

**Updated October 2009
Chesapeake Bay Program
Wastewater Facility and Nonpoint Source
Data Submission Specifications and Requirements**

The Watershed Technical and Wastewater Treatment Workgroups of the **Water Quality Goal Implementation Team** coordinate with the **Chesapeake Bay Program's Technical Support and Services team and the Management Board** to establish data submission requirements that meet the communications and management needs of the Chesapeake Bay Program. Implementation Grant or Work Plan deliverables must include schedules for submission of point source and nonpoint source nutrient reduction activities for use in Chesapeake Bay Watershed Model annual assessment scenarios. The following point source and nonpoint source data submission requirements were developed by the **Water Quality Goal Implementation Team's** Wastewater Treatment and Watershed Technical workgroups, respectively, to meet Chesapeake Bay Program watershed model requirements. With the exception of the EPA required dates for reporting stated on page 3 of this Attachment, the following information reflects both workgroups' latest agreements and minimum data requirements.

Jurisdictions are required to submit quality assured data by the established due dates. If necessary, base implementation grant funds should be used by the jurisdiction to ensure compliance with the due dates and data quality requirements. Recipients are to follow the output requirements stated in the General Guidance portion of this document.

WASTEWATER FACILITY DATA SUBMISSION

Facility Requirements:

Jurisdictions will submit wastewater facility data for all significant dischargers within their portions of the Chesapeake Bay watershed. A significant discharger is a facility that meets one of the following criteria:

- In West Virginia, Delaware and New York - Facility treating domestic wastewater and the design flow is greater than or equal to 0.4 million gallons per day (MGD).
- In Pennsylvania - Facility treating domestic wastewater and discharging greater than or equal to 0.4 MGD.
- In Maryland - Facility treating domestic wastewater and the design flow is greater than or equal to 0.5 MGD.
- In Virginia - Facility treating domestic wastewater and the existing design flow is greater than or equal to 0.5 MGD west of the fall line or 0.1 MGD east of the fall line. If adopted, the draft point source permitting regulations in Virginia would redefine all new facilities greater than 40,000 gallons per day (GPD) or facilities expanding by greater than 40,000 GPD as significant.
- Industrial facilities with a nutrient load equivalent to 3,800 total phosphorus (TP) lbs/year or 27,000 total nitrogen (TN) lbs/year.

- Any other municipal and industrial wastewater facilities identified within a jurisdictional tributary strategy.

Jurisdictions are encouraged, but not required, to track "non-significant" facilities not meeting the above definition and provide their flow and concentration data on an annual basis to EPA **Chesapeake Bay Program Office** (CBPO). For the purpose of consistency, jurisdictions are strongly encouraged to include flow and concentrations for all facilities with a design flow greater than 0.40 MGD.

Data Requirements:

Jurisdictions are required to submit monthly concentration and flow data for all parameters listed below for each significant discharger facilities within their portion of the Chesapeake Bay watershed. The QAQC procedures listed in Figure 1 should be performed prior to data submission.

At Facility Level: Data must be provided for those municipal, industrial, and federal facilities as defined above as "significant dischargers" of total nitrogen and total phosphorus to the Bay watershed. The jurisdictions must annually update their list of significant dischargers with additional facilities that meet one of the criteria of the significant facility definition. The location (county, latitude/longitude) of each facility's discharge point must be reported.

At the Monthly Level: concentration and flow data for the 10 identified parameters must be provided for each outfall. Jurisdictions will submit all parameters in each month's data record for each facility. Data for the following parameters will be submitted: average monthly flows and average monthly concentrations of NH₃, TKN, NO₂ (or NO₂+NO₃), TN, PO₄, TP, CBOD (preferable) or BOD, DO and TSS. All nitrogen species need to be reported as nitrogen; all phosphorus species need to be reported as phosphorus.

In the absence of monthly monitored concentration data for one or more of the above listed 10 parameters for a facility, the jurisdiction will submit the CBP Nutrient Subcommittee's Wastewater Treatment Workgroup agreed to default concentration data or calculated data based on the species relationship listed in Table 1. All default or calculated data must be flagged with an appropriate description such as:

- Average of reported monthly data;
- Default value agreed by the workgroup;
- Default value based on state specific information;
- Default value based on SIS database;
- Calculated as 67% of TP by CBP species ratio;
- Calculated as NO₂=TN-TKN; and
- Net Value (the influent concentration or load is subtracted).

Industrial facility data should be reported as average monthly flow and net concentrations for that respective month, as quantified.

Each jurisdiction must review all wastewater facility data for accuracy and outliers prior to submission to EPA CBPO. The required quality assurance and quality control procedures are listed in Figure 1.

NONPOINT SOURCE DATA SUBMISSION

Nonpoint source BMP information is used to create annual progress scenarios using the CBP Watershed Model (WSM) and measures of restoration efforts. Beginning October 2010, data should be submitted via the National Environmental Information Exchange Network (NEIEN) using the nonpoint source BMP schema. Starting in the 2011 Grant Guidance, EPA CBPO will not accept Microsoft Excel, Access, or ASCII for nonpoint source data submissions.

The data period covered through NEIEN needs to be at least July 1, 2009 – June 30, 2010 in order to maintain a comprehensive record of nonpoint source implementation.

Nutrient reduction activities that are new to reporting or not currently modeled will not be credited in the model until the BMPs, their definitions and pollutant removal efficiencies have been approved using the Watershed Technical Workgroup's New BMP Protocol.

WASTEWATER FACILITY AND NONPOINT SOURCE REPORTING FREQUENCY

Progress reports are an output of the grant. Each jurisdiction must check all data for accuracy and outliers prior to submission to the Chesapeake Bay Program Office. Grant recipients must provide progress data for significant point sources and nonpoint source BMPs according to the following schedule:

Submission or data call: December 31, 2010

Period data covers: July 1, 2009 – June 30, 2010

This schedule may not apply to the Commonwealth of Virginia which may submit its data in accordance with the Nutrient Allocation Compliance and Reporting requirements under Section 62.1-44.19:18 of the Virginia Code.

Figure 1: Wastewater Facility Nutrient Data Processing Flow Diagram

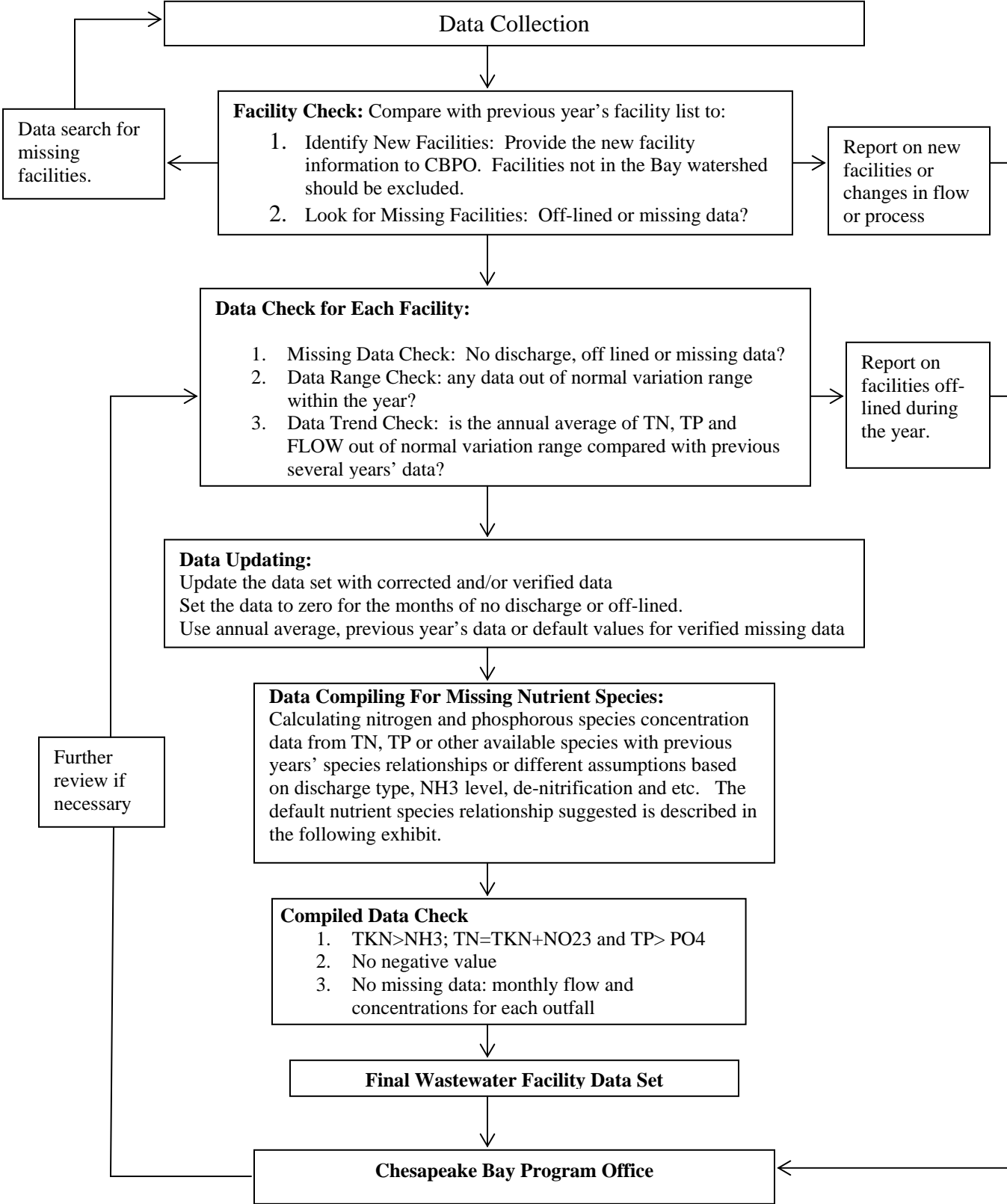


Table 1: Species Relationship

Type of Facility		NH ₃ /NO ₂₃ /TON (w/o Nitrification)	NH ₃ /NO ₂₃ /TON (w/ Nitrification)++	NH ₃ /NO ₂₃ /TON (w/Denitrification)
Municipalities (phase IV)		80/5/15 ⁽¹⁾	7/85/8	12/73/15
Municipalities (phase V)		80/3/17**	7/80/13**	12/73/15 ⁽²⁾
Industries	Chemical	7/85/8+		
	Pulp & Paper	1/0/99**		
	Poultry Facilities w/BNR			8/75/17**
	Nonchemical (includes seafood, poultry, & food processors w/out BNR)	80/3/17**	7/85/8+	8/75/17**

(1) Stearns and Wheler recommended 80/0/20; however, the PSWG felt that there would often be minimal (5%) NOx present.

(2) Unchanged from the ratio recommended by Stearns and Wheler in Phase IV.

++Apply this relationship wherever NH3 limits apply

+Assumed by performing an analysis of MD chemical industry wastewater effluents which showed it is very close to the relationship for nitrifying sewage. This would apply to all chemical discharges and assumes that wastewaters are treated chemically and thus would not vary as for sewage relationships

** Updated, as based on an analysis of actual data from plants operating in Virginia.

Type of Facility	Facilities w/out TP Control PO ₄ /TOP ratio	Facilities With TP Control PO ₄ /TOP Ratio
All	71/29 ^a	67/33 ^a

^a determined by averaging the actual data from MD and VA plants (including Blue Plains for “with TP Reduction”).

Facility with TP Control is defined as a facility having a permit limit for total phosphorus.

Period	TSS Default (All jurisdictions)	TSS Default w/out NRT	TSS Default w/ NRT
1985-1990 ^b	45		
1990-2000	25		
2000-2010		15	8

Type of Facility	DO concentration 1985-1990	DO Concentration 1990-2010
All	4.5 mg/l ^(b)	5.0 mg/l

(b) takes into account a number of NMP facilities operating across the watershed.