

Wastewater (WWTP) Projections 2025 & Beyond

Wastewater Treatment Workgroup
Recommendations to WQGIT
February 12, 2018

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WWTPs – Success Story

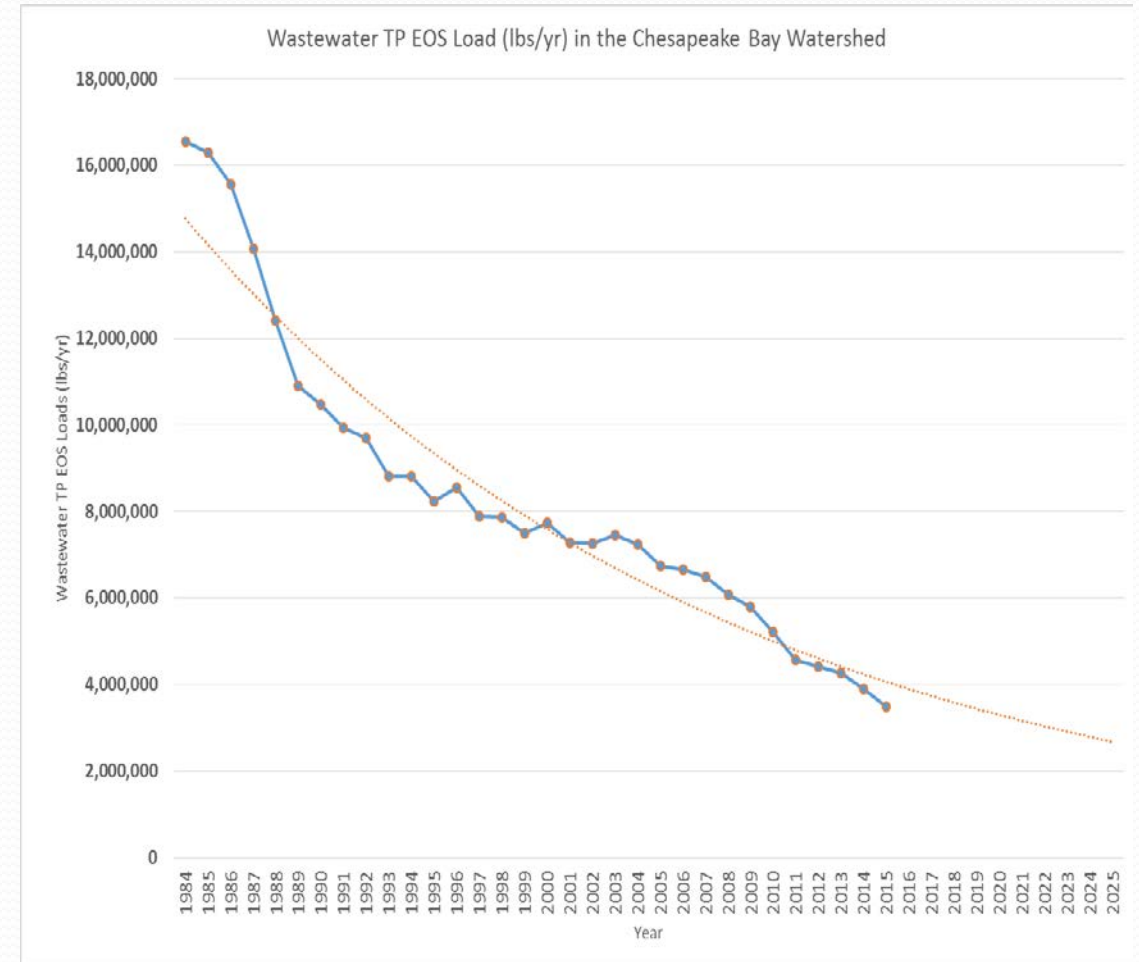
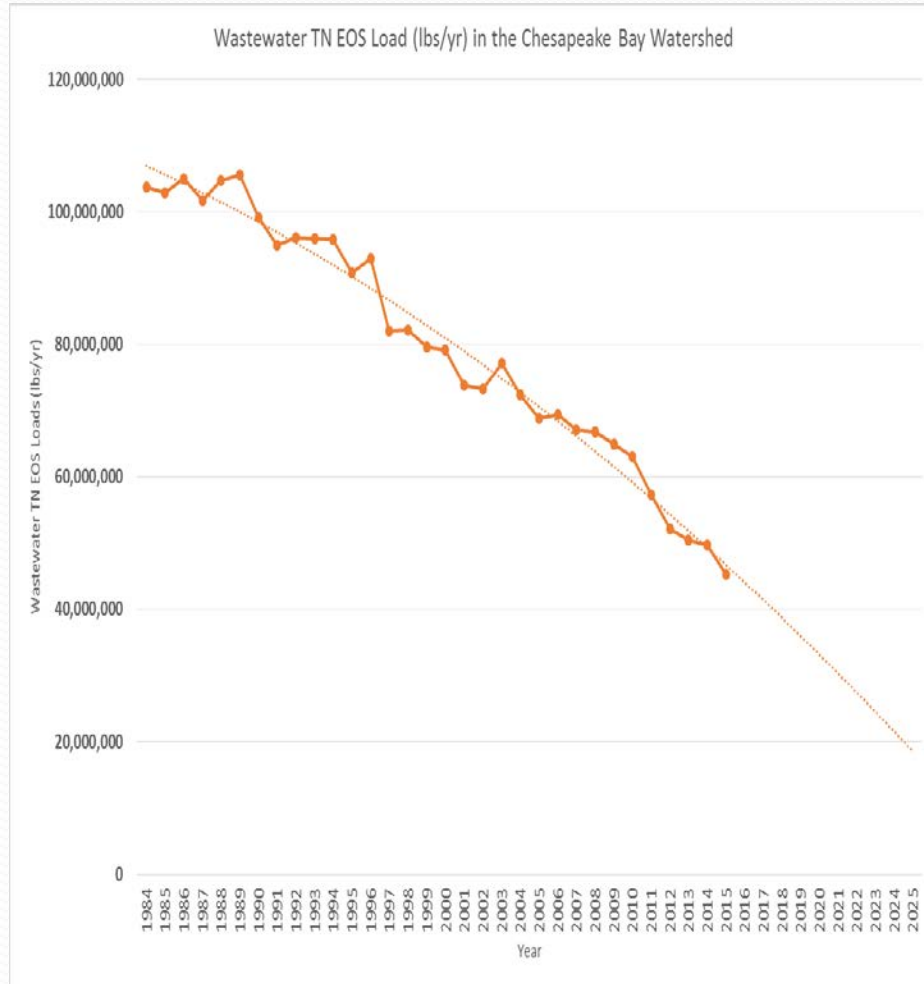
https://www.chesapeakebay.net/news/blog/wastewater_sector_meets_nutrient_goals_of_pollution_diet_a_decade_early

Wastewater sector meets nutrient goals of ‘pollution diet’ a decade early

Improvements significantly reduced nitrogen, phosphorus entering Bay



WWTP Nutrient Trends – Declining – Despite Increased Population



- WWTPs have implemented/implementing ENR/SOA upgrades
 - WWTWG updating Upgrade Status Table
 - Represents significant public investments
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- Waste Load Allocations/Load Caps for Major WWTPs - defined in TMDLs
 - Growth from this sector is built-in/secure for many years
 - Due to nature of permit conditions, actual loads will always be less than TMDL Waste Load Allocations
 - Already agreed by WQGIT & MB that WIP 3 will reflect WWTP Waste Load Allocations defined by agreed upon Flow Design Capacity/Conc.'s



- Recognize need to verify upgrade status (ongoing work)
- Aware that 'many (?)' Major WWTPs will likely not be 'at' their Flow Design Capacity in 2025 (i.e., will be under their Load Caps)
- Need to anticipate actual WWTP flows/loads at 2025 to supplement WIP 3 development
- Also need to consider special cases (e.g., James River, general permits, trading agreements, etc.) – as reality is not one-size fits all
- Need to evaluate status & assumptions for Industrial WWTPs too
- Need to understand what future loads likely to be 'beyond 2025'
- Future flows are in many/most cases not driven directly by population and do not increase in a linear fashion (local/regional/national/international trend)



- CBP staff/consultant will develop 'simple' projection method for estimating flows/concentrations/loads
- Will present to WWTWG at March 6th conference call
- WWTWG will review results and determine if:
 - Simple method is 'accurate enough' to use as is; or
 - More accurate data already exists for the WWTPs; or
 - A more rigorous approach is needed to actually make projections – and if so, use existing local methods/data whenever it exists
- WWTG will then:
 - Report on WWTP Upgrade Status, and
 - Recommend **method(s) & schedule** to WQGIT for use as supplemental information to support WIP 3 development

