



Date of Council Meeting: February 9, 2014

**TOWN OF LEESBURG  
TOWN COUNCIL MEETING**

**Subject:** Capacity of Utility Plants – Semi Annual Report

**Staff Contact:** Amy Wyks, Director of Utilities

**Council Action Requested:** Information memo only. No action is required by Council.

**Staff Recommendation:** Information only.

**Commission Recommendation:** Not applicable.

**Fiscal Impact:** Not applicable.

**Executive Summary:** This report is provided twice a year to provide Town Council with information on the capacity of the water and sewer plants.

**Background:** There are no material differences in water usage (demand), wastewater flow or flow projections as compared to our previous semi-annual reports. The key points for this capacity report are as follows:

- The Water Treatment Plant (WTP) maximum (max) day demand for Calendar Year 2014 was 6.1 million gallons per day (mgd) which represents 49% of the permitted capacity of 12.884 mgd.
- The WTP did not have any days where the demand was above the 80% rated capacity (10.3 mgd) for Calendar Year 2014.
- The Water Pollution Control Facility (WPCF) average day flow for Calendar Year 2014 was 4.3 mgd which represents 57% of the permitted capacity of 7.5 mgd.
- The WPCF reported six (6) days of flow greater than 7.1 mgd which is above the 95% permitted capacity during for Calendar Year 2014. Onsite storage allowed for 100% flow treatment and no untreated flows were released to the environment.

The Semi-Annual Capacity report has been posted to the Town's webpage on the Department of Utilities Maps and Reports Page regarding Utilities Capacity. These graphics include both actual flows and forecasted flows based on known approved projects and future applications. The web link for the Utilities Capacity documents is <http://www.leesburgva.gov/government/departments/utilities-water-sewer/publications/water-and-wastewater-plant-capacities>.

Capacity of Utility Plants – Semi Annual Report

February 9, 2015

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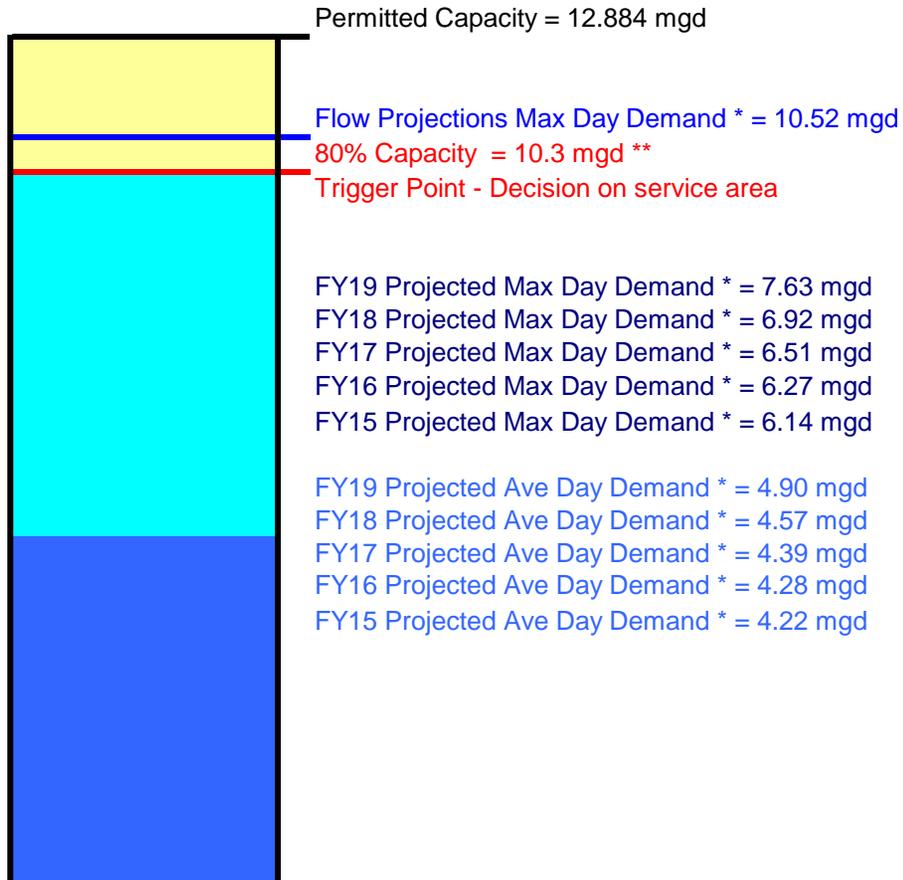
The flow projections spreadsheet is also posted to the Town's webpage. The projected flow data is updated on a semi-annual basis, and posted unless there is a significant proposed project or application submitted that warrants an immediate update and posting. The spreadsheet includes all known developed parcels based on densities per the current zoning.

The actual daily flows, the daily flow capacity percentages, the average monthly flows, and any days that exceed 80% capacity for water treatment plant or 95% for water pollution control facility are tracked on a spreadsheet. This data is posted on the Town's webpage and updated on a monthly basis.

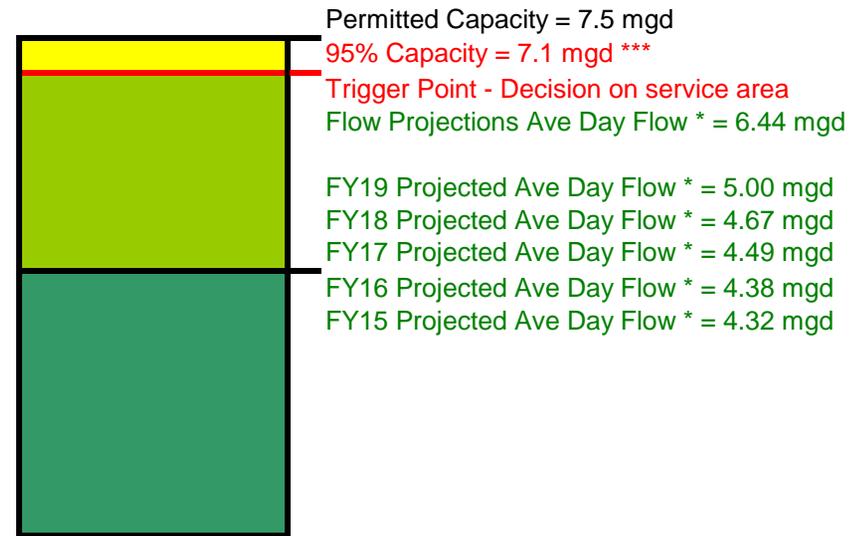
**Attachments:** Current Status of the Utility Plants

Projected Flow at the Utility Plants (Baseline of CY 2014 Flows)  
based on current, proposed, future land development

**Water Treatment Plant**



**Water Pollution Control Facility**



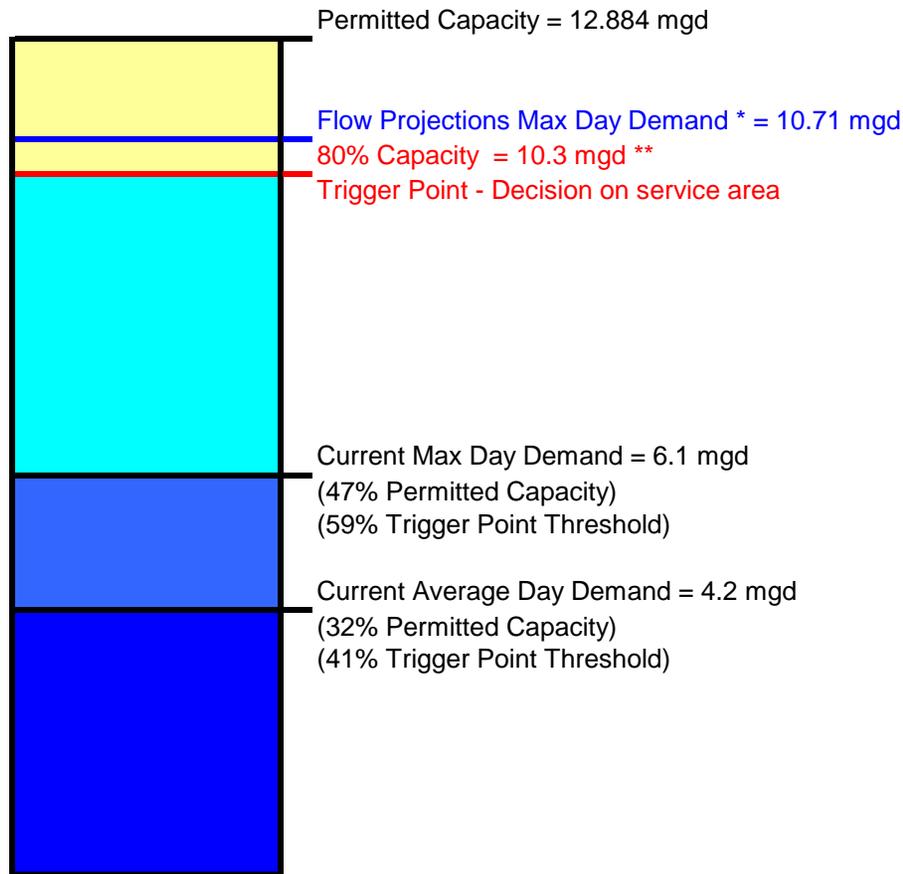
\* Based on flow projections for current, proposed and future land development within Town's service area.

\*\*The Virginia Department of Health section 12VAC5-590-520 of the Waterworks Regulations states the following about Waterworks expansion:  
*At such time as the water production of a community waterworks reaches 80% of the rated capacity of the waterworks for any consecutive three-month period, the owner shall cause plans and specifications to be developed for expansion of the waterworks to include a schedule for construction; however, if it can be shown by the owner that growth within the service area is limited and will not exceed the rated capacity of the waterworks or if unusual transient conditions caused production to reach the 80% level, preparation of plans and specifications for expansion will no longer be required.*

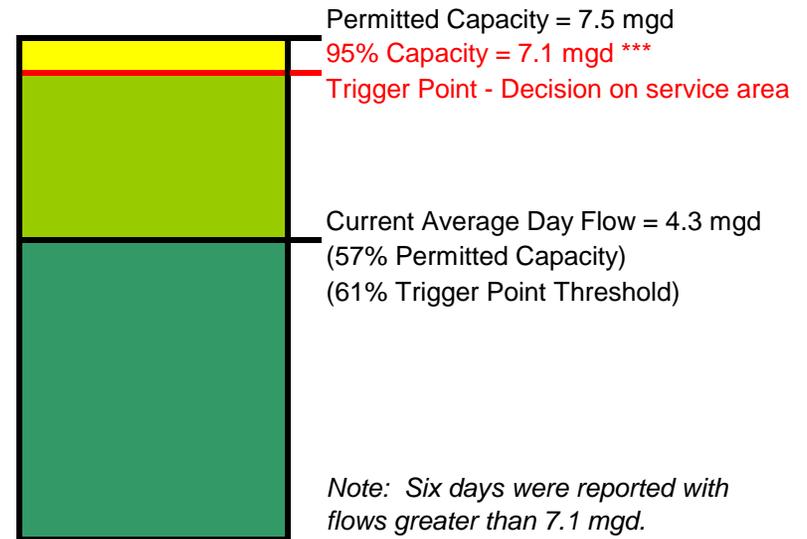
\*\*\* Nutrient loading of pounds of nitrogen and phosphorus are monitored with the Town's Virginia Department of Quality (DEQ) discharge permit. The DEQ section 9VAC25-31-200.B4 of the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation states the following about notification:  
*When the monthly average flow influent to a POTW or PVOTW reaches 95% of the design capacity authorized by the VPDES permit for each month of any three-month period, the owner shall within 30 days notify the department in writing and within 90 days submit a plan of action for ensuring continued compliance with the terms of the permit.*

Current Status of the Utility Plants  
as of December 31, 2014 based on CY 2014 Flows (12 Months)

**Water Treatment Plant**



**Water Pollution Control Facility**



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