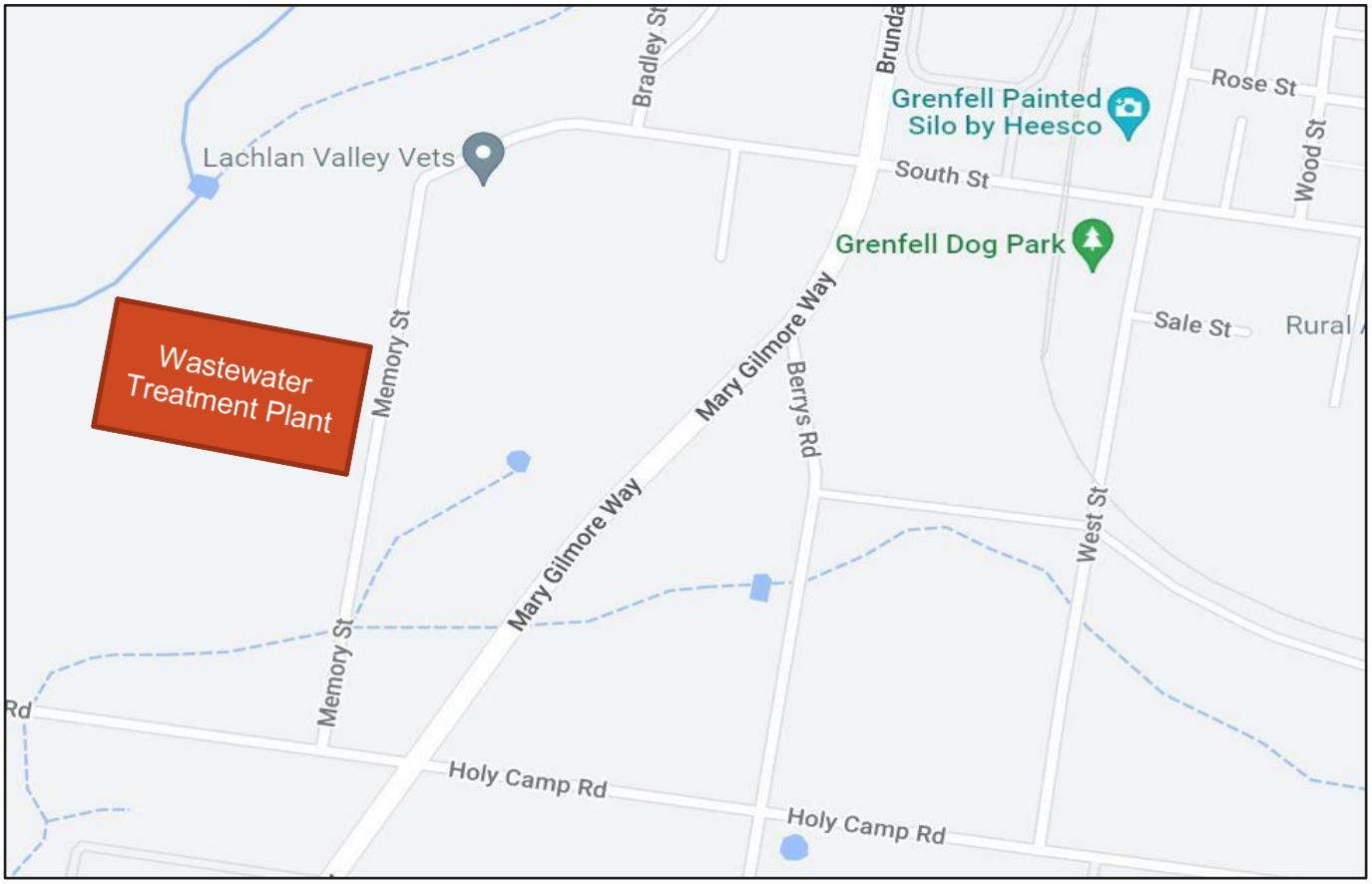
WEDDIN SHIRE COUNCIL

POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN (PIRMP)

GRENFELL WASTEWATER TREATMENT PLANT

05 September 2024

Grenfell Wastewater Treatment Plant



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POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN
LICENCE NUMBER: 001732

Approved by: Noreen Vu
Position/Title: General Manager

Signature: 

Date: 05 September 2024

DOCUMENT CONTROL

1. Current Document

Version	Details	Endorsement Date
Version 1	Initial Issue	20 July 2022
version 2	After Overflow Reporting to EPA on 30 August 2022	08 September 2022
Version 3	Yearly Update	08 September 2023
Version 4	Yearly Update	05 September 2024

2. Next Review

Review	Details	Review Date
Next Review	As Required	
September 2025	Yearly Update	05 September 2024

1. BACKGROUND

Grenfell Wastewater Treatment Plant

Grenfell's Wastewater Treatment Plant (WTP) was commissioned in January 2022 replacing the original facility built in the 1930's. The new plant operates on a process of intermittently decanted extended aeration (IDEA) with UV disinfection. The overall capacity of the plant is 2,206 EP with flow through average 463KL/day. Effluent from this plant is able to be reused or discharged directly to the environment under licence from the EPA.

2. PURPOSE

Weddin Shire Council holds an Environment Protection Licence with the NSW Environment Protection Authority (EPA) for the Weddin Shire Council - Wastewater Treatment Plant, 27 Memory Street, Grenfell NSW 2810.

As per the *Protection of the Environment Operations Act 1997* (the POEO Act), the holder of an Environment Protection Licence must prepare, keep, test and implement a pollution incident response management plan (PIRMP) that complies with Part 5.7A of the POEO Act in relation to the activity to which the licence relates.

If a pollution incident occurs in the course of an activity so that material harm to the environment (within the meaning of section 147 of the POEO Act) is caused or threatened, the person carrying out the activity must **immediately** implement this plan in relation to the activity required by Part 5.7A of the POEO Act.

A copy of this plan is kept at the licensed premises and can be made available on request by an authorised EPA officer and to any person who is responsible for implementing this plan.

Parts of the plan is also kept on a publicly accessible Council website. The sections of the plan that are required to be publicly available are set out in clause 98D of the Protection of the Environment Operations (General) Regulation 2009.

The licensed property operates under the following Environment Protection Licences (EPL):

- EPL 001732 - Grenfell Sewage Treatment Plant

The EPL is issued under Section 55 of the *Protection of the Environment Operations Act 1997* by the NSW Office of Environment and Heritage (OEH). The EPLs contain requirements to report pollution incidents as outlined in condition R2:

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.1 Notifications must be made by telephoning the Environment Line service on 13 15 55.

R2.2 The licensee must provide written details of the notification to the EPA within seven (7) days of the date on which the incident occurred.

The introduction of the *Protection of the Environment Legislation Amendment Act 2011* (POELA Act) in February 2012 requires that holders of EPLs maintain a Pollution Incident Response Management Plan **(PIRMP)**.

3. ENVIRONMENT PROTECTION LICENCE (EPL) DETAILS

Name of licensee: (including ABN)	Weddin Shire Council - ABN: 73 819 323 291 24
EPL number:	001732
Premises name and address:	Weddin Shire Council - Wastewater Treatment Plant 27 Memory Street, Grenfell
Company or business contact details:	**Name:** Noreen Vu **Position or title:** Director Infrastructure Services **Business hours contact number/s:** (02) 6343 1212 **After hours contact number/s:** 0490 037 848 **Email:** mail@weddin.nsw.gov.au
Website address:	www.weddin.nsw.gov.au
Scheduled activity/activities on EPL:	Sewage treatment
Fee-based activity/activities on EPL:	Sewage treatment processing by small plants

4. POLLUTION INCIDENT - PERSON/S RESPONSIBLE

Contact details must include the names, position titles and 24-hour contact details. Details are to include alternative person/s, should the primary contact be unavailable.

PIRMP activation:

Name of person responsible: Waliul Islam

Position or title: Project Manager-Water & Sewerage, Infrastructure Services

Business hours contact number/s: (02) 6343 1212

After hours contact number/s: 0490036782

Email: waliul.islam@weddin.nsw.gov.au

Alternative Person:

Name of person responsible: Noreen Vu

Position or title: General Manager

Business hours contact number/s: (02) 6343 1212

After hours contact number/s: 0490 037 848

Email: noreen.vu@weddin.nsw.gov.au

5. POLLUTION INCIDENT – PERSON/S RESPONSIBLE, CONTINUED

Notifying relevant authorities:

Notification should be made by a person with an appropriate level of authority within the company.

Name of person responsible: Noreen Vu
Position or title: General Manager
Business hours contact number/s:
(02) 6343 1212
After hours contact number/s: 0490 037 848
Email: Noreen.vu@weddin.nsw.gov.au

Managing response to pollution incident:

Name of person responsible: Waliul Islam
Position or title: Project Manager-Water & Sewerage, Infrastructure Services
Business hours contact number/s:
(02) 634 31212
After hours contact number/s: 0490036782
Email: Waliul.Islam@weddin.nsw.gov.au

Responsibilities

In the event of an immediate notification incident responsibilities for incident management are as follows:

- On Call WWTP Officer is responsible for actioning response to the incident.
- Project Manager-Water & Sewerage (or designated officer) is responsible for notifying external authorities, potentially affected community and ensuring adequate resources are available for incident response.
- General Manager is responsible for liaising with the media.

The Project Manager-Water & Sewerage (or designated officer) shall determine the most appropriate means of contacting potentially affected community including:

- Door knocking
- Letterbox drops
- Phone
- Local media
- Signage

Information provided to the community would depend on the incident but could include:

- Description of the incident
- Status of incident
- Response actions

	• Actions to minimise harm • Likely duration As per the EPL's, the licensee must provide written details of the notification to the EPA within seven (7) days of the date on which the incident occurred.

6. NOTIFICATION OF RELEVANT AUTHORITIES

Identify any persons or authorities required to be notified as per Part 5.7A of the POEO Act in the case of a pollution incident that causes or threatens to cause material harm to the environment.

Relevant authorities include:

Note: The local Council and Public Health Unit will vary depending on the location of the pollution incident.

Fire & Rescue NSW **Grenfell Rural Fire Service**	**Contact numbers:** **Contact number/s:**	000 (02) 6851 1541
EPA	**Contact number/s:**	13 15 55
NSW Health **Bathurst GW PHU (Greater Western)**	**Relevant Area Health Service:** **Contact number/s:**	 (02) 6349 1700 (02) 6330 5880
SafeWork NSW	**Contact number/s:**	13 10 50

Note: POEO Act Definitions of a Pollution Incident

A pollution incident is defined by the POEO Act as:

An incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises but it does not include an incident or set of circumstances involving only the emission of any noise.

Material harm is defined by the POEO Act as:

For the purposes of this Part:

harm to the environment is material if:

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

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

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

(2) For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

7. NOTIFICATION OF NEIGHBOURS AND THE LOCAL COMMUNITY

Identified owners or occupiers of premises in the vicinity of the licensed premises, including any sensitive premises (e.g. schools, preschools, hospitals, nursing homes):

1). Occupier of 13 Memory St, Grenfell, NSW
Contact by: Door knocking

2). Occupier of 15 Memory St, Grenfell, NSW
Contact by: Door Knocking / Phone

3). Occupier of 17 Memory St, Grenfell,
NSW Contact by: Door knocking

4). Occupier of 2 Phil Aston Place, Grenfell NSW
Contact by: Door knocking / Phone

5). Occupier of 8 Phil Aston Place, Grenfell NSW
Contact by: Door knocking / Phone

6). Occupier of 19 (Lot 37 DP 1251711) Phil Aston Place, Grenfell NSW
Contact by: Door knocking / Phone

7). Occupier of 20 (Lot 36 DP 1251711) Phil Aston Place, Grenfell NSW
Contact by: Door knocking / Phone

8). Occupier of 11 Phil Aston Place, Grenfell NSW
Contact by: Door knocking / Phone

9). Occupier of 10-12 Davies Place, Grenfell NSW
Contact by: Door knocking / Phone

Where the pollution incident causes or threatens material harm to the environment or human health, the EPA is notified. Once the EPA is notified, it is then for the EPA to determine whether commercial, industrial and residential neighbours of the site need to be contacted by Council and informed of the circumstances of the incident and what action is being taken in response to it. If deemed necessary, the EPA then has powers to formally direct Council to notify the neighbours of the site.

Irrespective of whether the EPA directs Council to notify neighbours and depending on the circumstances of the particular pollution incident, Council may, at their own discretion, voluntarily choose to notify neighbours.

Impacts on the community due to sewage distribution and treatment incidents are variable and depend on location, volumes of spills or other factors. Relevant communication methods will be used on a case by case basis and in all situations, Weddin Shire Council will attempt to provide early warning to directly affected premises (either upstream or downstream depending on tidal impacts where relevant) by phone call or site visit. Early warning is to include details of what the incident is, how those affected can prepare and respond, and provide important advice such as avoiding contact and use of affected waterways. Where early warning is not possible, Weddin Shire Council will provide notification and communication during and after an incident to advise those affected with information, advice and updates. Notification and communication methods will be determined on a case by case basis and the following methods may be used:

- Phone calls
- Media releases (radio/newspaper/internet)
- Site visits/door knocking
- Letter drops
- Warning signs
- Other methods as the situation requires

In the event of a sewage spill into stormwater or waterway, Weddin Shire Council staff are to go to prominent and/or high use areas of the affected waterway and erect signage. The signs are to warn water users of the contamination and advise them to avoid activities until contamination has cleared. Contaminated land is to be disinfected, ponded sewage pumped out and faecal coliforms are to be monitored until background levels are reached. Regular communication and notification is to be provided until the incident and clean-up of impacted site and affected areas has been complete (e.g. faecal coliforms have returned to background levels). Weddin Shire Council is to take signs down and advise the public that regular activities can be resumed by (as required):

- Phone calls
- Media releases (radio/newspaper/internet)
- Letter drops
- Other methods as the situation requires

8. DESCRIPTION AND LIKELIHOOD OF HAZARDS

Provide a description of the hazards to human health or the environment associated with the activity to which the licence relates:

The potential hazards to human health and the environment include:

- Sewage overflow (raw or partially treated) - potentially caused by:
    - Storms (lightning/heavy rainfall/wind/hail) causing power failure or infrastructure damage
    - Reticulation blockages impacting on sewer network
    - Damage to reticulation (contractors or other damage during excavations, etc)
    - Infrastructure failure due to age
    - SCADA/Communications failure, eg stop receiving (SMS) alerts from wetwell
    - Excessive flows due to heavy rainfall
    - Mechanical breakdown
    - Power outage
    - Treatment plant blockage

- Chemical spill - potentially caused by:
    - Tank/storage failure
    - Delivery incident
    - Damage to chemical reticulation
    - Vandalism
    - Inappropriate chemical use
    - Bund failure

- Hydrogen Sulphide Gas Exposure
    - Confined space entry
    - Faulty equipment
    - Incorrect work practices

For details of the likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood (see attached Appendix 1: Risk Assessment and Actions)

9. PRE-EMPTIVE ACTIONS TO BE TAKEN

Descriptions of the pre-emptive actions to be taken to minimise or prevent any risk of harm to human health or the environment arising from the activities undertaken at the premises:

Physical and preventative measures

Physical barriers (such as screening) are installed to prevent pollutants from entering the WWTP. At Grenfell WWTP, treatment process bypass is installed to prevent partially treated sewage spills due to overflow issues. Grenfell WWTP has one wet well (SMS) alert system to alert the Wastewater Treatment Plant Operator and Project Manager-Water & Sewerage of condition that the wet well reach 65.7% level.

Power failures can occur at any time and can be planned or unplanned interruptions. Essential Energy will notify the Works Supervisor (or designated officer) the power failure which will last for above two hours, and then the Wastewater Treatment Plant Operator will be notified by the Works Supervisor (or designated officer). When the WWTP experiences a power failure lasting for two (2) hours or above, Wastewater Treatment Plant Operator will monitor and co-ordinate the automatic change over generator kept on the premises.

Any manhole can overflow/surcharge due to a sewer choke at any time, this may cause a minor or major overflow/surcharge into the stormwater system. Sewers may also surcharge due to a blockage in the downstream pipes or lack of capacity especially in wet weather events. Council staff will attend the sewer chokes and contain the overflow, treat the pollutants and notify the Wastewater Treatment works prior to blockage release.

Other pre-emptive actions to prevent, minimise and manage any pollution incidents at the treatment plant include:

- Carrying out preventative maintenance schedules on both the WWTP and the wastewater network system
- Ensure spill Kits available onsite and chemical areas are bunded
- Site security
- Implement Storm Mode at STP
- Extra Screening at Coarse Bar Screen at PTAPS

10. INVENTORY OF POLLUTANTS

Details of inventory of potential pollutants on the premises or used in carrying out the activity to which the licence relates:

Location/Tank	Max. quantity	Contents	Comments
Aluminium Chlorohydrate - Bunded area opposite control room.	8,000L	Aluminium Chlorohydrate	Classified as Hazardous
Sodium Hypochlorite- Bunded area opposite control room.	3,000L	Sodium Hypochlorite	Classified as Hazardous

Unleaded Petrol - in storage shed	20L	Unleaded Petrol	Classified as Hazardous
Glyphosate - in Storage shed	20L	Phosphonomethyle	Classified as Hazardous

11. SAFETY EQUIPMENT

Safety equipment / other devices used to minimise the risks to human health or the environment and to contain or control a pollution incident:

Personal Protective Equipment

This section lists the standard PPE items required.

Sewage Treatment Plant

The following items are to be kept at Grenfell WTP:

- Ear/hearing protection
- Gas monitor
- Sun screen
- Disposal overalls
- Rubber gloves
- Goggles
- Gumboots
- Steel capped boots

Sewerage Choke Removal

The following items are to be kept on the vehicle:

- Goggles/eye protection
- Hearing protection
- Disposable overalls
- Rubber gloves
- Gumboots

Other safety equipment to minimise the risk to the environment includes:

- Bunding kit for dangerous goods
- Spillage control kit
- Firefighting equipment
- Safety data sheets

12. COMMUNICATING WITH NEIGHBOURS AND THE LOCAL COMMUNITY

Weddin Shire Council will attempt to provide early warning to directly affected premises. Depending on the severity of the incident and the likelihood of impact on the community, a range of communications methods can be deployed during and after an incident. These include:

- Site visits/door knocking
- Phone calls
- SMS messages
- Emails (external and internal)
- Social media, website updates
- Media alerts

- Letter drop
- Warning signs
- Depending on the incident, WaterNSW has an early warning system to alert Water Licence Holders. WaterNSW can be contacted and request made for them to send an alert

Depending on the nature of the incident, Weddin Shire Council will liaise with NSW Health and DCCEEW to ensure best advice is given to the community. The advice will be given to the community either by phone call, email, SMS messages if individuals are directly affected; or by media alerts and social media post for advice to the general community. The community will be regularly updated by the same mediums as the situation evolves.

Depending on the incidents, specific warning signs may be erected near incident sites or near affected areas.

13. MINIMISING HARM TO PERSONS ON THE PREMISES

Identify the arrangements for minimising the risk of harm to any persons who are on the premises or who are present where the scheduled activity is being carried out:

- Ensure an emergency plan & chart are displayed in its site office detailing steps required in the case of an emergency and the location of its emergency evacuation point.
- Operators are trained and qualified to undertake the work
- Operators in training are actively supervised by qualified operators
- Contractors have completed induction and site induction/risk assessment
- Visitors are to sign in and out and visitors are accompanied by Weddin Shire Council staff
- PPE is supplied and kept in good condition
- Implement monitoring and preventative maintenance to reduce the potential for incidents at both the WWTP and for the reticulation mains.

Details on regular operational/maintenance activities is provided below:

Activity	Frequency
Wastewater Treatment Plant	
Operate the procedures WWTP as per operation and maintenance procedures	Daily
Check wetwell pump via SMS alert	When cleaning, Test by filling above 65.7% in wetwell
Visual check of pumping operations of wetwell and balance tank pumps	Daily
Clean pump areas	Daily (Wetwell)
Service pumps	Follow Operation & Maintenance Schedule
Electrical inspections of pump controls	As required
Pump refurbishments	Determined by service reports and run hours.
Pump replacements/upgrades	Determined by service reports (Contact re Emergency Pump Replacement/Tech Support Xylem 02 9832 6730)

Calibrate gas monitor	Annually
Reticulation	As per annual inspection program
CCTV inspections of mains	As per inspection program
Sewer Mains rehabilitations	As per renewal program

14. MAPS

A detailed set of maps (attached in appendix 2) showing the:

- location of the premises to which the licence relates
- location of any stormwater drains on the premises.

15. ACTIONS TO BE TAKEN DURING OR IMMEDIATELY AFTER A POLLUTION INCIDENT

Develop a detailed description of the actions to be taken immediately after a pollution incident to reduce or control any pollution. These should include as a minimum, early warnings, updates and actions to be taken during and after an incident:

1. Assess and declare the incident based on the potential for it to escalate. Initial assessment looks at impact on
    - Customers
    - Community
    - Environment
    - Public Health
    - Safety
2. Notify the regulatory authorities:
    - NSW EPA - Pollution Line, **13 15 55**
    - NSW Health - Water Unit
    - SafeWork NSW, **13 10 50**
    - Fire & Rescue NSW
    - Other authorities depending on impact of material harm.
3. Appoint Incident &/or Emergency Controller
    - Establish the Incident &/or Emergency Management team
    - Review initial situation analysis
    - Commence Incident Log and issue current situation report (can be verbally).
4. Manage the incident
    - Gather information
    - Conduct regular briefings for the Emergency Management Team and key stakeholders
    - Implement relevant plans and procedures
    - Implement communications protocols
    - Issue regular update reports (can be verbal) to relevant internal and external stakeholders
    - Review and monitor effectiveness of response
    - Maintain event records
5. Record the incident

- Collate all event records
- Debrief incident in accordance with business rules
- Commence incident investigation
- Update risk registers

Proposed action is detailed on flow chart below:

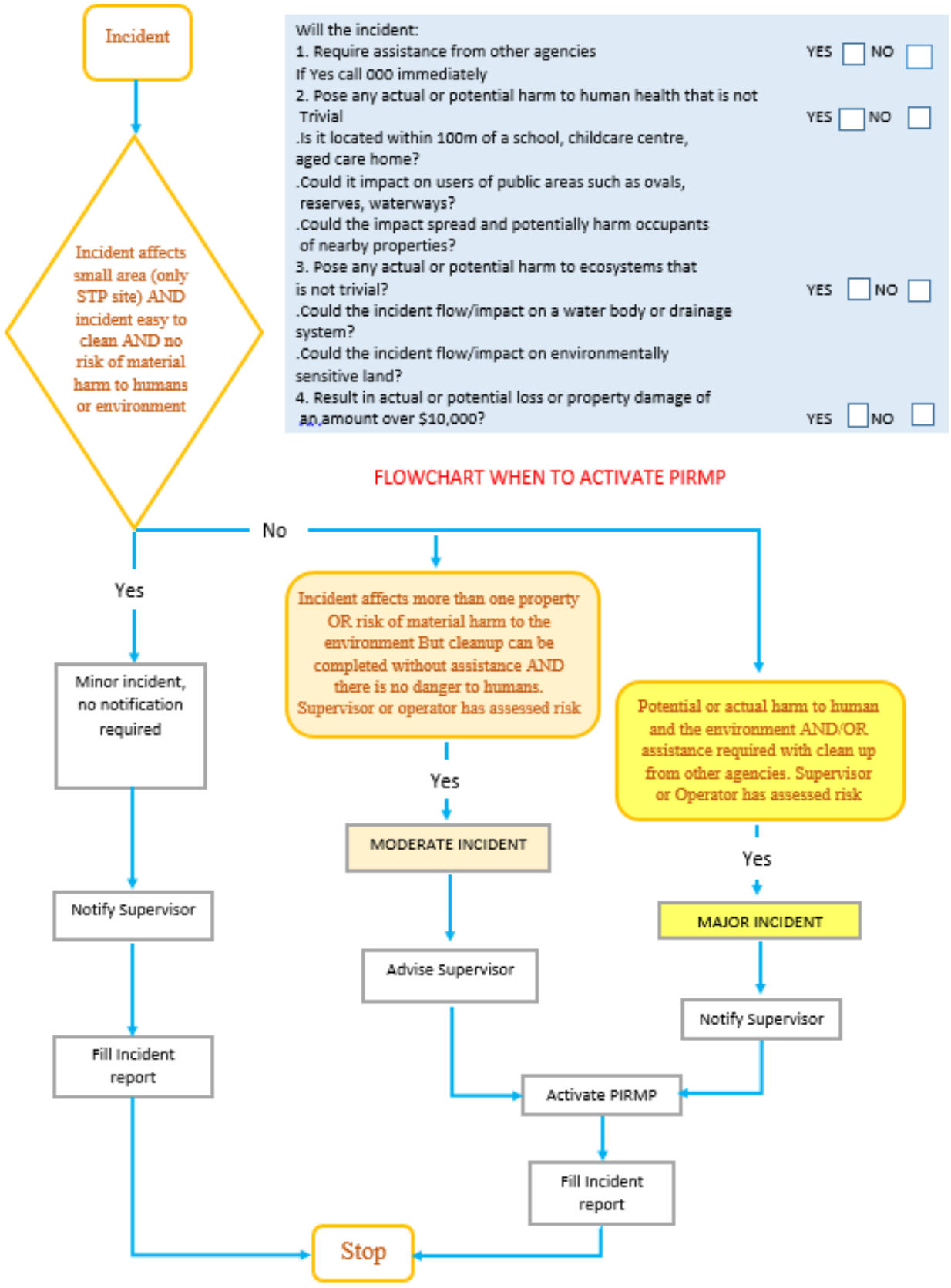
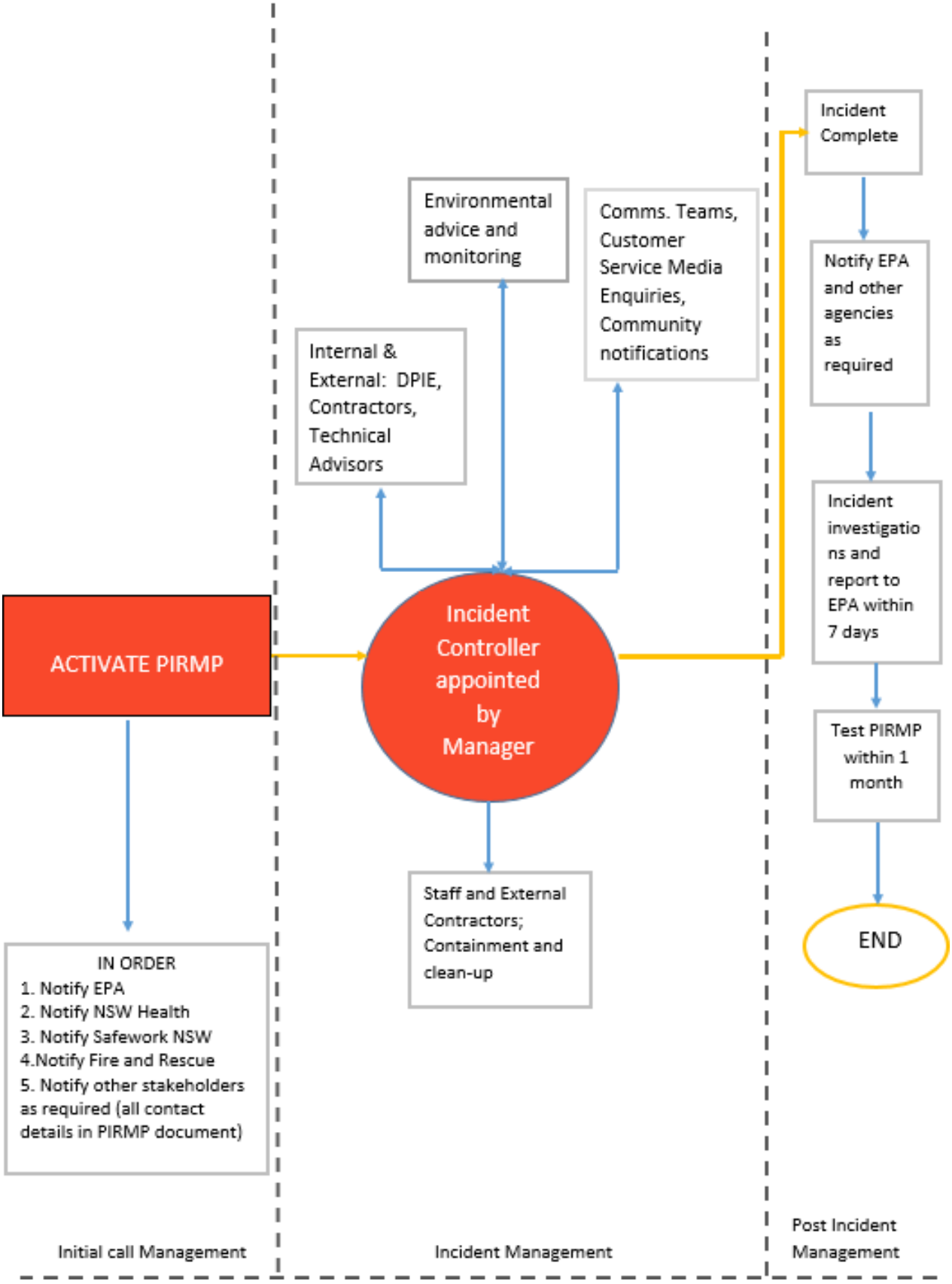


Figure 1: Incident Classification Flowchart

ACTIVATE PIRMP



Initial Call Management

Pollution incident is identified either by the public or by Water and Sewer Operator.

If there is immediate threat to human health or properties, call triple zero (000) and follow emergency evacuation protocol as required.

Operator to advise supervisor immediately and **start isolating the site** to prevent un-authorised entry. If possible, contain the incident and prevent it from spreading without endangering staff and/or public. Remain upwind if incident involves smoke or fumes.

Operator and Supervisor will assess if the incident poses a risk of material harm to the environment as defined in section 147 of the POEO Act. Flowchart 2 can help with the assessment. Material Harm is defined as:

i) *involving actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*

ii) *resulting 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 the 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.*

If the incident is identified as **NOT** posing a risk of material harm, contain the incident, clean up the area and prepare a minor (Near Miss) incident report (Appendix). In this instance, the PIRMP does not need to be activated.

If the incident is identified as **posing a risk** of material harm, The Plant Operator to advise Project Manager -Water & Sewerage, Infrastructure Service. The PIRMP must be **activated immediately**.

The following agencies MUST to be contacted as soon as possible:

- **EPA** on **13 15 55**
- **NSW Health Office**

In case of major incident (potential or actual harm to human and the environment AND/OR assistance is required with clean-up from other agencies), the following agencies MUST ALSO be contacted as soon as possible:

- **SafeWork NSW 13 10 50**
- **Grenfell Rural Fire Service (02) 6343 1054**

Further authorities may need to be contacted as required see page 4 (notification of authorities, continued).

Incident Management

Director Infrastructure Services, to immediately appoint an Incident Controller. This staff member will be in charge of managing all aspects of the response to the incident. If the Project Manager -Water & Sewerage, Infrastructure Service is Unavailable or the Director- Infrastructure Services is unavailable, then the STP Operator being the self-appoint as the Incident Controller.

Incident controller, with the help of internal and external technical advisors (DPIE, external contractors), is to devise the course of action to be taken to contain, repair and clean up the affected area. Incident Controller will also allocate resources (staff, equipment etc.) required to be able to deal with the incident in a timely manner.

In Case of Major Incident, Incident Controller to contact Communication Team and Customer Services to advise of incident and request assistance with communication to the community as required. Incident Controller to organise contacting Stakeholders as required. The Incident Controller will regularly review the need for communications updates.

In the event of a chemical or sewage spill, Weddin Shire Council staff will go to prominent and/or high use areas, erect signage and advise users. The signs are to warn users of the contamination and advise them to avoid using the area until contamination has cleared.

Incident Controller to organise sampling as required and to advise.

Incident Controller to remind all staff involved in the incident to keep a timeline and record all actions taken during the incident.

Post Incident

Incident Controller is satisfied that the incident is under control, repairs have been done and clean up completed.

EPA and other agencies to be notified of incident completed as required.

Incident Controller to ensure that investigations into the incident, including root cause analysis, are done and report to EPA produced within seven (7) days. Water Testing at Designated Sites which may have been impacted.

16. STAFF TRAINING

Weddin Shire Council will implement the Pollution Incident Response Management Plan by training or providing information to relevant employees and contractors in relevant areas of the Plan. The nature and objectives of staff training is to relate to site personnel the importance of early notification of any incidents and spills to site supervisors and key personnel.

Training or information will be provided on the following:

- The contents and intent of this PIRMP,
- The roles and responsibilities of site staff in relation to this PIRMP
- Spill response procedures;
- General environmental awareness; and / or Hazardous materials awareness

All staff required to implement this plan and associated documents must have training in its use and be inducted into it. This is to ensure they are aware of the content, processes and requirements of this plan and can competently implement it if necessary. In the event of a significant incident, an investigation and debrief will be conducted, documentation updated (if required) and staff will be re-inducted. All incidents are to be registered into Council's filing system and training records will be kept.

The training exercise will involve all Sewer staff who could potentially be involved in an actual incident.

A realistic scenario will be presented to staff who will need to highlight all steps that will be taken to:

- Activate the PIRMP
- Contain the incident
- Report the incident

- Advise the community (if scenario requires)
- Clean up and close the incident

17. TESTING AND UPDATING OF THE PIRMP

It is a legal requirement to test the plan every twelve (12) months and within one (1) month of any pollution incident.

Key site personnel and supervisors to participate in PIRMP tests which are used as practical training and can also be used to identify any potential gaps or areas for improvement for the PIRMP. A summary of the PIRMP test/drills undertaken at Weddin Shire Council is shown below.

Detail how the testing is documented and recorded (this must include the testing dates and the names of all staff members who carried out the testing):

Testing of this plan is to be carried out to ensure that the information included in the plan is accurate and up to date and the plan is capable of being implemented in a workable and effective manner.

There are two types of testing:

- Planned testing - the plan is to be tested routinely at least once every calendar year and will be completed in conjunction with a review of the PIRMP document.
- Post-incident testing – assessed as part of the debrief process.

Detail the dates on which the plan was updated:

PIRMP Testing Details

Date tested	Tested by	Details of test		Next scheduled testing date
18/7/2022	Todd Osborne; Asher J. Woodrow ; Wassim Wassef; Evan Spalding	Desk top test; SCADA failure (involved: Evan Spalding from Alliance Automation [mailto:EvanS@alliance automation.com.au	The SCADA system is currently configured to continue operating the plant on failure of the SCADA system. Issue is the SCADA server is a single point of failure of the system. It is recommended that standby SCADA server be on site. However, the SCADA server has currently 3 years on site next business day warranty.	(Planned to be within 12 months from current test):before July 2025
18/7/2022	Todd Osborne; Asher J Woodrow	Desk Top test: Sodium Hypochlorite spillage.	Sodium Hypochlorite is stored in a tank which is fully bunded. In case of tank emptying, the bund has adequate capacity to contain	

	; Wassim Wassef		the spill and no liquid can escape from the bund into the environment. Communication protocol for the notification of relevant authorities and notification of neighbours were implemented including evacuation of all personnel in the plant to go upwind of the spill to minimise harm to persons on the premises.	

PIRMP Update Details

Date update occurred	Reason for update	Details of updates	Plan is uploaded to website	Date of completion
20/07/22	New WWTP	New PIRMP	on 20/7/2022	20/07/22
8/9/2022	Overflow Incident reported to EPA on 30/8/22	Desk top and Field test of SCADA system to ensure pump operation with reduction in flow.	Overflow due to partial pump failure caused by partial blockage. Flow into the PTAPS can cause partial blockage of the duty/standby pumps resulting in reduction of pump flow rate without an alarm. This could cause potential overflow, especially in wet weather events. Reprograming of SCADA to ensure pump change over at low flow. Also drop level in PTAPS well when wet weather forecast.	

Date tested	Tested by	Details of test		Next scheduled testing date
25/7/2023	Todd Osborne; Asher J. Woodrow ; Waliul Islam; Albert Nyssen ; Wassim Wassef	On site test; Duty and Standby Pump failure in PTAPS	The PTAPS receives flows from the existing sewerage reticulation network (raw sewage) and from the STP equipment and tank return flows and pumps into the inlet screen. STP return flows are from sand filter backwash, instrument discharge, process tanks overflow, bund drainage systems, sludge lagoon supernatant and drying bed filters. The main purpose of the PTAPS is to control the flow into the STP by running in a PID loop based on the level of the wet well. The PTAPS comprises of two (2) variable speed submersible pumps that operate under a duty/standby arrangement based on the level of pump station. Issue is: Failure of both the duty and standby submersible pumps in the PTAPS area Dry Weather Pump failure: 1. Operator to hook up spare transfer petrol pump available on site. Hose from PTAPS to 100mm camlock fitting Confirm from field-testing that pump will transfer the flow. 2. Remove 1 of 2 pumps and replace with spare pump same capacity and configuration. 3. Start spare pump and remove transfer petrol pump. 4. Continue to monitor pump operation. 5. Send the two failed pumps to supplier for repairs. Wet Weather Pump Failure	(Planned to be within 12 months from current test):before July 2024

1. During Wet weather, existing petrol pump will be inadequate, and a proper capacity hired pump will be required as indicated below:

2. Hired Pump Contact Details

- Coates Hire Parkes Contact 02 68628200 (After Hours 0418264311)
- Pump Details - Pump Silenced 150mm Trailer Mtd – 30020 Min 60L/sec
- Pump Hose - Suction 150mm 30370 Qty 3
- Pump Hose - Lay flat 150 30305 Qty 3
- Need 3” Male Cam lock Fitting

3. Connect Hired Pump to the piping network to pump into plant.

4. Remove 1 of 2 pumps and replace with spare pump same capacity and configuration.

5. Send the two failed pumps away to supplier for repairs

6. Continue to monitor pump operation.

Date tested	Tested by	Details of test		Date of completion
25/12/2023 to 12/01/2024	Todd Osborne; Asher J. Woodrow ; Waliul Islam; Albert Nyssen	On site test; IDAL Tank Decanter Failure	IDAL Train 1 & 2 Decanter decants between the TW level and BW level Positions. This is a critical component of the IDAL Train System to clear effluent from the top layer though Decanters into the effluent Balance Tank. Issue Is: Failure of IDAL Tank Decanter Effluent Inflows to the affected IDAL Tank will be reduced via the Splitter Box. IDAL Tank equipment can be manually operated through SCADA for temporary biological control. A spare Decanter Drive Motor and Gearbox will be used for an immediate breakdown replacement. If spares are not sufficient, parts will be ordered through Xylem. Operators will continue to manually aerate either with the manual aeration controls utilising the Blowers and Aeration Control Valves, or connect an external Blower to assist with aeration. DO levels will be checked using the portable analyser to ensure the IDAL does not reach septic level. If there is a significant delay in repair, authorities and support services will be notified. The IDAL Tank will need to be drained due to septicity and odour problems. Sludge will be removed by the WAS Pumps into a Sludge Lagoon. Clear Effluent will be gradually pumped into the operational IDAL Tank. The tank will remain empty until repair is complete. IDAL Tank will be re- seeded with sludge from the operational tank via WAS Pumps and inflows will be restored.	26/01/2024

1. Mechanical support:
   Tim Hathaway
   BlueMech
   (0402848470)

2. Electrical support:
   Garry Day Electrical
   (0412676251)

3. Hired Blower Details:
   PremiAir (Scott Lowe)
   (0499337070)

4. Xylem Service Rep. :
   Aaron Goth
   (0437591555)

APPENDICES

Appendix 1 Risk assessments and Actions

No	Risk	Impact	Likelihood	Controls
Sewer Reticulation Mains				
1	Sewage overflow due to inflow/infiltration	Land contamination, possibly enter a waterway	UF = 5	>Reticulation maintenance and rehabilitation to reduce infiltrate and inflows >Monitoring and maintenance
2	Sewage overflow due to storm damaging infrastructure	Land contamination, possibly enter a waterway	VUF = 6	>Lightning protection >Site vegetation management to prevent damage to infrastructure >portable pumps > Pre-emptive measures
3	Sewage overflow due to reticulation blockages or damage	Land contamination, possibly enter a waterway	UF = 5	>Reticulation maintenance >High pressure cleaning of mains for repeat chokes >Monitoring and maintenance
4	Sewage overflow due to an external persons excavation hitting the sewers	Land contamination, possibly enter a waterway	UF = 5	>Provide underground service locations to external persons >Vacuum trucks (for clean-up) >Portable pumps (for clean-up)
5	Sewage overflow due to infrastructure failure (e.g. due to age)	Land contamination, possibly enter a waterway	VUF = 6	>Maintenance and renewal programmes
Sewage Treatment Plant				
1	Sewage overflow (raw) due to heavy rainfall	Land contamination, possibly enter a waterway	VUF = 6	>Reticulation maintenance to reduce infiltration and inflows >overflow storage - bunded area >Bypass systems to overflow storage pond >Monitoring and maintenance
2	Sewage overflow (raw) due to reticulation blockages	Land contamination, possibly enter a waterway	VUF = 6	>Reticulation maintenance to reduce infiltration and inflows >Bypass systems to overflow to discharge point >Monitoring and maintenance
3	Sewage overflow (raw) due to damage to onsite reticulation (e.g. During excavations, etc.)	Land contamination, possibly enter a waterway	UF = 5	>Locate services prior to excavations >Appropriate supervision of contractors >Bypass systems
4	Sewer overflow due to Wetwell communication failure	Land contamination, possibly enter a waterway	UF = 5	>Testing and alarming >Monitoring of signal issues
5	Sewage overflow (raw) due to excessive flows	Land contamination, possibly enter a waterway	VUF = 6	>Reticulation maintenance to reduce infiltration and inflows >Bypass systems to overflow to discharge point >Monitoring and maintenance
6	Sewage overflow (raw) due to treatment plant blockage	Land contamination, possibly enter a waterway	VUF = 6	>Bypass systems

7	Chemical Spillage	Personal injury	LF=4	Bunded area for all chemicals, Trained operators and PPE worn.

Risk Assessment Matrix

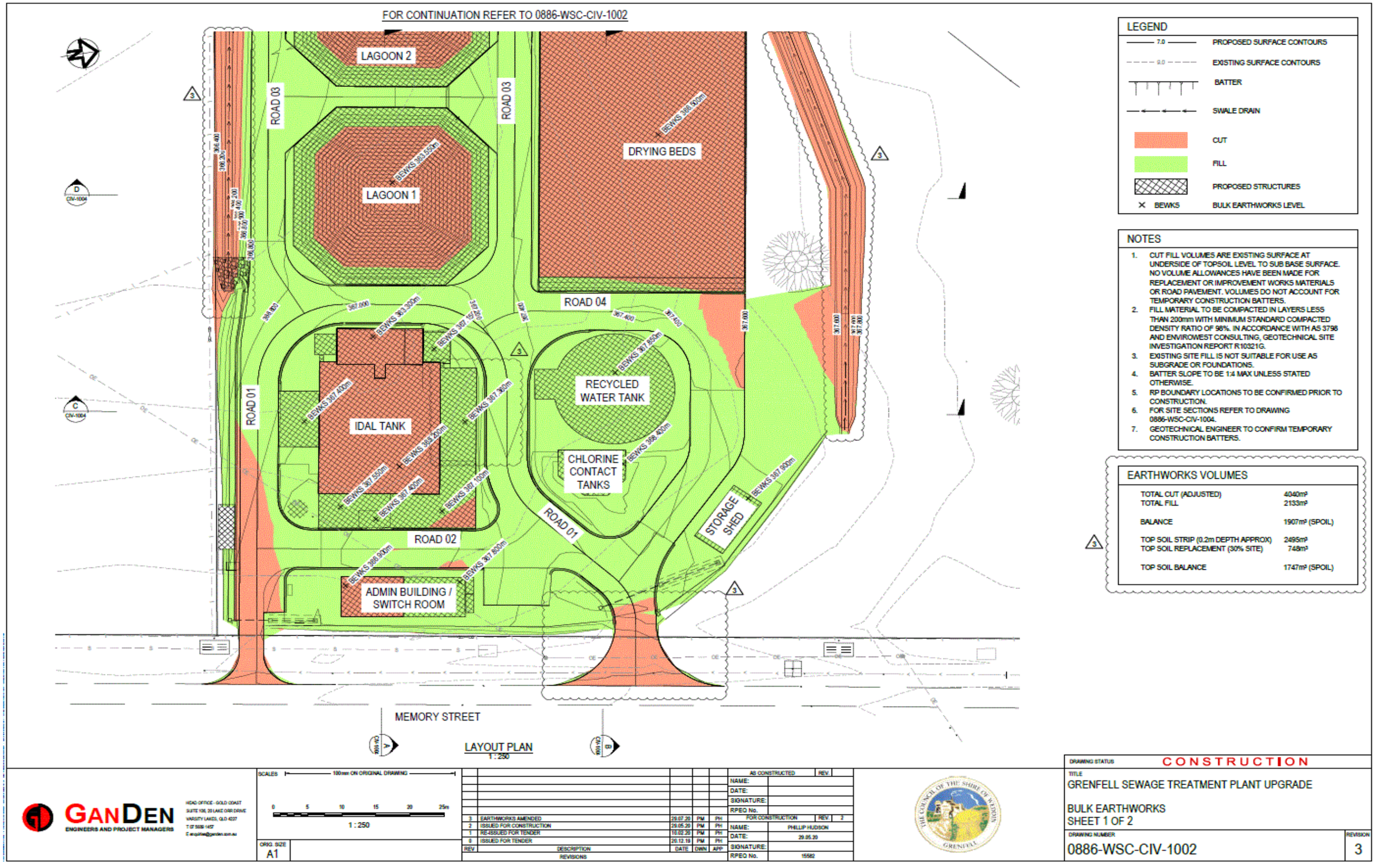
	Likelihood - How likely is it to happen and How often?			
Consequences - How bad is it likely to be?	**V**ery **L**ikely could happen at any time **VL**	**L**ikely could happen sometime **L**	**U**nlikely could happen, but rare **U**	**V**ery **U**nlikely could happen, but probably never will **VU**
Extreme - Kill or cause permanent disability or ill health **K**	**1**	**1**	**2**	**3**
Major - Long term illness or serious injury **S**	**1**	**2**	**3**	**4**
Moderate - Medical attention and several days off work **M**	**2**	**3**	**4**	**5**
Minor - First aid needed **F**	**3**	**4**	**5**	**6**

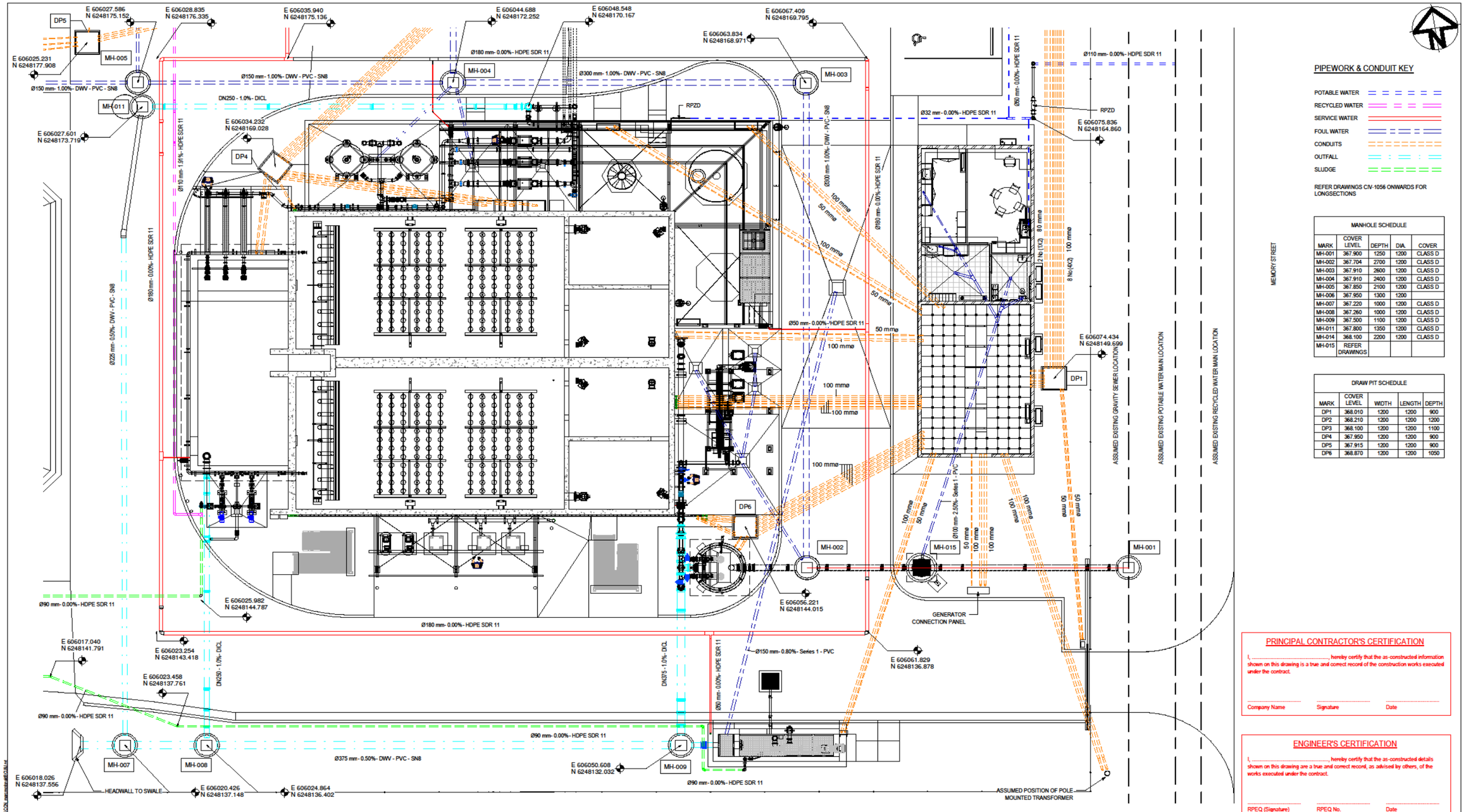
(Adapted from RMS resources)

1 = top priority: do something immediately

6 = low priority: do something when possible

Appendix 2 Detailed Maps of WTP Including Site Drainage





UNDERGROUND SERVICES SITE PLAN PART 1

SCALE : 1 : 100

PIPEWORK & CONDUIT KEY

- POTABLE WATER
- RECYCLED WATER
- SERVICE WATER
- FOUL WATER
- CONDUITS
- OUTFALL
- SLUDGE

REFER DRAWINGS C/V-1056 ONWARDS FOR LONGSECTIONS

MANHOLE SCHEDULE

MARK	COVER LEVEL	DEPTH	DIA.	COVER
MH-001	367.900	1250	1200	CLASS D
MH-002	367.704	2700	1200	CLASS D
MH-003	367.910	2600	1200	CLASS D
MH-004	367.910	2400	1200	CLASS D
MH-005	367.850	2100	1200	CLASS D
MH-006	367.950	1300	1200	
MH-007	367.220	1000	1200	CLASS D
MH-008	367.260	1000	1200	CLASS D
MH-009	367.500	1100	1200	CLASS D
MH-011	367.800	1350	1200	CLASS D
MH-014	368.100	2200	1200	CLASS D
MH-015	REFER DRAWINGS			

DRAW PIT SCHEDULE

MARK	COVER LEVEL	WIDTH	LENGTH	DEPTH
DP1	368.010	1200	1200	900
DP2	368.210	1200	1200	1200
DP3	368.100	1200	1200	1100
DP4	367.950	1200	1200	900
DP5	367.915	1200	1200	900
DP6	368.870	1200	1200	1050

PRINCIPAL CONTRACTOR'S CERTIFICATION

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Company Name ..... Signature ..... Date .....

ENGINEER'S CERTIFICATION

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RPEQ (Signature) ..... RPEQ No. ..... Date .....

GANDEN ENGINEERS AND PROJECT MANAGERS

HEAD OFFICE - GOLD COAST
SUITE 106, 20 LAKE ORR DRIVE,
VARSITY LAKES, QLD 4227
T 07 5689 1457
E enquiries@ganden.com.au

SCALES: 100mm ON ORIGINAL DRAWING

ORIG. SIZE: A1

REV	DESCRIPTION	DATE	DWN	APP
	REVISIONS			
3	AS CONSTRUCTED	05.04.22	MM	PH
2	ISSUED FOR CONSTRUCTION	29.05.20	AA	PH
1	RE-ISSUED FOR TENDER	05.02.20	RN	PH
0	ISSUED FOR TENDER	10.01.20	PM	PH

AS CONSTRUCTED	REV 3
NAME:	PHIL HUDSON
DATE:	05.04.22
SIGNATURE:	
RPEQ No.	15582
FOR CONSTRUCTION	REV
NAME:	PHIL HUDSON
DATE:	29.05.20
SIGNATURE:	
RPEQ No.	15582

Client

DRAWING STATUS: AS BUILT

TITLE: GRENFELL SEWAGE TREATMENT PLANT UPGRADE
UNDERGROUND SERVICES DETAILED PLAN PART 1

DRAWING NUMBER: 0886-WSC-CIV-1051

REVISION: 3

Date Plotted: 4/04/2022 8:59:09 AM

PRINCIPAL CONTRACTOR'S CERTIFICATION

I, ..., hereby certify that the as-constructed information shown on this drawing is a true and correct record of the construction works executed under the contract.

Company Name ..... Signature ..... Date .....

ENGINEER'S CERTIFICATION

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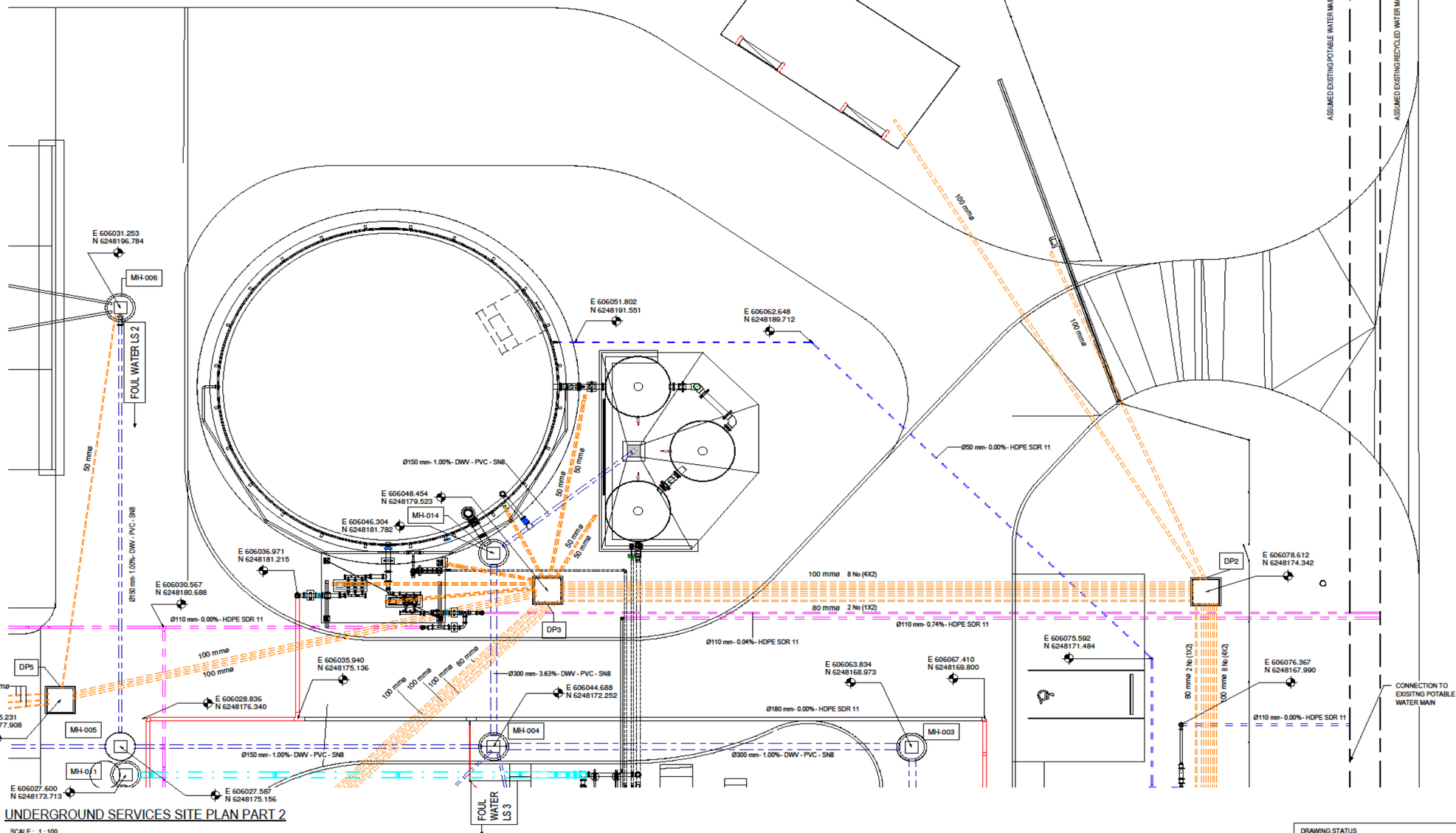
RPEQ (Signature) ..... RPEQ No. ..... Date .....



UNDERGROUND SERVICES SITE PLAN PART 2

SCALE : 1 : 100

PIPEWORK & CONDUIT KEY

- POTABLE WATER
- RECYCLED WATER
- SERVICE WATER
- FOUL WATER
- CONDUITS
- OUTFALL
- SLUDGE

REFER DRAWINGS CIV-1056 ONWARDS FOR LONGSECTIONS

MANHOLE SCHEDULE

MARK	COVER LEVEL	DEPTH	DIA.	COVER
MH-001	367.900	1250	1200	CLASS D
MH-002	367.704	2700	1200	CLASS D
MH-003	367.910	2600	1200	CLASS D
MH-004	367.910	2400	1200	CLASS D
MH-005	367.850	2100	1200	CLASS D
MH-006	367.950	1300	1200	
MH-007	367.220	1000	1200	CLASS D
MH-008	367.260	1000	1200	CLASS D
MH-009	367.500	1100	1200	CLASS D
MH-011	367.800	1350	1200	CLASS D
MH-014	368.100	2200	1200	CLASS D
MH-015	REFER DRAWINGS			

DRAW PIT SCHEDULE

MARK	COVER LEVEL	WIDTH	LENGTH	DEPTH
DP1	368.010	1200	1200	900
DP2	368.210	1200	1200	1200
DP3	368.100	1200	1200	1100
DP4	367.950	1200	1200	900
DP5	367.915	1200	1200	900
DP6	368.870	1200	1200	1050

GANDEN ENGINEERS AND PROJECT MANAGERS

HEAD OFFICE - GOLD COAST
SUITE 106, 20 LAKE ORR DRIVE,
VARSITY LAKES, QLD 4227
T 07 5689 1457
E enquiries@ganden.com.au

SCALES 100mm ON ORIGINAL DRAWING

ORIG. SIZE A1

REV	DESCRIPTION	DATE	DWN	APP
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1	RE-ISSUED FOR TENDER	05.02.20	RN	PH
0	ISSUED FOR TENDER	10.01.20	PM	PH

AS CONSTRUCTED	REV 3
NAME:	PHIL HUDSON
DATE:	12.04.22
SIGNATURE:	
RPEQ No.	15582
FOR CONSTRUCTION	REV
NAME:	PHIL HUDSON
DATE:	29.05.20
SIGNATURE:	
RPEQ No.	15582

Client

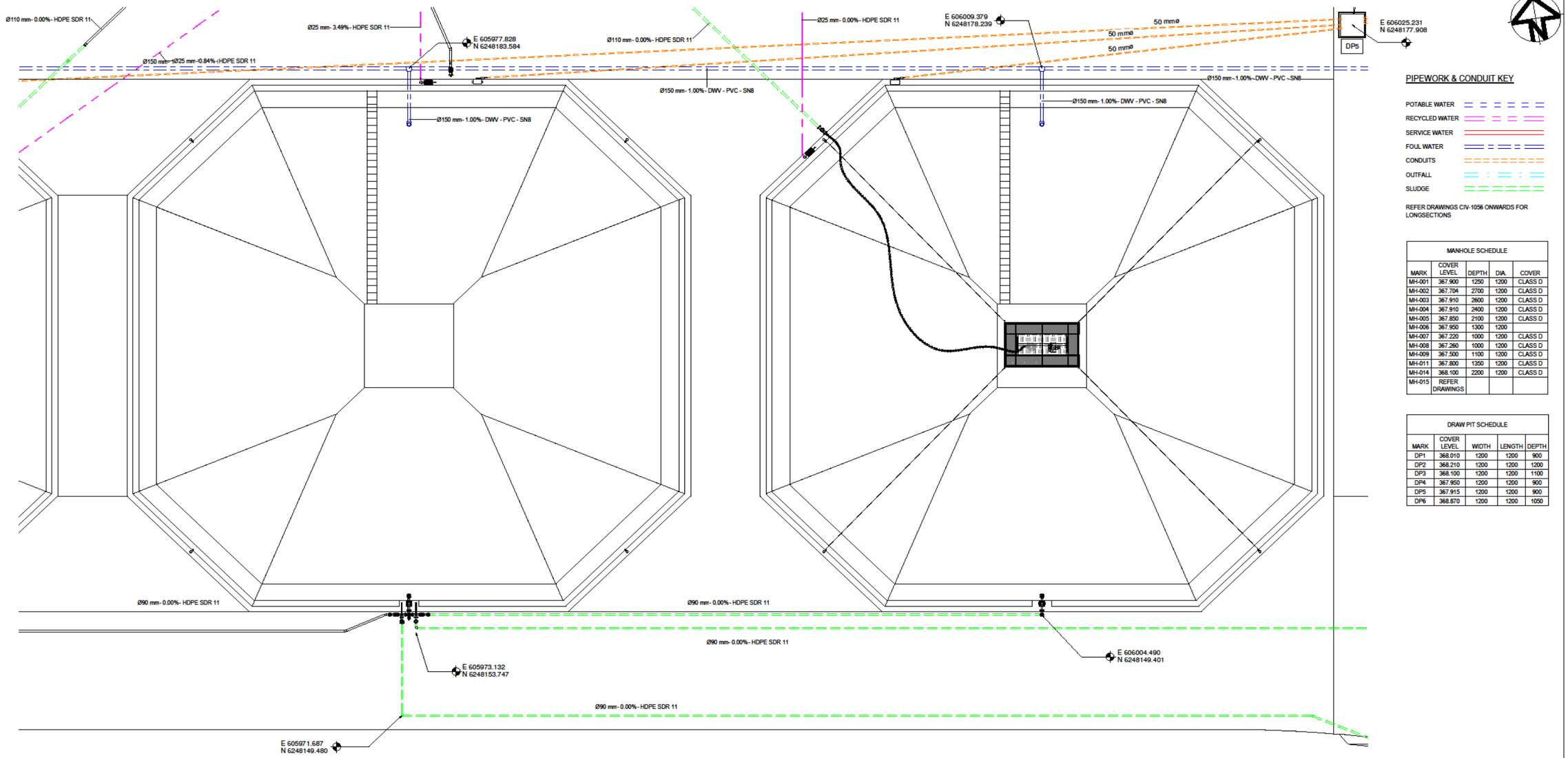
DRAWING STATUS AS BUILT

TITLE
GRENFELL SEWAGE TREATMENT PLANT UPGRADE
UNDERGROUND SERVICES DETAILED PLAN PART 2

DRAWING NUMBER 0886-WSC-CIV-1052

REVISION 3

Date Plotted: 12/04/2022 1:42:42 PM



PIPEWORK & CONDUIT KEY

POTABLE WATER
RECYCLED WATER
SERVICE WATER
FOUL WATER
CONDUITS
OUTFALL
SLUDGE

REFER DRAWINGS C/V-1056 ONWARDS FOR LONGSECTIONS

MANHOLE SCHEDULE

MARK	COVER LEVEL	DEPTH	DIA.	COVER
MH-001	367.900	1250	1200	CLASS D
MH-002	367.704	2700	1200	CLASS D
MH-003	367.910	2600	1200	CLASS D
MH-004	367.910	2400	1200	CLASS D
MH-005	367.850	2100	1200	CLASS D
MH-006	367.950	1300	1200	
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MH-009	367.500	1100	1200	CLASS D
MH-011	367.800	1350	1200	CLASS D
MH-014	368.100	2200	1200	CLASS D
MH-015	REFER DRAWINGS			

DRAW PIT SCHEDULE

MARK	COVER LEVEL	WIDTH	LENGTH	DEPTH
DP1	368.010	1200	1200	900
DP2	368.210	1200	1200	1200
DP3	368.100	1200	1200	1100
DP4	367.950	1200	1200	900
DP5	367.915	1200	1200	900
DP6	368.870	1200	1200	1050

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ENGINEER'S CERTIFICATION

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RPEQ (Signature) ..... RPEQ No. ..... Date .....

UNDERGROUND SERVICES SITE PLAN PART 3

SCALE : 1 : 100

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HEAD OFFICE - GOLD COAST
SUITE 106, 20 LAKE ORR DRIVE, VARSITY LAKES, QLD 4227
T 07 5689 1457
E enquiries@ganden.com.au

SCALES 100mm ON ORIGINAL DRAWING

ORIG. SIZE A1

REV	DESCRIPTION	DATE	DWN	APP
3	AS CONSTRUCTED	05.04.22	MM	PH
2	ISSUED FOR CONSTRUCTION	29.05.20	AA	PH
1	RE-ISSUED FOR TENDER	05.02.20	RN	PH
0	ISSUED FOR TENDER	10.01.20	PM	PH

REVISIONS

AS CONSTRUCTED	REV 3
NAME:	PHIL HUDSON
DATE:	05.04.22
SIGNATURE:	
RPEQ No.	15582

FOR CONSTRUCTION	REV
NAME:	PHIL HUDSON
DATE:	29.05.20
SIGNATURE:	
RPEQ No.	15582

Client

DRAWING STATUS: AS BUILT

TITLE
GRENFELL SEWAGE TREATMENT PLANT UPGRADE
UNDERGROUND SERVICES DETAILED PLAN PART 3

DRAWING NUMBER 0886-WSC-CIV-1053

REVISION 3

Date Plotted: 4/04/2022 8:59:31 AM

PRINCIPAL CONTRACTOR'S CERTIFICATION

I, ..., hereby certify that the as-constructed information shown on this drawing is a true and correct record of the construction works executed under the contract.

Company Name ..... Signature ..... Date .....

ENGINEER'S CERTIFICATION

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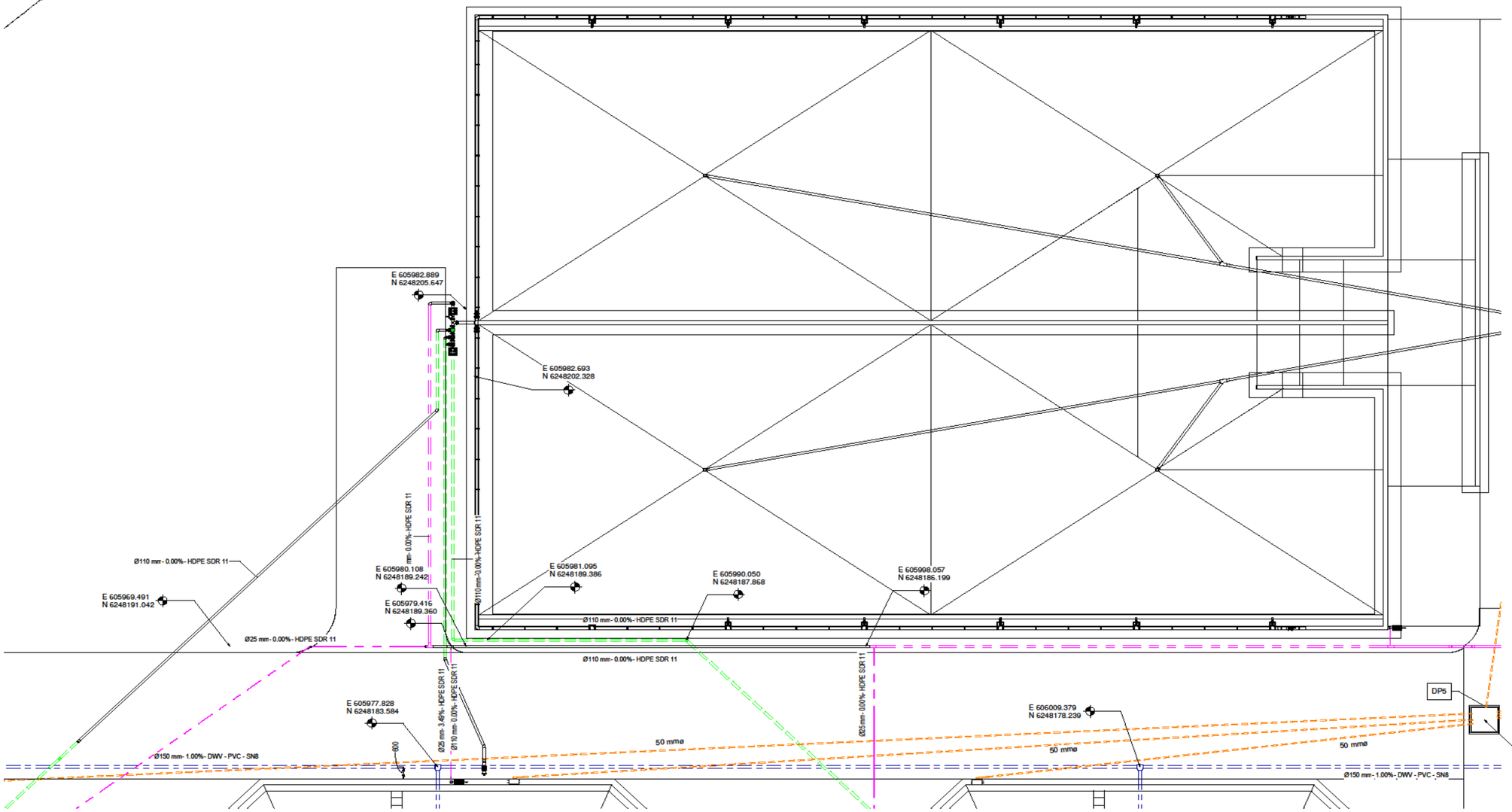
RPEQ (Signature) ..... RPEQ No. ..... Date .....



PIPEWORK & CONDUIT KEY

- POTABLE WATER
- RECYCLED WATER
- SERVICE WATER
- FOUL WATER
- CONDUITS
- OUTFALL
- SLUDGE

REFER DRAWINGS C/V-1056 ONWARDS FOR LONGSECTIONS

MANHOLE SCHEDULE

MARK	COVER LEVEL	DEPTH	DIA.	COVER
MH-001	367.900	1250	1200	CLASS D
MH-002	367.704	2700	1200	CLASS D
MH-003	367.910	2600	1200	CLASS D
MH-004	367.910	2400	1200	CLASS D
MH-005	367.850	2100	1200	CLASS D
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MH-007	367.220	1000	1200	CLASS D
MH-008	367.260	1000	1200	CLASS D
MH-009	367.500	1100	1200	CLASS D
MH-011	367.800	1350	1200	CLASS D
MH-014	368.100	2200	1200	CLASS D
MH-015	REFER DRAWINGS			

DRAW PIT SCHEDULE

MARK	COVER LEVEL	WIDTH	LENGTH	DEPTH
DP1	368.010	1200	1200	900
DP2	368.210	1200	1200	1200
DP3	368.100	1200	1200	1100
DP4	367.950	1200	1200	900
DP5	367.915	1200	1200	900
DP6	368.870	1200	1200	1050

UNDERGROUND SERVICES SITE PLAN PART 4

SCALE : 1 : 100

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HEAD OFFICE - GOLD COAST
SUITE 106, 20 LAKE ORR DRIVE,
VARSITY LAKES, QLD 4227

T 07 5689 1457
E enquiries@ganden.com.au

SCALES 100mm ON ORIGINAL DRAWING

ORIG. SIZE A1

REV	DESCRIPTION	DATE	DWN	APP
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2	ISSUED FOR CONSTRUCTION	29.05.20	AA	PH
1	RE-ISSUED FOR TENDER	05.02.20	RN	PH
0	ISSUED FOR TENDER	10.01.20	PM	PH

REVISIONS

AS CONSTRUCTED REV 3
NAME: PHIL HUDSON
DATE: 05.04.22
SIGNATURE:
RPEQ No. 15582

FOR CONSTRUCTION REV
NAME: PHIL HUDSON
DATE: 29.05.20
SIGNATURE:
RPEQ No. 15582

Client

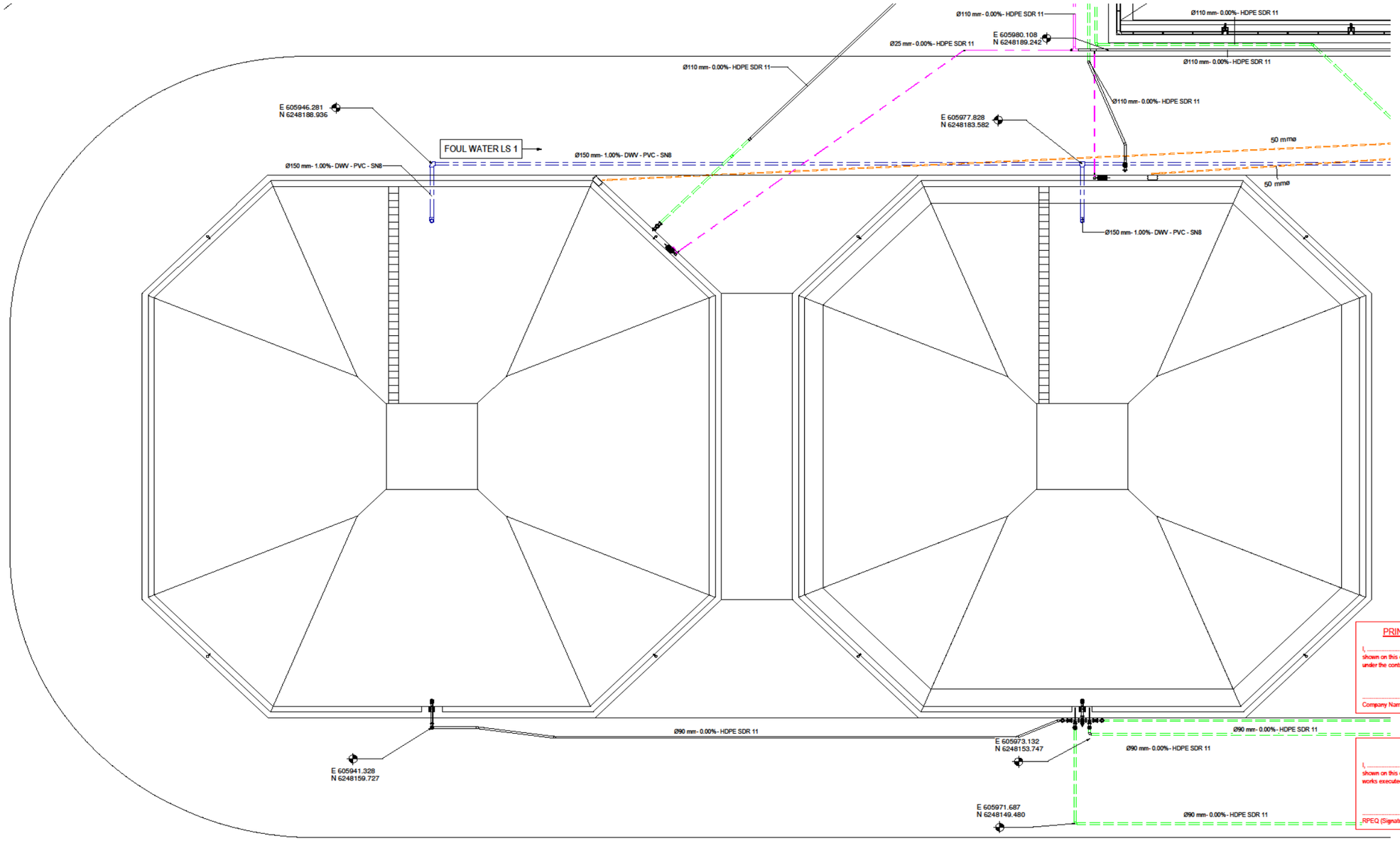
DRAWING STATUS AS BUILT

TITLE
GRENFELL SEWAGE TREATMENT PLANT UPGRADE
UNDERGROUND SERVICES DETAILED PLAN PART 4

DRAWING NUMBER 0886-WSC-CIV-1054

REVISION 3

Date Plotted: 4/04/2022 8:59:40 AM



PIPEWORK & CONDUIT KEY

- POTABLE WATER
- RECYCLED WATER
- SERVICE WATER
- FOUL WATER
- CONDUITS
- OUTFALL
- SLUDGE

REFER DRAWINGS CIV-1056 ONWARDS FOR LONGSECTIONS

MANHOLE SCHEDULE

MARK	COVER LEVEL	DEPTH	DIA.	COVER
MH-001	367.900	1250	1200	CLASS D
MH-002	367.704	2700	1200	CLASS D
MH-003	367.910	2600	1200	CLASS D
MH-004	367.910	2400	1200	CLASS D
MH-005	367.850	2100	1200	CLASS D
MH-006	367.950	1300	1200	
MH-007	367.220	1000	1200	CLASS D
MH-008	367.260	1000	1200	CLASS D
MH-009	367.500	1100	1200	CLASS D
MH-011	367.800	1350	1200	CLASS D
MH-014	368.100	2200	1200	CLASS D
MH-015	REFER DRAWINGS			

DRAW PIT SCHEDULE

MARK	COVER LEVEL	WIDTH	LENGTH	DEPTH
DP1	368.010	1200	1200	900
DP2	368.210	1200	1200	1200
DP3	368.100	1200	1200	1100
DP4	367.950	1200	1200	900
DP5	367.915	1200	1200	900
DP6	368.870	1200	1200	1050

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UNDERGROUND SERVICES SITE PLAN PART 5

SCALE : 1 : 100

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HEAD OFFICE - GOLD COAST
SUITE 106, 20 LAKE ORR DRIVE, VARSITY LAKES, QLD 4227
T 07 5689 1457
E enquiries@ganden.com.au

SCALES 100mm ON ORIGINAL DRAWING

ORIG. SIZE A1

REV	DESCRIPTION	DATE	DWN	APP
3	AS CONSTRUCTED	05.04.22	MM	PH
2	ISSUED FOR CONSTRUCTION	29.05.20	AA	PH
1	RE-ISSUED FOR TENDER	05.02.20	RN	PH
0	ISSUED FOR TENDER	10.01.20	PM	PH

REVISIONS

AS CONSTRUCTED REV 3
NAME: PHIL HUDSON
DATE: 05.04.22
SIGNATURE:
RPEQ No. 15582

FOR CONSTRUCTION REV
NAME: PHIL HUDSON
DATE: 29.05.20
SIGNATURE:
RPEQ No. 15582

Client

DRAWING STATUS AS BUILT

TITLE
GRENFELL SEWAGE TREATMENT PLANT UPGRADE
UNDERGROUND SERVICES DETAILED PLAN PART 5

DRAWING NUMBER 0886-WSC-CIV-1055

REVISION 3

Date Plotted: 4/04/2022 8:59:48 AM