Sector Growth Demonstration Principals

 Point Source Load Sectors: WWTP, Industrial, CSOs, Storm water, CAFOs

Nonpoint Source Load Sectors: Ag, Forests Lands, OSWTS, Nonregulated storm water runoff,

(The load sources above are from the Chesapeake Bay TMDL. I did not include the following Chesapeake Bay TMDL nonpoint load sources: Atmospheric Deposition, Forests, Oceanic inputs, Tidal resuspension and Streambank and tidal shore erosion).

Sector Growth Demonstration

1. **Agriculture**
   a. Perform an analysis of documented trends in county-level agriculture census data for the past 20 years in 5 year increments. Use the following indicators:
      i. Land area used for agricultural production including all cropland, whether it was harvested or used for crop production and all pasture land, regardless of whether animals were actually pastured.
      ii. Poultry Sector including number of broilers, pullets, and turkeys sold and an inventory of layers during each agriculture census year.
      iii. Inventory of cattle including dairy and beef as well as all claves and inventory of sheep, goats, hogs, and horses for during each agriculture census year.
   b. 2025 projected growth in sector
   c. 2025 predicted loadings based on annual basis considering application of WIP controls and regulation (NMP requirements).
      i. Calculation methodology consistent with Bay model
      ii. Loadings associated with projected animal populations on annual basis
      iii. Loadings associated with Row Crops for crop types (corn, bean, etc) on annual basis
   d. Comparison of TMDL LA against Predicted Loads: Loads Flat or decreasing: Assumed that there is no growth in Sector
   e. Loads Increasing
      i. Offset program necessary

2. **Urban and suburban stormwater**
   a. Look Back over last 20 years using census data in 10 year increments
      i. Acres converted as a result of development
      ii. Historical prior land uses
      iii. Loadings associated with prior land uses
   b. 2025 projected growth on an annual basis
   c. 2025 predicted loadings based upon application of WIP controls and regulation
      i. Calculation methodology consistent with Bay Model

       ii. Loads associated with pre-development land uses on annual basis Loads associated with land year conversions on annual basis

d. Comparison of TMDL LA against Predicted Loads: Loads Flat or decreasing: Assumed that there is no growth in Sector

e. Loads Increasing
       i. Offset program necessary

3. **OSWTS (Septics)**

a. Look Back over last 20 years using census data in 10 year increments
       i. Number of septic systems in place

b. 2025 projected growth in sector on annual basis

c. 2025 predicted loadings on an annual basis based upon application of WIP controls and regulation
       i. Calculation methodology consistent with Bay model

d. Comparison of TMDL LA against Predicted Loads: Load Flat or decreasing: assumed no growth in sector
       i. Consider OSWTS alone
       ii. Consider OSWTS bubbled with Urban/Surburban Load

e. Loads Increasing
       i. Offset Program necessary

4. **WWTP, Industrial dischargers, and CSOs: No Offset program necessary as assigned WLA apply.**