



Wetherill Park ResourceCo RRF Pty Ltd

Water Management Plan

Wetherill Park RRF

May 2025

1. Document Information

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The following table details the published date and amendment details for this document.

Date Published	Version Detail	Reason for issue of amendments	Author or Document Owner (Program)
February 2023	Version 3	Update after IEA and OEMP audit. Update site data.	Gary Salway
May 2025	Version 4	Updated following completion of stormwater management review.	Ben Whitehouse

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Appendices

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Definitions

Term	Definition
Accredited laboratory	a testing laboratory accredited by the National Association of Testing Authorities, Australia (NATA) or a similar accreditation authority, or otherwise granted recognition by NATA, either solely or in conjunction with one or more other persons.
Applicant	ResourceCo RRF Pty Ltd
C&D	Construction and demolition
Construction and Demolition Waste	Waste arising from commercial or industrial premises, refurbishments and demolition and construction work
EfWP	NSW Energy from Waste Policy
EfWMP	Energy from Waste Management Plan
EIS	Environmental Impact Statement titled <i>Waste and Resource Management Facility</i> SSD 15-7256, ResourceCo Pty Ltd, 35-37 Franck Street, Wetherill Park, prepared by Nexus Environmental Planning Pty Ltd dated 8 March 2016
EMS	Environmental Management System
EPA	Environment Protection Authority
EPL	Environment Protection Licence issued by the EPA under the POEO Act
Load	the quantity of waste material delivered to the stockpile by truck, bin, or trailer
Minister	Minister for Planning (or delegate)
NATA	National Association of Testing Authorities
OEMP	Operational Environmental Management Plan
Operation	The receipt, removal, or processing of waste
PEF	Process Engineered Fuel
Personal Protective Equipment (PPE)	equipment and clothing that is used or worn by an individual person to protect themselves against, or minimise their exposure to, workplace risks. It includes items such as facemasks and respirators, coveralls, goggles, helmets, gloves and footwear
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
PROC	Procedure
Processing	the complete recycling process, including inspection of incoming loads, removal of extraneous material, crushing and blending of different materials to create a recycled product.
QC	Quality control
RTS	Response to Submissions titled <i>Response to Submissions Waste and Resource Management Facility</i> SSD 15-7256, ResourceCo Pty Ltd, 35-37 Frank Street, Wetherill Park, prepared by Nexus Environmental Planning Pty Ltd, dated 28 November 2016
SOP	Standard operating procedure
Waste	As defined in the POEO Act and includes any materials receive or processed on the site

2. Introduction

2.1 Overview

ResourceCo RRF Pty Ltd (ResourceCo) is the operator of the Wetherill Park Resource Recovery Facility (the facility) located at 35-37 Frank Street, Wetherill Park.

The facility comprises a waste and resource management operation which processes relevant waste materials to recover products including aggregates, metal, timber and to manufacture solid recovered fuel (Processed Engineered Fuel or PEF).

This Water Management Plan (WMP) is one of a suite of plans that governs the operation of the facility.

2.2 Purpose

This WMP has been developed to:

- Detail water use, metering, disposal, and management on-site
- Detail the water licence requirements.
- Detail the arrangements for management of wastewater streams on-site including leachate and firewater.
- Document the proposed Surface Water Management Plan including:
 - (i) the program to monitor:
 - Surface water flows and quality; and
 - Surface water storage and use
 - (ii) sediment and erosion control plans
 - (iii) surface water impact assessment criteria, including trigger levels for investigating potential adverse surface water impacts
 - (iv) a protocol for investigation and mitigation of identified exceedances of the surface water impact assessment criteria

The WMP provides an overall framework for water management during operation. It has been developed to satisfy the requirements of:

- Condition B22 of the Development Consent for SSD 7256 dated 10 April 2017
- the commitments made in the Environmental Impact Statement titled 'Waste and Resource Management Facility' SSD 15-7256, ResourceCo Pty Ltd, 35-37 Frank Street, Wetherill Park, prepared by Nexus Environmental Planning Pty Ltd dated 8 March 2016 (EIS)
- the commitments made in the Response to Submissions titled 'Response to Submissions Waste and Resource Management Facility' SSD 15-7256, ResourceCo Pty Ltd, 35-37 Frank Street, Wetherill Park, prepared by Nexus Environmental Planning Pty Ltd, dated 28 November 2016 (RTS)
- ResourceCo's Environmental Management System (EMS), including ISO14001.
- applicable legislation and regulatory requirements
- requirements of relevant government agencies

In the event of any inconsistency in the above documents, the Development Consent prevails.

2.3 Project description

The Waste and Resource Management Facility Project, as defined in the EIS includes the following key built elements:

- Industrial sheds for housing the facility operations.
- Processing equipment capable of converting up to 250,000 tonnes of relevant waste materials per year into approximately 150,000 tonnes of PEF and over 75,000 tonnes of reusable commodities such as metal, aggregates and timber.
- Workshop, office, and staff amenities
- Vehicular access and internal roadways, weighbridge and 42 car parking spaces in two car parking areas
- Stormwater management system for collection of water for reuse in the processing system, and dust suppression or treatment and discharge from the site, including a 300-kL underground stormwater storage tank and two above ground tanks with combined capacity of 27 kL.
- 30 kL diesel fuel tank

2.4 Environmental management system

2.4.1 ResourceCo Corporate EMS

This WMP has been developed and will be implemented in accordance with ResourceCo's corporate EMS. This EMS has been developed, implemented, and certified in accordance with the International Standard for Environmental Management Systems AS/NZS ISO 14001 (Certification No. 2012017).

Throughout the operation of the facility, ResourceCo will undertake periodic reviews and audits of the works to ensure the corporate commitments are fulfilled.

ResourceCo's EMS, as implemented at the facility, will be periodically audited as part of the corporate EMS re-certification and ongoing validation process.

2.4.2 Wetherill Park Resource Recovery Facility OEMP

This WMP is a sub-plan to the Wetherill Park Resource Recovery Facility Operational Environmental Management Plan (OEMP). The OEMP is based on the ISO14001 Environmental Management System, which provides for continual improvement in environmental performance.

The OEMP is intended as an over-arching environmental management document that forms the basis for development of detailed sub plans (such as this) and procedures for managing specific environmental aspects and impacts. It includes a number of subordinate environmental planning and management instruments (e.g. sub plans, procedures, instructions, forms etc.) that will be implemented during operation of the facility.

The scope and interaction of this document within the OEMP document framework is illustrated in Figure 1.

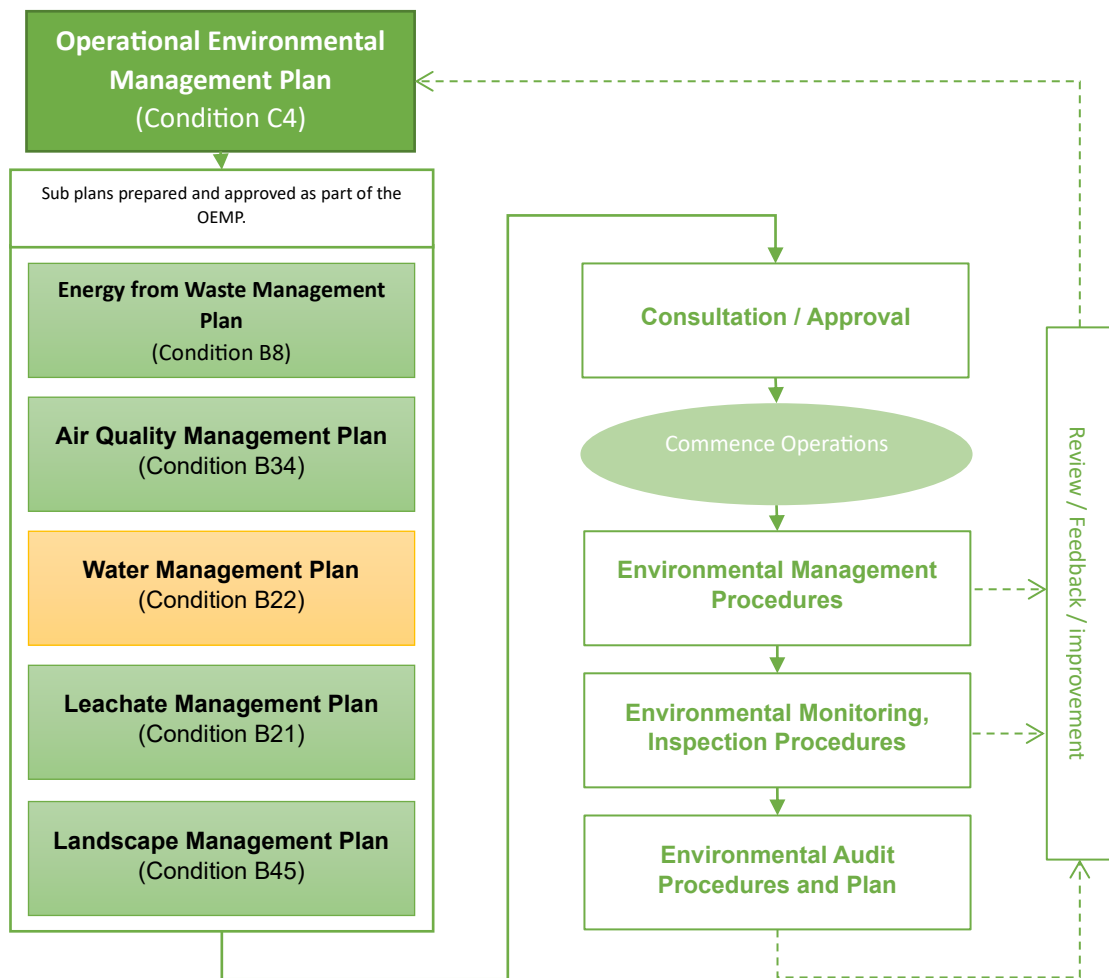


Figure 1 Operational environmental management document structure

2.4.3 Sub plans

In accordance with the Conditions of Approval, a number of sub plans are required to document ResourceCo's management approach to identified risks (e.g. air quality, water and leachate). These sub plans identify potential impacts as they relate to the operation of the facility (as defined in the EIS and RTS) and outline the physical and management safeguards, mitigation measures, responsibilities and monitoring requirements to be implemented to minimise potential impacts on the environment.

The sub plans (including this plan) required according to the Conditions of Approval are shown in Figure 1. Additionally, this shows the sub plans that are to be approved as part of the OEMP and those that are to be approved and/or consulted upon separately.

2.4.4 Procedures and forms

In addition to the environmental management documents nominated above, ResourceCo uses a suite of additional processes and procedures for its EMS. These management tools (described below) are referred to in this WMP and/or the individual sub plans:

- Procedures (PROC) and Safe Operating Procedures (SOP) – provide instructions to ResourceCo staff and subcontractors to guide the completion of tasks required during the operation of the facility. The implementation of these PROCs and SOPs will ensure consistency in approach and quality of results. Specific procedures are developed for management issues including Job Safety and Environmental

Analysis (JSEA) for reviewing works to identify hazards and appropriate control measures, and environmental monitoring etc.

- Environment-related forms (FORM) are used to document environmental issues, actions and/or performance against requirements. Typical forms include incident reporting, inspection checklists, audit protocols, complaints/feedback reports etc.

2.5 Consultation and approval process

2.5.1 WMP compliance with the Conditions of Approval

Table 1 lists the key requirements of Condition B22 and indicates where these requirements are addressed within this WMP or other documents.

Table 1 Conditions of Approval requirements

Condition requirements	Response/reference
Condition B22	
Prior to the commencement of operations, the Applicant must prepare a Water Management Plan. The Water Management Plan must:	
(a) form part of the OEMP required by Condition C4 and be prepared in accordance with Condition C6	
(b) be prepared in consultation with DPI	Section 2.5.2
(c) detail water use, metering, disposal, and management on-site	Section 3
(d) detail the water licence requirements for the development	Section 3
(e) detail the management of wastewater streams on-site, including leachate and firewater	Section 3.3
(f) contain a Surface Water Management Plan, including:	Section 4
(i) a program to monitor: <ul style="list-style-type: none"> • Surface water flows and quality • Surface water storage and use 	
(ii) sediment and erosion control plans	
(iii) surface water impact assessment criteria, including trigger levels for investigating potential adverse surface water impacts	
(iv) a protocol for the investigation and mitigation of identified exceedances of surface water impact assessment criteria	

2.5.2 Consultation and approval

In accordance with Condition B22, this WMP is required to be prepared in consultation with the DPHI.

The initial version of this document was approved by the NSW Department of Planning, Housing and Infrastructure on 18th March 2018. All further updates are required to be submitted to DPHI for approval. This is version 4 of this document and encompasses the completion of the stormwater management review as detailed in EPL 20937 condition U1.

3. Water use, metering, disposal, and management on-site

3.1 Water demand and water use

3.1.1 Water demand

Table 2 summarises the estimated daily water demands for each month of the year. The key water demands include:

- Process water
- Toilet flushing
- Landscape watering

Where monthly rainfall is expected to exceed evapotranspiration, it is assumed that no landscape watering is required.

Table 2 Daily water demands.

Month	Processing Use (kL/day)	Toilet Flushing (kL/day)	Landscape Watering (kL/day)
Jan	55.9	0.84	0.47
Feb	54.6	0.84	0.19
Mar	50.5	0.84	0.08
Apr	43.4	0.84	0.00
May	33.1	0.84	0.00
Jun	19.9	0.84	0.00
Jul	16.5	0.84	0.00
Aug	29.0	0.84	0.18
Sep	39.3	0.84	0.45
Oct	47.6	0.84	0.57
Nov	51.7	0.84	0.54
Dec	55.9	0.84	0.74

3.1.2 Rainwater re-use

Apart from a minor volume of water for amenities, the facility is expected to require about 15.5 ML of water per year of which an average of 4.82 ML per year (31%) would be provided by rainwater as follows:

- Process water supply of 30% from rainwater (4.49 ML/year)
- Toilet flushing and landscape water supply of 82% from rainwater (0.33 ML/year).

3.2 Water management and disposal

3.2.1 Stormwater drainage

In accordance with the requirements of Fairfield City Council, no on-site detention of stormwater is required.

The stormwater drainage system includes a below ground pit and pipe network designed to control nuisance flooding and enable effective stormwater management for the site. The piped system has been designed to convey runoff from 20-year average recurrence interval (ARI) storm.

A combination of grated inlet pits and side entry pits are used on the site.

The majority (98%) of the new pit and pipe network connects to the 900 mm diameter stormwater line located at the north-west corner of the site. The remainder of the pit and pipe network is discharged directly to the kerb on Frank Street.

For storms larger than 20-year ARI up to 100-year ARI, the drainage system incorporates overland flow routes over proposed hardstand, car parking and landscaped areas which have been designed to ensure that personal safety is not compromised.

In this case, overland flows are designed to drain to the south where they can safely exit the site onto Frank Street via the access road.

Roof water from the production building drains to an underground rainwater harvesting tank (300kL) located under the roadway on the northern side of the facility. Roof water from the office and workshop building drains directly to an above ground rainwater tank (capacity 27kL). Overflows from the 27kL tank is conveyed by the surface stormwater collection system to the northern end of the site.

The stormwater drainage plan is provided in Drawings TX-11972.00-C10 and TX-11972.000C11 in Appendix A.

All stormwater drains/pits on the site will be provided and maintained with the message "This pit drains to the Georges River". Lettering will be 100 mm high block bold yellow painted lettering. Paints used is of road line marking standard.

3.2.2 Stormwater pollution control

The proposed stormwater quality improvement measures are shown in Drawings TX-11972.00-C10 and TX-11972.000C11 in Appendix A.

Stormwater pollution controls include a series of treatment devices:

- HumeGard HG18 GPT
- Humes JellyFish JF3000-19-4 Filter
- OceanGuard 200-micron bags in site drains

3.3 Management of wastewater streams

3.3.1 Fire water containment

In the instance of a fire event, the facility design caters for the containment of contaminated fire services water on site. Contaminated fire services water is removed from the site by vacuum truck. Refer to the Leachate Management Plan for details.

3.3.2 Leachate management

The waste materials received into the site are dry in nature and are stored under cover in the manufacturing building. There are no waste materials stored outside. In the rare instance that materials received into the manufacturing process release leachates, for example if a non-conforming load of wet waste is delivered, the design of the receiving slab levels caters for an effectively bunded area that directs water away from exit points and contains it within the facility.

Any residual water contained in the facility will be emptied via vacuum trucks and any leachates removed from the site to an appropriately licensed disposal facility. Refer to the Leachate Management Plan for details.

3.4 Metering

The facility is connected to the potable water supply.

3.5 Water licence requirements

Nil.

4. Surface Water Management Plan

4.1 Plan objective and approach

The Surface Water Management Plan is to define the surface water monitoring program to be conducted through the operational life of the development, meeting the requirements of development approval documentation, commitments, and requirements as listed in Section 2.2. Specifically, this monitoring program has been prepared in response to the requirement B22(f) of Development Consent (Application no. SSD 7256; File reference no. 15/13400) and requirements from Conditions O4.1 and O4.2 of NSW EPA General Terms of Approval (GTA) – Issued for the site (notice no. 1545129).

Site operational life for surface water management consists of three stages: pre-commissioning, commissioning, and ongoing operations. The site is currently in the operational phase and therefore is looking to ensure the ongoing performance of site surface water management.

As such, the monitoring program detailed in below Sections 4.2 through 4.5 was developed considering site operations and surface water storage, reuse, flow and quality, with sediment and erosion control plans are presented in Appendix B. This program was developed to provide the data necessary for assessment of site surface water management performance.

The findings of this program are used to assist in stormwater management including the management of runoff contamination of surface water, the management of site flooding and minimising impacts to downstream flow conditions.

4.2 Surface water drainage and monitoring locations

The drainage of surface water at the site is discussed in Section 3.2.1 and includes stormwater conveyance to the 900 mm stormwater culvert in the adjacent drainage easement and to the Council's street kerb/gutter¹, designed as detailed in Triaxial Consulting letter report (dated 6 September 2016) and drawings TX-11972.00 – C2.0, – C2.1 and – C2.2 Issue C (refer Appendix A). Surface water management at the site is summarised as follows:

- **Overland flow to site infrastructure** | The majority of the site (approximately 98% of property area) drains runoff over impervious areas to pits and piping conveying stormwater by gravity away from the process area of the site and to the northwest property boundary stormwater pollution controls (i.e., gross pollutant trap and jellyfish membrane filter). This flow is then conveyed by gravity through to the junction box (identified as 'JB1') connection to the downstream 900 mm diameter culvert in the stormwater drainage easement.
- **Overland flow to offsite infrastructure** | The southwest corner of the property (approximately 2% of property area) drains runoff via the site access road to the Council's adjacent Frank Street stormwater infrastructure through grated inlet pits with pollution controls (i.e., litter baskets). The southwest corner of the property is away from the manufacturing building, separated also by dry sumps and capture pits, and is thereby anticipated to drain only relatively clean rainfall runoff.

¹ In accordance with Development Consent requirement B19 (in line with Council's Stormwater Drainage Policy).

- **Roof water from office and workshop/service building** | Runoff drains to two above ground rainwater tanks (combined capacity of 27kL) prior to overflow draining by gravity to the above-noted pits/piping and discharging off site through JB1 to the 900 mm diameter culvert in the stormwater drainage easement.
- **Roof water from manufacturing building** | Runoff drains to one below ground rainwater tank (capacity of 300kL) for reuse as part of the manufacturing operations. Overflow from this tank is conveyed by gravity to a junction box ahead of JB1, prior to discharging off site through JB1 to the 900 mm diameter culvert in the stormwater drainage easement.

The downstream 900 mm diameter circular stormwater drainage easement culvert conveys site and other upstream area stormwater runoff approximately 0.35 km to an open surface water canal. The canal conveys water from this point east then south approximately 0.90 km to Prospect Creek.

The monitoring locations for the site are proposed based on the site surface water management, as summarised above and to characterise the majority of runoff (approximately 98%). These site water quality sampling locations are listed below and shown on drawing TX-11972.00 – C2.1 in Appendix A:

- **S1** – Located at the boundary of site on the truck entrance driveway. This point is not impacted by site specific activities.
- **S2** – Adjacent to the site's weighbridge. This point collects runoff from southern concrete site areas. This point has the potential to be impacted by site activities.
- **S3** – Along the western boundary of site. This point collects runoff from western concrete areas. This point has the potential to be impacted by site activities.
- **S4** – Rear of site. This point collects runoff from northern and eastern concrete areas. This point is not impacted by site activities.
- **S5** – North-western corner of site. This is the collection point from all upstream points on site. This point drains into site stormwater treatment system. This point has the potential to be impacted by site activities.
- **S6** – North-western corner of site. This point is the water discharge point for site and is after the sites stormwater treatment system. This point has the potential to be impacted by site activities.
- **R1** – In front car park. This point is the roof run-off for the office building before they enter the rainwater retention tanks. This point is not impacted by site activities
- **R2** – North-eastern corner of site. This point is the roof run-off for the factory building and drains into the sites stormwater treatment system. This point is not impacted by site activities.
- **U1** – North-eastern corner of site. This point is the upgradient receiving point from upstream of site. This point is not impacted by site activities.

The monitoring of the upstream location allows for understanding of the water quality in the receiving system.

The monitoring of water quality for the clean rainfall runoff (approximately 2%) from the southwest corner of the property is not deemed required based on the small catchment of this area and lower quality risk posed by this area.

The findings of water quality monitoring will provide data to inform the assessment of site surface water management performance. With regard to monitoring of surface water flow rates and volumes, runoff from the site is conveyed by gravity to the area 900 mm stormwater drainage easement. As such, the direct measurement of this flow rate is not practicable. The site staff will collect as appropriate rainfall records for the applicable to the area. Using these records and if required by the NSW EPA, calculations of estimated volume discharged from the site could be performed. Separately, the water reused from the 300kL rainwater tank will be conveyed to the manufacturing facility by pumping and this flow may be measured and logged as part of operations.

4.3 Monitoring analytes and rationalisations

Surface water monitoring includes water quality sampling and analyses specific to the development. The development is for a waste and resource management facility to convert waste materials into commodities for reuse (e.g., metal, timber, concrete, bricks, rubble and soil) and process engineered fuel (e.g. timber and plastics for solid fuel in cement kilns). Considering these operations, the site-specific stormwater and leachate related analytes are listed in Table 3.

Table 3 Monitoring analytes

Surface water management (stormwater and leachate analytes)	
Field parameters	Metals (dissolved and total)
Electrical conductivity (µS/cm)	Aluminium
Oxidation-reduction potential (ORP)	Arsenic
pH	Boron
Temperature	Cadmium
Turbidity	Chromium
	Cobalt
General chemistry parameters	
Anions (i.e., total alkalinity as CaCO ₃ , sulfate and chloride)	Copper
Biochemical oxygen demand	Iron
Cations (i.e., calcium, magnesium, sodium, and potassium)	Lead
Dissolved organic carbon	Manganese
Hardness	Mercury
Total dissolved solids	Nickel
Total suspended solids	Selenium
	Zinc
Hydrocarbons	Nutrients
Total recoverable hydrocarbons (C6-C40) (includes volatile organic compounds)	Ammonia
Benzene, toluene, ethylbenzene, xylene, and naphthalene (BTEXN)	Nitrite and nitrate
Polycyclic aromatic hydrocarbons (PAHs)	Total Kjeldahl nitrogen (TKN)
Other parameters	Total nitrogen
Oil and grease	Total phosphorous
Organochlorine pesticides (suite of 15 analytes)	
Organophosphate pesticides (suite of 11 analytes)	

Sampling for above-noted site-specific analytes assists in the evaluation of surface water management performance as detailed in below Section 4.5. Should the water quality findings indicate analyte concentrations consistently at less than 50 percent of the defined site performance benchmarks (refer below Section 3.5) or less than the limit of reporting, discontinuing sampling for the analyte may be warranted.

4.4 Monitoring frequency and methods

The requirements of this monitoring program are to assess and minimise site-related potential surface water impacts to downstream surface water conditions. The overall site stormwater management comprises stormwater capture, conveyance, filtration, and discharge to the stormwater drainage easement. Given the impervious nature of the development (e.g., paved surfaces and building roofs), rainfall events will cause immediate runoff which ceases shortly after the event. Further, potential contaminants are likely to be contained at onset of rainfall runoff. As such, site-related potential surface water impacts would be limited to rainfall events with contaminants primarily present at onset. As such, event-based single water quality sampling is appropriate and deemed an appropriate approach.

4.4.1 Frequency

Given the site-related potential surface water risks are greater during rainfall events (and particularly at the initial stages of rainfall), this monitoring program's rainfall event-based monitoring frequency has been set as listed below, for the pre-commissioning, commissioning and ongoing operations monitoring stages with additional spill event-based monitoring. The monitoring methods are subsequently discussed. This staged monitoring program satisfies requirements from Conditions O4.1 and O4.2 of NSW EPA GTA.

A key concept in defining the proposed monitoring frequency is a specified site sampling trigger as defined below for the staged monitoring and spill monitoring:

- **Staged Monitoring Site Sampling Trigger** | Based on rainfall experienced, target to complete sampling on average approximately once every 6 months and include larger rainfall events where possible.
- **Spill Monitoring Site Sampling Trigger** | Spill event where trained site staff have observed a spill conveyed to the site surface water management system and/or when a spill occurs during a rainfall event.

Water sampling will be undertaken by trained site staff. It is deemed appropriate for trained site staff to undertake water sampling activities as the frequency for sampling is related to rainfall and/or spills during operational hours. This approach is considered appropriate for mitigation of inherent health and safety risks (water sampling in daylight and with other staff present onsite) and to provide the data necessary to assess surface water management (and leachate management performance (refer also Leachate Management Plan)).

Ongoing operations stage

Based on the results of the pre-commissioning and commissioning stages, and with ongoing engagement with the NSW EPA, ResourceCo has undertaken the following amendments to the stormwater management regime.

To ensure the adequacy of site infrastructure in preventing off-site pollution, and review the existing and updated site sampling data, an independent consultant was engaged to complete a comprehensive review of the stormwater management on site as a Stormwater Management Review.

Sampling and analysis were conducted during across 2023 and 2024 calendar years to facilitate the completion of a Stormwater Management Review Report. The report identified the following:

- Based on review of water quality sampling as outlined in Section 5.1, runoff from the site appears typically similar with that expected from typical urban runoff but with some results warranting further consideration.
- Therefore, assessment against the pollutant reduction targets upon which the development consent is based is considered appropriate at this stage whilst further review is undertaken. As outlined in Section 5.2, analysis of available data does not indicate any substantial ongoing performance issues with relation to achieving the reduction targets.

Table 4 Monitoring frequency – ongoing operations stage.

Location	Frequency
Upstream	Based on rainfall experienced, target to complete sampling on average approximately once every 6 months and include larger rainfall events where possible.
Site discharge	

The findings of the ongoing operations stage will inform any changes to the site surface water management system (and leachate management system; refer Leachate Management Plan) deemed appropriate for achieving required performance.

After 12 months and again after 24 months, ResourceCo will inform the EPA of the number of samples collected.

Within 3 months after the 24 months, a brief summary report is updated based on updated data and provided to the EPA with comparison of the results to upstream data, ANZG 2018 (95th percentile) default values and the typical urban runoff concentration to further assess the performance of the site's activities with respect to water discharged from the site (S1 and S6).

Spill

Monitoring for spills will occur should there be a spill. The monitoring frequency is listed in below Table 5 on an event basis.

Table 5 Monitoring frequency – spills

Location	Frequency
Upstream	On each occasion of the Spill Monitoring Sampling Trigger being activated
Site discharge	

This monitoring will primarily assist in assessing any potential site related impacts to downstream surface water conditions.

4.4.2 Methods

Water sampling will be undertaken by trained site staff, at the rainfall and/or spill event-based monitoring frequency, as noted in Section 4.4.1. The following sampling methods will be used by trained site staff for this monitoring program, also to include the quality assurance and quality control (QA/QC) program methods detailed in below Section 0.

- **Collection** | Disposable bailer or grab sampler for sample collection (selected for safe sampling). Samples are to be field filtered as required and immediately placed into laboratory prepared bottles, based on the monitoring analytes/laboratory analyses.
- **Identification/Preservation** | Sample bottles are to be labelled with the task number, sample identification number, sampler and collection time and date. Sample bottles are to be placed immediately into ice-filled coolers for preservation.

- **Custody** | Samples are to be accompanied with completed chain of custody documentation to the analytical laboratory, submitted with consideration for sample holding times and required analyses (e.g., 12 hours maximum holding time from collection to analysis for dissolved sulphide, per Australian Government National Measurement Institute publication no. 17-COM1468).

4.5 Treatment performance benchmarks and investigation

The Development Consent and NSW EPA GTAs generally require the identification of treatment performance benchmarks.

The NSW Department of Planning and Environment approved the development on the basis of pollutant reduction criteria, considering a Triaxial Consulting letter report (dated 6 September 2016) submitted as part of Development Consent Application no. SSD 7256 (File reference no. 15/13400). The Triaxial Consulting letter report includes MUSIC modelling for the development's surface water management approach with pollution control device treatment train (i.e., Humes HumeGard HG18 GPT and Humes JellyFish JF3000-19-4 Filter). This modelling showed the pollution control devices are suitable for meeting Council requirements of pollutant reduction and therefore treatment performance as shown in Table 6.

Table 6 MUSIC Modelling Results (Triaxial Stormwater Addendum Report 6/09/2016)

Pollutant	Reduction Target (%)	Proposed Development Reduction (%)
Total Suspended Solids	85	88
Total Phosphorus	65	66
Total Nitrogen	45	60.7
Gross Pollutants	90	99.3

As such, it is considered appropriate to consider the pollutant reduction criteria as performance benchmarks, with these benchmarks being satisfied through the provision of the proposed treatment train, as demonstrated by the MUSIC modelling.

However, it is not possible to demonstrate compliance with these benchmarks through water quality sampling as this would require monitoring of concentrations and flow rates continuously and instantaneously for all discharges. Furthermore, the NSW EPA GTAs specifically note benchmarks are to be derived with reference to the relevant ANZG (2018) guidelines however the pollutant reduction criteria are not directly comparable to the ANZG (2018) procedures. At this stage insufficient water quality data is available to derive site specific trigger values in accordance with the ANZG procedures, and adoption of default ANZG values is not considered appropriate on the basis that these default values generally represent ambient objectives and not necessarily discharge limits.

In summary, pollution reduction criteria are considered as appropriate benchmarks based on the project approval, however they cannot be monitored and are not directly comparable to the ANZG (2018) procedures that are noted in the EPA GTAs. Insufficient data is currently available to set concentration benchmarks based on the ANZG (2018) procedures.

As such, it is proposed that the satisfaction of the pollutant reduction criteria, as previously demonstrated, supports deferring the derivation of concentration-based benchmarks in accordance with the ANZG guidelines.

During the 2023-2024 calendar years ResourceCo conducted 10 sampling events.

The investigation of surface water management performance (and leachate management performance) is proposed for the ongoing operations stage, to be conducted using the following Investigation Steps should an exceedance in the performance benchmarks be observed:

1. Record occurrence of performance benchmark exceedance.
2. Assess available historical upstream and discharge results for analyte trending and to potentially derive site-specific trigger values.
3. Conduct/record field observations of pollution control devices, qualitatively assess whether any issues identified may have contributed to observed exceedance and perform/enhance maintenance as appropriate.
4. Should there be a consecutive exceedance (observed during subsequent sampling event per monitoring frequency), perform above Investigation Step 3 and consider the need to sample at additional monitoring location ahead of pollution control devices² to confirm treatment performance.

The findings of the above investigation should identify the need for potential additional mitigation measures, to be developed in line with below Section 4.6.

4.6 Mitigation

The following ongoing mitigations are proposed following completion of the stormwater monitoring:

- Cleaning and maintenance of StormFilter every 12 months and OceanGuard every 4 months.
- Ongoing review of opportunities to reduce spillage relating to material baling.
- Compliance with plant wide cleaning program (As per schedule kept in MEX work orders), daily street sweeper across hardstand areas of the site and forecourt specific cleaning program.
- ResourceCo has purchased an onsite sweeper to maintain the hardstand areas during daily operations.
- ResourceCo has employed the use of an external street sweeper for regular cleaning of the hardstand area during operation.
- Hydrocarbon management practices include additions to workplace inspections to include clear and regular reviews of:
 - appropriate bunding
 - storage of chemicals;
 - potential for spills; and
 - identification of evidence of spills (and rapid clean up using for example absorbent mats).
- Ongoing observation of incoming vehicles and their potential for, and actual spills including spill containment and cleanup equipment located at the site weighbridge and tipping areas.

² Additional monitoring location – side entry pit SEP6 as per drawing TX-11972.00 – C2.2 Issue C, provided as Appendix A.

- Additional monitoring to be undertaken to assess the site's performance with respect to discharged water quality. ResourceCo will provide a summary report of the updated results to EPA following a further 24 months of sampling with a comparison of upstream and downstream results.

4.7 Quality assurance and quality control

A water quality sampling QA/QC program has been implemented. This QA/QC program has been developed with consideration for data quality indicators (DQI) that form the basis of assessing whether the data is of sufficient quality on which to base decisions regarding contamination and performance.

4.7.1 QA/QC program

The QA/QC program consists of field and laboratory quality control as detailed below.

Field quality control

All fieldwork will be conducted using a set of uniform and systematic methods. Key requirements of these procedures are as follows:

- **Training** | Appropriately trained samplers are to document site activities using photographs/notes on standard field forms such as daily site records and sampling logs.
- **Identification/Preservation** | Sample bottles are to be labelled with the task number, sample identification number, sampling technician and collection time and date. Sample bottles are to be placed immediately into ice-filled coolers for preservation.
- **Custody** | Samples are to be accompanied with completed chain of custody documentation to the analytical laboratory, submitted with consideration for sample holding times and required analyses (e.g., 12 hours maximum holding time from collection to analysis for dissolved sulphide, per Australian Government National Measurement Institute publication no. 17-COM1468).
- **Decontamination** | Decontamination procedures are to include the use of new disposable gloves for the collection of each sample, decontamination of the sampling equipment between each sampling location using appropriate decontamination solution and the use of dedicated sampling containers provided by the analytical laboratory; and

Before commencement of a sampling program, training in these field quality control procedures is to be provided by an appropriately qualified and experienced person, with a register of all staff having undertaken the training recorded. All staff undertaking the sampling program are to have undertaken the training. This training would also involve instruction on standard sampling, decontamination, and filtration methods, including guidance on how to avoid zinc contamination which is commonly associated with plastic sampling equipment. Training would also involve instruction on the collection of duplicate and blank samples.

Laboratory quality control

The engaged analytical laboratory will employ National Association of Testing Authorities (NATA) accredited methods in accordance with their quality assurance system. Standard laboratory quality control procedures to be used during the project.

5. Records and reporting

5.1 Reporting

Environmental management records generated will be identified, collected and stored in accordance with ResourceCo's quality management system. Reporting and review will include the following:

- Summary of water quality monitoring results to the EPA as part of Annual Return for EPL and regular reporting to EPA as detailed above.
- Any exceedances from prescribed criteria will be investigated and appropriate action plans developed and implemented.
- Exceedances of EPL conditions will be reported at toolbox or site meetings along with investigations into the cause and any potential actions to prevent reoccurrence.
- A record of all inspections will be kept on file.

5.2 Record keeping

Monitoring results and records generated will be identified, collected and stored in accordance with ResourceCo's quality management system.

7. Review and improvement

7.1 Review of the Water Management Plan

The WMP will be reviewed on a regular basis to ensure that it accurately reflects the ResourceCo EMS and conforms to applicable legislative and other requirements. The frequency of review will be at least annually as part of the OEMP review, or more frequently, as a result of a significant non-conformance or as directed by the Secretary of the Department of Planning and Environment or other authority.

At the conclusion of the review process, any recommendations for change, or improvement, to EMS will be reflected through amendments to the relevant system element including the OEMP, other sub plans, procedures or forms.

An assessment will be undertaken of the proposed documentation change against the Conditions of Approval (including development consent, EIS and RTS).

Minor changes to the documentation will be recommended by the appropriate manager. The revised documents will be managed in accordance with ResourceCo's quality management system – including document control and communication of changes to relevant staff.

Major documentation changes to the documentation will be reviewed by senior management, and if deemed necessary, approval will be sought from the Department of Planning and Environment. Approved revised documents will be managed in accordance with ResourceCo's quality management system – including document control and communication of changes to relevant staff.

Table 7 lists the types of amendments that would be considered minor and major, and the approval process.

Table 7 WMP approval process

Review trigger	Amendment type	DPE approval	Examples
Minor amendments and corrections	-	No	Changes to system processes without change to environmental outcome Minor changes to operational processes without change to environmental outcomes
In response to environmental incidents	Minor	No	Minor spill
	Major	Yes	Non-compliance with EPL
Audit findings	Minor	No	Change to procedure to improve a process
	Major	Yes	Non-compliance with a Condition of Approval
Request by government agency	Minor or major	Yes	-
Annual review findings	Minor	No	Non-compliance with a target

7.2 Non-conformance, corrective, and preventative action

Non-conformances, including those of an environmental nature, shall be identified through verification processes such as monitoring, inspections, audits, and reviews as well as through the receipt of complaints and incidents and near misses. All

ResourceCo personnel can raise a non-conformance. In summary the management process is:

- When a non-conformance issue is detected, the corrective and preventative actions are entered on a CAR (Corrective Action Request) form. In addition, the CAR assigns responsibilities for actions to a manager for close-out and the timing for completion.
- The CAR is entered into the CAR register for recording and tracking progress of follow-up and close-out.
- Upon satisfactory completion of all corrective actions and follow-on preventative actions (e.g. revision of documented procedures), the CAR is closed out by the responsible staff member.
- The environmental CARs will be reviewed monthly and during the regular review meetings.
- During the annual environmental review, CAR statistics will be assessed and trends analysed.

8. References

ANZG (2018) *Australian & New Zealand Guidelines for Fresh & Marine Water Quality*, 2018

Landcom (2004) 'Managing Urban Stormwater: Soils and Construction'

Nexus Environmental Planning Pty Ltd (2016) Environmental Impact Statement titled 'Waste and Resource Management Facility' SSD 15-7256, ResourceCo Pty Ltd, 35-37 Frank Street, Wetherill Park

Nexus Environmental Planning Pty Ltd (2016) Response to Submissions titled 'Response to Submissions Waste and Resource Management Facility' SSD 15-7256, ResourceCo Pty Ltd, 35-37 Frank Street, Wetherill Park

Triaxial Consulting (2016) 35-37 Frank Street, Wetherill Park- Stormwater Addendum Report

GHD (2024) 'Stormwater Management review ResourceCo RRF Pty Ltd' 07 November 2024 | 12588480

Appendices

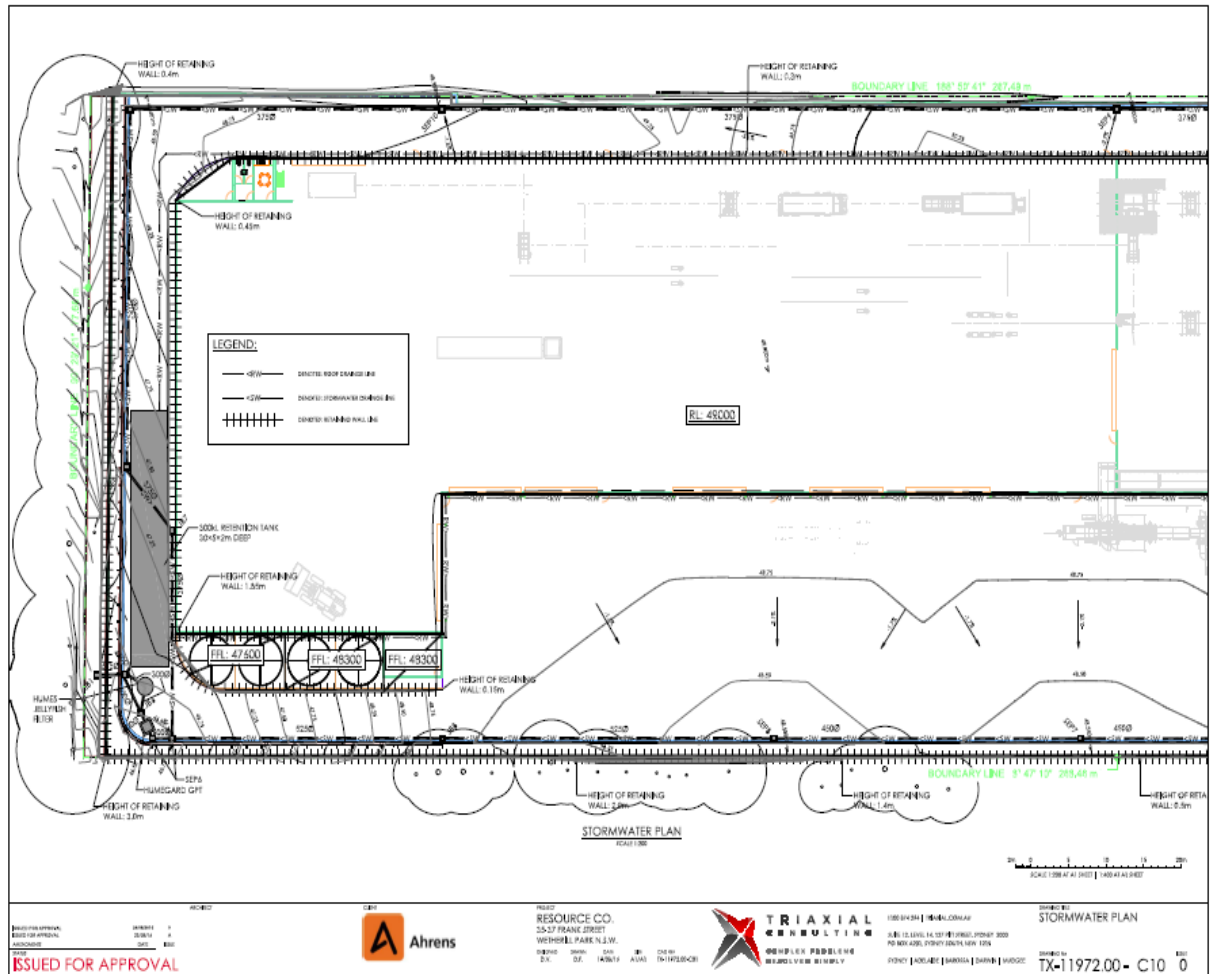
Appendix A – Stormwater management plan drawings

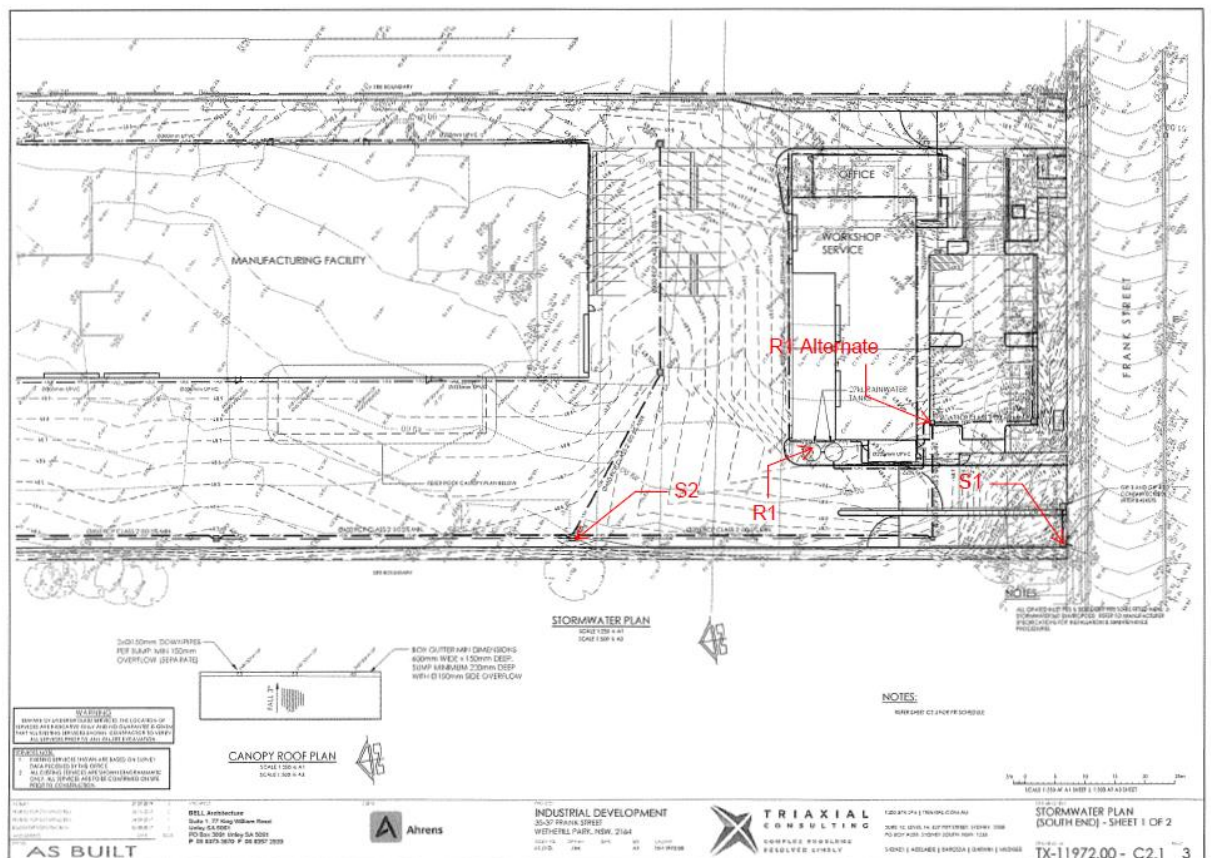
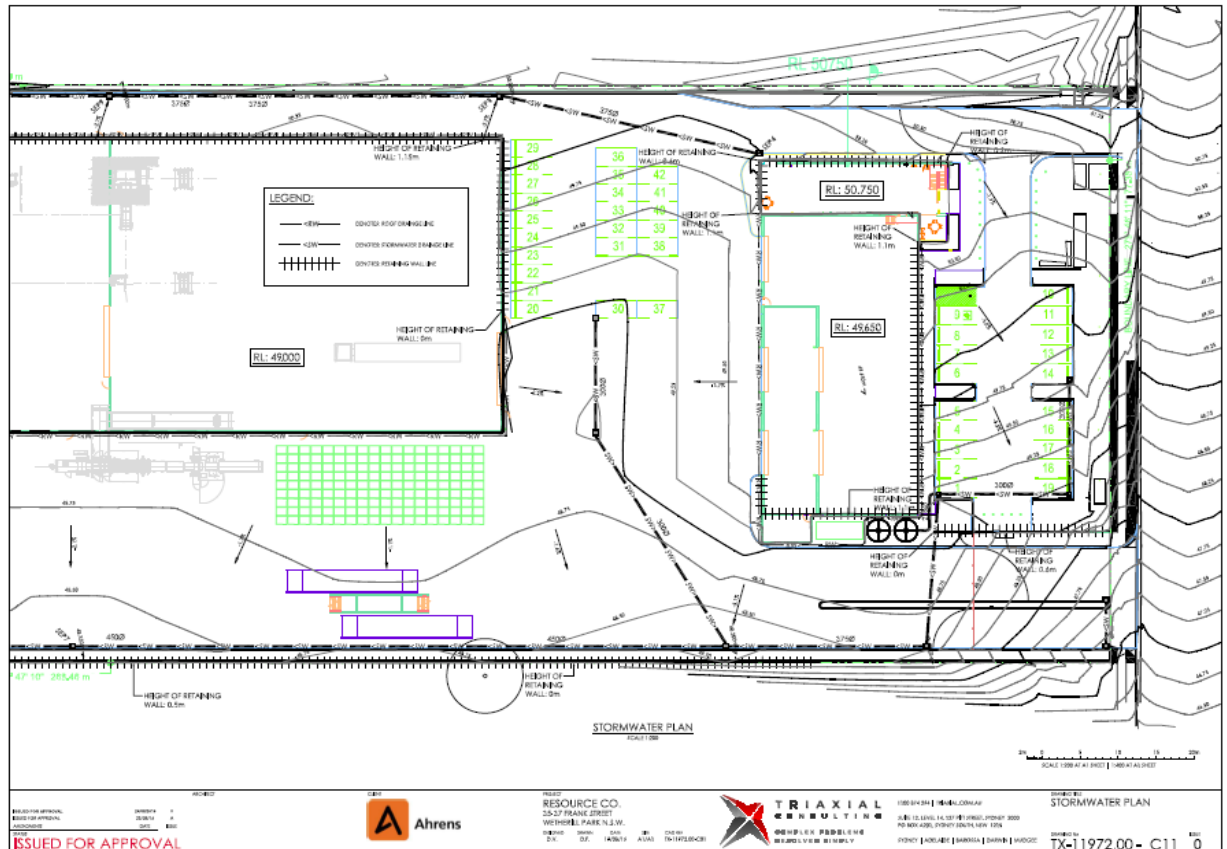
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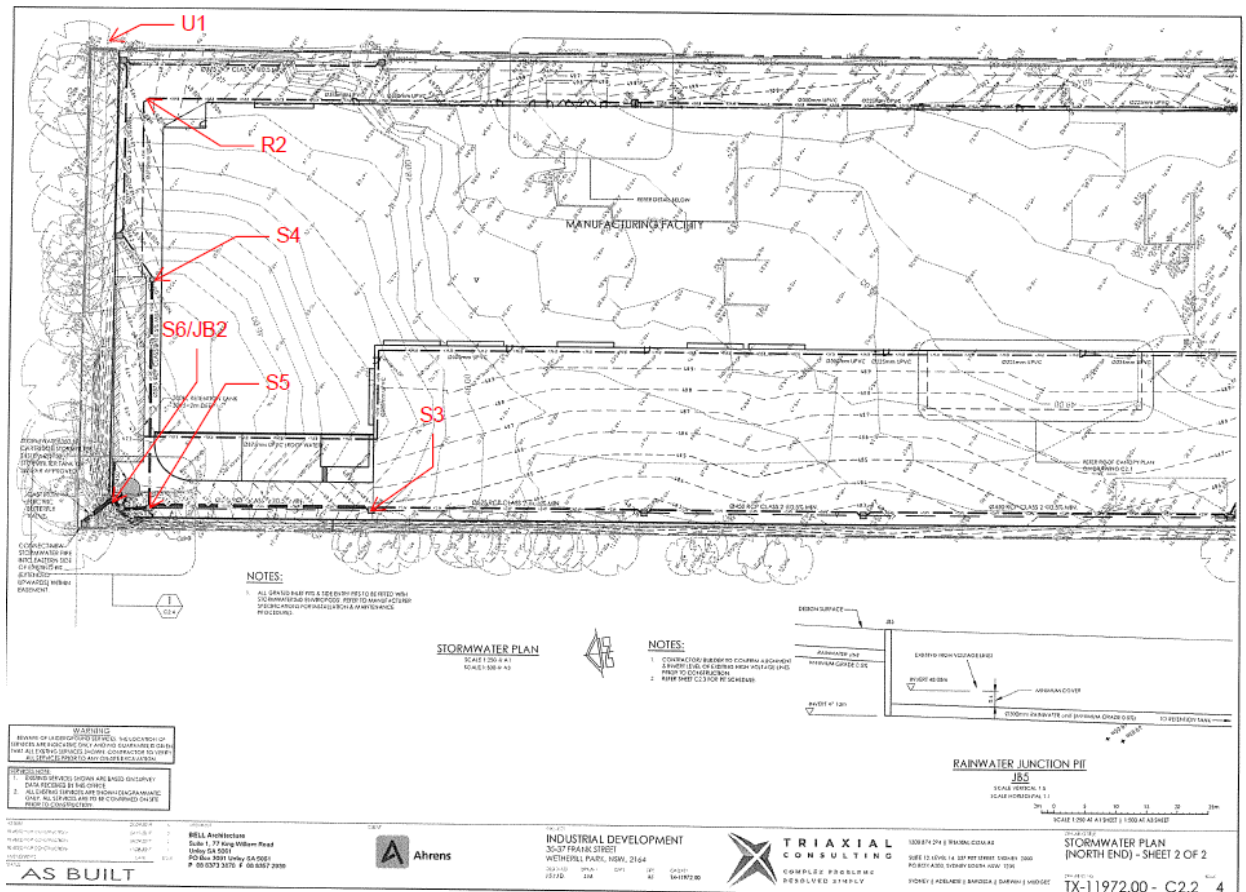
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Appendix B – Erosion and sediment control plan drawings

TX-11972.00-C01

TX-11972.00-C02

TX-11972.00-C03

