



Leakage monitoring in McCrae

1.0 Purpose

Create a single view of the various network monitoring activities being undertaken in McCrae to identify trends and facilitate prompt identification and escalation of any potential issues in the priority zone. This process has been designed to maintain a heightened level of vigilance in the area of known sensitivity. Outcomes from these processes will inform a longer-term strategy for this and any other landslide prone areas once known.



McCrae Priority Zone

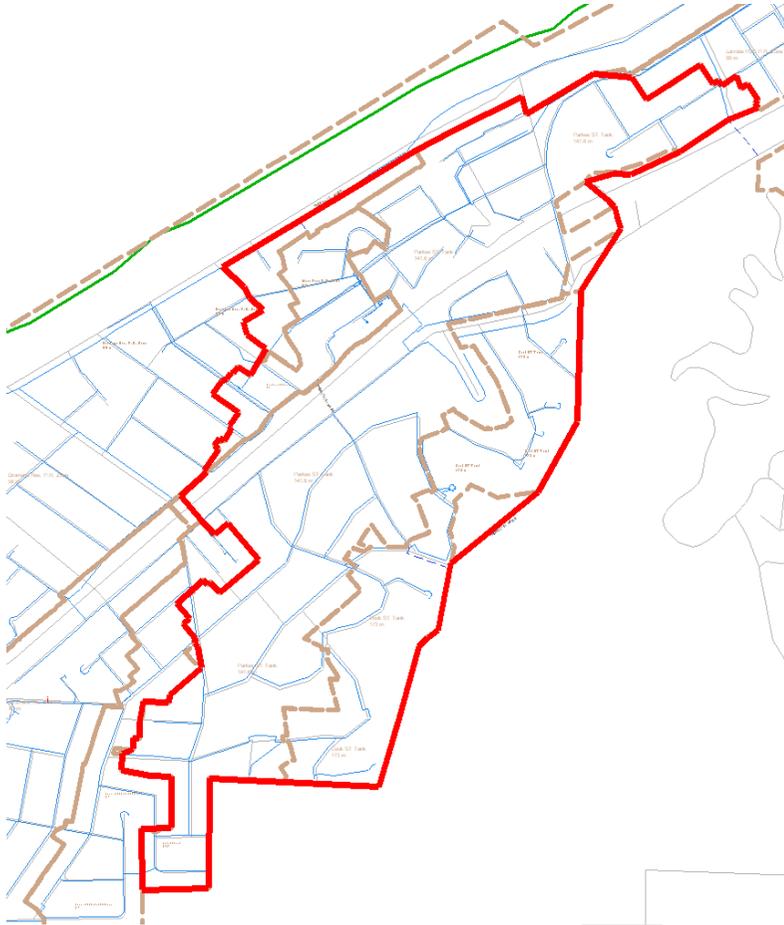


Figure 1: Area in McCrae where all jobs are classified as Priority 1

Created: 29/5/2025
Reviewed: XXXXXX
Branch: Water Operations



2.0 Process

Responsible teams to check source systems and monitor, survey and escalate any unexpected results. This process is the responsibility of the Group Manager Maintenance and includes weekly reporting to General Manager Service Delivery unless an unexpected result is detected in which case it needs to be reported earlier.

2.1 Proactive Leakage Detection

Reticulation and Distribution Mains

Activity	Source of information	Responsible	Frequency before McCrae Landslide	Frequency since McCrae Landslide
Night flow analysis	SCADA	Dat Pham	As required	Daily (M-F) Min three times /Week
Leakage Survey (1)	Service Stream	Charles Swain	As required	As required
Leakage Survey (2) Proactive leak detection	Service Stream	Charles Swain	Every seven years	Fortnightly
Hydrant maintenance	Montage	Frank Zhou	Annual	Annual activity Completed in McCrae for 2024-25



Fittings maintenance	Montage	Frank Zhou	Annual	Annual activity Completed in McCrae for 2024-25
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- (1) In response to changes in nightline indicating possible site investigation and repair, or in response to Digital Meter alerts.
 (2) Undertaken as a preventative assessment of the priority zone.

2.2 Proactive Leakage Detection

Distribution mains and Trunk Mains

Activity	Source of information	Responsible	Frequency before McCrae Landslide	Frequency since McCrae Landslide
Enigma sensor results	Loggers onsite downloaded manually	Hayden Phillips	Needs basis	To be used on as needs basis
Von Roll sensor results	Loggers onsite	Hayden Phillips	Trialled	Daily



2.3 Proactive Leakage Detection

Water Tanks and Structures

Activity	Source of information	Responsible	Frequency before McCrae Landslide	Frequency since McCrae Landslide
Site check at tanks	Montage	Ethan Mansfield	Every two months	Every two months
Overnight draw down test at McCrae low level tank	Montage and telemetry	Nico Macwilliams	As required	Completed after the landslide and did not indicate a leak
Ground water monitoring – in progress	Montage	Ethan Mansfield	No	Water level logged Water quality after key events

2.4 Reactive Leakage Detection

All, pipe and ancillaries, all sizes.

All reports of leaks identified by our own team, through customer calls and Snap Send Solve should be treated as Priority 1

Activity	Source of information	Responsible	Frequency before McCrae Landslide	Frequency since McCrae Landslide
Leakage Survey (3)	Service Stream / Downer	Charles Swain	As required	As required



Water Sample surface water detection (3)	Service Stream/ Customer/ ALS (lab testing)	Dat Pham	As required	As required
Valve & hydrant inspections	Customer/ Service Stream/ Downer	Frank Zhou	As required	As required

(3) In response to a P1 issued by the F&E team, leak detection, in field chemistry test.

3.0 Sewerage Network

All, pipe and ancillaries, all sizes.

All activities to proactively monitor the Sewerage Network in the priority area.

Activity	Source of information	Responsible	Frequency before McCrae Landslide	Frequency since McCrae Landslide
CCTV of sewers	CCTV Service IPs	Justin Cao	Based on serviceability issues, needs basis	As required 37 lines completed by 6 May 2025
Scheduled sewer cleaning jobs	Montage	Helen Donohoe		As required



4.0 Mechanical and Electrical network

Activity	Source of information	Responsible	Frequency before McCrae Landslide	Frequency since McCrae Landslide
WB149 Waller Place PRV – Pressure Reducing Valve / Surge Relief Valve General inspection – Monitoring Telemetry instrument checks	Montage	Laurence Salley	12 Months 12 Months	No Change
WP208 McCrae pump station (Waller Place) – Pressure vessel internal checks – Mech checks- electrical long-term checks - Surge control mech checks	Montage	Laurence Salley	48 Months 12 Months 12 Months	No Change (Flowmeters checked out of cycle after the landslide and found functioning well)



WR174- McCrae low level tank (Waller Place) - Altitude Valve checks - Monitoring Telemetry checks	Montage	Laurence Salley	12 Months 24 Months	No Change
WT058 – McCrae high level tank number 1 (Parkes St) - Altitude Valve checks - Monitoring Telemetry checks	Montage	Laurence Salley	12 Months 24 Months	No Change
WT059 - McCrae high level tank number 2 (Parkes St) – Mech Checks	Montage	Laurence Salley	24 Months	No Change
WP222 – Parkes St McCrae pump station (Parkes St)	Montage	Laurence Salley	12 Months 12 Months	No Change (Flowmeters checked out of cycle after the



<ul style="list-style-type: none"> - Mechanical checks – Elec long term checks -Electrical short-term checks- 			6 Months	landslide and found functioning well)
WT060 - Cook St tank (Cook Street) <ul style="list-style-type: none"> - Monitoring Telemetry checks 	Montage	Laurence Salley	24 Months	No Change
WB130 – Cinerama Cres PRV <ul style="list-style-type: none"> -PRV set & general inspection 	Montage	Laurence Salley	12 Months	No Change
WB131 – Flinders St PRV <ul style="list-style-type: none"> -PRV set & general inspection 	Montage	Laurence Salley	12 Months	No Change
WB139 – Beverley Rd PRV <ul style="list-style-type: none"> -PRV set & general inspection 	Montage	Laurence Salley	12 Months	No Change



Figure 2: Council declared exclusion zone

5.0 Maintenance of this Process

This process to be reviewed on a regular basis and adapted and updated based on most recent experience and learning. It is the responsibility of the Group Manager Maintenance to undertake this review with peers and approval for changes by the GM Service Delivery.