



HYDRANT/WATER POINT INSPECTION AND MAINTENANCE

SCOPE

This guideline shall apply to all members of the Stoney Point Fire Department (SPFD) and shall be adhered to by all members.

PURPOSE

To establish a standard procedure for inspecting and conducting regular maintenance on all fire hydrants located with the Stoney Point Fire District.

DEFINITIONS:

DRAIN HOLES – A drain hole on a dry barrel hydrant, which must drain the hydrant barrel to prevent water from freezing and damaging the hydrant.

DRY HYDRANT – Fire Department connection made of PVC pipe extending into a static water source with no pressure.

FIRE ZONE -

FLOW PRESSURE - Pressure created by the rate of flow or velocity (speed) of water coming from a discharge opening.

INSPECT - Process by which something is checked to ensure that it is operable and meets all requirements.

MAINTENANCE - The process of keeping something in good condition to ensure operability.

POUNDS PER SQUARE INCH (PSI) - The US unit for measuring pressure.

SHALL - Indicates a mandatory requirement.

STATIC PRESSURE - Stored or potential energy that is available to force water through pipes and fittings, fire hose, and adapters.

STATIC WATER - Source of water that has no pressure associated with it. Examples are ponds and lakes.

WATER POINT - Lake, pond, stream, etc. A non-pressurized source of water.

POLICY: It is the policy of the Stoney Point Fire Department to inspect and conduct regular maintenance on all fire hydrants and water points located within the fire district at least semi-

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annually. Inspections and maintenance will be performed on all fire hydrants and water points in accordance with the following procedures listed below. To provide good visibility and accessibility to fire hydrants and water points at all times, it may be necessary to conduct vegetation removal during spring and summer months on a more frequent basis.

1. HYDRANT & WATERPOINT INSPECTIONS & MAINTENANCE SCHEDULING PERIODS

1. Inspection & Maintenance shall be conducted at least once during the months of January 01 through June 30 on an annual basis. Inspection and Maintenance may be required more than once during these periods due to heavy vegetation growth. The recommendation for additional Inspection & Maintenance may be requested by the Assistant Fire Chief charged with water point responsibilities and/or the full time paid Captain.
2. Inspection & Maintenance shall be conducted at least once during the months of July 01 through December 31 on an annual basis. Inspection and Maintenance may be required more than once during these periods due to heavy vegetation growth. The recommendation for additional Inspection & Maintenance may be requested by the Assistant Fire Chief charged with water point responsibilities and/or the full time paid Captain.

2. INITIAL HYDRANT INSPECTION & MAINTENANCE

1. **ACCESSIBILITY** - Check and ensure the hydrant is accessible for apparatus and personnel. Ensure there are no obstructions within at least a three (3) radius of the hydrant. This includes signs, posts, vegetation, fences, utility poles, mailboxes, etc. Take the necessary actions to remove any obstructions whether it is weed eating around same and/or advising the rightful owner to remove any obstructing property.
2. **DAMAGE** – Check and ensure no physical damage has occurred to the hydrant whether by vandalism and/or vehicular contact. This includes missing hydrant components.
3. **INSTALLATION** – Check and ensure the hydrant was installed correctly (steamer cap facing the street and 2 ½" discharges are parallel to the street). Check and ensure there is adequate distance from the ground to the discharge orifice to provide sufficient work area. If any installation problems are encountered, the inspecting member will notify the Assistant Fire Chief charged with water point responsibilities and/or the full time Captain of the findings. The Assistant Fire Chief and/or Captain will notify the appropriate water distribution company of any issues.

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3. HYDRANT TESTING, INSPECTION, & MAINTENANCE

1. **DRAINAGE** - Remove caps and check for any foreign materials and water present in the barrel. The presence of water is indicative of clogged or damaged drain holes and/or the hydrant was not or will not close completely.
2. **FLOW TESTING** – Replace all caps except for one (1) 2.5” cap and place a pressure gauge on same. Completely open the hydrant and check the stem operation for free movement. At this time, record the static pressure reading on the pressure gauge.
 - 1 - While the hydrant is under pressure check for any leaks.
 - 2 - Close the main valve stem to the point where the weep holes begin to drain and let same flush for ten (10) seconds.
 - 3 - Completely close the main valve stem and remove an additional 2.5” cap and install a Pitot Gauge. Completely reopen the main valve. Record the flow pressure off of the Pitot Gauge and record the residual pressure off of the original pressure gauge.
 - 4 - Completely close the main valve and inspect for proper drainage. Place one (1) hand over the open discharge and feel for a slight vacuum as the barrel drains.

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Public Works Commission (PWC) – No flow tests will be conducted on PWC water systems. All flow data can be obtained by request by contacting PWC based on their hydraulic model.

3. **INSPECT** - Remove all caps from the hydrant and visually inspect for damage to any threads. Inspect and ensure cap chains have ease of movement.
4. **LUBRICATION** – Lubricate all cap threads and hydrant valve control stem using only lubricants supplied by the respective water companies. **Petroleum based lubricants should not be utilized for cap threads.**
5. **PAINTING** – All hydrants shall be painted at least once during the 1st inspection period of January 01 through June 30 on an annual basis. All hydrants located within the Stoney Point Fire District shall be painted as indicated below.



PWC Hydrants - All Hydrant barrels, 2.5" caps, and 4.5" steamer caps shall be painted yellow. All PWC bonnets shall be painted green. **Cap chains shall not be painted.**

Aqua Hydrants- All Hydrant barrels and 4.5" steamer caps shall be painted yellow. All Aqua bonnets and 2.5" caps will be painted green. **Cap chains shall not be painted.**

Robeson Hydrants-The entire hydrant shall be painted red. **Cap chains shall not be painted.**

- 6 **DOCUMENTATION** - All hydrant inspections, maintenance, and/or testing shall be documented on a Hydrant Inspections & Maintenance Form. This data shall be entered into the Firehouse Data base for records keeping on the day inspections and/or maintenance was performed.
- 7 **REPAIR REQUEST** – Any issues with fire hydrants located within the Stoney Point Fire District shall be documented and the Assistant Fire Chief charged with water Point responsibilities and/or full time Captain will be notified of these issues. All hydrant repair request for PWC Hydrants shall be documented on a form #FFD-601 supplied by the Fayetteville Fire Department. All repair request for Aqua and/or Robeson Water Companies shall be typed in memo form and mailed or e-mailed to the respective company.

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4. WATER POINT INSPECTIONS & MAINTENANCE

1. **ACCESSIBILITY** - Check and ensure the water point is accessible for apparatus and personnel. Ensure there are no obstructions within at least a three (3) radius of all water point signs and that all signs are readily visible. Ensure there is at least twenty (20) feet cleared out at the most direct point where a drafting operation would initiate. This includes signs, posts, vegetation, fences, utility poles, mailboxes, etc. Take the necessary actions to remove any obstructions whether it is weed eating around same and/or advising the rightful owner to remove any obstructing property. Check the area at least ten (10) feet from the shore and at least twenty (20) feet laterally for heavy vegetation that would clog and/or obstruct and drafting strainers. Remove all vegetation by raking it to shore and properly disposing of same (**do not though vegetation back into the water point**).
2. **DAMAGE** – Any damaged or missing water point signs shall be immediately repaired and/or replaced to ensure water point



Programs

Standard Operating Guidelines (SOG)

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