



Department of
Environmental
Conservation

QUALITY ASSURANCE PROJECT PLAN

Procedures for Collecting, Reporting and Verifying
Point Source Data in the Chesapeake Bay Watershed

June 2015

**DIVISION OF WATER
BUREAU OF WATER RESOURCE MANAGEMENT
CHESAPEAKE BAY WATERSHED PROGRAM**

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Section 2: VERSION TRACKING

This quality assurance project plan (QAPP) for point source (wastewater, CAFO and urban stormwater) data replaces the point source portion of New York's QAPPs dated September 2, 2011 and April 2015 for the Chesapeake Regulatory and Accountability Program (CBRAP) grant.

Section 3: INTRODUCTION

New York State is a recipient of Chesapeake Bay Regulatory and Accountability Program (CBRAP) and Chesapeake Bay Implementation Grant (CBIG) funds under Section 117 of the Clean Water Act. In New York State, the Department of Environmental Conservation (DEC) is the agency responsible for water quality compliance and enforcement, permit development and issuance, and Total Maximum Daily Load (TMDL) development and implementation planning. Responsibilities rest with both regional field offices and the central office in Albany. DEC focuses its work on the entities and activities it regulates, including wastewater treatment plants, concentrated animal feeding operations (CAFO), municipal separate storm sewer systems (MS4), and land disturbance activities.

Activities supported by DEC's CBRAP and CBIG funding that require quality assurance include the compilation, management and reporting of point source data from wastewater treatment plants and best management practice data from construction sites and CAFOs. Quality assurance procedures are described in the following sections of this QAPP.

A full description of the objectives, tasks and outputs associated with New York's CBRAP grant is included in New York's CBRAP workplan for October 1, 2014 through September 30, 2020. All of this work will occur in the Susquehanna and Chemung river watersheds¹ in New York and will emphasize nutrient and sediment reductions.

3.1 Management of DEC's Chesapeake Bay Watershed Program

This section describes the office locations and duties of DEC staff associated with the CBRAP grant.

3.1.1 Quality Assurance Project Plan

This Quality Assurance Project Plan (QAPP) governs the operation of DEC's Chesapeake Bay Watershed Program as it relates to the collection, reporting and verification of point source data. Each person listed in the organization chart adheres to the procedural requirements of the QAPP and ensures that subordinate personnel do likewise.

This QAPP is reviewed periodically to ensure that the objectives of the CBRAP grant are met. All appropriate persons listed in the organization chart will participate in the review of the QAPP. The Watershed Program Coordinator is responsible for determining that data are of adequate quality to support this project. The project will be modified as directed by the Watershed Program Coordinator and the Watershed Program Coordinator will be responsible for implementing changes to the project and for documenting the effective date of all changes made.

¹ For purposes of the Chesapeake Bay TMDL, New York's portion of the Chesapeake Bay watershed is described as one watershed; however, New York describes it as two watersheds: the Susquehanna River watershed and the Chemung River watershed.

3.1.2 Staff and office locations

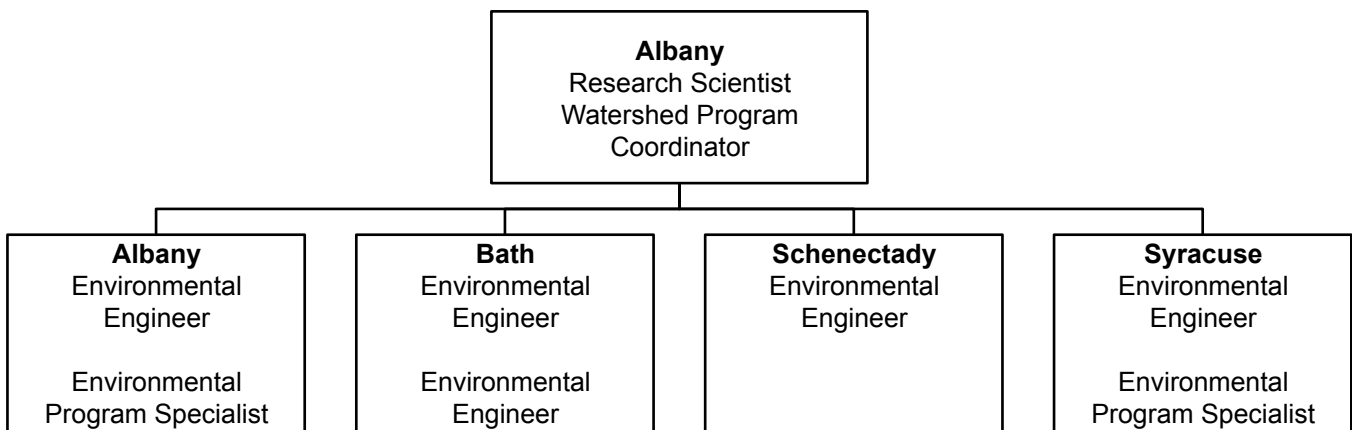
DEC staff in DEC’s central office in Albany and three regional field offices (Bath, Schenectady and Syracuse) have roles in the collection, reporting and verification of point source data.

Table 1: Watershed Program Staff and Office Locations

Position	Location	DEC Region
Watershed Program Coordinator	Albany	Central Office
Environmental Engineer	Albany	Central Office
Environmental Program Specialist	Albany	Central Office
Environmental Engineer	Bath	Region 8
Environmental Engineer	Bath	Region 8
Environmental Engineer	Schenectady	Region 4
Environmental Engineer	Syracuse	Region 7
Environmental Program Specialist	Syracuse	Region 7

3.1.3 Organization chart

The Albany employees focus on management of DEC’s Chesapeake Bay Watershed Program, participation in the EPA Chesapeake Bay Program, and administration of the CBRAP grant. The regional employees focus on compliance and enforcement activities to meet CBRAP grant obligations. Detailed job descriptions are in the Descriptions of duties section below.



3.1.4 Descriptions of duties

Watershed Program Coordinator – Albany

The Watershed Program Coordinator oversees day-to-day operations of DEC's Chesapeake Bay Watershed Program and administration of the CBRAP grant. In addition, the position works to (1) research improvements to best management practices for road ditch maintenance, animal stream exclusion, enhanced phosphorus removal, nitrogen reduction technology, and riparian set back programs; (2) recommend the course forward to achieve New York's water quality goals and satisfy watershed requirements, (3) coordinate attendance or participation in Chesapeake Bay Program committees and workgroups, as resources permit, and (4) track and assure completion of CBRAP-funded activities and commitments in accordance with established schedules and priorities.

Environmental Engineer – Albany

This Environmental Engineer modifies SPDES discharge permits for wastewater treatment plants as necessitated by New York's Watershed Implementation Plan and reviews engineering plans for modifications to treatment plants in the Chesapeake Bay watershed.

Environmental Program Specialist – Albany

This Environmental Program Specialist provides overall program development and coordination to ensure completion of goals and commitments and represents New York in Chesapeake Bay Program workgroups, committees, panels, etc. This EPS ensures that federal and state requirements regarding accountability and transparency are met and that sufficient information is distributed to the public at an appropriate level to understand the same.

Environmental Engineers – DEC Regions 4, 7 & 8 (Schenectady, Syracuse & Bath)

These Environmental Engineers conduct inspections and compliance follow-up activities for SPDES-permitted activities including: wastewater discharges, Concentrated Animal Feeding Operations, municipal separate storm sewer systems and construction sites. Other duties include reviewing and approving engineering plans, and developing and issuing SPDES permit modifications as necessitated by New York's Watershed Implementation Plan.

Environmental Program Specialist – DEC Region 7 (Syracuse)

This Environmental Program Specialist conducts inspections and compliance follow-up activities for SPDES-permitted facilities including: wastewater treatment plants, Concentrated Animal Feeding Operations, municipal separate storm sewer systems and construction sites. Other duties include developing and conducting training and outreach to permittees as necessitated by New York's Watershed Implementation Plan.

Section 4: WASTEWATER DATA

4.1 Significant Wastewater Treatment Plants

Thirty wastewater treatment plants in New York's portion of the Chesapeake Bay watershed are classified "Chesapeake Bay Significant." Twenty-six are municipal wastewater treatment plants with individual SPDES-permitted discharge volumes of more than 400,000 gallons per day and four are industrial wastewater treatment plants with equivalent nutrient loadings. A table of New York's Significant wastewater treatment plants is in Appendix A: Bay Significant Wastewater Treatment Plants.

4.1.1 Collecting Significant Wastewater Data

Data from New York's Significant wastewater plants is submitted to DEC by each plant via monthly Discharge Monitoring Reports (DMR). Each DMR contains sampling results from the plant's wastewater discharge. Permittees prepare and submit DMRs as instructed by DEC's *DMR Manual*.² Hard copies of DMRs are mailed to both central and regional DEC offices and other offices as required by the permit. The Division of Water's SPDES Compliance Information Section (SCIS) codes data into ICIS-NPDES according to EPA's *ICIS-NPDES User's Guide* and prepares Notices of Violation (NOV) for late or missing DMRs. Regional DEC offices compare data reported in each DMR with the permit limits to determine if violations have occurred. Regional offices also pursue enforcement actions as appropriate.

A workflow diagram describing DEC's process for handling DMRs is in Appendix B: Discharge Monitoring Report Submittal Processing.

In addition to the general DMR guidance described above, DEC developed guidance specifically for the 30 Significant treatment plants. This guidance includes instructions and example calculations for the credits, sub-bubbles, adjusted values, delivered values, and 12-month loads that are unique to the permits for the Significant treatment plants. DEC also developed spreadsheets to be used by permittees that automatically calculate the values needed for each DMR. These documents are available on DEC's internal website.³ Division of Water staff in the Albany office train regional staff on the use of these guidance documents as necessary. Regional staff provide the guidance documents to the operators of individual treatment plants and work with the operators to ensure DMR values are calculated and reported accurately.

4.1.2 Reporting Significant Wastewater Data

DEC submits data for the Significant treatment plants to the Chesapeake Bay Program according to the schedule outlined in EPA's *Chesapeake Bay Program Office Grant and Cooperative Agreement Guidance* (Grant Guidance). For each outfall, DEC provides average monthly flow and concentration data (mg/L) for the following parameters:

² The *DMR Manual* is on DEC's website: <http://www.dec.ny.gov/chemical/8461.html>.

³ <http://internal/dow/dow372.html>.

- NH3
- NO3
- NO2
- TON
- TKN
- TN
- PO4
- TOP
- TP
- CBOD/BOD
- DO
- TSS

DEC downloads monthly DMR data for each facility from ICIS and converts to Microsoft Excel format. The data for each parameter is manually entered into EPA's Chesapeake Bay wastewater data spreadsheet, reviewed for accuracy, and submitted to Ning Zhou at EPA (zhou.ning@epa.gov). In each report, default or calculated values are marked with appropriate descriptions.

Industrial facility data is reported as average monthly flow and net concentrations for the reported month, as quantified.

When compiling and reporting nutrient data for wastewater treatment plants in the Chesapeake Bay watershed, DEC follows the process outlined by the Chesapeake Bay Program and described in Appendix D: Wastewater Facility Nutrient Data Processing Flow Diagram.

4.2 Non-Significant Wastewater Treatment Plants

New York has 200 Non-Significant wastewater treatment plants in the Chesapeake Bay watershed. DEC does not have annual data for the Non-Significant facilities, so the Chesapeake Bay Program adds the estimated one-time data to annual progress runs as described in Attachment 6 of the Grant Guidance.

New York has developed a plan⁴ to require nutrient monitoring at 37 of the Non-Significant treatment plants and has begun the process to modify SPDES permits as necessary to collect nutrient data. The 37 treatment plants are estimated to account for 85% of the nutrient load from New York's Non-Significant wastewater sector.

4.3 Land Application

DEC regulates and permits land application of sewage sludge, non-sewage sludge, septage, food processing, and other solid wastes under *6 NYCRR Subpart 360-4: Land Application Facilities* (<http://www.dec.ny.gov/regs/4412.html>). Each permitted land application facility is required to submit an annual report to DEC that includes the following information: sites used during the year, sites to be used the following year, sludge analysis, current and next year's quantities and application rates, soil analysis, problems, and complaints.

⁴ *Nutrient Monitoring at Chesapeake Bay Non-Significant Wastewater Treatment Plants*, version June 18, 2015.

As of April 2015, 24 facilities (<http://www.dec.ny.gov/chemical/55420.html>) are permitted by DEC for land application. Three are in the Chesapeake Bay watershed: City of Hornell, Town of Owego, and Village of Owego. All three are municipal wastewater treatment plants.

4.3.1 Biosolids

DEC collects data about land application of biosolids through the annual report required of land application facilities permitted by DEC. This permit program and data are managed by DEC's Division of Materials Management, Bureau of Waste Reduction and Recycling, Organic Recycling and Beneficial Use Section (<http://internal/dmm/dmm76.html>).

Each year, Ben Sears requests the most recent annual reports for permitted land application facilities from the Division of Materials Management, summarizes it using the template provided by Ning Zhou (EPA-CBPO) and submits according to the schedule outlined in the CBPO Grant Guidance.

4.3.2 Spray irrigation

DEC does not have data about spray irrigation of wastewater in New York. Default data provided by Ning Zhou is used in place of actual data.

Section 5: URBAN STORMWATER DATA

In New York, DEC is responsible for collecting and reporting urban stormwater BMP data to the Chesapeake Bay Program.

5.1 Collecting construction stormwater BMP data

In New York, the owner or operator of a construction project that will involve soil disturbance of one or more acres must obtain coverage under the *State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity*.⁵ Permittees must develop and implement a Stormwater Pollution Prevention Plan (SWPPP) that includes an erosion and sediment control plan that addresses the potential for pollutants to be discharged during soil disturbance through practices consistent with the *New York Standards and Specifications for Erosion and Sediment Control*.

All erosion and sediment control best management practices used during construction and any post-construction stormwater best management practices are identified by the owner or operator in the *Notice of Intent* that is submitted to DEC before construction begins. This information is maintained by the Division of Water's Stormwater Section in the Microsoft Access-based *Stormshadow* database.⁶

Using the Notice of Intent, DEC collects information on the type of erosion and sediment control practices used during construction. Because the Chesapeake Bay Program does not differentiate between types of erosion and sediment control practices for purposes of the Chesapeake Bay Watershed Model, New York only reports the total acreage treated by erosion and sediment control practices.

Using the Notice of Intent, DEC also collects information about post-construction stormwater best management practices implemented at the construction site. The Chesapeake Bay Program does not differentiate between types of stormwater management practices for purposes of the Chesapeake Bay Watershed Model and DEC collects information on the following post-construction practices:

⁵ The permit is available on DEC's website at www.dec.ny.gov/chemical/43133.html.

⁶ The Stormshadow database tracks stormwater permits, related facility and contact information, annual report data, and best management practices used by permittees to manage stormwater.

- Conservation of natural areas
- Sheetflow to riparian buffers/Filter strips
- Tree planting/Tree pit
- Disconnection of rooftop runoff
- Vegetated swale
- Rain garden
- Stormwater planter
- Rain barrel/cistern
- Porous pavement
- Green roof
- Infiltration trench
- Infiltration basin
- Dry well
- Underground infiltration system
- Bioretention
- Dry swale
- Micropool extended detention
- Wet pond
- Wet extended detention
- Multiple pond system
- Pocket pond
- Surface sand filter
- Underground sand filter
- Perimeter sand filter
- Organic filter
- Shallow wetland
- Extended detention wetland
- Pond/wetland system
- Pocket wetland
- Wet swale

Best management practice information in the Notice of Intent is provided by a qualified individual (*i.e.* a person knowledgeable in the principles and practices of erosion and sediment control and/or stormwater management and treatment). For construction activities that require post-construction stormwater management controls, the Construction General Permit requires the SWPPP to be prepared by a qualified professional (*e.g.* Professional Engineer or Registered Landscape Architect).

The Construction General Permit also requires the owner or operator of a construction project to hire a qualified inspector to perform weekly inspections of the best management practices during the construction period to ensure that they are constructed in accordance with the SWPPP and New York State's technical standards. Once the project is complete, the qualified inspector is required to perform a final inspection and then certify in the *Notice of Termination* that the best management practices have been constructed in conformance with the SWPPP. The Notice of Termination is then submitted to the Division of Water's Stormwater Section.

5.2 Reporting construction stormwater BMP data

Note: DEC is able to report erosion and sediment control BMP data using the process described in this section, but not post-construction BMP data. DEC is exploring ways to improve reporting of urban BMP data to the Chesapeake Bay Program, including development of a new urban BMP data system to replace the procedure described in this section.

Construction stormwater best management practice data is extracted from the Stormshadow database and converted to XML format using the *Stormwater Practice Reporting Tool* developed for DEC by Tetra Tech in 2012. DEC submits this data to EPA via NEIEN according to the schedule outlined in EPA's Grant Guidance.

The Stormwater Practice Reporting Tool is installed on Ben Sears' computer; however, the installation files are saved on DEC's L: network drive⁷ and are available for installation on any computer in the Division of Water.

Step-by-step instructions for using the Stormwater Practice Reporting Tool are included in this QAPP as Appendix E: Reporting Construction Stormwater BMPs for Annual Progress Runs.

After the XML file is created, it is sent to Bradd Larson in the Division of Water Bureau of Water Permit's Technical Support Section. Bradd has a NEIEN user account and submits the XML files using the *NodeClientLite2* software developed by Windsor Solutions, Inc. Instructions for submitting XML files using the NodeClientLite2 software are included in this QAPP as Appendix G: Using NodeClientLite2 Software to Submit XML Files to NEIEN.

The post-construction BMPs collected on the Notice of Intent are matched to Chesapeake Bay Program BMPs according to the following table:

Table 2: Post-Construction BMP Mapping

DEC BMP	CBP BMP	CBP BMP Short Name
Conservation of natural areas (RR-1)	Forest conservation	ForestCon
Sheetflow to riparian buffers/filter strips (RR-2)	Urban forest buffers (riparian buffers) Urban grass buffers (filter strips)	ForestBufUrban UrbGrassBuffers
Tree planting/tree pit (RR-3)	Urban tree planting; Urban tree canopy	UrbanTreePlant
Disconnection of rooftop runoff (RR-4)	none	none
Vegetated swale (RR-5)	Vegetated open channel – urban	VegOpChan
Rain garden (RR-6)	Bioretention/raingardens	BioRet
Stormwater planter (RR-7)	none	none
Rain barrel/cistern (RR-8)	none	none

⁷ File path for installation files: L >> DOW >> Chesapeake Bay >> Stormwater >> Tetra Tech Contractor Support >> Task 1 >> NY WIP Setup v3 2012-09-19.

DEC BMP	CBP BMP	CBP BMP Short Name
Porous pavement (RR-9)	Permeable Pavement – no sandveg with underdrain with AB soils	PermPavNoSV
Green roof (RR-10)	none	none
Infiltration trench (I-1)	Urban infiltration practices – with sandveg no underdrain	InfilWithSV
Infiltration basin (I-2)	Urban infiltration practices – with sandveg no underdrain	InfilWithSV
Dry well (I-3)	Urban infiltration practices – with sandveg no underdrain	InfilWithSV
Underground filtration system (I-4)	Urban infiltration practices – with sandveg no underdrain	InfilWithSV
Bioretention (F-5)	Bioretention/raingardens	BioRet
Dry swale (O-1)	Bioswale	BioSwale
Micropool extended detention (P-1)	Wet ponds and wetlands	WetPondWetland
Wet pond (P-2)	Wet ponds and wetlands	WetPondWetland
Wet extended detention (P-3)	Wet ponds and wetlands	WetPondWetland
Multiple pond system (P-4)	Wet ponds and wetlands	WetPondWetland
Pocket pond (P-5)	Wet ponds and wetlands	WetPondWetland
Surface sand filter (F-1)	Urban filtering practices	Filter
Underground sand filter (F-2)	Urban filtering practices	Filter
Perimeter sand filter (F-3)	Urban filtering practices	Filter
Organic filter (F-4)	Urban filtering practices	Filter
Shallow wetland (W-1)	Wet ponds and wetlands	WetPondWetland
Extended detention wetland (W-2)	Wet ponds and wetlands	WetPondWetland
Pond/wetland system (W-3)	Wet ponds and wetlands	WetPondWetland
Pocket wetland (W-4)	Wet ponds and wetlands	WetPondWetland
Wet swale (O-2)	Bioswale	BioSwale

Section 6: DATA MANAGEMENT SYSTEMS

The Division of Water uses EPA’s Integrated Compliance Information System-National Pollutant Discharge Elimination System (ICIS-NPDES) as its primary data management tool. However, the ICIS-

NPDES system alone is not sufficient to support all of the Division of Water's information needs and additional state systems have been developed to fill gaps in the functionality provided by the EPA systems. Examples of these information systems include:

- **CAFO Database:** The CAFO database is a Microsoft Office Access database that tracks CAFO permits, related facility and contact information, and annual report data. It contains reports for authorization and discontinuance letters, and for summarizing annual report data. This database is updated by Division of Water staff in the Albany office. Regional staff queries the database when needed.
- **eBusiness Portal:** DEC's eBusiness Portal allows online submission of some documents, including CAFO annual compliance reports and Notices of Intent for DEC's construction stormwater general permit. More information is available on DEC's website: <http://www.dec.ny.gov/pubs/95925.html>. The online submission process allows DEC to more efficiently process documents.

6.1 Data and network security

Water quality data is stored electronically on secure Division of Water network drives that are part of the Storage Area Network (SAN) in DEC's data center. The SAN is a redundant array of drives and is backed up nightly to tape. A set of tapes is rotated once a week to the New York State Archives for secure off-site storage. Physical access to the data center is restricted by electronic card-key locks.

Network access is restricted to DEC employees with individual password-protected user accounts. Password security is established through mandatory employee Cyber Security training and quarterly password changes. Access to specific information and files on the Division of Water network drives is limited through permissions granted by project managers and managed by the Division System Administrator's application of read and/or write authorization.

Section 7: COMPLIANCE AND ENFORCEMENT OF POINT SOURCES

7.1 SPDES Permits

Article 17 of the New York State Environmental Conservation Law authorizes DEC to regulate discharges to the state's water resources through the State Pollutant Discharge Elimination System (SPDES) program.⁸ SPDES permits incorporate water quality standards and establish stringent performance standards, effluent limitations and operating conditions designed to protect the state's water resources. These permits require effective implementation of best management practices and timely sampling, analysis and reporting to DEC on the quality of wastewater discharged under a SPDES permit. In addition to issuing permits, DEC ensures compliance by conducting facility inspections, reviewing facility discharge monitoring reports and operating reports, responding to complaints, and requiring certification of wastewater treatment plant operators.

⁸ <http://www.dec.ny.gov/permits/6054.html>.

All SPDES permits comply with the following Division of Water Technical and Operational Guidance Series:⁹

- **TOGS 1.2.1 Industrial Permit Writing:** Provides guidance to DEC staff responsible for writing SPDES permits for discharges of wastewater from industrial facilities and for writing requirements equivalent to SPDES permits for discharges from remediation sites. In writing SPDES permits for industrial dischargers, DEC permit writers must determine three basic aspects of each permit: parameters to be regulated, allowable discharge limits, and monitoring requirements to demonstrate compliance with discharge limits. As well as these basic aspects of discharge permits, there are additional considerations such as anti-degradation review.
- **TOGS 1.2.2 Administrative Procedures and Environmental Benefit Permit Strategy for Individual SPDES Permits:** Provides the procedures for implementing the requirements for discharges authorized under the SPDES program, developing new SPDES permits, and renewing, modifying, priority ranking, and tracking existing SPDES permits.
- **TOGS 1.3.3 SPDES Permit Development for POTWs:** Provides technical guidance for permit writers in drafting SPDES permits for Publicly Owned Treatment Works (POTW). This document provides the guidance necessary to draft a SPDES permit for a POTW of any size or classification.

7.2 Compliance Inspections

DEC staff located in regional field offices ensure compliance with the terms and conditions of SPDES permits with a focus on significant sources of nutrients and sediment and implementation of the 1987 USEPA/NYSDEC Enforcement Agreement. The 1987 Enforcement Agreement outlines the elements necessary to ensure compliance of facilities permitted through the SPDES program and is an essential component of EPA's authorization of New York's SPDES program.

In the Chesapeake Bay watershed, DEC staff conduct compliance inspections and follow-up activities at Chesapeake Bay Significant wastewater treatment plants, Chesapeake Bay Non-Significant wastewater treatment plants, Concentrated Animal Feeding Operations (CAFO), Municipal Separate Storm Sewer Systems (MS4), construction site, and facilities covered by the Multi-Sector General Permit (MSGP) with the potential to discharge nutrients or sediment.

Note: EPA Region 2 also conduct inspections at these types of facilities in the Chesapeake Bay watershed as part of its oversight responsibilities.

7.2.1 Guidance for compliance inspections

The DEC *SPDES Inspector Guidance Manual* guides inspectors in conducting consistent and effective municipal and industrial SPDES inspections.

Topics covered include inspection preparation, inspection forms, types of inspections, inspection procedures, sampling protocol, inspection reporting, and compliance follow-up procedures for the SPDES program. The guidance manual provides guidelines for conducting SPDES inspections

⁹ All Division of Water TOGS are on DEC's website: <http://www.dec.ny.gov/regulations/2652.html>.

including documentation of inspection findings that may be used for compliance and enforcement response to violations of permit requirements and violations of water quality standards.

Inspectors gather all available information prior to an inspection to determine facility compliance for the period and to identify trends based on the compliance history. The inspector may review Discharge Monitoring Reports, complaints against a facility, prior inspection reports, and the conditions of the facility's permit.

After reviewing preparatory information, the inspector conducts the inspection and rates the facility based on the categories found on the inspection form and any other information that is included in the applicable inspection checklist.

Inspection reports may be delivered while the inspector is at the facility and inspection results may be communicated to the facility owner/operator while on-site. Often however, the inspection report is developed after the inspector returns to the office and is later provided to the operator of the inspected facility. If serious violations are found, the inspector will discuss the issues with the facility operator and may pursue an enforcement action (either formal or informal).

After each inspection, the Division of Water follows the procedures below in preparing, transmitting and storing inspection reports, and entering data into DEC's inspection tracking database, called the *Water Compliance System* (WCS), and EPA's compliance tracking database, called the *Integrated Compliance Information System – National Pollution Discharge Elimination System* (ICIS-NPDES).

- **Inspection report preparation, transmittal and storage:** DEC inspectors prepare and transmit a final report to the permittee. An electronic copy of the report is stored in the Division of Water's Centralized Electronic Document Repository (CEDR).¹⁰
- **Inspection report data entry:** Inspection data is typically entered in the WCS database by the inspector. In some instances, the inspector may pass the paper inspection form to an administrative staff person to record the core inspection data in the database. Inspection data is transferred from WCS to ICIS-NPDES by the Division of Water's SPDES Compliance Information Section (located in DEC's Central Office in Albany) in accordance with EPA's *ICIS-NPDES User's Guide* after the regional staff enters the inspection into WCS.

The WCS database stores all of DEC's compliance inspection data. The data can be queried and reports generated. The mandatory fields entered for each inspection are: Facility, Inspector, Date, Time, Summary Rating, and if the inspection is complete. This data is entered into WCS within thirty days of the inspection.

To effectively represent DEC, inspectors must have a working knowledge of legal responsibilities and authorities. Reference sources for SPDES legal authorities are maintained in regional offices and periodically reviewed by regional inspectors, particularly in preparation for comprehensive facility

¹⁰ CEDR is an access-controlled group of folders in the Division of Water's shared network drive that is designated for the storage of final electronic documents. Use of CEDR to store final documents helps prevent duplicate document storage and confusion about which is the final version of a document. All Division of Water employees at minimum have "read" access to these folders. Higher access levels are granted where appropriate, generally on a facility-specific basis.

inspections. The Division of Water internal website has links to the legal reference sources mentioned above. All Division of Water employees have access to the internal website.

7.3 Discharge Monitoring Reports

EPA Major and State Significant SPDES permittees are required to submit Discharge Monitoring Reports (DMR) to DEC according to the terms of each facility's SPDES permit. DMRs contain a summary of sampling results from the permittee's wastewater discharge. Reported DMR data is compared with the effluent limitations established in the permit to determine if violations have occurred (there may also be influent limits). Late or un-submitted DMRs are tracked as violations.

Permittees prepare and submit DMRs as instructed by DEC's *DMR Manual for Completing the Discharge Monitoring Report for the State Pollutant Discharge Elimination System (SPDES)*.¹¹ Hard copies of DMRs are submitted by mail to both the central and regional DEC offices and sometimes other offices as required by the permit. The central office SCIS is responsible for data coding into ICIS-NPDES¹² and producing Notices of Violation (NOV) for late or missing DMRs. Regional offices are responsible for evaluating the DMR against effluent limits to determine if violations have occurred. Regional offices are also responsible for pursuing enforcement actions relating to effluent exceedances.

A workflow diagram describing the DEC process for handling DMRs is in [Appendix B: Discharge Monitoring Report Submittal Processing](#).

7.4 Compliance Assurance

The Division of Water's Bureau of Water Compliance tracks SPDES inspections and reports and pursues enforcement actions if necessary.

The data collected by SPDES permittees is a combination of analyzed onsite parameters and data acquired through samples analyzed by Environmental Laboratory Accreditation Program (ELAP)-certified labs. This data is maintained in the ICIS-NPDES database. Performance of compliance and follow up activities is accomplished through analysis of data acquired directly from the ICIS-NPDES database.

DEC identifies priority violations in accordance with the Division of Water Technical and Operational Guidance Series (TOGS) 1.4.1 – *Water Integrated Compliance Strategy System (WICSS)*.¹³ Significant Non-Compliance (SNC) is discussed as part of the Significant Non-Compliance Action Program (SNAP) process. Response to priority violations will be made in accordance with the Division of Water TOGS 1.4.2 – *Compliance and Enforcement of SPDES Permits*.

Violations identified by a DEC inspection in the Chesapeake Bay watershed must be addressed in accordance with the appropriate wet weather strategy. For example, with regard to stormwater, to "address" means to take timely and appropriate formal or informal enforcement action designed to

¹¹ The *DMR Manual* is on DEC's website at <http://www.dec.ny.gov/chemical/8461.html>.

¹² DMR data is entered into ICIS-NPDES in accordance with the EPA *ICIS-NPDES User's Guide*.

¹³ All Division of Water TOGS are on DEC's website at <http://www.dec.ny.gov/regulations/2652.html>.

return the noncompliant MS4, construction site or industrial facility to compliance. Appropriate actions for an entity designated to be a “Significant Non-Complier” are generally formal enforcement actions such as administrative compliance orders or judicial referrals. Formal actions should establish enforceable schedules for complying with permit requirements. Informal actions may be appropriate in particular circumstances and include administrative penalty orders and notices of violation. In addition, a noncompliant entity is considered “addressed” if it returns to compliance in a timely manner without an enforcement action. With regard to CAFOs, the DEC *Regional Priority Action Implementation Plan* (PAIP) outlines procedures followed by DEC regional offices for addressing facilities. A facility is considered addressed by one of three ways: 1) no further action is needed; 2) the facility is in compliance; or 3) the facility is in violation and an appropriate enforcement action was taken to require compliance. When an enforcement action is required to return a CAFO to compliance, EPA and/or DEC will use EPA’s *Interim Wet Weather Significant Non-Compliance Policy*¹⁴, when deciding what action is most appropriate to address CWA violations at CAFOs.

¹⁴ EPA’s *Interim Wet Weather Significant Noncompliance Policy* is on the EPA website at <http://cfpub.epa.gov/compliance/resources/policies/civil/cwa/>.

Section 8: APPENDICES

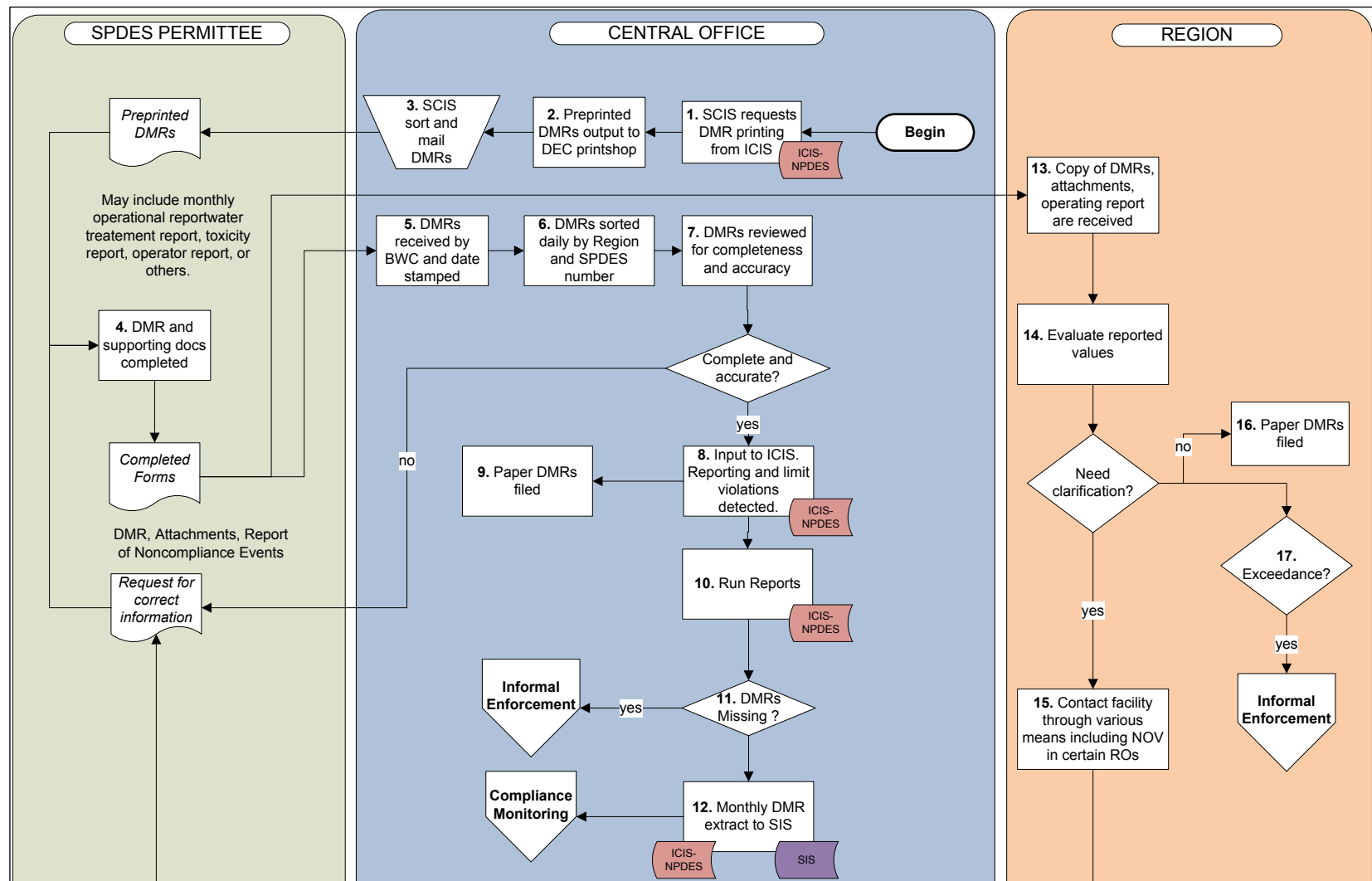
8.1 Appendix A: Bay Significant Wastewater Treatment Plants

Thirty wastewater treatment plants in New York’s portion of the Chesapeake Bay watershed are classified as Chesapeake Bay Significant. Twenty-six are municipal wastewater treatment plants with individual SPDES permitted discharge volumes of more than 400,000 gallons per day and four are industrial wastewater treatment plants with equivalent nutrient loadings.

SPDES Permit Number	Facility Name	DEC Region	County
NY0020320	Addison (V)	8	Steuben
NY0022357	Alfred (V)	9	Allegany
NY0003824	Amphenol Corporation	4	Delaware
NY0021431	Bath (V)	8	Steuben
NY0024414	Binghamton-Johnson City	7	Broome
NY0023248	Canisteo (V)	8	Steuben
NY0036986	Chemung Co. Elmira SD #1	8	Chemung
NY0035742	Chemung Co. Elmira SD #2	8	Chemung
NY0213781	Chenango (T) Northgate	7	Broome
NY0004189	Chobani	7	Chenango
NY0023591	Cooperstown (V)	4	Otsego
NY0025721	Corning (C)	8	Steuben
NY0027561	Cortland (C)	7	Cortland
NY0027669	Endicott (V)	7	Broome
NY0023906	Erwin (T)	8	Steuben
NY0021407	Greene (V)	7	Chenango
NY0020672	Hamilton (V)	7	Madison
NY0023647	Hornell (C)	8	Steuben
NY0004308	Kraft Foods Global	7	Chenango
NY0157295	Leprino Foods	7	Tioga
NY0021423	Norwich (C)	7	Chenango
NY0031151	Oneonta (C)	4	Otsego
NY0022730	Owego (T) #1	7	Tioga
NY0025798	Owego (T) #2	7	Tioga
NY0029262	Owego (V)	7	Tioga
NY0025712	Painted Post (V)	8	Steuben
NY0031411	Richfield Springs (V)	4	Otsego
NY0021466	Sherburne (V)	7	Chenango
NY0029271	Sidney (V)	4	Otsego
NY0031089	Waverly (V)	7	Tioga

8.2 Appendix B: Discharge Monitoring Report Submittal Processing

The following workflow diagram illustrates the process for DMR data submissions.



Each DMR process step is explained in detail in the numbered section below:

8.2.1 DMR preprint and facility DMR preparation

1. When a permit is issued, information about the permit is entered into ICIS-NPDES. The information may include the permitted outfalls, discharge monitoring requirements, reporting frequencies, and specific effluent limits. After the permit information is input, SCIS runs a “DMR Preprint” report from ICIS-NPDES.
2. The preprinted DMRs are output to the DEC printer or stored on a secure portion of the DEC website.
3. SCIS staff sorts the DMRs by SPDES number and mail the preprinted forms to the permittees. Some facilities retrieve their DMR from the DEC website using their facility-specific password.
4. When a reporting period ends, the permittee completes the DMR form, listing summarized sampling results for the period. Any required supplemental information is collected and attached to the DMR. Some examples of supplemental information might include lab reports, copies of log books, copies of non-compliance reports, Monthly Operating Reports (MORs), or Whole Effluent Toxicity (WET) reports.

Permittees may use their own DMR reporting forms, but they must be approved by DEC and match the exact layout and content of the DEC-provided forms. The original DMR is sent to the CO, and a copy is sent to the applicable RO.

8.2.2 Central Office DMR processing

5. SPDES Compliance and Information Section (SCIS) staff receives and date stamps DMRs and attachments.
6. Complete DMRs are sorted into stacks, separated by RO and SPDES permit number.
7. DMRs are reviewed to ensure that all pages are present, all values are reported, and required signatures are present. If information is missing, the facility DMR contact is informed via email, mail or telephone of the deficiency and the correct information is requested. Some attachments are removed from the DMR packet to be reviewed and input into ICIS-NPDES, to fulfill compliance or permit schedules.
8. DMR data is coded into ICIS-NPDES.
9. Paper DMRs are filed in Central Office.
10. SCIS staff runs reports from ICIS-NPDES, identifying all missing DMRs for the period.
11. If DMRs are missing, SCIS creates and issues an NOV for each missing DMR, and mails them to the permittees. No enforcement discretion is applied during this process.

SCIS has noted that many manual steps are required to generate NOVs. These include extracting a list of facilities that are missing DMRs from ICIS-NPDES, preparing extracted data in Excel, and using MS Word to perform a mail merge into the NOV template.

12. On a monthly basis, EPA extracts a flat-file from ICIS-NPDES containing all DMR data for the most recent period. The data is provided to DEC. DEC imports the DMR data into SIS, making a searchable version of DMR data available to staff.

Because of this process, DMR data is not very timely. Usually a month passes after a DMR is received before it is imported into SIS.

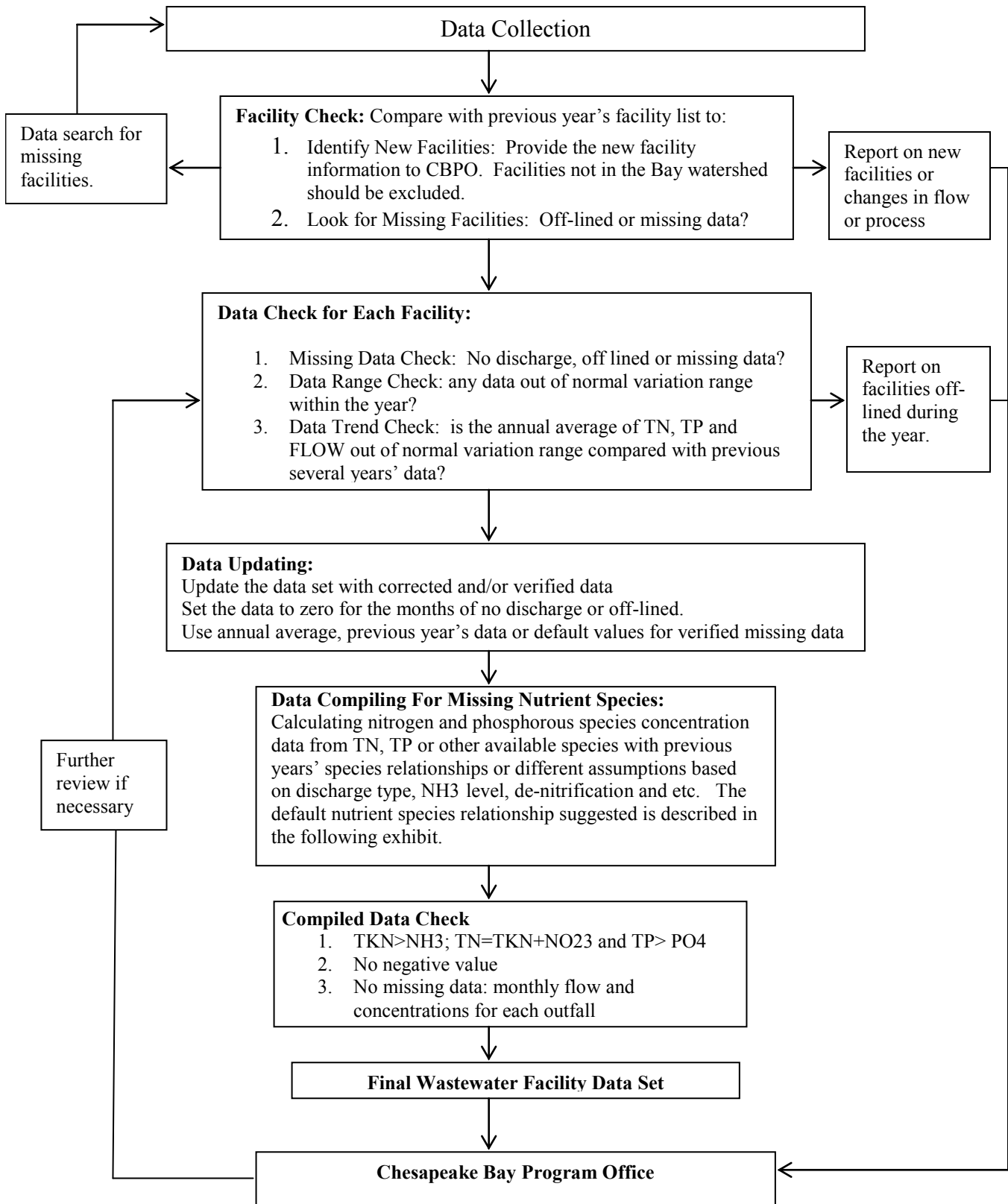
8.2.3 Regional office DMR processing

13. The RO receives DMRs from each permittee. The RO receives additional information with the copy of the DMR, such as Monthly Operating Reports (MORs), or any requested report of non-compliance.

Some ROs maintain local tracking spreadsheets to track the receipt of DMRs. Some ROs also input DMR data into spreadsheets for analysis.

14. DMRs are routed to the appropriate staff person for review. The manual process by which DMRs are sorted and distributed varies by RO, but most do undertake this effort. In some cases, only DMRs with violations are forwarded to the DOW facility manager.
15. If any clarification is needed, such as a missing, illegible, or improbable value on a DMR, RO staff contacts the facility for clarification. In some ROs, NOV's are immediately issued, in an effort to resolve reporting errors.
16. The paper DMR is filed by the RO.
17. If reported values exceed the effluent limits set forth in the permit, RO staff may issue an enforcement action, such as an NOV. The action taken is based on the enforcement discretion of RO staff.

8.3 Appendix D: Wastewater Facility Nutrient Data Processing Flow Diagram



8.4 Appendix E: Reporting Construction Stormwater BMPs for Annual Progress Runs

The steps below are instructions for generating the XML file containing New York State's construction stormwater best management practice data for submission to NEIEN for annual Chesapeake Bay Watershed Model Progress Runs.

1. Run the *Stormwater Practice Reporting Tool* developed by Tetra Tech. The tool is currently installed on Ben Sears' computer. The installation files are saved on the DEC Division of Water's L: network drive at the following location: L:\DOW\Chesapeake Bay\Stormwater\Tetra Tech Contractor Support\Task 1\NY WIP Setup v3 2012-09-19.
2. When opened, the tool should have the following settings:
 - a. **Database Path:** L:\DOW\!STORMWA! CONSTR and IND STORMWATER DATABASE\stormshadow.mdb
 - b. **Database Table:** gp-02-01_
 - c. **File(s) Output Folder:** L:\DOW\Chesapeake Bay\Stormwater\Tetra Tech Contractor Support\Task 1\ConstructionBMPs
 - d. **Check this box if you would like an NEIEN XML file generated:** Check this box to generate the XML file. This is the file that will be submitted to the Bay Program through NEIEN.
 - e. **NEIEN XML File Name:** Use "constructionbmpsallnys.xml" in order to overwrite the existing XML file in the output folder. The filename cannot have spaces or periods (except for .xml) or the tool will not generate the file correctly. The ".xml" file extension must be added to the filename – the tool does not add the extension automatically. There is no need to keep the XML file from past years, because the new file contains the data from past years. The tool is set up to include BMP data from July 1, 2011 forward to the date a new XML file is generated.
 - f. **Check this box if you would like a shapefile generated:** Check this box to generate a shapefile showing the locations of all permitted construction sites in New York State. The shapefile does not go to the Bay Program.
 - g. **GIS Layer File Name:** Use "constructionbmpsallnys.shp" in order to overwrite the existing shapefile in the output folder. The filename cannot have spaces or periods (except for .shp) or the tool will not generate the file correctly. Remember to include the ".shp" extension in the filename – the tool does not add this automatically.
3. Click the **Run Application** button. As the tool creates the files, three pop-up windows will appear in succession to indicate progress: The first will appear when the XML file is generated; the second will appear when the shapefile is generated; and the third will appear when both files have been generated and the tool has finished running. Click **OK** for each pop-up window.
4. Send the XML file to the Bradd Larson (bradd.larson@dec.ny.gov) to submit through the NEIEN node.

5. The tool also generates a text file (filename: logfile.txt) that lists all records from the construction database that were excluded from the XML file. Each record in the text file includes the reason the record was excluded. Many of the excluded records are excluded because the construction start date and/or the date the NOI was received falls outside the tool's cutoff dates. The tool is set up to include all records with a construction start date and/or NOI date **after** July 1, 2011. This way, the file submitted to the Bay Program each year overwrites the previous year's file. Because some records have incorrect data (e.g. latitude and longitude) that may be corrected in the future, overwriting the file each year will make sure any corrected records are reflected in NEIEN and the Chesapeake Bay Watershed Model.

8.4.1 Establishing available active construction land for annual CBWM Progress Runs

The Chesapeake Bay Program allows jurisdictions to set the amount of active construction land by county for each annual Progress Run.¹⁵ This improves the accuracy of Progress Runs by ensuring that construction stormwater best management practices are placed on the appropriate land use.

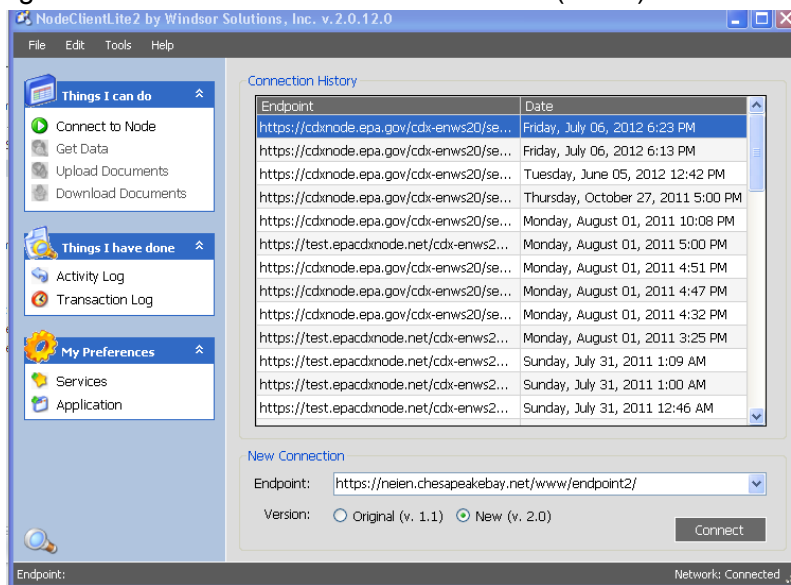
Toni Cioffi (toni.cioffi@dec.ny.gov) in the Division of Water's Stormwater Section has a preset query for the *Stormshadow* database that identifies construction projects in municipalities that are in the Chesapeake Bay watershed. Summing the **disturbed acres** column by county provides New York State's active construction land acreage for each Progress Run. This acreage is distributed across all the construction land uses by the Chesapeake Bay Watershed Model.

¹⁵ The Chesapeake Bay Program also allows jurisdictions to set forest harvest acres in the watershed; however, New York State does not track forest harvest information (as of September 2013).

8.5 Appendix G: Using NodeClientLite2 Software to Submit XML Files to NEIEN

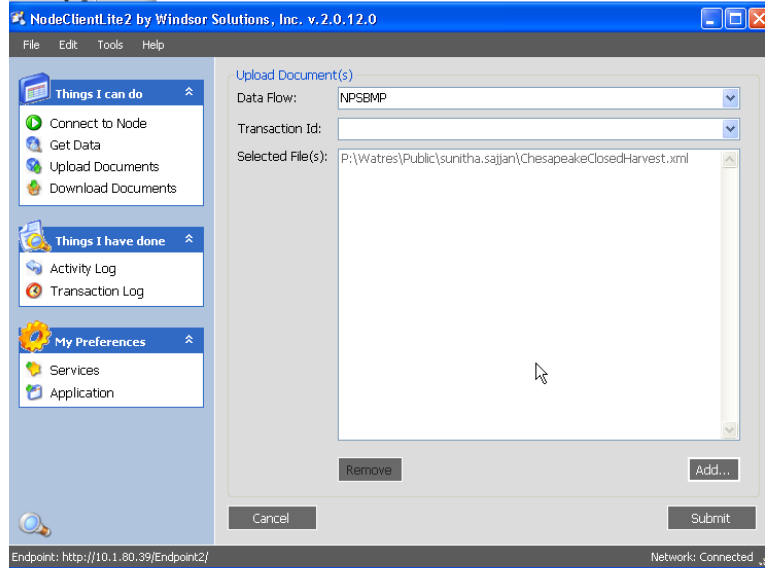
New York’s XML data files are submitted to NEIEN via the *NodeClientLite2* software developed by Windsor Solutions, Inc. The NodeClientLite2 software is installed on Bradd Larson’s computer. The following steps describe the procedure for submitting XML files to NEIEN using the NodeClientLite2 software.

1. Open NodeClientLite2 software.
2. Click “Connect to Node” in left-hand column.
 - a. Enter <https://neiien.chesapeakebay.net/www/endpoint2/> in the “Endpoint” box in lower right corner of screen and select the “New (v. 2.0)” radio button.



- b. Click “Connect”.
3. Once connected, click “Upload Documents” in left-hand column.
 - a. Enter “NPSBMP” in the “Data Flow” box.
 - b. Click the “Add...” button to select an XML file. Make sure only the desired files are in the “Selected File(s)” box.

- c. Click the “Submit” button.



4. After submitting the XML file(s), the “Document Submission Results” window will display (see below). This window will indicate success or failure of the submitted file. A confirmation email will be received as well indicating success (green) or failure (red) of the file submission. If submission failed, the confirmation email will indicate an error type.

