Managing Point Source Data Submission and Quality

EPA Region 3, Chesapeake Bay Program Office

Challenges

The Chesapeake Bay Program (CBP) is a major consumer of pollution data from facilities within the seven jurisdictions party to the Chesapeake Bay Watershed Agreement. Each of the jurisdictions, as well as CBP, spends time and effort curating the data needed to prepare input decks for Chesapeake Bay Watershed Model runs to track the TMDL implementation progress and support management decision making. Attachment 6 of CBP's Grant Guidance discusses the high-level process for assuring data quality, but this process can be extremely time-consuming and cumbersome for both the jurisdictions and CBP. Several factors make the current process unsustainable.

1) Data Quality
   - First, the data quality assurance process takes time and effort on the part of the jurisdictions and CBP. There are opportunities to streamline this process while also improving data quality upon initial submission to CBP.
   - Second, the intricacies of the process are known only to those who have years of experience, making it difficult for new people in the jurisdictions to take on this role. A streamlined or simplified quality assurance process will make jurisdiction wastewater programs more resilient to changes in personnel and assignments.
2) Data transparency
   - Third, the existence of a Chesapeake Bay set of data that may conflict with data in EPA's compliance database (ICIS-NPDES) poses several legal questions, such as which dataset is the authoritative dataset for compliance and enforcement purposes.

CBP seeks jurisdiction input on characterizing the problem, determining a solution, and identifying resources needed to implement that solution. Some potential ideas for addressing these challenges are described below.

Vision

Looking forward to the future, CBP sees a healthy and reliable point source dataset that reflects the progress made toward and compliance with the Chesapeake Bay TMDL. This vision includes:

- **a consistent data submission process**;
- streamlined and partially automated **quality assurance/quality control measures**;
- a **single source** of authoritative data for tracking progress toward the TMDL, as well as enforcement and compliance actions; *and*
- an overall **reduced level of effort** across the board, for both the jurisdictions and CBP.

At the July Wastewater Treatment Workgroup meeting, and during subsequent individual conversations with each of the jurisdictions, CBP will start a dialogue to document current problems with point source data submission and quality, and to begin identifying possible solutions resource needs.

Discussion Items

CBP seeks the help of its jurisdictional partners in meeting this vision by clearly defining the obstacles between the current state and the vision state. An initial analysis of options shows ICIS-NPDES as a potential starting point for a common data standard and a framework for discussing potential data quality improvements. This July WWTWG meeting begins a dialogue that will continue in one-on-one discussions with the jurisdictions and CBP's process analyst, during which jurisdictions can provide perspectives on the issues associated with achieving this vision, including:

1. How is the current process going, from your perspective?
2. What are your thoughts on using one database, such as ICIS-NPDES, for both compliance and CBP data?
   a. Is the mechanism of ICIS-NPDES a reasonable tool to use? What, if any, issues do you see in using this interface?
   b. Do you feel comfortable with the quality of data presently in ICIS-NPDES?
3. From your jurisdiction's perspective, what is the legally definitive source of point source data?

Proposed Solutions

CBP is considering several solutions to the issues of (1) data quality and (2) data transparency. Your input on these issues is crucial; these are not pre-defined solutions but rather ideas to begin the conversation.

Data Quality can be supported by:

- the availability of more training for jurisdictional data managers on QA/QC and data preparation for model input;
- funding for a central data processing tool to perform QA/QC and preparation of input decks, to the extent possible; *and*
- other options?

Data Transparency for CBP can be achieved through:

- creating a CBP Submission Portal to house data, provide confirmation of accuracy, and assist in preparation of input deck;
- utilizing ICIS-NPDES to align CBP data with other compliance data; *and*
- other options?

Resources

CBP needs to hear **what kind of resources** are needed to accomplish this vision. CBP is committed to achieving this vision and can investigate mechanisms for funding, including potentially leveraging the Exchange Network grant program.

Timeline

With the clean-up of historical data point source data and the 2014 progress run completed, summer 2015 is an opportune time to consider these questions. CBP proposes the following timeline for collaboration and decision on a path forward.

- July 2015: Kick off outreach at Wastewater Treatment Workgroup monthly meeting
  - Summarize project findings
  - Explain objectives
- July 2015: Begin individual jurisdiction discussions to gain perspectives on issues raised
- August-September 2015: Build consensus on a path forward
- October 2015: Identify funding opportunities
- October 2015: Begin development of any needed systems or tools
- November 2015: Work with Exchange Network Grants team to tier this project as a priority area to facilitate funding, if 2016 Exchange Network grants are to be used to support this effort
- November 2015: 2016 Grant Guidance issued (consider changes or inclusion of specific point source data guidance)
- March 2016: Begin phasing in any new approaches decided
- November 2016: Implement new strategy and release updated grant guidance
- June 2016: Consider needed updates to 2017 Grant Guidance