

Pollution Incident Response Management Plan

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

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1. Purpose

This is a site specific plan developed to:

- Guide workers in the event of a pollution incident associated with Bingara Gorge Wastewater and Water Recycling Scheme (hereby termed 'Bingara Gorge Scheme');
- Comply with the preparation of pollution incident response management plans under the Protection of Environment Operations Act 1997 (POEO Act 1997) to manage hazards and risks associated with sewage and its processing including recycled water and its reticulation (Refer to Section 5);
- Meet element 6 of the framework for management for recycled water quality and use in the Australian Guidelines for Water Recycling 2006; and
- Summarise notification requirements to relevant authorities and the community, in line with Part 5.7 of POEO Act.

In addition to this PIRMP, Veolia Water Solutions and Technologies (Australia) Pty. Ltd. (hereafter termed Licensee, 'VWST', Veolia Water Technologies or VWT) 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 this forms part of VWST's Combined Sewerage Services and Retail Supply Management Plan. Relevant parts of these procedures will be deployed in conjunction with this Pollution Incident Response Management Plan (PIRMP).

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

This plan is maintained in accordance with Veolia Water Technologies Document Control Procedure. The plan will be reviewed annually. Any reviewed plan, if updated by VWST following review, will be submitted to various regulators and EPA; as appropriate.

In accordance with Clause 98E (2) of the Protection of the Environment Operations (General) Regulations 2009, read together with Section 153A of POEO Act, this plan must be tested at least once an annual basis, currently scheduled for March of each Calendar year. Additional testing / drill may be conducted throughout the year, if deemed necessary by the Operations team of VWST.

The plan will be tested involving all site operations staff and where applicable select Sub-Contractor(s).

The most recent plan test date is 26/8/2018, undertaken by Patrick Coulton, Bingara Gorge Plant Manager from VWST.

2. Contact Details

NAME (VWST RESOURCE)	POSITION TITLE	CONTACT NUMBER
Martin Reid	Legal Counsel	0428 816972
Inshan Sheriff	NSW Service Manager	0438880219
Patrick Coulton	Bingara Plant Manager	0477 325 366

NAME (RELEVANT AUTHORITY)	POSITION TITLE	CONTACT NUMBER
EPA (Ms. Sarah Thomson / Ms. Niocolé Jones)	Unit Head, Metropolitan Infrastructure or Operations Officer	131 555 or 9995 6212
Ministry of Health / Dept. of Health	NSW Minister Office / (NSW Public Health Unit, Graham Burges)	9391 9000 / 6289 1555 / 1800 020 103 / 9515 9420 (DAY) / 9515 5611 (NIGHT)
SafeWork NSW		131 050
Fire and Rescue NSW (Wilton Rural Fire Service) / NSW Fire Brigades (Picton Service)		4630 9450 / 4677 7000
IPART		9290 8400

It must be noted that further detail contact points are available within the most recent version of EPRP by VWST (Currently Rev 4 dated 27 April 2018).

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 in co-ordination with Lend Lease Communities, the Developer of the Scheme. 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, Owner of the as appropriate to the location and scale of the incident.

3.1 For Reticulation Network Incidents and Emergencies

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 For Properties Surrounding the Wastewater Treatment Plant

Owners and occupiers of premises who may be affected by an incident occurring at the wastewater treatment plant may be advised by one or more of the following:

- 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

The advice provided will relate to the nature of the emergency and the options to minimise the impact.

3.3 Complaints

Complaints can be made via:

- The Wilton Recycled Water Treatment plant website: myrecycledwater.com.au
- Telephone 1300 552 120 or 1300 110 238
- Email info@myrecycledwater.com.au

A detailed mechanism of fastest communication between Community and Licensee (VWST) or Developer's representative (LLC) is by following Bingara Gorge IVR Structure and Scripting (by Telephone to 1300 552 120 and 1300 110 238); details of which are mentioned within latest version (Rev 4, April 2018) of Bingara Gorge Retail Supplier's Combined Sewerage Services and Recycle Water Supply Management Plan.

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)

Emergency response procedures are included in the site induction process. 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
- SOP's and work instructions / SWMS / Permit to work procedures
- Intranet / BMS

Training records are maintained in the Veolia Water Solution and Technologies training database -SMARTER.

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

5. Risk Assessment and Management

During significant rain or adverse weather conditions, the likelihood of sewage overflows would increase. 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 available and maintained Storage and segregation of chemicals Labelling of all containers Spill kits available
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

HAZARD	SOURCE	LIKELIHOOD	PRE-EMPTIVE AND CORRECTIVE ACTIONS
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 • 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 systems established • Containment systems • Obey speed limits • Minimise driving during dawn and dusk • Toolbox talks • Environmental alerts

HAZARD	SOURCE	LIKELIHOOD	PRE-EMPTIVE AND CORRECTIVE ACTIONS
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

With regards to a detailed description of how an identified risk of harm to human health will be reduced, among other types of risks, reference is made to detailed tables of Sewerage Risks, Recycled Water Risks and Business Risks as discussed in detail within Appendix E of most recent version of Sewerage and Recycled Water Quality Management Plan (April 2018); reading with the above.

6. Safety Equipment

TYPE	DESCRIPTION	LOCATION
Spillkits	Equipment to absorb spills at designated locations.	Processbuilding
SafetyDataSheets	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 	<ul style="list-style-type: none"> • Main control room • Various plant locations • Chemical area • Vehicles • Laboratory
PPE	<p>Minimum PPE onsite 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>	ProcessBuilding

7. Inventory of Pollutants

As a matter of background information, under the Bingara Gorge Scheme, originally an Environment Protection Licence (EPL) was provided to Wilton Water Pty. Ltd. Developer of the Scheme (Lend Lease Communities (Wilton) Pty Limited (hereinafter LLC), In late 2014 / early 2015, Wilton Water Pty Ltd and Solo Water Pty Ltd, by mutual consent elected to discontinue their joint project for the development and operation of a black-water treatment and a recycled water facility located at Lend Lease Bingara Gorge project in NSW.

As Wilton Water was no longer the service provider, and given that LLC had contracted VWST as the design and build company for construction of a Recycled WasteWater Treatment Plant (to replace the already existing small capacity Recycled WasteWater Treatment Plant, called TRWP, which required no EPL due to its capacity and scale) and given that the combined infrastructure of this new Recycled WasteWater Treatment Plant (PRWP) and Recycled Water Network can work under a single EPL, Wilton Water's EPL was transferred to VWST following contractual discussion and agreement between VWST and LLC to include the EPL responsibilities under VWST scope of operations and maintenance agreement.

As such, same EPL 20335 was issued to VWST as the licensee on 25 September 2015.

While at the time it was foreseen that PRWP would be operational soon after the issuance of EPL, indeed due to various factors, including awaiting appropriate IPART license, TRWP continued to operate until October 2017 after which this was decommissioned and PRWP commenced its commercial operation.

As such, so far as VWST's responsibilities under the EPL is concerned, VWST responsibility remained the recycled water network from September 2015 until October 2017 and then on for PRWP and the recycled water network to date.

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
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 30mL (cartridge)
Waste Material		
Drum screen screening waste	Raw sewage	current 100 L (dewatering bag 2000L storage capacity)

POLLUTANT	SOURCE	QUANTITY
Sludge	Backwashby-productwastefromthe CMF, Ecodiskdrumfilterandthe Hydrotech drum filter	current 20kL (sludge holding tank 100KL storage capacity)
Storage Tank		
RawSewage	Underground redundancy tank adjacentto	current0L(redundancytank110kL storage capacity)
RawSewage	Above ground redundancy tank at the RWTP	current 70kL (redundancy tank 350kLstorage capacity)

7.2 PRWP (New 1ML/Day Plant Facility commissioned in September 2017) - currently in operation.

Location ID	POLLUTANT	SOURCE	QUANTITY
Chemicals used in process			
1	Ferric Chloride	Chemical StorageTank	10 Kilolitres
2	Sodium Hypochlorite	Chemical StorageTank	10 Kilolitres
3	Sodium Hypochlorite	Portable container adjacent toBioSep	200litres
4	CitricAcid	Portable container adjacent toBioSep	200litres
5	AntifoamAgent	TankadjacenttoBioSepUnit	20 litres
6	Polymer Emulsion	Polymerbatchingunitadjacentto centrifuge	80 Litrecontainer
Fluids associated with Mechanical Equipment			
7	Diesel	Generator Set	1000 Litres (Within Generator Set)
Influent Storage Tanks			
8	RawSewage	Underground redundancy tank adjacentto SewagePumpingStation	Current 0L(redundancytank110kL storage capacity)
9	Raw Sewerage	Above ground storage tanks at PWTP	RatedCapacity1MLx2, expected storage level 20%
10	RawSewage	Above ground redundancy tank at the RWTP	current100kL(redundancytank 350kL storage capacity)
Waste Material			
11	Mechanical Screens	Influentmechanicallyscreenedto1mm and heldinclosed3m3bins(TwoBinson Site)	Max6 m3
12	Bio-solids	DewateredsludgeheldinClosedBin	Max 10m3

8. Notifications

VWST are required to report all pollution incidents to the below authorities as per respective reporting requirements of each organization, as published in respective websites of the regulators / Ministries from time to time..

- EPA-131555
- SIRA - 1300 137 131

- Emergency Services (Police, Ambulance, and Fire & Rescue) – 000
- Ministry of Health – 9391 9000
- Wollondilly Council – 4677 1100
- IPART – 9113 7765 / 9290 8410

The notification requirements apply to any pollution incident where from time to time harm to the environment is caused or threatened or an incident where from time to time. is included for future reference only. not d operation of a black-water treatment conducte

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

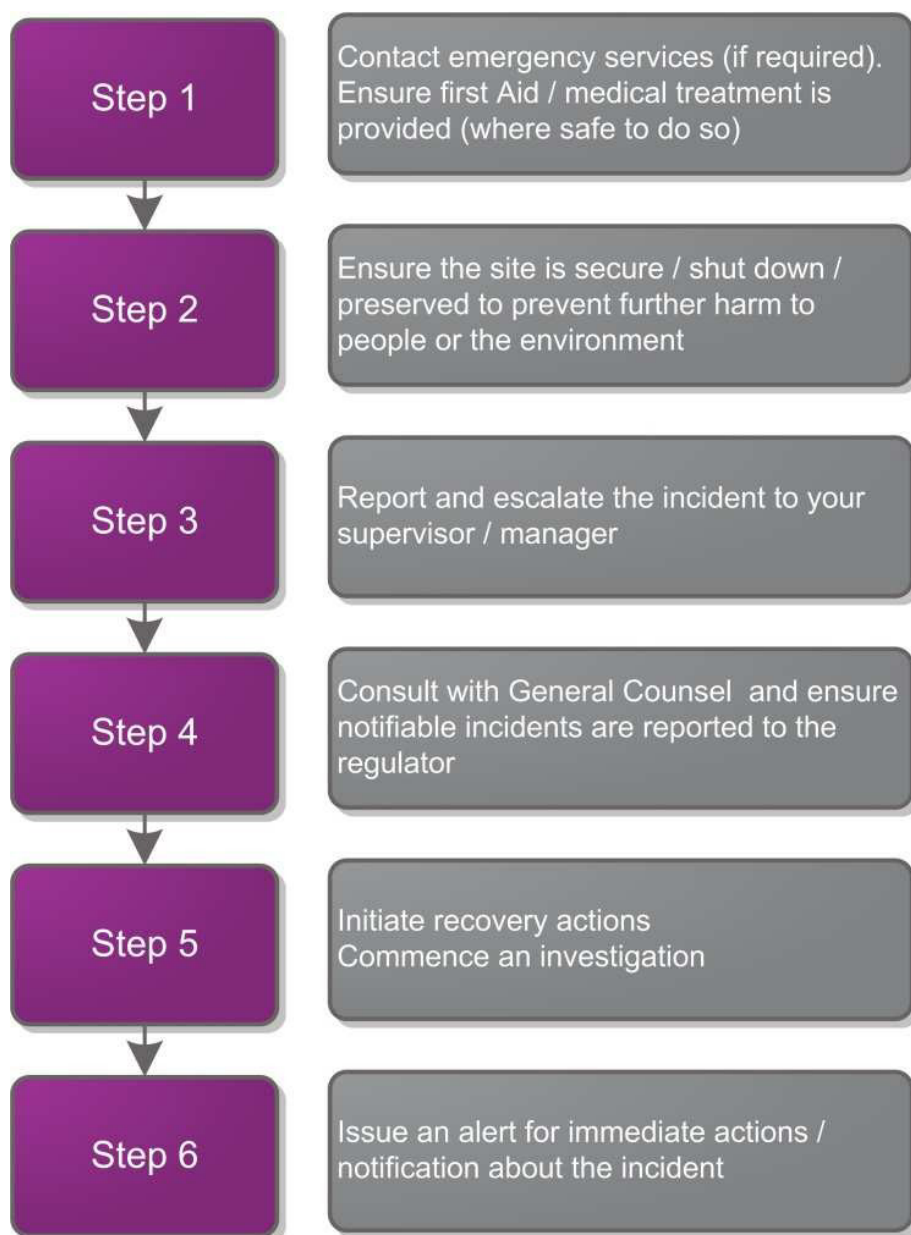
- a) Harm to the environment is material if:
 - i. It involves actual or potential harm to the health or safety of human beings or ecosystems that is not trivial, or
 - ii. It results in actual or potential loss or property damage of an amount or amounts in aggregate, exceeding \$10,000 (or such other 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

9. Incident Response

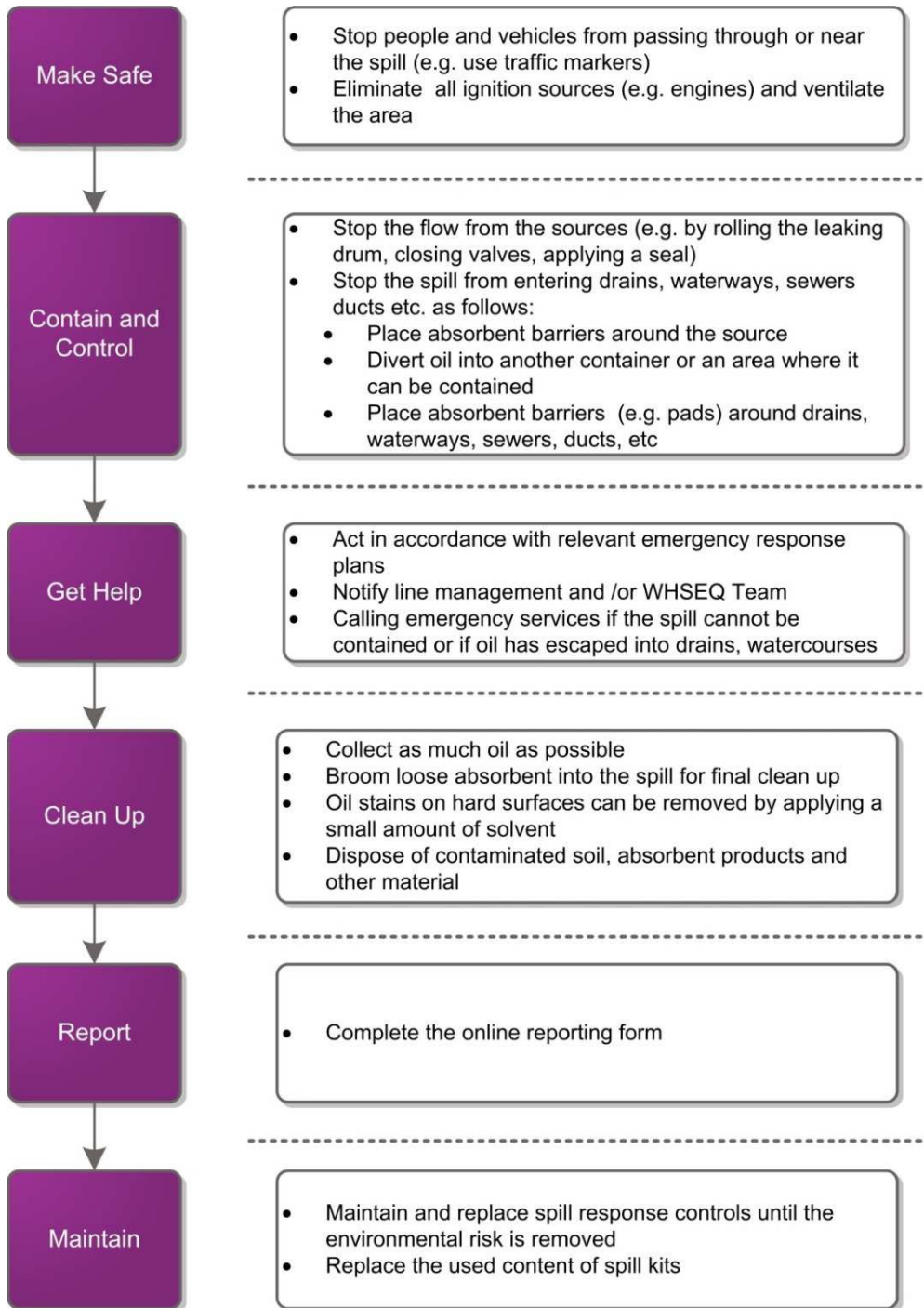
Immediate action is to ensure the safety of people and containment of pollution if safe to do so. Upon discovering an emergency situation:

The person discovering the emergency should immediately contact Bingara Gorge Plant Manager

1. 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 summarised 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 actions should be taken during an emergency response that directly or indirectly put 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 spills 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 	<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? <div style="background-color: #4a4a8a; color: white; padding: 2px; text-align: center; font-weight: bold;">PPE REQUIREMENTS (as per the SDS)</div> <p>Consider:</p> <ul style="list-style-type: none"> • Safety Glasses and/or face Shield • Safety footwear • Hand protection • Chemical Apron <div style="background-color: #4a4a8a; color: white; padding: 2px; text-align: center; font-weight: bold;">BMS PROCEDURES</div> <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 Containment and Clean Up

- Secure the Area immediately to prevent unauthorised access
- Contain any spill or leakage and ensure sewerage does not enter waterways or storm water drains
- Identify the source of the spill and isolate flow where possible
- Control / barricade affected areas to prevent longer term public access as required
- Investigate if sewerage flows can be diverted using alternate (fixed or temporary) piping systems
- If alternate piping systems cannot be employed initiate tanker and offsite disposal services
- Clean and disinfect all contaminated surrounds and surfaces once flow has stopped to prevent further contamination and potential health risk.
- Erect signage on barricades notifying the general public of the sewerage spill (when a public area or waterway has been compromised)
- For minor spills, use spill kits and disinfection.
- Complete incident investigation and on-line reporting.
- Maintain and replace spill response controls until the environmental risk has been mitigated.
- Replace used spill kit inventory.

- Monitor the area until barricades have been removed.

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 to sewer or a suitable workplace collection pit

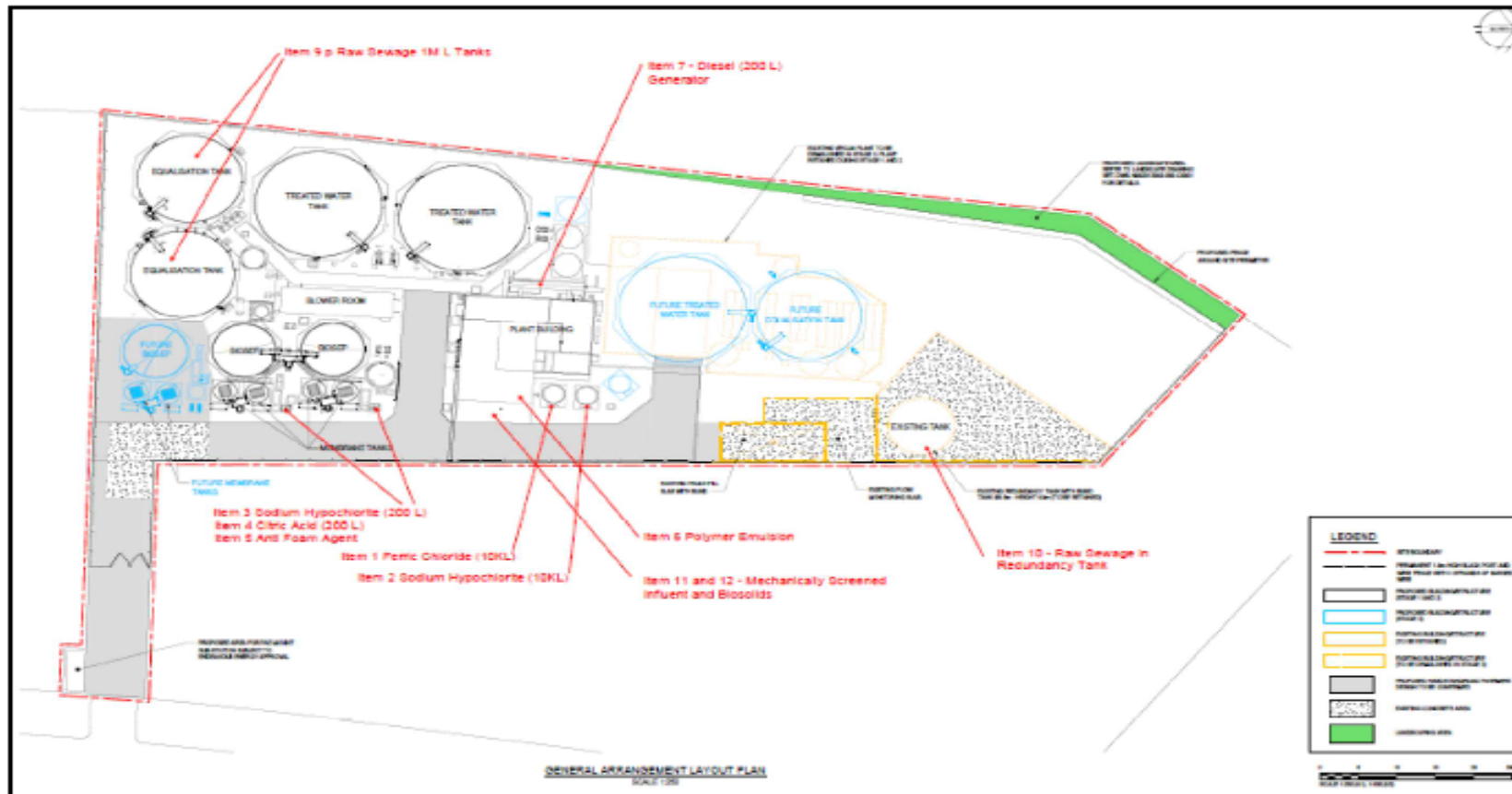
11. Disposal

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
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 Goods on site must comply with relevant Australian Standards, local authorities, SDS and supplier's
Non-Hazardous / Non-Dangerous Goods	<ul style="list-style-type: none"> • Non-Dangerous Goods are classified as hazardous or non-hazardous or non-dangerous Goods to determine what need 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 licensed 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



14. Storm Water Drainage

