

## I. CHESAPEAKE BAY NUTRIENT REQUIREMENTS

A. The Annual Net Total Nitrogen (TN) and Annual Net Total Phosphorus (TP) Mass Load effluent limitations (“Cap Loads”) in Part A I are required in order to meet the downstream water quality standards of the State of Maryland, as required by 25 Pa. Code Chapter 92a, the federal Clean Water Act, and implementing regulations.

B. Definitions

**Annual Net Mass Load (lbs):** The sum of Monthly Total Mass Loads for one year beginning October 1<sup>st</sup> and ending September 30<sup>th</sup>, adjusted for credits sold and applied and offsets applied. Annual Net Mass Loads are compared to Cap Loads to determine compliance.

**Cap Load (lbs):** The mass load of a pollutant authorized by an NPDES permit. Cap Loads for TN and TP are implemented in NPDES permits by the establishment of Annual Net Mass Load limits. The term “Net” is used to recognize that Credits and Offsets may be used to comply with the limits. The Annual Net Mass Load must be less than or equal to the Cap Load to achieve compliance.

**Certification:** Written approval by DEP of a proposed pollutant reduction activity to generate credits before the credits are verified and registered to be used to comply with NPDES permit effluent limitations.

**Compliance Year:** The year-long period starting October 1<sup>st</sup> and ending September 30<sup>th</sup>. The Compliance Year will be named for the year in which it ends. For example, the period of October 1, 2014 through September 30, 2015 is compliance year 2015.

**Credit:** The tradable unit of compliance that corresponds with a unit of reduction of a pollutant as recognized by DEP which, when certified, verified and registered, may be used to comply with NPDES permit effluent limitations.

**Delivery Ratio:** A ratio that compensates for the natural attenuation of a pollutant as it travels in water before it reaches a defined compliance point.

**Offset:** The pollutant load reduction measured in pounds (lbs) that is created by an action, activity or technology which when approved by DEP may be used to comply with NPDES permit effluent limitations, conditions and stipulations under 25 Pa. Code Chapter 92a (relating to NPDES permitting, monitoring and compliance.) The offset may only be used by the NPDES permittee that DEP determines is associated with the load reduction achieved by the action, activity or technology.

**Registration:** An accounting mechanism used by DEP to track certified and verified credits before they may be used to comply with NPDES permit effluent limitations.

**Total Mass Load (lbs):**

**Monthly Total Mass Load** = The sum of the actual daily discharge loads for TN and TP (lbs/day) divided by the number of samples per month, multiplied by the number of days in the month. The daily discharge load for TN and TP (lbs/day) equals the average daily flow (MGD) on the day of sampling, multiplied by that day’s sample concentration for TN and TP (mg/l), multiplied by 8.345.

**Annual Total Mass Load** = The sum of the Monthly Total Mass Loads for one year beginning October 1<sup>st</sup> and ending September 30<sup>th</sup>.

**Total Nitrogen:** For concentration and load, Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO<sub>2</sub>+NO<sub>3</sub>-N), where TKN and NO<sub>2</sub>+NO<sub>3</sub>-N are measured in the same sample.

**Truing Period:** The time provided following each Compliance Year for a permittee to comply with Cap Loads through the application of Credits and Offsets. The Truing Period will start on October 1<sup>st</sup> and end on November 28<sup>th</sup> of the same calendar year, unless DEP extends this period. During this period, compliance for the specified year may be achieved by using registered Credits that were generated during that Compliance Year. For example, Credits that are used to achieve compliance in Compliance Year 2012 must have been generated during Compliance Year 2012. Approved Offsets that have been generated may also be applied during the Truing Period.

**Verification:** Assurance that the verification plan contained in a certification, permit or other approval issued by DEP has been implemented. Verification is required prior to registration of the credits for use in an NPDES permit to comply with NPDES permit effluent limitations.

#### B. Nutrient Credits

1. Credits may be used for compliance with the Cap Loads when authorized under 25 Pa. Code § 96.8 (Use of offsets and tradable credits from pollution reduction activities in the Chesapeake Bay Watershed), including amendments, updates and revisions thereto; in accordance with DEP's Phase 2 WIP Wastewater Supplement (see [www.depweb.state.pa.us/npdes-bay](http://www.depweb.state.pa.us/npdes-bay)); and in accordance with DEP's Phase 2 WIP Nutrient Trading Supplement (see [www.depweb.state.pa.us/nutrient\\_trading](http://www.depweb.state.pa.us/nutrient_trading)).
2. Where effluent limitations for TN and/or TP are established in Part A of the permit in response to localized impairment of receiving waters or to implement a TMDL for local receiving waters ("local nutrient limits"), the permittee may purchase and apply credits for compliance with the Cap Load(s) only when it has been demonstrated that local nutrient limits have been achieved.

#### C. Use of Offsets for Compliance

1. Offsets can only be used by the permittee to comply with its Cap Loads. Offsets are not eligible for use as Credits.
2. Offsets must be approved by DEP in writing before they may be applied for compliance with Cap Loads.
3. Offsets that are approved under this permit are listed in Part A, Footnotes. These Offsets may be applied each Compliance Year toward compliance with the Cap Loads. The application of these Offsets must be reported on an annual basis. Additional Offsets may be approved throughout the permit term.
4. Offsets may be approved for the connection of on-lot sewage disposal systems that existed prior to January 1, 2003 to public sewers. Twenty five pounds (25 lbs) of TN Offsets per year may be approved for each on-lot system retirement. These approved Offsets are cumulative. For example, if 10 on-lot systems are retired in year 1 (250 lbs TN approved Offsets) and 10 on-lot systems are retired in year 2, 500 lbs TN Offsets may be used toward compliance with the TN Cap Load in year 2 and thereafter.
5. For DEP to approve on-lot system retirement Offsets, the permittee must submit documentation indicating the on-lot systems existed prior to January 1, 2003 and were eliminated by connection to public sewers after January 1, 2003. This documentation must

be retained by the permittee for as long as the Offsets are used to achieve compliance with Cap Loads.

6. Offsets may be approved for the transfer of load between facilities owned by the same entity if (1) the facility receiving Offsets does not discharge to waters classified as impaired for nutrients and (2) the Delivery Ratios approved by DEP for TN or TP, as applicable, are the same. Delivery ratios for the facility authorized to discharge under this permit are listed in DEP's Phase 2 Watershed Implementation Plan (WIP) Wastewater Supplement, available at the following website:

[www.depweb.state.pa.us/npdes-bay](http://www.depweb.state.pa.us/npdes-bay)

Such Offsets may only be applied in the Compliance Year in which the transfer occurred, and are not cumulative. The permittee must receive written authorization from DEP prior to the transfer of Offsets between facilities owned by the same entity.

7. Offsets may be approved for the acceptance of hauled-in septage at the permittee's facility from residential sources within the municipal Act 537 planning area. Three pounds (3 lbs) of TN Offsets per year may be approved per 1,000 gallons of septage accepted and processed at the facility. Offsets may be approved for the acceptance of residential septage only. For the purpose of these Offsets, septage is defined as material removed from a septic tank by pumping. No other hauled-in wastes, including but not limited to holding tank wastes, solids and sludges generated at other facilities, may be approved. Such approved Offsets may only be applied in the Compliance Year in which the septage was accepted, and are not cumulative. The permittee must receive written authorization from DEP prior to the use of hauled-in residential septage Offsets.

#### D. Reporting Requirements

1. The facility shall utilize DEP's electronic Discharge Monitoring Report (eDMR) system to submit DMR data and Supplemental DMR forms. Unless the permittee is already using the eDMR system, within 30 days of permit issuance, the permittee shall submit the necessary Registration and Trading Partner Agreement forms to participate in eDMR, and begin using eDMR for submission of DMR data and Supplemental DMR forms when DEP notifies the permittee to begin doing so. The eDMR website is <http://www.dep.state.pa.us/edmr>. Use of eDMR shall continue unless the requirements of Part A III.B.3 are met.
2. The Nutrient Monitoring supplemental form (3800-FM-BPNPSM0444) shall be used to report daily TN and TP sampling results for each monitoring period. This completed form shall be attached to the monthly DMR. The spreadsheet version of this form, available on DEP's website, must be used where the permittee seeks DEP's approval for the generation of credits in accordance with paragraph B, above.
3. The Nitrogen Budget and Phosphorus Budget supplemental forms (3800-FM-BPNPSM0445 and 3800-FM-BPNPSM0446, respectively) shall be used to document credits sold and applied and offsets applied in order to calculate Annual Net Mass Loads. The permittee shall report Credits applied and sold during the Compliance Year, including registry number, contract effective date, and DEP certification approval date, and approved Offsets applied during the Compliance Year, including the source of Offsets and DEP approval date. Where credits or offsets are utilized during the Compliance Year, the form(s) shall be attached to the Annual DMR.
4. The Annual DMR for the reporting of Annual Net Mass Loads for TN and TP is due on November 28<sup>th</sup> following each Compliance Year, unless DEP extends the Truing Period to a later date. The Annual Nutrient Summary supplemental form (3800-FM-BPNPSM0447)

must be attached to the Annual DMR, which demonstrates how Annual Net Mass Loads were calculated.