Unanderra Liquid Waste Treatment Facility

State Significant Development Assessment SSD-8304

August 2022

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Title: Unanderra Liquid Waste Treatment Facility

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Cover image: Applicant's Environmental Impact Statement

Glossary

Abbreviation	Definition
AHD	Australian Height Datum
Applicant	DGL Group Limited
BCA	Building Code of Australia
BDAR	Biodiversity Development Assessment Report
CIV	Capital Investment Value
Council	Wollongong City Council
DA	Development Application
Department	Department of Planning and Environment
Demolition	The removal of structures and materials on the site
Development	The development as described in the EIS and RtS for the proposed Unanderra Liquid Waste Treatment Plant (LWTP) and existing Battery Recycling Plant (BRP)
DPE	Department of Planning and Environment
EH	Environment and Heritage Group
EIS	Environmental Impact Statement titled *Proposed Liquid Waste Treatment Plant* prepared by Planning Plus (NSW) Pty Ltd dated June 2021
EPA	Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
ESD	Ecologically Sustainable Development
FRNSW	Fire and Rescue NSW
LEP	Local Environmental Plan
Minister	Minister for Planning

Planning Secretary	Secretary of the Department of Planning and Environment
RMS	Roads and Maritime Services, TfNSW
RtS	Response to Submissions titled *Proposed Liquid Waste Treatment Plant SSD-8304* prepared by Planning Plus (NSW) Pty Ltd dated December 2020
SEARs	Planning Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SSD	State Significant Development
TfNSW	Transport for NSW

Executive Summary

This report details the Department of Planning and Environment's (the Department) assessment of a State significant development application (SSD 8304) for the Unanderra Liquid Waste Treatment Facility. DGL Group Limited (the Applicant) proposes to construct and operate a liquid waste treatment plant (LWTP) to treat up to 56,500 tonnes per annum (tpa) of industrial liquid waste at 201 Five Islands Road, Unanderra in the Wollongong local government area (LGA).

The Development

The Applicant currently operates a Battery Recycling Plant (BRP) processing Used Lead Acid Batteries (ULABs) and a Wastewater Treatment Plant (WTP) on the site. The proposed development (the development) involves the construction and operation of a new LWTP in an existing building (Building E). The LWTP would treat up to 56,500 tpa of liquid waste, comprising 8,500 tpa of new liquid wastes from external sources and 48,000 tpa of the existing BRP internal wastewater stream. The existing BRP site operations would not be affected by the development.

The development has a capital investment value of $5,850,000 and is expected to generate 10 construction jobs and 6 additional operational jobs.

The site is located approximately 5 kilometres (km) south-west of the Wollongong city centre and covers approximately 4 hectares (ha) of IN3 zoned land under the Wollongong Local Environmental Plan 2009 (WLEP 2009). The site has been used for industrial waste treatment, processing and recycling of heavy industrial by-products and waste streams since the 1960's. The current commercial activities comprise the BRP and WTP operating under Environment Protection Licence (EPL 5847) regulated by the NSW EPA.

Statutory Context

The development is classified as State significant development (SSD) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it is a liquid waste facility that stores and processes aqueous and non-aqueous liquid industrial waste with a proposed capacity of more than 1,000 tpa. This meets the criteria in Clause 23(6)(b) of Schedule 1 in the State Environmental Planning Policy (State and Regional development) 2011 (SRD SEPP). Consequently, the Minister for Planning is the consent authority for the development under section 4.5(1) of the EP&A Act.

Engagement

The Department exhibited the EIS for the development from Wednesday 7 July 2021 until Thursday 3 August 2021. During the exhibition period, the Department received two submissions from the public (1 objection and 1 comment), and advice from 7 government authorities, including Wollongong City Council.

Key issues raised in public submissions related to air quality, traffic, flooding and contamination. Concerns raised in the government advice related to air quality, flooding, traffic and hazards. The Department requested the Applicant address the matters raised in submissions and government authority advice in a Response to Submissions (RtS) report.

The Applicant submitted an RtS report on 19 January 2022 to address the key issues identified in the submissions and government advice. On 10 February 2022, the Department requested the Applicant respond to further issues raised by public authorities.

On 7 March 2002, the Applicant submitted further information responding to some of the issues raised by public authorities, including agreement to Council's recommended flooding requirements. On 22 March 2022 the Applicant responded to the Department's request to address comments made by FRNSW and Sydney Water.

Assessment

The Department's assessment of the application has fully considered all relevant matters under section 4.15 of the EP&A Act, the objects of the EP&A Act and the principles of ecologically sustainable development. The Department has identified the key issue for assessment is flooding but has also assessed all other relevant matters including air quality and odour, traffic, noise and contamination.

Flooding

The site is located within the floodplain of Allans Creek and is identified as being flood affected by the 100 year and Probable Maximum Flood (PMF) events. The site is also within the Medium Flood Risk Precinct as per Chapter 13 of the Wollongong Development Control Plan 2009 (WDCP).

The Applicant's RtS included an amended design and revised Flood Risk Study confirming the floor level in Building E (housing the LWTP) would be raised to a minimum of RL 9.84 m AHD to be above the 100-year flood level. The Applicant also confirmed that if required, a bund would be constructed around Building E at RL 10.43 m AHD (PMF level) to ensure floodwaters do not damage plant and do not come into contact with liquid waste. The existing building comprises an external reinforced concrete structure of approximately 3 m high which could act as a suitable bund. The Department noted the bunding around or incorporated into existing Building E would provide a physical barrier between the proposed LWTP and floodwaters during a PMF event.

The LWTP would primarily be located within existing Building E and is limited to minor construction works. As such, the Department noted that flooding would not change through the site as a result of the development. The Department's assessment recommended an Emergency Response Plan be prepared including evacuation procedures to protect human life in a flood event.

The Department's assessment concluded that with the implementation of the recommended conditions for floor levels, physical separation of liquid waste and potential flood water, and evacuation procedures, any potential flooding impacts can be appropriately mitigated.

Other Issues

The Department's assessment of air quality, noise, contamination, and traffic concluded the development would meet relevant criteria, would have negligible impacts on roads and residential areas and would be appropriately managed by conditions.

Summary

The Department's assessment concluded the impacts of the development can be mitigated and/or managed to ensure an acceptable level of environmental performance, subject to the recommended conditions of consent. The Department also notes that the operation of the site will continue to be regulated by the NSW EPA.

The development would provide an additional 16 jobs and represents a capital investment of $5,850,000 in the Wollongong LGA.

Consequently, the Department considers the development is in the public interest and is recommended for approval, subject to conditions.

Contents

1 Introduction

1.1 The Department's Assessment

This report details the Department of Planning and Environment's (the Department) assessment of the State significant development (SSD 8304) for the Unanderra Liquid Waste Treatment Facility. The proposed development (the development) involves the construction and operation of a new liquid waste treatment plant (LWTP) to receive and treat up to 56,500 tonnes per annum (tpa) of industrial liquid wastes. The Department's assessment considers all documentation submitted by DGL Group Limited (the Applicant), including the Environmental Impact Statement (EIS) and Response to Submissions (RtS), submissions received from the public and advice from government agencies. The Department's assessment also considers the legislation and planning instruments relevant to the site and the development.

This report describes the development, surrounding environment, relevant strategic and statutory planning provisions and the issues raised in submissions. The report evaluates the key issues associated with the development and provides recommendations for managing any impacts during construction and operation. The Department's assessment of the Unanderra Liquid Waste Treatment Facility has concluded the development is in the public interest and is approvable, subject to conditions.

1.2 Development Background

The Applicant is seeking development consent to construct and operate a new LWTP at 201 Five Islands Road, Unanderra (the site) in the Wollongong Local Government Area (LGA) (see **Figure 1**). The Applicant is an Australian based industrial waste services company which specialises in waste treatment and recovery technology for immobilisation of hazardous waste and production of chemicals (e.g. zinc sulphate, copper sulphate, selenium compounds) from metals extracted from industrial waste residues. Customers include Glencore, Rio Tinto, BHP and Vale Inco.

The Applicant currently operates a Battery Recycling Plant (BRP) on the site which processes and recycles Used Lead Acid Batteries (ULABs). The BRP includes an older style treatment plant for waste liquids from the ULAB recycling process located in Building B. The development comprises construction and operation of a new LWTP in Building E to treat the existing BRP internal wastewater stream of 48,000 tpa as well as approximately 8,500 tpa of new liquid wastes from external sources (waste caustic solution and Spent Pickle Liquor (SPL)).

Waste caustic solution and SPL are generated by the galvanising and aluminium extrusions industries and are listed as Dangerous Goods Class 8 in the Australian Dangerous Goods Code. The Applicant seeks to offer an end-to-end service to collect, treat and dispose of aqueous waste from these industries.

The BRP was approved in 2006 and is licenced to process up to 36,000 tpa of ULABs sourced nationally through a large collection network. The BRP recycles up to 95% of ULAB components into intermediate lead products and plastic scrap that are then sold to lead smelters and plastics recyclers for reprocessing back into new lead acid batteries. By-products of the BRP (wastewater and battery acid) are piped to the existing liquid wastewater plant for treatment and disposal, however, as it is reaching the end of its useful life, a new LWTP is proposed to replace it.

1.3 Site Description

The site comprises 4 hectares (ha) of IN3 zoned land located at 201 Five Islands Road, Unanderra and is legally described as Lot 3 in DP 259921. The site is approximately 5 kilometres (km) south-west of

the Wollongong city centre and approximately 900 metres (m) east of the suburb of Unanderra (see **Figure 1**). The major industrial area of Port Kembla, which includes the BlueScope Steelworks, is approximately 3 km east of the site.

The site is situated in the western portion of the Unanderra industrial area on the southern side of Five Islands Road, immediately west of the M1 Princes Motorway and the associated Five Islands Road on ramp and off ramp.

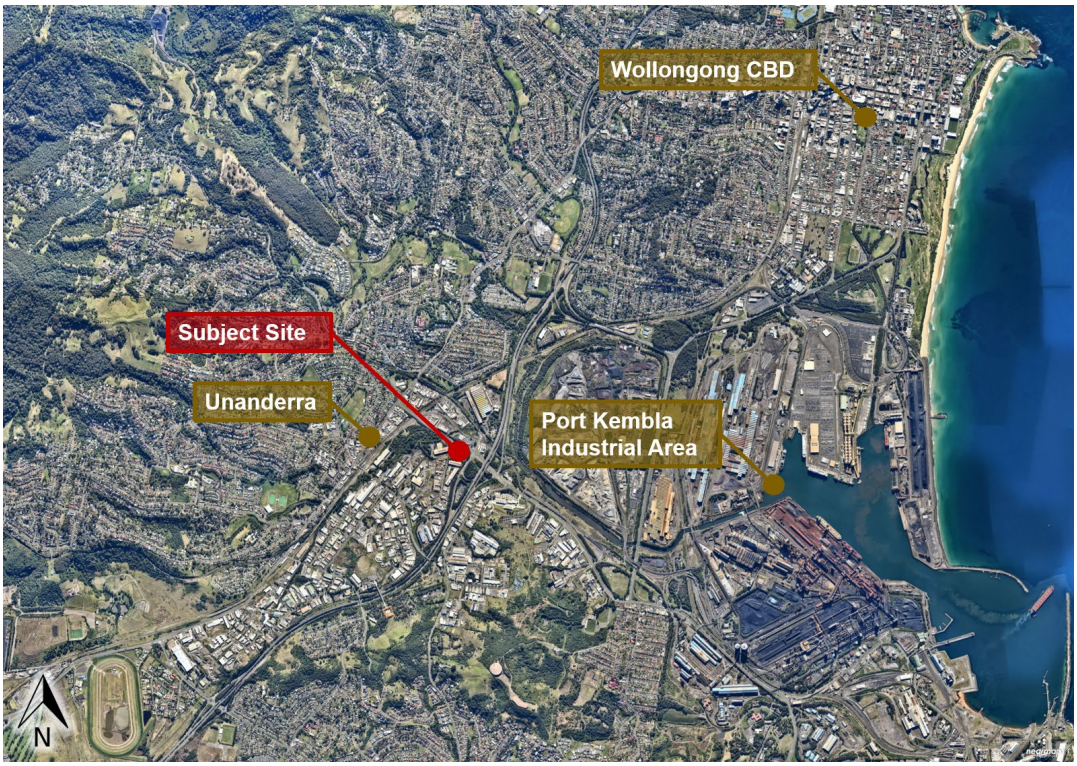

Figure 1 | Regional Context

The site is predominantly sealed hardstand, with small, unsealed areas along the northern, eastern and western site boundaries, primarily for landscaping purposes. The site elevation is between 9 m and 10 m above Australian Height Datum (AHD) with a very slight slope towards the north-east. Industrial waste treatment and recycling facilities have been operating on the site since the 1960's.

1.4 Surrounding Land Uses

The site is located in a heavy industrial area (see **Figure 2**). Directly to the west of the site is BlueScope Welded Products. To the east is the Princes Motorway and immediately north of the site is Five Islands Road which is the major transport route through the industrial area.

To the north, on the opposite side of Five Islands Road, is BlueScope Stainless Products and other industrial and commercial land uses, including warehouses and a railway corridor zoned SP2 Infrastructure. There is also a swim centre located north-east of the site at the junction of Five Islands Road and the Princes Motorway.

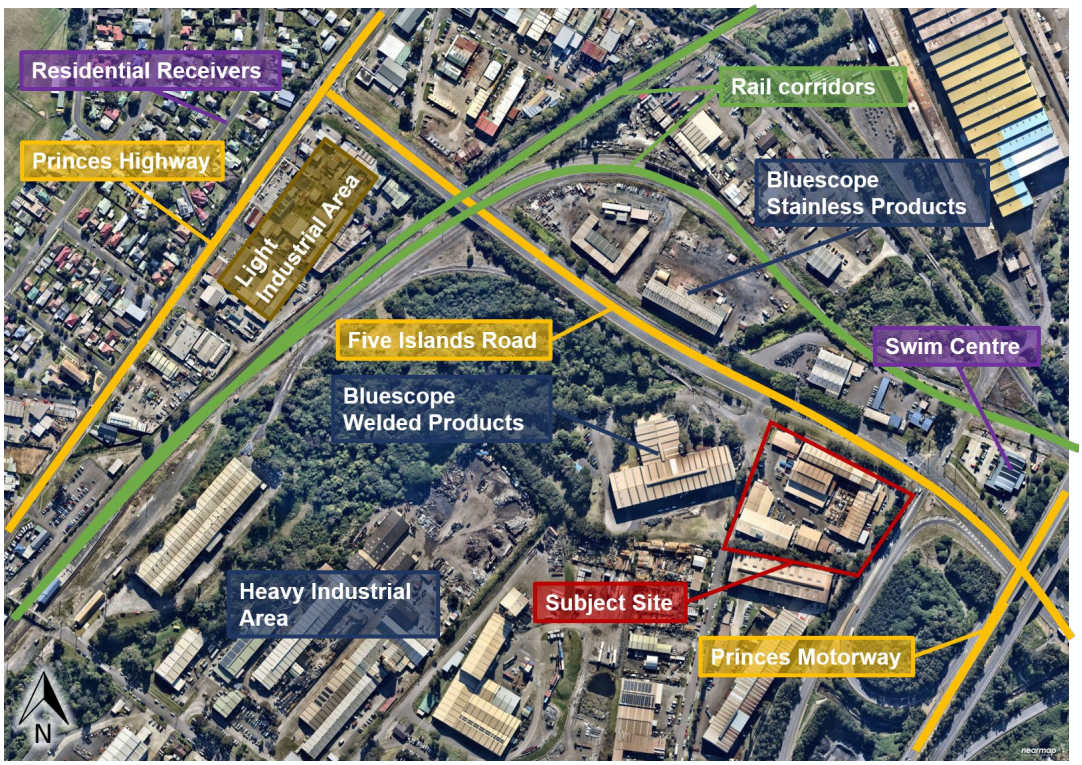

Figure 2 | Local Context

Further afield, beyond the western end of Five Islands Road and the Princes Highway, are areas of light industrial use and residential areas. The closest residential receivers are to the north-west and west of the site, approximately 650 m to 800 m away.

1.5 Other Development Approvals

The BRP commenced operations in 2006 under Development Consent DA2003/1718 to process up to 12,000 tpa of used automotive and industrial lead acid batteries sourced from scrap dealers and battery retailers around Australia. Development Consent DA2003/1718 was modified on 24 February 2006 to reposition the approved storage Building F.

The development was subsequently modified under Development Consent DA2007/1572 to increase the processing capacity of the facility to 36,000 tpa of ULABs. The ULABs are processed into intermediate metallic lead, lead compounds and plastic products, which are then sold to overseas markets or dispatched to lead smelting and refining facilities off site.

The site currently operates under Environment Protection Licence No 5874 (EPL 5874) and treated effluent from the existing liquid treatment plant is discharged to the sewer under a Trade Waste License (Consent No. 18024) from Sydney Water.

The Applicant's EIS notes the existing consents for the BRP would be incorporated into any new SSD consent to allow all operations to operate under one consent. Subject to an approval being granted and prior to the operations commencing on site, the relevant existing Development Approvals will be surrendered. This commitment would ensure all the Applicant's operations on the whole site are covered by a single and modern development consent.

The existing liquid treatment plant (in Building B) would be decommissioned and demolished once the proposed LWTP (Building E) is operational. This decommissioning and demolishing process is not included in this SSD application.

1.6 Current Operations

The site currently contains several large factory buildings, storage areas, tank farms and an administration building as shown in **Figure 3**. An external reinforced concrete structure (bund wall) of approximately 3 m high is incorporated into the walls of Building E. Building E is currently vacant.

Figure 3 | Current Site Facilities

All vehicles enter the site via a driveway off Five Islands Road in the north-west corner of the site and travel along a sealed driveway on the northern boundary. Heavy vehicles are directed to a weighbridge located along the northern driveway. All other vehicles continue along the sealed driveway to the eastern end of the site where vehicle parking is available for employees and visitors.

Once weighed, heavy vehicles continue along the sealed driveway, past the car park and around the Workshop located on the southeast corner of the site to the designated truck loading/unloading zones in front of the Site Office. Heavy vehicles exit the site from a second gate on the western boundary.

Upon delivery, the ULABs are unloaded by forklift and transferred to Store D for storage until they are processed. ULABs are transferred by forklift from storage to the BRP (located in Building G). Employees remove all external packaging material, sort non-compliant batteries (e.g lithium ion and nickel cadmium), and manually feed ULABs into the plant. All processing is carried out within buildings and

storage areas are located on concrete hard stand and appropriately bunded. Liquid waste from the BRP is pumped to the existing liquid treatment plant in Building B for treatment.

The BRP produces 8,000 tpa of battery acid and 40,000 tpa of wastewater as by-products of the ULAB recycling process. These waste liquids are currently treated in the existing on-site liquid treatment plant which is supported by a liquid waste storage tank farm located in Store B in the north of the site (refurbished in 2018). The bulk tanker unloading bay on the eastern end of Store B was upgraded in 2018. Both the tank farm and unloading bay would continue to be utilised by the new LWTP. Waste liquids from the BRP are currently pumped to the existing liquid treatment plant in Building B for treatment.

The site currently operates 24 hours per day 5 days per week with occasional work on weekends and employs 33 full-time staff. The plant operates on three 8 hour shifts and the laboratory and administration office are staffed from 7am to 5pm, Monday to Friday.

1.7 New Liquid Waste Streams

It is proposed to receive and process SPL (6,500 tpa) and caustic solution (2,000 tpa) produced by the aluminium extrusion and galvanising industries respectively. The Applicant would use its own tanker fleet and transport contractors to transport liquid wastes from these industries (located nearby in Port Kembla) to the site.

2 Development

2.1 Description of the Development

The Applicant is seeking development consent for construction and operation of a LWTP at 201 Five Islands Road, Unanderra. The major components of the development are summarised in **Table 1** and shown in **Figure 4**, and described in full in the Environmental Impact Statement (EIS) and Response to Submissions (RtS) report included in **Appendix B**.

Table 1 | Main Components of the Development

Aspect	Description

Development Summary	• **Construction and Operation of a Liquid Waste Treatment Plant (LWTP) to treat 56,500 tpa of liquid waste comprising:**
	  ○ 48,000 tpa of wastewater and battery acid from the existing BRP
	  ○ 8,500 tpa of new liquid waste from external sources

Site area and development footprint	• Site area is 4 ha • Building E has a footprint of 435 m^2
Demolition	• Minor demolition works proposed within Building E • Localised excavation works within Building E to facilitate the installation of the channel drains and foundations for the LWTP process plant

Construction	• Refurbishment of Building E comprising construction of:
	  ○ concrete floor, internal kerb bund, new sumps, new drains, new concrete ramps, new electrical services in Building E
	  ○ external perimeter bunding and external flood bund around Building E
	• Upgraded surface water management system including new rainwater tanks along the south eastern corner of Store B to create capacity for an additional 554 kL of above ground water storage

Plant and equipment	• Installation of equipment for the LWTP in Building E including:
	  ○ neutralisation reactors
	  ○ holding tank
	  ○ pH adjustment tanks
	  ○ filtration storage tank
	  ○ sumps collection tank
	  ○ filter press

Aspect	Description
	○ belt, feed and discharge conveyors ○ a high-efficiency natural gas fired rotary kiln dryer for solids drying post neutralisation ○ scrubber to service the LWTP neutralisation reactors ○ dust cyclone servicing the kiln dryer
Trade Waste	• discharge of an additional 300kL per day of trade wastewater to sewer once the LWTP is operational (total 750 kL per day of trade waste)
Construction timeframe	• Construction – 7 months • Commissioning – 3 months
Traffic	• 6 additional light vehicle one-way trips and 5 additional heavy vehicle one-way trips per day associated with the operation of the LWTP
Landscaping	• Additional landscaping at the entrance of the site
Hours of operation	<u>Construction</u> • 7.00am to 6.00pm Monday to Friday • 8.00am to 1.00pm Saturdays • No construction works on Sundays or public holidays. <u>Operation</u> • 24 hours Monday to Sunday •
Capital investment value	$5,850,000
Employment	10 full-time equivalent construction jobs and 6 new operational jobs (total of 39 jobs once the site is operational)

The existing WTP in Building B will be decommissioned and demolished once the proposed LWTP in Building E is operational. The decommissioning process would be undertaken outside of this SSD application.

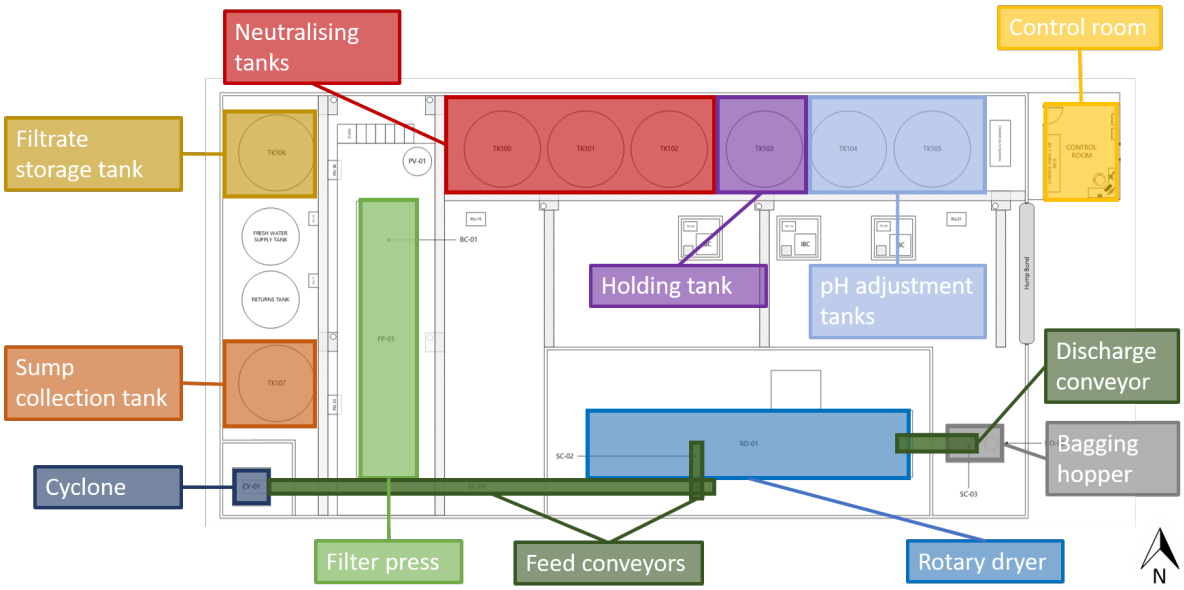

Figure 4 | LWTP Layout within Building E

2.2 Process Description

The LWTP would process up to 56,500 tpa of aqueous wastes. The breakdown of incoming liquid waste is set out in **Table 2**, with the waste treatment process described below and shown in **Figure 5**. The new LWTP would use similar technology to the existing plant but includes modern plant equipment. The new LWTP would support the strategically important ULAB recycling activities carried out on site.

Table 2 | Proposed incoming waste streams

Waste Type		Annual Quantity (tonnes)
Battery Acid	Existing	8,000
Wastewater	Existing	40,000
Spent Pickle Liquor (SPL)	New	6,500
Waste caustic solution	New	2,000
Total		**56,500**

Waste receival

Battery acid and wastewater would be collected in a holding tank and continuously pumped into the LWTP for further treatment.

New liquid waste types (SPL and caustic solution) would be delivered in bulk tanker and/or packaged form in intermediate bulk containers (IBCs). The liquid waste transport would comply with the *Australian Dangerous Goods Transport Regulations* including use of EPA licenced vehicles and correct placarding.

For bulk liquid waste deliveries, the tanker would proceed to the weighbridge then drive into the existing tanker unloading bay located on the eastern end of Store B. The plant operator would verify delivery documents and perform a preliminary inspection. A sample would be collected from the load and taken

to the site laboratory for testing. The site chemist would authorise the load and the plant operator would transfer the waste from the tanker to a designated storage tank through a chemical hose. Once the liquid waste has been transferred, the plant operator would disconnect the hose and the driver would depart.

For packaged waste deliveries (IBCs), the truck would proceed to the weighbridge and then to the loading/unloading zone located adjacent to Building G and Store D. A site operator would review the delivery documentation and check the load. IBCs would be transferred from trucks to Store B via forklift and then pumped into a holding tank (within Store B). From the holding tanks, the liquid waste would then be transferred through another tank to the LWTP.

Approximately 200 tonnes (t) of SPL and 150 t of waste caustic solution would be stored at any one time.

Step 1: Batching

The proposed LWTP includes three STRs each with a capacity of 75 kL. The STRs would be manufactured from Fibreglass Reinforced Plastic and chemically rated to handle the liquid waste.

Liquid waste from storage tanks in Store B would be transferred via a Process Logic Controller (PLC) which automatically determines when a STR is ready for batching and treatment by checking the tank level of the STR. Once a STR is empty, the PLC follows a programmed sequence of steps to transfer each liquid waste stream from Store B to the STRs in the LWTP in Building E under a controlled volumetric flow rate. The PLC adds water to create a 'batch' in the fully automated system.

Step 2: Treatment

Once a batch has been prepared, hydrated lime slurry (calcium hydroxide) would be slowly pumped into the waste mixture to raise the pH to a range between 9 and 10. A pH transmitter in the STR would monitor and control the reaction pH by adjusting the rate of hydrated lime dosed into the reactor. The chemical reaction would neutralise the hazardous waste forming an insoluble inert solid - a mixture of iron hydroxide ($Fe(OH)_2$) and calcium sulphate ($CaSO_4$) commonly referred to as gypsum - and a solution of concentrated calcium chloride ($CaCl_2$).

The STR would include a thermocouple to monitor temperature and generate an alarm if any variations occur and operates under negative pressure. A scrubber system, comprising a series of wet scrubbers, serves as a contingency measure in the event of a process failure by extracting and scrubbing any gaseous emissions, odours or fumes. To ensure there are no odour emissions, scrubbers are also proposed in Building E.

Step 3: Filtration

A filter press would be used to physically separate the slurry containing inert solids and the $CaCl_2$ solution. A filter press consists of many alternating plates and frames supported on a pair of rails with a filter cloth inserted between each plate and frame. As the slurry is pumped through the filter cloths, the solids accumulate between the plate and frame and become thicker eventually becoming a solid 'cake'. The solids are removed by separating the stack of plates and frames and letting the filter cake fall onto a conveyor belt below. The filter cloths are then cleaned using high pressure water sprays and the stack is reset to start the next filtration cycle.

Step 4: pH adjustment

Once the solids have been removed through the filtration process, the residual liquid would be sent for further treatment through a series of pH adjustment tanks. In the first tank, should the filtrate pH exceed 10, hydrochloric acid (HCl) is dosed via a chemical dosing pump. In the second tank, liquid caustic soda (NaOH) is added if the pH falls below 7. The treated filtrate would then be pumped to a holding tank in Store B for testing and then discharged to the sewer under the TWA. It is noted that the TWA would be amended following the determination of the SSD to allow for the additional discharge of 300 kL per day of treated filtrate.

Step 5: Drying

The wet filter cake would be sent to a rotary dryer to remove moisture in the filter cake to around 10%. The rotary dryer is fully insulated, enclosed and operates under negative pressure. A high-efficiency cyclone would be used to remove particulates from the system prior to releasing into the atmosphere.

The dried filter cake would be discharged into an inclined screw conveyor and is collected and packaged into bulk bags. The bulk bags would be transferred via a forklift to a designated storage area in Store C beside Building E. Following sampling and testing, the bulk bags would be loaded onto trucks and despatched to landfill for disposal.

It is proposed to treat all wastes in their single waste streams, rather than mixing various streams together. The treatment process for the proposed LWTP is detailed in **Figure 5**.

2.3 Applicant's Need and Justification for the Development

The proposed LWTP would occupy an underutilised portion of the site (Building E) and would enhance the existing waste treatment processes on-site. The Applicant has developed a successful ULAB recycling business and seeks to expand these operations to include processing of waste caustic solution and SPL from the aluminium extrusion and galvanising industries. There is limited capacity for treating these types of waste in NSW and few companies are able to offer an end-to-end solution as proposed by the Applicant. The Applicant has identified a need from industry for this service.

The site is appropriately located in a heavy industrial zone and the proposed LWTP would be inside Building E which is currently vacant. In addition, the site is located within close proximity to the Port Kembla Industrial area and BlueScope Steelworks where aluminium extrusion, steel and galvanising industries are located.

The proposed LWTP would also process waste from the BRP. The new LWTP would use similar technology to the existing WTP but includes modern plant equipment to reduce the reliance on manual processes. The new LWTP would support the strategically important BRP activities carried out on site.

The proposed development would generate 10 full-time construction jobs and 6 additional operational jobs (total of 39 operational jobs on-site) contributing to job creation in the region.

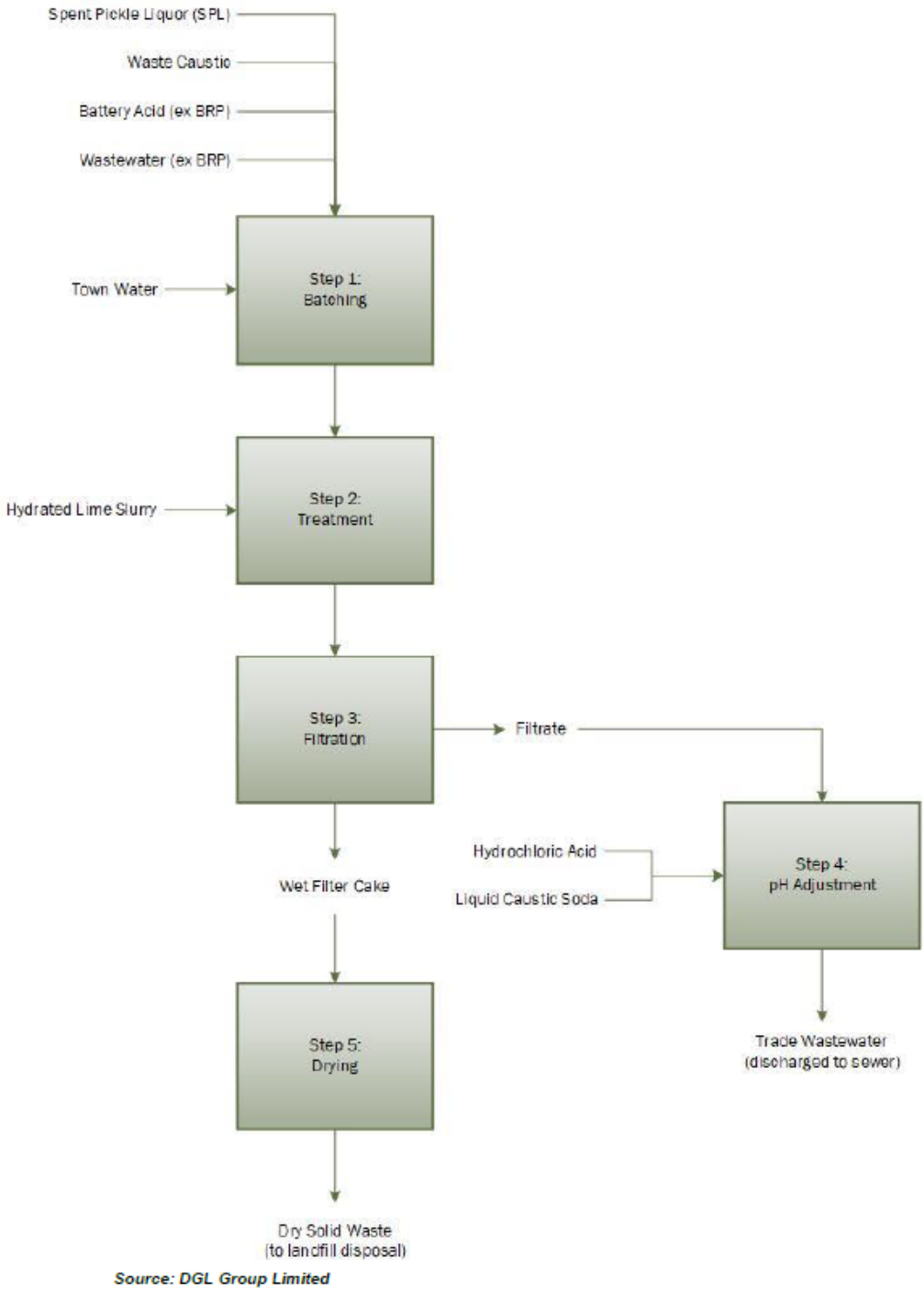

Figure 5 | Proposed Liquid Waste Treatment Plant (LWTP)

3 Strategic context

3.1 Illawarra Shoalhaven Regional Plan 2041

The Illawarra-Shoalhaven Regional Plan (ISRP) guides strategic planning for the region over the next 20 years. Objective 16 of the ISRP supports the development of resource recovery technologies and circular economy initiatives that generate economic value from the recycling of waste streams. The ISRP identifies that opportunities may exist at the precinct level for the re-use of by-products of businesses to be used as a resource for others to minimise waste and transport of waste to landfill.

The development would support this as it incorporates the recycling of waste materials to reduce the volume of waste and transport of waste to landfill.

The Regional Plan identifies 15 regionally significant precincts, including Port Kembla, that will drive jobs creation. The proposed development supports this as it will generate 10 construction jobs and 6 additional operational jobs, resulting in a total of 39 full-time people, once operational.

3.2 Waste and Sustainable Materials Strategy 2041

Stage 1 of the Waste and Sustainable Material Strategy (WSMS) notes there is an emerging capacity constraint for liquid waste treatment. The proposed development would provide an additional 8,500 tpa of liquid waste treatment capacity.

Focus Area 1 ‘Meeting our future infrastructure and service needs’ of Stage 1 of the WSMS encourages co-locating businesses in precincts to support circular economy and clean technology activities. The proposed development is co-located in a heavy industrial area alongside a number of metallurgic industries. The development is seeking to offer an end-to-end solution for these businesses to deal with specialist waste streams generated through the aluminium extrusion and galvanising industries.

4 Statutory Context

4.1 State significance

The proposal is State significant development pursuant to section 4.36 of *Environmental Planning and Assessment Act 1979* (EP&A Act) because it is a liquid waste facility that stores and processes aqueous and non-aqueous liquid industrial waste with a proposed capacity of more than 1,000 tpa which meets the criteria in Clause 23(6)(b) of Schedule 1 in the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP).

4.2 Permissibility

The site is zoned IN3 General Industrial under the Wollongong Local Environment Plan 2009. Pursuant to Clause 121 of the State Environmental Planning Policy (Infrastructure) 2007, development for the purposes of a resource recovery facility is permissible in the IN1 zone, being a prescribed zone under Clause 120. Therefore, the Minister or a delegate may determine the carrying out of the development.

4.3 Consent Authority

The Minister is the consent authority for the development under section 4.5 of the EP&A Act. On 9 March 2022, the Minister delegated the functions to determine SSD applications to the Director, Industry Assessments where:

- the relevant local council has not made an objection and
- there are fewer than 15 unique public submissions in the nature of objections and
- a political disclosure statement has not been made.

Of the 8 submissions received, 1 objected to the proposed development. Council did not object to the development. No reportable political donations were made by the Applicant in the last two years and no reportable political donations were made by any persons who lodged a submission.

4.4 Other approvals

Section 4.42 of the EP&A Act requires further approvals to be obtained, considered or determined in a manner that is consistent with any Part 4 approval for SSD projects under the EP&A Act. In the case of the development, the existing EPL No. 5874 will need to be varied by the Environment Protection Authority (EPA) under the *Protection of the Environment Operations Act 1997*.

4.5 Mandatory Matters for Consideration

Section 4.15 of the EP&A Act sets out matters to be considered by a consent authority when determining a Development Application (DA). The Department's consideration of these matters is set out in **Section 5** and **Appendix G**.

4.6 Environmental Planning Instruments

Under section 4.15 of the EP&A Act, the consent authority, when determining a DA, must take into consideration the provisions of any environmental planning instrument (EPI) and draft EPI (that has been subject to public consultation and notified under the EP&A Act) that apply to the proposed development.

Since lodgement of the DA, all NSW State Environmental Planning Policies have been consolidated into 11 policies. The consolidated SEPPs commenced on 1 March 2022, with the exception of State Environmental Planning Policy (Housing) 2021, which commenced on 26 November 2021.

The SEPP consolidation does not change the legal effect of the repealed SEPPs, as the provisions of these SEPPs have simply been transferred into the new SEPPs. Further, any reference to an old SEPP is taken to mean the same as the new SEPP. For consistency, the Department has considered the development against the relevant provisions of several key EPIs as in force when the DA was lodged, including:

- State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)
- State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)
- State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33), State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)
- Draft State Environmental Planning Policy (Remediation of Land) (draft Remediation SEPP)
- Wollongong Local Environmental Plan 2009 (WLEP)

Development Control Plans (DCPs) do not apply to SSD under Clause 11 of the SRD SEPP. However, the Department has considered the relevant provisions of the Wollongong City Wide Consolidated Development Control Plan (WDCP) 2009 in its assessment of the development in **Section 5** of this report.

Detailed consideration of the provisions of all EPIs that apply to the development is provided in **Appendix D**. The Department is satisfied the proposed development generally complies with the relevant provisions of these EPIs.

4.7 Public Exhibition and Notification

In accordance with section 2.22 and Schedule 1 to the EP&A Act, the development application and any accompanying information of an SSD application are required to be publicly exhibited for at least 28 days. The application was on public exhibition from **7 July 2021** until **3 August 2021**. Details of the exhibition process and notifications are provided in **Section 5.1.**

4.8 Objects of the EP&A Act

In determining the application, the consent authority should consider whether the development is consistent with the relevant objects of the EP&A Act. These objects are detailed in section 1.3 of the EP&A Act. The objects of relevance to the merit assessment of this application include:

(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,

(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,

(c) to promote the orderly and economic use and development of land,

(d) to promote the delivery and maintenance of affordable housing,

(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,

(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),

(g) to promote good design and amenity of the built environment,

(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,

(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,

(j) to provide increased opportunity for community participation in environmental planning and assessment.

The Department has fully considered the objects of the EP&A Act, including the encouragement of Ecologically Sustainable Development (ESD), in its assessment of the application (see **Table 4**).

Table 3 | Considerations Against the Objects of the EP&A Act

Object	Consideration
1.3(a)	The development would promote social and economic welfare and a better environment by providing additional capacity for liquid waste treatment and modern technology to improve the operational efficiency of the site.
1.3(b)	The Department has considered the encouragement of ESD in its assessment of the proposal. This assessment integrates all socio-economic and environmental considerations and seeks to avoid potentially serious or irreversible environmental damage based on appraisal of risk weighted consequences. The Department is satisfied that the proposal can be carried out in a manner that is consistent with the principles of ESD.
1.3(c)	The development is a permissible use which would promote the orderly and economic development of land and would provide additional operational employment opportunities, a total of 39 on-site once operational.
1.3(e)	The Department's assessment in **Section 6** of this report demonstrates that with the implementation of the recommended conditions of consent, the impacts of the development can be mitigated and/or managed to ensure the environment is protected.
1.3(f)	The Department's assessment in **Section 6** of this report demonstrates that with the implementation of the recommended conditions of consent, the impacts of the development can be mitigated and/or managed to ensure cultural heritage (including Aboriginal cultural heritage) is sustainably managed.
1.3(g)	The Department has considered the proposed building upgrades and landscaping in its assessment and has concluded that the development would be consistent with the industrial and commercial context of the site.
1.3(h)	The development does not include any new buildings however, upgrades and works within an existing building is proposed. The Department has recommended conditions to ensure that any changes would meet the requirements of relevant legislation and guidelines.
1.3(i)	The Department has assessed the development in consultation with, and giving due consideration to, the technical expertise and comments provided by other Government authorities. This is consistent with the object of sharing the responsibility for environmental planning between the different levels of government in the State
1.3(j)	The application was exhibited in accordance with Schedule 1 clause 9 of the EP&A Act to provide public involvement and participation in the environmental planning and assessment of this application.

4.9 Ecologically Sustainable Development

The EP&A Act adopts the definition of ESD found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

(a) the precautionary principle
(b) inter-generational equity
(c) conservation of biological diversity and ecological integrity
(d) improved valuation, pricing and incentive mechanisms.

The potential environmental impacts of the development have been assessed and, where potential impacts have been identified, mitigation measures and environmental safeguards have been recommended.

As demonstrated by the Department's assessment in **Section 6** of this report, the development is not anticipated to have any adverse impacts on native flora or fauna, including threatened species, populations and ecological communities, and their habitats. As such, the Department considers that the development would not adversely impact on the environment and is consistent with the objectives of the EP&A Act and the principles of ESD.

4.10 Biodiversity Development Assessment Report

Under section 7.9(2) of the *Biodiversity Conservation Act 2016* (the BC Act), SSD applications are to be accompanied by a Biodiversity Development Assessment Report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the development is not likely to have any significant impact on biodiversity values.

As part of the EIS, the Applicant submitted a request to the Planning Secretary to waive the requirement for a BDAR, on the basis that the development relates to works within an existing industrial building within a site comprising limited vegetation and the proposed development is not likely to have any significant impact on biodiversity values.

The Environment Agency Head and Team Leader, Industry Assessments, as nominee of the Planning Secretary, determined the proposed development is not likely to have any significant impact on biodiversity values. A BDAR waiver under section 7.9(2) of the BC Act was subsequently granted for the development on 1 February 2022.

4.11 Commonwealth matters

Under the EPBC Act, assessment and approval is required from the Commonwealth Government if a development is likely to impact on a matter of national environmental significance (MNES), as it is considered to be a 'controlled action'. The EIS for the development included a preliminary assessment of the MNES in relation to the development and concluded the development would not impact on any of these matters and is therefore not a 'controlled action'. As such, the Applicant determined a referral to the Commonwealth Government was not required.

5 Engagement

5.1 Consultation

The Applicant, as required by the Planning Secretary's Environmental Assessment Requirements (SEARs), undertook consultation with relevant local and State authorities as well as the community and affected landowners. The Department undertook further consultation with these stakeholders during the exhibition of the EIS and throughout the assessment of the application. These consultation activities are described in detail in the following sections.

Consultation by the Applicant

The Applicant undertook a range of consultation activities throughout preparation of the EIS including:

- consultation with Council and public authorities through phone calls and email
- consultation with surrounding residents and stakeholders through letterbox drop.

Consultation by the Department

After accepting the DA and EIS for the application, the Department:

- made it publicly available on the Department's website from **Wednesday, 7 July 2021** until **Thursday, 3 August 2021**
- notified landowners in the vicinity of the site about the exhibition period by letter
- notified and invited comment from relevant State government authorities and Wollongong City Council by letter

5.2 Submissions and Advice

During the exhibition period, the Department received one submission from the public (one business) and advice from 7 government authorities, including Council. The public submission objected to the proposal. The public submission was made by a person who operates a business.

A summary of the submissions and government advice is provided in Table 5 below. A link to the full copy of the submissions and advice is provided in **Appendix A.**

5.2.1 Key Issues - Public Authorities

Wollongong City Council (Council) did not object to the development. However, Council noted the Applicant's Flood Risk Assessment Report did not consider Council's adopted Allans Creek Flood Study dated 2019. Council advised the site is categorised as being within the Low and Medium Flood Risk Precincts and all floor levels must be at least 1% of the AEP flood (RL 9.84m AHD). Council recommended the Applicant revise the Flood Risk Assessment Report to address its comments. Council also provided comments in relation to traffic, vehicle manoeuvrability and compliance with the Building Code of Australia / National Construction Code.

Transport for NSW (TfNSW) and **RMS** (RMS – now merged with TfNSW) did not object to the development. TfNSW recommended conditions relating to heavy vehicles and service vehicles associated with the proposal.

Fire and Rescue NSW (FRNSW) recommended conditions regarding the requirement for a fire safety study prepared in consultation with FRNSW.

The **Environment Protection Authority** (EPA) did not object to the development. EPA provided comments on the Applicant's Air Quality Impact Assessment (AQIA) and requested a revised AQIA to

address the characteristics of air emissions from the kiln dryer, justification for the pollutant emission concentrations, impacts at the swim-school (McKeon's Swim Centre) and to clarify inconsistencies between the AQIA and the Approved Methods for Modelling and Assessment of Air Pollutants in NSW regarding averaging periods for assessing impacts on lead emissions.

Sydney Water did not object to the proposal and advised the proposed development would significantly increase servicing demands above the current level and trade waste agreement. Sydney Water advised further investigation is required to determine the servicing requirements for this development.

Water Group did not have any specific comments.

5.2.2 Key Issues - Private Businesses

A business operator objected to the development and raised concerns regarding the likely adverse environmental impacts (air quality, traffic, flooding, contamination, amenity and cumulative impacts) associated with intensification of the businesses operating at the subject site.

5.3 Response to submissions

On 19 January 2022, the Applicant provided a Response to Submissions (RtS) report on the issues raised during the exhibition of the development (see **Appendix B**). The RtS was supported by updated documents and information in response to the matters raised during the exhibition. The documents included updated reports on flood risk management, air quality and noise, a preliminary hazards analysis and an updated site plan.

The RtS was made publicly available on the Department's website and was provided to key government authorities to consider whether it adequately addressed the issues raised. A summary of the government authority responses is provided below:

- **Council** outlined the flood level requirements and compliance with the Australian Standards AS 2890.1 for on-site parking and manoeuvring. Council recommended several conditions of consent relating to flooding.
- **FRNSW** advised it is satisfied with the Supplementary Preliminary Hazards Analysis (SPHA) and recommended a comprehensive Fire Safety Study (FSS) as a condition of consent.
- **EPA** noted the activities at the site are regulated under EPL 5874. The EPA provided recommended conditions of consent relating to air quality. The EPA further advised pending the approval of the SSD, the EPA intends to update the EPL 5874 to include specific conditions relating to air quality emissions limits and monitoring and post-commissioning verification air monitoring. The EPL would also be updated to include the noise limits derived from the EIS.
- **Sydney Water** required the Applicant to obtain a Section 73 Compliance Certificate and noted the Applicant has applied for the requested feasibility application.

On 10 February 2022, the Department requested the Applicant respond to all issues raised by public authorities in their review of the RtS.

On 7 March 2022, the Applicant submitted an updated version of the RtS responding to some of the issues raised by public authorities. In March 2022 the Department requested the Applicant update the RtS to address comments made by FRNSW and Sydney Water. On 22 March 2022, the Applicant submitted the final RtS addressing comments made by FRNSW and Sydney Water.

The Department has considered the issues raised in submissions and in response to the RtS, in its assessment of the development.

6 Assessment

The Department has considered the EIS, the issues raised in the submissions, the Applicant's RtS and supplementary information in its assessment of the development. Where relevant, the Department has also considered the cumulative impacts of the operation of the existing BRP and wastewater treatment plant on-site.

The Department considers the key assessment issue is flooding. A number of other issues have also been considered, however these are considered to be relatively minor and are assessed in **Table 4** under Section 6.2.

6.1 Flooding

There is potential for flooding impacts as the site is located within the floodplain of Allans Creek and is identified as being flood affected by the 100 year and Probable Maximum Flood (PMF) events.

Applicant's Assessment

The EIS included a Flood Risk Management Study (Flood Risk Study), prepared by Site Plus, which considered Council's Development Control Plan 2009 (WDCP) Chapter 13 Floodplain Risk Management, Council's Allans Creek Flood Study and addendum (versions dated 2008 and 2009).

The Flood Risk Study stated the proposed LWTP (within existing Building E), is above the 100-year flood level plus 0.5 m freeboard, and as such it complies with the Council's flooding controls within Chapter 13 of the WDCP. The Flood Risk Study also noted that all materials and goods would be stored above the 100 year plus freeboard floor level and concluded that, as the LWTP is contained generally within an existing building within the least flood affected portion of the site, flooding at the site would not change as a result of the proposal.

The Flood Risk Study advised that during a 100-year flood event, access for pedestrians and vehicles would be via the main site access in the north-western corner of the site, which is at the high point of the site within the low flood risk precinct.

Council identified the Flood Risk Study was based on a superseded flood study (Allans Creek Flood Study September 2006 by Lawson and Treloar). As such, flood levels were underestimated, and the site is more flood affected than was presented in the Flood Risk Study. Council noted the correct flood study is the adopted Allans Creek Flood Study dated 2019 (adopted Flood Study 2019), which indicates a significant flood flow path through the site adjacent to and around Building E.

Council also noted the adopted Flood Study 2019 maps Building E to be within the categories *H2 unsafe for small vehicles* and *H3 unsafe for all vehicles, children and elderly*. Also, the development is categorised as 'Industrial and Commercial development' and a Medium Flood Risk Precinct as per Section 6.3, Chapter 13 of the WDCP which details specific controls applying to the site. Council recommended that physical measures be integrated into the proposal's design to ensure floodwaters to do not damage plant, equipment and machinery and pollute surrounding land should floodwater combine with liquid waste.

In response to Council's comments, the Applicant amended some aspects of the design and submitted a revised Flood Risk Study addressing the requirements of the adopted Flood Study 2019 and WDCP. The updated design included:

- the floor level in Building E (housing the LWTP) would be raised from approximately 9.15 m to a minimum of RL 9.84 m AHD to be above the 100-year flood level (including adequate freeboard).
- the Applicant is committed to investigating whether existing Building E can be used as a bund and if not, a new bund would be constructed around Building E at RL 10.43 m AHD (PMF level). The existing building comprises an external reinforced concrete structure of approximately 3 m high (ranging in height from approximately 11.67 m to 13.18 m AHD) within the design of the building which could act as a suitable bund.

Council reviewed the RtS and advised it was satisfied with the information provided. Council provided its recommended conditions of consent regarding floor level requirements, bunding, flooding certification, and preparation of an Emergency Response Plan.

The Department's Assessment and Conclusion

The Department has considered the information provided by the Applicant and Council's comments. As the development is primarily located within existing Building E and is limited to minor construction works, the Department notes that flooding would not change through the site and the properties of floodwater would not be altered by the development.

In response to the Council's recommendations, the Applicant has committed to making design changes to ensure the proposed LWTP complies with Council's flooding requirements. The Department notes the design includes appropriate floor levels above the AEP flood level and that bunding around or incorporated into Building E would provide a physical barrier between the proposed LWTP and floodwaters during a PMF event to ensure liquid wastes do not contaminate floodwaters.

The Department also notes that Council recommends preparation of an Emergency Response Plan which includes processes and procedures for the management of the site and evacuation during a flood event to protect human life. The Department notes that an Emergency Response Plan is not currently in place and considers this would represent an improvement to ensure the safety of employees and visitors on-site.

To ensure safety during flood events, the Department has adopted Council's recommendations and has included the following conditions of consent:

- industrial floor levels must be a minimum of RL 9.84m AHD to be above the 100-year flood level
- habitable floor levels must be a minimum of RL 10.34m AHD
- any portion of the building or structure below RL 10.34 m AHD (1% AEP flood level plus freeboard) must be built from flood compatible materials
- Building E must be capable of withstanding forces of floodwater, debris and buoyancy up to and including RL 10.43 m AHD (PMF level). The existing reinforced concrete wall around Building E may be relied upon, however bunding must:
    - be continuous around the perimeter of the building
    - be impermeable
    - a minimum top of wall level of RL 10.43 m AHD
    - be capable of withstanding the forces of floodwater, debris and buoyancy up to and including RL 10.43 m AHD

- preparation of an Emergency Response Plan

The Department's assessment concludes that flooding impacts would be acceptable and the potential impacts can be mitigated and managed through the implementation of the recommended conditions including minimum floor levels, physical separation of liquid waste and potential flood water, and evacuation procedures.

6.2 Other issues

The Department's assessment of other issues is provided in **Table 4**.

Table 4 | Assessment of Other Issues

Findings	Recommendations
Air Quality and Odour	

• The development has the potential to generate air quality and odour emissions during construction and operation, primarily during the processing of liquid waste. This has the potential to have a detrimental impact on air quality at residential receivers to the north and north-west of the site.
• The closest receivers are located approximately 0.5 km to the north of the site.
• As part of the EIS, an Air Quality Impact Assessment (AQIA) of all site operations was prepared by Todoroski Air Sciences in accordance with the EPA's Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales' (EPA, 2017).
• The AQIA stated there would be minimal risk of odour emissions from the proposed liquid waste processing as all processes would occur within sealed containers. Any potential risk of spillage would be mitigated by regular inspections and maintenance. On this basis, the Applicant did not carry out a detailed assessment of odour impacts.
• Emissions from the LWTP would be treated by a wet scrubber (to remove acid and/or alkali gases) and a dust cyclone to remove dust and would be discharged via two separate stacks.
• Fugitive emissions from the BRP may be emitted via three roller doors servicing the BRP building.
• The incremental and cumulative impacts of the 24-hour and annual average dust emissions from all activities on site were predicted to meet the relevant EPA ground level impact assessment criteria at all receivers.
• In the absence of a final plant design specification for the LWTP pollution control equipment and information on the existing wet scrubber in the BRP, modelling in the Applicant's AQIA was based on an assumed emission inventory and assumed control efficiencies.
• In response to concerns raised by the EPA regarding the assumptions made in the AQIA, (and the potential for hazardous metals in air emissions) the Applicant commissioned a report by Advitech to confirm the emissions and control efficiencies for the BRP and LWTP and subsequently carried out further modelling of air quality impacts.
• Potential emissions from the LWTP operations identified in the revised AQIA included ammonia, arsenic, cadmium, hexavalent chromium, lead, nickel and selenium. Potential emissions from the BRP included hydrogen sulphide and lead.
• The AQIA found the development would have minimal incremental impacts at the surrounding residential receiver locations and the nearby McKeon's Swim Centre and would comply with the relevant EPA air quality impact assessment criteria at all receiver locations for the assessed pollutants.
• All criteria were predicted to be met, the Applicant proposed a range of operational air quality mitigation and management measures, including:
  ○ vehicles to be fitted with pollution reduction devices and regularly maintained
  ○ regular servicing and maintenance of wet scrubbers and dust extraction systems
  ○ loads to be covered when transporting materials and abide by on site speed limits
	Require the Applicant to:
	Air Quality
	• Ensure dust minimisation measures are in place throughout construction
	• Ensure compliance with the load limits, air quality criteria / air emissions limits as per the EPL
	• Prepare an Air Quality Management Plan prior to the commencement of the operation of the LWTP
	• Undertake post-commission sampling of air emissions to verify the performance of the kiln dryer cyclone and LWTP scrubber
	Odour
	• Prepare an Odour Audit of the overall development within 6 months of the operation of the LWTP and submit to the Planning Secretary

Findings	Recommendations
○ all plant and vehicles to be switched off when not in use ○ annual emission testing of equipment • The EPA advised it was satisfied with the additional information provided in the RtS and provided recommended conditions requiring certain design requirements for the LWTP emission stacks, and post-commissioning air emission sampling to verify the emission performance of the installed air pollution control equipment. • The Department considered the information provided by the Applicant and agrees that odour impacts are unlikely to be generated by the development. • Notwithstanding, a standard condition is recommended which prohibits the emission of offensive odour from the site. • The Department concurs with the EPA that air quality emissions should be verified following commissioning once the stack designs are finalised to confirm the predictions made in the revised AQIA. The Department also concurs with the EPA that the Applicant must implement any contingencies to address any non-compliance. • The Department's assessment concludes potential air quality and odour impacts can be adequately managed, subject to the implementation of recommended conditions of consent including the preparation of an air quality management plan, post-commissioning verification of the kiln dryer cyclone and LWTP scrubber and odour audit.	
Noise Impacts	
• The development has the potential to result in noise impacts at off-site sensitive receivers, particularly as the facility would operate 24 hours a day. • As part of the EIS, a Noise Impact Assessment (NIA) was prepared in accordance with the Noise Policy for Industry (NPfI) (EPA, 2017), NSW Road Noise Policy (RNP) (DECCW, 2011 and the Interim Construction Noise Guideline (ICNG) (NSW DECC, 2009). • The NIA considered the likely noise impacts on five sensitive residential and five industrial receivers within 810 m of the site. The closest residential receiver is 805m north-west of the site. <u>Construction</u> • The development would be constructed mostly within existing Building E and the NIA found the noise impacts generated by the construction were predicted to comply with the ICNG. • As such, the Department finds construction noise impacts are not likely to be significant, especially as construction would be carried out during standard construction hours. • The Department's assessment concludes construction related noise impacts could be managed via a condition requiring compliance with the noise levels in the ICNG. <u>Operation</u> • The NIA found the key operational noise sources were liquid pumps and trucks travelling at low speed or idling on the site and considered the worst-case scenario, of all plant and equipment operating simultaneously (ie the cumulative impact of existing and new equipment operating together) . • Project noise trigger levels (PNTLs) for a 15-minute assessment period were established in accordance with the NPfI. The PNTLs were between 36 and 46 dBA for residential receivers with a trigger level of 70 dBA for industrial receivers. • The NIA found noise levels are predicted to remain below the PNTLs at all receivers at all times. Given the closest residential receiver is over 800m from the site, the NIA considered sleep disturbance would not be experienced by any residential receiver. • The NIA noted that the LWTP processing operations would be contained within Building E and the BRP processing operations are contained within Building G. The NIA further noted the site is bound by industrial developments and the Princess Motorway. • Council did not raise concern regarding noise impacts and advised it was satisfied the proposal could operate within acceptable noise criteria at the sensitive receivers.	Require the Applicant to: • comply with noise limits in the ICNG • comply with the operational noise limits identified in the NIA at all residential receivers

Findings	Recommendations

• In the RtS, the Applicant confirmed all sensitive noise receivers were considered in the NIA, including the Aquatic Centre (IND-4), (located at 1 Marley Place).
• In response to the RtS, the EPA raised no concern with the predicted operational noise impacts.
• The Department notes that the:
  ○ site is located within an established industrial area, bound by the Princess Motorway, a key state classified road
  ○ site is separated from sensitive residential receivers by approximately 805m
  ○ processing proposed on site would occur within buildings and truck deliveries and unloading of goods and the like would occur primarily within the centre of the site, surrounded by the existing buildings.
• The Department is satisfied the operational noise impacts of the development would be minimal and recommends a condition requiring the Applicant to comply with the PNTLs for the development at all residential receivers.
• The Department's assessment concludes the noise impacts of the development during construction and operation would remain within the acceptable noise criteria and can be mitigated by the recommended conditions of consent.	

Contamination	
• There is potential for the site to be contaminated due to its historical and current use for heavy industrial purposes. • Minor excavation is proposed to facilitate the new flooring within Building E and the proposed bund around Building E, which may encounter contaminated soils. The excavation within Building E is limited to the area needed for channel drains and foundations associated with the installation of the LWTP process plant. • Following a site inspection in 2018, the EPA issued a Prevention Notice (No. 1570729) () stating Building E had been used for chemical storage, and the floor surfaces were damaged and covered in chemical spills. • The prevention notice directed the Applicant to prepare a Stage 2 Detailed Site Investigation (DSI) for the overall site, including Building E. • In the EIS the Applicant submitted a Stage 1 Preliminary Site Investigation (PSI) to address the SEARs and a Stage 2 DSI for the proposed excavation in Building E. • The DSI included sampling from two boreholes within Building E which found that, despite the historical chemical spills, no elevated levels of contaminants were present. • The DSI recommended site earthworks with potential to intercept fill be managed via an Unexpected Finds Protocol (UFP). The RtS confirmed the proposed excavation in Building E would be undertaken in accordance with the recommendations of the DSI. • Council agreed with the recommendations of the DSI. • The Department notes the EPA requirement on the current EPL for a UFP to manage any future sub-surface works on-site. • The Department has considered the information provided by the Applicant and the advice of the EPA and finds there is minimal potential for contaminated materials to be exposed during excavation in Building E. • However, to ensure potentially contaminated materials are appropriately managed, the Department recommends a condition requiring a UFP be prepared prior to the commencement of construction. The UFP would detail how unexpected finds would be processed and require any materials identified as contaminated to be tested and disposed of in accordance with the POEO Act. • The Department's assessment concludes potential contamination impacts would be adequately managed, subject to the implementation of the recommended conditions of consent.	Require the Applicant to: • provide an unexpected finds procedure to manage any unexpected contamination during construction
Traffic and Access	
• The increased operations on-site have potential to cause traffic and access impacts due to additional construction and operational traffic movements.	Require the Applicant to:

Findings	Recommendations
• The Applicant's Traffic Impact Study (TIS) was prepared in accordance with the RMS Guide to Traffic Generating Developments and Road Design Guide. The TIS used traffic volume data from prior to 2019 (pre-COVID-19 data). <u>Operational traffic and parking</u> • The TIS noted the BRP currently operates 24 hours per day, 7 days per week generating up to 37 one-way light vehicle movements and 12 heavy vehicle movements per day. In addition, up to 33 staff vehicles access the site over a 24-hour period, spread across three staff shifts. • The LWTP would generate 6 additional light vehicle one-way movements (12 additional trips) and 5 heavy vehicle movements (10 additional trips) per day. The cumulative traffic impacts of the development site (BRP and LWTP) would result in a total of 43 light vehicle trips and 17 heavy vehicle trips per day. • SIDRA analysis found the Princess Motorway South Bound / Five Islands Road intersection would operate at Level of Service (LOS) LOS C (satisfactory) in 2030, down from LOS B in 2018. Also, the Princess Motorway North Bound / Five Islands Road intersection would be at LOS F by 2030 in comparison to LOS C in 2018, however this was due primarily to background traffic growth and not attributable to the development. • The TIS found the cumulative traffic generation would be minor and have an acceptable impact on the surrounding road network, given there would be only minor changes to intersection conditions due to the development. • When the LWTP is operational, a total of 39 staff would be employed at the site. The TIS found the 30 on-site parking spaces would be sufficient to accommodate the proposed additional staff as there would be a maximum of 29 staff on-site at any one time. • Council had no comments on parking or traffic impacts. • TfNSW provided recommendations related to the use of heavy and service vehicles. • The Department notes the LWTP would only result in a minor increase in vehicle movements per day, with only minor adverse impacts on the surrounding road network. The on-site parking arrangements are appropriate, with no additional staff parking required. • Despite the low operational traffic impacts, to ensure the surrounding road network and intersections are not adversely affected, the Department has recommended a number of traffic management conditions such as ensuring heavy / service vehicles utilise the Princess Highway and adopting the traffic volumes nominated in the TIS. • The Department's assessment concludes that, with the recommended conditions in place, the development would not cause additional adverse impacts on the surrounding road network. <u>Construction traffic</u> • The TIS noted a Construction Traffic Management Plan (CTMP) for the LWTP would be prepared once details of the construction activities are finalised. • Council and TfNSW did not raise any concerns regarding construction traffic impacts. • Construction will be of short duration (approximately six months) and traffic numbers are likely to be similar to those for operation of the LWTP, however, to ensure any impacts are appropriately managed the Department has recommended a condition requiring a CTMP to be prepared in consultation with Council. <u>Site Access and Egress</u> • Access to the site is via existing separate entry and exit points to Five Islands Road located at the site's northern boundary. • Internal traffic management measures are proposed to ensure the site operates efficiently, including two give way points within the northern internal road. • The section of Five Islands Road adjacent to the site has an 80 km per hour speed limit and site access is not controlled by traffic signals, thereby creating potential traffic flow impacts for Five Islands Road. • Council had no comments on the access arrangements, however TfNSW recommended restricting vehicles over 20 m from exiting the site onto Five Islands Road, noting it is a key state classified road.	• prepare a CTMP in consultation with Council • restrict traffic volumes and use the heavy vehicle routes detailed in the TIS • ensure vehicles over 20 m in length cannot exit the site onto Five Islands Road

Findings	Recommendations
• To ensure safety and minimise impacts on Five Islands Road, the Department recommends a condition prohibiting vehicles over 20 m in length from exiting the site. • The Department is satisfied that with this recommendation in place, potential traffic impacts associated with access to the development can be mitigated.	

7 Evaluation

The Department's assessment of the application has fully considered all relevant matters under section 4.15 of the EP&A Act, the objects of the EP&A Act and the principles of ecologically sustainable development.

The Department has considered the development on its merits, taking into consideration strategic plans that guide development in the area, the EPIs that apply to the development, advice received from the relevant public authorities, including Council, and the public submission.

None of the State government agencies or Council have objected to the proposal and the Department has sought to address any issues raised through consultation with both the government agencies and the Applicant. One submission received during the exhibition of the development objected to the proposal due to concerns about air quality, flooding, contamination and cumulative impacts. The Department notes these concerns have been addressed by the Applicant's RtS and the Department's recommended conditions.

The Department's assessment found the proposed works are primarily located within an existing building and are limited to minor demolition and construction works for the LWTP. As a result, flooding through the site would not change and the properties of floodwater would not be altered. The Department is satisfied that, with the recommended conditions in place relating to flood level requirements, physical separation of liquid waste and potential flood water, and evacuation procedures, any potential flooding impacts can be appropriately managed.

Other issues considered in the Department's assessment included air quality and odour, contamination, noise and traffic. The Department concludes the impacts of the development can be appropriately managed through implementation of the recommended conditions of consent. The conditions were developed in conjunction with government agencies and Council.

The Department's assessment has concluded the development would provide much needed waste management capacity for liquid waste. The proposal would provide for 10 full-time equivalent construction jobs, 6 new operational jobs and a total of 39 jobs once the site is operational.

The Department considers the development is in the public interest and should be approved, subject to conditions.

8 Recommendation

For the purpose of section 4.38 of the *Environmental Planning and Assessment Act 1979*, it is recommended that the Director, Industry Assessments, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to grant consent to the application
- **agrees** with the key reasons for approval listed in the notice of decision
- **grants consent** for the application in respect of Unanderra Liquid Waste Treatment Plant (SSD-8304) as amended, subject to the conditions in the attached development consent
- **signs** the attached development consent and recommended conditions of consent (see attachment)

Recommended by:

Rebecka Groth
Senior Environmental Assessment Officer
Industry Assessments

Recommended by:

24 August 2022

Sheelagh Laguna
Principal Planning Officer
Industry Assessments

9 Determination

The recommendation is adopted by:

31 August 2022

Chris Ritchie
Director,
Industry Assessments

Appendices

Appendix A – List of Documents

The Department has relied upon the following key documents during its assessment of the proposed development:

Environmental Impact Statement

- Environmental Impact Statement and attachments, prepared by Planning Plus (NSW) Pty Ltd dated June 2021

Submissions

- All submissions received from relevant public authorities and the general public

Response to Submissions

- Response to Submissions Report prepared by Planning Plus (NSW) Pty Ltd dated December 2021
- Response to Submissions Report prepared by Planning Plus (NSW) Pty Ltd dated 7 March 2022

Statutory Documents

- Relevant considerations under section 4.15 of the EP&A Act (see **Appendix B**)
- Relevant environmental planning instruments, policies and guidelines (see **Appendix C**)

All documents relied upon by the Department during its assessment of the application may be viewed at: https://www.planningportal.nsw.gov.au/major-projects/project/10551

Appendix B – Considerations under Section 4.15 of the EP&A Act

Matters for Consideration under Section 4.15 of the EP&A Act

Matter	Consideration
a) the provisions of: i.) any environmental planning instrument, and	The Department has considered the relevant environmental planning instruments in its assessment of the development that apply to the development. Detailed consideration of the planning instruments that apply to the development is provided in **Appendix C** of this report.
ii.) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and	The Department has considered the relevant draft environmental planning instruments in its assessment of the development. Detailed consideration of the planning instruments that apply to the development is provided in **Appendix C** of this report.
iii.) any development control plan, and	Under clause 11 of the SRD SEPP, development control plans do not apply to State significant development.
iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and	There are no planning agreements relevant to this development application.
iv.) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), that apply to the land to which the development application relates,	The Department has assessed the development in accordance with all relevant matters prescribed by the regulations, the findings of which are contained in this report.
b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,	The Department has considered the likely impacts of the development in detail in Section 6 of this report. The Department concludes that all environmental impacts can be appropriately managed and mitigated through the recommended conditions of consent.
c) the suitability of the site for the development,	The development is an industrial development located within an IN3 Heavy Industry zone land which is permissible with development consent.
d) any submissions made in accordance with this Act or the regulations,	All matters raised in submissions have been summarised in Section 5 of this report and given due consideration as part of the assessment of the development in Section 6 of this report.
e) the public interest.	The development would generate 10 jobs during construction, 6 additional jobs and a total of 39 jobs

Matter	Consideration
	during full operation of the site and direct $5,850,000 in capital investment in the Wollongong local government area. The environmental impacts of the development would be appropriately managed via the recommended conditions. The Department considers to the development is in the public interest.

Appendix C – Consideration of Environmental Planning Instruments

Since lodgement of the DA, all NSW State Environmental Planning Policies have been consolidated into 11 policies. The consolidated SEPPs commenced on 1 March 2022, with the exception of State Environmental Planning Policy (Housing) 2021, which commenced on 26 November 2021.

The SEPP consolidation does not change the legal effect of the repealed SEPPs, as the provisions of these SEPPs have simply been transferred into the new SEPPs. Further, any reference to an old SEPP is taken to mean the same as the new SEPP. For consistency, the Department has considered the development against the relevant provisions of several key EPIs as in force when the DA was lodged,.

To satisfy the requirements of section 4.15(1) of the EP&A Act, the following EPIs were considered as part of the Department's assessment:

- State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)
- State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)
- State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)
- State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)
- draft State Environmental Planning Policy (Remediation of Land) (draft Remediation SEPP)
- Wollongong Local Environmental Plan 2009 (WLEP)

State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)

The SRD SEPP identifies certain classes of development as SSD. The proposal is State significant development pursuant to section 4.36 of *Environmental Planning and Assessment Act 1979* (EP&A Act) because it is a liquid waste facility that stores and processes aqueous and non-aqueous liquid industrial waste with a proposed capacity of more than 1,000 tpa which meets the criteria in Clause 23(6)(b) of Schedule 1 in the SRD SEPP.

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)

The ISEPP aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency, identifying matters to be considered in the assessment of development adjacent to certain types of infrastructure development, and providing for consultation with relevant public authorities about certain types of development during the assessment process.

As the site is located on the corner two classified roads and the development is a waste or resource management facility, the development constitutes traffic generating development in accordance with Schedule 2 and 3 respectively of the Transport and Infrastructure SEPP. Therefore, the application was referred to TfNSW for comment and consideration of access and traffic impacts. TfNSW's comments are detailed in **Section 5** of the report. TfNSW provided comments and recommended conditions during the exhibition of the proposed development. The development is therefore considered consistent with the Transport and Infrastructure SEPP.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)

The SEPP 33 aims to identify developments with the potential for significant off-site impacts, in terms of risk and/or offence. A development is defined as potentially hazardous and/or potentially offensive if,

without mitigating measures in place, the development would have significant risk and/or adverse impact on off-site receptors.

The LWTP will process SPL and waste caustic solution which are categorised as Class 8 Dangerous Goods. The premises is licenced under EPL 5874 to accept, store and treat these waste materials. The EPL permits the storage of up to 2,500 tonnes of combined solid and liquid waste at any one time.

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

SEPP 55 aims to provide a State-wide approach to the remediation of contaminated land. In particular, the Resilience and Hazards SEPP aims to promote the remediation of contaminated land to reduce the risk of harm to human health and the environment by specifying:

- under what circumstances consent is required
- the relevant considerations for consent to carry out remediation work
- the remediation works undertaken meet certain standards and notification requirements.

The Applicant undertook Stage 1 and Stage 2 Environmental Site Investigations for the site. The Department's assessment of the development against the Resilience and Hazards SEPP is provided in Section 6.3 of this report. As the site is sealed with concreate hardstand and involves minimal building construction and excavation, the Department is satisfied the development can be appropriately managed through the recommended conditions of consent including the requirement for an UFP to be prepared.

draft State Environmental Planning Policy (Remediation of Land) (draft Remediation SEPP)

The draft Remediation SEPP seeks to retain the key operational framework of the current SEPP 55, while also adding new provisions relating to changes in categorisation and introducing modern approaches to the management of contaminated land. The development has been assessed against SEPP 55 (see above), and the Department is satisfied the development would be consistent with the draft Remediation SEPP.

Wollongong Local Environmental Plan 2009 (WLEP)

The WLEP aims to provide a framework for sustainable land use and development and to provide a range of land uses and development in appropriate locations to meet community needs including housing, education, employment, culture, recreation, infrastructure and services.

The development is within the IN3 Heavy Industry zone and the area surrounding the site is used for industrial purposes. The proposed development is consistent with the objectives of the IN1 zone identified in the WLEP.

The Department has consulted with Council throughout the assessment process and has considered all relevant provisions of WLEP and those matters raised by Council in its assessment of the development (see **Section 5** of this report). The Department concludes that the development is consistent with the relevant provisions of the WLEP.

Wollongong Development Control Plan 2009 (WDCP 2009)

The WDCP includes development controls for development within the Wollongong LGA. The relevant provisions for the development include Chapters E13 and 14 Stormwater Management and Floodplain Management respectively. The EIS advises that the relevant WDCP controls are addressed within the

EIS and notes the development involves the use of an existing facility with no new buildings and minor construction works are proposed.

The Department has consulted with Council throughout the assessment process and has considered all relevant provisions of WDCP and those matters raised by Council in its assessment of the development (see **Section 5** of this report).

Appendix D – Community Views for Draft Notice of Decision

Issue	Consideration
Air quality The proposal will increase dust and deteriorate air quality	***Assessment*** • EPA reviewed the proposal and raised no concerns with the information provided in relation to odour or air quality. The EPA regulates the operation of this site. ***Conditions:*** • The Department's recommended conditions include dust mitigation measures, air quality discharge limits, air quality testing requirements and a requirement for an Air Quality Management Plan.
Contamination An accident could result in contaminated liquid impacting surrounding properties and adverse environmental impacts	***Assessment*** • The hazards and risks associated with the proposal, both within and outside of the site, were considered in the Department's assessment. ***Conditions:*** • The Department's recommended conditions requires the development to operate in accordance with the POEO Act and the EPL for the site and that the Applicant prepare a Safety Management System for the development, including consideration of the safety of all people outside of the development.
Flood A major flood could result in a pollution event and adverse environmental impacts	***Assessment*** • The proposal can comply Council's flood controls. • The proposal will have no impact on the nature of flooding because it is largely contained within an existing building ***Conditions:*** • The Department's recommended conditions require the industrial floor levels must be a minimum of RL 9.84m AHD and floor levels / storage levels susceptible to flood damage, are a minimum of RL 10.34m AHD • Building E must be capable of withstanding forces of floodwater, debris and buoyancy the PMF level • A bund wall is to be provided around Building E to provide a physical barrier between liquid waste and flood water.
Cumulative Impacts Additional adverse impacts on the environment and amenity in the locality	***Assessment*** • Overall, the Department's assessment found that the proposal would not result in adverse environmental impacts and any impacts could be appropriately managed. • The Department notes that no agency or Council objected to the proposal ***Conditions:*** • The Department recommended conditions to address the following impacts noise, air quality and odour, contamination, flooding and traffic.

Issue	Consideration
Covid-19 Data provided does not reflect pre-COVID-19 trends	***Assessment*** • The Department's assessment found that the Applicant relied in data taken prior to the COVID-2019 pandemic. ***Conditions:*** • No conditions are required to address this concern as it has been resolved in the Applicant's EIS and RtS.

Appendix E – Recommended Instrument of Consent

https://www.planningportal.nsw.gov.au/major-projects/projects/unanderra-liquid-waste-treatment-facility