

**Burgess and Commissioners of  
Middletown, Maryland**

**Wastewater Capacity Management Plan 2009**

Approved and Adopted on  
February 9, 2009

## **General Information**

### PURPOSE OF THE WASTEWATER CAPACITY MANAGEMENT PLAN (WWCMP)

This WWCMP is provided to assist the Town Board and Planning Commission to determine plant capacity and to track the remaining available capacity for allocation. Because of the significant lead time required for measures such as sewer rehabilitation or facility expansion, the WWCMP emphasizes the need to plan ahead to ensure that growth takes place without overloading sewage facilities. The guide enables the Town to:

- ❖ • Identify when a treatment plant's actual flows are approaching or exceeding the design capacity;
- ❖ • Make commitments for new connections with confidence that there is adequate capacity to serve the new as well as existing customers;
- ❖ • Determine when the issuance of additional building permits must be curtailed until improvements are completed so that the treatment plant can maintain compliance with its discharge permit;
- ❖ • Have more lead-time to plan for needed collection and wastewater treatment system upgrades to accommodate new growth and to arrange for the financing of the improvements;
- ❖ • Become more aware of how your facility is performing; and be encouraged to take appropriate steps to address or prevent increased flows before effluent violations, regular bypassing, or overflows occur; and
- ❖ • Provide Town Board and Planning Commission with the information needed to make informed decisions about the capacity of their wastewater systems and the ability to accommodate new connections.

### LEGAL MANDATES

The Town faces many challenges to maintain and operate these systems in compliance with federal and State laws and regulations. The cost to keep these increasingly complex facilities operating properly continues to increase. The ability to raise rates to keep pace with these costs is a challenge. Perhaps most challenging, however, is the need to manage the allocation of flow to new customers for residential, commercial, and industrial use, in conformance with local land use, water and sewerage plans, and the NPDES permit limits. The following language from the Maryland Environment Article makes it clear that the authority responsible for issuing building permits and subdivision plat approvals must ensure that adequate capacity is or will be available:

#### **§ 9-512 (b) Building Permits – Conformity with County Plan; Issuance of Building Permits**

*(1) A State or local authority may not issue a building permit unless:*

*(i) The water supply system, sewerage system, or solid waste acceptance facility is adequate to serve the proposed construction, taking into account all existing and approved developments in the service area;*

*(ii) Any water supply system, sewerage system, or solid waste acceptance facility described in the application will not overload any present facility for conveying, pumping, storing, or treating water, sewage, or solid waste;...*

#### **§ 9-512 (d) Subdivision Plats**

*(1) A State or local authority may not record or approve a subdivision plat unless any approved facility for conveying, pumping, storing, or treating water, sewage, or solid waste to serve the proposed development would be:*

*(i) Completed in time to serve the proposed development; and*

*(ii) Adequate to serve the proposed development, once completed, without overloading any water supply system, sewerage system, or solid waste acceptance facility.*

*(2) Each water supply system, sewerage system, and solid waste acceptance facility in a subdivision shall:*

*(i) Conform to the applicable county plan; and*

*(ii) Take into consideration all present and approved subdivision plats and building permits in the service area.*

In addition to the required State mandates, the Town has also passed legislation to ensure capacity is available. In April of 2003, the Town Board passed the Water & Sewer Certification Ordinance which requires capacity to be available prior to the approval of improvement plans:

#### **16.12.055 Water and sewer capacity certification**

*A. Upon approval of the preliminary plat, the town administrator shall conduct a review and analysis of the capacities of the town water and sewer systems in order to determine whether there exists sufficient water and sewer capacity to service the proposed subdivision or the development project thereon. The review and analysis shall be conducted in coordination with the director of operations and construction and the water and sewer superintendent who shall provide the administrator with pertinent information and data regarding the capacity of the town to provide water and sewer service to the proposed subdivision or project. In the review and analysis of the town water and sewer capacity, the demands of the proposed subdivision or project for water and sewer shall be based upon a daily consumption of three hundred (300) gallons per equivalent dwelling unit as per the standards of the American Water and Wastewater Association.*

*B. If the town administrator determines that there is sufficient water and sewer capacity to service the proposed subdivision or project, then he shall issue a certificate of water and sewer capacity for the proposed subdivision or project.*

*C. If the town administrator determines that there is not sufficient water and sewer capacity to service the proposed subdivision or project, then a certificate of water and sewer capacity shall not be issued for the proposed subdivision or project.*

*D. The planning commission shall not approve any improvement plans for the proposed subdivision or project unless a certificate of water and sewer capacity has been issued for the proposed subdivision or project.*

*E. If an approved preliminary plat is revised after a certificate of water and sewer capacity has been issued and the revision is approved by the planning commission, and if the effect of the revision does not increase the previously determined water demand of the proposed subdivision or project based upon the standards provided for in subsection (A) of this section, then a new certificate of water and sewer capacity shall not be required, and the previously issued certificate shall remain valid. If the effect of such approved revision is to increase the previously determined water demand of the proposed subdivision or project based upon the standards provided for in subsection (A) of this section, then the previously issued certificate shall be void, and a new certificate shall be issued, if appropriate, in accordance with the procedures set forth above.*

*(Ord. 03-04-01 §1, 2003)*

## Executive Summary

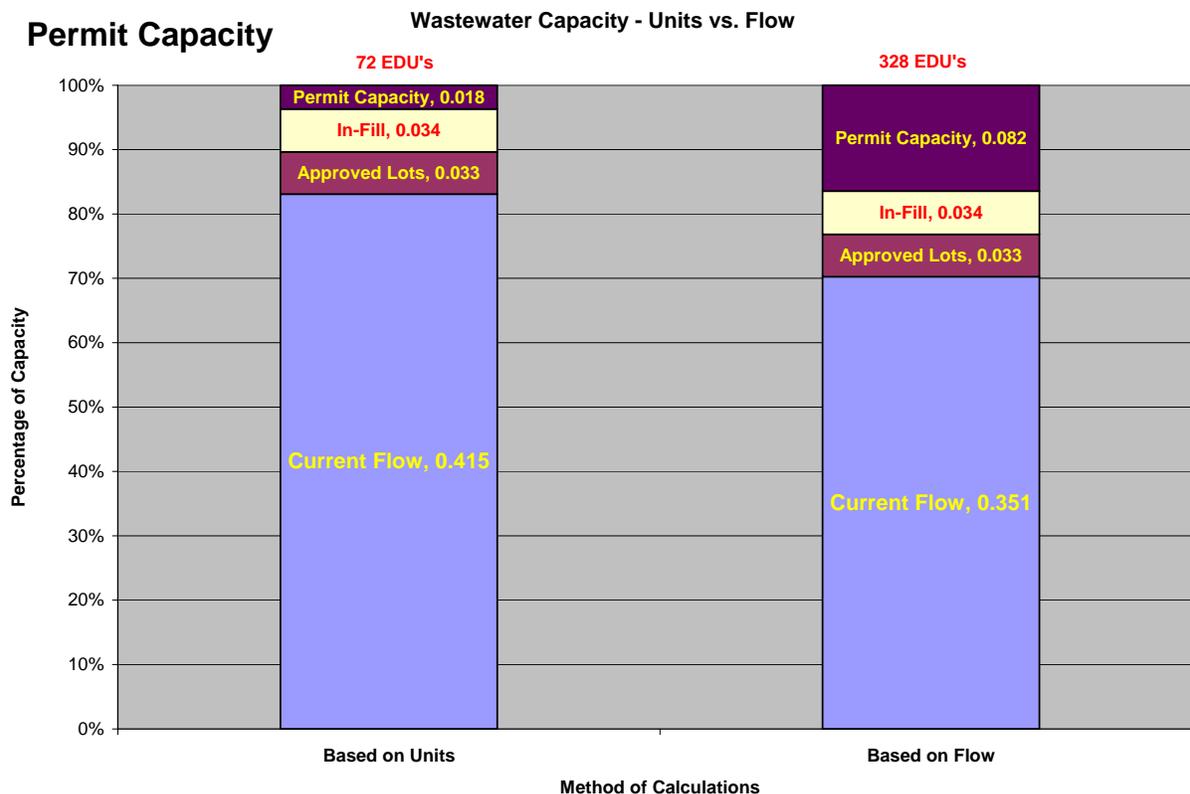
The Middletown sewage system consists of a 0.250 mgd treatment plant located on the west side of Town (West WWTP), and a 0.350 mgd activated sludge plant (expandable to 0.700 mgd), three (3) sewage pump stations, and a network of 8” to 12” sanitary sewer lines. The West WWTP, which was designed in 1973, became operational in 1976 and replaced an older facility. The east wastewater treatment plant (East WWTP), located on Holter Road, was constructed in 1999-2000 and became operational on June 14, 2000.

The West WWTP plant has a design capacity of 0.250 mgd with an NPDES Permit for the same. The East WWTP plant has a design capacity of 0.350 mgd with an NPDES Permit for 0.250 mgd. In calculating the capacity for the Town, the design and permit capacities were combined for an overall total of 0.600 mgd and 0.500 mgd respectively.

The information contained in this report was generated following the details specified in the Guidance Document – *Wastewater Capacity Management Plans* as prepared by the Maryland Department of the Environment.

### Permitted Capacity

The Town of Middletown is at 96% capacity based on calculation by units and 84% capacity based on calculation by flow.

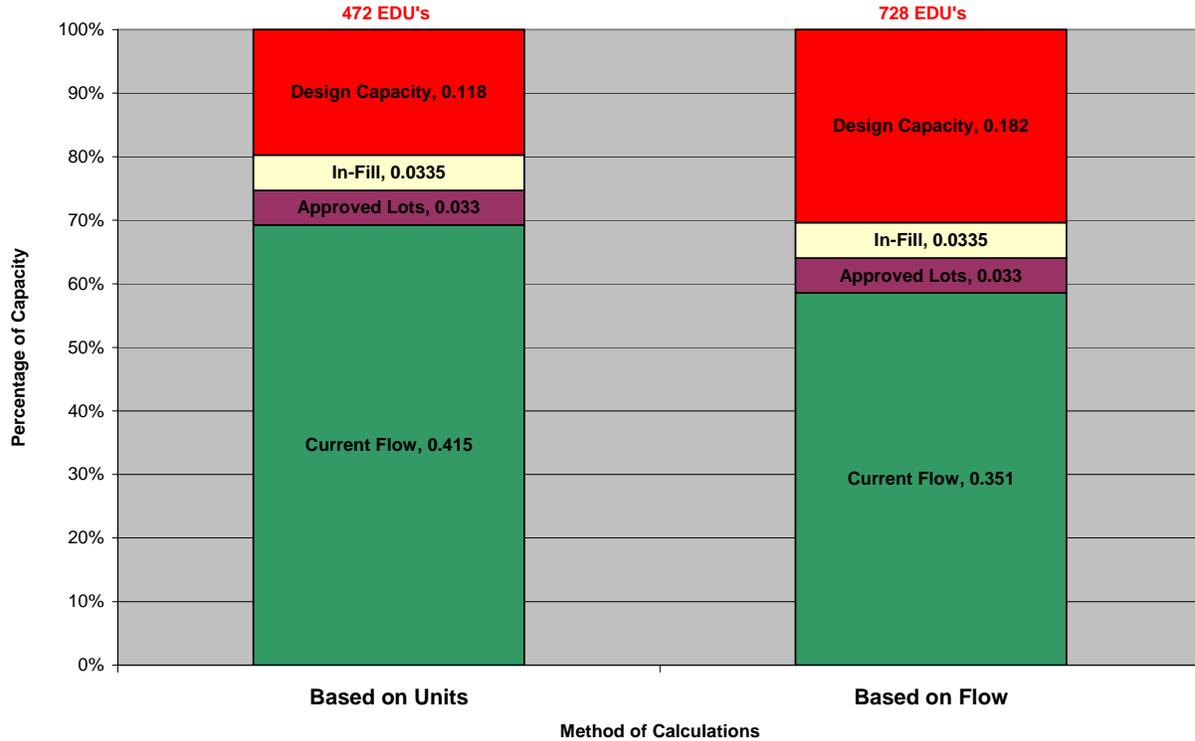


**Design Capacity**

The Town of Middletown is at 80% capacity based on calculation by units and 70% capacity based on calculation by flow.

**DESIGN FLOW**

Wastewater Capacity - Units vs. Flow



**Summary and Recommendations**

Based on the current permitted capacity of 0.500 mgd the Middletown Planning Commission should not approve any subdivision or site plan that creates the demand for more than 72 EDU’s outside of the units accounted for in the in-fill portion of this analysis, without the approval of the Town Board. Approval beyond the 72 EDU’s will require authorization by the Burgess and Commissioners for an increase in the current NPDES permit for the East WWTP. There shall be no approvals of subdivision or site plans that require a demand of more than 472 EDU’s without plans for the expansion of the East WWTP.

It is recommended that the Town Board consider increasing the NPDES Permit for the East WWTP to the full design capacity of 0.350 MGD at the time of permit renewal in 2013.

**Appendix**

A detailed appendix is attached to this report with all appropriate back up and calculation.