

VILLAGE OF MIDWAY  
POLICY AND PROCEDURE MANUAL  
RISK MANAGEMENT "WATER SYSTEM PREVENTATIVE MAINTENANCE PROCEDURES"

POLICY NO. 320

Minimum requirement - Class 1 Certification in Water Distribution and willing to obtain Level 11 as required.

Policy Statement - It is the policy of Council to recognize the necessity of an orderly preventive maintenance program and a written record of these procedures be maintained.

Policy Background - This new \$2,060,000.00 system installed and operational in 1995, complete with a reservoir, 2 pump stations - Jesalin (lead duty in summer), Dawson (lead duty in winter) and 56 fire hydrants. (A third pump station - 12th. Ave. was built in 1993 at a cost of \$24,360.00, presently has only a 3 HP Pump and is not in use, however, power is still connected to prevent freezing) Note: System fully completed in November 96.

The following is a list of preventive maintenance procedures recommended for the new water system. Checks and tests should be done in accordance with Manufacturer's Operations & Maintenance Manual.

1. Storage Reservoir: Note: RESERVOIR UNDER STRENGTH CONCRETE

"The first 5 year interior inspection is to be completed by our Engineers prior to December 8, 2000." The \$129,817.75 maintenance bond expires on December 8, 2000. Full details pertaining to this "Under Strength Concrete" problems and maintenance bond, see: "Reservoir Problem File" in Fire Proof Cabinet"

Monthly: Visual Inspection of site, ensure access hatch is secure.

Annually: Operate isolation valves.

5 Yearly: Drain reservoir - visual interior inspection for any defects.

Pressure clean reservoir and disinfect.

2. Pump Stations: (Jesalin and Dawson) - Sample log book attached pages 4 & 5.

- Daily : Visit pump stations and record all meter readings.
- Annually : Detailed Inspection of Buildings and Appurtenances. Maintenance where necessary. Test Automatic Dialler, automatic control valves and flow meters. (page 6 inspection report)
- 5 Yearly : Check and Test operation of automatic control valves, flow meters and service as required. Test pump performance. (These operations can be done by same Contractor who does reservoir cleaning and inspections)

Note:

- \* Set Jesalin pump on lead duty in summer.
- \* Set Dawson pump on lead duty in winter.
- \* Anyone entering the pump station must sign the log book and detail any work or adjustments made on the system.

3. Reticulation System

a) Hydrants: Page 7 Inspection Report

- Annually: Inspect each fire hydrant.  
Note condition of operating nuts, caps, flanges, chains and general appearance of hydrant and surroundings - remedy any faults that are evident.  
Operate hydrant, open fully with cap on and note following:
- \* insufficient number of turns to open
  - \* hard binding operation in closing or operating
  - \* leakage at nozzles or ground-line flange.
- Remove caps and flush hydrant for a short duration.  
Close hydrant and record pressure reading.  
Repaint hydrants where necessary.  
Ensure hydrants free of weeds and other obstructions.  
Update Hydrant Maintenance Record Manual.
- 5 Yearly: In addition to annual maintenance, each hydrant should be dismantled and serviced in accordance with Manufacture's Specifications.

b) Valves: Pages 8 & 9 Inspection Reports

Annually: Inspect each valve location.  
Operate each valve and note ease of operation.  
Clear riser pipe of rocks and debris if necessary.  
Clear surroundings of weeds, etc..  
**ENSURE ALL VALVES IN FULLY OPEN POSITION.**

Note: On a regular basis and particularly after work is executed on the pipe network, air should be bled off from the hydrants at the high points of the system.

c) Flushing Main Lines:

Full system to be flushed Semi-Annually (Spring and Fall)

\*Important - Dead end lines must be opened and flushed out at least every three months.

d) Bridge Crossing:

Inspect bridge crossing pipe on a regular basis for signs of damage and/or vandalism.  
Annually in Fall - inspect bridge pipe cladding and test heat trace for operation.  
Operate drain valves.  
During periods of extremely cold weather, daily visual inspection to ensure heat trace is operating is recommended. (page 6 attached)

e) Also refer to Public Works Policy No. 200, Section 4. "Water System Pumphouses, Reservoir"

Adopted by Council November 4, 1996

Reviewed and adopted as amended to reflect Policy No. 320 and Section (e) this 1st day of March, 1999.

(old Policy No. 500)

LOG OK AT

DAWSON PUMP STATION

[illegible]



## JESALIN PUMP STATION

[illegible]

**VILLAGE OF MIDWAY  
WATER SYSTEM ANNUAL REPORT**

**RESERVOIR**

Date: \_\_\_\_\_

Operate Isolation Valves (Annually) \_\_\_\_\_

Site Inspection (Monthly) \_\_\_\_\_

COMMENTS: \_\_\_\_\_

Note: Refer to page 1 - Regarding additional reservoir  
maintenance every 5 years.

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**JESALIN & DAWSON PUMP STATIONS** (Daily/Annually - see note below)

Date: \_\_\_\_\_

Check Buildings & Grounds \_\_\_\_\_

Test Automatic Dialler \_\_\_\_\_

Test Automatic Control Valves \_\_\_\_\_

Test Flow Meters \_\_\_\_\_

Test Manual Functions \_\_\_\_\_

Start-up/Shut-down etc.. \_\_\_\_\_

COMMENTS: \_\_\_\_\_

Note: Refer to page 1 - Regarding additional - Pump stations  
maintenance every 5 years.

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**BRIDGE CROSSING**

Date: \_\_\_\_\_

Inspect Pipe for Damage/Vandalism (Monthly) \_\_\_\_\_

Inspect Pipe Cladding in October \_\_\_\_\_

Test Heat Trace for Operation in October (Daily Inspection of in  
extremely cold weather) \_\_\_\_\_

Operate Drain Valves (in October) \_\_\_\_\_

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
Signed

VILLAGE OF MIDWAY  
WATER SYSTEM  
ANNUAL HYDRANT MAINTENANCE REPORT

HYDRANT NO: \_\_\_\_\_

LOCATION: \_\_\_\_\_

CAPS: Missing \_\_\_\_\_, Replaced \_\_\_\_\_

PAINT: O.K. \_\_\_\_\_, Repainted \_\_\_\_\_

HYDRANT TYPE: \_\_\_\_\_

NOZZLES: O.K. \_\_\_\_\_, Replaced \_\_\_\_\_

VALVE &amp; SEAT: O.K. \_\_\_\_\_, Replaced \_\_\_\_\_

PACKING: O.K. \_\_\_\_\_, Replaced \_\_\_\_\_, Tightened \_\_\_\_\_

DRAINAGE: O.K. \_\_\_\_\_, Corrected \_\_\_\_\_

FLUSHED: \_\_\_\_\_, Minutes \_\_\_\_\_ nozzle open

PRESSURE: Static \_\_\_\_\_, Residual \_\_\_\_\_, Flow \_\_\_\_\_ g.p.m.

BRANCH VALVE: Condition: \_\_\_\_\_

ANY OTHER DEFECTS: (installations, extensions, etc.) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date Inspected: \_\_\_\_\_ By: \_\_\_\_\_

Defects Corrected: \_\_\_\_\_ By: \_\_\_\_\_

POSTED: \_\_\_\_\_

Note: Refer to Page 2 regarding additional - Hydrant maintenance every 5 years.



VILLAGE OF MIDWAY  
WATER SYSTEM ANNUAL REPORT  
ANNUAL VALVE INSPECTION

1. Operate each valve
2. Clean riser pipe (rocks, debris etc.).
3. Clean surrounding weeds, etc.
4. Ensure all valves are in open position.

LOCATION	CORNER	# OF VALVES	✓
Fourteenth Ave. & Division St.	N.E.	1	
Thirteenth Ave. & Division St.	N.E.	2	
Thirteenth Ave. & Trailer Park	N	1	
Thirteenth Ave. & Twelfth Ave.	N.W.	2	
Thirteenth Ave. Blowoff	N	1	
Division St. & Twelfth Ave.	S.C.	1	
Adams St. & Twelfth Ave.	S.W.	1	
Twelfth Ave. & Beamish St.	S.W.	3	
Hwy #3 & Beamish St.	S.W.	2	
Cleghorn St. & Palmerston St.	S.W.	2	
Palmerston St. & Florence St.	S.E.	2	
Palmerston St. & Gertrude St.	S.E.	3	
Cleghorn St. & Ninth Ave.	N.W.	2	
Florence St. & Ninth Ave.	N.E.	3	
Gertrude St. & Ninth Ave.	N.E.	3	
Jesalin St. & Ninth Ave.	N.E.	2	
Florence St. & Eighth Ave.	N.E.	3	
Gertrude St. & Eighth Ave.	N.E.	4	
Jesalin St. & Eighth Ave.	N.E.	2	
Cleghorn St. & Seventh Ave.	N.W.	2	
Dawson St. & Seventh Ave.	N.E.	2	
Florence St. & Seventh Ave.	N.E.	3	
Gertrude St. & Seventh Ave.	N.E.	3	
Jesalin St. & Seventh Ave.	N.E.	1	
Dawson St. & Sixth Ave.	N.W.	3	
Eholt St. & Sixth Ave.	N.E.	1	



VILLAGE OF MIDWAY  
WATER SYSTEM ANNUAL REPORT  
ANNUAL VALVE INSPECTION

1. Operate each valve
2. Clean riser pipe (rocks, debris etc.).
3. Clean surrounding weeds, etc.
4. Ensure all valves are in open position.

LOCATION	CORNER	# OF VALVES	✓
Florence St. & Sixth Ave.	N.E.	3	
Gertrude St. & Sixth Ave.	N.E.	2	
Jesalin St. & Pumphouse	W.S.E.	3	
Florence St. & Fifth Ave.	N.E.	2	
Chamblet St. & Fifth Ave.	N.E.	1	
Gertrude St. & Fifth Ave.	N.E.	2	
Jesalin St. & Fifth Ave.	S.W.	2	
Gertrude St. & Hartland Ave.	N.E.	1	
Jesalin St. & Hartland Ave.	none	0	
Hartland Ave. & Lyall St.	N.E.	3	
Lyall St. & Dominion St.	N.E.	1	
Fourth Ave. & Haynes St.	N.E.	2	
Boundary Ave. & Dominion St.	S.E.	1	
Boundary Creek Crossing North	N	1	
Boundary Creek Crossing South	none	0	
Florence St. & Central Ave.	S.E.	3	
Border Place	W	1	