

## Phase 2 Watershed Implementation Plan Wastewater Supplement

Revised, November 9, 2018

Section 7 of Pennsylvania's Phase 2 Chesapeake Bay Watershed Implementation Plan (Phase 2 WIP) describes Pennsylvania's strategy for reducing nutrients to the Chesapeake Bay from wastewater facilities. This supplement to Section 7 of the Phase 2 WIP provides an update on Chesapeake Bay TMDL implementation activities for point sources and DEP's current implementation strategy for wastewater. This document is updated periodically to reflect changes due to Department of Environmental Protection's (DEP's) permit actions as well as changes to strategies in managing the wastewater sector's allocated loads under the TMDL.

### I. Definitions

Several definitions are provided to clarify the terminology in this document.

**Annual Net Mass Load (lbs):** The Annual Total Mass Load 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 Total Nitrogen (TN) and Total Phosphorus (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, 2015 through September 30, 2016 is Compliance Year 2016.

**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 in which there was a discharge. 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 8.34.

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Annual Total Mass Load = The sum of the actual daily discharge loads for TN and TP (lbs/day) divided by the number of samples per year (beginning October 1<sup>st</sup> and ending September 30<sup>th</sup>), multiplied by the number of days in the year in which there was a discharge.

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 2016 must have been generated during Compliance Year 2016. 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.

Wasteload Allocation (WLA): The portion of a surface water's loading capacity that is allocated to existing and future point source discharges.

**II. Implementation Status**

Appendix Q of the Chesapeake Bay TMDL segregates Pennsylvania's point sources into four sectors – significant sewage dischargers, significant industrial waste (IW) dischargers, combined sewer overflows (CSOs) and non-significant dischargers (both sewage and IW facilities). All sectors contain a listing of individual facilities with NPDES permits that were believed to be discharging at the time the TMDL was published (2010). All sectors with the exception of the non-significant dischargers have individual wasteload allocations (WLAs) for TN and TP assigned to specific facilities. Non-significant dischargers have a bulk or aggregate allocation for TN and TP based on the facilities in that sector that were believed to be discharging at that time and their estimated nutrient loads.

The WLAs for all sectors in the TMDL are as follows (edge of segment WLAs, rounded as appropriate):

<b>Sector</b>	<b>WLA Type</b>	<b>Total of TN WLAs (lbs/yr)</b>	<b>Total of TP WLAs (lbs/yr)</b>
Significant Sewage	Individual	9,994,689*	1,303,685*
Significant IW	Individual	1,820,139	64,684
CSOs	Individual	212,920	34,709
Non-Significant	Aggregate	3,006,667	842,104

**Totals:                                15,034,415                                2,245,182**

\* **NOTE** – The actual Total TN and TP WLAs in the TMDL for the Significant Sewage sector are 10,635,817 and 1,386,402 lbs/yr, respectively. There were, however, numerous errors with the WLAs in Appendix Q. This document assumes those errors, which are presented in **Attachment A**, will be revised in the TMDL.

Since 2010 there have been numerous on-the-ground changes within these sectors. For example, DEP has issued permits to new and expanded discharges, authorized facility mergers, and terminated permits. This document is the means by which DEP accounts for these changes to ensure that DEP's overall TN and TP loads do not exceed the total WLAs identified above. Where it is determined that a sector is performing better than prescribed by the TMDL, excess load will be placed into a "**Point Source Reserve**." Where it is determined that a sector is not meeting its total WLAs, load from a different sector or the Point Source Reserve may be used to balance the load requirements.

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A detailed description of each sector follows.

**A. Significant Sewage Sector**

**1. Implementation Status**

The Chesapeake Bay TMDL specifies individual WLAs for 183 significant sewage treatment facilities. A sewage facility is considered significant if it has a design flow of at least 0.4 MGD. For rollout of its permitting strategy, DEP classified these facilities into three phases.

Numerous changes have occurred since 2010 within the Significant Sewage sector. There are now 189 Significant Sewage dischargers. The following is a summary of changes that have occurred.

- Swatara Township Authority's NPDES Permit (PA0026735) was amended on August 19, 2015 to account for the connection of a non-significant facility, Lower Paxton Township (Springford Village) (NPDES Permit No. PA0087017). The Cap Loads for Swatara were increased by 3,272 lbs/yr TN and 524 lbs/yr TP due to this connection, and 300 lbs/yr of TN Offsets that were incorporated into Swatara's Cap Load were removed.
- West Branch Regional Authority (PA0234117) has consolidated flows from Montgomery Borough (PA0020699) and Muncy Borough (PA0024325), and Montgomery's and Muncy's permits have been terminated. Cap Loads from Montgomery and Muncy have been reassigned to West Branch. In addition, the Cap Loads for West Branch have been increased by 728 lbs/yr TN and 139 lbs/yr TP for connecting PA College of Technology WWTP (PA0041327), and by 685 lbs/yr TN and 110 lbs/yr TP for connecting Moran Industries (PA0010421). Both industrial facilities have ceased discharging to surface waters and permits were terminated on July 25, 2017 and November 13, 2017 respectively.
- New Morgan Borough STP (PA0088048) has planning approval to expand to 0.5 MGD, but has not submitted a Water Quality Management (WQM) permit application to construct upgraded facilities, and is currently discharging flows below the threshold for significant Chesapeake Bay dischargers (0.4 MGD). The submission of a WQM permit application and issuance of a WQM permit by DEP is required prior to an upgrade. New Morgan's WLAs of 9,132 lbs/yr TN and 1,218 lbs/yr TP have been moved from the Significant Sewage sector to the Non-Significant sector.
- Lower Paxton (PA0088633) will not be constructed (the municipality will conduct infiltration and inflow work in lieu of building the facility). Lower Paxton was slated to receive Cap Loads of 45,662 lbs/yr TN and 6,088 lbs/yr TP. These WLAs have been retained in the Significant Sewage sector.
- PA Department of Public Welfare (PA0029432) has reduced its design flow from 0.6 MGD to 0.395 MGD. As a result, this facility is no longer considered significant, and Cap Loads were not established in its permit. This facility was projected to receive Cap Loads of 10,961 lbs/yr TN and 1,459 lbs/yr TP. These WLAs have been retained in the Significant Sewage sector.
- South Mountain Restoration Center (PA0029297) has reduced its design flow from 0.5 MGD to 0.395 MGD. As a result, this facility is no longer part of Phase 3. This facility was projected to receive Cap Loads of 9,136 lbs/yr TN and 1,217 lbs/yr TP. These WLAs have been retained in the Significant Sewage sector.
- Bonneauville Borough Authority (PA0028592) has expanded its design flow from 0.331 MGD to 0.55 MGD. A final permit was issued to this facility on October 30, 2006 with Cap Loads of 9,741 pounds/year TN and 1,218 lbs/yr TP. This facility was previously considered non-significant, and so its load will be moved from the Non-Significant sector to the Significant Sewage sector.
- Elizabethville Area Authority (PA0037737) has a design flow of 0.4 MGD, but was overlooked for the original Significant Sewage sector. It has been issued a final permit with Cap Loads of 7,481 lbs/yr TN and 974 lbs/yr TP. This facility was previously considered non-significant, and so its load will be moved from the Non-Significant sector to the Significant Sewage sector.

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- ORD Sewer Authority (PA0228915) has a design flow of 0.4 MGD, but was overlooked for the original Significant Sewage sector. It has been issued a final permit with Cap Loads of 9,748 lbs/yr TN and 1,218 lbs/yr TP. This facility was previously considered non-significant, and so its load will be moved from the Non-Significant sector to the Significant Sewage sector.
- Newville Borough (PA0046221) is expanding to a design flow of 0.6 MGD. It has been issued a final permit with Cap Loads of 7,306 lbs/yr TN and 974 lbs/yr TP. This facility was previously considered non-significant, and so its load will be moved from the Non-Significant sector to the Significant Sewage sector.
- Williamstown Borough (PA0021491) is expanding to a design flow to 0.45 MGD. It has been issued a final permit with Cap Loads of 7,306 lbs/yr TN and 974 lbs/yr TP. This facility was previously considered non-significant, and so its load will be moved from the Non-Significant sector to the Significant Sewage sector.
- Woodward Township (PA0208922) has a design flow of 0.56 MGD, but was overlooked for the original Significant Sewage sector. A final permit amendment with Cap Loads has been issued on June 11, 2013. This facility was previously considered non-significant, and so its load will be moved from the Non-Significant sector to the Significant Sewage sector.
- Hallstead-Great Bend Joint Sewer Authority (PA0060518) will be upgrading to a design flow of 0.5 MGD. This facility was originally a non-significant discharger (0.35 MGD). A draft permit has been issued with Cap Loads of 9,741 lbs/yr TN and 1,218 lbs/yr TP. This facility was previously considered non-significant, and so its load will be moved from the Non-Significant sector to the Significant Sewage sector.
- Leacock Township (PA0084212) will be upgrading to a design flow of 0.45 MGD. It has been issued a final permit with Cap Loads of 7,306 lbs/yr TN and 974 lbs/yr TP. This facility was previously considered non-significant, and so its load will be moved from the Non-Significant sector to the Significant Sewage sector.
- Fredericksburg Sewer & Water Authority (PA0261670) is a new facility with a design flow of 0.433 MGD. It has been issued a final permit with Cap Loads of 7,306 lbs/yr TN and 974 lbs/yr TP. This facility was previously considered non-significant, and so its load will be moved from the Non-Significant sector to the Significant Sewage sector.
- Glendale Valley Municipal Authority (PA0253812) is a proposed facility with a design flow of 0.3 MGD. A proposed permit amendment would increase the design flow to 0.45 MGD. The proposed Cap Loads are 7,808 lbs/yr TN and 1,041 lbs/yr TP. The Cap Loads were determined by using discharge concentrations of 6 mg/l for TN and 0.8 mg/l mg/l for TP and multiplying by the original design flow (0.3 MGD) and the addition of 0.1275 MGD of flow from the Glendale Yearound STP (PA0097705) that would be eliminated as a result of Glendale Valley's expansion. This facility was previously considered non-significant, and so its load will be moved from the Non-Significant sector to the Significant Sewage sector. As a result of this project, four non-significant sewage facilities will be eliminated: Glendale Yearound STP (PA0097705), Glendale School District (PA0097411), Matthews Mobile Home Park (PA0035262), and Noel Zimmerman WWTP (PA0204587). NPDES Permit Nos. PA0097411, PA0035262 and PA0204587 were terminated on September 27, 2013.
- Zerbe Township Municipal Authority (PA0038865) was issued a WQM permit (4911401) to construct a new SBR rated at 0.5 MGD. Since the design flow exceeds 0.4 MGD, Zerbe Township was issued an NPDES permit with Cap Loads of 7,306 lbs/yr TN and 974 lbs/yr TP. This facility was previously considered non-significant, and so its load will be moved from the Non-Significant sector to the Significant Sewage sector.
- Milton Regional Sewage Authority's (PA0020273) Cap Loads have been revised in the renewed permit. Two non-significant sewage facilities, Watsontown Borough (PA0021733) and Delaware Township Municipal Authority (PA0028606), ceased discharging and connected to the Milton's facility on May 8, 2013, and July 8, 2013, respectively. The NPDES permits for Watsontown and Delaware have been terminated and removed from the non-significant dischargers list. A total of 9,752 lbs/yr TN (7,306 for Watsontown and 2,446 for Delaware) and 1,720 lbs/yr TP (974 for Watsontown and 746 for Delaware) have been added to

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Milton's respective Cap Loads. Offsets due to 703 on-lot retiring systems, which were earlier included in Milton's TN Cap Load, have been removed.

- On December 7, 2011, DEP issued a permit amendment to Lemoyne Borough (PA0026441). The amendment removed the Cap Loads that were to take effect on October 1, 2012. Those Cap Loads were 46,270 lbs/yr TN and 5,784 lbs/yr TP. The permit also specifies that new Cap Loads of 19,433 lbs/yr TN and 2,429 lbs/yr TP will become effective on October 1, 2015, which is beyond the term of the current permit. These Cap Loads were established in the renewed permit. The reduction in Cap Loads is a result of two municipalities deciding to remove its flows that are tributary to Lemoyne's facility, and connect to other facilities (Hampden Township and East Pennsboro Township).
- A permit was issued to Tiadaghton Valley Municipal Authority (PA0234079), a new facility, on March 16, 2012 with the same cap loads as those for Jersey Shore Borough (PA0028665). Ownership of the Jersey Shore facility was transferred to Tiadaghton Valley Municipal Authority on October 24, 2012. Permit No. PA0028665 was terminated on January 20, 2015.
- On December 7, 2011, DEP issued a permit amendment to East Pennsboro Township (PA0038415). The Cap Loads were increased from 67,579 lbs/yr TN and 9,011 lbs/yr TP to 72,206 lbs/yr TN and 9,589 lbs/yr TP, due to the receipt of new flows that was diverted from Lemoyne Borough.
- Lycoming County Water & Sewer Authority (PA0209228) has been issued a final permit amendment in which cap loads have been increased by 7,306 lbs/yr TN and 974 lbs/yr TP due to the receipt of sewage flows (0.1 MGD) from the Crown American Lycoming Mall Sewer Plant (PA0046167), which was decommissioned in 2006. This increase of 7,306 TN and 974 TP will be deducted from the Non-Significant sector.
- Jackson Township (PA0266566) and Spring Grove Borough (PA0266086) in York County have sewage treatment plants that discharged effluent into PH Glatfelter Company's industrial wastewater treatment facility (PA0008869). Glatfelter used the effluent as a nutrient source for its treatment processes. Glatfelter has notified Jackson and Spring Grove that they must remove their discharges to Glatfelter's facility. Glatfelter was originally considered a Significant IW discharger in the Bay TMDL. As discussed in Section II.B, below, Glatfelter has not been assigned Cap Loads to date because of the current belief that they do not actually meet the criteria for a Significant IW discharger. The WLAs assigned to Glatfelter have been moved to the Non-Significant sector. Normally DEP would authorize no new loads to a facility proposing a stream discharge that withdraws from another facility with Cap Loads; however, since Glatfelter does not have Cap Loads, DEP will authorize new loads for Jackson (proposed 0.6 MGD discharge) and Spring Grove (proposed 0.33 MGD discharge). Jackson Township is a Significant Sewage discharger, while Spring Grove is a non-significant discharger. Cap Loads that are assigned to both facilities will be moved from the Non-Significant sector (from Glatfelter's original WLAs).
- The Cap Loads for Lewistown Borough (PA0026280) have been increased by 494 lbs/yr TN and 79 lbs/yr TP due to the connection of East Derry Elementary School (PA0083135), whose permit was terminated on January 13, 2010. The annual average design flow for PA0083135 was 0.0065 MGD.
- Columbia Municipal Authority (PA0026123) has ceased discharging and transitioned its flows to Lancaster Area Sewer Authority (LASA) (PA0042269). Columbia's Cap Loads of 36,529 lbs Total TN and 4,871 lbs TP have been transferred to LASA, resulting in Cap Loads of 310,498 lbs/yr TN and 41,400 lbs/yr TP for LASA, effective September 24, 2018.
- Earl Township, Lancaster County (PA0086304) completed an expansion in September 2018, in which the design flow increased from 0.28 MGD to 0.65 MGD. Cap Loads of 7,306 lbs/yr TN and 974 lbs/yr TP are now in effect for the expanded facility.

Table 7-1 presents all NPDES permits for Significant Sewage dischargers with Cap Loads. The NPDES Permit No., phase, facility name, latest permit issuance date, expiration date, Cap Load compliance start date, TN and TP Cap Loads, and TN and TP Delivery Ratios are presented. In addition, if TN Offsets were incorporated into

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the TN Cap Loads when the permit was issued, the amount is shown; these Offsets will be removed from Cap Loads upon issuance of renewed permits to implement Section IV of this document (i.e., a facility may use Offsets for compliance but may not register them as credits).

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**Table 7-1: Significant Chesapeake Bay Sewage NPDES Permits Issued**

NPDES Permit No.	Phase	Facility	Latest Permit Issuance Date	Permit Expiration Date	Cap Load Compliance Start Date	TN Cap Load (lbs/yr)	TN Offsets Included in Cap Load (lbs/yr)	TP Cap Load (lbs/yr)	TN Delivery Ratio	TP Delivery Ratio
PA0020036	3	Blossburg Borough	1/10/2017	1/31/2022	10/1/2012	7,306	-	974	0.474	0.436
PA0020214	3	Mount Union Borough	4/17/2017	4/30/2022	10/1/2013	20,091	-	2,679	0.88	0.436
PA0020249	3	Roaring Spring Borough	9/24/2013	9/30/2018	1/1/2016	12,785	-	1,705	0.88	0.436
PA0020273	2	Milton Regional Sewage Authority	9/25/2017	9/30/2022	10/1/2009	72,217	-	10,049	0.941	0.436
PA0020320	1	Lititz Sewer Authority	6/15/2018	6/30/2023	10/1/2010	70,319	-	9,376	0.891	0.436
PA0020338	3	Kulpmont-Marion Heights Joint Municipal Authority	5/4/2017	5/31/2022	10/1/2011	9,132	-	1,218	0.871	0.436
PA0020486	1	Bellefonte Borough	1/30/2014	1/31/2019	10/1/2010	58,812	-	7,842	0.93	0.436
PA0020508	3	McConnellsburg Borough	11/23/2015	11/30/2020	10/1/2012	10,959	-	1,461	0.749	0.67
PA0020567	3	Northumberland Borough	1/17/2018	9/31/2023	10/1/2012	20,548	-	2,740	0.941	0.436
PA0020583	2	Middleburg Municipal Authority	7/7/2015	7/31/2020	10/1/2012	8,219	-	1,096	0.951	0.436
PA0020621	2	Waynesboro Borough	9/14/2018	9/30/2023	10/1/2013	29,223	-	3,896	0.819	0.67
PA0020664	1	Middletown STP	11/27/2017	3/31/2020	10/1/2011	40,182	-	5,358	0.961	0.436
PA0020800	3	White Deer Township	12/29/2015	12/31/2020	10/1/2011	10,959	-	1,461	0.941	0.436
PA0020818	2	Glen Rock Sewer Authority	10/21/2015	10/31/2020	10/1/2012	10,959	-	1,461	0.961	0.436
PA0020826	1	Dover Township Sewer Authority	6/2/2017	6/30/2022	10/1/2010	146,117	-	19,482	0.961	0.436
PA0020834	2	Franklin County Authority – Greencastle	8/17/2016	8/31/2021	10/1/2012	17,351	-	2,314	0.683	0.67
PA0020885	1	Mechanicsburg Borough Municipal Authority	4/27/2017	4/30/2022	10/1/2012	37,990	-	5,065	0.951	0.436
PA0020893	1	Manheim Borough Authority	1/17/2008	1/31/2013	10/1/2011	20,822	-	2,776	0.97	0.436
PA0020915	2	Pine Grove Borough Authority	2/04/2016	2/28/2021	10/1/2012	27,397	-	3,653	0.961	0.436
PA0020923	1	New Oxford Municipal Authority	5/23/2016	5/31/2021	10/1/2011	32,657	-	4,354	0.961	0.436
PA0021067	1	Mount Joy Borough	2/25/2008	2/28/2013	10/1/2010	27,945	-	3,726	0.97	0.436
PA0021229	3	Littlestown Borough	6/1/2012	6/30/2017	10/1/2014	18,265	-	2,435	0.627	0.67

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NPDES Permit No.	Phase	Facility	Latest Permit Issuance Date	Permit Expiration Date	Cap Load Compliance Start Date	TN Cap Load (lbs/yr)	TN Offsets Included in Cap Load (lbs/yr)	TP Cap Load (lbs/yr)	TN Delivery Ratio	TP Delivery Ratio
PA0021237	2	Newport Borough Municipal Authority	12/7/2016	12/31/2021	10/1/2014	7,306	-	974	0.951	0.436
PA0021245	2	Duncannon Borough	6/28/2018	6/31/2023	10/1/2013	13,516	-	1,802	0.951	0.436
PA0021491	3	Williamstown Borough	5/23/2016	5/31/2021	10/1/2010	7,306	-	974	0.951	0.436
PA0021539	3	Williamsburg Borough	6/29/2017	6/30/2022	10/1/2013	7,306	-	974	0.88	0.436
PA0021563	3	Gettysburg Municipal Authority	7/12/2018	7/31/2023	10/1/2012	44,748	-	5,966	0.627	0.67
PA0021571	3	Marysville Municipal Authority	2/23/2012	2/28/2017	10/1/2012	22,831	-	3,044	0.951	0.436
PA0021644	2	Dover Borough	9/14/2015	9/30/2020	10/1/2010	7,306	-	974	0.961	0.436
PA0021687	1	Wellsboro Municipal Authority	1/11/2008	1/31/2013	10/1/2010	46,029	9,500	4,871	0.93	0.436
PA0021717	2	Marietta-Donegal Joint Authority	9/22/2015	9/30/2020	10/1/2012	13,698	-	1,826	0.97	0.436
PA0021806	2	Annvile Township	8/30/2016	8/31/2021	10/1/2012	13,698	-	1,826	0.961	0.436
PA0021814	3	Mansfield Boro Municipal Authority	12/2/2011	12/31/2016	10/1/2012	23,744	-	3,166	0.474	0.436
PA0021865	2	Adamstown Borough Authority	1/5/2010	1/31/2015	10/1/2013	10,959	-	1,461	0.891	0.436
PA0021881	3	Westfield Borough	8/20/2015	8/31/2020	10/1/2010	8,402	-	1,120	0.474	0.436
PA0021890	1	New Holland Borough Authority	2/25/2008	2/28/2013	10/1/2012	24,475	-	3,263	0.891	0.436
PA0022209	1	Bedford Borough Municipal Authority	7/28/2015	7/31/2020	10/1/2010	27,397	-	3,653	0.897	0.436
PA0022535	3	Millersburg Borough Authority	11/27/2017	11/30/2022	10/1/2013	18,265	-	2,435	0.951	0.436
PA0023108	1	Elizabethtown Borough	6/20/2016	6/30/2021	10/1/2010	109,500	-	13,688	0.961	0.436
PA0023141	3	Hastings Area Sewer Authority	5/16/2018	5/16/2023	10/1/2016	10,959	-	1,461	0.836	0.436
PA0023183	3	Mt. Holly Springs Borough Authority	1/27/2017	1/31/2022	10/1/2013	10,959	-	1,461	0.961	0.436
PA0023248	1	Berwick Municipal Authority	1/11/2008	1/31/2013	10/1/2010	92,198	25,350	8,913	0.871	0.436
PA0023264	2	Twin Boroughs Sanitary Authority	4/20/2016	4/30/2021	10/1/2012	16,438	-	2,192	0.88	0.436



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NPDES Permit No.	Phase	Facility	Latest Permit Issuance Date	Permit Expiration Date	Cap Load Compliance Start Date	TN Cap Load (lbs/yr)	TN Offsets Included in Cap Load (lbs/yr)	TP Cap Load (lbs/yr)	TN Delivery Ratio	TP Delivery Ratio
PA0023442	3	Wrightsville Borough Municipal Authority	8/3/2017	8/31/2022	10/1/2011	7,306	-	974	0.97	0.436
PA0023531	1	Danville Municipal Authority	11/15/2016	7/31/2020	10/1/2011	66,118	-	8,816	0.871	0.436
PA0023558	3	Ashland Borough	4/23/2012	4/30/2017	10/1/2013	23,744	-	3,166	0.951	0.436
PA0023736	3	Tri-Boro Municipal Authority	12/12/2011	12/31/2016	10/1/2013	9,132	-	1,218	0.495	0.436
PA0023744	1	Northeastern York County Sewer Authority	6/2/2017	12/31/2020	10/1/2010	33,485	-	4,627	0.961	0.436
PA0024040	1	Highspire Borough	4/26/2016	4/30/2021	10/1/2010	36,529	-	4,871	0.961	0.436
PA0024139	3	Cumberland Township Municipal Authority (North)	1/25/2013	1/31/2018	10/1/2013	9,132	-	1,218	0.627	0.67
PA0024147	3	Cumberland Township Municipal Authority (South)	1/25/2013	1/31/2018	10/1/2013	11,872	-	1,583	0.627	0.67
PA0024384	2	North Middleton Township Authority	2/16/2017	02/28/2022	10/1/2012	16,895	-	2,253	0.951	0.436
PA0024406	2	Mt. Carmel Municipal Sewage Authority	10/25/2017	10/31/2022	10/1/2010	41,095	-	5,479	0.871	0.436
PA0024431	1	Dillsburg Borough Authority	3/23/2016	3/31/2021	10/1/2011	27,945	-	3,726	0.961	0.436
PA0024708	3	Union Township	8/17/2016	8/31/2021	10/1/2012	11,872	-	1,583	0.88	0.436
PA0024759	3	Curwensville Municipal Authority	5/8/2018	5/31/2023	10/1/2014	13,698	-	1,826	0.836	0.436
PA0024902	3	Upper Allen Township	12/28/2017	10/31/2022	10/1/2012	20,091	-	2,679	0.951	0.436
PA0025381	3	Saxton Borough Municipal Authority	8/17/2017	8/31/2022	10/1/2011	7,306	-	974	0.897	0.436
PA0025933	1	Lock Haven Borough	9/16/2016	9/30/2021	10/1/2011	68,492	-	9,132	0.93	0.436
PA0026051	1	Chambersburg Borough	1/26/2017	1/31/2022	10/1/2012	124,199	-	16,560	0.683	0.67
PA0026077	1	Carlisle Borough	10/13/2017	10/31/2022	10/1/2008	127,852	-	17,047	0.951	0.436
PA0026107	1	Wyoming Valley Sewer Authority	2/4/2008	2/28/2013	10/1/2010	584,467	-	77,929	0.871	0.436
PA0026191	1	Huntingdon Borough	2/16/2017	2/28/2022	10/1/2011	73,058	-	9,741	0.88	0.436
PA0026239	1	University Area Joint Authority	5/24/2013	5/31/2018	10/1/2010	164,381	-	21,918	0.93	0.436
PA0026263	1	York City	8/3/2017	8/31/2022	10/1/2011	474,880	-	63,317	0.961	0.436
PA0026280	1	Lewistown Borough	1/5/2018	1/31/2023	10/1/2013	51,964	-	6,942	0.88	0.436

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PA0026310	1	Clearfield Borough	1/11/2008	1/31/2013	10/1/2010	82,191	-	10,959	0.836	0.436
PA0026361	1	Lower Lackawanna Valley Sewer Authority	6/10/2013	6/30/2018	10/1/2010	109,588	-	14,612	0.733	0.436
PA0026441	1	Lemoine Borough Municipal Authority	5/10/2017	5/31/2022	10/1/2015	19,433	-	2,429	0.961	0.436
PA0026484	1	Derry Township Municipal Authority	2/23/2016	2/28/2021	10/1/2010	91,668	-	12,225	0.961	0.436
PA0026492	1	Scranton Sewer Authority	1/17/2017	11/30/2021	10/1/2013	365,292	-	48,706	0.733	0.436
PA0026557	1	Sunbury City Municipal Authority	1/18/2008	1/31/2013	10/1/2010	76,711	-	10,228	0.871	0.436
PA0026620	3	Millersville Borough	12/17/2010	12/31/2015	10/1/2013	33,790	-	4,505	0.891	0.436
PA0026654	2	New Cumberland Borough Authority	3/8/2017	3/31/2022	10/1/2013	22,831	-	3,044	0.951	0.436
PA0026727	1	Tyrone Borough Sewer Authority	12/18/2013	12/31/2018	10/1/2011	164,381	-	21,918	0.88	0.436
PA0026735	1	Swatara Township	8/19/2015	8/31/2020	10/1/2011	118,339	-	15,866	0.961	0.436
PA0026743	1	Lancaster City	6/18/2012	7/31/2015	10/1/2007	620,348	1,300	77,381	0.891	0.436
PA0026808	1	Springettsbury Township	1/26/2016	1/31/2022	10/1/2010	273,969	-	36,529	0.961	0.436
PA0026875	1	Hanover Borough	12/27/2016	12/31/2021	10/1/2012	82,991	-	10,959	0.961	0.436
PA0026921	1	Greater Hazleton Municipal Authority	2/12/2008	2/28/2013	10/1/2011	216,739	-	27,092	0.871	0.436
PA0027014	1	Altoona City Authority – East	1/29/2008	1/31/2013	10/1/2012	146,117	-	19,482	0.88	0.436
PA0027022	1	Altoona City Authority – West	1/29/2008	1/31/2013	10/1/2011	164,381	-	21,918	0.88	0.436
PA0027049	1	WilliamSPORT Sanitary Authority – West	10/25/2017	10/31/2022	10/1/2012	71,597	-	9,546	0.93	0.436
PA0027057	1	WilliamSPORT Sanitary Authority – Central	8/10/2016	8/31/2021	10/1/2012	153,423	-	20,456	0.941	0.436
PA0027065	2	Lackawanna River Basin Sewer Authority	9/23/2015	9/30/2020	10/1/2011	109,587	-	14,612	0.733	0.436
PA0027081	3	Lackawanna River Basin Sewer Authority	11/7/2016	11/30/2021	10/1/2011	12,786	-	1,705	0.733	0.436
PA0027090	1	Lackawanna River Basin Sewer Authority	8/15/2016	8/31/2021	10/1/2011	127,852	-	17,047	0.733	0.436

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PA0027171	1	Bloomsburg Municipal Authority	10/25/2017	3/31/2022	10/1/2010	78,355	-	10,447	0.871	0.436
PA0027189	1	Lower Allen Township Authority	5/5/2017	5/31/2022	10/1/2015	114,154	-	15,221	0.951	0.436
PA0027197	1	Harrisburg Sewerage Authority	12/4/2009	12/31/2014	10/1/2012	688,575	-	91,810	0.951	0.436
PA0027316	1	Lebanon City Authority	12/23/2016	12/31/2021	10/1/2012	146,117	-	19,482	0.961	0.436
PA0027324	1	Shamoken-Coal Township Joint Sanitary Authority	1/25/2008	1/31/2013	10/1/2012	127,852	-	17,047	0.871	0.436
PA0027405	1	Ephrata Borough Authority	1/17/2014	1/31/2019	10/1/2012	79,049	-	9,881	0.891	0.436
PA0027553	2	Pine Creek Municipal Authority	10/22/2015	8/31/2016	10/1/2011	23,744	-	3,166	0.93	0.436
PA0028088	3	Brown Township Municipal Authority	2/11/2016	2/28/2021	10/1/2014	10,959	-	1,461	0.88	0.436
PA0028142	1	Fort Indiantown Gap	11/7/2011	11/30/2016	10/1/2005	24,353	-	3,044	0.961	0.436
PA0028266	3	Troy Borough	10/26/2016	10/31/2021	10/1/2011	7,306	-	974	0.7	0.436
PA0028347	3	Martinsburg Borough	6/29/2017	6/30/2022	10/1/2013	12,785	-	1,705	0.88	0.436
PA0028461	3	Mifflinburg Borough Municipal Authority	3/21/2017	3/31/2022	10/1/2011	25,570	-	3,409	0.941	0.436
PA0028576	1	Abington Regional WW Authority	3/9/2018	3/31/2023	10/1/2014	66,483	-	8,310	0.733	0.436
PA0028592	3	Bonneauville Borough	8/24/2012	8/31/2017	1/1/2009	9,741	-	1,218	0.627	0.67
PA0028631	3	Emporium Borough (Mid-Cameron Authority)	11/30/2012	11/30/2017	10/1/2011	17,100	-	2,140	0.93	0.436
PA0028673	3	Gallitzin Borough	5/22/2013	5/31/2018	10/1/2016	7,306	-	974	0.836	0.436
PA0028681	2	Kelly Township Municipal Authority	10/11/2016	10/31/2021	10/1/2011	68,492	-	9,132	0.941	0.436
PA0028738	2	Ralpho Township Municipal Authority	9/16/2016	9/30/2021	10/1/2011	13,132	-	1,751	0.871	0.436
PA0028886	3	Quarryville Borough Authority	10/11/2012	10/31/2017	10/1/2014	7,306	-	974	0.98	0.436
PA0029106	2	Greenfield Township Municipal Authority	10/19/2016	10/31/2021	10/1/2012	14,612	-	1,948	0.88	0.436
PA0030139	3	Dallas State Correctional Institution	1/25/2011	1/31/2016	10/1/2009	9,741	-	1,218	0.871	0.436

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PA0030597	3	Franklin County General Authority	12/27/2016	12/31/2021	10/1/2012	9,132	-	1,218	0.683	0.67
PA0030643	1	Shippensburg Borough Authority	9/29/2015	1/31/2019	10/1/2010	60,273	-	8,036	0.951	0.436
PA0032051	2	Granville Township	9/14/2017	9/30/2022	10/1/2011	15,196	-	1,899	0.88	0.436
PA0032492	3	DCNR Bald Eagle State Park	6/15/2017	6/30/2022	10/1/2013	8,219	-	1,096	0.93	0.436
PA0032557	3	Logan Township	6/18/2012	6/30/2017	10/1/2008*	15,013	-	1,876	0.88	0.436
PA0032883	2	Duncansville Borough	5/30/2013	5/31/2018	10/1/2011	22,228	-	2,963	0.88	0.436
PA0034576	2	Towanda Municipal Authority	9/14/2015	9/30/2020	10/1/2010	21,187	-	2,825	0.733	0.436
PA0036269	3	Stewartstown Borough	4/20/2016	6/30/2020	10/1/2010	11,415	-	1,522	1	1
PA0036820	3	Galeton Borough Authority	9/29/2011	9/30/2016	10/1/2011	9,132	-	1,218	0.93	0.436
PA0037150	1	Penn Township	6/1/2017	6/30/2022	10/1/2011	76,711	-	10,228	0.961	0.436
PA0037711	3	Everett Boro Municipal Authority	11/28/2012	11/30/2017	10/1/2013	15,890	-	2,119	0.897	0.436
PA0037737	3	Elizabethville Area Authority	12/14/2017	12/31/2022	10/1/2013	7,306	-	974	0.836	0.436
PA0037966	2	Moshannon Valley Joint Sanitary Authority	11/15/2017	12/31/2021	10/1/2012	37,205	-	4,960	0.836	0.436
PA0038385	3	Defense Distribution Depot Susquehanna	5/25/2017	5/31/2022	10/1/2011	9,132	-	1,218	0.961	0.436
PA0038415	1	East Pennsboro Township	12/16/2015	12/30/2020	10/1/2012	72,206	-	9,589	0.951	0.436
PA0038865	3	Zerbe Township Municipal Authority	8/31/2015	8/31/2020	10/1/2015	7,306	-	974	0.951	0.436
PA0038920	3	Burnham Borough	3/23/2016	3/31/2021	10/1/2013	11,689	-	1,559	0.880	0.436
PA0042269	1	Lancaster Area Sewer Authority	9/24/2018	4/30/2021	10/1/2010	310,489	-	41,400	0.970	0.436
PA0042951	3	Tremont Municipal Authority	4/22/2016	4/30/2021	10/1/2013	9,132	-	1,218	0.961	0.436
PA0043257	3	New Freedom Borough	10/22/2015	9/30/2020	10/1/2015	41,095	-	5,479	0.961	0.436
PA0043273	2	Hollidaysburg Regional Sewer Authority	2/10/2017	2/28/2022	10/1/2012	109,588	-	14,612	0.88	0.436
PA0043575	3	Lykens Borough	2/5/2018	2/28/2023	10/1/2012	7,488	-	998	0.951	0.436
PA0043681	3	Valley Joint Sewer Authority	10/18/2017	10/31/2022	10/1/2012	41,095	-	5,479	0.495	0.436

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PA0043893	3	Western Clinton County Municipal Authority	7/21/2017	7/31/2022	10/1/2011	16,438	-	2,192	0.93	0.436
PA0044113	2	South Middleton Township Municipal Authority	4/27/2017	4/30/2022	10/1/2014	27,397	-	3,653	0.961	0.436
PA0044661	1	Lewisburg Area Joint Sanitary Authority	12/16/2013	12/31/2018	10/1/2012	44,200	-	5,893	0.941	0.436
PA0045985	1	Mountaintop Area Sewer Authority	3/6/2008	3/31/2013	10/1/2010	75,981	-	10,131	0.871	0.436
PA0046221	3	Newville Borough	7/21/2015	7/31/2020	10/1/2011	7,306	-	974	0.951	0.436
PA0046272	3	Porter-Tower Joint Municipal Authority	9/21/2017	9/30/2022	10/1/2013	9,922	-	1,321	0.951	0.436
PA0046388	3	Butler Township St. Johns	4/18/2013	4/30/2018	10/1/2009	40,182	-	5,357	0.871	0.436
PA0060046	3	Can-Do Inc	1/4/2012	1/31/2017	10/1/2012	18,265	-	2,435	0.871	0.436
PA0060135	3	Shickshinny Borough Sewer Authority	10/26/2017	10/31/2022	10/1/2013	8,219	-	1,096	0.871	0.436
PA0060518	3	Hallstead-Great Bend Joint Sewer Authority	10/22/2015	10/31/2020	10/1/2012	9,741	-	1,218	0.495	0.436
PA0060801	2	Montrose Municipal Authority	2/25/2011	2/29/2016	10/1/2013	14,977	-	1,997	0.733	0.436
PA0061034	3	Waverly Township	7/1/2011	7/31/2016	10/1/2013	9,132	-	1,218	0.733	0.436
PA0061590	3	Little Washington Wastewater Co.	6/17/2011	6/30/2016	10/1/2013	24,073	-	3,210	0.871	0.436
PA0062201	2	Schuylkill County Municipal Authority	8/19/2016	8/31/2021	10/1/2012	10,959	-	1,461	0.951	0.436
PA0062219	1	Frackville Area Municipal Authority	3/20/2013	3/31/2018	10/1/2010	25,570	-	3,409	0.951	0.436
PA0064025	2	KBM Regional Authority	1/25/2016	1/31/2021	10/1/2009	13,637	-	1,705	0.871	0.436
PA0070041	3	Mahanoy City	6/13/2012	6/30/2017	10/1/2012	25,205	-	3,361	0.951	0.436
PA0070386	3	Shenandoah Municipal Sewer Authority	10/6/2017	10/31/2022	10/1/2011	36,529	-	4,871	0.951	0.436
PA0070424	2	Carnarvon Township	3/23/2018	3/31/2023	10/1/2013	12,785	-	1,705	0.891	0.436
PA0080225	3	Washington Township Municipal Authority	1/12/2018	1/31/2023	10/1/2013	35,433	-	4,724	0.819	0.67
PA0080314	1	Hampden Township Sewer Authority	6/20/2016	3/31/2018	10/1/2014	117,696	-	14,441	0.951	0.436

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PA0080438	3	Northern Lancaster County Authority	1/10/2011	1/31/2016	10/1/2013	8,219	-	1,096	0.891	0.436
PA0080519	3	Antrim Township	4/20/2018	4/30/2023	10/1/2011	21,918	-	2,922	0.683	0.67
PA0080748	2	Northern Lebanon County Authority	1/27/2017	1/31/2022	10/1/2013	7,306	-	974	0.961	0.436
PA0081001	3	St. Thomas Township Municipal Authority	8/8/2017	8/31/2022	10/1/2013	7,306	-	974	0.683	0.67
PA0081574	2	Salisbury Township	2/24/2010	2/28/2015	10/1/2012	13,150	-	1,643	0.98	0.436
PA0081591	2	Eastern York County Sewer Authority	10/26/2015	10/31/2020	10/1/2012	9,132	-	1,218	0.961	0.436
PA0081868	1	Fairview Township	8/17/2016	9/30/2020	10/1/2010	13,333	-	1,778	0.961	0.436
PA0081949	3	West Earl Sewer Authority	2/1/2011	1/31/2016	10/1/2010	8,219	-	1,096	0.891	0.436
PA0082392	2	Derry Township Municipal Authority – Southwest	5/23/2016	5/31/2021	10/1/2012	10,959	-	1,461	0.961	0.436
PA0082589	2	Fairview Township	8/17/2016	8/31/2021	10/1/2012	9,132	-	1,218	0.961	0.436
PA0083011	2	Newberry Township	2/23/2017	2/28/2022	10/1/2012	23,744	-	3,166	0.961	0.436
PA0083593	3	Silver Spring Township	10/6/2015	10/31/2020	10/1/2010	21,918	-	2,922	0.951	0.436
PA0084026	2	Northwestern Lancaster County Authority	11/22/2010	11/30/2015	10/1/2008	14,987	375	1,827	0.97	0.436
PA0084212	3	Leacock Township	11/17/2015	11/30/2020	10/1/2012	7,306	-	974	0.891	0.436
PA0084425	3	Conewago Township Sewer Authority	6/22/2016	6/30/2021	10/1/2011	9,132	-	1,218	0.961	0.436
PA0085511	2	West Hanover	10/12/2016	10/31/2021	10/1/2012	14,246	-	1,900	0.961	0.436
PA0086860	3	Springfield Township Sewer Authority	12/17/2013	12/31/2018	10/1/2012	12,785	-	1,704	0.961	0.436
PA0087181	1	Ephrata Borough Authority (#2)	1/17/2014	1/31/2019	10/1/2008	54,550	-	6,818	0.891	0.436
PA0087661	3	Chestnut Ridge Area Joint Municipal Authority	11/17/2017	11/30/2022	10/1/2013	12,877	-	1,717	0.897	0.436
PA0110361	3	Freedom Township Water & Sewer Authority	11/22/2017	11/30/2022	10/1/2013	10,959	-	1,461	0.88	0.436
PA0110469	3	Patton Borough	11/17/2017	11/30/2022	10/1/2013	9,863	-	1,315	0.836	0.436
PA0110582	1	Eastern Snyder County Regional Authority	7/17/2015	7/31/2020	10/1/2012	51,141	-	6,819	0.951	0.436

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PA0110965	2	Mid-Centre County Authority	3/7/2018	3/31/2023	10/1/2011	18,265	-	2,435	0.93	0.436
PA0113298	3	Elkland Municipal Authority	8/28/2013	8/31/2018	10/1/2010	10,277	-	1,285	0.474	0.436
PA0114821	3	Gregg Township	2/28/2014	2/28/2019	10/1/2008	23,013	-	3,068	0.941	0.436
PA0114961	3	Hughesville-Wolf Township Joint Sewer Authority	1/19/2017	1/31/2022	10/1/2011	12,329	-	1,644	0.941	0.436
PA0205869	2	West Branch Sewer Authority	03/01/2016	03/31/2021	10/1/2012	16,438	-	2,192	0.836	0.436
PA0208922	3	Woodward Township	8/31/2015	8/31/2020	10/1/2013	10,228	-	1,364	0.871	0.436
PA0209228	2	Lycoming County Water & Sewer Authority	9/7/2012	7/31/2015	10/1/2011	34,703	-	4,627	0.941	0.436
PA0228915	3	ORD Sewer Authority	9/16/2015	9/30/2020	10/1/2010	9,748	-	1,218	0.836	0.436
PA0234079	2	Tiadaghton Valley Municipal Authority	7/3/2018	7/31/2023	10/1/2012	19,178	-	2,557	0.93	0.436
PA0234117	1	West Branch Regional Authority	4/2/2018	4/30/2023	10/1/2011	42,508	-	5,728	0.941	0.436
PA0247391	2	North Codorus Township	7/22/2015	1/31/2019	10/1/2006	13,394	-	1,674	0.961	0.436
PA0253812	3	Glendale Valley M.A.	6/1/2018	6/30/2023	10/1/2013	7,808	-	1,041	0.836	0.436
PA0261262	1	North Londonderry Township Authority	2/14/2011	2/29/2016	10/1/2012	25,936	-	3,458	0.961	0.436
PA0261670	3	Fredericksburg Water & Sewer Authority	6/15/2018	6/30/2023	10/1/2014	7,306	-	974	0.961	0.436
PA0266566	3	Jackson Township STP	1/19/2018	1/31/2023	2/1/2018	10,958	-	1,461	0.961	0.436
PA0086304	3	Earl Township STP	8/30/2018	2/28/2021	10/1/2018	7,306	-	974	0.891	0.436

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The minimum monitoring frequency for TN species and TP in new or renewed NPDES permits for Significant Sewage dischargers is 2/week.

**2. Remaining Capacity for Significant Sewage Dischargers**

Following issuance of the final permit to Significant Sewage dischargers, the following illustrates a comparison of the Cap Loads established in permits versus the WLAs for the Significant Sewage sector:

	<u><b>TN (lbs/yr)</b></u>	<u><b>TP (lbs/yr)</b></u>
<b>Total Cap Loads Established in Permits:</b>	10,002,905	1,317,028
<b>Total Revised WLAs (Significant Sewage):</b>	9,994,689	1,303,685
<b>Difference:</b>	8,216	13,343

At this time, there are 36,525 lbs/yr TN Offsets incorporated into Cap Loads. These Offsets were mistakenly included in Cap Loads during the initial round of permitting and will be removed upon subsequent renewals.

In addition, DEP estimates that there are 342,435 lbs/yr TN and 1,170 lbs/yr TP Offsets for on-lot and wildcat connections that are recognized by permits as a mechanism to achieve compliance but are not incorporated into Cap Loads (an estimated 15,158 on-lot and wildcat system connections). In its Phase 3 WIP, DEP anticipates that all of this load will be shifted from the non-point source load allocation for septic systems to the Significant Sewage sector WLAs (since the septic systems representing this load no longer exist).

TN and TP Cap Loads exceed WLAs due to expansions and the fact that smaller facilities with NPDES permits have been connecting to Significant Sewage dischargers, and permits have been amended to increase Cap Loads commensurately. To account for this, 14,166 lbs/yr TN and 13,343 lbs/yr TP has been moved from the Non-Significant sector to the Significant Sewage sector.

There is no remaining Capacity for Significant Sewage dischargers. Expansions by any Significant Sewage discharger will not result in any increase in Cap Loads. Where non-significant facilities expand to a design flow of 0.4 MGD or greater, the lesser of baseline Cap Loads of 7,306 lbs/yr TN and 974 lbs/yr TP or existing performance will be used for permits, and the load will be moved from the Non-Significant sector load to the Significant Sewage sector load. If considered necessary for environmental protection, DEP may decide to move load from the Point Source Reserve to the Significant Sewage sector in the future.

**B. Significant IW Sector**

**1. Implementation Status**

Thirty (30) IW facilities have individual WLAs in the TMDL, as these facilities had been identified previously by DEP as “significant dischargers” by virtue of having gross effluent discharges that have exceeded 75 lbs/day of TN or 25 lbs/day of TP. The original thirty Significant IW facilities and their WLAs are listed in Table 7-2.



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**Table 7-2: Significant IW Dischargers According to Bay TMDL**

<b>NPDES Permit No.</b>	<b>Facility</b>	<b>TN WLA (lbs/yr)</b>	<b>TP WLA (lbs/yr)</b>
PA0007498	Wise Foods Inc.	19,957	898
PA0007552	Empire Kosher Poultry	21,928	740
PA0007919	Cascades Tissue Group	40,569	1,941
PA0008231	Guilford Mills Inc.	5,723	198
PA0008265	Appleton Paper Springmill	61,666	7,367
PA0008419	Cherokee Pharmaceutical	44,497	11,748
PA0008443	PPL Montour LLC	72,749	1,200
PA0008591	NGC Industries LLC	2,213	106
PA0008869	PH Glatfelter Co.	117,588	6,821
PA0008885	Proctor & Gamble Paper Products	100,360	5,441
PA0009024	Global Tungsten (Osram)	600,515	1,577
PA0009229	Consolidated Rail Corporation	2,539	93
PA0009270	Del Monte Corp.	30,639	1,449
PA0009326	Motts Inc.	18,645	729
PA0009857	USFW – Lamar National Fish Hatchery	60,138	1,919
PA0009911	Papetti's Acquisition Inc.	8,104	532
PA0010553	PAFBC – Benner Springs	110,347	2,285
PA0010561	PAFBC – Pleasant Gap	55,049	1,591
PA0024228	BC Natural Chicken LLC	18,982	766
PA0035092	Tyson Foods	27,397	559
PA0035157	Farmer's Pride Inc.	16,438	1,370
PA0037141	PAFBC – Huntsdale	53,512	2,804
PA0038598	Susquehanna Aquaculture Inc.	54,007	3,530
PA0040835	PAFBC – Bellefonte	78,988	2,636
PA0044032	PAFBC – Upper Spring	7,000	50
PA0044741	Hanover Foods Corp.	26,385	979
PA0046680	Republic Services of PA LLC	40,803	131
PA0110540	Furman Foods	45,450	1,624
PA0111759	Cargill Meat Solutions	14,612	1,218
PA0112127	PAFBC – Tylersville	63,339	2,382

The Significant IW sector total WLAs in the TMDL are 1,820,139 lbs/yr TN and 64,684 lbs/yr TP.

DEP has discovered that several facilities withdraw water from the same stream where the discharge occurs. The WLAs provided to these facilities in the TMDL are gross loads that include background nutrients withdrawn from those streams. When reviewing the *net* contribution from the facilities, it appears that the facilities do not meet the original thresholds used (75 lbs/day TN or 25 lbs/day TP) to determine the Significant IW discharger list, i.e., if their net loads had been considered, they would not have been categorized as significant to begin with. The facilities listed in Table 7-3 below are in this category. These nine facilities will be moved to the Non-Significant Sector along with their total WLAs of 599,968 lbs/yr TN and 24,018 lbs/yr TP.

**Table 7-3: IW Dischargers No Longer Considered Significant**

NPDES Permit No.	Facility	TN WLA (lbs/yr)	TP WLA (lbs/yr)
PA0008869	PH Glatfelter Company	117,588	6,821
PA0009857	USFW – Lamar National Fish Hatchery	60,138	1,919
PA0010553	PAFBC – Benner Springs	110,347	2,285
PA0010561	PAFBC – Pleasant Gap	55,049	1,591
PA0037141	PAFBC – Huntsdale	53,512	2,804
PA0038598	Susquehanna Aquaculture Inc.	54,007	3,530
PA0040835	PAFBC – Bellefonte	78,988	2,636
PA0044032	PAFBC – Upper Spring	7,000	50
PA0112127	PAFBC – Tylersville	63,339	2,382
<b>TOTALS:</b>		<b>599,968</b>	<b>24,018</b>

DEP has also identified two IW dischargers that were not in the original Significant IW sector that have received Cap Loads:

- DEP has identified New Morgan Landfill Co. Inc. (“Conestoga Landfill”, PA0055328) as a Significant IW facility because it has modified its treatment process which will result in additional TN load. DEP has issued a final NPDES permit to New Morgan Landfill with Cap Loads of 12,500 lbs/yr TN and 64 lbs/yr TP, with a compliance start date of October 1, 2016. These loads have been moved from the Non-Significant sector to the Significant IW sector.
- DEP has determined that Keystone Protein Co. (PA0080829) is a Significant IW discharger due to its existing discharge loads of TN and TP. A final NPDES permit was issued to Keystone Protein with Cap Loads of 19,786 lbs/yr TN and 381 lbs/yr TP at a design flow of 0.15 MGD. These loads have been moved from the Non-Significant sector to the Significant IW sector. However, a new permit (PA0266345) has been issued for a new facility which will be constructed adjacent to the existing facility (PA0080829). The existing facility will be abandoned upon completion of the new facility, which will have a design flow of 3 MGD.

The revised list of 23 Significant IW dischargers is presented in Table 7-4.

**Table 7-4: Revised List of Significant IW Facilities**

NPDES Permit No.	Facility
PA0007498	Wise Foods Inc.
PA0007552	Empire Kosher Poultry
PA0007919	Cascades Tissue Group
PA0008231	Guilford Mills Inc. Penn Dye & Finishing Plant
PA0008265	Appvion Inc. (Appleton Paper)
PA0008419	Merck & Company
PA0008443	PPL Montour LLC
PA0008591	NGC Industries LLC
PA0008885	Proctor & Gamble Paper Products
PA0009024	Global Tungsten (Osram)
PA0009229	Consolidated Rail Corporation
PA0009270	Del Monte Corp.
PA0009326	Motts Inc.
PA0009911	Papetti’s Acquisition Inc.

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<b>NPDES Permit No.</b>	<b>Facility</b>
PA0024228	BC Natural Chicken LLC
PA0035092	Tyson Foods
PA0035157	Farmer's Pride Inc.
PA0044741	Hanover Foods Corp.
PA0046680	Republic Services of PA LLC
PA0055328	Conestoga Landfill
PA0080829	Keystone Protein Company
PA0110540	Furman Foods
PA0111759	Cargill Meat Solutions

Final NPDES permits with Cap Loads have been issued to all significant IW dischargers as presented in Table 7-5:

**Table 7-5: Significant IW Facilities That Have Received Final Cap Loads**

<b>NPDES Permit No.</b>	<b>Facility</b>	<b>Latest Permit Issuance Date</b>	<b>Permit Expiration Date</b>	<b>Cap Load Compliance Start Date</b>	<b>TN Cap Load (lbs/yr)</b>	<b>TP Cap Load (lbs/yr)</b>	<b>TN Delivery Ratio</b>	<b>TP Delivery Ratio</b>
PA0007498	Wise Foods Inc.	4/12/18	4/30/2023	10/1/13	19,957	898	0.836	0.436
PA0007552	Empire Kosher Poultry	1/23/17	1/31/22	10/1/15	21,928	740	0.88	0.436
PA0007919	Cascades Tissue Group	12/24/13	10/31/18	11/1/13	40,569	1,941	0.733	0.436
PA0008231	Guilford Mills Inc.	8/3/11	8/31/16	10/1/11	7,065	271	0.961	0.436
PA0008265	Appvion Inc.	2/23/17	2/28/22	10/1/17	61,666	7,367	0.88	0.436
PA0008419	Cherokee Pharmaceutical	9/8/16	9/30/21	10/1/16	64,884	11,748	0.876	0.436
PA0008591	NGC Industries LLC	10/11/17	10/31/22	10/1/12	2,758	132	0.941	0.436
PA0008885	Proctor & Gamble Paper Products	8/25/17	8/31/22	10/1/11	100,360	5,441	0.733	0.436
PA0009024	Global Tungsten (Osram)	9/18/17	9/30/22	10/1/12	600,515	1,577	0.7	0.436
PA0009229	Consolidated Rail Corporation	7/30/13	7/31/18	10/1/13	2,539	93	0.951	0.436
PA0009270	Del Monte Corp.	4/24/14	9/30/17	10/1/14	33,196	1,492	0.836	0.436
PA0009326	Motts Inc.	9/2/15	9/30/20	10/1/15	18,645	729	0.72	0.669
PA0009911	Papetti's Acquisition Inc.	12/29/16	12/31/21	10/1/13	8,104	532	0.961	0.436
PA0055328	New Morgan Landfill Co. Inc.	11/22/16	7/31/20	10/1/15	12,500	64	0.891	0.436
PA0080829*	Keystone Protein	9/22/14	3/31/17	10/1/16	19,786	381	0.961	0.436
PA0024228	Hain Pure Protein	7/19/18	7/31/23	10/1/14	18,982	766	0.961	0.436
PA0035092	Tyson Foods	8/15/11	8/31/16	10/1/14	54,794	559	0.891	0.436
PA0035157	Farmer's Pride Inc.	1/23/12	1/31/17	10/1/15	16,438	1,370	0.961	0.436
PA0044741	Hanover Foods Corp.	9/22/15	9/30/20	10/1/17	26,385	979	0.961	0.436

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<b>NPDES Permit No.</b>	<b>Facility</b>	<b>Latest Permit Issuance Date</b>	<b>Permit Expiration Date</b>	<b>Cap Load Compliance Start Date</b>	<b>TN Cap Load (lbs/yr)</b>	<b>TP Cap Load (lbs/yr)</b>	<b>TN Delivery Ratio</b>	<b>TP Delivery Ratio</b>
PA0046680	Republic Services of PA LLC	4/21/17	1/31/22	10/1/17	50,803	300	0.961	0.436
PA0110540	Furman Foods	3/19/18	3/31/23	10/1/12	45,450	1,624	0.876	0.436
PA0111759	Cargill Meat Solutions	9/27/12	9/30/17	10/1/13	19,483	1,218	0.733	0.436
PA0008443	PPL Montour LLC	8/15/18	8/31/23	10/1/18	72,749	1,200	0.941	0.436

**TOTALS:      1,319,556      41,422**

\* Upon completion of the new facility the load from PA0080829 will be transferred to PA0266345.

The minimum monitoring frequency for TN species and TP in new or renewed NPDES permits for Significant Industrial dischargers is 2/week.

**2. Remaining Capacity for Significant IW Dischargers**

Following issuance of all final permits to Significant IW dischargers, the following illustrates a comparison of the Cap Loads established in permits versus the WLAs for the Significant IW sector. Note that the Total Revised WLAs below reflect loads that have been removed from the Significant IW sector (Table 7-3) and include loads moved from the Non-Significant sector to the Significant IW sector for two new Significant IW dischargers.

	<u><b>TN (lbs/yr)</b></u>	<u><b>TP (lbs/yr)</b></u>
<b>Total Cap Loads Established in Permits:</b>	1,319,556	41,422
<b>Total Revised WLAs (Significant IW):</b>	1,272,844	41,111
<b>Difference:</b>	46,712	311

The reason that total Cap Loads for TN and TP exceed WLAs for the Significant IW sector is DEP's decision to grant additional load to certain Significant IW facilities that were undergoing expansions. To balance the load requirements, 46,712 lbs/yr TN and 311 lbs/yr TP have been moved from the Non-Significant sector to the Significant IW sector.

There is no remaining Capacity for Significant IW dischargers.

## **C. Non-Significant Sector**

### **1. Implementation Status**

Non-significant dischargers include sewage facilities (Phase 4 facilities:  $\geq 0.2$  MGD and  $< 0.4$  MGD and Phase 5 facilities:  $> 0.002$  MGD and  $< 0.2$  MGD), small flow/single residence sewage treatment facilities ( $\leq 0.002$  MGD), and non-significant IW facilities, all of which may be covered by statewide General Permits or may have individual NPDES permits.

The aggregate WLAs in the TMDL for all non-significant sewage and industrial waste dischargers are as follows:

- 3,006,667 lbs/yr TN
- 842,104 lbs/yr TP

As noted above, DEP has shifted load to and from the Non-Significant sector as follows:

- 21,472 lbs/yr TN from the Non-Significant sector to the Significant Sewage sector;
- 14,317 lbs/yr TP from the Non-Significant sector to the Significant Sewage sector;
- 46,712 lbs/yr TN from the Non-Significant sector to the Significant IW sector;
- 311 lbs/yr TP from the Non-Significant sector to the Significant IW sector;
- 599,968 lbs/yr TN from the Significant IW sector to the Non-Significant sector; and
- 24,018 lbs/yr TP from the Significant IW sector to the Non-Significant sector.

As a result, the current balance for the Non-Significant sector load is:

- 3,538,451 lbs/yr TN
- 851,494 lbs/yr TP

At this time, there are approximately 1,000 Phase 4 and 5 sewage facilities, approximately 740 small flow sewage treatment facilities covered by a statewide General Permit, and approximately 600 non-significant IW facilities.

#### Non-Significant Sewage Facilities

For Phase 4 sewage facilities (average annual design flow on August 29, 2005  $\geq 0.2$  MGD and  $< 0.4$  MGD), a future decision may be made as to the establishment of Cap Loads in permits. Until then, DEP will permit Phase 4 sewage facilities as follows:

1. Renewed or amended permits for facilities that do not increase design flow (compared to the date of the latest prior permit action) will contain monitoring and reporting for TN and TP throughout the permit term at a frequency no less than monthly.
2. Renewed or amended permits that include an increase in design flow will contain Cap Loads based on the lesser of a) existing TN and TP concentrations at current design average annual flow or b) 7,306 lbs/yr TN and 974 lbs/yr TP.

For Phase 5 sewage facilities with individual permits (average annual design flow on August 29, 2005  $> 0.002$  MGD and  $< 0.2$  MGD), DEP will issue individual permits with monitoring and reporting for TN and TP throughout the permit term at a frequency no less than annually, unless 1) the facility has already conducted at least two years of nutrient monitoring and 2) a summary of the monitoring results are included in the next permit's fact sheet. If, however, Phase 5 facilities choose to expand, the renewed or amended permits will contain Cap Loads based on the lesser of a) existing TN/TP concentrations at current design average annual flow or b) 7,306 lbs/yr TN and 974 lbs/yr TP.

If no data are available to determine existing concentrations for expanding Phase 4 or 5 facilities, default concentrations of 25 mg/l TN and 4 mg/l TP may be used (these are the average estimated concentrations of all non-significant sewage facilities).

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DEP will not issue permits to existing Phase 4 and 5 facilities containing Cap Loads unless it is done on a broad scale or unless the facilities are expanding.

For new Phase 4 and 5 sewage discharges, in general DEP will issue new permits containing Cap Loads of "0" and new facilities will be expected to purchase credits and/or apply offsets to achieve compliance, with the exception of small flow and single residence facilities.

Non-Significant IW Facilities

For non-significant IW facilities, monitoring and reporting of TN and TP will be required throughout the permit term in renewed or amended permits anytime the facility has the potential to introduce a net TN or TP increase to the load contained within the intake water used in processing. In general, facilities that discharge groundwater and cooling water with no addition of chemicals containing N or P do not require monitoring. Monitoring for facilities with other discharges will generally conform to the following minimum sampling frequencies, with the permit writer having final discretion:

- Food processing and related discharges, discharges associated with textiles, lumber and paper processing, discharges associated with residual waste management (e.g., landfill leachate, coal ash sluice water) – 1/month.
- Stormwater expected to contain TN or TP, discharges from metal finishing and related processing, discharges associated with chemicals, plastics and allied product manufacturing – 1/quarter.
- Cooling water or other discharges treated with chemical additives containing N and/or P – 1/year.

Non-significant IW facilities that propose expansion or production increases and as a result will discharge at least 75 lbs/day TN or 25 lbs/day TP (on an annual average basis), will be classified as Significant IW dischargers and receive Cap Loads in their permits based on existing performance (existing TN/TP concentrations at current average annual flow).

In general, for new non-significant IW discharges (including existing facilities discharging without a permit), DEP will issue permits containing Cap Loads of "0" and these facilities will be expected to purchase credits and/or apply offsets to achieve compliance.

A list of non-significant sewage and industrial waste dischargers with Cap Loads in NPDES permits is presented in **Attachment B**.

**2. Remaining Capacity for Non-Significant Dischargers**

For Significant Sewage and IW sectors, DEP's Cap Loads represent the performance standards by which comparisons can be made to WLAs in the TMDL. Since Cap Loads are not typically established in non-significant facility permits, DEP uses estimates of actual performance through a facility-specific evaluation of 1) Discharge Monitoring Report (DMR) data and 2) DEP inspection sampling results. Where neither of these two sources of performance data exist, DEP uses default data generally used by the Chesapeake Bay Program.

At this time, the following total loads have been estimated for the Non-Significant sector:

- 2,956,651 lbs/yr TN
- 395,386 lbs/yr TP

**D. CSO Sector**

**1. Implementation Status**

WLAs have been established in the TMDL for 39 facilities with CSOs. The aggregate WLAs are as follows:

- 212,920 lbs/yr TN

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- 34,709 lbs/yr TP

DEP intends to continue addressing CSOs through its CSO Policy (DEP ID No. 385-2000-011), including the Nine Minimum Controls (NMCs), Long-Term Control Plans (LTCPs) and Post-Construction Monitoring. DEP does not intend to impose monitoring or Cap Loads in NPDES permits for CSOs.

**2. Remaining Capacity for Non-Significant Dischargers**

DEP assumes there is no remaining Capacity for CSO dischargers.

**E. Point Source Reserve**

The table below is used by DEP for accounting purposes to determine if the wastewater sector is meeting overall TMDL objectives. The performance values are total Cap loads for the Significant Sewage and IW sectors, WLAs for the CSO sector, and estimated performance based on monitoring data for the Non-Significant sector. Performance values do not consider movement of load from one sector to another, which is unnecessary to determine an overall balance for the wastewater sector. Targets are total WLAs. All values have units of lbs/yr.

Sector	Performance		Targets		Balance	
	TN	TP	TN	TP	TN	TP
Significant Sewage	10,002,905	1,317,028	9,994,689	1,303,685	-8,216	-13,343
Significant IW	1,319,556	41,422	1,820,139	64,684	500,583	23,262
CSOs	212,920	34,709	212,920	34,709	0	0
Non-Significant	2,956,651	395,386	3,006,667	842,104	50,016	446,718

**TOTALS:      542,383      456,637**

The total balance for TN and TP across all sectors is the Point Source Reserve. At this time the Point Source Reserve values are:

- 542,384 lbs/yr TN
- 456,637 lbs/yr TP

DEP's Bureau of Clean Water is responsible for managing the Point Source Reserve.

### **III. Additional Implementation Measures**

#### **A. Cap Loads**

Cap Loads will be established in permits as Net Annual TN and TP loads (lbs/yr) that apply during the period of October 1 – September 30. For facilities that have received Cap Loads in any other form, the Cap Loads will be modified accordingly when the permits are renewed.

Offsets have been incorporated into Cap Loads in several permits issued to date. From this point forward, permits will be issued with the WLAs as Cap Loads and will identify Offsets separately to facilitate nutrient trading activities and compliance with the TMDL.

In general, the Cap Loads specified in NPDES permits may be modified only if one or more of the following occur:

- Consolidation of NPDES-permitted discharges, in which the lesser of existing annual loads or the Cap Loads from the treatment facility that will no longer discharge will be added to the Cap Loads in the permit for the treatment facility that will continue discharging.
- DEP or EPA determines that modified Cap Loads are necessary to achieve water quality standards for the protection of the Chesapeake Bay.

#### **B. Offsets**

Offsets may be approved for the following nutrient load reduction activities upon receipt of written approval from DEP:

- Connection of on-lot septic systems to the public sewer system, if such on-lot systems were in existence prior to January 1, 2003 and where the facility has the existing hydraulic and organic Capacity to allow such connections. An offset of 25 lbs/yr of TN per dwelling connected may be approved. Such Offsets are cumulative and may be applied annually to meet compliance with Cap Loads.
- Connection of dwellings served by wildcat sewers to the public sewer system. Offsets of 25 lbs/yr of TN and 3 lbs/yr TP may be approved. Such Offsets are cumulative and may be applied annually to meet compliance.
- Receipt 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.

If a joint municipal or regional authority is the permittee, the Act 537 planning area is the combination of all 537 planning areas in municipalities that receive sewer services from the authority. If a treatment facility provides sewer service to one municipality only, the 537 planning area is the entirety of the one municipality.

- The transfer of load between facilities owned by the same entity, where the facilities have Cap Loads. Such Offsets may only be applied in the Compliance Year in which the load was transferred, and are not cumulative. Such transfers may only be authorized if (1) the facility receiving the transfer does not discharge to receiving waters that are classified as impaired for nutrients and (2) the facilities have the same Delivery Ratio for TN or TP, as applicable.

This transfer can occur in two ways: 1) Facility A has discharged a load that is below the Cap Load, in which the difference may be transferred to Facility B (owned by the same entity); or 2) Facility A has Offsets



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approved in a permit that are not needed to achieve compliance with Cap Loads, and may be transferred to Facility B (owned by the same entity).

- The diversion of flow from an indirect discharger to a new facility. If for example Municipality A is connected to Municipality B's public sewer system for treatment, and Municipality A decides to divert its flows to Municipality C, Municipality C may be approved for Offsets equivalent to Municipality A's actual annual average flow and loads, and Municipality B's Cap Loads may be decreased accordingly.
- Other nutrient load reduction activities may be approved at DEP's discretion. All new proposals for the generation of Offsets must be coordinated with DEP's Bureau of Clean Water.

Offsets may not be approved for new or existing indirect discharges to public sewer systems.

Unless DEP has specifically authorized to do so in a permit or other agreement, Offsets may not be sold as Credits.

Once approval for Offsets is obtained, the permittee must report the Offsets on the Nitrogen Budget worksheet of DEP's Annual Chesapeake Bay Spreadsheet to apply the Offsets toward compliance with the Cap Loads.

**C. Connection of Facilities**

If Facility A has a permitted discharge and decides to eliminate the discharge through connection to Facility B, the lesser of the existing annual TN and TP loads or Cap Loads of Facility A may be transferred to Facility B's Cap Load. The transferred loads are not considered Offsets and can be used for nutrient trading purposes.

If Facility A is an indirect discharger to Facility B and decides to remove its flow, opting to obtain an NPDES permit for its own discharge, Facility A will receive zero (0) for Cap Loads and Facility B will retain its original Cap Loads.

**D. Compliance Schedules**

Compliance schedules will continue to be placed in permits through the completion of the initial round of permitting. Compliance schedules may also be used in permits for facilities that are expanding. In general, once a compliance schedule is issued in a final permit and is administratively final, the final date to achieve compliance with Cap Loads should not be modified. In the event a facility is not able to meet Cap Loads by the final compliance date in the permit, nutrient Credits may be purchased to achieve compliance. If the compliance schedule will exceed one year to achieve compliance with Cap Loads, interim milestones must be used in intervals no less than one year.

**E. Reporting**

Facilities with NPDES permits must use DEP's eDMR system for reporting, except small flow treatment facilities. An Annual DMR must be submitted by the end of the Truing Period, November 28. As attachments to the Annual DMR a facility must submit a completed Annual Chesapeake Bay Spreadsheet, available through DEP's [Supplemental Reports website](#), which contains an Annual Nutrient Monitoring worksheet and an Annual Nutrient Budget worksheet. This Spreadsheet will be submitted once per Compliance Year only, and reflect all nutrient sample results (for the period October 1 – September 30), Credit transactions (including the Truing Period) and Offsets applied during the Compliance Year.

**F. Nutrient Credits**

Nutrient Credits may be used for compliance with the Cap Loads where 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 this Wastewater Supplement; the

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[Phase 2 WIP Nutrient Trading Supplement](#) (Nutrient Trading Supplement); and additional guidance available on DEP's website (see [www.dep.pa.gov/nutrient\\_trading](http://www.dep.pa.gov/nutrient_trading) ).

**G. Unanticipated Events**

DEP may waive the collection of samples and/or the use of data for compliance assessment purposes where flooding or other natural disasters preclude the collection of quality data. Such waivers would be issued to specific facilities based on actual conditions in the field. If such waivers are granted, Credits may not be verified for the period of time covered by the waiver. Facilities will be instructed to use a “no discharge” code on their DMR.

In addition, where non-compliance with a Cap Load is the result of an unmet obligation of a contractual agreement for Credits resulting from failure of the pollutant reduction activity, the failure of the pollutant reduction activity was due to uncontrollable or unforeseeable circumstances, and the permittee provides timely notice to DEP, DEP may consider the factors contained in 25 Pa. Code 96.8(h)(5)(i), (ii), and (iii) to determine the appropriate resolution.

**H. Adaptive Management**

DEP will continue to use an adaptive management philosophy to guide decision-making for TMDL implementation. DEP may deviate from the guidelines stated herein where warranted to ensure that total aggregate loads remain at or below the WLAs prescribed by the TMDL. Where DEP deviates from these guidelines, it will be done in a systematic, centralized manner, and will be documented through the submission of status/milestone reports to EPA.

**ATTACHMENT A**

**TMDL WLA ERRORS FOR CERTAIN SIGNIFICANT SEWAGE DISCHARGERS**

The following facilities were credited with additional WLA in the TMDL than was intended.

Phase 1 WLA Errors

- Berwick Municipal Authority (PA0023248): additional 92,198 lbs/yr TN and 8,913 lbs/yr TP
- Danville Municipal Authority (PA0023531): additional 66,118 lbs/yr TN and 8,816 lbs/yr TP
- Dillsburg Borough Authority (PA0024431): additional 31,345 lbs/yr TN and 3,726 lbs/yr TP
- Hanover Borough (PA0026875): additional 83,441 lbs/yr TN and 10,959 lbs/yr TP
- Lower Allen Township Authority (PA0027189): additional 114,154 lbs/yr TN and 15,221 lbs/yr TP
- Shippensburg Borough Authority (PA0030643): additional 60,273 lbs/yr TN and 8,036 lbs/yr TP

Phase 2 WLA Errors

- Mt. Carmel Municipal Authority (PA0024406): additional 82,190 lbs/yr TN and 10,958 lbs/yr TP
- Moshannon Valley Authority (PA0037966): additional 15,777 lbs/yr TN and 3,476 lbs/yr TP
- KBM Regional Authority (PA0064025): additional 13,637 lbs/yr TN and 1,705 lbs/yr TP

Phase 3 WLA Errors

- Lackawanna River Basin Sewer Authority (PA0027081): additional 25,572 lbs/yr TN and 3,410 lbs/yr TP
- Little Washington Wastewater Co. (PA0061590): additional 24,073 lbs/yr TN and 3,210 lbs/yr TP
- Gregg Township (PA0114821): additional 23,013 lbs/yr TN and 3,068 lbs/yr TP

ATTACHMENT B

NON-SIGNIFICANT DISCHARGERS WITH CAP LOADS IN NPDES PERMITS

NPDES Permit No.	Facility	Latest Permit Issuance Date	Permit Expiration Date	Cap Load Compliance Start Date	TN Cap Load (lbs/yr)	TP Cap Load (lbs/yr)	TN Delivery Ratio	TP Delivery Ratio
PA0008281	PPL BRUNNER ISLAND INDUSTRIAL WASTES	7/27/2018	7/31/2023	10/1/2009	0	0	0.930	0.436
PA0020851	HYNDMAN STP	9/24/2013	9/30/2018	10/1/2013	7,306	974	0.930	0.436
PA0021652	KREAMER MUNI AUTH SEW STP	3/11/2015	3/31/2020	4/1/2015	7,306	974	0.733	0.436
PA0021776	FAIRFIELD STP	5/24/2013	5/31/2018	10/1/2012	7,306	974	0.961	0.436
PA0021849	MILLERSTOWN STP	6/22/2016	5/31/2021	10/1/2013	6,697	974	0.627	0.670
PA0024651	ATGLEN BOROUGH STP	5/16/2016	5/31/2021	10/1/2014	7,306	974	0.897	0.436
PA0036846	NEW BERLIN BORO MUNI AUTH WTP	8/26/2016	11/30/2020	10/1/2016	7,020	819	0.891	0.436
PA0044598	HARRISBURG AIRPORT STP	8/18/2015	8/31/2020	9/1/2015	7,306	974	0.951	0.436
PA0061123	MOSCOW SEW AUTH STP	1/25/2017	1/31/2022	10/1/2013	9,740	1,217	0.897	0.436
PA0065145	DUNN LAKE LLC	4/16/2013	4/30/2018	5/1/2013	0	0	0.951	0.436
PA0065307	COMM ENV SYS LANDFILL	3/13/2014	11/30/2016	10/1/2013	0	0	0.961	0.436
PA0080756	HERSHEY FARM MOTOR LODGE	6/12/2013	6/30/2018	10/1/2012	7,306	852	0.951	0.436
PA0080799	NEWBURG HOPEWELL JOINT AUTHORITY	10/5/2017	10/31/2022	11/1/2017	3380	325	0.951	0.436
PA0081264	PENN NATL HORSE RACE TRACK AND HOLLYWOOD CASINO – WWTP	10/22/2018	10/22/2018	2/1/2014	5,601	700	0.683	0.670
PA0082279	SPRING CREEK STP	9/23/2015	9/20/2020	10/1/2015	7,306	974	0.871	0.436
PA0083607	UNION TWP LEB CO LICKDALE STP	4/26/2016	4/30/2021	10/1/2012	7,306	974	0.951	0.436
PA0111422	THOMPSONTOWN STP	9/22/2015	9/30/2020	10/1/2015	7,032	974	0.961	0.436
PA0113093	CHRIST WESLEYAN CHURCH SEWER SYSTEM	8/18/2017	8/31/2022	9/1/2020	152	24	0.941	0.436
PA0021202	EAST BERLIN JOINT AUTHORITY – STP	3/31/2016	4/30/2021	10/1/2015	7,306	974	0.930	0.436
PA0232513	KELLY CROSSROADS SANI SEW SYS	8/10/2015	8/31/2020	9/1/2015	0	0	0.941	0.436
PA0232751	POTTER MILLS CENTRAL TREATMENT SYSTEM	9/16/2016	9/30/2021	10/1/2016	0	0	0.951	0.436
PA0232971	FRANKLIN TWP LAIRDSVILLE WWTP	7/30/2018	7/31/2023	10/1/2018	60	9.7	0.941	0.436
PA0233692	SOUTH CREEK TOWNSHIP WWTP	1/26/2015	1/31/2020	2/1/2015	0	0	0.951	0.436
PA0234028	WETLAND EXT PROJ	2/11/2014	6/30/2017	10/1/2013	0	0	0.930	0.436

**Phase 2 WIP Wastewater Supplement**  
**Revised, November 9, 2018**

NPDES Permit No.	Facility	Latest Permit Issuance Date	Permit Expiration Date	Cap Load Compliance Start Date	TN Cap Load (lbs/yr)	TP Cap Load (lbs/yr)	TN Delivery Ratio	TP Delivery Ratio
PA0247715	GETTYSBURG COMMONS	5/5/2017	5/31/2022	01/01/2009	5479	274	0.951	0.436
PA0248029	HUSTONTOWN STP	1/28/2013	1/31/2018	2/1/2013	682	85	0.749	0.670
PA0248061	JEFFERSON CODORUS STP	4/18/2014	4/30/2019	10/1/2013	6,624	828	0.951	0.436
PA0260738	NITTERHOUSE CONCRETE PRECAST PLT	11/22/2017	11/30/2022	10/1/2017	0	0	0.683	0.670
PA0261131	TAMARACK MHP	9/26/2008	9/30/2013	10/1/2008	1,260	0	0.683	0.670
PA0261343	JOSHUA HILL STP	7/21/2015	7/31/2020	8/1/2015	0	0	0.700	0.436
PA0261378	SHEETZ CLARKS FERRY	11/22/2016	11/22/2021	10/1/2013	38	3.8	0.961	0.436
PA0261416	READING TWP LAUCHMANS BOTTOM STP	1/12/2018	1/31/2023	12/1/2011	0	0	0.951	0.436
PA0261572	MT HOPE NAZARENE RETIREMENT COMM	3/10/2011	3/31/2016	10/1/2011	605	0	0.897	0.436
PA0261645	HERITAGE HOUSE WHITE SULPHUR SPRINGS	11/17/2017	11/30/2022	10/1/2011	380	0	0.627	0.670
PA0261661	RED CARPET INN WASTEWATER	10/31/2011	10/31/2016	10/1/2012	181	0	0.961	0.436
PA0261718	WINTER GREENES HOMEOWNERS ASSOCIATION	6/29/2012	6/30/2017	7/1/2012	0	0	0.683	0.670
PA0262137	LOG CABIN MHP STP	9/15/2015	9/30/2020	10/1/2015	0	0	0.891	0.436
PA0263711	BENEZETTE WWTP	4/2017/2018	4/20/2023	10/1/2012	0	0	0.871	0.436
PA0266086	SPRING GROVE STP	9/23/2015	9/30/2020	10/1/2015	7,306	974	0.961	0.436
PA0266663	GETTYSBURG BATTLEFIELD RESORT STP	6/21/2018	6/30/2023	10/1/2018	0	0	0.627	0.670
PA0276073	LAKE CAREY WWTP	7/19/2018	7/31/2023	10/1/2018	0	0	0.733	0.436