

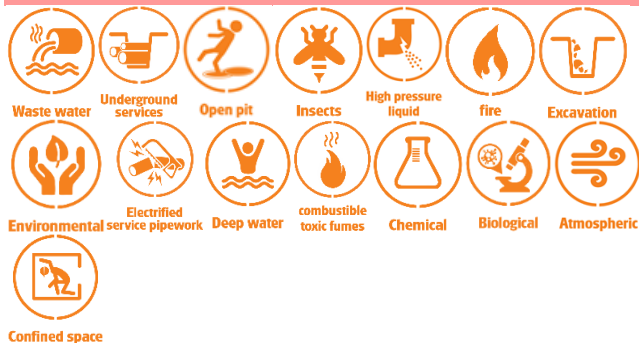
Document Owner: Manager Customer Planning

Water Transmission Pipelines - Planned Maintenance

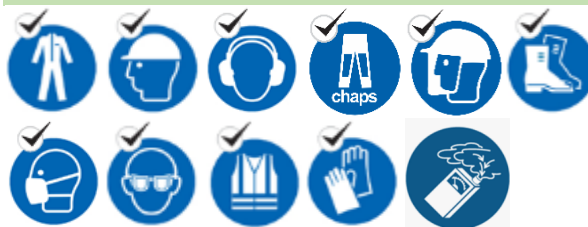
Procedures for maintenance and inspection of water transmission pipelines.

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

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)

- 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)

Mechanical Fitter and Turner.

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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.
Specialist Equipment	Ensure specialist equipment required is available for utilisation. FAC testing equipment Disinfection equipment Use Sodium Thiosulphate to neutralise chlorinated water when scouring
Specialist Materials & Parts	Ensure you have loaded up all the required parts and materials required to undertake the maintenance work to be completed.
Specialist Contractor	Suitability qualified engineer for civil or structural inspections
Vulnerable & Priority List	Affected local Client Council
Alkalinity Analysis Equipment	Requires the following equipment: - Schillings Burette with plastic solution bottle attachment. - Burette stand complete with 2 clamps - Plastic 100ml beakers pre-labelled for each sample site. - Calibrated pH instrument - Requires the following reagents: - 0.02N Hydrochloric acid. - Buffer solutions 7.0pH and 4.0pH
Conductivity Accuracy Test	Requires the following resources: - Barnstead water - Isopropyl alcohol
Turbidity Meter Calibration	Requires the following resources: - 20NTU formazin - Fresh barn-stead water
Exposed Crossing Pipework Cleaning	Requires the following resources: - "Wet and forget" fungus treatment.
pH Probe Replacement	pH probe used is Liquiline M CM42).
S:can Spectroliser	Equipment to clean and maintain S:can Spectroliser

Prepare to do the work

Action	Action Details
Pre Start Process	Complete the Daily Pre Start – Planned Maintenance - Include Hazard ID - Include Pre-Start Tailgate Meeting Undertake all tasks required in the Generic Planned Maintenance SOP.
Compliance	Traffic Management Plan – Where required, TMP to be in place prior to work starting. TMP to be accessible on site.

Perform the work

Action	Trade	Action Details
Inspect	Mechanical Fitter & Turner	Water Pipelines Instrument Calibration Access Chamber Well Pump Inspection
Maintenance	Licenced Operator	Check and clean water pipeline S:can Spectroliser Replace seals on Autoburette Exposed Crossings Pipework Cleaning Pipework Flushing Scour operation and drain Dead Leg Flush

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Water Transmission Pipelines - Planned Maintenance

Action	Trade	Action Details
		Exercise Valves VSD Maintenance pH probe replacement Air Valve Service Flow Meter Verification
Inspect	Licenced Operator	Alkalinity Analyser Check Conductivity Accuracy Test Turbidity Meter Calibration Level Switch & Alarm Check Air Valve Check Distribution Air Valves Inspection Water Pipelines Safety Barriers Inspection Pressure Switch Operational Check Water Well Integrity Check
Inspect	Engineer	Water Pipelines Culvert Structural Inspection
Closure	Licensed Operator	Carry out work order closure procedures as per Planned Maintenance. Generate child work orders as required.
Maintenance	Mechanical Fitter & Turner	Valve Module Check