

Document Owner: Head of Network Operations and Engineering

Wastewater Overflow & Clean Up - Maintenance Procedure

Procedures to ensure public health and safety by identifying and repairing wastewater blockages. The protection of public health and safety is the primary consideration in the clean-up of sewer overflows, not cost.

Health & Safety and Operational Information

Hazard Indicators

Personal Protection

Health and Safety Information

- Health and Safety documentation.
- Generic Traffic Management Plans or site-specific Traffic Management plan.
- Hazardous Waste
- Confined Space Entry
- Gas detection

Operation's & Maintenance Documentation

- Corridor Access Requests (CAR) and WIP Permits (site specific or generic/global)
- Service plans (B4uDig)
- Design drawings
- Site plans
- Notification Calling Cards

Customer Information (Confidential)

- Blow Back at risk customers (WWL)
- Vulnerable customers (DHB supplied list)
- Priority customers (WWL)

Priority Customer Categories

- Schools and Childcare
- Commercial premises
- Hospitals
- Retirement Homes/Villages
- Correction Facilities
- Military Installations
- Oil and Gas Refinery

Emergency Procedure / Escalation

Emergency

- In event of service strike to utility/energy source (e.g. fuel, Gas, Power, Water etc.) report immediately to team leader
- Make "Site Safe" and isolate risks to people or property with resources at hand

Escalate if extra resources required or problems occur!

- Escalate to Team Leader and inform of the issues faced and/or expected resources required if necessary.

Additional Documentation

Required Skills, Competencies (Qualifications and/or Certifications)

Competent persons only

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Standard Operating Procedure

Required Equipment

Equipment and Information	Details
Fully Equipped Vehicle	Ensure vehicle, plant, equipment and materials appropriate to the day's work schedule is available
Vulnerable & Priority List	Vulnerable and priority Customers Lists.
Specialist Equipment	Roding equipment Water Jetting Equipment Sucker truck where required. Tripod and safety harness Gas detection Ensure equipment is made available to prevent or minimise discharges to property and the environment
Flow control materials	Sand bags, bundling and containment materials
Sterilisation Kit	Site sterilisation equipment

Prepare to do the work

Action	Action Details
Pre Start Process	Complete the Daily Pre Start - Planning Reactive Maintenance
Compliance	Traffic Management Plan - Where required, TMP to be in place prior to work starting. TMP to be accessible on site.
Compliance	Ensure equipment is made available to prevent or minimise discharges to the environment
Identify discharge cause	Overflows caused by a network surcharge are a higher priority than those created from a blockage, so if possible eliminate or manage the overflow source prior to clearing the blockage.
Customer Notification	Inform affected properties of the overflow via door knock and / or letter drop.
Blow Back List - Pre-flushing notification	Check affected network service area against current Blow Back list. If possible, notify of closure and intent to flush system (If required) and expected timeframe for non-utilisation. Provide at risk properties with Blow back prevention instructions sheet.
Alternate supply and Vulnerable and Priority Customers	Dependant on nature of event and customer needs arrange alternate service provision for Vulnerable and Priority Customers. See Alternate Wastewater Service Process Raise a child work order for provision of this service. Synchronise iPad.
Hi risk discharge locations	List of all high risk discharge locations and associated mitigation actions for both Wastewater and Stormwater networks
Sucker truck	Arrange for Sucker truck to collect wastewater from an upstream point to prevent further overflows. May be required to clear wastewater blockage.

Perform the work

Action	Trade	Action Details
Maintenance	Competent Serviceperson	Undertake all tasks required in the Pre-Start - Planning for Reactive Maintenance. Implement TMP. Review and update as needed to suit site conditions.
Minimise flow	Competent Serviceperson	If possible control the source of the wastewater discharge. Initiate overland pumping or diversion of wastewater flow where possible to reduce overflow volumes.
Trace Issue Source	Competent Serviceperson	Identify cause of wastewater overflow. Trace flow and identify blockages downstream to open free flowing network and upstream to determine if cause is blockage. Identify access manholes to be utilised to unblock or redirect network flow. Utilise the iPad embedded GIS to locate all network manholes.

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Private source	Competent Serviceperson	Where blockage is private notify property owner and advise property owner to engage a plumber/drainlayer. Where blockage is on the public mains follow procedure below. If there are pollutants / effluent on public land, make safe and clean up this area to required standard.
Surcharge	Competent Serviceperson	If overflow cause is due to network overload / beyond capacity notify supervisor and implement flow control and containment measures.
Assess Risk	Competent Serviceperson	If properties are flooded, have the potential to flood or suffer from wastewater overflow raise separate work order to deal with property damage mitigation and use emergency / escalation process contact your Supervisor.
Environmental Assessment	Competent Serviceperson	Identify areas to be protected from potential pollutants and run off. If possible, control flow and storage of overflow effluent to minimise impact to property, people and the environment. Utilise bark bunds and sandbags etc. to contain and/or direct flow to reduce property and environmental impacts. Sewer or overland flows must be contained as soon as possible or practical, particularly where flow enters any of the following: - piped stormwater systems, - open stormwater drains - streams (or other waterways)
Environmental Assessment	Competent Serviceperson	If required request a network trace from Infonet staff at Wellington Water to identify all affected areas and receiving environments downstream. Supervisor's approval is required Identify potential areas where control and damage mitigation can be implemented
Containment	Competent Serviceperson	If possible, arrange for sucker truck(s) to assist in clean up and control measures, this must be done with Supervisor's approval.
Assess Service Loss	Competent Serviceperson	Based on event scale and issue encountered, provide an estimated timeframe for closure of network or area. Update the work order, work log with this information and save work log. If significant event call your supervisor and update directly.
Raise Child Work Order	Competent Serviceperson	Dependant on nature of event and customer needs arrange alternate service provision for Vulnerable and Priority Customers. Raise a child work order for provision of this service. Synchronise iPad
Ecology	Competent Serviceperson	View GIS, inspect area, determine safety requirements and complete Hazard assessment form. If required request a network trace from Infonet staff at Wellington Water to identify all affected areas and receiving environments downstream.
Public Safety	Competent Serviceperson	Arrange for signage, gates, cones and other safety requirements to be deployed along affected routes to ensure public health and safety is maintained.
Communications	Competent Serviceperson	Notify Supervisor so that an appropriate person can communicate with the affected homeowner or media.
Clean-up	Competent Serviceperson	If possible, arrange for sucker truck(s) to assist in clean up and control measures, this must be done with supervisors' approval. Wastewater discharge can be to either the wastewater treatment plant or agreed alternate network location. Follow overflow route from sea to source removing all polluted materials Ensure areas, which have been contaminated are sterilised in a method appropriately to their location. On completion of site clean-up select service restored status on the work order Dispose of all contaminated materials to landfill or treatment plant as appropriate.
Raise Child Work Order	Competent Serviceperson	Dependant on nature of event and customer needs arrange alternate service provision for Vulnerable and Priority Customers. See Alternate Waste Water Service

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Action	Trade	Action Details
		Process Raise a child work order for provision of this service. Synchronise Ipad
Notifications	Competent Serviceperson	Notify WWL Planning Engineer within one hour.
Inspection	Competent Serviceperson	Perform visual inspection of the site and affected areas to ensure NO wastewater sludge remains and that clean-up is thorough and complete.
Reinstatement	Competent Serviceperson	Reinstate grass or plants damaged by the overflow or disinfection procedures.
Health and Safety	Competent Serviceperson	Disinfect yourself and dispose of or sterilise all PPE and tools with 100mg/l chlorine solution. Staff expected to return to working on Potable water network must ensure there is no risk of cross contamination with PPE or tools.
Documentation	Competent Serviceperson	Complete the wastewater overflow report form. Ensure all details are completed and that the form is saved and contains appropriate / relevant work order and asset information.
Assess need for further investigation	Competent Serviceperson	Investigate the materials removed to determine the root cause of the overflow. If structural damage, siltation and / or root penetration is believed to have caused the blockage Request a CCTV assessment of the pipeline to enable accurate pipe failure assessment. Generate a new child work order for this activity.
Maintenance	Competent Serviceperson	If further reinstatement required create new work order for the task as per Generate child work order process
Closure	Competent Serviceperson	Carry out work order closure procedures as per Reactive Maintenance - Generic Maintenance Procedures