Rosehill Sustainable Road Resource Centre

Operational Environmental Management Plan

Document Preparation and Control	Document Review
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Document Version History

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4	25/01/2022	Final	Revised version after 2nd draft for submission to DPIE for review.
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8	25/03/2025	Final	Final TDS Update Only
9	05/02/2026	Final	New Document Name/TDS Update

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1 PURPOSE

This operational environment management plan (OEMP) defines the environmental management principles, processes, procedures, systems, tools, and templates implemented for use during operation of Downer's Sustainable Road Resource Centre (the site).

This plan has been prepared by personnel listed on the cover page, who all have over 10 years' experience in the preparation of environmental management documentation.

This plan has been developed to:

- satisfy the site-specific regularity requirements; and
- support the Operational Team in complying with applicable regulatory requirements, and Downer's internal requirements.

2 DOCUMENT SCOPE

The scope of this management plan applies to all Downer workers during operation of the Rosehill Sustainable Road Resource Centre.

This plan applies to all aspects of environmental management for the site.

The target audiences for this plan are all Downer workers and any other relevant stakeholders.

2.1 Conditions of consent

Development consent SSD 10459 was granted to VE Property on 31 January 2021 for the project described in Chapter 6. A copy of the development consent is attached as Annex A.

This OEMP has been prepared to satisfy the operation specific environmental conditions in Part B and environmental management conditions in Part C of SSD 10459. Sub-plans (outlined in Section 3.1 and appended) have been prepared to support this OEMP.

The specific requirements of these consent conditions and where they have been addressed in this OEMP are listed in Annex A.

2.2 Interaction with other consents applying to Lot 6

Condition C1(c) requires *a description of the measures to be implemented to comply with the relevant statutory requirements (including any relevant conditions under SSD 9302), limits, or performance measures and criteria* and Condition C6(c)(iv) requires a description of *how the operation will be managed in concert with any relevant conditions under SSD-9302 and any other relevant planning or licensing conditions related to the premises.*

SSD-9302 contains the following conditions, which require preparation and implementation of plans that have ongoing effect over Lot 6:

B8

Prior to the finalisation of the Site Audit Statement and Site Audit Report, required by Condition B6, the Applicant must prepare a Long-Term Environmental Management Plan (LTEMP) for the development, to the satisfaction of the Site Auditor and the Planning Secretary.

B9

The LTEMP must:

(a) be prepared in consultation with Council and the EPA.

(b) identify where the LTEMP applies and who is responsible for implementing the LTEMP.

(c) detail how the LTEMP will be implemented, including corrective actions and reporting requirements.

(d) recommend any systems/controls to be implemented to minimise the potential for any material harm.

(e) include a groundwater monitoring program to verify natural attenuation is occurring over time, consistent with the requirements of condition B21.

(f) include biodiversity management measures for the Green and Golden Bell Frog, consistent with the Revised Plan of Management: Restoration of Green and Golden Bell Frog Habitat, Clyde Terminal, January 2019, or its latest version.

(g) detail procedures for managing and monitoring any remaining contamination, including triggers that would indicate if further management or remediation is required.

(h) detail procedures for managing and monitoring any remaining contamination that has potential for off-site migration so that it does not present an unacceptable risk to either the on-site or off-site environment.

(i) include measures to be implemented if any parts of the remediated area are required to be physically disturbed.

(j) describe any required planning controls for future development that may interact with any remaining contamination at depth.

(k) incorporate a programme for ongoing monitoring and review to ensure that the LTEMP remains contemporary with relevant environmental standards.

(l) include mechanisms to report results to Council and the EPA.

(m) be written in plain language to be understood by all personnel involved in the maintenance activities on the site.

B22

Prior to the commencement of remediation works, the Applicant must prepare a Groundwater Monitoring and Management Plan (GMP) to the satisfaction of the Site Auditor and the Planning Secretary. The GMP must form part of the REMP required by Condition C2 and must:

(a) be prepared by a suitably qualified and experienced person(s), in consultation with the EPA and DPIE – Water.

(b) include a program to monitor groundwater levels and quality during remediation works and following demobilisation.

(c) include a decision protocol for determining appropriate management measures for groundwater during remediation works, including but not limited to, pre-treatment, treatment, discharge, or off-site disposal.

(d) detail ongoing monitoring following demobilisation, to verify that natural attenuation of groundwater contamination is occurring over time.

(e) include trigger levels for investigating potential adverse impacts to the Duck River, including triggers for indicating if further remediation of groundwater is required.

(f) outline contingency actions to be implemented if monitoring indicates that natural attenuation is not occurring, or groundwater is having an adverse impact on the Duck River.

(g) monitor the effectiveness of management measures and contingency actions for reducing impacts.

(h) procedures for reporting changes to groundwater conditions that have the potential to create unacceptable risks to the Duck River.

The LTEMP:

- Was prepared in January 2021.
- Contains the GMP in Appendix D.
- Is available at getContent (nsw.gov.au).
- Will be made available at the site during operations.

Figure 1 of the GMP (in Appendix 4 of the LTEMP) identifies the following groundwater monitoring wells in Lot 6:

- MW11/24.
- MW12/17.

- MW11/41.
- MW11/42.

Table 2 of the GMP (in Appendix 4 of the LTEMP) requires ongoing biannual sampling at these wells, and they have been sampled up to the construction phase of the project.

The EPA approved site auditor for the Western Area Rehabilitation Project has since re-evaluated the requirement for ongoing groundwater monitoring on the site. The auditor has determined that 'active' management measures are no longer required on the site (see Page 8 of audit statement in Annex L). Active measures are defined on Page 15 of Annex L as *Active management systems usually incorporate…. monitoring….and, because of this, regular…. inspection are necessary*.

Therefore, groundwater monitoring has ceased. It is stated on Page 9 of the audit statement that no management measures [from the LTEMP] are required for non-intrusive works [eg normal operation of the project]. The audit statement requires that the environmental controls in Section 7 of the LTEMP be implemented if intrusive works are proposed in the future.

2.3 Consultation

2.3.1 Department of Planning, Industry and Environment

Downer applied to the Department of Planning, Industry and Environment (DPIE) on 22 July 2021 to combine the air quality management plan, surface water management plan, waste monitoring program and waste management plan into the OEMP as chapters to reduce repetition across plans and to have the info in a single document/point of reference as this will improve the OEMP's implementation onsite.

DPIE approved this request in writing on 3 August 2021. Correspondence is attached in Annex J.

The air quality, surface water, waste monitoring and waste management specific requirements are addressed in sections 7.4, 7.7, 7.6 and 7.5 respectively, and the general management plan requirements under Condition C1 of the consent are addressed in Table 2.1.

The OEMP was submitted to DPIE on 20 December 2021 for review and comment. DPIE asked if the draft OEMP revised with EPA comments had been returned to EPA for review, the OEMP was not returned to EPA for review as EPA's comments were easily addressed as described in Section 2.3.2.

DPIE noted on 21 December 2021 that the OEMP does not appear to address conditions C1(c) or C6(c)(iv). These conditions have since been addressed in Section 2.2.

2.3.2 Environment Protection Authority

The EPA was consulted during preparation of this OEMP in accordance with CoC C5. This OEMP was provided to EPA on 8 November 2021 and a response was received on 9 December 2021. The EPA's feedback and OEMP section responding to the feedback is summarised in Table 2.1. EPA's full response is provided in Annex J.

Table 2.1 EPA feedback

Feedback	OEMP section
Air quality management plan and verification report	7.4.7
Noise verification report	7.8.2
Surface water management plan and verification report	7.7.5
Waste and dust management	
Re-use of waste materials generated onsite	7.5.4
Asbestos	7.5.4

Dust management	Table 7.7

3 SITE MANAGEMENT FRAMEWORK

The Downer site management framework aligns and integrates the site functions which define the operation's delivery methodologies and processes. The Sites Zero-Harm Management Plans (ZHMP) are a key element of the site management framework, and the integration document which identifies and details both the standard Downer site management practices, structure, and execution methods and any site-specific requirements for operations.

All positions in the Site Team have a clearly defined role and set of responsibilities that are included in this management plan. All members of the Site Team are made aware of and understand their responsibilities prior to commencing work for the site. Refer to Annex G – Project Roles & Responsibilities for the roles and responsibilities for environmental management.

The sites management plans are audited throughout the operation of the site to maintain compliance and are updated as required. Any updates to the site management plans are subject to the document review and approval process.

3.1 OEMP structure

The OEMP comprises two components:

1. The OEMP (this document) which:

- provides background information and strategic and broad environmental management considerations for the site; and
- includes procedures and processes for environmental management during operations.

2. Environmental management sub-plans, which detail current controls and mitigation measures to manage specific key site environmental risks or customer/ stakeholder concerns.

3.2 Referenced documents.

Table 3.1 Referenced documents.

CONTRACT AND MANAGEMENT PLANS	
DSRRC-DOW-PLA-ZH-	Rosehill Asphalt Plant Zero Harm Management Plan
DI-PM-TP023	Reconomy ZH Management Plan
145-RS-PM021001	Rosehill Workshop Operational Management Plan
DSRRC-DOW-PLA-ZH-0002-Emergency Management Plan	Emergency Management Plan - Rosehill
DSSRC-DOW-PLA-ZH-0001-Health & Safety Plan	Health and Safety Management Plan - Rosehill
DSRRC-DOW-PLA-ZH-0004 - Traffic Management Plan	Operational Traffic Management Plan
DSRRC-DOW-PLA-ENV-0002-PIRMP	Pollution Incident Response Management Plan
POLICIES	
DG-ZH-PO200	Environmental Sustainability Policy

PROCEDURES	
DG-QA-PR003	Internal Audits Procedure
DG-ZH-PR006	Incident Management Procedure
DG-ZH-PR007	ZH Performance Monitoring and Reporting Procedure
DG-ZH-PR015	Emergency Management Procedure
DG-ZH-ST025	Visitor Management Standard
DG-ZH-PR028	Zero Harm Risk Management Procedure
DG-RM-PR003	Project Risk and Opportunity Management Procedure
DG-ZH-PR077.1	Energy and Emission Reporting Procedure
DG-ZH-PR116.1	ZH Inspections and Audits
DG-ZH-PR116.2	Observation Procedure
STANDARDS	
DG-ZH-ST024	Hazardous Chemical and Dangerous Goods Management Standard
DG-ZH-ST013	Zero Harm Worker Consultation Standard
DG-HR-ST013	Training and Competency Management Standard
DG-ZH-ST064	Soil and Water Management Standard
DG-ZH-ST063	Waste Management Standard
DG-ZH-ST069	Environmental Noise and Vibration Standard
DG-ZH-ST070	Air Quality Management Standard
FORMS	
DG-ZH-FM063.1	Waste Disposal Register
DG-ZH-FM063.2	Waste Estimation Record
DG-ZH-FM071.2	Hygiene Inspection Form
DG-ZH-FM152	Spill Response Equipment Needs Assessment Form
DG-ZH-FM116.2	Environment and Sustainability Inspection Checklist
DG-ZH-FM116.2a	Monthly Environmental Inspection Checklist (Rosehill)
DG-ZH-FM116.2b	6 Monthly Environmental Inspection Checklist (Rosehill)
OTHER	
DG-ZH-PN002	10 Environmental Principles

4 DEFINITIONS

The terms in Table 4.1 are used in this document and are included in Definitions Register (sharepoint.com)

Table 4.1 Definitions

Downer worker	All individuals working for Downer as: employees, contingent labour hire, contractors, subcontractors, apprentices, trainees, and work experience students.
EMP	Environmental Management Plan
EMS	Environmental Management System
Environmental Aspect	An element of Downer's activities, products or services that can interact with the environment. A significant environmental aspect has or can have a one or more significant environmental impacts (see below – Significant Environmental Impact).
Environmental Aspects and Impacts Evaluation	A documented evaluation of the environment aspects and impacts of Downer's operations. The Risk Assessment Workshop is run at a site level and the Risk and Opportunities Register is developed from this workshop.
Environmental Impact	Any change to the environment, whether adverse or beneficial, wholly or partially resulting from Downer's environmental aspects. In context of this procedure it is referred to as risk or opportunity.
Integrated management system (IMS)	A document library controlled by Downer that: ▪ is designated as the IMS repository(s) for the single source of truth for all business processes. ▪ is designed to provide consistent process controls, meet the requirements of external standards, and link and integrate core business processes; and ▪ requires documents to be version controlled and identified by a document code and approved prior to releasing or removing from the document library.
INX	The Zero Harm database used to record, investigate and follow-up events, including audits, hazards, incidents, inspections, meetings, observations, risk assessments, reviews, and suggestions.
Significant Environmental Aspect	A "significant environmental aspect" is one that has or can have one or more significant environmental impacts. (see below – Significant Environmental Impact). Significant environmental aspects can result in risk or opportunity associated with adverse or beneficial impacts.
Significant Environmental Impact	A "significant environmental impact' is an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact, depends upon the sensitivity, value, and quality of the environment, which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts as well as the cumulative or incremental effects. Significant Environmental Impacts are those that are ranked A and B under Downer's Risk and Opportunities risk rating matrix. Environmental Critical Risk is also deemed to be a significant environmental aspect and impact.

Subcontractor	An individual or organisation that signs a contract with Downer to perform part or all of the obligations of a Downer contract, including the performance of work, i.e. provision of labour and/ or labour services. Examples of subcontractors include contingent labour hire, independent contractors, consultants and cartage contractors.
Task-based risk assessment	A risk assessment for a specific task or work activity, e.g. safe work method statement (SWMS), job hazard analysis (JHA), and job safety and environmental analysis (JSEA).
Zero Harm (ZH)	Health, safety and environment and community.

5 STANDARDS & LEGISLATION

5.1 Legislation and regulatory requirements

Downer is aware of the importance of complying with all applicable environmental measures, and where practicable, exceeds the minimum legislative and regulatory requirements. Downer's obligations include conditions of regulatory approvals as well as the generally applicable environmental Acts and their subsidiary legislation. Downer and the site team monitor changes to environmental legislation through monthly updates on environmental law changes provided by EnviroLaw, and ensure compliance is maintained throughout the lifecycle.

Site personnel are to be aware of their legal responsibilities in accordance with DG-ZH-ST002 Legislative and Other Requirements Standard.

The environmental authorisations, resource consents and permits in Table 5.1 are required for the site.

Table 5.1 Authorisations and permits

Authorisation/ Permit ** Awaiting final approval*	**Authority**	**Responsibility**
Approval under NSW *Environmental Planning and Assessment Act 1979*	DPIE	VE Property Pty Ltd
Environment protection license under NSW *Protection of the Environment Operations Act 1999*	EPA	Downer EDI Works Pty Ltd
Sydney Water Trade Waste Permit*	Syd. Water	Downer EDI Works Pty Ltd
NSW EPA Downer recovered aggregate and sand order 2024	EPA	Downer EDI Works Pty Ltd
NSW EPA Downer recovered aggregate and sand exemption 2024	EPA	Downer EDI Works Pty Ltd
Commonwealth legislation		
Environment Protection and Biodiversity Conservation Act 1999		
Environment Protection and Biodiversity Conservation Regulations 2000		
National Greenhouse and Energy Reporting Act 2007		
National Greenhouse and Energy Reporting Regulations 2008		
Ozone Protection and Synthetic Greenhouse Gas Management Act 1989		

Authorisation/ Permit * *Awaiting final approval*	Authority	Responsibility
Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995		
Site based legislation		
Protection of the Environment Operations Act 1997 (POEO Act)		
Protection of the Environment Operations (General) Regulation 2009		
Protection of the Environment Operations (Clean Air) Regulation 2010		
Protection of the Environment Operations (Waste) Regulation 2014		
Protection of the Environment Operations (Noise Control) Regulation 2017		
Work Health and Safety Act 2011		
Work Health and Safety Regulation 2017		
Australian Standards and Guidance Material		
ANZECC 1992 Australian Water Quality Guidelines for Fresh and Marine Waters		
AS 1940 The Storage and Handling of Flammable & Combustible Liquids		
AS 2436 Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites		
AS 3780 The Storage and Handling of Corrosive Substances (similar standards exist for other classes of dangerous goods)		
AS 4326-2008 The Storage and Handling of Oxidising Agents		
AS/NZS 3833 The Storage and Handling of Mixed Classes of Dangerous Goods, in Packages and Intermediate Bulk Containers		
IECA 2008 – Best Practice Erosion and Sediment Control		
ISO 14001 Environmental Management Systems – Requirements with Guidance for Use		
EPA (2014) *Waste Classification Guidelines*		
Fire and Rescue NSW – Fire Safey Guideline; Guideline for the bulk storage of Tyres		
Fire and Rescue NSW – Fire Safety Guideline; Fire Safety in waste facilities		

Development consent SSD 10459 was granted to VE Property on 31 January 2021 for the project described in Chapter 6. A copy of the development consent is attached as Annex A.

The conditions relevant to the operation of the site are outlined in Chapter 2.

5.2 Compliance tracking

Compliance is tracked continuously during operations using Downer's compliance management system **INX**, which allows authorised users to:

- access the Compliance Tracking Database, Incident Reporting Database, and Complaints Register; and
- sort and evaluate the compliance status of all conditions at any time.

The Compliance Tracking Database includes a protocol to address:

- auditing requirements.

- reporting requirements; and
- incident response mechanisms.

6 SITE DESCRIPTION

6.1 Description

6.1.1 Location and access

The site address is 9 Devon Street, Rosehill and is part of lot 100 in deposited plan 1168951 and covers 35.068 ha (Figure 6.1). The site will be on the newly created 6.998 ha Lot 6 of the plans listed in Annex A.

The site is in the Parramatta Local Government Area (LGA) and is zoned IN3 Heavy Industrial under the land use table in Part 2 of the LEP. The proposed use (general industry and waste or resource management facility – resource recovery facility) is permitted with consent in this zone.

The site is accessed from James Ruse Drive via Grand Avenue, Colquhoun Street and Devon Street or Grand Avenue, Durham and Devon streets. The site is accessed from Parramatta Road via Wentworth, Kay, Unwin, Colquhoun and Devon streets

Figure 6.1 Site location

6.1.2 Site summary

The site is in the southern part of Lot 6 and an elevated pad (front block) forms the northern part of the lot. The front block will possibly be used by another Downer business unit, leased or sold. The final operational use of the front block would be subject to a future development application.

The site comprises the components summarised below, with processes shown in the flow diagrams in Annex I.

Asphalt Plant

A fixed Ammann Universal HRT Stationary asphalt plant will be constructed on Lot 6, which will produce up to 550,000 tonnes per annum (tpa) of asphalt. The maximum height of fixed equipment will be 41 m. Approximately two thirds of the outside of the asphalt plant will be clad.

Reclaimed Asphalt Pavement Facility

Up to 250,000 tpa of RAP will be cold planed from pavements with specialist equipment and transported in tip trucks to the site. It will then be stored in the dedicated RAP stockpile areas.

The RAP will be granulated and screened on an as required basis for use in the production of asphalt (as a substitute for aggregates and bitumen) or for pavement materials. The RAP plant will be inside a shed that will be enclosed on the north, west and south sides. The east side will be open in parts so the front-end loader can feed the RAP plant and remove the finished products.

Up to 90,000 tpa of RAP will be stored on site at any one time. Stockpiles will be a maximum 10 m high.

Bitumen Products Facility

A next generation, co-located emulsion plant is proposed on Lot 6, which will manufacture approximately 15,000 tpa using a purpose-built plant and will involve careful formulation of the products to produce chemically stable and well performing materials.

Reconomy Facility

Downer proposes to construct and operate a new Reconomy facility on Lot 6. The Reconomy facility will provide a recycling option for the following wastes which are traditionally landfilled:

- Street sweeper/stormwater pit waste.
- Non-destructive digging mud.
- Material Recovery facility glass fines.
- Material Recovery bitumen-coated aggregates and sand

Reconomy uses a customised material screening and processing plant and water treatment to recover materials, which are used in the manufacture of asphalt and other road products. The facility will process up to 40,000 tpa of the above waste streams.

Material will be separated during the recovery process and temporarily stockpiled adjacent to the recovery plant at the separation points and removed as required. Recovered aggregates and sand will be beneficially reused almost immediately in the adjacent asphalt plant and will require temporary storage bays as a collection point prior to transport to the asphalt plant.

6.2 Site contacts

The key operational contacts are provided in Table 6.1.

Table 6.1 Key site contacts

Role	Name	Details
Production Manager	Paul Sherry	
Assistant Manager Production	Gordon Mclisky	
Maintenance and Recycling Manager	Roy Stiff	
Technical & Laboratory Manager	David Smith	
Reconomy Production Supervisor	Nakita Powell	

Zero Harm Advisor	Barry Wood	
Environmental and Sustainability Manager – TI	Dale Thomas	

6.3 Environmental Sensitivities Map

The environmental control map for the site is included in *Annex H – Environmental Sensitivities Map* and details the environmental sensitivity of the site, including but not limited to:

- Endangered and threatened ecological communities.
- Watercourses.
- Site boundaries and work locations.
- Environmental protection boundaries.
- Designated 'no-go zones'.

7 ENVIRONMENTAL MANAGEMENT

7.1 Objectives and targets

In consideration of DG-ZH-PO200 Environmental Sustainability Policy and any identified hazards and/ or risks for the site, Downer has developed a standard set of objectives and targets that are applicable to all projects, as per Table 7.1. These objectives and targets are managed to ensure that all identified, as well as potential environmental impacts that could reasonably be expected to occur during the works, fall within acceptable and agreed limits. This is achieved through pro-active environmental management planning prior to carrying out particular elements of work.

Table 7.1 Objectives and targets

Focus area	Objective	Target
Legal compliance	▪ Compliance with all legal requirements. ▪ Undertake the project in accordance with environmental approvals.	▪ No regulatory infringements, including PINS and prosecutions. ▪ 100% compliance with statutory approvals.
Monitoring	Complete internal environmental audits in accordance with the pre-planned audit schedule.	Complete 100% of scheduled environmental audits.
Reporting	Promote a positive reporting culture. Ensure all environmental observations, hazards and near misses and incidents are entered into **INX**. Ensure actions are closed out by the nominated due dates.	0 actions arising from incident overdue >30 days.
Planning	Ensure that Downer workers are provided with regular and up-to-date information on environmental aspects relevant to the site.	Review the content of the OEMP in accordance with Section 11.1 to maintain the currency of information provided to Downer workers and others.

Focus area	Objective	Target
Risk management	Ensure that Downer workers are familiar with hazards and risks associated with the execution of the scope of work (work under contract).	The Site Risk & Opportunity Register, controls, and treatment plans are regularly reviewed and communicated to the site team in accordance with ***DG-RM-PR003 Project Risk and Opportunity Management Procedure***.
Consultation	Ensure that Downer workers are regularly consulted on matters that affect the environment.	Conduct pre-start meetings (daily), and toolbox meetings (monthly).
Training	Ensure Downer workers are provided with training to enable work practices to be undertaken that are safe and minimise risk to the environment.	All Downer workers undertake, as a minimum, the two levels of induction training, i.e. site-specific induction and Downer site specific induction.

7.2 Risk management

Whilst operating at the site, risks are identified, assessed, and controlled in accordance with DG-ZH-PR028 Zero Harm Risk Management Procedure .

Environmental risk and opportunities are also referred to as environmental aspects and impacts. The identification of environmental aspects and their potential impacts to the environment is determined following a review of:

- Consent conditions as applied by the State and Federal governments and detailed in the associated Environmental Impact Assessment (EIA) document; and
- actual scope of work and consideration of all applicable legislation, standards, and other conditions.

Taking into consideration the points above, environmental aspects and impacts are identified in the Risk Assessment Workshop and documented in the site Risk and Opportunities Register.

The Site Risk Register details the relevant environmental aspects, their associated impacts, the mitigation control, and a rating of their significance.

A “significant environmental aspect” is one that has or can have one or more significant environmental impacts. Significant environmental aspects can result in risk or opportunity associated with adverse or beneficial impacts. Significant Environmental Impacts are those that are ranked A and B under Downer’s Risk and Opportunities risk rating matrix. Environmental Critical Risk is also deemed to be a significant environmental aspect and impact and management controls are documented in this plan.

Environmental risks are managed during the site’s operation in accordance with this Management Plan and the site’s Risk & Opportunity Register. The Project Risk & Opportunity Register is created and maintained as per DG-RM-PR003 Project Risk and Opportunity Management Procedure and details the relevant environmental aspects, their associated impacts, the mitigation control, and a rating of their significance

Risk assessments are completed as follows:

- A Site Risk Register is developed by relevant personnel. The Site Team is responsible for maintaining the Risk Register.
- All high risk tasks are assessed by having a SWMS developed for them using the SWMS Form, as per DG-ZH-PR028 Zero Harm Risk Management Procedure
- A SWMS Register is developed as per DG-ZH-PR028 Zero Harm Risk Management Procedure.
- Zero Harm start-up (i.e. pre-commencement) toolbox talks are conducted to communicate key hazards, risks, and the SWMS, and are documented accordingly.

- Zero Harm pre-start and risk control assessments are conducted prior to commencing work each day.

7.3 General environmental management

Table 7.2 provides measures to avoid, mitigate and manage the potential environmental impacts identified through the environmental impact assessment of the site.

Table 7.2 Environmental management

Measure	Timing/ frequency
Operational noise management	
▪ All onsite activities are to comply with DG-ZH-ST069 Environmental Noise and Vibration Standard	At all times
▪ The Applicant must comply with the following operating hours: Monday – Sunday: 24 hours	At all times
▪ Use the quietest plant feasible that can do the job.	At all times
▪ Schedule the use of noisy equipment at the least-sensitive time of day.	Least-sensitive time of day
▪ Reduce highly noise generating activities at night.	Night
▪ Position noisy equipment behind structures that act as barriers, or at the greatest distance from the noise-sensitive area, when possible.	At all times
▪ Keep equipment well maintained and operating it in a proper and efficient manner.	At all times
▪ Employ ‘quiet’ practices when operating equipment, for example, positioning idling trucks in appropriate areas.	At all times
▪ Run staff-education programs and regular toolbox talks on the effects of noise and the use of quiet work practices	At all times
▪ Use best available technology including alternatives to tonal reversing alarms and efficient muffler design.	At all times
▪ Downer will ensure that noise generated by the operation of the DSRRC does not exceed the noise limits in Table 7.23.	At all times
Greenhouse gas	
▪ Investigate ways to reduce energy consumption throughout the life of the site and reviewing energy efficient alternatives.	At all times
▪ Regular maintenance of equipment and plant.	At all times
▪ Ensure plant and equipment are switched off when not in use.	When not in use
▪ Monitoring the consumption of fuel and regularly maintaining diesel powered equipment to ensure operational efficiency.	At all times
▪ Monitoring the total site electricity and natural gas consumption and investigating avenues to minimise consumption.	At all times

▪ Source consumables materials from environmentally sustainable sources where possible.	At all times
▪ Energy usage will be reviewed in accordance with procedure DG-ZH-PR077.1 Energy and Emissions Reporting Procedure.	At all times
▪ Site energy usage will be monitored in accordance with NGER requirements.	At all times
Biodiversity	
▪ An average 40 m riparian corridor will be provided along Duck River consistent with the averaging rule described in DPI Water's (2012) Guidelines for Riparian Corridors on Waterfront Land.	At all times
▪ The existing native vegetation along Duck River will be demarcated as a no-go zone and will include appropriate signage	At all times
▪ Vegetation and habitat values within the site will be managed as per the landscape management plan.	At all times
▪ If unexpected, threatened flora and fauna species are discovered, stop works immediately and contact your Zero Harm Team, which will contact DPIE - Environment, Energy and Science group for advice if required.	At all times
▪ If impacts to aquatic environments are observed within the vicinity of the work area (e.g. spill of any chemicals or substantial runoff of sediment), works at that location will cease and contact your Zero Harm Team, which will contact the NSW EPA and/or council for further advice if required.	If impacts are observed
Hazardous substances and dangerous goods	
▪ Dangerous goods, as defined by the Australian Dangerous Goods Code, will be stored and handled strictly in accordance with: (a) all relevant Australian Standards; and (b) DG-ZH-ST024 Hazardous Chemical and Dangerous Goods Management Standard In the event of an inconsistency between the requirements of part (a) and (b), the most stringent requirement must prevail to the extent of the inconsistency.	At all times
▪ All personnel will complete awareness training that includes hazardous substance management, emergency response and the use of spill kits.	During training
▪ Hazardous materials will be transported to and from the site by a licensed contractor, and stored and handled in accordance with the requirements of DG-ZH-ST024 Hazardous Chemical and Dangerous Goods Management Standard	During transportation
▪ Vehicles and transport vessels used on-site are to be regularly inspected for leaks, spills or other damage.	At all times
▪ Appropriately sized and stocked spill response kits will be provided within strategic areas of the site, and within mobile vehicles used to transport hazardous materials at the site.	At all times
▪ Spill response kits will be maintained, clearly identified and readily accessible on site for use in case of accidental spill. Key staff will be skilled in their location as well as usage, application and disposal of contaminated material.	At all times
▪ Vehicles and equipment will be refuelled at the diesel storage area.	During refuelling

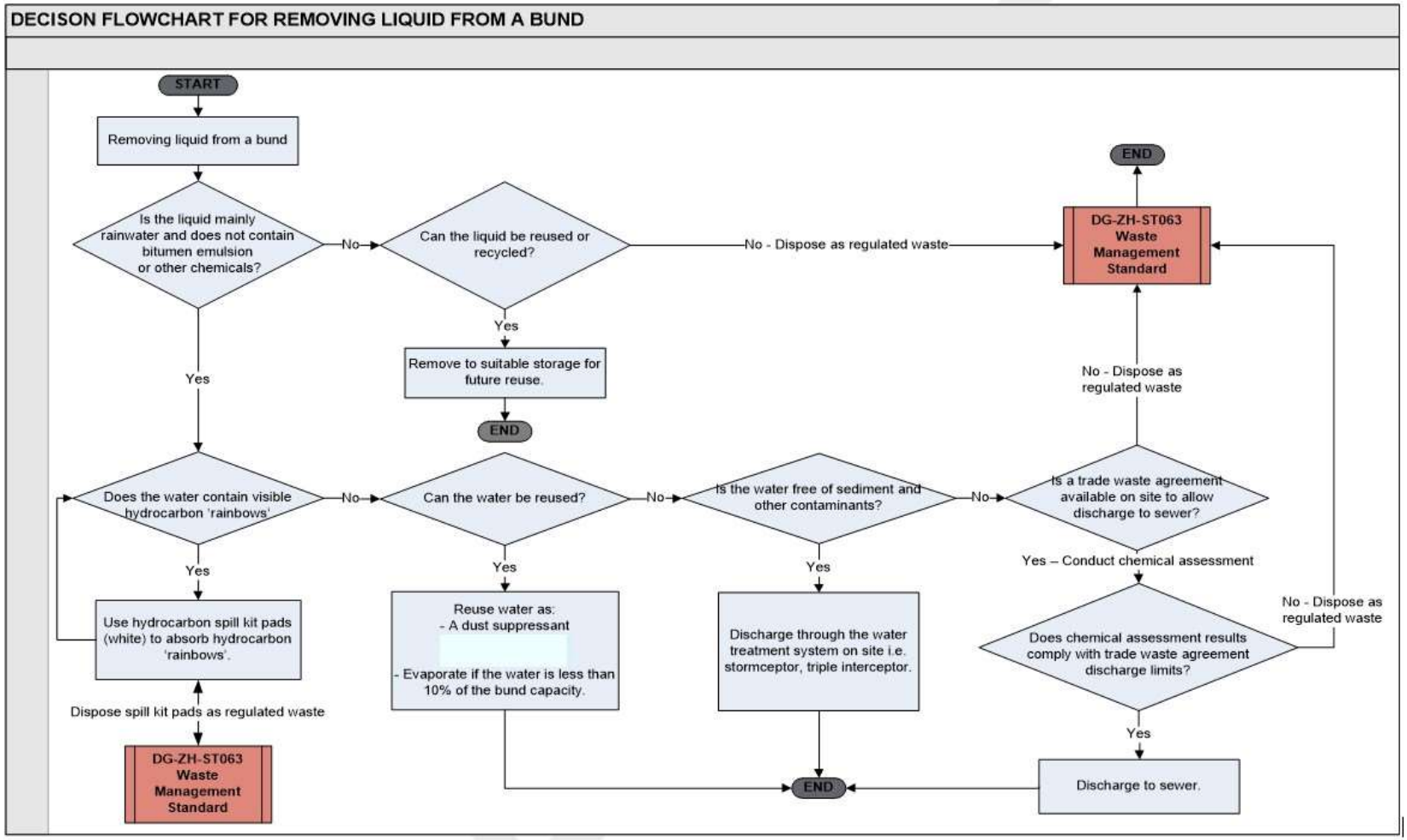
▪ Any scheduled mobile plant maintenance and repairs will be conducted offsite where possible.	During maintenance and repairs
▪ Equipment will not be used if there are any signs of fuel, oil or hydraulic leaks. Leaks will be repaired immediately, or the equipment will be removed from site and replaced with a leak-free item.	At all times
▪ A database will be maintained to assist in the recording and management of any chemicals and hazardous substances stored at the site.	At all times
▪ Any fuels spillage will be collected, and the contaminated material disposed of at a licensed waste management facility or used in the asphalt plant.	At all times
▪ Emergency procedures will be prepared and implemented for dealing with spillage of hazardous substances and dangerous goods.	At all times
▪ Hazardous chemicals will be stored in a bunded area ensuring the following requirements: o Bund constructed of impervious materials. o Contains at least 25% of the total volume stored or at least 110% of the largest container, whichever is larger. o The storage vessel(s) are back from the bund wall (or shielded) to prevent jetting of the liquid outside of the bund.	At all times
▪ A register and copy of SDSs of all hazardous substances and fuel and oil storages will be maintained in accordance with DG-ZH-ST024 Hazardous Chemical and Dangerous Goods Management Standard.	At all times
▪ Hazardous chemicals will be segregated in accordance with DG-ZH-ST024 Hazardous Chemical and Dangerous Goods Management Standard.	At all times
▪ For oxygen, acetylene and other compressed gases: o cylinders in use will be adequately restrained (i.e. chained to a trolley or other appropriate device) o full and empty cylinders in storage will remain upright and restrained to a wall (or similar) in an area away from sources of heat. o empty cylinders will be stored separately to those that are full. o cylinders of like gases will be stored together, except in the case of oxy/ acetylene secured to a trolley for use; and o oxygen and fuel gasses will be stored separately from corrosive and flammable gases.	At all times
▪ The disposal of hazardous chemicals and dangerous goods will be undertaken in a safe manner that complies with DG-ZH-ST063 Waste Management Standard.	During disposal
▪ Removal of liquid from a bund will be completed in accordance with Figure 7.1of this plan - Decision Flowchart for Removing Liquid from a Bund.	During liquid removal
▪ Hazardous chemicals management will be formally inspected regularly.	During site inspections
▪ Inspection of open storage facilities will be undertaken before and after significant (>10 mm) rainfall events to ensure adequate capacity remains.	Before and after rain
▪ The site trade waste system will be sampled in accordance with any Trade Waste Approval requirements to ensure that the site trade waste discharge is in accordance with the site trade waste permit.	Quarterly

▪ The development must not result in the non-compliance of any existing dangerous goods fuel and gas pipelines in accordance with AS2885 Pipelines – Gas and Liquid Petroleum.	At all times
Traffic	
▪ Downer will ensure that: (a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the development are constructed and maintained in accordance with the latest version of AS 2890.1:2004 Parking facilities Off-street car parking (Standards Australia, 2004), AS 2890.2:2018 Parking facilities Off-street commercial vehicle facilities (Standards Australia, 2018) and AS 2890.6.2009 Parking facilities Off-street parking for people with disabilities (Standards Australia, 2009) (b) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant AUSTROADS guidelines. (c) the development does not result in any vehicles queuing on the public road network. (d) heavy vehicles and bins associated with the development are not parked on local roads or footpaths in the vicinity of the site. (e) all vehicles are wholly contained on site before being required to stop. (f) all loading and unloading of materials is carried out on-site; (g) all trucks entering or leaving the site with loads have their loads covered and do not track dirt onto the public road network; and (h) the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times.	At all times
▪ The development will not result in any vehicles queuing on the public road network.	At all times
▪ Heavy vehicles and bins associated with the development will not be parked on local roads or footpaths in the vicinity of the site.	At all times
▪ All vehicles will be wholly contained on site before being required to stop.	At all times
▪ All loading and unloading of materials will be carried out on-site.	At all times
▪ All trucks entering or leaving the site with loads will have their loads covered and will not track dirt onto the public road network.	At all times
▪ The proposed turning areas in the car park will be kept clear of any obstacles, including parked cars, at all times.	At all times
Public safety	
▪ To address the risks to public safety, the site will be fully fenced. The site entry and exit points will be monitored by surveillance cameras, and have necessary signage erected. All vehicle and pedestrian movements in and out of the site will be closely monitored.	At all times
▪ Downer will continuously review and improve security at the site, including new fencing, security cameras, gates and signage.	During management review
▪ All visitors to the site will be required to report to the site administration office and register prior to gaining entry to the active areas of the site.	At all times

Risk to workers	
▪ Downer commits to preparing an emergency and evacuation plan in accordance with AS 3745–2010 Planning for emergencies in facilities, which will be appended to and submitted to DPIE with the operational environmental management plan (Annex K). The plan will include measures to be implemented during floods and flood evacuation.	Prior to operations then at all times
▪ Downer commits to preparing an emergency services information package, which will be appended to the operational environmental management plan and made available to emergency services as they enter Lot 6 (Annex K).	Prior to operations then at all times
▪ Designated first aid and emergency response equipment will be available. Appropriately trained personnel will be on site throughout the life of the operations to provide first aid and respond to site emergencies.	At all times
▪ Any injuries incurred at the site will be reported and investigated in consultation with SafeWork NSW and other relevant authorities. Any recommendations or findings of investigation reports will be implemented by Downer where feasible and practical.	If there is an injury
Lighting	
▪ Outdoor lighting will be operated in accordance with Australia Standard 4282–2019 – Control of the obtrusive effects of outdoor lighting, including mounting, screening and directing in such a manner that it does not create a nuisance to surrounding properties, the public road network or the riparian corridor / Duck River.	At all times
Other Management Considerations	
▪ The environmental controls in Section 7 of the ***LTEMP*** be implemented if intrusive works are proposed in the future.	If Intrusive works are to be conducted onsite

Figure 7.1 Decision flowchart – removing liquid from a bund

(From standard DG-ZH-ST024 Hazardous Chemical and Dangerous Goods Management Standard)



7.4 Air quality management

7.4.1 Overview

Condition B8 of the consent requires Downer to prepare an air quality management plan prior to operation of the site to the satisfaction of the Planning Secretary. The specific requirements are reproduced in Table 7.3.

Table 7.3 Air quality management plan requirements

Requirement	OEMP reference
(a) be prepared by a suitably qualified and experienced person(s);	7.4.1
(b) be prepared in consultation with the EPA;	2.2.2
(c) detail and rank all emissions from all sources of the development, including particulate emissions;	7.4.2
(d) describe a program that is capable of evaluating the performance of the operation and determining compliance with key performance indicators, including the prescribed concentrations contained in the Protection of the Environment Operations (Clean Air) Regulation 2010;	7.4.5, 7.4.6, 7.4.7
(e) identify the control measures that will be implemented for each emission source; and	7.4.4
(f) nominate the following for each of the proposed controls:	
i. key performance indicator;	7.4.3
ii. monitoring method;	7.4.5
iii. location, frequency and duration of monitoring;	7.4.5
iv. record keeping;	10, 11
v. complaints register;	10.4
vi. response procedures; and	7.4.4, Annex F
vii. compliance monitoring.	7.4.5, 7.4.6, 7.4.7

Condition B9 requires to:

a. not commence operation until the AQMP required by condition B8 is approved by the Planning Secretary; and
b. implement the most recent version of the AQMP approved by the Planning Secretary for the duration of the development.

This air quality section has been prepared by Todoroski Air Sciences. Todoroski Air Sciences, a specialist air quality and environmental consultancy whose personnel are members of the Clean Air Society of Australia and New Zealand. Todoroski Air Sciences has previously conducted the Air Quality Impact and Greenhouse Gas Assessment for the Central Sydney Industrial Estate Incorporating the DSRRC.

7.4.2 Emissions sources

The most significant pollutant generated from operation of the site is dust. Table 7.4 ranks the annual particulate emissions for the various activities associated with the asphalt and bitumen plant, RAP facility and Reconomy facility.

Estimates of air pollutant emissions associated with the site have been obtained from the Air Quality Impact Assessment (AQIA) (Todoroski Air Sciences, 2020). The controls assumed in this estimation are detailed in Appendix B of the AQIA. Note that for the purpose of this comparison, emissions are ranked based on the level of TSP, and rankings may differ slightly for PM_{10} and $PM_{2.5}$.

Table 7.4 Summary of dust emissions (kg/year)

Activity	Dust emissions		
	TSP	PM_{10}	$PM_{2.5}$
Hauling	8,361	1,605	388
Handling/loading/conveying	1,987	941	142
Screening	1,919	660	120
Wind erosion	965	483	73
Exhaust	815	815	790
Crushing	203	90	6
Total	**14,250**	**4,593**	**1,520**

Some odours may be generated by aspects of the site. Table 7.5 ranks the odour emission rates, per the AQIA for various site activities.

Table 7.5 Summary of odour emission rates

Location	Source	Odour emission rate ($ou.m^3/s$)
Asphalt plant	Plant stack exhaust	46,000
	Loading asphalt to the truck	11,000
	Truck waiting to be tarped	1,080
Reconomy	Organics stockpile	365

Other potential pollutant emissions from the asphalt plant stack exhaust include CO, NO_x, SO_2, metals, BTEX and PAH. These pollutant emissions have not been ranked as the asphalt plant stack exhaust is the only significant source of these emissions identified.

7.4.3 Performance indicators

There are no load limits, air quality criteria or air emission limits specified for the site in the development consent conditions.

POEO standards

Table 7.6 presents the applicable standards of concentration for non-scheduled activity as per the Protection of the Environment Operations (Clean Air) Regulation 2010 (POEO) for the stack source associated with the asphalt plant.

Table 7.6 Applicable POEO standards of concentration

Pollutant	Standard of concentration for non-scheduled activity – group C
Solid particles	100 mg/m^3

Performance indicators

Table 7.7 presents the air quality related key performance indicators that will be used to assess the air quality performance of the DSRRC.

Table 7.7 Air quality performance indicators

Measure	Key performance indicator
Training	All site personnel have completed air quality training
Implementation of the management practices	Annual compliance checklist shows that all management practices listed in this plan were implemented
Visual monitoring	No dust visible beyond boundary
Validated air quality complaints are minimised and appropriate management actions are implemented following receipt of a complaint	No validated air quality complaints
Stack testing	Solid particle concentrations do not exceed the applicable 100 mg/m^3 POEO standard

7.4.4 Air quality management measures

Downer will install and operate equipment in line with best practice to minimise the generation of air emissions and ensure compliance with all air quality requirements.

All reasonable steps are undertaken to minimise dust generated by the site and ensure that the site does not cause emissions of offensive odour beyond the boundary of the site.

Table 7.8 presents the operational air quality control measures and management practices implemented for the site.

Table 7.8 Operational air quality management measures

Measure	Timing/ frequency
General	
All onsite activities are to comply with DG-ZH-ST070 Air Quality Management Standard.	At all times
Training is provided to all site personnel on appropriate air quality control practices and the requirements per this plan.	As required
The weather forecast is checked daily, and appropriate management measures are implemented prior to adverse weather to minimise particulate emissions from the site.	Daily
If adverse weather conditions occur during operations, activities are assessed and modified as required. Cease activity where reasonable levels of dust cannot be maintained using available means.	Prior to adverse weather
Visual monitoring of activities is undertaken to identify dust generation.	At all times
The site maintains an Environmental Complaints Register. All environmental complaints received are stored within Downers INX System.	At all times

In the event of an odour complaint, an immediate investigation of any odour sources is undertaken, together with appropriate actions to eliminate any identified excessive odour.	If there is an odour complaint
Plant, equipment and vehicles	
Where possible, all mobile non-road diesel equipment operated at the DSRRC site achieve a particulate matter emission performance commensurate with US EPA Tier 4 particulate emission standards.	Where practical
Engines of on-site vehicles and plant are switched off when not in use.	When not in use
Vehicles and plant are fitted with pollution reduction devices where practicable.	Where practical
Vehicles are maintained and serviced according to manufacturer's specifications.	At all times
Material handling	
Drop heights from loading and handling equipment are reduced where practical.	Where practical
Excessively dusty materials are dampened during handling.	When excess dust generated
Exposed areas/stockpiles	
The extent of exposed surfaces and stockpiles is kept to a minimum.	At all times
Exposed areas and stockpiles are either covered or are dampened with water as far as is practicable if dust emissions are visible, or there is potential for dust emissions outside operating hours.	If dust is or could be generated
Hauling/ vehicle movements	
On-site speed limits are enforced.	At all times
Vehicle traffic is restricted to designated routes.	At all times
Driveways and hardstand areas are swept/cleaned regularly as required. A sweeper is regularly deployed to the operational site to sweep/clean internal roads periodically to prevent any tracking of fine debris.	As required
Spills onto trafficked areas are cleaned as soon as possible.	If there is a spill
Delivery schedules are coordinated to avoid a queue of the incoming or outgoing trucks for extended periods of time.	During deliveries
Vehicle loads are covered when travelling off-site.	During offsite transport
RAP	
A dedicated access road will be maintained through the centre of the RAP stockpile area.	At all times
Dedicated truck tipping areas will be maintained in the RAP stockpile areas and will be kept free from RAP material.	At all times
The unprocessed RAP material is dampened using a sprinkler system when visible dust is evident from the stockpiles or during handling of the RAP material.	If dust is being generated/during handling
The unprocessed RAP stockpiles are restricted to the designated stockpile areas and not be allowed to encroach onto the truck access road through the centre of the	As required

stockpile area. This central unprocessed RAP stockpile area access road must be swept on a regular basis to remove spilt RAP material.	
The volume of unprocessed RAP is regularly monitored and receival of unprocessed RAP stopped when the stockpile area reaches capacity to prevent RAP being stockpiled outside the designated stockpile area.	At all times
RAP will be processed in a shed. Maintenance access roller doors on the RAP processing shed remain closed at all times during RAP processing.	During RAP processing
The granulating and separating/screening process will be against the clad western wall of the RAP processing shed, as far (25m) from the partly open eastern side of the RAP processing shed as possible.	At all times
The granulating process is fully enclosed inside a housing that contains hard wearing impact curtains.	At all times
A spray mist is applied to newly crushed RAP just prior to release from the transfer conveyor into the finished product bunkers.	During processing
Processed RAP is stored in concrete product bunkers.	During RAP storage
The volume of processed RAP in the finished product bunkers is regularly monitored and processing stopped when the bunkers reach capacity to prevent RAP spilling out of the bunkers and RAP processing shed.	During RAP storage
All dust controls built into the design of the RAP processing facility (e.g. roll top type belt covers on conveyors and spray misters at discharge points of the radial transfer conveyors) are maintained to operate as per manufacturers specifications.	At all times
Asphalt plant	
Ensure all emission controls built into the design of the asphalt plant (e.g. the stack exhaust controls and the bitumen vapour evacuation system at the loadout area) are maintained to operate as per manufacturers specifications.	At all times
Regularly clean road surface to ensure any aggregates that spill onto the road surface at the underground aggregate loading hopper to prevent them being tracked onto the internal and external roads.	If there is a spill
Bitumen emulsion plant	
Ensure all emission controls built into the design of the bitumen plant (e.g. the carbon filter on bitumen storage tanks) are maintained to operate as per manufacturers specifications.	At all times
Reconomy plant	
Organic material recovered from road sweepings in the Reconomy plant will be removed from site on a regular basis to reduce the level of decomposition and associated odour.	As required

7.4.5 Pollutant monitoring

No specific ambient air quality monitoring was recommended in the AQIA as modelling did not predict any exceedance of the relevant impact assessment criteria at the residential receptors.

Stack testing

Where stack testing is not stipulated by license conditions it must be carried out every 2 years, or as directed and must include total particulate testing as a minimum, additional testing can be conducted based on a site-

specific risk assessment in accordance with the Zero Harm Compliance Guideline DG-ZH-CG070 Air Pollution and Odours.

Discharge parameters to be measured include diameter, volumetric flow rate, velocity, temperature, and particulates concentration.

Velocity, volumetric flow rate and temperature are to be measured in accordance with Test Method 2 and particulates are to be measured in accordance with Test Method 15 of the NSW EPA *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales* (2007).

The monitoring duration for each parameter is as specified by the relevant testing method/standard.

Records of stack testing results are to be kept for at least 4 years after the monitoring to which they relate took place.

Visual dust monitoring

Visual dust monitoring is to be undertaken continually during operation. Annex F presents the visual dust contingency measures. If a visible dust plume generated by the site is observed with the potential to cross or having already crossed the facility boundary, an immediate investigation of any dust sources must be undertaken together with appropriate actions to eliminate any identified excessive dust.

Downer will record any observation of excessive dust generated by the site in INX and environmental inspection forms. Records are to include the following details where relevant:

- the date, time, duration and location of the observation.
- meteorological conditions at the time of observation (obtained from the nearest BoM weather station);
- whether the visual dust plume travelled off-site.
- any source/s of dust specifically identified as contributing to the visual dust plume; and
- the action taken by Downer to minimise dust levels and prevent the issue from recurring.

7.4.6 Performance evaluation

The performance of the site is to be evaluated to be against the key performance indicators outlined in Table 7.9. Table 7.9 indicates the evaluation schedule for each key performance indicator.

Where performance indicators are not being met, the contingency plan per Annex F is to be implemented.

Table 7.9 Key performance indicators

Key performance indicator	Performance evaluation schedule
All site personnel have completed air quality training	Monthly
Annual compliance checklist shows that all management practices listed in this plan were implemented	Annual
No dust visible beyond boundary	Continuous
No validated air quality complaints	As required
Solid particle concentrations do not exceed the applicable 100 mg/m^3 POEO standard	Annual

7.4.7 Air quality verification

An air quality verification report (AQVR) was submitted to the EPA and Planning Secretary within three (3) months of the commencement of operation of the site. The AQVR must:

(a) be undertaken in accordance with the Approved Methods for Modelling and Assessment of Air Pollutants in NSW.

(b) demonstrate that all reasonable and feasible mitigation measures have been incorporated into the development;

(c) reference manufacturer's specifications and/or performance guarantees for the asphalt plant.

(d) demonstrate compliance with the prescribed concentrations contained in the *Protection of the Environment Operations (Clean Air) Regulation 2010*;

(e) outline management actions to be taken to address circumstances where the concentrations specified in part d) have been exceeded; and

(f) describe the contingency measures and the timing of their implementation in the event the management actions are not effective in reducing the air emissions to an acceptable level.

Air quality matters will be verified by a suitable qualified person.

The pollutants in Table 7.10 will be also be assessed against the Group 6 limits during air quality verification.

Table 7.10 Reference pollutants

Pollutant	Units	Method
Temperature	degrees Celsius	TM-2
Volumetric flow rate	Cubic metres per second	TM-2
Oxygen	Percent	TM-25
Moisture	Percent	TM-22
Solid Particles (Total)	Milligrams per cubic metre	TM-15
Volatile organic compounds	Milligrams per cubic metre	TM-34
Oxides of Nitrogen, as NO2 equivalent	Milligrams per cubic metre	TM-11
Type 1 and Type 2 substances (in aggregate)	Milligrams per cubic metre	TM-12, TM-13, TM-14

A minimum of two rounds of sampling should be undertaken for each pollutant contained in table 1 to provide a suitable characterisation of the emissions during normal operations. The two rounds of sampling must not occur on the same day. Sampling must be conducted when plant / process conditions are representative of normal operations. A copy of this report is available at SSD-10459_AQVR_R1.pdf (downergroup.com)

7.5 Waste management

7.5.1 Overview

Condition B45 of the consent requires Downer to prepare a waste management plan prior to operation of the site to the satisfaction of the Planning Secretary. The specific requirements are reproduced in Table 7.11.

Table 7.11 Waste management plan requirements

Requirement	OEMP reference
(a) detail the type and quantity of waste to be generated during operation of the development;	7.5.3
(b) describe the handling, storage and disposal of all waste streams generated on site, consistent with the NSW *Protection of the Environment Operations Act 1997*, NSW Protection of the Environment Operations (Waste) Regulation 2014 and the Waste Classification Guideline (EPA, 2014);	7.5.2, 7.5.4, 7.5.5

(c) detail the materials to be reused or recycled, either on or off site; and	7.5.3
(d) include the Management and Mitigation Measures included in Appendix 2.	7.5.2

Condition B46 requires Downer to:

(a) not commence operation until the WMP (this section) is approved by the Planning Secretary.

(b) implement the most recent version of the WMP approved by the Planning Secretary.

7.5.2 Waste management – general

The waste management measures in the consent and Appendix 2 of the consent are reproduced in Table 7.12.

Table 7.12 Waste management

Measure	Timing/ frequency
All waste received at the site will be unloaded in the designated waste unloading areas.	During unloading
All waste processing must be undertaken within designated areas.	During waste processing
All waste materials removed from the site must only be directed to a waste management facility or premises lawfully permitted to accept the materials.	During waste removal
Liquid and non-liquid wastes which cannot be treated onsite must be assessed and classified and taken off site in accordance with the latest version of EPA's Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014) and dispose of all wastes to a facility that may lawfully accept the waste.	During removal of liquid wastes
The Applicant must retain all sampling and waste classification data for the life of the development in accordance with the requirements of the EPA.	At all times
Implement suitable measures to manage pests, vermin and declared priority weeds on the site.	At all times
Inspect the site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or priority weeds are not present on site in sufficient numbers to pose an environmental hazard or cause the loss of amenity in the surrounding area.	During site inspections
Waste will be managed in accordance with the waste hierarchy of avoidance, re-use, recycling/re-processing/treatment and disposal.	At all times
Waste will be managed in accordance with EPA's (2014) Waste Classification Guidelines and regulatory requirements. This will include: (i) its classification prior to leaving the site and (ii) (ii) recording (via an appropriate waste tracking system) its legal off-site transportation for re-use, recycling or disposal.	At all times
Waste will be stored in a suitable container, with a lid, and transported from the site to an appropriate facility. Enough suitable receptacles for general waste, hazardous waste and recyclable materials will be provided for waste disposal, including sufficient bins to allow separation of wastes for recycling.	At all times
Wastes will be securely stored to ensure that pollutants are prevented from escaping.	At all times

Fuel, lubricant or hydraulic fluid spillages will be collected using absorbent material and the used spill kit material will be stored separately before disposal to a suitably licensed waste facility.	If there is a spill
Hazardous materials will only be removed by a suitably qualified, licensed and experienced contractor.	During removal
Documents and records of the transport and destination of all materials removed from site will be kept as proof of correct disposal and for environmental auditing purposes.	During transport
Waste streams will be sorted to maximise the reuse/recycling potential and minimise disposal costs.	At all times
Waste will be covered, stored and removed in a timely manner so as not to attract animals.	At all times
Waste handling, transport and disposal will be in accordance with the requirements of the DG-ZH-ST063 Waste Management Standard.	At all times
Dangerous goods will be managed and handled in accordance with AS 1940 (the storage and handling of flammable and combustible liquids) and AS 3780 (the storage and handling of corrosive substances).	At all times
FRNSW Fire Safey Guideline; Guideline for the bulk storage of Tyres (Crumbed Rubber)	
Crumbed Rubber is stored internally within a building less than 2000m^2 and contains less than 10 tonnes. Which is under the General requirements for a building to comply with Specification E2.2 for fitment of smoke and heat vents.	At all times
Individual crumbed rubber stacks (4 bags per pallet; 4 pallets equals 1 Stack) will not exceed 3.7m in height and 30m^2 in area.	At all times
Stored crumbed rubber stacks will remain at least 1m clear in all directions from the underside of the building roof or ceiling, roof structural members, and lights (including light fixtures).	At all times
A minimum clearance of 1m will be maintained along paths of travel to exists and firefighting equipment. The paths of travel will be always kept clear and unobstructed	At all times
FRNSW Fire Safey Guideline; Guideline for Fire Safety in Waste Facilities	
Stockpiles will be managed in accordance with the Fire and Rescue NSW Guideline-Fire Safety in Waste Facilities including. 1. The safe storage and stockpiling of combustible waste material based on expected combustibility and allowable storage volumes. 2. Workplace fire safety planning, including procedures for the event of fire or emergency incident.	At all times
Reconomy	
Reconomy storage bunkers are not fitted with an automatic sprinkler system but have an external quarantine area not less than four (4) times the floor area of the largest internal stockpile to receive, breakdown and extinguish that stockpile.	At all times
Firefighting access is provided to buildings, structures and storage areas, including any fire safety system or equipment provided for firefighting intervention.	At all times
Storage and stockpiling of combustible waste material is limited in size and volumes as expressed in the EPL and appropriate to the given combustible waste material, fire risk, building design and installed fire safety systems.	At all times

The maximum height of any stockpile, lose piled or baled, will not exceed 4m.	At all Times
Stockpiles of combustible waste materials will be rotated to dissipate any generation of heat and minimise the risk of auto-igniting as required	At all times
Any combustible waste material prone to self-heating will have appropriate temperature monitoring to identify localised hotspots.	At all times
Internal stockpiles of combustible waste materials will be maintained appropriate to the building size/layout, compartmentation, installed fire safety systems, and process equipment and plant.	At all times
The Internal stockpiles of the Reconomy building will be limited in size to be able to move to a dedicated external quarantine area using on-site recourse only within one hour or less.	At all times

7.5.3 Waste estimates

Residual wastes will be generated by the asphalt plant, Reconomy plant and ancillary infrastructure (such as offices). Estimated quantities and disposal methods are summarised in Table 7.13 and

Table 7.14. No waste will be generated by the RAP plant. There will only be 12 tpa of packaging waste generated by the bitumen products plant (mostly intermediate bulk containers), which will be collected and reused by suppliers or disposed at a licensed offsite facility.

Table 7.13 Waste estimate – asphalt plant and ancillary infrastructure

Waste description	Waste classification or type *(see 1 below)*	Method of storage	Estimated amount of waste produced *(Tonnes)*	Treatment/ actions	Waste monitoring activity *(See 2 below)*	Disposal method *(Based on the waste hierarchy)*	Disposal location *(see 3 below)*
1. *Waste* classification or type: *VENM (virgin excavated natural material), ENM (excavated natural material), general solid (P), general solid (non-putrescible) (non-P), restricted solid, hazardous liquid, special waste (e.g. asbestos), PASS (potential acid sulphate soils), ASS (acid sulphate soils), green or recyclable, regulated waste* 2. *Waste monitoring activity*: *visual inspection, chemical analysis.* 3. *Disposal location: provide the name and location of the receiving compound, landfill/ waste facility, transfer station, or development approved (DA) premises. Regulated waste disposal must list (and attach) the current licence for the transporter, disposal facility and accredited / approved agent.*							
Asphalt from non-conforming mix (0.25% volume)	GWS-Non-P	Neatly stockpiled in approved area not exceeding 10 m height	15 tonne per month	On sell to another customer where the asphalt mix is acceptable, use as RAP or reused as road base as is.	Monthly worksite inspection	Recycled	Downer asphalt plant or used as road base
Asphalt mixes on startup and shutdown (0.5 t per start up)	GWS-Non-P	Neatly stockpiled in approved area not exceeding 10 m height	Minimal	Reused in plant as no bitumen is mixed in.	Monthly worksite inspection	Recycled	Reused in asphalt plant
Returned excess asphalt (0.5% volume)	GWS-Non-P	Neatly stockpiled in approved area not exceeding 10 m height	100 tonne per month	On sell to another customer where the asphalt mix is acceptable, use as RAP or reused as road base as is.	Monthly worksite inspection	Recycled	Reused in asphalt plant, on sell where practical or used as road base.
Baghouse (1% of volume)	GWS-Non-P	Baghouse or silo	200 tonne per month	Nil	Silo and baghouse inspection weekly	Reused	Used as a raw material in asphalt plant
Wastewater from bunding (contaminated with oil/chemical)	Regulated waste – offsite recycle	Bund	Minimal	Must be collected and disposed of by the services of a licensed contractor	Visual inspection monthly and after every rain event	Disposal by licensed contractor	Disposal at a Licensed Facility

Oily rags	Regulated waste - disposal	210 L drum	Minimal	Must be collected and disposed of by the services of a licensed contractor	Annual disposal certificates	Offsite landfill disposal by waste contractor	Disposal at a Licensed Facility
Solvents/Toluene	Regulated waste – offsite recycle	Manufacturers container	Minimal	Must be collected and Recycled by Manufacturer	Invoiced and annual disposal certificates	Recycled	Recycled by Manufacturer
Contaminated soil/ sand from spill cleanup	GWS-Non-P	Non-conformance stockpile	Minimal	Reused in the asphalt plant	Monthly worksite inspection	Recycled	Used as a raw material in asphalt plant
General rubbish from office amenities	GWS - P	Dedicated bin	Minimal	Minimised as much as possible and dispose in a legal landfill. Collected by the services of a licensed contractor	Invoiced and annual disposal certificates	Offsite landfill disposal by waste contractor	Disposal at a Licensed Facility
Paper/ cardboard waste from office	GWS-Non-P	Dedicated bin	Minimal	Minimised and reuse as much as possible. Collected by the services of a licensed contractor	Invoiced and annual disposal certificates	Offsite recyclable by waste contractor	Recycled at a Licensed Facility
Crumbed Rubber	Regulated waste - disposal	Dedicated Combustibles Storage Area	10 Tonnes at any one time	Nil	Invoiced from Supplier	0	Used as a raw material in asphalt plant
Empty IBCs	Regulated waste - disposal	Dedicated Storage Area	1498tpa (Reconomy)	Must be collected and disposed of by the services of a licensed contractor	Invoiced and annual disposal certificates	Offsite landfill disposal by waste contractor	Disposal at a Licensed Facility
Bulka bags	GWS-Non-P	Dedicated bin	250 tpa	Must be collected and disposed of by the services of a licensed contractor	Invoiced and annual disposal certificates	Offsite landfill disposal by waste contractor	Plans for Recycling but currently Disposed at a Licensed Facility

Wood Pallets	GWS-Non-P	Dedicated Storage Area	0.4 tpa	Must be collected and disposed of by the services of a licensed contractor	Invoiced and annual disposal certificates	Offsite landfill disposal by waste contractor	Plans for Recycling but currently Disposed at a Licensed Facility

Table 7.14 Waste estimate – Reconomy

Facility	Waste received onsite	Source	Receival (max. tpa)	Storage		Recovered material and storage (any one time)	Fate	Quantity to be reused (tpa)	Quantity to be disposed offsite (tpa)	Method of offsite disposal
				Any one time (t)	Annual (tpa)					
Reconomy	Street sweepings from classified roads/ stormwater pit waste (spadable)	Road maintenance	40,000	300	40,000	Water (100 m^3 tank)	Disposal to sewer (trade waste)	1.2 ML (retained in Reconomy plant)	12 ML (disposed to on-site sewer)	Disposal to sewer (trade waste)
						Aggregates (100 m^3)	Disposal	0	400 tpa	Downer RRE/O Aggregates and Sand or Disposal at a Licensed Facility
						Sand (100 m^3)	Reused in Asphalt	1540 tpa	0	Downer RRE/O Aggregates and Sand or Disposal at a Licensed Facility
						Organics (250 m^3)	Disposal	0	10,400 tpa	BetterGrow RRE/O or Disposal at a Licensed Facility
	Hydro-excavated soil/ stormwater pit waste (wet)			250		Mixed Waste inc. plastic (10 m^3)	Disposal	0	3,600 tpa	Recycled
						Metal (5 m^3)	Disposal	0	800 tpa	Recycled
				100		Filter Cake	Disposal	0	1900 tpa	Disposal at a Licensed Facility

7.5.4 Management of incoming wastes

The site will receive the wastes summarised in Table *7.15* for use as material inputs to the asphalt plant. The RAP facility will not produce residual wastes and the asphalt plant and Reconomy facility will generate the residual wastes summarised in Table 7.13 and

Table 7.14, respectively.

All wastes streams received at the premises will only be utilised in accordance with an approved (and current) waste order or exemption. Waste materials not covered by an order or exemption will be disposed of in an approved facility.

The incoming wastes will be managed as follows.

Reconomy

The type of material Downer is licensed to accept is general solid waste (non-putrescible) and hydro-excavated soil. The authorised amount of waste permitted at the Reconomy premise cannot exceed 1540 tonnes at any one time. The maximum amount of waste received at the Premises must not exceed 40,000 tonnes per year.

No feedstock with known contamination (such as with asbestos, per- and polyfluoroalkyl substances (PFAS), hazardous hydrocarbon/heavy metal concentrations etc.) is permitted and therefore management of incoming wastes will be risk-based.

Hydro-excavated soil, and street sweepings will be transported to the site via sealed vacuum trucks, sealed skip bins, truck and dogs/tippers and licensed street sweeper vehicles. Supplier contracts will highlight that hazardous contaminants are not to be delivered to the site.

Street Sweepings

Street sweepings (general solid waste (non-putrescible) contain a percentage of organics material which pose an ordinary combustible fire risk (using wood as the worst-case material). While organic in nature this material is usually delivered in a moist state and processed within two weeks of arrival thus rotation to dissipate any heat generation is negligible. Material is delivered in the receival apron and pushed up to be stored within the bays prior to processing. The bunded apron area is used to quarantine any ignited material within the bunded area with an isolated blind pit for firewater retrieval and disposal via trade waste discharge.

Asbestos

Supplier personnel are present during the hydro-excavation of soil and can closely monitor and inspect the soil as it is being blasted by high pressure air and water for visible contamination. Visible asbestos containing material (ACM) or hazardous contamination identified will be disposed at a licensed facility and not delivered to site.

PFAS

Road reserves present a lower risk profile for the presence of PFAS than contaminated sites where there has been historic use of fire-fighting foams, heavy industrial manufacturing sites or processes. As mentioned below, during pre-acceptance and notification of input material, detail on the source of the hydro-excavation soil will be discussed and reviewed for the risk of PFAS contamination.

Pre-acceptance and notification of input material

Downer is to communicate to suppliers that the site will not accept the hydro-excavation soil unless pre-notified and contents/source of the load is confirmed. This is to ensure that the site is able to accept it consistent with any conditions of its EPL and that any additional management and mitigation measures required (such as scheduling) can be identified and implemented in a specific management plan.

As deliveries will be informed beforehand, the following will be recorded and signed by the waste producer:

- Supplier, location and type of site that is the source of the waste.
- Activity resulting in the waste.
- Vehicle registration number.
- Vehicle driver contact.

Receival of input materials

- All vehicles delivering input materials to the Reconomy plant will be weighed and recorded when they enter and exit site.

- Each incoming load will be tracked by registration, company name and video footage with high-definition number plate recognition.
- Loads with incomplete or incorrect information, or which contain material that does not meet the acceptance criteria will be rejected (expectations detailed in supplier agreements).

Receival inspection

Downer will also visually inspect loads during unloading:

- Question the driver as to contents and source of load.
- Categorise the waste and direct driver to appropriate area for unloading (i.e. street sweeping, gully pit arising, hydro-excavation soil, or beach rakings).
- Check for the presence of visible/olfactory evidence of contamination at the point of unloading.
- If any non-conformances identified, material will be evaluated for processing. If there is minor contamination of inert solid material such as bricks/rubble – this may still be accepted, but a warning will be issued to the supplier.
- For any material that has been rejected (e.g. presence of asbestos), Downer reserves the right to either request the return of the material, or for the waste to be transferred back to the truck and taken to a licenced facility. Records will be maintained.

Any load containing suspected asbestos containing materials will be deemed unacceptable and the entire load will be rejected and required to be disposed at a licensed waste facility. If asbestos containing materials are suspected of entering an on-site stockpile, that entire stockpile will be deemed as asbestos containing material, quarantined and disposed at a licensed waste facility.

In the unlikely event trace microscopic fibres enter the facility, the segregation process will capture this in the sludge comprising of the inert soil fines component of the waste material (including silts, clays and asbestos fibres), which will be cleaned from the material and thickened through flocculants and coagulants. Moreover, the Reconomy plant is an entirely wet process, where trace microscopic fibres will be managed and not present a respirable risk.

RAP facility

The RAP facility will be managed in accordance with AB-QA-WI004 - Reclaimed Asphalt Pavement (RAP) Management Plan RAS 11-12-2023.docx (sharepoint.com), (as updated from time to time) which includes the following controls to ensure undesirable materials are not received on site.

Asbestos

Care should be taken not to inadvertently accept asphalt profiling from an unknown source. Full traceability back to the source location of the asphalt profiling must be maintained and recorded.

Downer road profiling personnel will observe profiled material at road construction/maintenance sites for contaminants including asbestos. Any contaminants will be managed onsite prior to dispatch of material to the RAP facility.

RAP facility personnel will observe the unloading of RAP deliveries for contaminants including asbestos. If potential asbestos containing material (ACM) is observed, unloading will cease and suitably trained and attired personnel will remove the entire load containing ACM from site in a compliant manner and dispose it at an appropriately licenced facility using licenced contractors following Downer procedures (DG-ZH-ST086 Asbestos Management Standard and DG-ZH-CG086 Control of Asbestos and Other Harmful Fibres and Dusts .

If asbestos containing materials are suspected of entering an on-site stockpile, that entire stockpile will be deemed as asbestos containing material, quarantined and disposed at a licensed waste facility.

Road base, concrete chippings, broken concrete

Road base, granular materials and concrete are readily discernible by visual inspection and shall not be included in processed RAP.

Asphalt millings containing road base and concrete are not to be included in processed RAP.

Plastics, brick and timber

Plastics, brick and timber are readily discernible by visual inspection and shall not be included in processed RAP.

Asphalt millings containing plastics, brick and timber are not to be included in processed RAP.

Coal tar

Sites likely to contain coal tar are cored and tested for the presence of coal tar. This is usually in inner city areas and the councils concerned indicate the streets that are likely to contain tar. Asphalt millings containing coal tar are directed to appropriately licensed waste facilities.

The laboratory cores for samples and tests for coal tar.

During milling the presence of coal tar can usually be detected by smell and appropriate measures are to be put in place to ensure that the asphalt millings containing the coal tar are sent to an appropriately licensed waste facility.

Asphalt millings containing coal tar are not to be included in processed RAP.

Scrap rubber

Scrap rubber is rare and direction would be expected to come from the RMS concerning likely effected job sites, however, visual inspection and a smell of rubber may indicate the presence of scrap rubber.

The asphalt millings are also inspected on arrival and prior to being tipped. Unsuitable material is sent to a licensed waste facility.

Any scrap rubber that enters the processed RAP will not be heated in the asphalt plant to an extent that causes its decomposition and/or ignition as the plant is a double drum mixer.

It should be noted that any asphalt millings containing scrap rubber will very likely have a higher binder content than is usual.

It is preferable that asphalt millings containing scrap rubber are not to be included in processed RAP and must be free from deleterious matter.

Asphalt plant

Downer proposes to use steel furnace slag as an input to the asphalt making process. According to *the steel furnace slag exemption 2019* (as updated from time to time) the application of steel furnace slag which complies with the *Steel furnace slag order 2019* (as updated from time to time) to land for roadmaking activities, including asphalt aggregate, is exempt from certain provisions of the POEO Act and Waste Regulation.

Crumbed Rubber

Downer has a range of mix designs that incorporate crumbed rubber. This material is kept on an as required basis depending on demand of the mix designs containing crumbed rubber. The material is transported and stored in 1 tonne bulker bags.

The EPL stated storage of Waste tyres (Crumbed Rubber) is

1. No more than 500 tonnes to be received at the premises in any 12-month period.
2. No more than 10 tonnes to be stores at the premises at any one time.

As less than 50 tonnes is stored onsite at any one time, this triggers the Fire and Rescue NSW – Guidelines for Small Facilities. However, the dedicated internal storage area is less the 2000m^2 and no more than 10 tonnes is allowed onsite at any one time, there is no requirement for smoke, and heat vents or sprinkler systems to be installed.

Contaminated fire water from crumbed rubber fires will be managed appropriately to ensure there is no offsite risk.

Table 7.15 Waste receival

Facility	Waste received onsite	Source	Receival (max. tpa)	Storage		Recovered material and storage (any one time)	Fate	Quantity to be reused (tpa)
				Any one time (t)	Annual (tpa)			
RAP facility	RAP	Road maintenance/ construction	250,000	90,000	250,000		Reuse in asphalt	180,000
							Reuse in road construction	70,000
Reconomy	See Table 7.14							
Asphalt plant	Glass fines	Suez	15,000 – 30,000	100 m^3	15,000-30,000	NA	Reuse in asphalt	30,000
	Toner	Close the Loop	1,500	100	1,500			1,500
	Crumbed tyres	Downer internal supplier	500	10	500			500
	Coal ash/fly ash (or other suitable ash products)	Daracon	300	23	300			300
	Steel furnace slag	Australian Steel Mill Services	15,000	3,000	15,000			15,000

7.5.5 Management of outgoing wastes

The site provides written statements and copies of relevant approvals on ALL transaction receipts in accordance with *The Downer Bituminous Pavement Order and Exemption and The Downer recovered aggregate and sand Exemption and Order*. Both available online ***Downer Sustainable Road Resource Centre Other Documents***

RAP millings not acceptable for processing by the RAP Facility are disposed as Asphalt Waste as per the EPA Pre-Classification Waste Guidelines. This material is usually rejected due to poor quality/contamination and deemed not suitable for recycling by the RAP Plant.

The organics removed by the detritus process remain pre-classified as Street Sweepings and are disposed to a EPL licensed receiving facility for landfill or further resource recovery. Organics are stored within the outgoing bunkers and managed to prevent odour and dissipate internal heat based on material volume, storage environment and ambient conditions. This material is tracked via the weigh bridge and the information is stored electronically.

Filter cake, also a byproduct of the detritus process, is a pre-classified waste and is disposed to a EPL licensed receiving facility for landfill or further resource recovery. This material is tracked via the weigh bridge and the information is stored electronically.

7.6 Waste monitoring

Condition B42 of the consent states “From the commencement of operation of the DSRRC, the Applicant must implement a Waste Monitoring Program for the development”. The specific requirements are reproduced in *Table 7.16*.

Table 7.16 Waste monitoring requirements

Requirement	OEMP reference
(a) be prepared by a suitably qualified and experienced person(s) prior to the commencement of operation;	7.6
(b) include suitable provision to monitor the:	
i. quantity, type and source of waste received on site; and	7.6.1
ii. quantity, type and quality of the outputs produced on site; and	7.6.2
(c) ensure that:	
i. all waste that is controlled under a tracking system, has the appropriate documentation prior to acceptance at the site; and	7.6.1
ii. staff receive adequate training in order to be able to recognise and handle any hazardous or other prohibited waste including asbestos.	8.3

Condition B42(a) requires the program to be prepared by suitably qualified persons. This section was compiled by Mark Roberts (B Environmental Science, Grad Dip Environmental Studies) based on the waste descriptions in the EIS and Downer’s waste monitoring procedures at existing sites that receive and process the wastes described in this plan.

7.6.1 Waste receivals

The site will receive the wastes described in

Table 7.14 and Table *7.15*. Incoming wastes will be monitored as follows.

RAP and Reconomy facilities

RAP and Reconomy material will be delivered to the RAP and Reconomy facilities via the weighbridge, where the following is recorded in the Matrix Ops program or Power App:

- Date, time, operator and delivery vehicle registration.
- material type (RAP, street sweepings, hydro-excavated soil, stormwater pit waste, beach rakings) and source suburb/job.
- Nett tonnes of material (gross minus tare).

The program allows the operator to keep a running total and spot totals, which will be closely monitored by the Production Manager to ensure the waste quantities in

Table 7.14 and Table *7.15* are not exceeded.

Downer will only accept RAP from a supplier that provides the following as required under the Reclaimed asphalt pavement order 2014:

- A written statement of compliance certifying that all the requirements set out in this order have been met.
- A copy of the exemption, or a link to the EPA website where the exemption can be found.
- A copy of the order, or a link to the EPA website where the order can be found.

Downer will only use RAP in accordance with the following under the Reclaimed asphalt pavement exemption 2014:

- Downer will keep a written record of the following in the Matrix Ops program or Power App for a period of six years:

- the quantity of any material received; and
- the name and address of the supplier of any material received.

Reconomy

Reconomy customers sign an agreement that states that any material received must not contain or suspected to contain Asbestos, acid sulphate soils, potential acid sulphate soils or sulfidic ores and Per-and Polyfluoroalkyl Substances (PFAS) or waste collected in a stormwater treatment device or stormwater management system from a spill incident or pollution event must not be received at the Premises.

Each load is inspect when entering the site to visually assess for ACM or other contaminants. If a Downer representative discovers the material contains or suspected to contain visible asbestos, high levels of oil/diesel/ petrol or any other hazardous waste, the waste will be reloaded and removed from site.

The supplier will be responsible for the classification and disposal of the material as per the relevant EPA legislation. The supplier will be notified in writing of the rejected load.

Asphalt plant

Other than processed material from the RAP and Reconomy facilities, the asphalt plant will receive the wastes described in Table *7.15*, which will be monitored in accordance with their respective waste recovery exemptions as follows.

Downer will only accept waste from a supplier that provides the following as required under the resource exemption orders listed below:

- A written statement of compliance certifying that all the requirements set out in this order have been met.
- A copy of the exemption, or a link to the EPA website where the exemption can be found.
- A copy of the order, or a link to the EPA website where the order can be found.

Resource exemption orders:

- The steel furnace slag order 2019.
- The coal ash order 2014.
- The recovered glass sand order 2014.
- The recovered tyres order 2014.

Downer will only use waste material in accordance with the following under the resource recover exemptions listed below:

- Downer will keep a written record of the following in the Matrix Ops program or Power App for a period of six years:

- the quantity of any material received; and
- the name and address of the supplier of any material received.

Resource recovery exemptions:

- The steel furnace slag exemption 2019.
- The coal ash exemption 2014.
- The excavated public road material exemption 2014
- The recovered glass sand exemption 2014.
- The recovered tyres exemption 2014.

Record keeping

Downer will keep hard or soft copies of the supplier statements available on site, which will be made available to authorised EPA officers upon request.

7.6.2 Production outputs

The Reconomy and RAP facilities will produce the quantities of materials shown in

Table 7.14 and Table *7.15*. The majority of this material will be used to make asphalt; however, some RAP will be dispatched from site for reuse in road construction.

Both Reconomy and RAP outputs once dispatched will be recorded/monitored using the Matrix Ops program or Power App which in addition to the fields described under *RAP and Reconomy facilities* above, will include:

- Nett tonnes of outgoing material (gross minus tare).
- Docket number.
- Time of dispatch.

Reconomy

The sand and aggregate production outputs at the Reconomy plant are subject an NSW EPA Waste Recovery Exemption and Order. Part of the requirements is that all production output are subject to strict sampling and testing protocols that require each 50-tonne batch to be recorded, with materials meeting a pass/fail criteria. Material that passes are suitable for asphalt production or use in a road corridor, while failed material are disposed to a licenced landfill.

Recycled Asphalt Pavement (RAP)

The quality of RAP will be managed and monitored in accordance with Downer (2015) *AB-QA-WI004 Reclaimed Asphalt Pavement*, which will be provided to authorised EPA officers upon request.

Downer will provide the following to RAP customers on or before each transaction in accordance with the Reclaimed asphalt pavement order 2014:

- A written statement of compliance certifying that all the requirements set out in this order have been met.
- A copy of the exemption, or a link to the EPA website where the exemption can be found.
- A copy of the order, or a link to the EPA website where the order can be found.

Downer will keep a written record of the following in the Matrix Ops program or Power App for a period of six years in accordance with the Reclaimed asphalt pavement order 2014:

- the quantity of any material supplied; and
- the name and address of each person to whom RAP was supplied, or the registration details of the vehicle used to transport the RAP.

Asphalt

Downer will produce, test and supply asphalt in accordance with The Downer bituminous pavement order 2021 and Downer (2021) *Reconophalt Quality Management Process*, which will be provided to authorised EPA officers upon request, including results of quality testing.

Downer will record/monitor asphalt dispatch quantities in the Matrix Ops program, including the recording information described under *RAP and Reconomy facilities* in Section 7.6.1 and *RAP* above.

Downer will provide the following to asphalt customers on or before each transaction in accordance with The Downer bituminous pavement order 2021:

- A written statement of compliance certifying that all the requirements set out in this order have been met.
- A copy of the exemption, or a link to the EPA website where the exemption can be found.
- A copy of the order, or a link to the EPA website where the order can be found.

Downer will keep a written record of the following in the Matrix Ops program for a period of six years in accordance with The Downer bituminous pavement order 2021:

- the quantity of any material supplied; and
- the name and address of each person to whom asphalt was supplied.

7.7 Surface water management

7.7.1 Overview

Condition B27 of the consent requires Downer to prepare a surface water management plan prior to operation of the site to the satisfaction of the Planning Secretary. The specific requirements are reproduced in Table *7.17*.

Table 7.17 Water management plan requirements

Requirement	OEMP reference
(a) be prepared by a suitably qualified and experienced person(s);	7.6.1
(b) be prepared in consultation with the EPA;	2.2
(c) characterise the expected quality of discharges in terms of the typical and maximum concentrations of all pollutants likely to be present at non-trivial levels;	7.6.2
(d) contain a program to monitor surface water quality;	7.6.5
(e) include surface water impact assessment criteria, including trigger levels for investigating any potential adverse surface water impacts;	7.6.2, 7.6.5
(f) include a protocol for investigation and mitigation where surface water impact assessment criteria is exceeded; and	7.6.5
(g) contain an ongoing maintenance program to ensure the entire surface water management infrastructure continues to operate and perform as designed.	7.6.4

Condition B27(a) requires the plan to be prepared by suitably qualified persons. This section was compiled by Mark Roberts (B Environmental Science, Grad Dip Environmental Studies) based on the surface water assessment carried out by Xavier Cure, the civil engineer who prepared Costin Roe (2020) *Civil engineering report incorporating water cycle management strategy*.

As described in Section 2.2, this OEMP was prepared in consultation with the EPA.

Condition B28 requires Downer to:

(a) not commence operation until the SWMP is approved by the Planning Secretary.

(b) implement the most recent version of the SWMP approved by the Planning Secretary.

7.7.2 Water quality characterisation

The Parramatta Development Control Plan 2011 (DCP) water quality objectives were applied in Costin Rose (2020) to address Parramatta City Council's water sensitive urban design (WSUD) objective, which are summarised in Table 7.18 and are expressed as required reduction of pollutant load after treatment.

Table 7.18 Water quality objectives

Metric	Objective
Gross pollutants	90%
Total suspended solids (TSS)	85%
Total phosphorus (TP)	60%
Total nitrogen (TN)	45%
Total hydrocarbons	90%

As can be seen in Table 7.19, Costin Roe (2020) predicted the proposed stormwater treatment train will reduce pollutant loads more than the objectives.

Table 7.19 Costin Roe (2020) modelling results

Metric	Source	Residual	% reduction	Target met
Flow (ML/yr)	43.9	41.3	5.8	No target
TSS (kg/yr)	14,200	1,300	90.8	Y
TP (kg/yr)	24.0	5.99	75.1	Y
TN (kg/yr)	105	54.6	47.9	Y
Gross pollutants (kg/yr)	1,180	0	100	Y

Costin Roe provided further analysis of results in July 2021, which are summarised in Table 7.20

Table 7.20 Daily sample levels

Inflow	Mean	Standard deviation	Median	Maximum	Minimum	10 percentile	90 percentile
Flow (cubic metres/sec)	0.00116	0.00783	0.000000558	0.305	0	0	0.000312
TSS concentration (mg/L)	1.79	2.2	2.27	62	0	0	2.93

TP concentration (mg/L)	0.0409	0.0312	0.0577	0.244	0	0	0.0669
TN concentration (mg/L)	0.414	0.34	0.6	2.87	0	0	0.6

7.7.3 Surface water management – general

The water management measures in the consent and Appendix 2 of the consent are reproduced in Table 7.21.

Table 7.21 Surface water management measures – general

Measure	Timing/ frequency
▪ The development will comply with section 120 of the POEO Act, which prohibits the pollution of waters.	At all times
▪ Prepare a Flood Emergency Response Plan, which will be submitted to DPIE prior to operation of the DSRRC – refer to Annex C.	Prior to operations
▪ Energy dissipators will be provided on stormwater outlet structures in accordance with Guidelines for Waterfront Land and NSW Department of Primary Industries 'Guidelines for Outlet Structures'.	At all times
▪ Downer will apply for a trade waste agreement prior to discharging liquid waste to sewer.	Prior to operations
▪ The stormwater management system will be maintained during operation of the DSRRC in accordance with Section 7.7.4.	At all times

7.7.4 Surface water management system – maintenance

Overview

It is important that each component of the water quality treatment train is properly operated and maintained. In order to achieve the design treatment objectives, an indicative maintenance schedule has been prepared (refer to Table 7.22).

The inspection frequency may vary depending on site specific attributes and rainfall patterns in the area. In addition to the maintenance requirements below it is also recommended that inspections are made following heavy rainfall or major storm events.

The water management system should be inspected as soon as practicable following an intense period of rainfall, (i.e. greater than 100mm over 48 hours), as measured at Parramatta North Weather Station No. 66124.

Types of maintenance

Water sensitive urban design (WSUD) assets require both proactive and reactive maintenance to ensure long term system health and performance.

Proactive maintenance refers to regular scheduled maintenance tasks, whereas reactive maintenance is required to address unscheduled maintenance issues. If an asset is not functioning as intended, then rectification may be required to restore the asset back to its intended functionality.

The preferred and recommended approach is for proactive maintenance.

Proactive maintenance

Proactive maintenance is a set of scheduled tasks to ensure that the WSUD asset is operating as designed.

Proactive maintenance involves:

- Regular inspections of the WSUD asset.
- Scheduled maintenance tasks for issues that are known to require regular attention (e.g. litter removal, sediment removal, weed control, replacing filter baskets in stormwater drain inlets, scour management).
- Responsive maintenance tasks following inspections for issues which require irregular attention (e.g. spill clean-up).

Proactive maintenance in the first two years after the establishment period (construction and planting phases) are the most intensive and important to the long-term success of the treatment asset.

Proactive maintenance is a cost-effective means of reducing the long-term costs associated with operating stormwater treatment assets.

Maintenance activities specific to each WSUD asset type are detailed in the inspection and maintenance schedules and checklists provided in Table *7.22*. The frequency of scheduled maintenance depends on the asset type and the issue being managed.

Reactive maintenance

Reactive maintenance is undertaken when a problem or fault is identified that is beyond the scope of proactive maintenance. Reactive maintenance may occur following a complaint about the quality of water discharging from a WSUD asset or in response to an onsite spill. Reactive maintenance often requires a swift response and may involve specialist equipment or skills.

Rectification

Rectification of a WSUD asset is undertaken when the system is not functioning as intended, and proactive and reactive maintenance activities are unable to return the asset to functional condition.

The lack of functional performance and therefore failure of a stormwater treatment asset may be related to many factors including inappropriate design, poor construction, and lack of regular maintenance or end of life cycle. In many cases, the design of assets has not included adequate consideration of the maintenance requirements, in terms of the system's ability to cope with catchment pollutant loads (i.e. sediments) and the frequency of maintenance required to maintain the system at a functional level.

Maintenance planning at the design phase is therefore crucial to both the long-term operating costs and the expected life cycle of the treatment system. In general, the expected lifecycle of a stormwater treatment asset (e.g. a bio-retention system) that has been well designed and constructed and is regularly maintained should be at least 15-20 years.

However, the lifecycle for each treatment system will be different and related to:

- Whether the system has been designed, constructed and maintained according to best practice.
- Catchment characteristics (influences the quality of the stormwater).
- The age and general health of the system.
- The type of plants that have been used in the system.

Regular asset condition assessments should be undertaken to monitor the system condition and to inform where an asset is in terms of its expected lifecycle. Renewal of a system refers to replacing the main elements of the system including:

- built elements if they are damaged or worn.
- Removing deposited sediment, removing and replacing the topsoil (or filter media in the case of a bio-retention system) and profiling the topsoil level back to the design levels.
- Re-planting.

A WSUD specialist may be required to assess whether a treatment system has reached the end of its life cycle and to provide advice on the renewal works.

Asset condition assessments can also identify assets that need to be rectified. The decision to continue with an increased maintenance regime or to rectify an asset, and over what timeframe, can be a difficult one to make. This is because certain maintenance items are more important to overall system function than others. For example, extended ponding on the surface of a bio-retention system or persistent scouring of a swale or stormwater outfall should be addressed more rapidly than recurrent weed problems.

Routine inspection and maintenance schedule for general stormwater system

Routine inspections are to be carried out to assess the need for maintenance and are primarily concerned with checking the functionality of the stormwater drainage facilities described in Table 7.22. Maintenance of these items is vitally important for the ongoing drainage and treatment of stormwater.

Should the inspection reveal that maintenance of any item is required, this is to be reported to the site supervisor for action.

Items that are to be subject to routine inspections for maintenance may comprise, but not be limited to those listed in the table below. This table is to be read in conjunction with the stormwater design drawings.

It is vitally important that each component of the stormwater system is properly operated and maintained. In order to achieve the modelled and design treatment outcomes, a maintenance schedule has been prepared (below) to assist in the effective operation and maintenance of the various drainage and water quality components.

Refer to Appendix A of Costin Roe (2020) for the design drawings of the components in Table 7.22.

Table 7.22 Maintenance schedule

Action	Frequency	Responsibility	Procedure
Swales and landscaped areas			
Check density of vegetation and ensure minimum height of 150mm is maintained. Check for any evidence of weed infestation.	Between six months and one year.	Production Manager	Replant and/or fertilise, weed and water in accordance with LMP.
Inspect swale for excessive litter and sediment build up.	Between six months and one year.	Production Manager	Remove sediment and litter and recycle onsite or dispose at licensed waste facility.
Check for any evidence of channelisation and erosion.	Six monthly/ after major storm.	Production Manager	Reinstate eroded areas so that original, designed swale profile is maintained.
Weed infestation	Between six months and one year.	Production Manager	Remove any weed infestation ensuring all root ball of weed is removed. Replace with vegetation where required.
Inspect swale surface for erosion	Between six months and one year	Production Manager	Replace topsoil in eroded area and cover and secure with biodegradable fabric. Cut hole in fabric and revegetate.
Reconomy			

Check for any clogging and blockage of the first flush device.	Six monthly/ after major storm.	Reconomy Production Manager	First flush device to be cleaned out.
Rainwater tank			
Check for any clogging and blockage of the first flush device.	Six monthly/ after major storm.	Production Manager	First flush device to be cleaned out.
Check for any clogging and blockage of the tank inlet - leaf/litter screen.	Between six months and one year.	Production Manager	Leaves and debris to be removed from the inlet leaf/litter screen.
Check the level of sediment within the tank.	Every two years.	Production Manager	Sediment and debris to be removed from rainwater tank floor if sediment level is greater than 10% of the tank volume.
Inlet and junction pits			
Inside pit.	Six monthly.	Production Manager	Remove grate and inspect internal walls and base, repair where required. Remove any collected sediment, debris, litter.
Outside of pit.	Six monthly/ after major storm.	Production Manager	Clean grate of collected sediment, debris, litter and vegetation.
Stormwater system			
General Inspection of complete stormwater drainage system.	Bi-annually.	Production Manager	Inspect all drainage structures noting any dilapidation in structures and carry out required repairs.
Check filter baskets	Six monthly/ after major storm.	Production Manager	Remove sediment and litter and recycle onsite or dispose at licensed waste facility. Replace filters if necessary.
Bioretention basin			
Check all items nominated for SWALES/ LANDSCAPED AREAS above.	Refer to SWALES/ LANDSCAPED AREAS section above.	Production Manager	Refer to SWALES/ LANDSCAPED AREAS section above.
Check for sediment accumulation at inflow points.	Six monthly/ after major storm.	Production Manager	Remove sediment and recycle onsite or dispose at licensed waste facility.
Check for erosion at inlet.	Six monthly/ after major storm.	Production Manager	Reinstate eroded areas so that original, designed profile is maintained
Check for evidence of litter.	Six monthly.	Production Manager	Remove litter and recycle onsite or dispose at licensed waste facility.

Check condition of vegetation is satisfactory (density, weeds, watering, replating, mowing/ slashing etc).	Six monthly.	Production Manager	Replant and/or fertilise, weed and water in accordance with LMP
Check for evidence of prolonged ponding, surface clogging or clogging of drainage structures.	Six monthly/ after major storm.	Production Manager	Remove sediment and recycle onsite or dispose at licensed waste facility. Replace filter media & planting (5-10 years) – refer to appropriately qualified engineer or stormwater specialist
Check stormwater pipes and pits.	Six monthly/ after major storm.	Production Manager	Refer to INLET/ JUNCTION PIT and STORMWATER SYSTEM section.
Check stormwater outfall	Six monthly/ after major storm.	Production Manager	Inspect for scour downstream of outfall to establish cause. If scour is superficial and can be rectified by remedial measures such as applying jute matting and planting native groundcover, then engage a landscape architect/specialist to advise on remedial measures. If the scour is severe and due to the design of the outfall, then engage civil engineer to redesign outfall to prevent scour.
Check cut-off valve	Six monthly.	Production Manager	Check valve can be engaged from control room and is in working order.
Water quality device (gross pollutant trap)			
OceanSave OS-1612 Pre-cast online GPT	Yearly and after rainfall events	Production Manager	Clean using a vacuum truck, removal of this debris without dismantling the screen or internal components via the manhole

7.7.5 Surface water monitoring

Surface water verification report and long-term monitoring

As described in Section 7.7.2, Costin Roe (2020) assessed performance of the water treatment system against council's DCP water quality objectives in mean annual and maximum terms. The predicted mean annual and maximum levels for analytes in discharges provide guidance for long term assessment of performance of the water management system.

Discharges from the bioretention basin will be sampled for the analytes in Table 7.19 during every discharge for the first 18 months of operation. The results of this monitoring will be used to establish the pollutant reduction trend and allow comparison with the predicted load reductions in Table 7.19.

If after the first 12 months of operation the analytes are tracking near to the annual mean, then it will be assumed the water management system is functioning as predicted and will be maintained as described in Section 7.6.4.

If at any time any of the analytes are near or exceed the predicted maximum levels, then the actions in Table *7.22* will be implemented immediately to determine the cause of the higher pollutant loads and implement the associated management measures.

Additionally, the responsible person will review the site operations which have potential to generate the pollutants to determine if they are being carried out as described in the EIS/consent/OEMP and rectify those operations if necessary.

The discharge will be ceased using the cut-off valve until the above actions are complete, with basin water reused onsite.

If the analytes remain near or exceed the maximum predicted levels in the next sampling event then the discharge will be ceased and water in the bioretention basin treated (for example with flocculant/absorbent material) until the cause has been determined and resolved. A civil or environmental engineer will be engaged to review and modify the water management system to improve its performance.

The above monitoring and review process will continue until analytes in discharges track towards the predicted annual mean.

The monitoring results will be used in the surface water verification report required under Condition B29, which states:

> A Surface Water Verification Report (SWVR) must be submitted to the Planning Secretary and the EPA within eighteen (18) months (or as otherwise agreed by the Planning Secretary) of the commencement of all operations associated with the DSRRC. The SWVR must:
>
> (a) include an analysis of compliance with the maximum concentrations identified under condition B27(c) undertaken to the satisfaction of the Planning Secretary;
>
> (b) demonstrate that all reasonable and feasible mitigation measures have been incorporated into the development;
>
> (c) reference manufacturer's specifications and/or performance guarantees;
>
> (d) an outline of management actions to be taken to address any exceedances of the maximum concentrations identified under condition B27; and
>
> (e) describe the contingency measures and the timing of their implementation in the event the management actions are not effective in reducing water quality impacts to an acceptable level.

Oil and grease (as an indicator of hydrocarbon pollution) be included in surface water testing/verification programs to verify that proposed management and treatment procedures are effective.

The SWVR will also contain:

- A detailed description of the sampling location(s) and site conditions when samples were taken. Engineering drawings, schematics or photographs should be included to support the description.
- All information required to be sampled and assessed in accordance with the Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales.

For each site surface water discharge point, the SWVR will:

- Assess the potential compliance of measured discharges on the environmental values of the receiving waterway consistent with the interim Sydney Harbour and Parramatta River Water Quality and River Flow Objectives.
- Where relevant, identify appropriate measures to mitigate any identified impacts. Consistent with the principles of the NSW Water Quality Objectives, the discharge impact assessment must demonstrate

that the premises will maintain the environmental values of the receiving waterway where they are currently being achieved.

Once, the stormwater discharged from the site is demonstrated to consistently meet the water quality objectives then water quality monitoring will be reduced to one event per year. If this annual monitoring identifies exceedance(s) of the maximum concentrations/levels in Table 7.20 then the action plan outlined in Section 7.7.4 will be repeated and monitoring will continue until the concentrations in Table 7.20 are achieved for the next two discharges from the bioretention basin.

Quality control

Water quality samples will be taken in accordance with NSW guidance for surface water sampling and by a suitably trained and experienced sampler. Samples will be analysed by a National Association of Testing Authorities accredited laboratory.

Surface water incidents and non-compliances

If at any time discharges from the bioretention basin are odorous or discoloured, or impacts to biota near the outlet are observed, the discharge will cease, and water treated/reused onsite until the above actions are complete.

This will be treated as an incident/non-compliance and the process in Section 10.3 will be implemented, which will incorporate the above actions.

7.8 Noise monitoring

7.8.1 Complaints

As described in Table 10.1, noise will be monitored following a noise complaint and assessed against the limits in Table 7.23 to verify that the noise is from site activities and to identify the source of the noise.

The environmental complaints procedure in Section 10.4 will be implemented.

Table 7.23 Noise limits

Location	Day (dB(A) $L_{Aeq(15min)}$)	Evening (dB(A) $L_{Aeq(15min)}$)	Night (dB(A) $L_{Aeq(15min)}$)	Night (dB(A) L_{Amax})
R1A – 72 River Road, Ermington	30	30	33	52
R1B – 530 John Street, Rydalmere	31	31	34	52
R2A – 86 Carnarvon Street, Silverwater	34	34	37	53
R2B – 101 Beaconsfield Street, Silverwater	36	35	38	53
R3A – 71 Penelope Lucas Lane, Rosehill	30	30	30	55
R3B – 88 James Ruse Drive, Rosehill	30	32	30	55
FR01 – 181 James Ruse Drive	30	30	30	55

Noise generated by the development is to be measured and assessed in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Noise Policy for Industry (as may be updated or replaced from time to time).

7.8.2 Noise verification report

A noise verification report will be prepared in accordance with Condition B17 as follows:

A Noise Verification Report (NVR) must be submitted to the EPA and the Planning Secretary within three months of the commencement of operation of the DSRRC. The NVR must be prepared by a suitably qualified and experienced acoustic consultant and include:

a. an analysis of compliance with noise limits specified in condition B16, undertaken to the satisfaction of the Planning Secretary and in accordance with the Noise Policy for Industry (EPA, 2017);
b. demonstrate that all reasonable and feasible mitigation measures have been incorporated into the development.
c. reference manufacturer's specifications and/or performance guarantees for the asphalt plant;
d. an outline of management actions to be taken to where the limits specified in condition B16 have been exceeded; and
e. describe the contingency measures and the timing of their implementation in the event the management actions are not effective in reducing the noise impacts to an acceptable level.

The noise verification report (Report) will also contain:

a. A detailed description of the monitoring location(s) and atmospheric conditions when samples were taken. Engineering drawings, schematics or photographs should be included to support the description.
b. A description of the process operating conditions at the time of monitoring; including;
    a. description of the process (e.g. processing rates, materials produced, products used, activities)
    b. description of all noise control systems

A copy of the Noise Verification Report can be located at ***https://www.downergroup.com/Content/cms/SSD-10459_Noise_verifcation_report.pdf***

7.9 Change Management

Zero Harm related changes in the workplace are managed using DG-DM-PR003 Operational Change Management Procedure, which describes the change management process of:

- Initiate and plan the change.
- Consult on the change.
- Approve the change.
- Implement the change.
- Review the change.

7.10 Subcontractor management

Subcontractors comply with the requirements of the subcontract agreement, which includes the details of all environmental requirements while performing works under the control and direction of Downer.

Subcontractor personnel adopt the same responsibilities as outlined for Downer personnel, inclusive of reporting all matters relating to health, safety, and the environment.

Pre-qualification evaluation and assessment, engagement, review and on-site management and monitoring of subcontractors is undertaken as per DG-ZH-ST025 Visitor Management Standard.

8 TRAINING AND AWARENESS

Downer recognises the importance of employee training and induction, and the critical role it plays in supporting the safe and environmentally responsible conduct of site operations.

Downer promotes the following:

- A person must not undertake an activity that pollutes, or might pollute, the environment unless the person takes all reasonable and practicable measures to prevent or minimise any resulting environmental harm.
- In determining what training is required, the following are considered (amongst other things):
    - The nature of the pollution or potential pollution and the sensitivity of the receiving environment.
    - The current state of technical knowledge and likelihood of successful application of the activities that might be taken.
    - The financial implications of the activities that might be taken, as those implications relate to the class of person undertaking activities of the same or a similar kind.

Downer manages site activities in such a manner as to:

- minimise impact to the environmental; and
- educate personnel on their responsibilities relating to protecting the environment.

All personnel have environmental management responsibilities, and Downer ensures that these responsibilities are communicated to all personnel via appropriate environmental management training, including the initial environment induction.

8.1 Environmental principles

Downer has established ***DG-ZH-PN002 10 Environmental Principles*** that is a set of fundamental principles that all sites adhere to at all times. The Environmental Principles are prominently displayed on-site in communal areas, on notice boards and the Downer **IMS**.

8.2 Inductions

Environmental awareness training is provided to all personnel involved with the site, including all subcontractors and visitors, via inductions, as per ***DG-HR-ST013 Training & Competency Management Standard***.

A site-specific induction is delivered to all personnel and subcontractors highlighting the hazards specific to the site, and the controls necessary to manage them appropriately. Induction handbooks and associated training presentations may be used for the induction. Personnel are re-inducted annually. The environmental component of the induction is tailored for each group of inductees (as applicable) to ensure that specific components of work are adequately addressed. This method of environmental awareness training ensures that all personnel are aware of:

- The importance of conformance with environmental policy and procedures and the requirements of the OEMP and associated sub-plans.
- ***DG-ZH-PN002 10 Environmental Principles***
- The significant environmental aspect of the site works and the environmental benefits of improved work performance.
- Their roles and environmental responsibilities for achieving conformance with environmental policy and procedures and with the OEMP, including site emergency preparedness and response requirements.
- The potential consequences of departure from specified operating procedures.

All personnel, including subcontractors, attend inductions prior to commencing work on the site. Records of inductions are recorded in the site's training matrix.

Induction and environmental training
The environmental induction training will cover all elements of the OEMP and will include, as a minimum, the following: ▪ Purpose and objectives of the OEMP.

Induction and environmental training

- Requirements of due diligence and duty of care.
- Conditions of any environmental licences, permits and approvals.
- Potential environmental emergencies on site and the emergency response procedures, locations and training in the use of emergency spill kits for spills on water and on land.
- Reporting, notification and management requirements for pollution, contamination and other environmental incidents, and for damage and maintenance to environmental controls.
- High-risk activities and associated environmental safeguards i.e. night works, operation, washing, refuelling and maintenance of plant and equipment.
- Working in or near environmentally sensitive areas.
- Site-specific issues including:
  - Water quality controls (Section 7.6).
  - Air quality controls (Section 7.4).
  - Restricted access to the Duck River riparian corridor (Section 7.2).
  - Noise management controls (Section 7.2).
  - Driver code of conduct to prevent impacts on road users from operation of the site (Annex D).
- Incident management processes (Section 10).

Toolbox talks will be held to identify environmental issues and controls when environmental issues arise on site. The toolbox talk will include but not be limited to:

- A description of the activity and the area.
- Identification of the environmental issues and risks for the area.
- Outline the mitigations measures for the works and the area (Chapter 7).

8.2.1 Visitor inductions

Subcontractors that attend site on an intermittent basis, e.g. a delivery driver, are typically inducted on a visitor basis. Subcontractors are assessed by the relevant member of the site team on a case-by-case situation to determine if a subcontractor is required to undertake a visitor induction or full site induction.

A visitor induction is valid for a period of one year.

8.3 Training

Employee training and competency requirements are reviewed annually, or as an employee's role changes.

Downer maintains a database of training records and employee competencies that provides capabilities such as tracking expiry of time limited competencies and programming of training requirements.

Personnel who undertake activities with significant environmental risk complete specialist environmental training, which is conducted by Downer, in addition to the environmental induction.

Specialist training includes, but is not limited to:

- erosion and sediment control principles and practise
- dust control procedures
- response in heavy rain events
- vehicle wash down procedures.
- emergency response procedures; and
- hazardous materials spill response.

Selected personnel, including all plant service personnel, undertake awareness training in the correct use of spill response kits.

Personnel involved in asbestos identification and removal must be trained in the following nationally recognised units:

- 10314NAT - Course in Asbestos Awareness (up to 10 m2 of non-friable asbestos or ACM) or
- CPCCDE3014 – Remove non-friable asbestos (any amount of non-friable asbestos or ACM over 10m2)

9 COMMUNICATIONS

9.1 General communication

Achieving effective communication between all parties is critical to ensure that the requirements of this OEMP are met.

Downer uses a number of methods to communicate with employees, subcontractors, and visitors. The requirements, frequency, information, and methods of recording communication are outlined in DG-ZH-ST014 Zero Harm Communication Standard and DG-ZH-PR028 Zero Harm Risk Management Procedure

Typical methods of communication on site include:

- Pre-start meetings.
- Zero Harm start-up (i.e. pre-commencement) toolbox talks.
- Zero Harm inductions.
- Noticeboards.
- Toolbox talks.
- Environment alerts.

Pre-start and toolbox meetings include delivering key environmental messages and audit and inspection results and communicating environmental risks for the scheduled activities.

The Production Manager ensures that relevant documentation is filed electronically, and hard copies made available to personnel. Hard copy documentation made available to personnel typically includes:

- Standard operating procedures.
- Work instructions.
- Fatal risk control standards.
- Risk assessments.
- Minutes of meetings.
- Copies of pertinent legislation and codes of practice.

9.2 External communication

9.2.1 Production Manager

Refer to Annex G for Production Manager's responsibilities in relation to external communications.

9.2.2 Stakeholders

Primary community stakeholders during operations will comprise the following:

- Immediate neighbours:
  - Viva Energy.
  - Goodman Property.

  - Charter Hall Rosehill Distribution Centre.
  - Rosehill Gardens.
- Properties along the access/egress routes between James Rouse Drive and the site and Parramatta Road and the site.
- Residences in Silverwater to the south of Duck River.

9.2.3 Communications information

Downer will provide accurate communications information to relevant stakeholders and the community regarding operational activities and environmental matters, including:

- Prior to commencement of operations: a program of commencement and details of mitigation measures to minimise community impacts.
- Environmental incidents, including any associated community impacts and mitigation measures.

Downer's 24-hour contact is Paul Sherry mobile 0419 789 505, email ***paul.sherry@downergroup.com***.

9.2.4 Information channels

The site phone number, email and direct mail address will provide the community the opportunity to gain information about the site and raise any concerns. Both enquiries and complaints will provide important feedback to improve site processes and mitigation measures to avoid or minimise further complaints.

These numbers and contact details will be included on all notifications, signage and advertisements.

9.2.5 Meetings with stakeholders

Downer will coordinate engagement activities with key stakeholders and the community if required. Meetings or briefings with stakeholders may be organised to discuss environmental incidents. Suitable or specialist people will be available to attend these meetings.

Relevant material will be presented and/or distributed at these meetings.

9.2.6 Media and government relations

Downer will implement the following protocols if contacted by the media or a government representative:

- Ensure no statement (written, verbal or photographs) is provided to media or government representatives regarding the site, without the prior written approval of Downer executive management.
- Do not permit media or government representatives onsite without prior written approval from Downer executive management.

9.2.7 Access to information

During operation of the site, Downer will:

(a) make the following information and documents (as they are obtained or approved) publicly available on its website (Downer Rosehill Sustainable Resource Centre (downergroup.com)):

i. the documents referred to in condition A2 of the consent.

ii. all current statutory approvals for the development.

iii. all approved strategies, plans and programs required under the conditions of the consent.

iv. the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged.

v. regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of the consent.

vi. a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs.

vii. a summary of the current stage and progress of the development.

viii. contact details to enquire about the development or to make a complaint.

ix. complaints register (INX), updated as required.

xii. any other matter required by the Planning Secretary; and

(b) keep such information up to date, to the satisfaction of the Planning Secretary.

10MONITORING AND CORRECTIVE ACTION

10.1 Audit and inspection

10.1.1 Downer audits and inspections

Downer conducts internal environmental audits in accordance DG-ZH-PR007 Zero Harm Performance Monitoring and Reporting Procedure to ensure the ongoing adequacy and effectiveness of the EMP and **EMS**, and to facilitate continuous improvement.

Environmental audits are planned and scheduled with all other site audits, and detail the type of audit, duration, auditors (including the Lead Auditor), and dates.

The findings from internal audits on the implementation of the OEMP and **IMS** for the site are provided to the Production Manager. The Production Manager will hold regular discussions with the site team to identify changes to operational activities that will address audit findings and facilitate continual improvement during operation of the site.

Audits are conducted by personnel with the relevant expertise.

In addition to planned internal audits, the site team verifies environmental conformance to the OEMP as per the reviews in Table 10.1 and ***DG-ZH-PR116.1 Inspections Procedure***.

Table 10.1 Environmental reviews

Type of review	Goal	Frequency
Meteorology	▪ Meteorological data including rainfall will be monitored.	▪ Daily.
Solid wastes	▪ Recycling where practical and economically feasible. ▪ Appropriate use of landfill site for disposal. ▪ Appropriate placement and use of site amenities.	▪ Spot checks of recycling facilities. ▪ Informal daily, formal monthly inspections using the environmental inspection checklist.
Biodiversity	▪ Compliance with the site's biodiversity management measures (Section 7.2). ▪ 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 the surrounding area.	Informal daily inspections of the site to locate any fauna that may have become trapped, formal monthly inspections of the Duck River riparian corridor using the environmental inspection checklist.

Type of review	Goal	Frequency
Stormwater management	▪ Discharges to satisfy objectives in Section 7.6.5.	▪ Informal daily, formal monthly inspections using the environmental inspection checklist. ▪ Water quality tested as described in Section 7.6.5.
Work site storage and handling of fuels, oils, chemicals, and paints	Compliance with dangerous substances regulations.	Informal daily, formal monthly inspections using the environmental inspection checklist.
Hydrocarbon and oil spills	▪ Minimal hydrocarbon and oil spills by use of well-maintained construction plant and on-site refuelling protocols. ▪ All accidental spills contained and don't pollute groundwater/ surface water. ▪ Compliance with management measures.	Continuous monitoring by Environmental Advisor and/ or Site Supervisor. Spot checks of sites and monthly inspections using the environmental inspection checklist.
Air quality and dust management	▪ No visible dust off-site. ▪ No dust complaints. ▪ No odour complaints ▪ Compliance with the management measures.	Continuous monitoring by Environmental Advisor and/ or Site Supervisor. Spot checks of the site and monthly inspections using the environmental inspection checklist.
Noise	▪ No noise complaints.	Noise complaints will be investigated which may include an assessment of activities occurring on site at the time of the complaint.
Traffic management	▪ No visible mud/ dirt being tracked onto public roads. ▪ No complaints about heavy vehicles using the local road network. ▪ No complaints from neighbouring industrial premises about impacts to their property access/ egress.	Continuous monitoring by Environmental Advisor and/ or Site Supervisor. Monthly inspections using the environmental inspection checklist.
Applicable impact mitigation strategies	Compliance to task-based risk assessment requirements and the OEMP and any relevant sub-plans.	Formal review to be periodically undertaken.
Housekeeping	▪ Tidy work site with no litter and all waste contained in appropriate containers. ▪ Containers to be emptied and disposed of at appropriate intervals. ▪ No waste leaving the site unmanaged/ accidentally eg windblown waste or waste in stormwater runoff.	Informal daily, formal monthly inspections using the environmental inspection checklist.

Whenever practicable, personnel conducting an audit address identified deficiencies during the course of the inspection. In all other cases the Supervisor is responsible for ensuring action and a date for completion is assigned to each outstanding action. The Environmental Advisor monitors the progress of rectification of any outstanding corrective actions.

Results of all audits are made available to personnel via pre-start, and/ or toolbox meetings.

10.1.2 Compliance audit

Condition C16 of the consent states that within one year of the commencement of operations of the DSRRC, and every three years after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit (Audit) of the development. Audits must:

(a) be prepared in accordance with the Independent Audit Post Approval Requirements (Department 2020)
(b) be led and conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Planning Secretary; and
(c) be submitted to the satisfaction of the Planning Secretary within three months of commissioning the Audit (or within another timeframe agreed by the Planning Secretary).

Condition C17 of the consent states that, in accordance with the specific requirements in the Independent Audit Post Approval Requirements (Department 2020), the Applicant must:

(a) review and respond to each Independent Audit Report prepared under condition C16 of this consent.
(b) submit the response to the Planning Secretary and any other NSW agency that requests it, together with a timetable for the implementation of the recommendations.
(c) implement the recommendations to the satisfaction of the Planning Secretary; and
(d) make each Independent Audit Report and response to it publicly available no later than 60 days after submission to the Planning Secretary and notify the Planning Secretary in writing at least 7 days before this is done.

Condition C18 of the consent states that, any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy, or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance reporting and independent auditing.

Note: For the purposes of this condition, as set out in the EP&A Act, “monitoring” is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an “environmental audit” is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.

A copy of the Independent Audit Post Approval can be located on the Downer Sustainable Road Resource Centre website Downer_SRRC_Operations_IEA1_FINAL_Rev3.pdf (downergroup.com)

10.2 Subcontractor audits

Subcontractors are required to audit their workspace, as communicated to the subcontractor through the tender and contract. Compliance with this requirement is a contract deliverable and is defined in the vendor data requirements. Refer to the site’s procurement and supply management plan for further information. The environmental audit requirements are communicated to the procurement team for inclusion in the tender documents.

The reviews listed in the table in section *10.1 Audit and inspection* also apply to subcontractor activities and workspaces.

10.3 Incident and environmental non-compliance

For the purposes of this OEMP, an 'incident' is *an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance*. A 'non-compliance' is *an occurrence, set of circumstances or development that is a breach of the consent*.

Non-compliances and incidents are registered and controlled in accordance DG-ZH-PR006 Incident Management Procedure and using **INX InControl**.

Possible non-compliances include non-compliance with the management measures outlined in this OEMP and sub-plans.

Where detected, any non-compliance or environmental impact exceeding specified limits are investigated by the Environmental Advisor to determine the extent of possible non-conformance. The non-compliance is corrected as soon as possible with necessary action taken to prevent recurrence.

All non-compliances are reported and clearly identify the corrective/ preventative actions to be taken and the close-out date.

10.3.1 Responsibility

The responsibilities of personnel in relation to incidents and non-conformances are summarised in Annex G.

The induction and toolbox talks outlined in Chapter 9 will be used to ensure all site employees, contractors and subcontractors are aware of and understand their obligations for incident and/or non-compliance response.

10.3.2 Notification requirements

Incidents

Section 147 of the POEO Act defines material harm as:

(a) harm to the environment is material if:

(i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations), and

(b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

Notification responsibilities for incidents that have caused or threaten to cause material harm to the environment are detailed in Section 148 of the POEO Act. In summary, these are broadly categorised as:

Duty of an employee or any person undertaking an activity:

Any person engaged as an employee or undertaking an activity with regard to the site will, immediately after becoming aware of any potential incident (even if outside of normal business hours), notify the Production Manager of the incident and all relevant information about it. The Production Manager will be available 24 hours a day, seven days a week and have the authority to stop or direct works.

Duty of an employer or occupier of the premises to notify:

The employer or occupier of the premises (in this case, the Production Manager) on which the incident occurred, who is notified (or otherwise becomes aware of) of the incident, will immediately notify the relevant authorities about the incident and all relevant information.

Under the POEO Act, 'relevant authority' means any of the following:

- The appropriate regulatory authority – the Environment Protection Authority (EPA).
- If the EPA is not the appropriate regulatory authority – the local authority for the area in which the pollution incident occurs (i.e. council).

- NSW Public Health Unit.
- SafeWork NSW.
- Fire and Rescue NSW.

Table 10.2 lists the contact details for these authorities. The person reporting the pollution incident will provide the following key details:

- Location of the pollution incident/emergency.
- Nature of the pollution incident/emergency.
- Their name and contact details.
- Details of any required assistance.

Table 10.2 Relevant authorities

Authority	Contact	Details
DPIE	Compliance Unit	1300 305 695 or 02 9228 6111 compliance@planning.nsw.gov.au
EPA	Environment Line	131 555 info@environment.nsw.gov.au
	Head office (Sydney)	02 9995 5000
Parramatta City Council	Main switchboard	1300 617 058 or 02 9806 5050
NSW Public Health Unit	Western Sydney Local Health District	(02) 8890 5555
SafeWork NSW	Incident Notification Hotline	131 050 Select Option 3 to report a serious incident or fatality – this will result in the incident being recorded and the appropriate person being contacted.
Emergency Services	NSW Police NSW Fire and Rescue NSW Ambulance Service	131 444 1300 729 579 Emergency: 000

Once becoming aware of an incident, Downer will immediately (within 24 hours) notify the DPIE, via the Major site's website, and other relevant agencies if an incident, or potential incident, causes (or may cause) harm to the environment. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3 of Annex A.

Non-compliances

DPIE will be notified via the Major Projects website within seven days of becoming aware of any non-compliance.

A non-compliance notification will identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, taken to address the non-compliance.

A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

10.3.3 Incidents and non-compliance procedure

Upon becoming aware of an incident and/or non-compliance, the procedure outlined below will be followed.

1. Preventative action

Where possible and safe to do so, immediate action will be taken to prevent, stop, contain and/or minimise the environmental impact of the incident and/or non-compliance.

In the unlikely event that an incident and/or non-compliance requires the evacuation of the site, actions will be completed in accordance with evacuation procedures. All employees and contractors are to be made aware of the location of emergency assembly areas through site inductions, signage and regular toolbox talks.

2. Assistance

If adequate internal resources are not available and the incident and/or non-compliance threatens public health, property or the environment, it is essential that Fire and Rescue NSW be contacted by telephoning 000 for emergency assistance.

Contacting Fire and Rescue NSW does not negate the notification requirements in the above table.

3. Notify

Under the provisions of the POEO Act, there is a duty to notify any incident that has caused or threatens to cause material harm to the environment and all relevant information about the incident. The specific duties to notify are outlined above.

If there is a serious incident or emergency, it is more than likely that Fire and Rescue NSW will take control and manage the required investigation and remedial activities. Any instructions issued will be strictly adhered to.

DPIE and other relevant authorities be provided with a written incident notification via the Major Projects website within 24 hours after the incident.

A written notification will:

- Identify the development and application number.
- Provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident).
- Identify how the incident was detected.
- Identify when the Applicant became aware of the incident.
- Identify any actual or potential non-compliance with conditions of consent.
- Describe what immediate steps were taken in relation to the incident.
- Identify further action(s) that will be taken in relation to the incident.
- Identify a site contact for further communication regarding the incident.

Non-compliances will be notified in accordance with Section 10.3.2.

4. Investigate

Immediately investigate the cause of the incident and/or non-compliance.

5. Remedial action

Address the cause of the incident and/or non-compliance and mitigate any further environmental impact. In some instances, outside resources such as specialist contractors/consultants may be required.

6. Record

It is imperative that an honest assessment of the situation is carried out and documented in order to minimise the potential for similar events in the future. On this basis, every incident is to be recorded in an incident report in INX. A copy of the completed report will be maintained for at least five years.

A detailed incident report be provided to the DPIE within 30 days of the incident occurring.

The detailed incident report will include:

- A summary of the incident.
- Outcomes of an incident investigation, including identification of the cause of the incident.
- Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence.
- Details of any communication with other stakeholders regarding the incident.
- All non-compliances are recorded.

7. Preventative action

Once the incident and/or non-compliance has been suitably handled, appropriate measures will be identified and implemented to reduce the possibility of re-occurrence.

10.3.4 Minor environmental incidents

There is the possibility of minor environmental incidents occurring as part of this site. A ‘minor environmental incident’ is where there has been no potential or actual material harm to the environment. Examples are excessive dust sighted by the site team or a small, contained hydrocarbon spill that does not leave a site boundary and are cleaned up without residual on-site environmental harm.

Minor environmental incidents will still be handled under the process outlined in Section 10.3.3 except there will be no requirement for government notification. All minor or major incidents will be recorded in Downers INX system. A minor incident does not constitute a non-compliance with the consent.

10.4 Environmental complaints

Third-party environmental complaints are managed in accordance with DG-ZH-ST014 Zero Harm Communication Standard. Specifically, the Site will:

- Record complaints as an incident in **INX.**
- Maintain a specific odour complaint log.
- Investigate and verify complaints and assesses if excessive off-site impacts have occurred.
- Implement corrective measures including modification of execution methods and operational techniques to avoid recurrence or minimise ongoing adverse impacts.
- Completes monitoring/ additional investigations to verify the adequacy of the recommendations, as required.
- Notifies the complainant of actions taken; and
- Continues to monitor activity, if required.

10.4.1 Responsibility

The Production Manager is responsible for ensuring that the appropriate management response and handling procedures are instigated and carried through in the event of an environmental complaint. The induction and toolbox talks will be used to ensure all site employees are aware of and understand their obligations for complaints response.

All employees who take receipt of a complaint, either verbal or written, are to immediately notify the Production Manager.

10.4.2 Procedure

1. Record and acknowledge.

Any employee who receives a complaint, either verbal or written, is to immediately notify the Production Manager.

In the normal course of events, the first contact for complaints will usually be made in person or by telephone. The complainant's name, address and contact details, along with the nature of the complaint, will be requested. If the complainant refuses to supply the requested information, a note will be made on the form and the complainant advised of this.

2. Assess and prioritise.

The Production Manager will prioritise all complaints by considering the seriousness of the complaint including risk to health and safety and will attempt to provide an immediate response via phone or email.

3. Investigate

A field investigation will be initiated to confirm details relevant to the complaint and the cause of the problem. Any monitoring information and/or records at and around the time of the complaint will be reviewed for any abnormality or incident that may have resulted in the complaint.

If the complaint is due to an incident, the notification requirements and handling procedures outlined in Section 10.3 will be followed.

4. Action or rectify.

Once the cause of the complaint has been established, every possible effort will be made to undertake appropriate action to rectify the cause of the complaint and mitigate any further impact. The Production Manager will assess whether the complaint is founded or unfounded and delegate the remediation, as required.

5. Respond to complainant.

The Production Manager will oversee the rectification of the issue and respond to the complainant once the issue has been resolved. The complainant will be provided with a follow up verbal response on what action is proposed. Where a complaint cannot be resolved by the initial or follow-up verbal response, a written response will be provided to the complainant.

6. Record

Every complaint received is to be recorded in the Downer INX System. In accordance with Condition C19 of SSD 10459, records of relevant complaints will be will be updated within INX monthly.

7. Preventive action

Once the complaint has been suitably handled, appropriate measures will be identified and implemented to negate the possibility of re-occurrence. The complaint is not closed out and the Complaints Register is not finalised until the preventative actions are completed and recorded.

10.4.3 Dispute resolution

Downer's dispute resolution process meets the requirements of the Work Health and Safety Regulation 2011 and is included in ***DG-ZH-ST013 Zero Harm Worker Consultation Standard***.

If there is a dispute between Downer and Council or a public authority, in relation to an applicable requirement in the consent or relevant matter relating to construction, either party may refer the matter to the Planning

Secretary for resolution. The Planning Secretary's determination of any such dispute will be final and binding on the parties.

In the case of a dispute between Downer and a community member/complainant, either party may refer the matter to the DPIE and/or relevant regulatory authority for consideration, advice and/or negotiation. If the matter escalates, a third-party mediator may be required.

10.5 Environmental Breach

Subcontractors found to be in breach of this OEMP are managed in accordance with the subcontract under which they have been engaged.

Employees who breach the requirements of this OEMP are managed in accordance with the site's employee relations management plan. Personnel found to be grossly negligent or commit an intentional environmental breach are removed from site and managed in accordance with the site's employee relations management plan.

10.6 Reporting

Environmental performance is Environmental performance is reported in accordance with ***DG-ZH-PR007 Zero Harm Performance Monitoring and Reporting Procedure***.

- As per ***DG-ZH-PR077.1 Energy and Emissions Reporting Procedure***, regular reporting for Downer includes:
- greenhouse gas and energy data; and
- waste generation and water consumption data, gathered using the Subcontractor Envizi Data Collection Record.

Other reporting requirements are summarised in Table 10.3.

Table 10.3 Other reporting requirements

Requirement	Timing/ frequency	CoA/ OEMP reference
The Planning Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3 (of Annex A).	Within 24 hours	SSD 10459 Condition C10
The Planning Secretary must be notified in writing to the Major Projects website within seven days after the Applicant becomes aware of any non-compliance.	Within 7 days	SSD 10459 Condition C11
A register of all complaints, incidents and non-compliances will be kept.	For at least 5 years after completion	OEMP sections 10.3.4 and 10.4.2

Downer will record environmental performance during regular management meetings and/or 'toolbox talks'. Items to be discussed and recorded include: ▪ Results of any monitoring activities. ▪ Any environmental incidents that have occurred during the previous period, including the management/ corrective actions taken. ▪ Any complaints that have been received during the previous period, including any management/ corrective actions taken.	Monthly	OEMP Section 8
A copy of all environmental records will be maintained, including: ▪ Site environmental inspection reports. ▪ Environmental monitoring data. ▪ Internal and external audit reports. ▪ Reports of environmental incidents, environmental, associated actions taken, and follow-up actions. ▪ Minutes of management review meetings. ▪ Induction and training records.	For at least 5 years after completion	Best practice and OEMP sections 10.1, 10.2, 10.3.4, 10.7, 8.2 and 8.3
A waste management register will be maintained and will include: ▪ Type of waste and its classification (according to the POEO Act and *Waste Classification Guidelines*). ▪ Quantities of waste, measured in tonnes. ▪ How and where the waste was reused, recycled, stockpiled or disposed of. ▪ Date when the waste was reused, recycled, stockpiled or disposed of. ▪ Name and waste transport licence (if applicable) of the transporter used.	Ongoing	Section 7.5
Within three months after the first year of commencement of operation of the DSRRC, and in the same month each subsequent year (or such other timing as agreed by the Planning Secretary), the Applicant must submit a Compliance Report to the Planning Secretary reviewing the environmental performance of the development to the satisfaction of the Planning Secretary. Compliance Reports must be prepared in accordance with the Compliance Reporting Post Approval Requirements (Department 2020) and must also: (a) identify any trends in the monitoring data over the life of the development. (b) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and (c) describe what measures will be implemented over the next year to improve the environmental performance of the development. The Applicant must make each Compliance Report publicly available no later than 60 days after submitting it to the Planning Secretary	Annual	SSD 10459 Condition C14

and notify the Planning Secretary in writing at least 7 days before this is done.		

A copy of the Compliance Reports can be located on the Downer Sustainable Road Resource Centre website

Downer Sustainable Road Resource Centre Other Documents

10.7 Contingency plan

The table in Annex F lists the actions to be implemented if inspections, monitoring and/or auditing indicate that the mitigation measures listed in Chapter 7 and the sub-plans are not effective in managing environmental impacts.

All condition amber and condition red occurrences will be recorded and discussed during the toolbox talks.

10.8 DOCUMENT CONTROL AND MANAGEMENT REVIEW

10.9 General

All site documents are generated, numbered, approved, revised, transmitted, and stored in accordance with the site's document control plan.

The OEMP review ensures the suitability, effectiveness, and adequacy of the plan. The OEMP is formally reviewed annually (as a minimum) and whenever the plan, risk, and/ or activities change from the scope/ content.

The review is conducted by a review team comprising the Production Manager (or delegate) and the Environmental Advisor/Zero Harm Advisor) and considers performance against the OEMP with respect to incident trends and findings from internal and external audits.

The Production Manager (or delegate) ensures any changes to the OEMP as a result of review/ change is communicated to personnel.

10.10 Revision of strategies, plans and programs.

Within three months of:

(a) the submission of a Compliance Report under condition C14.

(b) the submission of an incident report under condition C10.

(c) the submission of an Independent Audit under condition C16.

(d) the approval of any modification of the conditions of this consent; or

(e) the issue of a direction of the Planning Secretary under condition A2(b) which requires a review,

the strategies, plans and programs required under this consent must be reviewed, and the Planning Secretary must be notified in writing that a review is being carried out.

If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.

ANNEX A – DEVELOPMENT CONSENT SSD 10459 AND SPECIFIC REQUIREMENTS

Table A.10.4 Consent conditions

Condition		OEMP reference
Contamination		
B2	The Applicant must ensure the development does not result in a change of risk in relation to any pre-existing contamination on the site so as to result in significant contamination.	Addressed in CEMP
Air quality		
B3	The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.	Section 7.4
B5	The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the EPL applicable to the DSRRC site.	Section 7.4
B6	Driveways and hardstand areas must be swept/cleaned as required by a street sweeper during operations. The street sweeper must be utilised to maintain the sealed surfaces in such a manner that prevents or minimises air pollution.	Section 7.4
B7	Where possible, all mobile non-road diesel equipment operated at the DSRRC site must achieve a particulate matter emission performance commensurate with US EPA Tier 4 particulate emission standards.	Section 7.4
B8	Prior to the commencement of operation of the DSRRC, the Applicant must prepare an Air Quality Management Plan (AQMP) to the satisfaction of the Planning Secretary. The AQMP must form part of the OEMP required by condition C5.	Section 7.4
B9	The Applicant must: (a) not commence operation until the AQMP required by condition B8 is approved by the Planning Secretary; and (b) implement the most recent version of the AQMP approved by the Planning Secretary for the duration of the development.	Section 7.4
B10	An Air Quality Verification Report (AQVR) must be submitted to the EPA and Planning Secretary within three (3) months of the commencement of operation of the DSRRC.	Section 7.4
B11	The Applicant must ensure the development does not cause or permit the emission of any offensive odour beyond the boundary of the site (as defined in the POEO Act).	Section 7.4
Noise		
B12	The Applicant must comply with the hours detailed in Table 1 (refer Table 7.2). Operation: Monday – Sunday: 24 hours	Table 7.2
B16	The Applicant must ensure that noise generated by the operation of the DSRRC does not exceed the noise limits in Table 2 (refer Table 7.23).	7.8.1
B17	A Noise Verification Report (NVR) must be submitted to the EPA and the Planning Secretary within three months of the commencement of operation of the DSRRC.	7.8.2

B18	The Applicant must prepare a Driver Code of Conduct and induction training for the development to minimise road traffic noise. The Code is to be incorporated into the CEMP required under condition C2 and the OEMP required under condition C5.	Annex D
Soils, water quality and hydrology		
B21	The development must comply with section 120 of the POEO Act, which prohibits the pollution of waters, except as expressly provided for in an EPL.	Table 7.21
B22	Prior to the commencement of operation of the DSRRC, the Applicant must design, install and operate a stormwater management system for the development.	Table 7.21
B23	Prior to the commencement of construction, the Applicant must prepare a Flood Emergency Response Plan (FERP). The FERP must form part of the CEMP and OEMP required by conditions C2 and C5 and must: (a) be prepared by a suitably qualified and experienced person(s); (b) address the provisions of the Floodplain Development Manual (2005) and any relevant guidelines; (c) be prepared in consultation with the State Emergency Service; (d) include details of: i. the flood emergency responses for both construction and operation phases of the development; ii. predicted flood levels; iii. flood warning time and flood notification; iv. assembly points and evacuation routes; v. evacuation and refuge protocols; and vi. awareness training for employees and contractors.	Annex C
B24	The Applicant must: (a) not commence construction until the Flood Emergency Response Plan required by condition B23 is submitted to the Planning Secretary for information purposes; and (b) implement the most recent version of the Flood Emergency Response Plan for the duration of the development.	Annex C
B27	Prior to the commencement of operation of the DSRRC, the Applicant must prepare a Surface Water Management Plan (SWMP) to the satisfaction of the Planning Secretary. The SWMP must form part of the OEMP required by condition C5.	Section 7.7
B28	The Applicant must: (a) not commence operation until the SWMP required by condition B27 is approved by the Planning Secretary; and (b) implement the most recent version of the SWMP approved by the Planning Secretary for the duration of the development.	7.7
B29	A Surface Water Verification Report (SWVR) must be submitted to the Planning Secretary and the EPA within eighteen (18) months (or as otherwise agreed by the Planning Secretary) of the commencement of all operations associated with the DSRRC.	7.7.5

Traffic		
B35	The Applicant must provide sufficient parking facilities on-site for the DSRRC, including for heavy vehicles and for site personnel, to ensure that traffic associated with the development does not utilise public streets.	Table 7.2
B36	The Applicant must ensure at the DSRRC that: (a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the development are constructed and maintained in accordance with the latest version of AS 2890.1:2004 Parking facilities Off-street car parking (Standards Australia, 2004), AS 2890.2:2018 Parking facilities Off-street commercial vehicle facilities (Standards Australia, 2018) and AS 2890.6.2009 Parking facilities Off-street parking for people with disabilities (Standards Australia, 2009) (b) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant AUSTROADS guidelines; (c) the development does not result in any vehicles queuing on the public road network; (d) heavy vehicles and bins associated with the development are not parked on local roads or footpaths in the vicinity of the site; (e) all vehicles are wholly contained on site before being required to stop; (f) all loading and unloading of materials is carried out on-site; (g) all trucks entering or leaving the site with loads have their loads covered and do not track dirt onto the public road network; and (h) the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times.	Table 7.2, Annex D
Hazards and risks		
B37	Dangerous goods, as defined by the Australian Dangerous Goods Code, must be stored and handled strictly in accordance with: (a) all relevant Australian Standards; (b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and (c) the Environment Protection Manual for Authorised Officers: Bunding and Spill Management – technical bulletin (EPA, 1997). In the event of an inconsistency between the requirements of part (a) to (c), the most stringent requirement must prevail to the extent of the inconsistency.	Table 7.2
B38	The development must not result in the non-compliance of any existing dangerous goods fuel and gas pipelines in accordance with AS2885 Pipelines – Gas and Liquid Petroleum.	Table 7.2
Waste		
B42	From the commencement of operation of the DSRRC, the Applicant must implement a Waste Monitoring Program for the development.	7.6
B43	The Applicant must unload all waste received at the site within the designated waste unloading areas.	Table 7.12
B44	All waste processing must be undertaken within designated areas.	Table 7.12

B45	Prior to the commencement of operation of the DSRRC, the Applicant must prepare a Waste Management Plan (WMP) for the development to the satisfaction of the Planning Secretary. The WMP must form part of the OEMP required under condition C5.	7.4
B46	The Applicant must: (a) not commence operation until the WMP is approved by the Planning Secretary; (b) implement the most recent version of the WMP approved by the Planning Secretary.	7.4
B47	All waste materials removed from the site must only be directed to a waste management facility or premises lawfully permitted to accept the materials.	7.5
B48	The Applicant must assess and classify all liquid and non-liquid wastes to be taken off site in accordance with the latest version of EPA's Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014) and dispose of all wastes to a facility that may lawfully accept the waste.	7.5
B49	The Applicant must retain all sampling and waste classification data for the life of the development in accordance with the requirements of the EPA.	7.5
Pests, vermin and priority weed management		
B50	The Applicant must: (a) implement suitable measures to manage pests, vermin and declared priority weeds on the site; and (b) inspect the site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or priority weeds are not present on site in sufficient numbers to pose an environmental hazard or cause the loss of amenity in the surrounding area.	Table 7.12 10.1
Visual		
B51	Prior to the commencement of construction, the Applicant must prepare a Landscape Management Plan (LMP) to manage the revegetation and landscaping works on-site, to the satisfaction of the Planning Secretary. The LMP must form part of the OEMP required under condition C5. The LMP must: (a) detail the species to be planted on-site, using only locally native species; (b) describe the monitoring and maintenance measures to manage revegetation and landscaping works; and (c) be consistent with the Applicant's Management and Mitigation Measures at Appendix 2.	Annex E
B52	The Applicant must: (a) not commence construction until the LMP is approved by the Planning Secretary. (b) must implement the most recent version of the LMP approved by the Planning Secretary; and (c) maintain the landscaping and vegetation on the site in accordance with the approved LMP required by condition B51 for the life of the development.	Annex E
Lighting		

B54	The Applicant must ensure the lighting associated with the development: (a) complies with the latest version of AS 4282-2019 - Control of the obtrusive effects of outdoor lighting (Standards Australia, 2019); and (b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties, the public road network or the riparian corridor / Duck River.	Table 7.2
Signage and fencing		
B55	All signage and fencing must be erected in accordance with the development plans referenced in Appendix 1. Note: This condition does not apply to temporary construction and safety related signage and fencing.	Table 7.2
Environmental management		
C1	Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:	This OEMP
C1	be prepared by a suitably qualified and experienced person/s;	1 7.4.1 Annex C – Document control Annex E – Title page
C1(a)	details of: i. the relevant statutory requirements (including any relevant approval, licence or lease conditions);	5 Annex C – 1.1 Annex E – 1.1
C1(a)	ii. any relevant limits or performance measures and criteria; and	7.1, 7.3, 7.4.3, 7.8.1, 7.8.1. Annex F Annex C – 4
C1(a)	iii. the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	7.2, 7.4.6, 7.8.1, 7.7.5 Annex C – 4 Annex E – 6.3
C1(b)	details of site-specific training to be provided to construction and operation personnel to ensure compliance with the plans;	8 Annex C – 5.4
C1(c)	a description of the measures to be implemented to comply with the relevant statutory requirements (including any relevant conditions under SSD 9302), limits, or performance measures and criteria;	2.2 7 Annex C – 6 Annex E – 4, 5, 6

C1(d)	a program to monitor and report on the: i. impacts and environmental performance of the development; and	7.6, 7.4.5, 7.6.5, 7.7.5, 7.8, 10.6,11 Annex C – 6 Annex E – Appendix B
C1(d)	ii. effectiveness of the management measures set out pursuant to paragraph (c) above;	7.6, 7.4.6, 7.4.7, 7.7.5, 7.8.2, 9.2.9, 10, 11 Annex C – 6 Annex E – Appendix B
C1(e)	a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	Annex F Annex F – Appendix A
C1(f)	a program to investigate and implement ways to improve the environmental performance of the development over time;	10, 11 Annex E – Appendix B
C1(g)	a protocol for managing and reporting any: i. incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);	10.3
C1(g)	ii. complaint;	10.4
C1(g)	iii. failure to comply with statutory requirements; and	10.6
C1(h)	a protocol for periodic review of the plan.	11 Annex E – 6.3.4
Operational environmental management plan		
C5	The Applicant must prepare an Operational Environmental Management Plan (OEMP) for the DSRRC site in accordance with the requirements of condition C1, in consultation with the EPA and to the satisfaction of the Planning Secretary.	This OEMP
C6	As part of the OEMP required under condition C5 of this consent, the Applicant must include the following:	
C6(a)	describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	Annex H
C6(b)	describe the procedures that would be implemented to:	
C6(b)	i. keep the local community and relevant agencies informed about the operation and environmental performance of the development;	9, 10.6
C6(b)	ii. receive, handle, respond to, and record complaints;	10.4
C6(b)	iii. resolve any disputes that may arise;	10.4.3

C6(b)	iv. respond to any non-compliance;	10.3
C6(b)	v. respond to emergencies; and	10.3.2, 10.3.3, Annex K
C6(c)	describe:	
C6(c)	i. how the DSRRC will ensure compliance with any relevant statutory obligations;	This OEMP
C6(c)	ii. the processes involved for each aspect of operation including processes for each of the individual facilities;	6, Annex I
C6(c)	iii. how each of the facilities interrelate and how they will be managed in concert with one another during operation; and	6, 7.5.4, 7.5.5
C6(c)	iv. how the operation will be managed in concert with any relevant conditions under SSD-9302 and any other relevant planning or licensing conditions related to the premises;	2.2
C6(d)	include the following environmental management plans or codes:	
C6(d)	i. Air Quality (see condition B8);	7.4
C6(d)	ii. Driver Code of Conduct (see condition B18);	Annex D
C6(d)	iii. Waste (see condition B45);	7.5, 7.6
C6(d)	iv. Flood Emergency Response (see condition B23); and	Annex C
C6(d)	v. Water (see condition B27).	7.7
C7	The Applicant must: (a) not commence operation until the OEMP is approved by the Planning Secretary; and (b) operate the development in accordance with the OEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).	2.2
Revision of strategies, plans and programs		
C8	Within three months of: (a) the submission of a Compliance Report under condition C14; (b) the submission of an incident report under condition C10; (c) the submission of an Independent Audit under condition C16; (d) the approval of any modification of the conditions of this consent; or (e) the issue of a direction of the Planning Secretary under condition A2(b) which requires a review, the strategies, plans and programs required under this consent must be reviewed, and the Planning Secretary must be notified in writing that a review is being carried out.	10.10

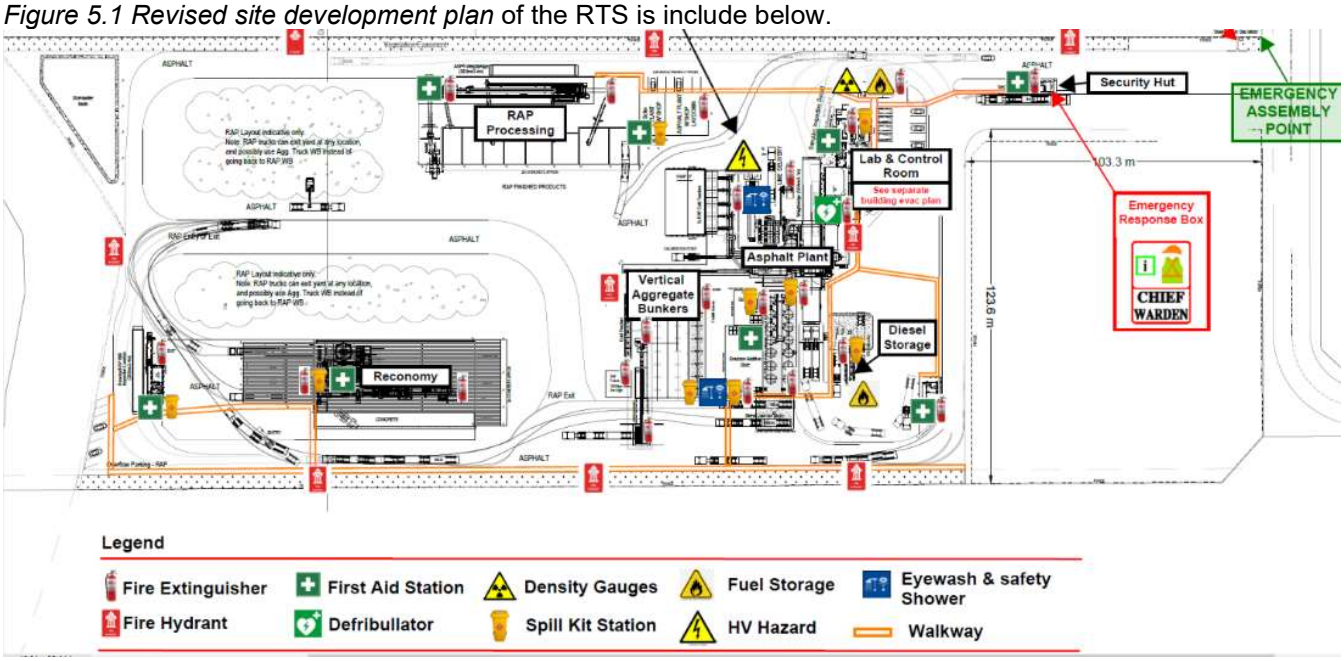
C9	If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review. Note: This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.	10.10
Reporting and auditing		
C10	The Planning Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3.	10.3.2
C11	The Planning Secretary must be notified in writing to the Major Projects website within seven days after the Applicant becomes aware of any non-compliance.	10.3.2
C12	A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	10.3.2
C13	A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	10.3.2
C14	Within three months after the first year of commencement of operation of the DSRRC, and in the same month each subsequent year (or such other timing as agreed by the Planning Secretary), the Applicant must submit a Compliance Report to the Planning Secretary reviewing the environmental performance of the development to the satisfaction of the Planning Secretary. Compliance Reports must be prepared in accordance with the Compliance Reporting Post Approval Requirements (Department 2020) and must also: (a) identify any trends in the monitoring data over the life of the development; (b) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and (c) describe what measures will be implemented over the next year to improve the environmental performance of the development.	Table 10.3
C15	The Applicant must make each Compliance Report publicly available no later than 60 days after submitting it to the Planning Secretary and notify the Planning Secretary in writing at least 7 days before this is done.	Table 10.3

C16	Within one year of the commencement of operations of the DSRRC, and every three years after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit (Audit) of the development. Audits must: (a) be prepared in accordance with the Independent Audit Post Approval Requirements (Department 2020) (b) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Planning Secretary; and (c) be submitted to the satisfaction of the Planning Secretary within three months of commissioning the Audit (or within another timeframe agreed by the Planning Secretary).	10.1.2
C17	In accordance with the specific requirements in the Independent Audit Post Approval Requirements (Department 2020), the Applicant must: (a) review and respond to each Independent Audit Report prepared under condition C16 of this consent; (b) submit the response to the Planning Secretary and any other NSW agency that requests it, together with a timetable for the implementation of the recommendations; (c) implement the recommendations to the satisfaction of the Planning Secretary; and (d) make each Independent Audit Report and response to it publicly available no later than 60 days after submission to the Planning Secretary and notify the Planning Secretary in writing at least 7 days before this is done.	10.1.2
C18	Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance reporting and independent auditing. Note: For the purposes of this condition, as set out in the EP&A Act, “monitoring” is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an “environmental audit” is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.	10
Access to information		

C19	At least 48 hours before the commencement of construction until the completion of all works under this consent, the Applicant must: (a) make the following information and documents (as they are obtained or approved) publicly available on its website: i. the documents referred to in condition A2 of this consent; ii. all current statutory approvals for the development; iii. all approved strategies, plans and programs required under the conditions of this consent; iv. the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged; v. regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent; vi. a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; vii. a summary of the current stage and progress of the development; viii. contact details to enquire about the development or to make a complaint; ix. a complaints register, updated monthly; x. the Compliance Report of the development; xi. audit reports prepared as part of any Independent Audit of the development and the Applicant's response to the recommendations in any audit report; xii. any other matter required by the Planning Secretary; and (b) keep such information up to date, to the satisfaction of the Planning Secretary.	9.2.7

ANNEX B – SITE LAYOUT

Figure 5.1 Revised site development plan of the RTS is include below.



ANNEX C – FLOOD EMERGENCY RESPONSE PLAN

ANNEX C Flood Emergency Response Plan .pdf

ANNEX D – DRIVER CODE OF CONDUCT

DRIVER CODE OF CONDUCT

This driver code of conduct applies to all personnel and any other person conducting business for Downer, whether a direct employee of Downer or employed by some other organisation providing a service or product to the project.

We are all members of the general community, so you are expected to comply with all the relevant legal requirements and accepted community standards whilst conducting your business. Whether you are an employee of Downer or operate any service to the company, your behaviour on the road reflects upon the community reputation of the project and in this regard your full compliance with this Driver Code of Conduct is required.

PENALTIES AND DISCIPLINARY ACTION

Failure to comply with this Driver Code of Conduct will lead to either the issue of a 'warning notice' or

'disciplinary action' if the offender is an employee of Downer. If the offending party represents another company then 'disciplinary action' may be treated as suspension or cancellation of a service contract or arrangement with that company.

A warning notice may be issued for a number of reasons, which may include (but not limited to) if, you:

- Abuse other road users or customers.
- Do not carry out instructions as advised.
- Do not comply with local road and site speed restrictions.
- Do not report incidents, accidents or near misses.
- Use mobile phones and/or hand held devices while driving.
- Do not comply with any of the requirements in this Drivers Code of Conduct.

MOTOR TRAFFIC ACT

As a driver you are required to know and comply with all road rules pertaining to your vehicle (whether standard passenger car, utility or heavy transport vehicle).

DRIVING LICENCE

You must hold a current and valid driving licence for the class of vehicle that you operate. Additionally, you must always carry your current driver's licence with you while you are on duty. If your licence is cancelled or suspended, you must inform your supervisor immediately who will in turn inform project management immediately.

VEHICLE MINIMUM MAINTENANCE AND OPERATING CONDITION

All vehicles must be maintained and operated in accordance with the vehicle manufacturers recommended standards (refer to vehicle manufacturer's handbook).

OCCUPATIONAL HEALTH AND SAFETY

The health and safety of all people employed by (or working for) Downer, and those visiting the project site, is of the utmost importance. As an employee of the project, or supplier or contractor to the project, you are required to adhere to the occupational health and safety legislation.

Generally this means that you must:

- Carry out your duties in a way which does not adversely affect your own health and safety or that of others.

- Cooperate with measures introduced in the interest of workplace health and safety, in particular follow OHS Standard Operating Procedures of the Downer Group.
- Attend all Health, Safety & Environmental training provided.
- Immediately report all matters which may affect workplace health & safety to your supervisor.
- Correctly use any information, training, personal protective equipment and safety devices provided.
- Not intentionally misuse or recklessly interfere with anything that has been provided for health and safety reasons.
- Only do tasks for which you have authorisation and/or have the necessary training, and for which all necessary safety arrangements are in place.

ENVIRONMENT

Downer is committed to protecting the environment and preventing air, water and noise pollution. As the operator of your vehicle, you are subject to environmental regulations relating to vehicle emission and product spill. You must understand and appreciate the seriousness of polluting the environment and the consequences of such events. If you are careless or neglect your responsibilities, you can cause personal injury, loss of life, property damage, damage to the environment, and cause adverse publicity for the project.

NOISE CONTROL

Using engine brakes can be extremely noisy. If possible, you should not use engine brakes near residences and built-up areas. Generating excessive noise is an offence governed by relevant legislation.

You must also not unnecessarily over-rev your engine when driving and pulling off from a stationary position.

The following noise management measures must be implemented where possible when delivering/offloading materials on site to minimise noise:

- Avoid shouting and minimise talking loudly and slamming vehicle doors.
- Avoid metal to metal contact and dropping materials from height.
- Minimise idling of trucks.
- Avoid reversing.

HIGHWAY COURTESY

The on-going reputation of the project depends very much on the way you drive your vehicle and courtesy that you extend to the community. The road is there to share and therefore, it is a project requirement that you display courtesy and restraint towards other road users.

SPEED RESTRICTIONS

As a competent driver, you must always adjust your driving to the existing conditions. Speeding is the leading behavioural factor in deaths and serious injury on NSW roads. Speeding is not just driving faster than the posted speed limit, it includes driving too fast for the weather, light, traffic and road conditions.

Always follow posted signs as they provide vital clues to road conditions and characteristics. You should always apply the following rules:

- Always reduce your speed in wet conditions.
- Drive cautiously in low visibility.
- Descend hills in the lowest gear to suit the conditions.
- Always observe the special limits that apply for road works etc.
- **DO NOT** exceed the posted maximum speed.

Always comply with school zone time speed limits and reduce speed when approaching a bus stopping/stopped.

Reduce speed from dusk to dawn in areas where nocturnal wildlife may be present. Do not use bright headlights as blinded animals cannot see the vehicle and do not move away from the road.

SPECIFIED ACCESS ROUTES

All vehicles must use the vehicle access routes shown on the site layout in Annex B. RAP and Reconomy trucks will require the use of the entry weighbridge.

SITE SPEED LIMITS

The project site has a general speed limit of 20 km/h with 10 km/h limits in designated areas. These limits are to ensure the interaction between personnel and vehicles are managed to minimise the risk of injury to all personnel.

Drivers are required to observe the posted speed limits and other traffic signage at all times. All incidents where drivers do not observe speed limits and other traffic instructions will be logged and investigated and where appropriate, disciplinary action will be taken.

DEFENSIVE DRIVING

You should always drive in a manner that will help you to avoid an accident, despite incorrect/inappropriate actions of others or poor driving conditions. Defensive driving requires a high degree of anticipation.

VEHICLE BRAKING

One of the most important single skills that a professional and competent driver possesses is bringing a loaded vehicle to a controlled stop both in the city and in open road conditions. You may need to brake heavily but you must also be aware of the possible consequences. As a rule, you should always be aware of traffic conditions 1 to 2 km in front of you. In doing so, you are adjusting your own driving conditions to avoid the need for heavy braking.

Always brake with care, remembering that the truck will react differently according to the weight of the load, weight distribution of the load and road surface condition. You should never, under any conditions, drive a vehicle with faulty or suspect brakes. You must always immediately report the fault to your supervisor to be repaired.

Engine brakes are auxiliary to the main service brakes. In general, the following should be observed regarding engine brakes:

DO NOT use the engine brake on slippery or wet surfaces.

DO NOT use engine brakes in or near residences and built-up areas, as this causes excessive noise and is a public disturbance.

TAILGATING

By law, you are required to maintain a gap between yourself and the vehicle directly in front of you, so that heavy braking will not be required. The gap is based on several factors including speed, vehicle weight, traffic congestion and road condition. During wet weather or other adverse conditions, the gap distance should be doubled.

The legal distance for heavy vehicles in areas with limited streetlights is 60 metres. A gap of 60 metres is approximately the same as:

- The length of four (4) semi-trailer combinations.
- Twelve (12) car lengths.
- Four (4) seconds.

Always remember, appropriate gap distance between other road users is a key defensive driving tool.

OVERTAKING/PASSING

Overtaking and passing should be done so only, when necessary, where legally allowed and in a careful and safe manner. There is to be no overtaking or passing within residential areas.

MOBILE PHONES

Using a mobile phone while driving is strictly prohibited for all drivers operating a motor vehicle unless a blue tooth hands-free kit is installed and utilized in the vehicles. This will be enforced to all site personnel and delivery partners during the site-specific induction process prior to commencing on the project.

ROAD HAZARDS

During most journeys that you take, there will be hazards on and near roadways. Always be alert for these hazards and make your adjustments as necessary.

Examples of hazards are:

- Rough/slippery surfaces.
- Flooded roads.
- High winds.
- Fog and smoke haze.
- Sunset and sunrise.
- Narrow or winding roads.
- Low wires or awnings.
- Low bridges, tunnels etc.
- Crossings, rail/people.
- Animals, pedestrians & cyclists.
- Underpasses and trees.

Be aware that your vehicle itself may become a road hazard when it is parked on a roadway, broken down or otherwise. In this circumstance, use portable warning signals, placing them 50-150 metres in front of and behind the vehicle, as well as at the side.

If your vehicle becomes bogged on site, make contact with your supervisor or site contact and do not attempt to retrieve your vehicle without approval and appropriate risk controls including a SWMS.

PARKING

Avoid the need to park on the local streets by planning your trip to arrive at the site during Downers' specified delivery scheduled. Heavy vehicles are to park on shoulder lanes on the internal road and in loading areas. Asphalt trucks will park at the dedicated area to the north of the asphalt plant.

REVERSING

Try to avoid reversing whenever possible. If you cannot avoid it, use extreme caution. If you need to reverse while on the project site:

- Always use a spotter.
- Maintain visual contact with the spotter.
- Maintain clear communications with the spotter.

If you need to reverse when not on the project site:

- Get out of your vehicle and check the rear surrounding area.

- Check clearances at sides, top and bottom.
- Constantly monitor mirrors for pedestrians or other traffic when reversing.

MATERIAL TRANSPORT

Drivers are responsible for ensuring that all tail and side gates are properly secured and that there is no ropes, straps or chains dangling from the trailer.

Drivers of trucks hauling materials to and from the project site will ensure adequate separation between vehicles. No tailgating or formation of rolling convoys is permitted.

Drivers are responsible for ensuring that all loads are properly secured and/or covered and that there is no spillage or leakage of the load from the vehicle to the road surface.

Drivers are responsible to ensure the cleanliness of their vehicle and must inspect for the following:

- Loose material, including but not limited to packing material, gravel, dirt, dust etc, may spill from the trailer platform and become a hazard to other drivers on the road.

Loose material (gravel, dirt or caked mud) may become dislodged from the underside of the vehicle, including wheel arches, and become a hazard to other drivers on the road.

ANNEX E – LANDSCAPE MANAGEMENT PLAN

ANNEX E Landscape Management Plan .pdf

ANNEX F – CONTINGENCY MANAGEMENT PLAN

Item	Trigger/ response	Condition		
		Green	Amber	Red
Noise impacts at sensitive receiver locations	Trigger	Noise levels do not exceed limits.	Minor exceedance of applicable limits.	Significant exceedance of applicable limits.
	Response	Ongoing best practice management measures to minimise noise emissions.	Undertake all feasible and reasonable mitigation and management measures to minimise noise impacts.	Undertake all feasible and reasonable mitigation and management measures to ensure noise levels are below limits. If noise levels cannot be kept below applicable limits then operational processes and management measures will be reviewed.
Visible dust leaving the site	Trigger	Daily inspections show that there is no visible dust leaving the site.	Daily inspections show that there is visible dust leaving the site.	Daily inspections show that there is visible dust leaving the site multiple times during a day OR from multiple locations within the site.
	Response	Continue monitoring program as normal.	Review and investigate activities and respective control measures, where appropriate. Implement additional remedial measures, such as deploying additional sweeper trucks etc.	Undertake an investigation of the dust generating activities, and if necessary, temporarily halt the dust generating activities.
Queuing	Trigger	No queuing identified	Queuing identified within site.	Queuing identified on the public road.
	Response	No response required. Continue monitoring program.	Review the delivery schedule. If drivers are not following the correct schedule, then they should be provided with additional training and an extra copy of the Driver code of conduct.	Review and investigate activities. If it is concluded that activities are directly responsible for queuing on public roads, implement additional control measures that may include: ▪ Put a temporary hold on incoming heavy vehicle deliveries where possible. ▪ Review Driver code of conduct and

				update where necessary. ▪ Provide additional training.
Erosion	Trigger	No evidence of erosion.	Minor gully or tunnel erosions present and/or rilling. Evidence of sediment or sediment laden water leaving the site.	Significant gully or tunnel erosions present and/or rilling. Evidence of sediment or sediment laden water leaving the site.
	Response	Continue water management system implementation.	A suitably trained person to inspect the site. Review of water management structures. Remediate as appropriate. Revise water management system if required.	A suitably trained person to inspect the site. Review of water management structures. Remediate as soon as practical. Revise water management system if required.
Water management structures	Trigger	Water management structures have been designed, constructed and managed in accordance with the water management system.	Inspections indicate that water management structures illustrate minor non-compliance with the water management system.	Inspections indicate a failure of the water management structures.
	Response	Continue water management system implementation.	A suitably trained person to inspect the site. Review of water management structures. Remediate as appropriate. Revise water management system if required.	A suitably trained person to inspect the site. Remediate as soon as practical. Review of engineering design and revise water management system.

ANNEX G – SITE ROLES AND RESPONSIBILITIES

The Production Manager works with the relevant functional managers and human resources personnel to ensure adequate resources are in place for the site.

The Production Manager ensures that the specific roles, inter-relationships, and lines of reporting are defined in the site's organisational structure, and may assign:

- an individual to a specific role
- the responsibilities for the specific role to themselves; or
- the responsibilities for the specific role to other site team members.

Production Manager

Typical Responsibilities

- Visibly committing to and implementing environmental practices as defined in the EMP.
- Overseeing site occupation and delivery compliance to the EMP, and ensuring environmental records are maintained and made available upon request to government agencies.
- Reporting environmental status and environmental incidents.
- Reviewing and participating in environmental incident investigations and nominated corrective measures.
- Instigating site meetings where environmental performance is an agenda item.
- Participating in environmental audits.
- Initiating environmental reviews with the Zero Harm Advisor / Environmental Advisor to facilitate continual improvement.
- Maintaining a useable library of environmental documentation.
- Ensuring required environmental training, including for environmental management, spill response, and spill prevention, is completed.
- Understand legal requirements relevant to their role and responsibilities and implement appropriate measures to comply with legal requirements.
- Verify that legal requirements have been identified in compliance registers and measures to comply are implemented.
- Lead a program of communication activities for informing the community on operations.
- Manage the handling of enquiries and complaints in line with the complaint handling procedure.
- Work closely with the technical streams and management team to ensure known stakeholder requirements are proactively considered.
- Manage the maintenance of stakeholder database and contribute to reporting requirements.
- Ensure that the appropriate management response and handling procedures are instigated and carried through in the event of an incident and/or non-compliance.

Site Supervisor

Typical Responsibilities

- Visibly committing to and implementing environmental practices as defined in the EMP.
- Participating in environmental incident investigations and nominated corrective measures.
- Participating in environmental audits.
- Undertaking monthly environmental inspections across all areas of the site and presenting alerts or findings at toolbox meetings.

- Co-ordinating and facilitating SWMS activities for their area of responsibility.
- Ensuring all personnel, including subcontractors and visitors, undertake site defined induction and training, and are aware of any evacuation and emergency procedures.
- Reporting environmental incidents to the Environmental Advisor as they are identified.
- Participating with the Zero Harm Advisor / Environmental Advisor in the investigation of incidents in their area of responsibility.
- Ensuring environmental issues are raised at site toolbox meetings.
- Comply with the information, instruction, processes and systems provided for legal compliance.

Environmental and Sustainability Advisor (Governance Role)

Typical Responsibilities

- Providing senior support to the Production Manager and Zero Harm Advisor to ensure environmental works are carried out in accordance with the EMP and the respective sub-plans, and Downer procedures.
- Providing technical support to site staff.
- Assisting in the investigation of any incidents.
- Consulting with the administering authorities on environmental matters, as required.
- Maintaining effective Zero Harm systems in the field by developing maximum employee and subcontractor participation.
- Assisting in achieving zero environmental incidents for the site.
- Undertaking regular system/ site environmental audits and producing high quality environment audit reports.
- Provide environmental guidance in resolving issues with a view to continuous improvement and elimination of any environmental incidents.
- Assisting site personnel in the development of site-specific documentation, e.g. SWMS.
- Assisting in the preparation of the Site Risk Register and the environmental induction of site personnel.
- Monitoring and reporting on energy, greenhouse gas and waste management, including sewage disposal.
- Being familiar with and implementing the requirements of this EMP, as required.
- Complying with any regulations or statutory obligations for environmental management.
- Identify legal requirements and implement measures to comply, while also providing guidance and advice regarding relevant Zero Harm requirements.

Downer Worker

Typical Responsibilities

- Visibly committing to environmental procedures and instruction.
- Completing required inductions as specified in this EMP.
- Participating in the formulation of SWMS.
- Implementing environmental controls as detailed in inductions, SWMS, all aspects of this EMP and applicable sub-plans, compliance documents, procedures, and standards.
- Reporting environmental incidents and issues to the relevant Supervisor or to the Environmental Advisor.
- Using equipment provided to reduce environmental hazards or emissions.
- Participating in environmental inspections.

- Contributing to the overall site goal for zero environmental impacts and incidents by making suggestions for improvement where identified.
- Complying with all aspects of this EMP and all associated compliance documents, permits, procedures, and standards.
- Conducting risk assessments and providing SWMS to Downer prior to construction.
- Undertaking induction(s) as defined by this EMP and complying with site environmental instructions.
- Providing to Downer details of all hazardous substances, contained within Safety Data Sheets (SDS), proposed for use in subcontractor scope.
- Providing other environmental related data to Downer as defined by this EMP, including data for NGER, waste generation, and water consumption.
- Attending site meetings when requested.
- Reporting, investigating, and implementing corrective measures arising from associated environmental incidents.
- Attending environmental training and awareness sessions.
- Comply with the information, instruction, processes and systems provided for legal compliance.
- Employees, contractors and subcontractors are to:
    - Notify the Production Manager of any hazard or potential hazard that may result in an incident and/or non-compliance, regardless of the nature or scale.
    - Take immediate action (where it is safe to do so) to prevent, stop, contain and/or minimise any adverse impact associated with an incident and/or non-compliance.

Zero Harm Advisor

Typical Responsibilities

- Visibly committing to environmental procedures and instruction, and maintaining environmental records defined within this EMP.
- Providing technical support to the Production Manager and site team.
- Assisting the Production Manager / Environmental Advisor in providing environmental training and inducting all site personnel, including subcontractors and visitors.
- Providing environmental input to the formulation of SWMS, as required.
- Resolving and/ or facilitating solutions to site environmental issues and problems.
- Liaising with relevant regulatory authorities and stakeholders, as required.
- Reviewing and participating in environmental incident investigation and nominating corrective measures.
- Carrying out environmental inspections.
- Initiating environmental reviews with the Production Manager and facilitating continual improvement.
- Directing the workforce (in consultation with the Production Manager) to stop work in order to achieve compliance with the environmental requirements of the head contract, as covered in the EMP, or to prevent environmental damage.
- Identify legal requirements and implement measures to comply, while also providing guidance and advice regarding relevant Zero Harm requirements.

ANNEX H – ENVIRONMENTAL CONTROL MAP

ANNEX I – PROCESS FIGURES

Figure 3.14 Asphalt production process diagram from the EIS is included below.

Figure 3.15 RAP process diagram from the EIS is included below.

Figure 3.17 Bitumen products process diagram from the EIS is included below.

Figure 3.18 Reconomy process diagram from the EIS is included below.

ANNEX J – CORRESPONDENCE

ANNEX K – EMERGENCY MANAGEMENT PLAN

ANNEX L – SITE AUDIT STATEMENT