NEW YORK STATE OF OPPORTUNITY. | Department of Environmental Conservation

QUALITY ASSURANCE PROJECT PLAN

Chesapeake Bay Regulatory and Accountability Program Grant

April 2015

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

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Quality Assurance Project Plan for
Chesapeake Bay Regulatory and Accountability Program Grant

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Section 1: Version Tracking

This version of New York's quality assurance project plan for the Chesapeake Bay Regulatory and Accountability Program (CBRAP) grant replaces the version dated September 2, 2011 and incorporates quality assurance procedures for three objectives new to the CBRAP grant: Objective 6 – Improve Reporting of Wastewater Data in ICIS; Objective 7 – Trading and Offset Program Development; and Objective 8 – Agricultural Data Improvement.

Section 2: Introduction

New York State is a recipient of Chesapeake Bay Regulatory and Accountability Program (CBRAP) 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.

DEC received CBRAP funds for a project period of October 1, 2014 through September 30, 2020. Activities supported by DEC's CBRAP grant that require quality assurance are distributed amongst the following objectives:

- **Objective 1:** Compliance and enforcement of SPDES permits
- **Objective 2:** Individual SPDES, MS4, construction and CAFO permitting
- **Objective 3:** Watershed planning and implementation
- **Objective 4:** Data management and technical assistance
- **Objective 5:** Grant administration
- **Objective 6:** Improve reporting of wastewater data in ICIS
- **Objective 7:** Trading and offset program development
- **Objective 8:** Agricultural data improvement

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 watersheds[1] in New York and will emphasize nutrient and sediment reductions.

[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.

2.1 Additional Federal Grants Associated with DEC's Chesapeake Bay Watershed Program

In addition to CBRAP funding, DEC receives Chesapeake Bay Implementation Grant (CBIG) funds, Clean Water Act Section 604(b) funds, Clean Water Act Section 319 funds, and Clean Water Act Section 106 funds in a Performance Partnership Grant (PPG) from EPA. The CBIG funding supports implementation of practices prioritized in New York's Watershed Implementation Plan (WIP), while DEC uses the CBRAP funds to enhance program delivery above and beyond the commitments of the PPG workplan.

2.2 Management of DEC's Chesapeake Bay Watershed Program

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

2.2.1 Staff and office locations

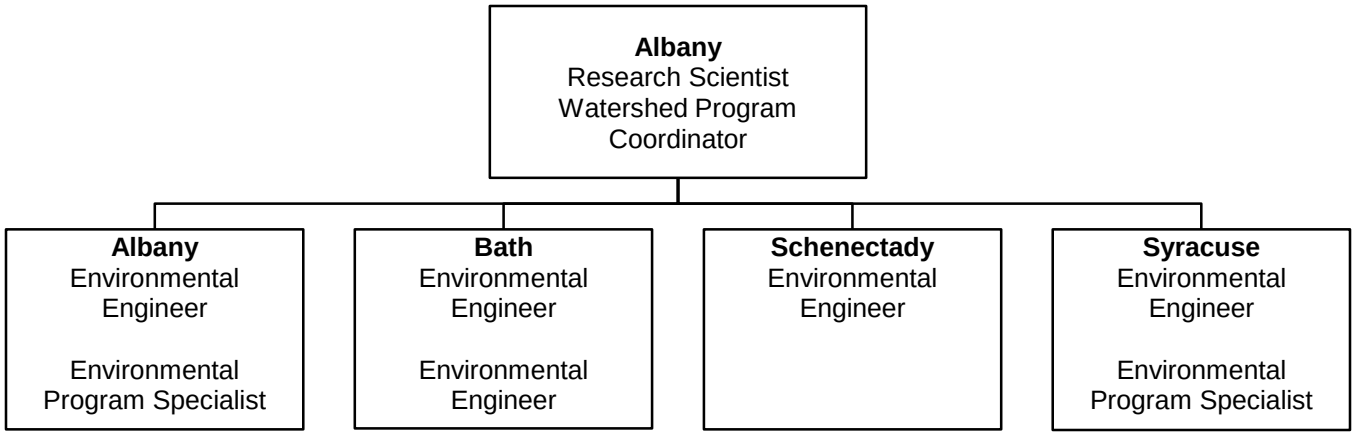
DEC's CBRAP grant supports staff in DEC's central office in Albany and three regional field offices (Bath, Schenectady and Syracuse).

Table 1: Watershed Program Staff and Office Locations

Position	Location	DEC Region
Research Scientist 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

2.2.2 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.



2.2.3 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 3: CBRAP Grant Objectives

This section describes quality assurance associated with the eight objectives of DEC's CBRAP grant:

- **Objective 1:** Compliance and enforcement of SPDES permits
- **Objective 2:** Individual SPDES, MS4, construction and CAFO permitting
- **Objective 3:** Watershed planning and implementation
- **Objective 4:** Data management and technical assistance
- **Objective 5:** Grant administration
- **Objective 6:** Improve reporting of wastewater data in ICIS
- **Objective 7:** Trading and offset program development
- **Objective 8:** Agricultural data improvement

3.1 Objective 1 – Compliance and Enforcement of 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. 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.

Minor violations of a SPDES permit may result in informal enforcement actions, such as a warning letter or a Notice of Violation (NOV), to promote a voluntary return to compliance. If a facility does not return to compliance voluntarily, or if conditions warrant, DEC may pursue formal enforcement actions. Formal enforcement actions include an Order on Consent, Notice of Enforcement Hearing and Complaint,

Cease and Desist Directive, Commissioner's Order, or a ticket issued by an Environmental Conservation Officer.[2]

All DEC SPDES permits comply with the following Division of Water Technical and Operational Guidance Series:[3]

- **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 limitations and monitoring requirements to demonstrate compliance with discharge limitations. As well as these basic aspects of discharge permits, there are numerous additional considerations such as Antibacksliding/Antidegradation review and the Great Lakes Initiative requirements.

- **TOGS 1.2.2 –** ***Administrative Procedures and Environmental Benefit Permit Strategy for Individual SPDES Permits:***[4] 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 (POTWs). This document provides the guidance necessary to draft a SPDES permit for a POTW of any size or classification. Areas that are not covered are SPDES Administration, Decentralization, Enforcement, Compliance, and Compliance Monitoring. These aspects of the SPDES permit program are covered elsewhere in the TOGS manual.

3.1.1 Compliance and enforcement of SPDES permits in the Chesapeake Bay watershed

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

In the Chesapeake Bay watershed, DEC will conduct inspections and compliance follow-up activities at:

[2] Environmental Conservation Officers are employees of DEC's Division of Law Enforcement and enforce New York State's Environmental Conservation Law.

[3] All Division of Water TOGS are available for download on the DEC website at http://www.dec.ny.gov/regulations/2652.html.

[4] The Division of Water has proposed revisions to TOGS 1.2.2 in order to address concerns from EPA. The proposed revisions are available for download on the DEC website at http://www.dec.ny.gov/permits/6054.html. Scroll down to the header, "Proposed Revisions to TOGS 1.2.2".

- **Bay Significant Wastewater Treatment Plants.** There are 26 municipal WWTPs with individual SPDES permitted discharge volumes of more than 400,000 gallons per day and 4 industrial WWTPs with equivalent nutrient loadings.[5]

- **Bay Non-Significant Wastewater Treatment Plants.** There are 212 WWTPs with individual SPDES permitted discharge volumes of less than 400,000 gallons per day.

- **Concentrated Animal Feeding Operations** covered by SPDES general permits GP-0-09-001 and GP-04-02. Together, these permits cover 11 large CAFOs and 54 medium CAFOs.

- **Other agricultural operations** for which DEC receives citizen complaints or observations of water quality degradation.

- **Municipal Separate Storm Sewer Systems** (MS4) covered by SPDES General Permit GP-0-10-001. Twenty-six municipalities are covered by this permit in the Susquehanna and Chemung watersheds.

- **Stormwater discharges from construction activity** covered by SPDES General Permit GP-0-10-001. There are currently more than 500 active construction sites covered by this permit in the Susquehanna and Chemung river basins.

- Facilities covered by the **Multi-Sector General Permit** (MSGP) with the potential to discharge nutrients or sediment.

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

3.1.2 Guidance for SPDES 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 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.

[5] A list of Bay Significant wastewater treatment plants is in Appendix A.

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. The inspector will place an electronic copy in PDF format in the Division of Water's Centralized Electronic Document Repository (CEDR).[6]

- **Inspection report data entry:** Inspection data is typically entered into the WCS database by the inspector. In some instances however, the inspector may pass the paper inspection form to an administrative staff person to record the core inspection data into these databases. 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 New York State's inspection data. The data can be queried and reports can be generated. The mandatory fields entered for each inspection are: Facility, Inspector, Date, Time, Summary Rating, and if the inspection is complete. This data should be 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 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.

Specific guidance for CAFO inspections is attached as Appendix C: CAFO Inspection Instructions.

3.1.3 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)-

[6] 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. All security procedures described in the *Data and network securit* section apply to documents stored in CEDR.

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).[7] 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 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*[8], when deciding what action is most appropriate to address CWA violations at CAFOs.

3.1.4 Discharge Monitoring Report submission

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)*.[9] 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-NPDES[10] and producing Notices of Violation (NOV) for late or missing DMRs. Regional offices are

[7] All Division of Water TOGS are on DEC's website at http://www.dec.ny.gov/regulations/2652.html.

[8] EPA's *Interim Wet Weather Significant Noncompliance Policy* is on the EPA website at http://cfpub.epa.gov/compliance/resources/policies/civil/cwa/.

[9] The *DMR Manual* is on DEC's website at http://www.dec.ny.gov/chemical/8461.html.

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

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.

3.2 Objective 2 – Individual SPDES, MS4, construction and CAFO Permitting

New York's Phase II Watershed Implementation Plan (WIP) called for DEC to modify the discharge permits of 30 Bay Significant wastewater treatment plants. This is largely a centralized function within the DEC Division of Water's Bureau of Water Permits. The modifications were done within the framework of New York's "bubble" permit for nitrogen and DEC established a system to track overall compliance with the bubble as described in Objective 6 (*Improve reporting of wastewater data in ICIS*) of DEC's 10/1/14-9/30/20 CBRAP workplan.

The Phase II WIP also calls for DEC to modify the discharge permits of some Bay Non-Significant wastewater facilities to include nutrient monitoring. This will also be a largely centralized function with the Division of Water's Bureau of Water Permits and will proceed as described in Objective 2 (*Individual SPDES, MS4, construction and CAFO permitting*) of DEC's 10/1/14-9/30/20 CBRAP workplan.

DEC will also research improvements to the SPDES general permits and associated technical requirements for subject areas, such as road ditch maintenance, animal stream exclusion, enhanced phosphorus removal and nitrogen reduction technology for urban runoff and riparian setback distances.

3.3 Objective 3 – Watershed Planning and Implementation

Two principle elements of accountability in the Chesapeake Bay Program are the development and implementation of Watershed Implementation Plans and two-year milestones. In New York, DEC coordinates these activities with input from partner organizations, including the New York State Department of Agriculture and Markets and the Upper Susquehanna Coalition. DEC submits WIP and milestone documents according to schedules outlined by the Chesapeake Bay Program.

The Phase II WIP guides the collective BMP implementation efforts of organizations in New York's portion of the Chesapeake Bay watershed. Lessons learned during the 2009-2011 and 2012-2013 milestone periods are applied to future milestone periods – in particular the 2014-2015 and 2016-2017 milestone periods – leading up to the Chesapeake Bay Program's Midpoint Assessment in 2017 and development of the Phase III WIP.

Coordination meetings of the DEC Chesapeake Bay Watershed Program are held at least twice per year to maximize information sharing and innovation regarding technological advances, and other opportunities for greater sediment and nutrient control, and to ensure CBRAP workplan tasks are completed, documented and reported to EPA.

The DEC Chesapeake Bay Watershed Program team also seeks opportunities to reach out to and coordinate with, stakeholders outside of DEC who have an interest in the Chesapeake Bay. Examples of opportunities include bi-monthly meetings of the Upper Susquehanna Coalition and annual meetings of the Upper Susquehanna Conservation Alliance.

DEC's participation in the Chesapeake Bay Program is also covered by Objective 3. Currently DEC staff participate in the Chesapeake Bay Program as described in the table below.

Table 2: DEC Participation in Chesapeake Bay Program

Chesapeake Bay Program Group	Name	Email
Principles' Staff Committee	James Tierney, Assistant Commissioner for Water Resources Jacqueline Lendrum, Chesapeake Bay Watershed Program Coordinator	james.tierney@dec.ny.gov jacqueline.lendrum@dec.ny.gov
Management Board	Jacqueline Lendrum Ben Sears	ben.sears@dec.ny.gov
Communications Workgroup	Leila Mitchell	leila.mitchell@dec.ny.gov
Modeling Workgroup (STAR)	Steve Gladding	steven.gladding@dec.ny.gov
Water Quality GIT	Ben Sears	
Milestones Workgroup (WQGIT)	Doug Ashline Ben Sears	douglas.ashline@dec.ny.gov
Watershed Technical Workgroup (WQGIT)	Steve Gladding	
Trading and Offsets Workgroup (WQGIT)	Steve Gladding	
Forestry Workgroup (WQGIT)	Sloane Crawford	sloane.crawford@dec.ny.gov
Urban Stormwater Workgroup (WQGIT)	Carol Lamb-Lafay Dave Gasper	carol.lamb-lafay@dec.ny.gov david.gasper@dec.ny.gov
Wastewater Treatment Workgroup (WQGIT)	Rashid Ahmed	rashid.ahmed@dec.ny.gov
Healthy Watersheds GIT	Doug Ashline	
Partnering and Leadership GIT	Jacqueline Lendrum	

3.4 Objective 4 – Data Management and Technical Assistance

The goal of this objective of DEC's CBRAP grant is to collect best management practice implementation data from all source sectors in New York and to accurately report that data to the Chesapeake Bay Program for annual Progress Runs of the Chesapeake Bay Watershed Model. This includes seeking opportunities to collect and report BMP information from the plans and reports that are submitted to DEC under various regulatory programs.

DEC submits data according to the schedule outlined in EPA's *Chesapeake Bay Program Grant and Cooperative Agreement Guidance* (Grant Guidance). The reporting period for annual Progress Runs is July 1 through June 30 and the deadline to submit data is December 1.

Under Objective 4, DEC also provides technical assistance to entities regulated under DEC's SPDES general permits (focusing on stormwater discharges) and to point sources covered by individual SPDES permits (focusing on wastewater treatment plants and compliance with the terms of permits modified as described in New York's Phase II WIP and in Section 3.2 above).

3.4.1 Collecting and reporting nonpoint source BMP data

In New York, the Upper Susquehanna Coalition (USC), collects and formats all nonpoint source best management practice data for annual reporting to the Chesapeake Bay Program. The USC has procedures in place to ensure that New York's nonpoint source data is as complete and accurate as possible and that no practices are double-counted. A description of these procedures is included with this QAPP as Appendix H: USC Quality Assurance Procedures. An example data collection worksheet accompanies this QAPP as Attachment 1 (*CBRAP QAPP Attachment 1 – Modified AEM Tier 1 Worksheet.pdf*).

Each year, the USC converts New York's nonpoint source data to Extensible Markup Language (XML) format and sends it to DEC. DEC in turn, submits the data to EPA via the *National Environmental Information Exchange Network* (NEIEN). The USC generates a separate XML file for each county in the Chesapeake Bay watershed.

The USC sends the XML files to Ben Sears (ben.sears@dec.ny.gov) and Jacqueline Lendrum (jacqueline.lendrum@dec.ny.gov) in DEC's Chesapeake Bay Watershed Program and Bradd Larson (bradd.larson@dec.ny.gov) in the Division of Water Bureau of Water Permit's Technical Support Section. Bradd has a NEIEN user account and submits the XML files. If an error is received when submitting a data file to NEIEN, DEC works with the USC and with the Chesapeake Bay Program's modeling team (Matt Johnston and Jeff Sweeney) to correct and resubmit the file.

3.4.2 Collecting and reporting wastewater data

Wastewater data for the 30 Chesapeake Bay Significant wastewater treatment plants in the Susquehanna and Chemung watersheds is submitted to DEC via monthly Discharge Monitoring Reports (DMR). DMRs are received and processed by the Division of Water's Bureau of Water Permits.

DEC prepares DMR data for the 30 Chesapeake Bay Significant wastewater treatment plants in the spreadsheet format provided by the Chesapeake Bay Program and submits to Ning Zhou (zhou.ning@epa.gov) according to the schedule outlined in EPA's Grant Guidance.

For each outfall, DEC provides average monthly flow and concentration data (mg/L) for the following parameters:

- NH_3
- NO_3
- TKN
- TN
- PO_4
- TOP
- TP
- CBOD/BOD

- DO
- TSS

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 facilities in the Susquehanna and Chemung river basins, DEC follows the process outlined by the Chesapeake Bay Program and described in Appendix D: Wastewater Facility Nutrient Data Processing Flow Diagram.

3.4.3 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*.[11] 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 must be 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.[12]

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 differentiate between types of stormwater management practices for purposes of the Chesapeake Bay Watershed Model and New York will report this information starting with the 2014 Progress Run.[13]

DEC collects information on the following post-construction practices:

- Conservation of natural areas
- Sheetflow to riparian buffers/Filter strips
- Tree planting/Tree pit
- Disconnection of rooftop runoff

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

[12] The *Stormshadow* database is described in more detail in the *Information Management Systems* section.

[13] The Construction General Permit Notice of Intent form was revised to include information on post-construction stormwater management practices in July 2013. Because the Chesapeake Bay Watershed Model reporting period is July 1-June 30, data on post-construction practices will not be available until the 2014 Progress Run, which covers the period July 1, 2013-June 30, 2014.

- 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 Stormwater Pollution Prevention Plan 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.

3.4.4 Reporting construction stormwater BMP data

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 drive[14] 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 3: 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
Porous pavement (RR-9)	Permeable Pavement – no sandveg with underdrain with AB soils	PermPavNoSV
Green roof (RR-10)	none	none

[14] 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
Infiltration trench (I-1)	Urban infiltration practices – with sandveg no underdrain	InfiltWithSV
Infiltration basin (I-2)	Urban infiltration practices – with sandveg no underdrain	InfiltWithSV
Dry well (I-3)	Urban infiltration practices – with sandveg no underdrain	InfiltWithSV
Underground filtration system (I-4)	Urban infiltration practices – with sandveg no underdrain	InfiltWithSV
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

3.4.5 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:

- **SPDES Information System (SIS):** SIS allows users to query and view DMR data for a given permit. Exceedance values show in red. In addition to a simple DMR view, SIS also includes a trending feature that allows users to view a specific parameter over multiple reporting periods, or to show parameter statistics such as minimum and maximum ranges for reported values over a given date range. A number of export options are available, including comma delimited text, which can be viewed in Microsoft Office Excel format.

  SIS displays DMR result values and identifies violations. It displays the limits, units of measure, daily average, and monthly max on a screen that is formatted like a paper DMR (the summary screen). SIS displays DMR data as submitted and calculates statistics based on the range of data specified by the user.

  SIS is linked with DEC's corporate Facility Information System (FIS) and Department Application Review and Tracking (DART) systems, and is a read-only system used to track reported DMR data. SIS is populated from a custom monthly extract from ICIS-NPDES.

  SIS data is most often used by DEC permit managers in both the central and regional offices when reviewing facility compliance history, preparing for an inspection, or when performing a technical review.

- **Water Compliance System (WCS):** DEC uses two versions of WCS: WCS-PowerBuilder and WCS-ColdFusion.

  - **WCS-PowerBuilder** is a simple desktop application used to manage 15 attributes specific to SPDES facilities. WCS-PowerBuilder connects to DEC's corporate database and implements the same Facility Search and Facility Detail screens as FIS, but also implements a special screen for managing a small number of SPDES-specific facility data attributes. These attributes are stored in a table called DOW_FACILITY in the corporate database. These attributes must be populated before data entry may commence in the WCS-ColdFusion system described in the following section. The attributes unique to WCS-PowerBuilder relate to discharge type, discharge volume, basin and watershed.

    WCS-PowerBuilder also allows the user to indicate to which regional office an inspector may input or edit inspection data. The list of inspectors is driven by the data in the corporate database's "public" table, filtered for those whose role is set to "water inspector".

  - **WCS-Cold Fusion** is a web-based application used primarily by inspectors to enter inspection data. The system contains all the inspection form data elements for each combination of facility type and inspection type. The class of the selected facility drives the available inspection types. The combination of facility class and selected inspection type drives the content displayed on the Inspection Detail screen.

    This system is also used by CAS to retrieve a list of marginal and unsatisfactory inspections. These inspections are then added to the Bureau of Water Compliance Program System for review during the WICSS process.

WCS-ColdFusion contains numerous reports, showing everything from detailed inspection reports to summarized totals of inspections by type. Report criteria options are robust, allowing for fine-tuning of reports. For example, it is possible to search for facilities that have not been inspected, using a specified date range. It is also possible to copy an inspection report into a Microsoft Office Word document (there is a copy button in WCS for this).

- **Bureau of Water Compliance Program System:** The Bureau of Water Compliance Program System is a FoxPro system that stores detailed compliance monitoring information not previously tracked by the EPA system. This system is run in multi-user mode from the DEC network.

- **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 maintained by Division of Water staff in the Albany office. Regional staff queries the database when needed.

- **Construction Stormwater "Stormshadow" Database:** DEC enters and maintains BMP information taken from Notices of Intent in a Microsoft Office Access database. The Stormshadow database tracks stormwater permits, related facility and contact information, annual report data, and best management practices used by permittees to manage stormwater.

- **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.

3.4.6 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.

3.5 Objective 5 – CBRAP Grant Administration

DEC Chesapeake Bay Watershed Program staff in the Albany office administer the Chesapeake Bay Regulatory and Accountability Program (CBRAP) grant to ensure grant activities are conducted consistently, timely, accurately and completely and reported appropriately.

3.5.1 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 CBRAP grant. Each person listed in the Program Management section 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 Program Management section will participate in the review of the QAPP. The Project Manager is responsible for determining that data are of adequate quality to support this project. The project will be modified as directed by the Project Manager and the Project Manager will be responsible for implementing changes to the project and for documenting the effective date of all changes made.

3.5.2 Workplan

DEC prepares an annual workplan (on a federal fiscal year basis) for activities supported by the CBRAP grant. The workplan is submitted to the EPA Region 3 Chesapeake Bay Program Office project officer and to the EPA Region 2 WIP lead for review.

In addition to the annual CBRAP workplan, DEC prepares an internal workplan (on a state fiscal year basis) to guide field staff in DEC Regions 4, 6, 7, 8 and 9 that contributes to the objectives of the CBRAP grant. The workplan outlines deliverables for each regional office and how they are to be reported to the Watershed Program Coordinator.

Because of the difference between New York State and federal fiscal years, the annual federal fiscal year workplan is based on the internal DEC workplan prepared earlier in the year. For example, the federal fiscal year 2015 workplan, which covers the period October 1, 2014 through September 30, 2015, is based on the internal DEC workplan for state fiscal year 2014, which covers the period April 1, 2014 through March 31, 2015.

Changes to both the federal and internal DEC workplans may be necessary during the project period due to changing priorities and resources. The Watershed Program Coordinator will authorize all changes and will communicate significant changes to the EPA Region 3 Project Officer and the Region 2 WIP Lead.

3.5.3 Progress reporting

DEC staff in the Albany office prepares and submits two progress reports per federal fiscal year on CBRAP-funded activities: The first report covers the period October 1 through March 31; the second covers the period April 1 through September 30. DEC submits each progress report to EPA by the end of the month following the close of the reporting period. Each progress report uses the format provided by EPA in its annual *Grant and Cooperative Agreement Guidance*. Both the EPA Region 3 Project Officer and the EPA Region 2 WIP Lead receive a copy of each status report.

Table 4: EPA Contact Information for CBRAP Grant Reporting

Name	Email	Office
Tim Roberts	troberts@chesapeakebay.net	EPA Region 3 Chesapeake Bay Program Office Project Officer

Holly Waldman	waldman.holly@epa.gov	EPA Region 3 Chesapeake Bay Program Office
Ruth Izraeli	izraeli.ruth@epa.gov	EPA Region 2 WIP Lead

Under Objective 1 of the CBRAP grant (*Compliance and Enforcement of SPDES permits*), DEC reports numbers of compliance inspections conducted at Chesapeake Bay Significant wastewater treatment plants, Chesapeake Bay Non-Significant wastewater treatment plants, CAFOs, smaller agricultural operations, MS4s, construction sites, and facilities covered by the Multi-Sector General Permit (MSGP).

3.5.3.1 Conditions for reporting Multi-Sector General Permit outputs

In its semi-annual progress reports, DEC reports inspections and compliance follow-up activities for facilities covered by the *SPDES Multi-Sector General Permit for Stormwater Discharges from Industrial Activity*.[15] Because the focus of Chesapeake Bay activities is on nutrient and sediment reductions, DEC only reports inspections and compliance follow-up activities for MSGP facilities that report nutrient or sediment information in their Discharge Monitoring Reports.

DEC does not have specific targets in its CBRAP workplan for outputs related to the Multi-Sector General Permit and thus has not established specific targets for any of its regional offices.

3.6 Objective 6 – Improve Reporting of Wastewater Data in ICIS

This objective is new beginning with the 10/1/14-9/30/20 CBRAP workplan and is in response to EPA's May 2014 Request for Proposals for projects that improve the quality and quantity of wastewater data reported to the Chesapeake Bay Program via EPA's Integrated Compliance Information System (ICIS).

DEC will confirm that DEC's data entry requirements conform to EPA's ICIS requirements and Chesapeake Bay Program requirements and develop a Microsoft Excel-based report to calculate and track compliance with New York's "bubble" permit for nitrogen.

3.7 Objective 7 – Trading and Offset Program Development

This objective is new beginning with the 10/1/14-9/30/20 CBRAP workplan and is in response to EPA's 2014 Grant Guidance that required the addition of a separate objective for trading and offset programs.

For both tasks below (load growth assessment and tracking trades and offsets), DEC will follow the schedule of deliverables outlined in Objective 7 of the 10/1/14-9/30/20 CBRAP workplan.

3.7.1 Load growth assessment

DEC's 2013 assessment of growth in the Chesapeake Bay watershed projected overall negative growth and determined that no formal offset program is needed in New York. During the CBP Midpoint Assessment, DEC will reevaluate the 2013 assessment to determine if the growth projections have changed and if an offset program is needed.

[15] The Multi-Sector General Permit is available on DEC's website: http://www.dec.ny.gov/chemical/9009.html.

3.7.2 Tracking trades and offsets

DEC allows nutrient credit trading between point sources and will incorporate trades in SPDES discharge permits through permit modifications. Currently, no trades have been proposed by any point source discharges in the Chesapeake Bay watershed. If any trades are proposed, DEC will work with the dischargers to ensure compliance with the terms of their SPDES permit.

DEC has been notified of proposed sewer extensions in the Chesapeake Bay watershed that would remove onsite wastewater treatment (septic) systems from service and increase loads to wastewater treatment plants. If the proposed sewer extensions proceed, DEC will record the reduced load from septic systems and credit that to the receiving wastewater treatment plant.

3.8 Objective 8 – Agricultural Data Improvement

Note: The quality assurance procedures described in this section accompany New York's 2014 WIP Assistance project, which was added to DEC's CBRAP grant and sub-contracted to the Upper Susquehanna Coalition.[16] The USC project is called "New York Chesapeake Bay Watershed Agricultural Data Improvement Project."

3.8.1 Validation of historical nonpoint source BMP data

The Upper Susquehanna Coalition (USC) will improve the historical record of BMPs recorded in the Upper Susquehanna Coalition's BMP database by using individual Soil and Water Conservation District (SWCD) records to check existing database records for accuracy and to fill in missing data elements.

The USC Agriculture Coordinator and GIS Specialist will work with each New York SWCD that is a member of the USC (Allegany, Broome, Chemung, Chenango, Cortland, Delaware, Herkimer, Livingston, Madison, Oneida, Onondaga, Otsego, Schuyler, Steuben, Tioga, and Tompkins) to review files and clean-up historical BMP data. This work will be completed and data compiled and reported to the Chesapeake Bay Program using the 2015 NEIEN Codes List and Appendix A. New York will provide draft BMP data via NEIEN by June 30, 2015 and final data by September 30, 2015.

The USC will ensure that the historical record of BMP implementation from 1985-2014 is accurate to the best degree possible by comparing BMP records already recorded in the USC's nonpoint source BMP database and reported for annual Progress Runs against records kept by individual Soil and Water Conservation Districts (SWCD) to close gaps in the records by filling in missing data elements.

In particular, work will focus on confirming the land use and implementation date of a number of BMPs already reported. Historically, the BMP records in the USC's database included only the data elements as required by the Chesapeake Bay Program at that time, so not all data elements for each BMP were necessarily transferred into the database from records kept by individual SWCDs. Many of the missing data elements exist in records kept by individual SWCDs and this task will focus on transferring that information into the database to the degree possible to meet current Chesapeake Bay Program

[16] DEC purchase order 0017021.

requirements. Missing data elements will also include: inspection dates, maintenance dates and the most accurate location data available.[17]

Where detailed records are not available, USC will work to estimate implementation based on SWCD's knowledge of programs. The estimation methods will be described in future versions of this document and submitted to the Chesapeake Bay Program with the draft and final historical data NEIEN submittals on June 30, 2015 and September 30, 2015.

3.8.2 Verification of BMPs implemented at CAFO farms

The USC will ensure the record of BMP implementation on CAFO farms (there are currently 63 CAFOs in the Chesapeake Bay watershed) from 1985-2014 is accurate to the best degree possible by collecting a complete record of BMP implementation on each farm. This will include BMPs paid fully by the farmer (i.e. non-cost-shared BMPs). The USC will then have a complete and current record for the CAFO farms that includes information about cost-shared and non-cost-shared BMPs. The USC will also develop written procedures for data collection on CAFO farms. Draft procedures will be completed by May 1, 2015 and final procedures by December 31, 2016.

NYSDEC compliance inspections present the best opportunity for SWCD staff to collect data; however, NYSDEC does not have the capacity to inspect all of the CAFOs in the Chesapeake Bay watershed prior to September 30, 2015. For those CAFOs that NYSDEC cannot inspect before September 30, 2015, SWCD staff will work independently with the farmers and their certified nutrient management planners to collect the information needed to ensure the accuracy of the record of BMP implementation.

Because cost-shared BMPs may already be recorded in the USC's database and reported to the Chesapeake Bay Program, USC staff will compare the information collected with all existing records (i.e. records already in the USC database and records kept by individual SWCDs) to confirm that none of the records in the database are duplicated and to ensure the information reported to the Chesapeake Bay Program is accurate to the best degree possible.

To-date, most BMP data collected and reported by New York has been about BMPs implemented through a state or federal cost share program, such as the New York State Agricultural Nonpoint Source Abatement and Control Grant Program and USDA Farm Bill programs. BMPs that are not implemented through a cost-share program are less likely to be collected and recorded consistently because federal, state and SWCD staff are not necessarily involved in the implementation process. For CAFO farms, who are required to implement BMPs according to the terms of their permit, the timing of cost-share programs does not always align with the implementation requirements of their permit, meaning that some BMPs may be paid fully by the farmer.

During a CAFO inspection, the farmer, the farm's certified nutrient management planner, and DEC staff are all present, providing an excellent opportunity for SWCD staff to communicate with all the technical experts who may be involved in BMP implementation on the farm. The relationships established during this project will allow New York to develop methods and procedures for data collection and verification during CAFO compliance inspections that can continue after the WIP Assistance Funding is spent. The general framework for this project is already in place (begun as a pilot program in summer 2014 – see

[17] The USC database contains BMP data at the farm scale; however, in accordance with state and federal confidentiality rules, the data is aggregated to the county scale before being provided to NYSDEC and the Chesapeake Bay Program.

"Annual BMP data collection pilot program" milestone in New York's 2014-2015 Programmatic Milestones), but limited funding has prevented New York from developing standardized methods and procedures for the entire watershed.

The USC will prepare written procedures for data collection and verification on CAFO farms for inclusion in New York's CBIG Quality Assurance Project Plan. Draft procedures will be completed by May 1, 2015 and final procedures by December 31, 2016.

Section 4: APPENDICES

4.1 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

4.2 Appendix B: Discharge Monitoring Report Submittal Processing

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

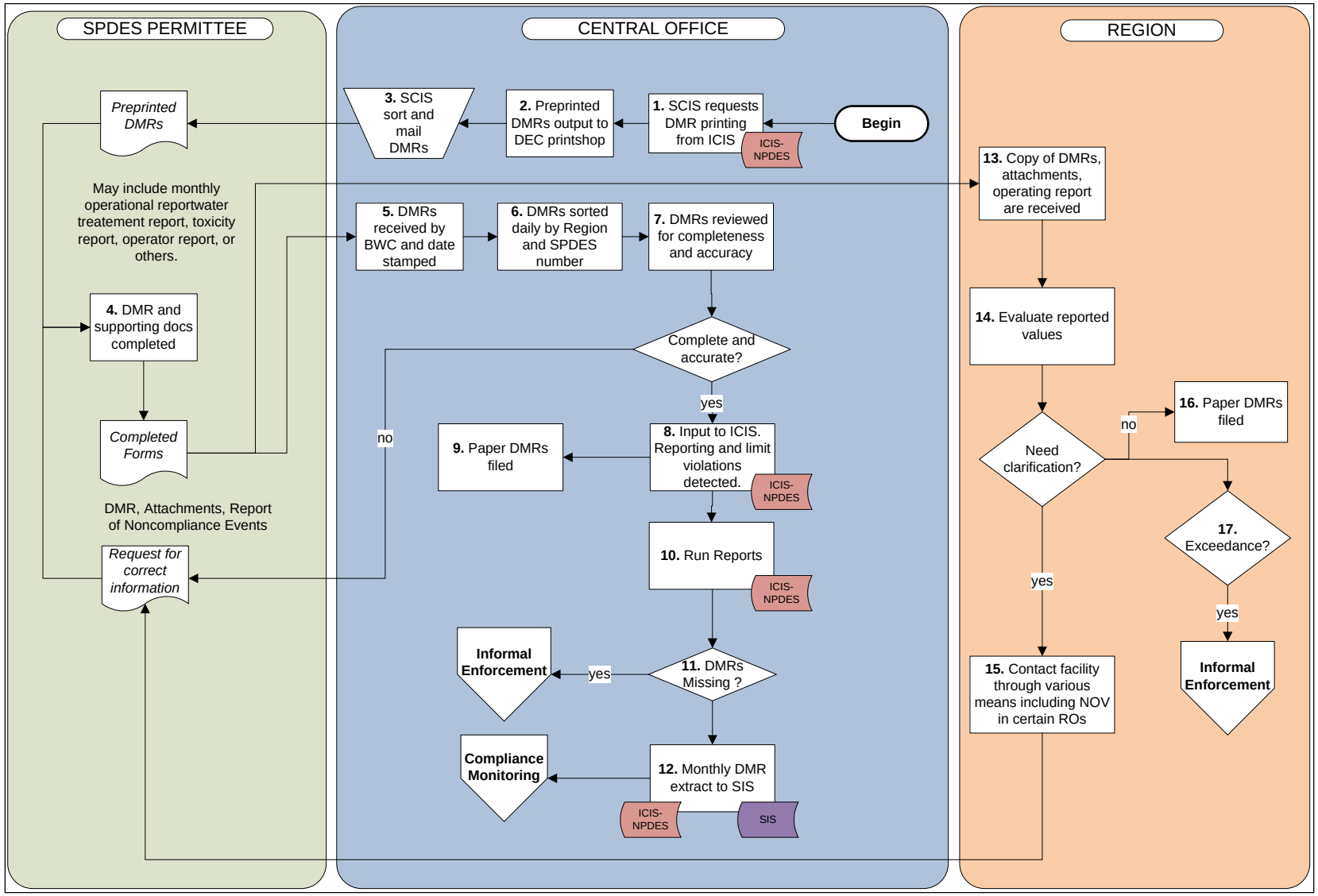


Figure 1: Workflow Diagram – DMR Processing

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

4.2.1 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.

4.2.2 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.

4.2.3 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, NOVs 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.

4.3 Appendix C: CAFO Inspection Instructions

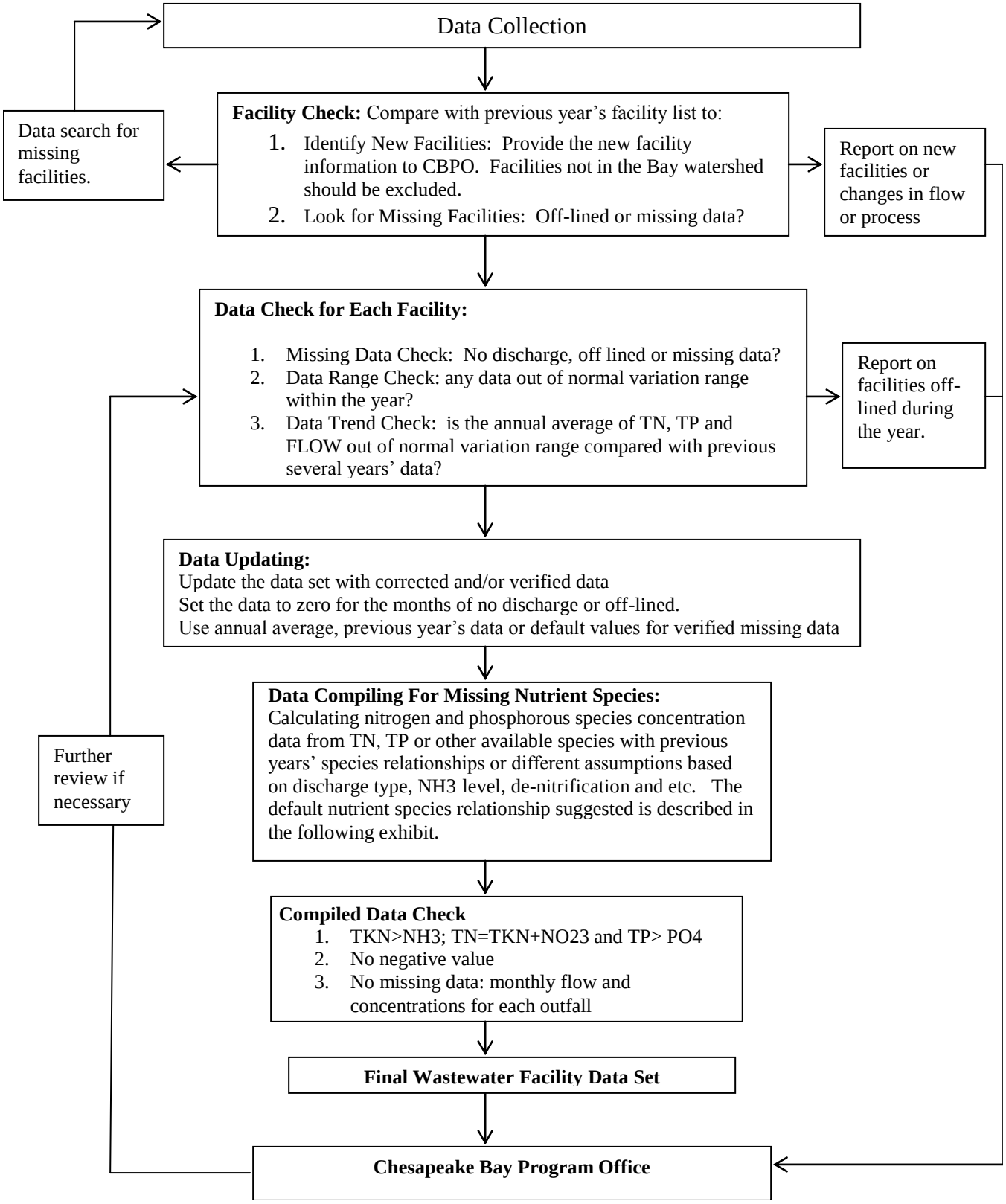
DEC inspections of Concentrated Animal Feeding Operations adhere to the following instructions:

1. Prior to the inspection, review all facility information that has been submitted to the Department including: appendix D CAFO annual compliance reports, appendix E incident reports, etc.
2. Request the following information from the facility prior to the inspection:
    - Site maps (or diagrams or aerial photos) of the farm, indicating neighboring surface waters and drainages, buildings, land tracks where manure is applied, where stormwater is routed, etc.
    - List of personnel (names) with descriptions of their responsibilities for various components of the operation (waste management, record-keeping, etc.).
    - A description of the waste handling systems on the farm, this should include a description of the waste storage area (i.e. construction materials, dimensions, types of waste stored, etc.), manure transfer and storage/treatment, handling of milkhouse waste and silage leachate control systems.
3. Provide copies of the Inspection Form and Self Evaluation Checklist to the facility prior to the inspection.
4. Inform facilities that the presence of their CNMP planner is encouraged but not required at the inspection.
5. The New York State Department of Agriculture and Markets or other qualified agency such as the NRCS, the local county Soil and Water Conservation District or Cornell Cooperative Extension should be invited to attend the inspection, when feasible.
6. Biosecurity issues should be addressed prior to commencement of the inspection in accordance with the DEC Biosecurity Guidance for Inspecting Concentrated Animal Feeding Operations and Other Facilities Housing Livestock (Telega & Finnerty).
7. Attach a map, either sketched by the inspector or provided by the permittee, of the entire agricultural operation, showing all structures, waste management areas, fields/pastures, surface waters, wells, drainage areas, and actual or potential discharges. Also provide approximate total acreage.
8. Inform facilities that all records submitted to DEC are subject to FOIL unless found to be confidential business information. Facilities may claim any materials submitted to NYSDEC to be confidential business information, please mark such materials confidential if retention is required, or return to permittee. A final determination on whether such materials qualify as confidential business information will be made at the time an outside party requests such information.
9. Use the following codes for each rating required during the inspection:
    - S = Satisfactory
    - M = Marginal

- U = Unsatisfactory
- NI = Not Inspected
- NA = Not Applicable

10. Following completion of the inspection, photocopies of the completed forms must be provided by the Inspector to the Permittee.

4.4 Appendix D: Wastewater Facility Nutrient Data Processing Flow Diagram



4.5 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.

4.5.1 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.[18] 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.

[18] 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).

4.6 Appendix F: Procedures for Extracting SPDES Inspection Counts from WCS for CBRAP Progress Reports

DEC's Water Compliance System (WCS) is managed by the Division of Water's Bureau of Water Compliance and provides program specific compliance information. Compliance and enforcement of SPDES permits is an objective of DEC's CBRAP grant and specific outputs include inspections at a variety of SPDES-permitted facilities.

In its CBRAP progress reports, DEC provides information on progress toward annual inspections targets. Division of Water staff in the Albany office query the WCS database for each CBRAP report according to the instructions below.

4.6.1 General procedure for running WCS reports

The following steps describe the general procedure for running SPDES facility inspection reports in WCS.

- Open and sign in to the WCS database.
- On WCS homepage, select query:
    - SPDES Facility Report Selection
    - Click "Actual Inspection Report"
    - Click "Select Report"
    - Select the type of report
        - Standard w/ Name (this will provide detail)
        - Cross Reference (this will provide a summary)
    - List in order by which field
        - Select name of facility
    - Select facility criteria using dropdown menus
        - Region
        - County
        - Municipality
        - SPDES #
        - Sampling
        - Discharge class
        - SIC code
        - Inspecting agency

- Type of inspection
- By inspector
- Summary rating
- Federal drainage basins
- State drainage basins
- Regulated watersheds
- Assigned to

a. Select date restrictions

b. Click “View Report”

4.6.2 Procedure for WCS CBRAP 30 Significant reports

The following steps outline the process for running both summary and detail reports in WCS for the 30 Chesapeake Bay Significant wastewater treatment plants. Differences between the two report types are noted where appropriate.

- Open and sign in to the WCS database.
- On WCS homepage, select query:
  - SPDES Facility Report Selection
  - Click “Actual Inspection Report”
  - Click “Select Report”
  - Insert name of report: “CBRAP 30 Significant Facilities Report”
  - Select the type of report: Use “Standard w/ Name” for a detail report; Use “Cross Reference” for a summary report.
  - List in order by which field: “Name of Facility”
  - Select facility criteria using dropdown menus
    - Region: All
    - County: All
    - Municipality: Leave blank
    - SPDES #: Leave blank
    - Sampling: Include
    - Discharge class: All

- SIC code: Leave blank
- Inspecting agency: All
- Type of inspection: All
- By inspector: All
- Summary rating: All
- Federal drainage basins: All
- State drainage basins: All
- Regulated watersheds: Chesapeake Bay Significant 30
- Assigned to: All

c. Select date restrictions

i. Dropdown menu: Select “Inspected”

ii. Select between: Enter start and end dates

- Click “View Report”
- Additional step for summary reports only:
  - Select option for X and Y axis: Select “Region” for X axis and “Inspection Type” for Y axis.

4.6.3 Procedure for WCS CBRAP Non-Significant reports

The following steps outline the process for running both summary and detail reports in WCS for the Chesapeake Bay Non-Significant SPDES facilities. This includes all non-significant wastewater facilities, all CAFO facilities, all MS4 facilities, and all construction stormwater facilities. Differences between the two report types are noted where appropriate.

- Open and sign in to the WCS database
- On WCS homepage, select query:
  - SPDES Facility Report Selection
  - Click “Actual Inspection Report”
  - Click “Select Report”
  - Insert name of report: “CBRAP NON Significant Facilities Report”
  - Select the type of report: Use “Standard w/ Name” for a detail report; Use “Cross Reference” for a summary report.
  - List in order by which field: “Name of Facility”

- Select facility criteria using dropdown menus
  - Region: All
  - County: All
  - Municipality: Leave blank
  - SPDES #: Leave blank
  - Sampling: Include
  - Discharge class: All
  - SIC code: Leave blank
  - Inspecting agency: All
  - Type of inspection: All
  - By inspector: All
  - Summary rating: All
  - Federal drainage basins: All
  - Regulated watersheds: Select “Chesapeake Bay”
  - Assigned to: All

d. Select date restrictions

   i. Dropdown menu: Select “Inspected”

   ii. Select between: Enter start and end dates

- Click “View Report”
- Additional step for summary reports only:
  - Select option for X and Y axis: Select “Region” for X axis and “Inspection Type” for Y axis.

4.6.4 Procedure for WCS CBRAP CAFO reports

The following steps outline the process for running both summary and detail reports in WCS for both the medium and large CAFO facilities in the Chesapeake Bay watershed. Differences between report types are noted where appropriate.

- Open and sign in to the WCS database
- On WCS homepage, select query:
  - SPDES Facility Report Selection

- Click “Actual Inspection Report”
- Click “Select Report”
- Insert name of report: Use “CBRAP Large CAFO Report” for large CAFO facilities; Use “CBRAP Medium CAFO Report” for medium CAFO facilities.
- Select the type of report: Use “Standard w/ Name” for a detail report; Use “Cross Reference” for a summary report.
- List in order by which field: “Name of Facility”
- Select facility criteria using dropdown menus
  - Region: All
  - County: All
  - Municipality: Leave blank
  - SPDES #: Leave blank
  - Sampling: Include
  - Discharge class: Select “14” and “18" for large CAFO report; Select “15” and “19” for medium CAFO report.
  - SIC code: Leave blank
  - Inspecting agency: All
  - Type of inspection: All
  - By inspector: All
  - Summary rating: All
  - Federal drainage basins: All
  - Regulated watersheds: Select “Chesapeake Bay”
  - Assigned to: All

e. Select date restrictions

i. Dropdown menu: Select “Inspected”

ii. Select between: Enter start and end dates

- Click “View Report”
- Additional step for summary reports only:
  - Select option for X and Y axis: Select “Region” for X axis and “Inspection Type” for Y axis.

4.6.5 Procedure for WCS CBRAP MS4 reports

The following steps outline the process for running both summary and detail reports in WCS for MS4 facilities in the Chesapeake Bay watershed. Differences between report types are noted where appropriate.

- Open and sign in to the WCS database
- On WCS homepage, select query:
    - SPDES Facility Report Selection
    - Click “Actual Inspection Report”
    - Click “Select Report”
    - Insert name of report: “CBRAP MS4 Report”
    - Select the type of report: Use “Standard w/ Name” for a detail report; Use “Cross Reference” for a summary report.
    - List in order by which field: “Name of Facility”
    - Select facility criteria using dropdown menus
        - Region: All
        - County: All
        - Municipality: Leave blank
        - SPDES #: Leave blank
        - Sampling: Include
        - Discharge class: Select “16”
        - SIC code: Leave blank
        - Inspecting agency: All
        - Type of inspection: All
        - By inspector: All
        - Summary rating: All
        - Federal drainage basins: All
        - Regulated watersheds: Select “Chesapeake Bay”
        - Assigned to: All
    - f. Select date restrictions

i. Dropdown menu: Select “Inspected”

ii. Select between: Enter start and end dates

- Click “View Report”
- Additional step for summary reports only:
    - Select option for X and Y axis: Select “Region” for X axis and “Inspection Type” for Y axis.

4.6.6 Procedure for WCS CBRAP construction stormwater reports

The following steps outline the process for running both summary and detail reports in WCS for construction stormwater facilities in the Chesapeake Bay watershed. Differences between report types are noted where appropriate.

- Open and sign in to the WCS database
- On WCS homepage, select query:
    - SPDES Facility Report Selection
    - Click “Actual Inspection Report”
    - Click “Select Report”
    - Insert name of report: “CBRAP Stormwater Construction Report”
    - Select the type of report: Use “Standard w/ Name” for a detail report; Use “Cross Reference” for a summary report.
    - List in order by which field: “Name of Facility”
    - Select facility criteria using dropdown menus
        - Region: All
        - County: All
        - Municipality: Leave blank
        - SPDES #: Leave blank
        - Sampling: Include
        - Discharge class: Select “11”
        - SIC code: Leave blank
        - Inspecting agency: All
        - Type of inspection: All
        - By inspector: All

- Summary rating: All
- Federal drainage basins: All
- Regulated watersheds: Select “Chesapeake Bay”
- Assigned to: All

g. Select date restrictions

i. Dropdown menu: Select “Inspected”

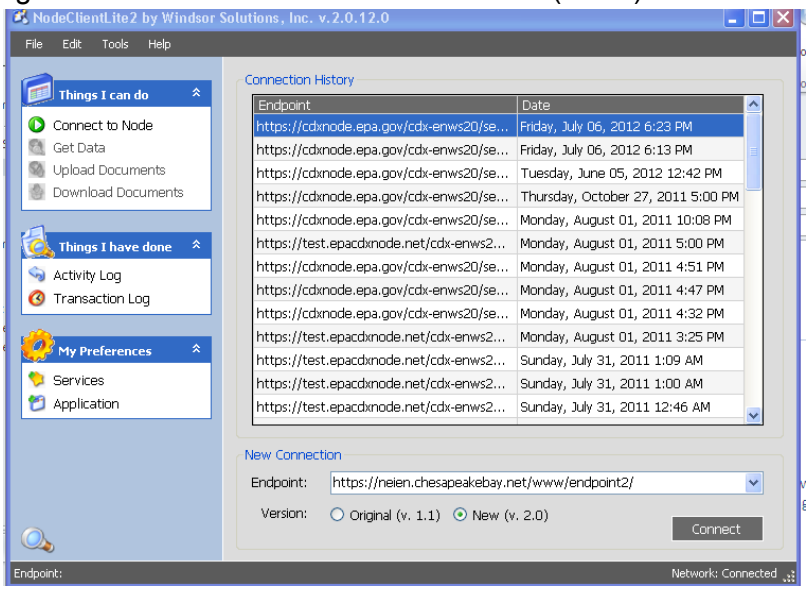
ii. Select between: Enter start and end dates

- Click “View Report”
- Additional step for summary reports only:
  - Select option for X and Y axis: Select “Region” for X axis and “Inspection Type” for Y axis.

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

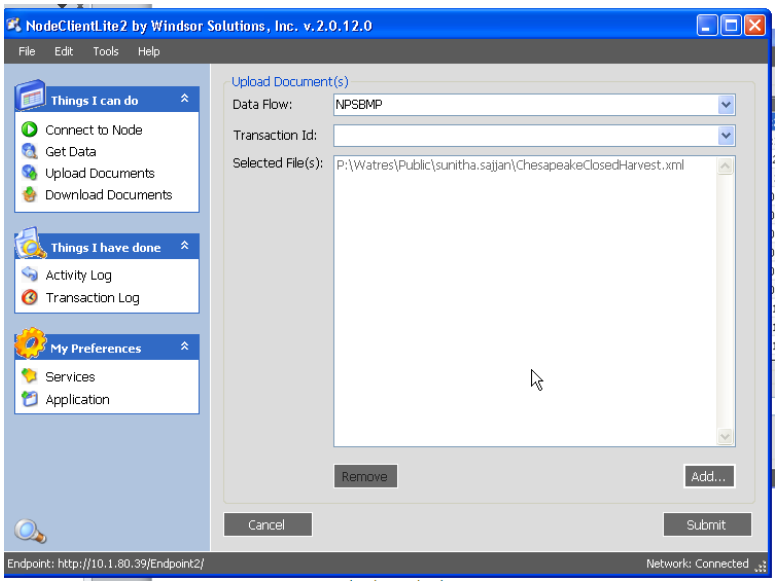
New York's XML data files are submitted to NEIEN via the *NodeClientLite2* software developed by Windsor Solutions, Inc. The NodeClientLite2 software is installed on Bradd Larson's computer. The following steps describe the procedure for submitting XML files to NEIEN using the NodeClientLite2 software.

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

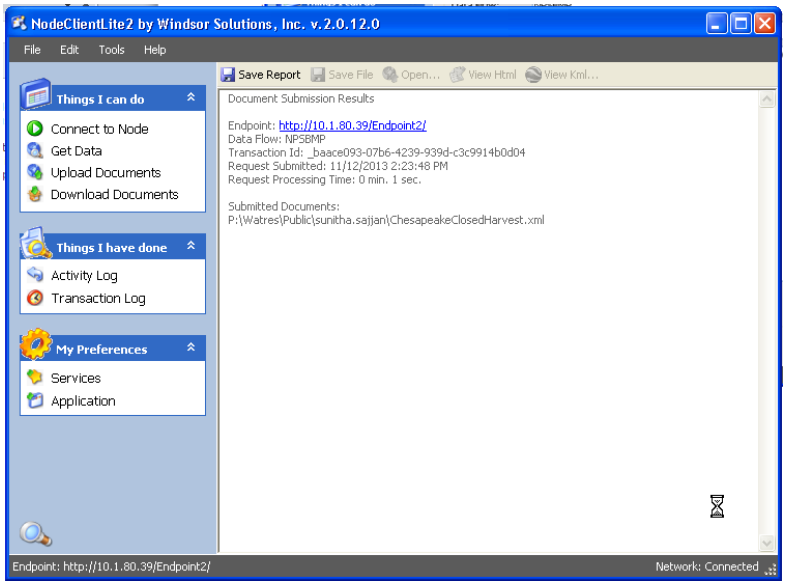


    b. Click "Connect".
3. Once connected, click "Upload Documents" in left-hand column.
    a. Enter "NPSBMP" in the "Data Flow" box.
    b. Click the "Add…" button to select an XML file. Make sure only the desired files are in the "Selected File(s)" box.

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.



4.8 Appendix H: USC Quality Assurance Procedures

Two tasks have been selected for Quality Assurance Project Planning. Below is a short description of each task, a description of the data and how the data will be used.

- **GIS Support:** The USC relies on a Geographical Information System (GIS) for strategic watershed planning efforts. It uses an ArcView GIS Stream and Wetland Assessment Tool that it developed in partnership with Pennsylvania State University. The relevant GIS data collection procedures will be discussed under the two tasks described below rather than separately under this task.

- **Baseline Data Collection:** The USC collects agricultural information needed for CBP modeling efforts. We will collect information as either point data or as a location within a CBP Version 5 watershed. We will report data by CBP Version 5 Watershed or other polygon as requested by the CBP. All information collected will follow CBP protocols and use the NYS NEIEN node for data submission.

4.8.1 Project statement of objectives

The goal of the baseline data collection effort is to provide additional data to the Chesapeake Bay Program so they can better model the nutrient and sediment loading rates and reductions made in New York.

4.8.2 Level of confidence

Baseline data will be from USDA NRCS records and USC on-the-farm-surveys so it will be of comparable quality to the other data in the CBP model. The USC farm surveys are “Tier 1 and Tier 2” surveys developed by the NYS Department of Agriculture and Markets under the NYS Agricultural Environmental Management (AEM) Program. The worksheets can be viewed at http://www.nys-soilandwater.org. These worksheets must be completed to obtain NYS funds for cost sharing best management practices.

4.8.3 Key USC project staff

Overall project management: Wendy Walsh, USC Watershed Coordinator, WalshW@co.tioga.ny.us.

Overall QA/QC and computer software: Chris Yearick, USC GIS Specialist, cdy3@stny.rr.com.

Data processing and data verification: Chris Yearick, USC GIS Specialist, cdy3@stny.rr.com.

4.8.4 Timeline

Baseline data collection is an ongoing project.

4.8.5 Data types

Baseline Data Collection

Attachment 1 to this QAPP (*CBRAP QAPP Attachment 1 – Modified AEM Tier 1 Worksheet.pdf*) is the USC-modified AEM Tier 1 worksheet and BMP data forms. The worksheet summarizes the Ag and

BMP data categories to be collected. The BMP categories are those used by the Chesapeake Bay Program and provided by Jeff Sweeney, CBP, to the USC as the correct categories for CBP modeling.

All information will come from USDA NRCS files and farm inventories conducted by the USC. Only data from the NRCS and USC files are acceptable. The original data in the NRCS files was collected to document implementation projects funded under EQIP, CRP and other programs. The USC data was originally collected to develop a database to help with watershed planning efforts. As the data is being collected in a CBP format for the CBP, the relevance to the project is self-evident.

The USC database includes BMPs funded by state and federal programs and is the most complete picture of agricultural BMP implementation in New York. Staff from USC-member SWCDs are the only people who enter data into the USC database. Each year, SWCD staff review BMP implementation data with NRCS and FSA staff in each county to verify that all federally-funded BMPs are included and that none are double-counted. Once all data is entered each year, the USC requests summary BMP implementation data from NRCS and FSA headquarters to compare to the data in the database for quality control. Once these data entry and quality control processes are complete each year, the USC database is New York's only source of agricultural BMP information for annual Progress Reporting.

4.8.6 Data management scheme

Baseline Data Collection

Data for each farm will be written on the USC-modified AEM Tier 1 worksheet and BMP Assessment form. The descriptors on the top of the page will allow for the data to be tracked back to the original source document (AEM ID). The data from the hard copy will be entered into a MS Access database and delivered to the Chesapeake Bay Program through the NYS NEIEN node. All hard copies will be available to the CBP for review if requested. The USC will store data on read only CD's guaranteeing the data cannot be changed or lost due to computer malfunction. Additional data storage, retrieval, data reduction and data entry in the computer model will be handled by and a responsibility of the CBP.

4.8.7 Data processing and agency requirements

Baseline Data Collection

All subsequent data processing, compiling and analysis will be handled by the Chesapeake Bay Program.

4.8.8 Agency information resource management requirements

Baseline Data Collection

All datasets developed for a farm under the will be located using a 10-digit WBD descriptor.

4.8.9 Reconciliation

Baseline Data Collection

Under this project, the USC provides data in the format defined by the Chesapeake Bay Program. The CBP, after analysis, will provide information to the USC for review with potential anomalies highlighted. The USC will suggest reasons for anomalies that have arisen in the CBP modeling efforts. New York will review and correct errors, omissions and discrepancies and resubmit XML files as appropriate.

AGRICULTURAL ENVIRONMENTAL MANAGEMENT

Tier 1

AEM Identification Number: _____-_____

_____ Date: ____/____/____

Evaluator Name:	Evaluating Agency:
Watershed Identification (WBD10):	Lat .
Farm Name:	Lon - .

Owner's Name:	Operator's Name:
Address:	Address:
Phone: Fax:	Phone: Fax:
Email:	Email:

Preferred Contact Point? (please check only one)

☐ Owner ☐ Operator

1) **Future Status of the Farm**

A) Do you anticipate any major modifications on your farm within the next 5 years? ☐ **Yes** ☐ **No**

If yes, please check the condition(s) that best describes the modification(s):

☐ Business Structure ☐ Expansion ☐ Retirement
☐ Operation Type ☐ Diversification of Farm Business ☐ Sale of Farm

B) Do you plan to subdivide any portion of your farm in the next 5 years? ☐ **Yes** ☐ **No**

2) **Basic Farm Information**

A) What **Primary** Farm Enterprise best describes your operation?

☐ Dairy ☐ Beef ☐ Horses ☐ Fruit/Vegetables
☐ Poultry ☐ Swine ☐ Vineyard ☐ Greenhouse
☐ Sheep/Goats ☐ Cash Crop: (**Please Define**) _____
☐ Other: (**Please Define**) _____

B) Please indicate the following number of acres:

	Owned	**Rented**	**With Nutrients Applied**
Cropland Acres	_____	_____	
Grazed Land Acres	_____	_____	
Permanent Hay Land Acres	_____	_____	_____
Woodland Acres	_____	_____	
Total Acres	_____	_____	

C) Does your operation qualify for Ag Value Assessment? ☐ **Yes** ☐ **No**

3) **Animal Numbers for your <u>Primary</u> Farm Type**

Average Weight: _____ Number: _____ Average Weight: _____ Number: _____
Average Weight: _____ Number: _____ Average Weight: _____ Number: _____

4) **Management Questions** (Please check Yes or No)

	Yes	No
Do you spread manure?	☐	☐
Do you have a manure storage facility?	☐	☐
Do you generate process washwater from the cleaning of product or facilities? (i.e. milkcenter, egg wash, washing of produce)	☐	☐
Is there a barnyard or outdoor feedlot on your farm?	☐	☐
Do you store silage or other high moisture feeds on the farm?	☐	☐
Do you utilize pastureland on your farm?	☐	☐
Do you use commercial fertilizer?	☐	☐
Do you use pesticides (herbicides, insecticides, fungicides) on your farm?	☐	☐
Do you store and/or mix pesticides (herbicides, insecticides, fungicides) on your farm?	☐	☐
Does your operation utilize cropland for row crop production?	☐	☐
Is the water supply on your farm from a well or a spring?	☐	☐
Is there a waterbody within or adjacent to your farm?	☐	☐
Do you presently or do you plan to harvest timber on your farm?	☐	☐
Do you store fuel or other bulk petroleum products on your farm?	☐	☐
Have you received odor complaints or do you believe your farm has an odor concern?	☐	☐

NYS Agricultural Interest Assessment – check all that are of interest

- ☐ Agricultural Tax Relief
- ☐ Agri-Tourism
- ☐ Air Quality
- ☐ Biofuels
- ☐ Biosecurity
- ☐ Conservation Easements
- ☐ Energy Conservation/Generation
- ☐ Environmental Management Systems
- ☐ Farmland Protection
- ☐ Feed Management
- ☐ Fisheries Habitat Management
- ☐ Forest Management/Timber Harvest
- ☐ Grasslands Farming
- ☐ Integrated Pest Management
- ☐ Irrigation Management
- ☐ Manure Treatment Options
- ☐ Neighbor-Farm Relations
- ☐ Nuisance Wildlife Control
- ☐ Organic Farming
- ☐ Pollution Credit Trading
- ☐ Right To Farm
- ☐ Stream Management
- ☐ Water Conservation/Management
- ☐ Wellhead Protection
- ☐ Wetland Conservation
- ☐ Wildlife Habitat Improvement

Would you like to receive a copy of the AEM Guide to Conservation Funding? ☐ Yes ☐ No
This document is also online at www.nys-soilandwater.org/aem/aemoutreach.html

(***OPTIONAL***)

Producer Questions & Comments:

_____

_____

_____

_____

AGRICULTURAL ENVIRONMENTAL MANAGEMENT

BMPs *AEM Identification Number:* _____-_____

_____ Date: ____/____/____

Cropland BMPs

Riparian Forest Buffer Length _____ Width _____ Date _____
Riparian Forest Buffer Length _____ Width _____ Date _____

Riparian Grass Buffer Length _____ Width _____ Date _____
Riparian Grass Buffer Length _____ Width _____ Date _____

Wetland Restoration _____ Acres Date _____
Ag Land Retirement _____ Acres Date _____
Tree Planting _____ Acres Date _____

Comprehensive Nutrient Management Plan _____ Acres Date _____
Manure Sample N _____ P _____ Date _____
Hayland with Nutrients Applied Type _____ Rate _____ _____ Acres
Type _____ Rate _____ _____ Acres

Cereal Cover Crops (Early) Rye Acres _____ Wheat Acres _____ Barley Acres_____
Cereal Cover Crops (Late) Rye Acres _____ Wheat Acres _____ Barley Acres_____
Conventional Till land converted to Conservation Till _____ Acres Date _____
Continuous No-Till _____ Acres Date _____

Pasture BMPs

Off Stream Watering with No Fence _____ Acres Date _____
Off Stream Watering with Stream Fencing _____ Acres Date _____
OSW with Stream Fencing & Prescribed Grazing _____ Acres Date _____
---------- _____ Acres Date _____
---------- _____ Acres Date _____
Upland Rotational or Prescribed Grazing _____ Acres Date _____
---------- _____ Acres Date _____
---------- _____ Acres Date _____
Horse Pasture Management _____ Acres Date _____

Animal Waste Management

Precision Feeding Dairy - Animal Units Treated AMUs _____ Date _____
Ammonia Emmission Reductions AMUs _____ Date _____

Animal Waste Management System
Type _____ AMUs _____ Date _____
Type _____ AMUs _____ Date _____
Type _____ AMUs _____ Date _____

Barnyard Runoff Control System
Type _____ AMUs _____ Date _____
Type _____ AMUs _____ Date _____
Type _____ AMUs _____ Date _____