



# FLORIDA RURAL WATER ASSOCIATION

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## Water System Maintenance Recommendations

FRWA recommends Regular Water System Preventive Maintenance -- aimed at the prevention of breakdowns and failures. Some tasks should occur weekly, monthly, quarterly or annually.

The primary goal of preventive maintenance is to prevent the failure of pumps and equipment before it actually occurs. It is designed to preserve and enhance equipment reliability by replacing worn components before they actually fail. Preventive maintenance activities include exercising valves and fire hydrants; equipment and tank inspections; partial or complete overhauls at regular specified periods; oil changes; lubrication; and so on. In addition, operators can record equipment deterioration so they know to replace or repair worn parts before they cause system failure.

### CURRENT YEAR

#### July Water System Maintenance Recommendations

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- Review and Update Emergency Response Plan from FRWA website
- Contact Electrician to Check Emergency Generator & Run on Load Bank
- Contact Electrician to Check Running Amps on Pumps
- Make Sure Unnecessary Equipment is Properly Decommissioned
- Clean, Inspect & Disinfect Aerator / Degassifier Screens, Sprayheads & Gaskets

#### Typical Monthly Inspections & Maintenance

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*Here is a list of possible monthly preventive maintenance for your water system:*

- Clean & Inspect Wellheads
- Inspect & Clean Chlorine Injection Points
- Run Emergency Generator for 30-min UNDER LOAD, Check ALL Fluid and Fuel Levels
- Test Eye Wash & Emergency Shower
- Inspect Tank Overflow Vent Screens, Ensure Screen Intact, Check Manway Hatch & Ensure it is Secured
- Take Appropriate Monthly Water Quality Samples
- Check & Record Static & Draw-Down (Pumping) Levels in Wells
- Confirm Submittal of Monthly Operation Reports (MORs)
- Lubricate Pumps, Motors, Blowers & ALL Moving/Rotating Equipment
- Inspect ALL Pumps House Water Lines, Gaskets & Fittings for Corrosion & Leaks
- Inspect Pump, Seals, Water Lines & Fittings for Corrosion & Leaks
- Listen to Pump for Unusual Noises (or signs that Bearings are Wearing Out)
- Inspect Scales, Analyzer / Alarm, Oxygen Breathing Apparatus, Cross Ventilation
- Inspect Filter Head for Leaks

#### August Water System Maintenance Recommendations (Non-Peak Month)

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- Prepare Water System for Summer Operation / Hurricane Season (Fuel, Generators, Shutters)
- Perform Building Preventive Maintenance
- Operate ALL Valves Inside Treatment Plant & Pump House
- Clean & Inspect ALL Safety Equipment
- Flush Dead-End Lines (Feb, May, Aug & Nov) Required by FDEP Rule 62-555.350(2) or more often

#### September Water System Maintenance Recommendations

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- Clean RO Membranes or per Mfr Recommendations
- Overhaul or Replace Pressure Relief Valves on Hydropneumatic Tanks - every 5-yrs or per Mfr Recommendations
- Test Pressure Reducing Valves & RPZs
- Clean, Inspect & Disinfect Aerator / Degassifier Screens, Sprayheads & Gaskets
- Flush Distribution System
- Exercise ALL Fire Hydrants & Check FH Valves
- Water Plant & Pump House Building Preventive Maintenance
- Flush Dead-End Lines (Feb, May, Aug & Nov) Required by FDEP Rule 62-555.350(2) or more often

### **October Water System Maintenance Recommendations**

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- Overhaul Chemical Feed Pumps (Feeder Head Cleaned, O-Rings, Check Valves & Diaphragms, Worn-Out Parts Replaced)
- Clean & Inspect Chemical Feed Lines
- Clean & Inspect Chemical Solution Tanks
- Calibrate Chemical Feed Pumps after Overhaul
- Test Eye Wash & Emergency Shower
- Clean & Inspect Chemical Feed Lines
- Clean & Inspect Chemical Solution Tank
- Calibrate Chemical Feed Pumps

### **November Water System Maintenance Recommendations**

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- Exercise HALF of ALL Mainline Valves (You may consider combining Valve Exercising with your Flushing & FH Exercising Program if this is appropriate for your system)
- Check Finished Water Meter for Accuracy (2" or Less Every 3-yrs Recommended) or Annually per Mfr Recommendations
- Change Media in Filter or per Mfr Recommendations
- Flush Dead-End Lines (Feb, May, Aug & Nov) Required by FDEP Rule 62-555.350(2) or more often
- Inspect Storage Tanks for Defects & Sanitary Deficiencies
- Clean Storage Tanks as Needed
- Structural Inspection of Tank & Coatings by Engineer at Least Every 5-yrs and Before Aug 2008 (Clean Tank Prior)
- Perform Tank Coating Repairs per Mfr Specifications & Recommendations
- Clean, Inspect & Disinfect Aerator / Degassifier Screens, Sprayheads & Gaskets

### **December Water System Maintenance Recommendations (Peak Month)**

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- Exercise Remaining HALF of ALL Mainline Valves (not exercised in November)
- ALL Safety Equipment - Clean & Inspect
- Clean, Inspect & Disinfect Aerator / Degassifier Screens, Sprayheads & Gaskets
- Flush Half Distribution System
- Exercise Half Fire Hydrants

## NEXT YEAR

### January Water System Maintenance Recommendations (Peak Month)

- Flush Half Distribution System
- Exercise Half Fire Hydrants

### February Water System Maintenance Recommendations (Peak Month)

- Flush Remaining Distribution System & Exercise Remaining Fire Hydrants (not completed in January)
- Flush Dead-End Lines (Feb, May, Aug & Nov) Required by FDEP Rule 62-555.350(2) or more often
- Inspect, Clean & Repair Control Panels in Water Treatment Plant

### March Water System Maintenance Recommendations (Peak Month)

- Inspect Storage Tanks for Defects & Sanitary Deficiencies
- Clean Storage Tanks as Needed
- Structural Inspection of Tank & Coatings by Engineer at Least Every 5-yrs and Before Aug 2008 (Clean Tank Prior)
- Perform Tank Coating Repairs per Mfr Specifications & Recommendations
- Clean, Inspect & Disinfect Aerator / Degassifier Screens, Sprayheads & Gaskets

### April Water System Maintenance Recommendations

- Clean & Inspect Chemical Feed Lines
- Clean & Inspect Chemical Solution Tank
- Calibrate Chemical Feed Pumps

### May Water System Maintenance Recommendations (Non-Peak Month)

- Flush Distribution System
- Exercise ALL Fire Hydrants & Check FH Valves
- Water Plant & Pump House Building Preventive Maintenance
- Flush Dead-End Lines (Feb, May, Aug & Nov) Required by FDEP Rule 62-555.350(2) or more often

### June Water System Maintenance Recommendations

- Review and Update Emergency Response Plan [\[insert link here\]](#)
- Contact Electrician to Check Emergency Generator & Run on Load Bank
- Contact Electrician to Check Running Amps on Pumps
- Make Sure Unnecessary Equipment is Properly Decommissioned
- Clean, Inspect & Disinfect Aerator / Degassifier Screens, Sprayheads & Gaskets

### July Water System Maintenance Recommendations (Non-Peak Month)

- Prepare Water System for Summer Operation / Hurricane Season (Fuel, Generators, Shutters)
- Building Preventive Maintenance

### August Water System Maintenance Recommendations (Non-Peak Month)

- Operate ALL Valves Inside Treatment Plant & Pump House
- Clean & Inspect ALL Safety Equipment
- Flush Dead-End Lines (Feb, May, Aug & Nov) Required by FDEP Rule 62-555.350(2) or more often

### September Water System Maintenance Recommendations

- Clean RO Membranes or per Mfr Recommendations
- Overhaul or Replace Pressure Relief Valves on Hydropneumatic Tanks - every 5-yrs or per Mfr Recommendations
- Test Pressure Reducing Valves & RPZs

- Clean, Inspect & Disinfect Aerator / Degassifier Screens, Sprayheads & Gaskets

#### **October Water System Maintenance Recommendations**

- Overhaul Chemical Feed Pumps (Feeder Head Cleaned, O-Rings, Check Valves & Diaphragms, Worn-Out Parts Replaced)
- Clean & Inspect Chemical Feed Lines
- Clean & Inspect Chemical Solution Tanks
- Calibrate Chemical Feed Pumps after Overhaul
- Test Eye Wash & Emergency Shower

#### **November Water System Maintenance Recommendations**

- Exercise HALF of ALL Mainline Valves (You may consider combining Valve Exercising with your Flushing & FH Exercising Program if this is appropriate for your system)
- Check Water Meter For Accuracy (2" or Less Every 3-yrs Recommended) or Annually per Mfr Recommendations
- Change Media in Filter or per Mfr Recommendations
- Flush Dead-End Lines (Feb, May, Aug & Nov) Required by FDEP Rule 62-555.350(2) or more often

#### **December Water System Maintenance Recommendations (Peak Month)**

- Exercise Remaining HALF of ALL Mainline Valves (not exercised in November)
- ALL Safety Equipment - Clean & Inspect
- Clean, Inspect & Disinfect Aerator / Degassifier Screens, Sprayheads & Gaskets