



Emergency Response Plan

Delmore Wastewater Treatment Plant

PROJECT NUMBER: 241101

Revision 1
5 June 2025

Principal	
Site Address	
Project Number	
Revision	1
Date	5 June 2025
File Location	

REVISION HISTORY

Revision	Date	Purpose	Author	Reviewed
1				

DISTRIBUTION LIST

Date	Name	Title/Role	Organization

CONTENTS

Revision History	ii
Distribution List.....	ii
APPENDICES.....	iv
1. INTRODUCTION	5
2. SITE OVERVIEW	6
Description of Site Activities.....	7
Wastewater Treatment.....	7
Ancillary Infrastructure.....	7
3. SUMMARY OF HAZARDOUS SCENARIOS	8
4. Specialist Training Requirements	10
Chemical Spill - Minor	10
Small Fire	10
All other emergencies.....	10
5. EMERGENCY EQUIPMENT	10
First Aid Kit.....	10
Safety Shower Station.....	11
Chemical Spill Kit	11
Fire Extinguisher.....	11
6. NOTABLE PERSONNEL	12
Treatment Plant Operator.....	12
Delmore – Delmore Representative.....	12
7. RESPONSE PLAN	13
GENERAL INFORMATION	13
Site First Aid location:.....	13
Site Fire Extinguishers location:.....	13
Site Emergency Spill Kit location:	13
Emergency phone number:	14
Medical Facilities for Minor Injuries	14
Medical Facilities for More Severe Injuries.....	14
Emergency Call Dialogue	15
Response in the Event of Injury to Personnel (On-site).....	16
Response in the Event of a Fire Emergency	17
Response in the Event of a Chemical Spill Emergency.....	18

Response in the Event of a Gas Emergency.....	19
Response in the Event of a Natural Disaster.....	20
8. HAZARDOUS SUBSTANCES	21
Where to Find Information on Hazardous Substances	21
Hazardous Substance Inventory	22
Hazardous Substances Locations.....	22
9. TESTING THE PLAN.....	23
10. AUDITING PROGRAMME.....	23
11. STAFF TRAINING	23
Appendix A 24	
Appendix B 25	

APPENDICES

Appendix A
Appendix B

Location of Fire Extinguishers and First Aid Kits
Record for Emergency Response Plan testing

5 June 2025

Lead Compliance Officer – Northern Region
Licensing and Regulatory Compliance
Auckland Council
135 Albert Street
AUCKLAND CENTRAL
Emergency Response Plan –Consent BUNXXXXXXXXX

1. INTRODUCTION

Consents have been issued for the construction wastewater treatment infrastructure at ADDRESS under consent reference BUNXXXXXXXXX. The operation of plant and equipment associated with the treatment plant compound may present risks to personnel and the environment. While the Environmental Management Plan addresses how risks to the environment are handled from the hazardous substances stored and handled on site, this Emergency Response Plan identifies risks to personnel on site and within the vicinity of the plant and how these shall be responded to in the event of an emergency.

Apex Water have been engaged to design and build the treatment infrastructure, including chemical storage and handling facilities. This letter and the associated Emergency Response Plan has been prepared to fulfil Condition XX of BUNXXXXXXXXX.

2. SITE OVERVIEW

The Delmore Wastewater Treatment Plant and its associated equipment and infrastructure can be seen in **Figure 1**, below. The main items related to the storage or handling of hazardous substances have been highlighted in red.

Figure 1 – Delmore Wastewater Treatment Plant

DRAFT

Description of Site Activities

The development of the Delmore Treatment Plant has been driven by the need to provide wastewater treatment infrastructure to the Delmore community. This compound contains a plant for wastewater treatment and discharge.

WASTEWATER TREATMENT

The core unit processes that comprise the wastewater treatment plant are:

- Raw sewage screening
- Anoxic Stage 1 Treatment and Flow Balancing
- Aerobic Treatment
- Anoxic Stage 2 Treatment
- Membrane filtration
- Ultraviolet Light Disinfection
- Sodium Hypochlorite Disinfection
- Permeate Storage
- Permeate Discharge
- Waste Activated Sludge Storage
- Waste Activated Sludge Dewatering

ANCILLIARY INFRASTRUCTURE

Ancillary infrastructure services both treatment plants and comprise of the following:

- 1% Sodium Hypochlorite Generation
- Centralised Plant Control
- Bulk Chemical Load Out
- Bulk Chemical Storage – 1% Sodium Hypochlorite solution
- Bulk Chemical Storage – 30% Sodium Hydroxide solution
- Bulk Chemical Storage – 49% Acetic Acid
- Back-up Generator (Diesel driven)

3. SUMMARY OF HAZARDOUS SCENARIOS

Emergency Type	Hazard	Scenario	Consequence	Location	Potential Offsite Effects	Control
Injury to Personnel (On-site)	Exposure to Hazardous substances stored on site.	Mishandling packaged chemicals.	Harm to personnel with the potential to cause long term injury, disability or death.	Site wide	N/A*	
Injury to Personnel (On-site)	Exposure to Hazardous substances stored on site.	Leak from chemical handling pipework or equipment.	Harm to personnel with the potential to cause long term injury, disability or death.	Site Wide	N/A*	
Injury to Personnel (On-site)	Exposure to Hazardous substances stored on site.	Maintaining chemical handling equipment or pipework.	Harm to personnel with the potential to cause long term injury, disability or death.	Site Wide	N/A*	
Injury to Personnel (On-site)	Exposure to Hydrogen Sulphide	Confined Space Entry	Harm to personnel with the potential to cause long term injury, disability or death.	Return Liquor Pump Station	N/A*	
Injury to Personnel (On-site)	Exposure to Hydrogen Sulphide.	Accumulation in the working areas (Screens room)	Harm to personnel with the potential to cause long term injury, disability or death.	Screens Room	N/A*	
Injury to Personnel (On-site)	Exposure to Low Oxygen Atmospheres.	Confined Space Entry (Residuals Pump Station, Return Liquor Pump Station)	Harm to personnel with the potential to cause long term injury, disability or death.	Liquor Pump Station	N/A*	
Injury to Personnel (On-site)	Exposure to Chlorine gas.	Pumping of acid into Sodium Hypochlorite tank	Harm to personnel with the potential to cause long term injury, disability or death.	Site Wide	N/A	
Injury to Personnel (On-site)	Slip, trip or fall.	Moving around site	Harm to personnel with the potential to cause long term injury, disability or death.	Site Wide	N/A*	
Injury to Personnel (On-site)	Harm caused by powered or non-powered tools.	Maintenance on plant and equipment	Harm to personnel with the potential to cause long term injury, disability or death.	Site Wide	N/A*	
Injury to Personnel (On-site)	Manual Handling.	Moving equipment or material around site	Harm to personnel with the potential to cause long term injury, disability or death.	Site Wide	N/A*	
Injury to Personnel (On-site)	Electrocution	Interacting with electrical system (lights, control systems, pumps, motors, computers etc.)	Harm to personnel with the potential to cause long term injury, disability or death.	Site Wide	N/A*	
Injury to Personnel (On-site)	Harm caused by moving machinery.	Automatically starting and stopping mechanical equipment	Harm to personnel with the potential to cause long term injury, disability or death.	Site Wide	N/A*	

Emergency Type	Hazard	Scenario	Consequence	Location	Potential Offsite Effects	Control
Injury to Personnel (On-site)	Harm caused by vehicle movements.	Movement of vehicles around site where pedestrians may be present	Harm to personnel with the potential to cause long term injury, disability or death.	Site Wide	N/A*	
Injury to Personnel (On-site and Off-site)	Fire or explosion	Electrical fault or spark resulting in fire or explosion	Harm to personnel with the potential to cause long term injury, disability or death.	Site Wide	Potential for offsite effects	
Environmental Disaster	Earthquake, Tsunami	Environmental Disaster	Harm to personnel with the potential to cause long term injury, disability or death.	Site Wide	N/A*	

* - Environmental offsite effects covered under the Environmental Management Plan

4. SPECIALIST TRAINING REQUIREMENTS

CHEMICAL SPILL - MINOR

In the event of a minor chemical spill that can be managed by the site operational staff, the Operator or responder shall be an approved Chemical Handler and be briefed on the use of the spill response kit.

SMALL FIRE

In the event of a fire occurring that can be put out using the fire extinguishers located around the site, this can be attempted. Instruction of the use of fire extinguishers, the different types and their areas of use must be provided. Location of fire extinguishers on-site is shown in Appendix A.

ALL OTHER EMERGENCIES

For all other emergencies, remediation of the hazardous conditions shall be carried out by external trained specialists or emergency services. In the event of an emergency, the main priority shall be to evacuate as many people as possible into places of safety and to address any individual harmed.

5. EMERGENCY EQUIPMENT

FIRST AID KIT

The Delmore treatment plant houses various first aid kits. The location of these first aid kits on a site layout can be seen in Appendix A. The location of these is to be highlighted during the induction of personnel onto the site and each shall be identifiable by the placement of a First Aid station sign.

The first aid signage (**Figure 1**) is in close proximity to the respective first aid kit.



Figure 1 – First Aid Kit Signage.

Each First Aid Kit includes at a minimum:

- Bandages
- Burn dressing
- Different types of wound dressings
- Foil blanket
- Nitrile Gloves
- Washproof plasters
- Resuscitation face shield with valve

- Shears
- Microporous tape
- Wound cleansing wipes box
- Saline eyewash pods
- Splinter probes

The inspection of each First Aid kit shall be carried out as a part of the regular weekly site inspection to ensure it is well stocked and in good condition.

SAFETY SHOWER STATION

Safety shower is for washing down hazardous substances off a person in the event of a chemical spill. There are X safety shower stations located on Delmore site. A safety shower station is located on the chemical load out bay, by the dosing cabinets, at the entrance to the walkway and one inside the main room. See **Figure 2 and 3** for their specific locations.

Figure 2 – Location of Safety Shower Stations near the Wastewater Treatment Plant

Figure 3 – Location of Safety Shower Stations near Wastewater Treatment Plant.

CHEMICAL SPILL KIT

The spill kit, for the Wastewater Treatment plant is located central to the site on the bulk chemical location out pad. All of the spill response equipment is located within the yellow wheely bin highlighted below (**Figure 4**).

Figure 4 – Spill Kit location.

The spill kit includes:

- Absorbent pads, pillows and socks
- Waste disposable bags
- Cable ties + breakaway red cable tie
- Disposable gloves
- Instruction card

Detailed instructions on the use and application of chemical spill kit is described in Code of Practice W-00-COP-004 The Use of and Application of Chemical Spill Kits. The Spill kit can be used to clean up minor spills that can be controlled and safely cleaned up. All hazardous spills shall be handled by trained personnel.

FIRE EXTINGUISHER

Fire extinguishers are to be used only for extinguishing small fires and under condition that it is safe to do so. There are X No. 4.5kg Dry Powder fire extinguishers located around the treatment plant compound, each extinguisher is located adjacent signage, as shown in **Figure 5** below.



Figure 5 – A location sign of the fire extinguisher.

Dry powder fire extinguishers are suitable for the following types of fire:

- flammable solids (paper, plastic etc),
- flammable liquids (petrol, oil etc),
- flammable gases (hydrogen sulphide, hydrogen gas etc),
- electrical equipment (cables, computers, switchboards etc).

Fire extinguishers shall be inspected and tagged according to legislative requirements.

6. NOTABLE PERSONNEL

Treatment Plant Operator

The duty treatment plant operator is responsible for the day-to-day operation of the site and shall be the first responder to any emergency situations. They shall act as the Emergency Controller and Fire Warden until such a time that they are relieved of their duty by Emergency Services, in which case they shall support the response through their intimate knowledge of the treatment plant compound. All operators shall be First Aid Trained to the Level 2 certification.

Delmore - Vineway Land Development Representative

Delmore is the ultimate owner of the wastewater treatment plant. They hold all consents associated with the treatment plant and its operations. Third party stakeholders shall direct all enquiries, complaints or identified issues with the networked supplies to Delmore who shall action these accordingly between their operations and maintenance partners.

7. RESPONSE PLAN

GENERAL INFORMATION

Designated Emergency Assembly Point:The Main Gate

Site First Aid location:	Main Plant Control Room
Site Fire Extinguishers location:	Various locations, refer attached
Site Emergency Spill Kit location:	Chemical Load Out Bay

Emergency phone number:	111
Healthline:	0800 611 116
Worksafe:	0800 20 90 20
Civil Defence:	111
Poison Centre:	0800 76 47 66
The Doctors Drury:	09 xxxx xxxx (not for emergencies)
The Franklin Hospital:	09 xxxx xxxx (not for emergencies)

Medical Facilities for Minor Injuries

ADDRESS

See **Figure 6** for the route to the DOCTORS NAME

Figure 6 - Screenshot of Google Maps route to nearest medical facility with directions.

Medical Facilities for More Severe Injuries

ALWAYS CALL 111 AND SPEAK TO THE OPERATOR FOR A SERIOUS INJURY. IF THE ADVICE IS TO DRIVE THE INDIVIDUAL TO THE HOSPITAL REQUEST INFORMATION ON THE BEST HOSPITAL.

NEVER LET THE INJURED PERSON DRIVE THEMSELVES IF THE INJURY IS SERIOUS.

See **Figure 7** for the route to LOCAL HOSPITAL

Figure 7 - Screenshot of Google Maps route to nearest hospital with directions.

Emergency Call Dialogue

The emergency phone numbers for Fire, Ambulance, Police, Gas, Chemical Spills:

Dial 111

When calling 111, read the following:

We have an emergency at:	Delmore Wastewater Treatment Plant, it is located at ADDRESS
We need help from:	Ambulance / Fire / Police
Directions to the emergency are:	DIRECTIONS. Someone will guide you into site, if available.
Our phone number is:	Duty Operator phone number
The medical problem seems to be:	Medical, Chemical, Fire, Explosion (all of the above)

Send someone outside to meet the emergency services.

Response in the Event of Injury to Personnel (On-site)

Before helping someone, who is injured, all workers must remember to:

STOP – LOOK – ASSESS – AND DON'T TAKE ANY RISKS!

If you are the person injured:

- 1) If you're seriously injured and you are able to do so, call 111 immediately and follow their instructions.
- 2) If you're injured, but you don't think it is serious, notify your nearby co-worker or if that is not possible, call your supervisor or on-site co-worker.
- 3) If possible, get another co-worker to find or call the trained first aider on-site.
- 4) If no-one is available and you have assessed your injury as non-serious and you are capable of driving, take yourself to the nearest Accident and Emergency medical center.

If you come across an injured person / people:

- 1) **STOP – LOOK – ASSESS – AND DON'T TAKE ANY RISKS!**
- 2) Do not approach the individual(s) until you are certain you are not putting yourself at risk.
- 3) Call 111 immediately, follow the dialogue above.
- 4) Notify a nearby co-worker, the Operator or any other person close by to support you.
- 5) If you are First Aid trained and it is safe to do so, commence First Aid.
- 6) **DO NOT LEAVE THE INJURED PERSON BY THEMSELVES.**
- 7) Request the support person to bring anything you require to support the injured individual (ie, First Aid kit)
- 8) If possible, send someone outside to meet the ambulance.
- 9) Once the ambulance arrives, brief them on the situation and hand over the response.

Complete incident report and notify Delmore after the emergency. The effectiveness of the emergency plan shall be reviewed. Delmore shall investigate the cause and carry out steps to prevent it from repeating if possible.

Response in the Event of a Fire Emergency

The first concern in an event of fire is always the immediate safety of all people present.

In the event of small fire on-site that can be extinguish with fire extinguisher and it is safe to do so, follow this procedure:

- 1) Retrieve the nearest extinguisher and follow the steps below to extinguish the fire.
- 2) Locate the closest fire extinguisher and emergency exits.
- 3) Ensure you are using the correct extinguisher for the fire type.
- 4) Ensure you always keep an emergency exit or exit path behind you, away from the fire.
- 5) Stay low to avoid the effects from heat and smoke.
- 6) Direct the extinguisher stream at the base of the flames.
- 7) Move the extinguisher stream in a side-to-side sweeping motion.
- 8) If the fire gets to the point where you are no longer able to control it or there is too much heat or smoke, retreat and close the doors.
- 9) Call 111 immediately.
- 10) Notify the Fire Warden – Duty Operator, who shall retrieve the sign-in sheet, sounds the alarm and ensure the site is clear of personnel.
- 1) If possible, send someone to meet the emergency services and direct the services to the emergency event.
- 11) Notify Delmore who can manage any response within the community.



In the event of large fire on-site the following procedure must be followed:

- 1) Notify the Fire Warden – Duty Operator.
- 2) The Fire Warden shall coordinate evacuation.
- 3) Call 111 and notify Delmore.
- 4) When calling 111, read the emergency dialogue above.
- 5) Send someone to meet the emergency services and direct the services to the emergency event.

Incident report shall be completed, and the effectiveness of the emergency plan shall be reviewed after the emergency. Delmore shall investigate the cause and carry out steps to prevent it from repeating if possible.

Response in the Event of a Chemical Spill Emergency

Refer to Environmental Management Plan for detailed spill response.

Response in the Event of a Gas Emergency

Gas detection is installed in the Screens Room to notify personnel in the event of the detection of potentially hazardous gases. These detectors monitor for the presence of Hydrogen Sulphide (H₂S), Lower Explosive Limit (LEL), Carbon Monoxide (CO) and Oxygen (O₂).

In the event of a detection, an audio-visual alarm located at the pedestrian entrance to each of these rooms shall energise highlighting the potentially hazardous conditions. These alarm limits shall be set far below the limits at which there is a risk to personnel on site. The control system shall also alarm notifying the operator in the Control Room. If this occurs outside of the manned site hours, an SMS shall be sent to the operator.

In the event of gas detector alarming, follow this procedure:

- 1) If you are inside Screens Room, immediately evacuate the room and close the door behind you.
- 2) If you are not inside the Screens Room, do not enter the room if you hear the alarm and see flashing visual alert above the entrance door.
- 3) Notify the duty Operator immediately who shall manually increase the ventilation rate of these rooms.

Response in the Event of a Natural Disaster

When disaster strikes follow this procedure:

- The priority is the protection of people over anything else. Get yourself and others to a safe location whether that is offsite, or on-site.
- In the event of an earthquake, tsunami or volcanic eruption, get yourself to the nearest safe location. This may be off-site.
- Do not return inside any buildings or to any locations where hazardous substances may be kept until it is safe to do so.
- If the site emergency back-up generator auto-change over has occurred and the plant is energised, the control system may be available remotely.
- The treatment plant is designed to be resilient in the event of an emergency and shall operate to feed the water supply to the development in the case of fires or emergency needs. Do not turn the plant off unless you have received guidance from emergency personnel.

If earthquake strikes remember:

- Keep calm
- Stay indoors where practical
- Drop, cover and hold (Get under something that covers you, like a strong table or other sturdy structure. Hold onto it if you can.)
- Keep away from windows and heavy furniture
- If necessary (the earthquake is too strong or lasts more than a minute), evacuate using a previously identified route
- After the earthquake, proceed immediately by the safest identifiable route to the designated emergency assembly point
- Remain there, until all persons are accounted for and the Duty Operator has given the official clearance to return to work or leave site.

During the volcanic eruption:






- Stay indoors as much as possible.
- Save water as early as possible as supplies may become contaminated.
- If it is safe to do so, keep gutters and the roof clear of ash to prevent your roof collapsing.
- If you must go outside, use protective clothing, cover your head, breathe through a mask and carry a torch.
- Wait for Civil Defence instruction and follow their recommendations.

8. HAZARDOUS SUBSTANCES

Where to Find Information on Hazardous Substances

Information on Hazardous Substances can be found in several locations. These are detailed below:

If the hazardous substance emergency occurs around the location of storage or use, the best location to receive all relevant information is the Main Control Room as this will minimise any risk to personnel involved. Collect the MSDS folder from the control room.

Location	Colour Reference	Description
Main Control Room		The MSDS and chemical inventory
Bulk Storage		On each bulk tank HSNO Pictograms are shown identifying the hazards associated with the chemical stored
Bulk Storage		On each bulk tank HSNO Pictograms are shown identifying the hazards associated with the chemical stored
Packaged Chemical Storage		On each package of packaged chemicals HSNO information is shown on the label
Chemical Dosing Pumps		On each of the dosing cabinets, HSNO pictograms identify what chemical is being pumped.

Hazardous Substance Inventory

The chemical inventory is a live document which is updated if any new chemicals are delivered to site, regardless of the volume held. A general inventory can be found in Appendix C of the Environmental Management Plan, however this contains the maximum volumes allowable under the Industrial and Trade Activity consent and does not include incidental chemical that may also be found on site, such as cleaning chemicals, oils for motors and gear boxes, chemicals used in the maintenance and repair of plastic pipework, paints etc.

Hazardous Substances Locations

Hazardous substances are stored on site either in bulk or packaged. Chemicals stored in bulk are shown in **Figure 8**. Each bulk chemical storage tank has a secondary containment – a chemical bund. Alkalis and acids are separated. Acid storage includes Sulphuric Acid tank and Acetic Acid tank. Alkali storage includes Sodium Hydroxide tank and Sodium Hypochlorite tank.

Figure 8 – Location of Bulk Chemical Substances.

Figure 10 – Packaged chemical storage in the wastewater treatment plant.

9. TESTING THE PLAN

The Emergency Response Plan is to be tested annually. The results of the testing will be recorded in Appendix B.

10. AUDITING PROGRAMME

The site shall be subjected to yearly management audits to ensure it is adhering to the requirements of this Emergency Response Plan. XXXXXX as the operator of the treatment plant does not stipulate the external auditing requirements, however it is expected that the owner of the plants shall be carrying out regular audits to ensure conformance to this plan and their requirements.

11. STAFF TRAINING

All staff and subcontractors working or regularly visiting the Delmore Treatment PLant shall be inducted prior to commencing activities on site. Within this induction, the requirements of the site's emergency response plan shall be outlined.

If a change in this document occurs, these changes shall be distributed and re-briefed to all staff.

Delmore holds a training register that is managed by the company's health and safety personnel. This register identifies training requirements, stores certifications and provides automated notifications when training needs to be updates.



Appendix A



Appendix B