Nontidal Network Indicators

Overview

Historically, the NTWG coordinator has been responsible for working with the NTWG to update the following suite of indicators (please note the contributors to the indicators are in parenthesis):

- N, P, S load and river flow to the Bay updated annually (Joel Blomquist, CBP modeling team)
- Flow-adjusted concentration trends and short-term yield of nutrients and sediment updated annually (USGS group – Ken Hyer, Joel Blomquist, Doug Moyer, Mike Langland)
- Stream health indicator (Jackie Johnson and Claire Buchanan)

Load and Flow Indicators:

Nitrogen Loads and River Flow to the Bay

Phosphorus Loads and River Flow to the Bay

Sediment Loads and River Flow to the Bay

River Flow to the Bay

The river flow indicator on the CBP website has already been updated with 2012 data (based on data available on the USGS website).

For the N, P and Sed load and flow indicators (reported on the CBP website), USGS is in process of providing the load data for the RIM sites, using WRTDS, for both the 2012 update and the previous years (back to 1990). Since the methods have changed for calculating the RIM loads, I will need help revising the Analysis and Methods documentation that accompanies the indicators (refer to xxx). It would be very helpful if you could use "track changes" when you make any changes. The 2012 data for areas below the RIM sites have already been provided by the Modeling Team (for the N and P indicators) and we already have the 2012 data for tidal water deposition to the Bay (for the N indicator). Anticipate being able to upload to the CBP website the updated/revised content for the N, P and Sed load and flow indicators as soon as the load data from the RIM stations have been provided.

FAC and Yield Indicators:

Nitrogen in Rivers Entering Chesapeake Bay: Long-Term Flow-Adjusted Concentration Trends

Nitrogen Short-Term Flow Adjusted Concentration Trends Measured in Watershed Streams and Rivers

Nitrogen Yields Measured in Watershed Streams and Rivers

Phosphorus in Rivers Entering Chesapeake Bay: Long Term Flow-Adjusted Concentration Trends

Phosphorus Short-Term Flow Adjusted Concentration Trends Measured in Watershed Streams and Rivers

Phosphorus Yields Measured in Watershed Streams and Rivers

Sediment in Rivers Entering Chesapeake Bay: Long Term Flow-Adjusted Concentration Trends

Sediment Short-Term Flow Adjusted Concentration Trends Measured in Watershed Streams and Rivers

Sediment Yields Measured in Watershed Streams and Rivers

In the past these updates have been provided in the summer/fall. These indicators currently use data generated using ESTIMATOR. I believe it was the intent of the NTWG to continue reporting some of these indicators using the ESTIMATOR-generated data since they provide data for the entire watershed.

There has also been some discussion related to reporting on the CBP site new indicators that show trends in load at the RIM sites using the data generated using WRTDS. I am not sure if the NonTidal Workgroup has made any decisions related to this.

Stream Health Indicator:

Health of Freshwater Streams in the Chesapeake Bay Watershed

New 2010 data for the last reporting period (2000-2010) were recently submitted to our office and Jackie is in the process of revising the indicator content based on the new data. The ability to update this indicator in the future is an issue that remains to be resolved. Data are available every 2 years through the 305(b)/303(d) reporting process however, extensive coordination and work is required to utilize the data for the purposes of updating or revising the CBP indicator.