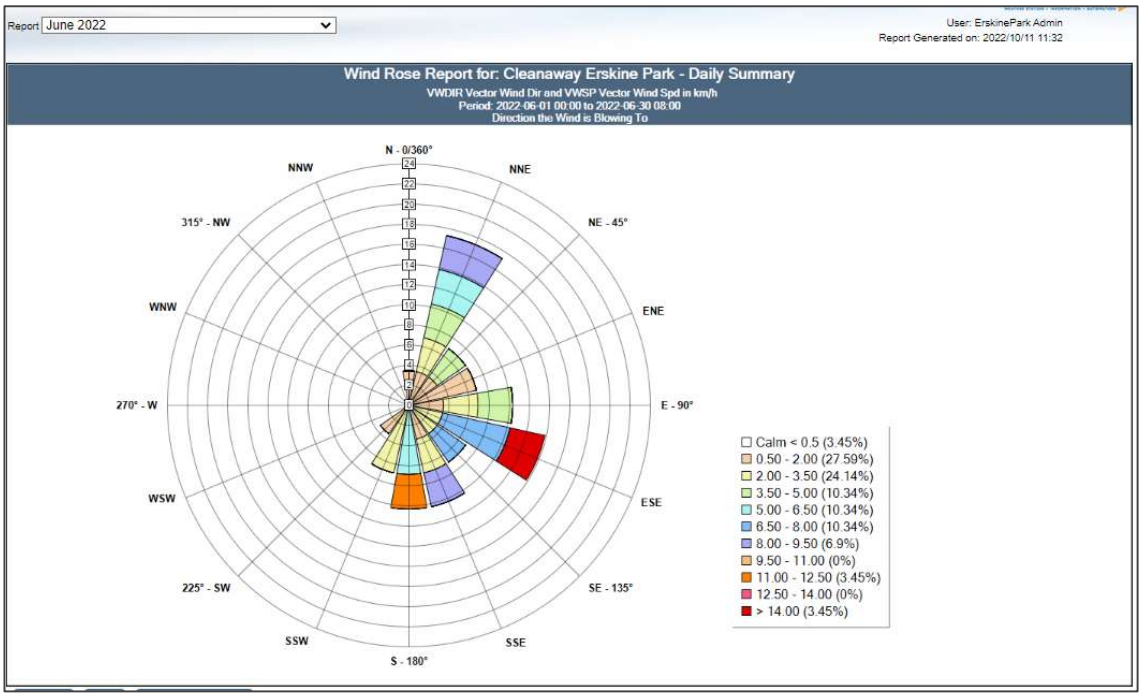

Figure A8 **June 2022 Wind Rose**

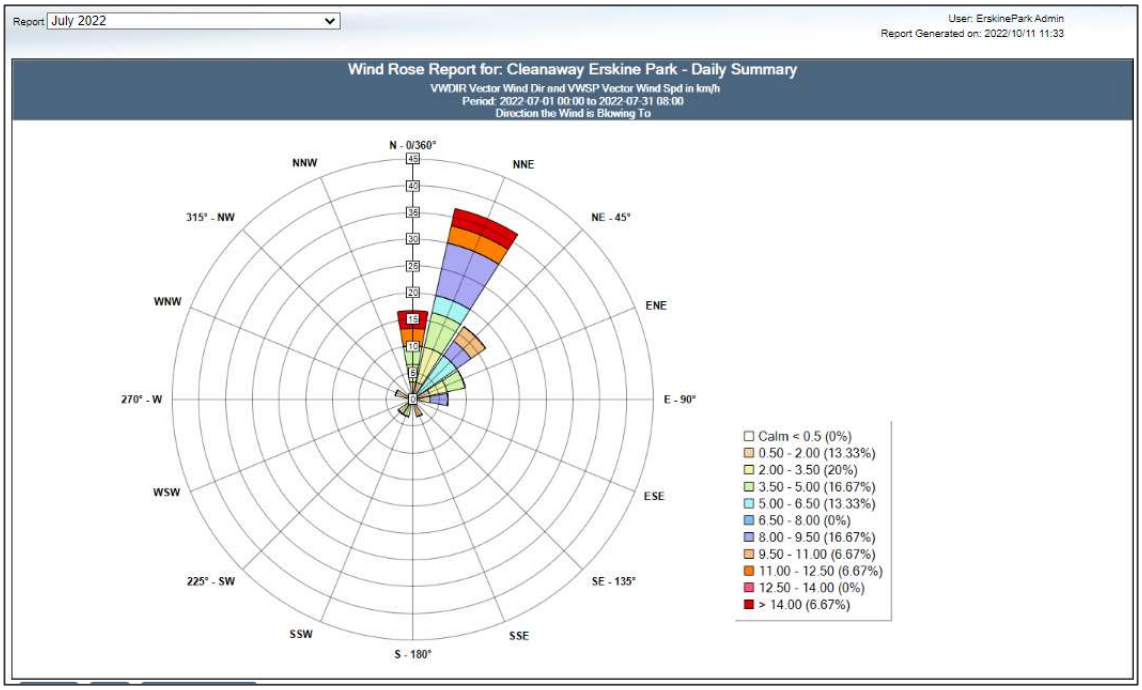

Figure A9 **July 2022 Wind Rose**

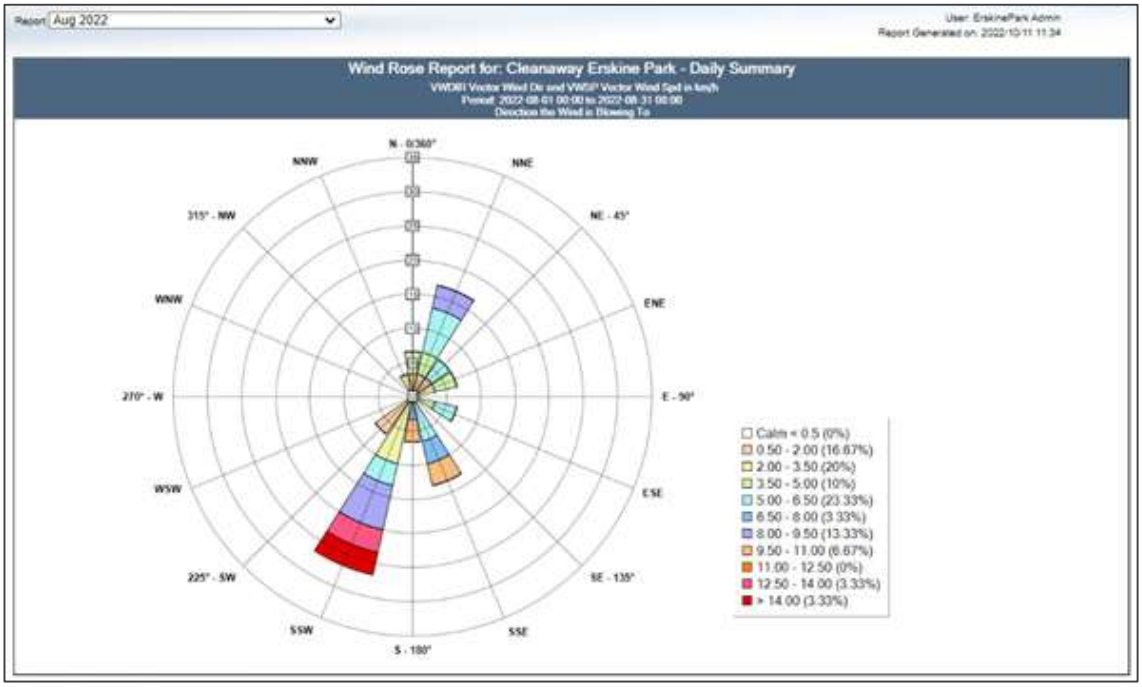

Figure A10 **August 2022 Wind Rose**

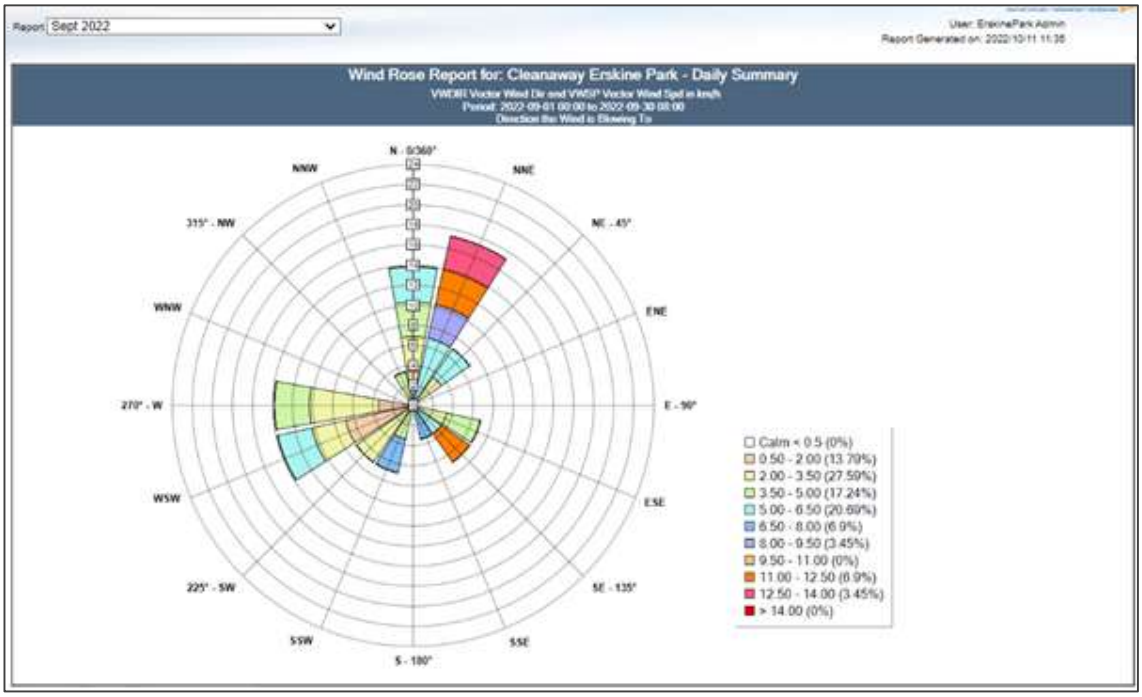

Figure A11 September 2022 Wind Rose

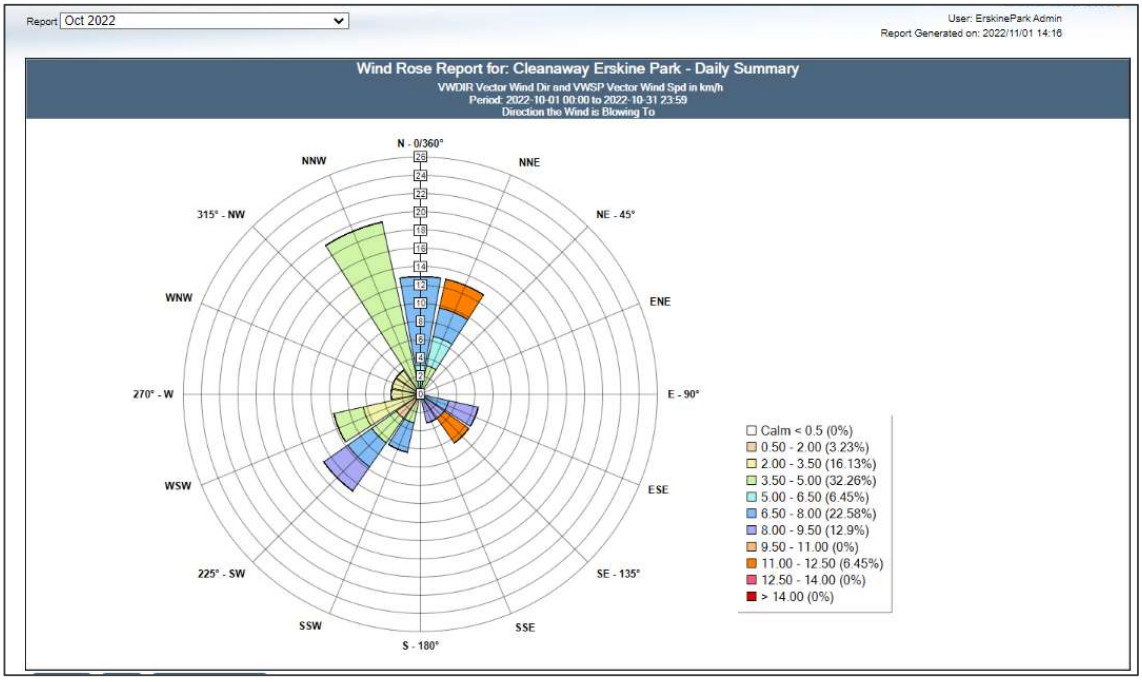

Figure A12 October 2022 Wind Rose

Appendix B Noise and Vibration Impact Assessment

Appendix C Pest and Vermin Inspection Results

Table B1 – Pest and Vermin Inspection Results

Station Type	Total	Activity	Preventative	No Activity	Damaged	Replaced	Inaccessible	Removed
November 2021								
#Bait Station (Rodent Toxic)	47	4	0	43	0	0	0	0
#Bait Station (Rodent Non-Toxic)	0	0	0	0	0	0	0	0
Rodent Snap Trap	0	0	0	0	0	0	0	0
Rodent Station (other)	0	0	0	0	0	0	0	0
December 2021								
#Bait Station (Rodent Toxic)	47	4	0	43	0	0	0	0
#Bait Station (Rodent Non-Toxic)	0	0	0	0	0	0	0	0
Rodent Snap Trap	0	0	0	0	0	0	0	0
Rodent Station (other)	0	0	0	0	0	0	0	0
January 2022								
Not recorded								
February 2022								
#Bait Station (Rodent Toxic)	47	5	0	42	0	0	0	0
#Bait Station (Rodent Non-Toxic)	0	0	0	0	0	0	0	0
Rodent Snap Trap	0	0	0	0	0	0	0	0
Rodent Station (other)	0	0	0	0	0	0	0	0
March 2022								
#Bait Station (Rodent Toxic)	47	0	0	47	0	0	0	0
#Bait Station (Rodent Non-Toxic)	0	0	0	0	0	0	0	0
Rodent Snap Trap	0	0	0	0	0	0	0	0
Rodent Station (other)	0	0	0	0	0	0	0	0
April 2022								
#Bait Station (Rodent Toxic)	47	0	0	47	0	0	0	0
#Bait Station (Rodent Non-Toxic)	0	0	0	0	0	0	0	0
Rodent Snap Trap	0	0	0	0	0	0	0	0
Rodent Station (other)	0	0	0	0	0	0	0	0
May 2022								
#Bait Station (Rodent Toxic)	47	0	0	47	0	0	0	0
#Bait Station (Rodent Non-Toxic)	0	0	0	0	0	0	0	0

Station Type	Total	Activity	Preventative	No Activity	Damaged	Replaced	Inaccessible	Removed
Rodent Snap Trap	0	0	0	0	0	0	0	0
Rodent Station (other)	0	0	0	0	0	0	0	0
June 2022								
#Bait Station (Rodent Toxic)	47	0	0	47	0	0	0	0
#Bait Station (Rodent Non-Toxic)	0	0	0	0	0	0	0	0
Rodent Snap Trap	0	0	0	0	0	0	0	0
Rodent Station (other)	0	0	0	0	0	0	0	0
July 2022								
#Bait Station (Rodent Toxic)	47	0	0	47	0	0	0	0
#Bait Station (Rodent Non-Toxic)	0	0	0	0	0	0	0	0
Rodent Snap Trap	0	0	0	0	0	0	0	0
Rodent Station (other)	0	0	0	0	0	0	0	0
August 2022								
#Bait Station (Rodent Toxic)	47	0	0	47	0	0	0	0
#Bait Station (Rodent Non-Toxic)	0	0	0	0	0	0	0	0
Rodent Snap Trap	0	0	0	0	0	0	0	0
Rodent Station (other)	0	0	0	0	0	0	0	0
September 2022								
#Bait Station (Rodent Toxic)	89	0	0	89	0	0	0	0
#Bait Station (Rodent Non-Toxic)	1	0	0	1	0	0	0	0
Rodent Snap Trap	1	0	0	1	0	0	0	0
Rodent Station (other)	4	0	0	4	0	0	0	0
October 2022								
#Bait Station (Rodent Toxic)	83	0	0	83	0	0	0	0
#Bait Station (Rodent Non-Toxic)	1	0	0	1	0	0	0	0
Rodent Snap Trap	1	0	0	1	0	0	0	0
Rodent Station (other)	4	0	0	4	0	0	0	0

Appendix D Completed Workplace Inspection Forms

Appendix E Baseline Groundwater Monitoring Data

Table D1 – Baseline Groundwater Monitoring Data

Parameters	BH17D	BH17E	LOR (mg/L)
Total Dissolved Solids (TDS)	5.43	2.76	10
TOC	21.54	5.03	1
Ammonia	6.81	1.16	0.01
Calcium	22.71	35.8	1
Magnesium	42.4	48.71	1
Sodium	971	289.69	1
Potassium	63.71	10.97	1
Chloride	1413.31	19.6	1
Sulphate	65.60	38.76	1
Alkalinity	690.8	875.34	1
Hydroxide	-	-	1
Carbonate	-	-	1
Bicarbonate	-	-	1