



Date of Council Meeting: August 8, 2016

**TOWN OF LEESBURG
TOWN COUNCIL WORKSESSION**

Information Memo

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 at this time.

Staff Recommendation: Information memo only. No staff recommendation at this time.

Commission Recommendation: Not applicable.

Fiscal Impact: Not evaluated.

Work Plan Impact: Not applicable.

Executive Summary: A semi-annual report of water and wastewater demand compared with plant capacities and projected flows.

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 2016 (6 months) was 6.29 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 2016 (6 months).
- The Water Pollution Control Facility (WPCF) average day flow for Calendar Year 2016 (6 months) was 4.37 mgd which represents 58% of the permitted capacity of 7.5 mgd.
- The WPCF reported two any days of flow greater than 7.1 mgd which is above the 95% permitted capacity during for Calendar Year 2016 (6 months).

The Semi-Annual Capacity report has been posted to the Town's webpage on the Department of Utilities Publications Page regarding Water and Wastewater Plant Capacities. 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>.

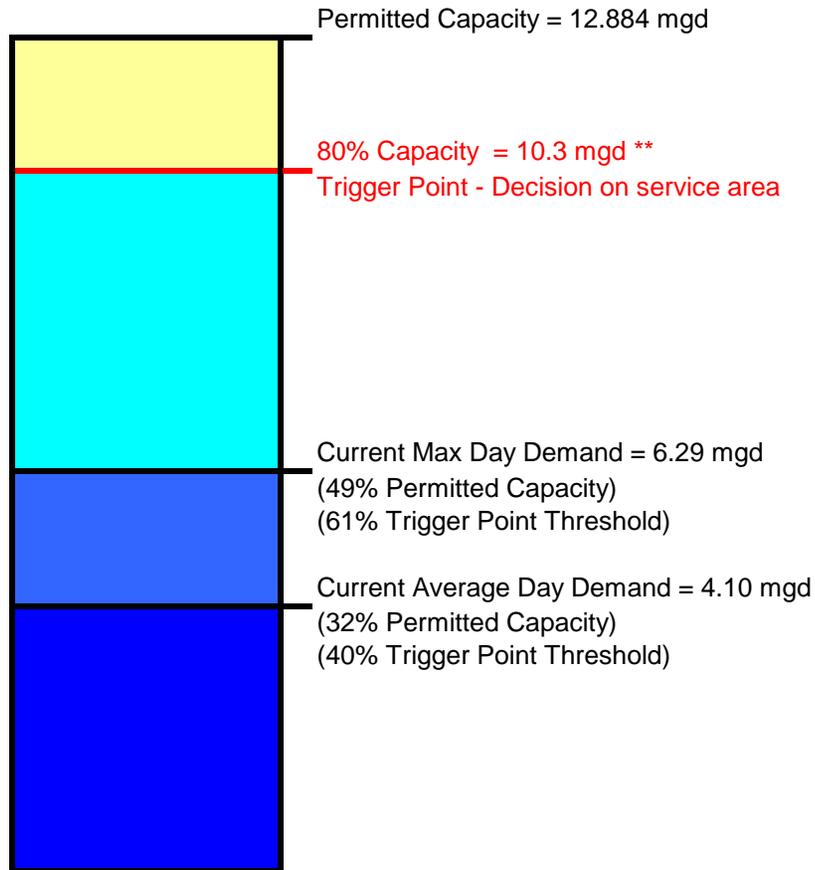
The flow projections spreadsheet is also posted to the Town's webpage. The projected flow data is updated on a semi-annual basis, and posted unless there is a significant proposed project or application submitted that warrants an immediate update and posting. The spreadsheet includes all known developed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

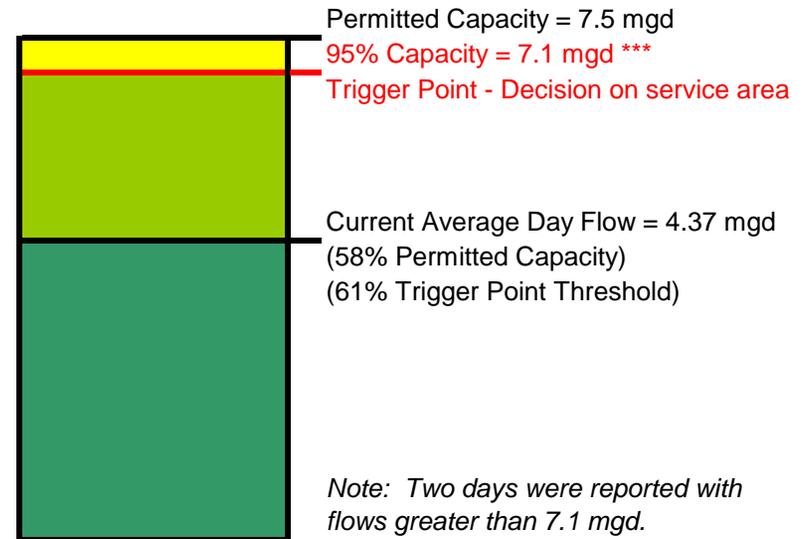
Attachments: Current Status of the Utility Plants

Current Status of the Utility Plants
as of June 30, 2016 based on Calendar Year (CY) 2016 Flows (6 months)

Water Treatment Plant



Water Pollution Control Facility

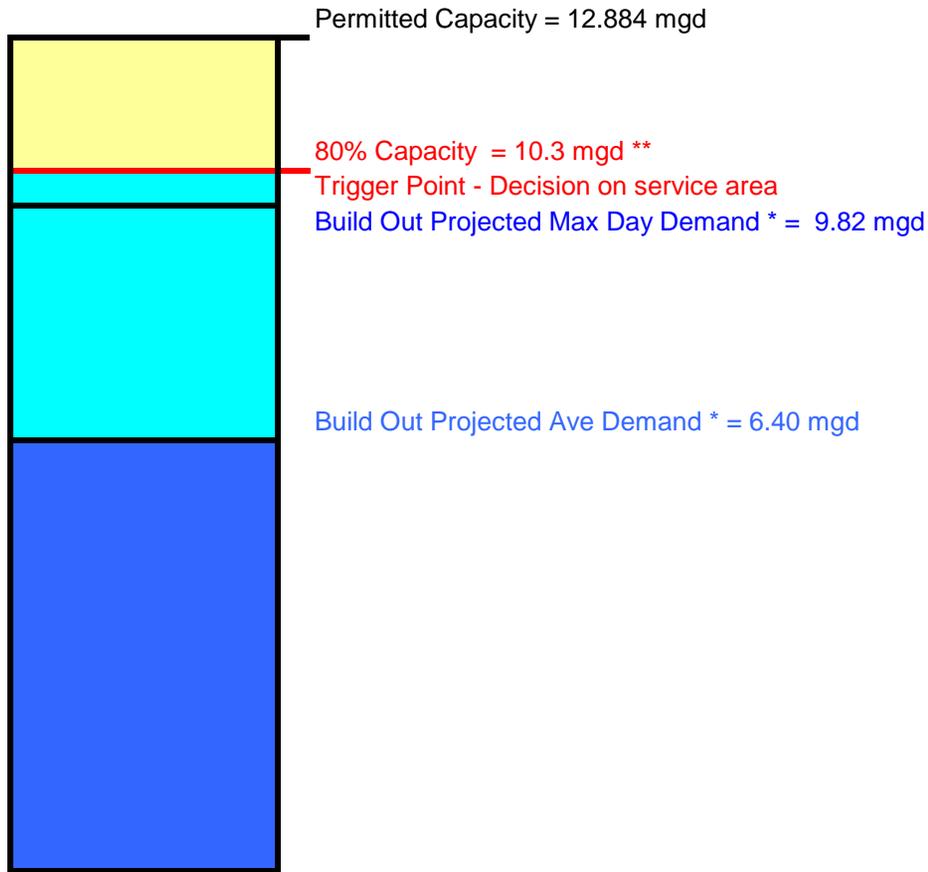


**The Virginia Department of Health section 12VAC5-590-520 of the Waterworks Regulations states the following about Waterworks expansion:
At such time as the water production of a community waterworks reaches 80% of the rated capacity of the waterworks for any consecutive three-month period, the owner 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.

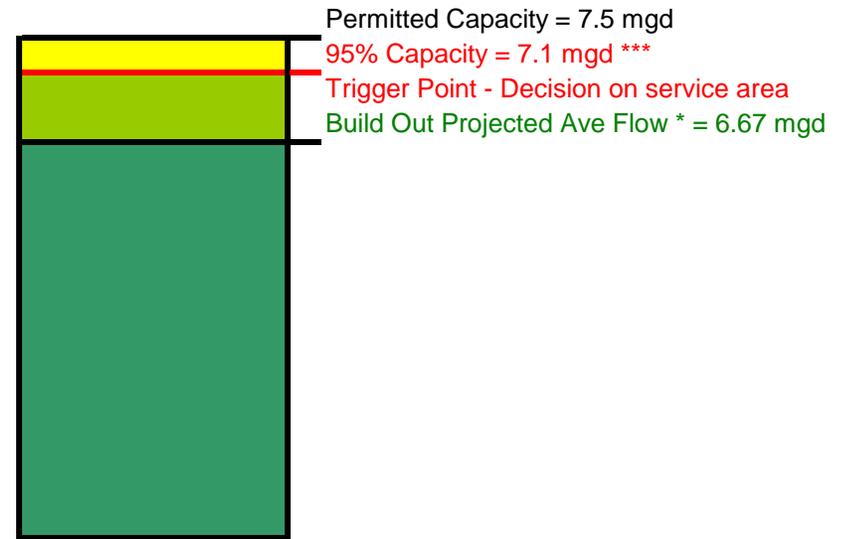
*** Nutrient loading of pounds of nitrogen and phosphorus are monitored with the Town's Virginia Department of Quality (DEQ) discharge permit. The DEQ section 9VAC25-31-200.B4 of the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation states the following about notification:
When the monthly average flow influent to a POTW or P.VOTW 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.

Projected Flow at the Utility Plants (Baseline of CY 2016 Flows - 6 months)
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.

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