

Pollution Incident Response Management Plan

Veolia Water Solutions and Technologies holds an Environmental Protection License (Number 20335) for the Bingara Gorge Wastewater and Water Recycling Scheme located at Condell Park Road Wilton NSW 2571.

1. Purpose

This is a site specific plan developed to:

1. Guide workers in the event of a pollution incident associated with the Bingara Recycled Water Treatment Plant (RWTP) and all existing networks infrastructure within the licensed area of operations (Water Industry Infrastructure)
2. Comply with the preparation of pollution incident response management plans under the Protection of Environment Operations Act 1997 (POEO Act 1997)
3. Meet element 6 of the framework for management for recycled water quality and use in the Australian Guidelines for Water Recycling 2006
4. Summarise notification requirements to relevant authorities and the community

In addition to this PIRMP, Veolia Water Solutions & Technologies (Australia) Pty Ltd (VWST) has established Incident Management and Emergency Preparedness and Response Procedures (Site Specific Emergency Preparedness and Response Plan, "EPRP"), as part of its regulatory requirements and certified Business Management System (BMS). Relevant parts of these procedures will be deployed in conjunction with this Pollution Incident Response Management Plan (PIRMP), as needed.

For reference the current version of the EPRP, is located on the Site specific 'Shared Drive' (was Team Drive) and central document directory, these are VWST internal locations only.

This plan must be tested on at least an annual basis, currently scheduled for March of each Calendar year. The plan will be tested in relation to a potential site / network incident, involving all site operations staff and where applicable select Sub-Contractor. The scenario will be proposed by the Plant Manager.

A copy of this plan is available on site and electronically.

This plan is maintained in accordance with Veolia Water Solutions & Technologies (Australia) Pty Ltd Document Control Procedure. The plan is reviewed annually for currency, the version control of the plan will be updated if changes are required. As a minimum the plan must be formally updated every three years.

2. Contact Details

NAME	POSITION	TITLE
Martin Reid	Legal Counsel	0428 816 972
Inshan Sheriff	NSW Service Manager	0438 880 219
Patrick Coulton	Bingara Plant Manager	0477 325 366

3. Communications with Neighbours and the Community

Veolia Water Solutions and Technologies is committed to ensuring that those in our local community who may be potentially impacted by a pollution incident are adequately notified. Notifications to the community are the responsibility of the Plant Manager coordinated with Lend Lease Communities, if the Plant Manager is unavailable the responsibility lies with the NSW Service Manager.

Notification with the community will occur under consultation with Lend Lease Communities, as appropriate to the location and scale of the incident.

3.1 For Reticulation Network Incidents, Emergencies and Properties Surrounding the Wastewater Treatment Plant

Owners and occupiers of premises who may be affected by an incident occurring within the reticulation network may be advised through one or more of the following means:

- Via the Wilton Recycled Water Treatment plant website: myrecycledwater.com.au
- Email dispatched by Lend Lease Communities or Veolia Water Solutions and Technologies.
- Door knocking of affected community members and groups
- Signage
- Posted Mail

They will be provided with advice to:

- avoid contact with the sewage or discharge; and
- options to disinfect and hand wash.

3.2 Complaints

Complaints can be made via:

- The Wilton Recycled Water Treatment plant website: myrecycledwater.com.au
- Telephone 1300 552 120
- Email info@myrecycledwater.com.au

4. Training and Awareness

Training and awareness sessions will be held with the following stakeholders upon implementation of the PIRMP:

- NSW Service Team Plant operators
- Authorised sub-contractors (as required)
- Other authorised persons (as required)

Site evacuation procedure is included in the site induction process for all workers. PIRMP induction for Emergency Control Organisation is done annually.

Additionally, workers receive information and training on emergency preparedness, incident management, environmental impacts and controls through:

- Toolbox talks or team meetings
- fact sheets / safety alerts
- Emergency drills
- High risk activity training e.g working at heights / confined space
- SOPs, work instructions, SWMS, Permit, or procedures
- Intranet / BMS

Training records are maintained in the Veolia Water Solution and Technologies training database, maintained by Plant Manager.

Site specific training records are referenced within the sites training matrix. Currency of training is reviewed annually.

5. Risk Assessment and Management

The primary hazards to human health or the environment associated with operation of the waste water treatment plant are:

HAZARD	SOURCE	LIKELIHOOD	PRE-EMPTIVE AND CORRECTIVE ACTIONS
Chemical exposure, chemical burns, fire	<ul style="list-style-type: none"> Hazardous chemicals 	Medium	<ul style="list-style-type: none"> Safety Data Sheets (SDS) available and accessible Register & manifest available and maintained Storage and segregation of chemicals Labelling of all containers Spill kits made available Ventilation
Biological hazards	<ul style="list-style-type: none"> Working in or visiting active sewage treatment facilities Sewer inspection and maintenance work Repairing or replacing live sewers Operating equipment used to collect and transport sewage sludge Discharge 	High	<ul style="list-style-type: none"> Water discharged is tested as per licence conditions to ensure quality falls within parameters for TSS, BOD and pH Information for working with sewage Provision of clean water, soap, disposable paper towels Do not eat, drink or smoke in sewage handling areas Clean and disinfect the area after the task Use dedicated tools / equipment Clean hands before opening vehicle doors and handling steering wheels and controls Segregate contaminated equipment Disinfect or sterilise reusable work equipment Change out of contaminated clothing and wash hands well with soap and clean water (preferably hot) before eating or smoking. Also wash hands after removing gloves to prevent cross-contamination Use personal protective equipment: <ul style="list-style-type: none"> Eye protection. Goggles are recommended if using a hose and / or any chemicals Rubber boots Rubber gloves Impervious coveralls Ensure vaccinations are up to date for tetanus and Hepatitis A and Hepatitis B Contact a doctor immediately if illness occurs
Air pollution: <ul style="list-style-type: none"> Noise Odour 	<ul style="list-style-type: none"> Engine / pumps Plant and equipment Chemical handling 	Low	<ul style="list-style-type: none"> Plant noise assessments Well ventilated area Odour extraction Scheduled and regular collection of waste

HAZARD	SOURCE	LIKELIHOOD	PRE-EMPTIVE AND CORRECTIVE ACTIONS
			<ul style="list-style-type: none"> • Plant maintenance programs • Plant and equipment inspected before use • Daytime operation • Sealed chemical containers • Maintain housekeeping • Venting system with carbon filters
Energy Impacts	<ul style="list-style-type: none"> • Servicing plant • Cleaning assets 	Low	<ul style="list-style-type: none"> • Proactive maintenance programs to ensure operational efficiency • Apply energy hierarchy • Energy reduction initiatives including: <ul style="list-style-type: none"> ○ Switching off lights and appliances when not in use ○ Repairing leaks as soon as they are discovered ○ Unplug unused electrical devices ○ Use energy efficient cycle settings on equipment
Impacts to flora and fauna	<ul style="list-style-type: none"> • Wildlife scavenging waste • Wildlife injury / mortality from vehicle movements • Exposure to snakes and spiders 	Medium	<ul style="list-style-type: none"> • Waste segregation systems established • Containment systems • Obey speed limits • Minimise driving during dawn and dusk • Toolbox talks • Environmental alerts
Hazardous materials and waste	<ul style="list-style-type: none"> • Cleaning • Chemical handling and storage • Sewage 	High	<ul style="list-style-type: none"> • Bunding • Administrative controls (Awareness training, established procedures) • All other recyclable or non-recyclable wastes are to be stored in appropriate covered receptacles (e.g. bins or skips) • Contractors commissioned to regularly remove / empty the bins to approved disposal or recycling facilities • Maintenance of system • Spill kits • Restricted access

6. Safety Equipment

TYPE	DESCRIPTION	LOCATION
Spill kits	Equipment to absorb spills at designated locations.	Process building
Safety Data Sheets	Information regarding chemicals.	<ul style="list-style-type: none"> Chemical storage area Office Electronic files
Fire and emergency equipment	<ul style="list-style-type: none"> Safety shower Emergency eye wash fire blanket fire extinguishers Hose reel first Aid kits / AED 	<ul style="list-style-type: none"> Main control room Various plant locations Chemical area Vehicles Laboratory
PPE	<p>Minimum PPE on site is as follows:</p> <ul style="list-style-type: none"> Steel cap footwear High Visibility Long sleeves / pants <p>Additional PPE may be required according to the task or activity being performed.</p>	<ul style="list-style-type: none"> Issued to persons Main control room
Plant monitoring equipment	<p>SCADA remote monitoring, operation and alarm system (initial warning and critical control points).</p> <p>CMMS (GAMA), asset management system</p>	Process building

7. Inventory of Pollutants

7.1 TRWP Plant Facility decommissioned October 2017.

Note, the TRWP has been mothballed for potential future re-instatement. The below information is included for future reference only.

POLLUTANT	SOURCE	QUANTITY
Used in the process		
Polyaluminium chlorosulphate	Chemical supplier (Aquapac)	current 500L (IBC tank 1000L storage capacity)
Sodium hydroxide	Chemical supplier (Aquapac)	current 500L (IBC tank 1000L storage capacity)
ferric (III) Chloride	Chemical supplier (Aquapac)	current 30L (poly tank 200L storage capacity)
Sodium hypochlorite	Chemical supplier (Aquapac)	current 50L (poly tank 200L storage capacity)
Used in the CMF membrane		

Hydrex 4301 (Sodium metabisulphite)	Chemical supplier (Veolia)	current 4 nos. x 15L drum
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POLLUTANT	SOURCE	QUANTITY
Hydrex 4701 (citric acid)	Chemical supplier (Veolia)	current 2 nos. x 15L drum
Sodium hypochlorite	Chemical supplier (Aquapac)	current 10 nos. x 15L drum
Lubricant used in the ecodisk rotating motor		
SF06 perma liquid grease	Veolia France	current 16 nos. x 30 mL (cartridge)
Waste Material		
Drum screen screening waste	Raw sewage	current 100 L (dewatering bag 2000L storage capacity)
Sludge	Backwash byproduct waste from the CMF, Ecodisk drum filter and the Hydrotech drum filter process	current 20kL (sludge holding tank 100KL storage capacity)
Storage Tank		
Raw Sewage	Underground redundancy tank adjacent to Sewage Pumping Station	current 0L (redundancy tank 110kL storage capacity)
Raw Sewage	Above ground redundancy tank at the RWTP	current 70kL (redundancy tank 350kL storage capacity)

7.2 PRWP (1M/ Day Plant) Facility commissioned in September 2017, following practical completion, is currently in operation.

Location ID	POLLUTANT	SOURCE	QUANTITY
Chemicals used in process			
1	Ferric Chloride	Chemical Storage Tank	10 Kiloliters
2	Sodium Hypochlorite	Chemical Storage Tank	10 Kiloliters
3	Sodium Carbonate (Soda Ash)	Chemical Storage Tank	10 Kiloliters
4	Sodium Hypochlorite	Portable container adjacent to BioSep, 15L drums are used for top up, stored within the TRWP	200liters
5	Citric Acid	Portable container adjacent to BioSep, 15L drums are used for top up, stored within the TRWP	200liters
6	Anti foam Agent	Tank adjacent to BioSep Unit	20 liters
7	Polymer Emulsion	Polymer batching unit adjacent to centrifuge	80 Liter container
Fluids associated with Mechanical Equipment			
8	Diesel	Generator Set	1000 Liters (Within Generator Set)
Influent Storage Tanks			
9	Raw Sewage	Underground redundancy tank adjacent to Sewage Pumping Station	Current 0L (redundancy tank 110kL storage capacity)
10	Raw Sewerage	Above ground storage tanks at PRWP	Rated Capacity 1 ML x 2, expected storage level 20%

11	Raw Sewage	Above ground redundancy tank at the RWTP	current 100kL (redundancy tank 350kL storage capacity)
Location ID	POLLUTANT	SOURCE	QUANTITY
Waste Material			
12	Mechanical Screens	Influent mechanically screened to 1 mm and held in closed 3m ³ bins (Two Bins on Site)	Max 6 m ³
13	Bio-solids	Dewatered sludge held in Closed Bin	Max 10 m ³

8. Notifications

Veolia Water Solutions and Technologies are required to report any Reportable (within the meaning of WICA Act) incidents to the below authorities.

- Division of Energy, Water and Portfolio Strategy in the Department of Planning and Environment under Ministry of Energy and Utilities – Ms Colette Grigg, Tel: (02) 8275 1914, Email: Colette.grigg@planning.nsw.gov.au
- NSW Health (Ministry of Health) – 9391 9000 via South Western Sydney Public Health Unit, On call Environmental Health Officer, 02 8778 0855 (Bus Hrs), 02 8738 3000 (After Hrs) and Email: waterqual@doh.health.nsw.gov.au
- IPART – 9113 7722 (Director, Water Licensing and Compliance), Email: compliance@ipart.nsw.gov.au

The notification requirements apply to any incident in the conduct of VWST activities “that threatens, or could threaten, water quality, public health or safety” m

In addition to this VWST also complies to section 148 of the POEO Act 1997 in that it is obliged to notify any pollution incident where a material harm to the environment is caused or threatened.

This requirement means that any incident that involves harm to the health or safety of a person or an ecosystem of Energy and Utilities to

- EPA – 131555
- WorkCover – 131050
- fire and Rescue / Emergency Services – 000
- Wollondilly Council – 4677 1100

A risk of material harm to the environment is defined in section 147 of the POEO Act 1997 as:

- a) Harm to the environment is material if:
 - i. It involves actual or potential harm to the health or safety of human beings or ecosystems that is not trivial, or
 - ii. It results in actual or potential loss or property damage of an amount or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations) and
- b) Loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment

Protocols for managing incident response, escalation and notification to regulators are further detailed in the Veolia Water Solutions and Technologies Incident Management Procedure.

9. Incident Response

Immediate action is to ensure the safety of people and containment of pollution if safe

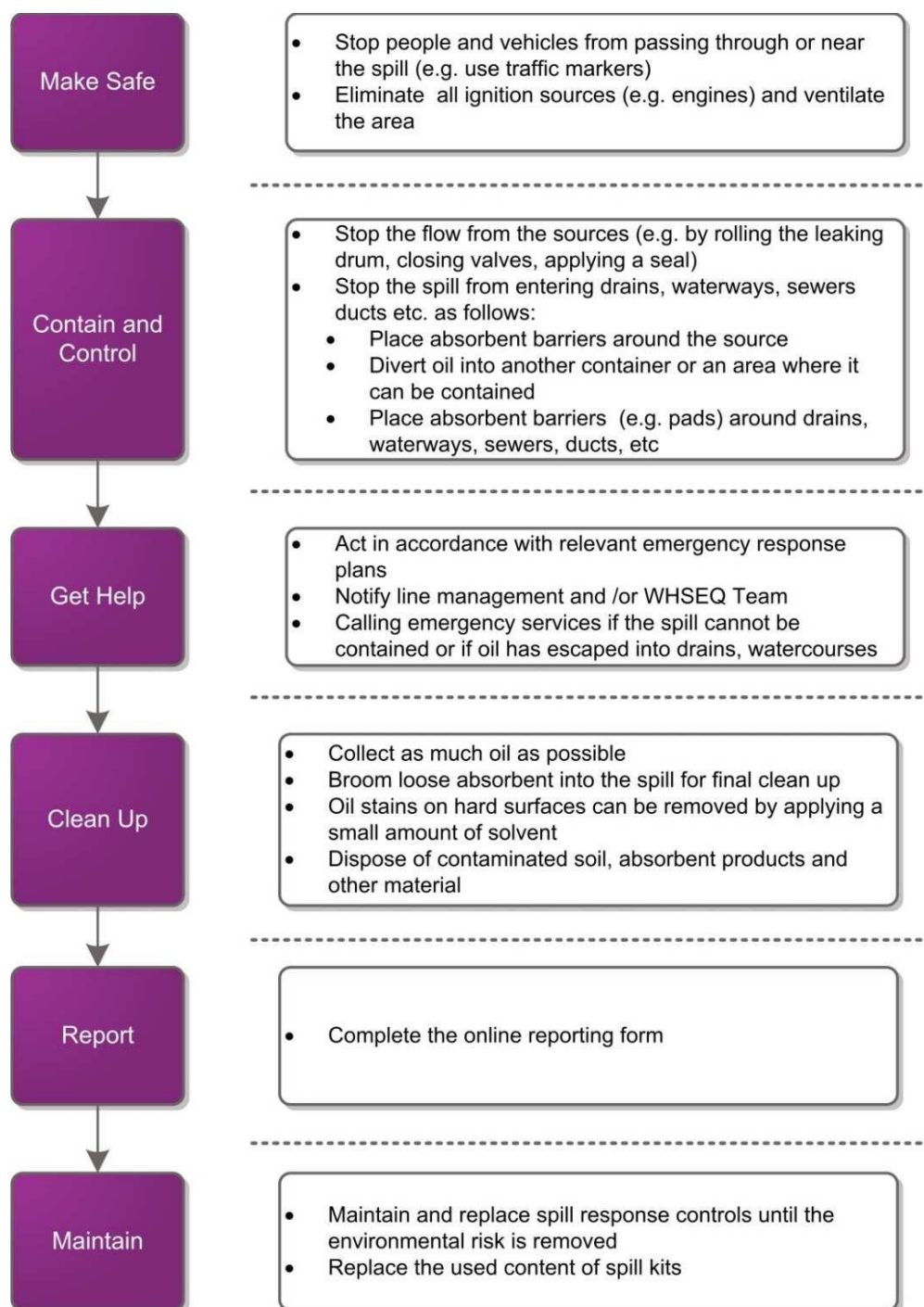
to do so. Upon discovering an emergency situation:

1. The person discovering the emergency should immediately contact the Bingara Plant Manager. Bingara Plant Manager depending on circumstances may escalate the matter to NSW Service Manager
2. The following information should be obtained:
 - a. Type of emergency
 - b. Location
 - c. Actions being taken at the scene
 - d. Any persons injured
 - e. Whether emergency services have been notified or are required

The response process is summarized below:



9.1 Oil Spill Containment and Clean up



9.2 Chemical Spill Clean-up

The primary concern is to protect health and safety. No action should be taken during an emergency response that directly or indirectly puts human health and safety at risk.

Do not attempt to clean up spill unless it is safe to do so. There may be a risk from:

- Fire or explosion
- Toxic fumes
- Chemical burns

CONTROLS	CHECK
<p>CONTAIN:</p> <ol style="list-style-type: none"> 1. Stop spill at the source: <ol style="list-style-type: none"> i. Turn off pump / Emergency shut-off ii. Turn drum upright or plug hole iii. Turn off valve 2. Remove bystanders 3. Secure the spill area to prevent unauthorised entry (use emergency tape, cones) 4. Protect drains with PVC curb / mats (if spill occurs in field locations) <p>REPORT:</p> <ol style="list-style-type: none"> 1. Alert NSW Service Manager 2. For major spill or spills outside the capability of Veolia Water Technologies call 000 for fire brigade <p>CLEAN-UP:</p> <ol style="list-style-type: none"> 1. Surround the spill by using absorbent socks and pillow from chemical spill kits 2. Cover the spill area with absorbent particles / pads 3. Sweep loose absorbent over spill area with a broom from around the edges of the spill <ol style="list-style-type: none"> a. Dispose of used products in waste bags as prescribed waste 4. Restock spill kit 5. Investigate causes of spill and on how to prevent such incident from occurring again 	<ul style="list-style-type: none"> • Assess the spill • Identify the chemical and read corresponding SDS • Incompatible substances, and reactivity with substances such as water or air • Do I need assistance? • Is it safe to approach? • Is site evacuation required? <p style="background-color: #cccccc; padding: 2px;">PPE REQUIREMENTS (as per the SDS)</p> <p>Consider:</p> <ul style="list-style-type: none"> • Safety Glasses and / or face Shield • Safety footwear • Hand protection • Chemical Apron • Respirator <p style="background-color: #cccccc; padding: 2px;">BMS PROCEDURES</p> <ul style="list-style-type: none"> • BR01 Emergency Preparedness and Response Procedure • BR01-GU01 First Aid Guideline • BR06 Incident Management Procedure • BR18-GU03 PPE and Workwear Guideline

9.3 Sewage Spills

- Secure the area immediately
- Use spill kits for small spills
- Clean all contaminated objects and surfaces immediately to reduce the risk of infection and to prevent further microbial growth
- Barricade affected areas if sewage spills are ongoing
- Erect signage to notify residents of sewage spill (when a public area or waterway has been impacted)
- Divert sewage flows
- Get tankers to pump sewage directly from the system

10. Recovery

Ensure environmentally responsible disposal of contaminated material as per:

- Safety Data Sheet
- Hazardous chemicals Guideline
- Legislation

Cleaning up after sewage spills:

INDOORS	OUTDOORS
<ul style="list-style-type: none"> • Remove any gross contamination and dispose of in a sewage treatment facility and not into storm drains or landfill • Open all windows and use fans where available to increase ventilation and reduce humidity • Excess water should be removed by pumps, wet vacs or mopping, empty into sewage system and not into storm drains • Place discarded contaminated materials in plastic bags Discard all objects that are porous or difficult to clean • Wash affected areas and furnishings with a detergent solution to remove contamination, then disinfect, rinse with clean water and allow to dry thoroughly, preferably outside where UV light aids decontamination • Clean all equipment used and personal protective equipment with a detergent then disinfect (or use a combined product) or discard if possible (e.g. mop heads). 	<ul style="list-style-type: none"> • Remove any gross contamination and dispose of in a sewage treatment facility and not into storm drains or landfill. • Clean hard surfaces such as paving, concrete and tarmac with a detergent solution then disinfect. Use only approved disinfectants. Do not allow wastewater to enter the storm drains. For large spills it may be necessary to construct bunds of earth, brick, stone or other suitable material to retain liquid. Liquid should be disposed of to sewer or a suitable workplace collection pit

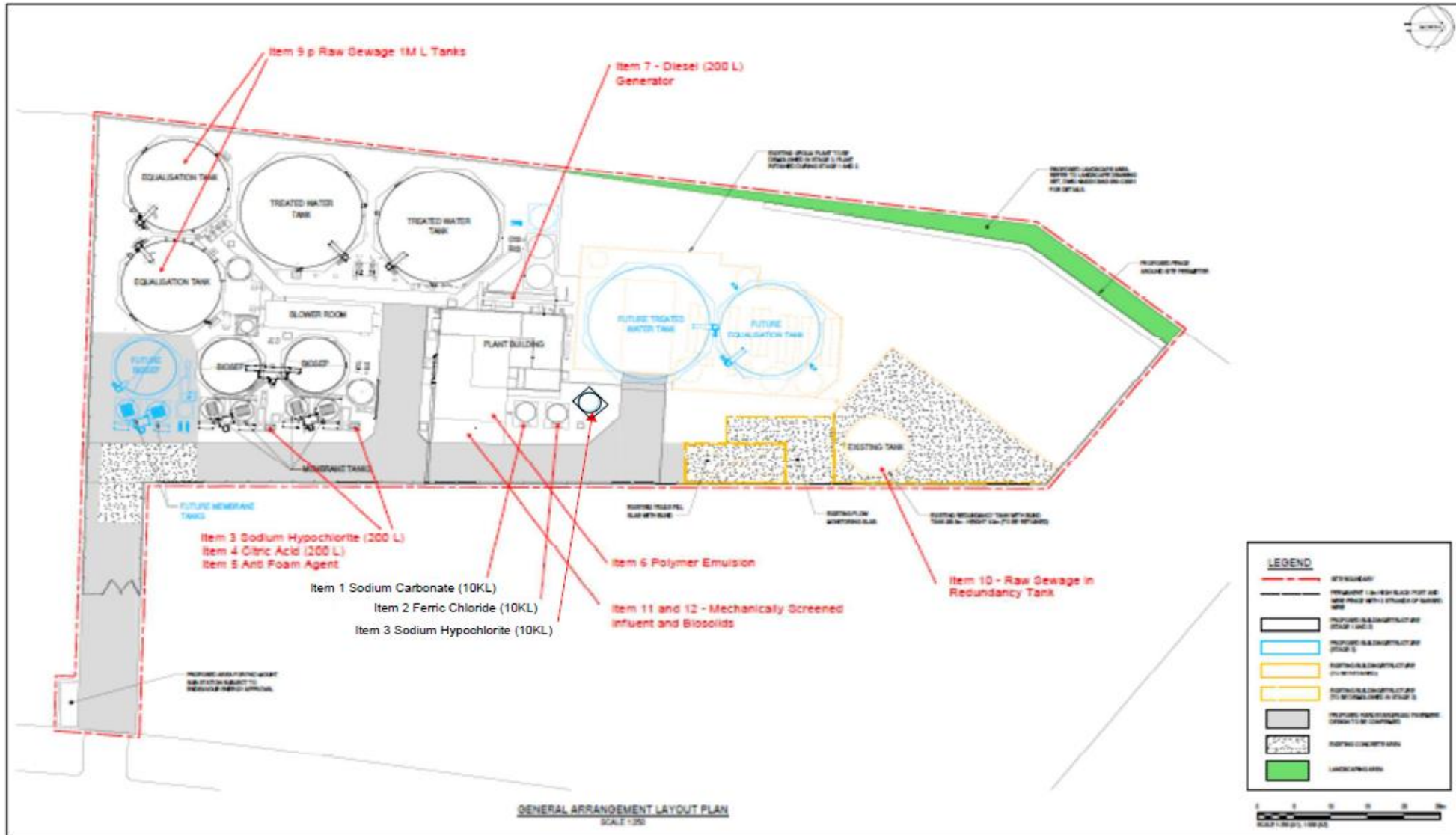
11. Disposal

General	<ul style="list-style-type: none"> • All workplace hazardous chemicals will be recycled where possible • Disposal of workplace hazardous chemicals may arise if the product: <ul style="list-style-type: none"> ○ Is no longer used ○ Is out of date ○ Has been damaged ○ Is being replaced • Only authorised chemical waste contractors will be contracted to carry out waste disposal • Disposal material from the clean-up of spills of fuel, oil, chemicals and other hazardous materials shall be in accordance with the requirements of local authorities
Dangerous Goods And Hazardous Chemicals Disposal	<ul style="list-style-type: none"> • The disposal of any Hazardous chemicals / Dangerous Goods on site must comply with relevant Australian Standards, local authorities, SDS and supplier's instructions • Waste will be classified as hazardous or non-hazardous to determine whether waste will be removed as non-hazardous waste or by trade waste transporters
Non-Hazardous / Non-Dangerous Goods	<ul style="list-style-type: none"> • Non-hazardous / non-dangerous goods will be disposed of into regular waste disposal bins to ensure no leaks and contamination when transported from site
Sewage sludge and Contaminated soil	<ul style="list-style-type: none"> • Disposal at a license waste facility under POEO Act 1997 for composting
Screening (dewatered)	<ul style="list-style-type: none"> • Treat as general waste

12. Site Map



13. Location of Pollutants for Permanent Plant



Storm Water Drainage

