Workplan for the CBP Nontidal Water-Quality Workgroup: 2014 Calendar Year

The workplan for the CBP Nontidal Water-Quality Monitoring Workgroup consists of five major elements (I) coordinate water-quality monitoring, II, ensure quality of data, (III) conduct analysis, (IV) explain trends, and (V) communicate results. The 2014 work plan priorities are:

- Participating in the "BASIN" (Building And Sustaining Integrated Networks) process to develop and consider options needed to sustain monitoring networks.
- Develop an indicator for the new trends in loads (flow-normalized loads using WRDTS) at the River-input Sites.
- Contribute to STAR project to "Explain trends in the Bay and watershed"

Objectives and tasks (leaders responsible for activities are listed)

I. Coordinate Water-Quality Monitoring

- Participating in the "BASIN" (Building And Sustaining Integrated Networks) process to develop and consider options needed to sustain monitoring networks (all partners) (PT, SP, LR, JB with input from entire workgroup). To support the process we need to:
    - Update information on the status of the water-quality network (LR, JB)
    - Interact with STAR and STAC on developing options to integrate networks and meet needs of the new Bay Agreement (SP, PT)
    - Identify opportunities to employ continuous monitoring (KH).
    - Consider options to include non-traditional partners in monitoring networks (PT)
    - Identify opportunities to implement monitoring small watersheds (KH, state/DC partners).
- Continue sampling at all existing sites in the network (all partners)
- Sustain stream gaging funding for sites in the nontidal network (USGS and funding partners)

II. Ensure the quality, and enhance the management, of nontidal data

- Continue to implement the Data Upload and Evaluation Tool (DUET) (MM, MEL with all data submitters). Items include:
    - Provide training sessions on DUET for data submitters (MM, MEL)
    - Improve approaches for more timely submittals (MM working with submitters)
- Use DUET reporting system to update 2013 status of samples collected for the water-quality network and work with data providers to verify information (MM, LR).
- Have sampling partners discuss challenges and actions needed to enhance collection of storm samples (MEL working with partners)
- Revise NTN guidance to combine information on sample collection and application of quality-assurance data (MEL)
- Continue to lead quality-assurance activities for the sampling and lab analysis (MEL)
- Assess feasibility to update benthic database to support stream health indicator (MM). Work with Science Cluster to find support for the effort.

III. Conduct analysis to maintain existing, or develop new, CBP indicators

New indicators:

- Develop an indicator for the flow-normalized trend in load (DM, KH, JB)
- Develop approach for updating stream health (ICPRB: CB and AG, MM) and work with streams WG under the Habitat Goal Team for technical feedback and review.

Existing indicators:

- Work with STAR and others to assess if some indicators should only be updated every two years (SP, PT with input from NT WG)
- Based on above, conduct analysis of 2013 water quality loads, status, and trend for the nontidal network (USGS, ML, JB, DM, KH, JC, working with state partners and SRBC).
- Use results of analysis to update selected existing NTWG/CBP indicators:

- Stream flow to the Bay (JB)
- Loads to the Bay (CBP modeling team, GS)
- Loads at the RIM stations (ML, DM, JB, KH)
- Long-term trends of nutrients and sediment (ML, DM, JB, KH, JC)
- Short-term trends of nutrients and sediment (ML, DM, JB, KH, JC)
- Yield of nutrients and sediment (ML, DM, JB, KH, JC)
- Provide estimates of stream flow and loads for CBP/UMCES Summer Forecast (JB, DM, CW)
- Provide estimates of stream flow and loads for CBP/UMCES Summer Summary (JB, DM, CW)

- Update nontidal WWW page with 2013 results (KH, CL)
- Provide information to CBP to post on their WWW site (??)

IV. Better explain water-quality conditions and change

- Lead STAR project to "explain water-quality changes in the Bay and its watershed (JK). Coordinate efforts with USGS, CBP Modeling Team, estuary investigators, NTWG, and TMAW. The STAR work plan has more details on project, for 2014 it includes:
  - Completing report on factors affecting nontidal water-quality trends on Eastern Shore (USGS)
  - Contribute to STAC steering committee for March meeting on "approaches to explain the effect of management actions on water-quality trends" (JB, SP, PT, JK).
  - Use results of STAC workshop to enhance approaches to explain water-quality trends (JK with many others)
  - Apply new approaches to examine water quality change in the Potomac basin with an integrated approach between watershed (USGS) and tidal waters teams (??? TMAW)
  - Work with NAWQA team to apply additional efforts in Potomac and Chesapeake (JB)
  - Consider future report for VA Rivers (USGS and NTWG) and scope of work needed in Susquehanna basin (JK, SP, JB, DM)
- Coordinate with MDNR, USGS to support LSRWA to develop sediment management options with Conowingo Dam studies (BM, ML, SP, JB) (this is part of another STAR work plan to address Conowingo and other sediment issues).

V. Communicate results to CBP Goal Teams and decision makers

- Write summaries of trend and load results for 2013 that are posted on USGS NTN WWW site. Communicate results to key audiences (SP, JB, and DM).
- Work with CBP to revise associated information on CBP WWW site (SP, JB, working with Nita Sylvester)
- Provide key findings for annual Bay Barometer (SP working with CBP communications) Improve use of monitoring results in ChesapeakeStat (NTWG COR, PT, JW)
- Finalize and release "lessons learned report" that summarizes case studies of relation between water-quality changes and management practices. Communicate results to key audiences (UMCES, SP, and CBP Communications office).
- Communication effects of extreme events (as needed) working with CBP communications office (PT, SP and others)

Acronyms:
AD-Adam Griggs (ICPRB), BM- Bruce Michael (MDNR), CB – Claire Buchanan (ICPRB), CW – Caroline Wicks (NOAA/Ecocheck), DM – Doug Moyer (USGS), GS-Gary Shenk (EPA), KH-Ken Hyer (USGS), JC-Jeff Chanet, JB – Joel Blomquist (USGS), JK-Jeni Keisman , LR- Lea Rubin, MEL – Mary Ellen Ley (USGS/CBPO), ML – Michael Langland (USGS), MM – Mike

Mallonee (ICPRB/CBPO), PT – Peter Tango (USGS/CBPO), SP-Scott Phillips (USGS), STAC – Scientific and Technical Advisory Committee, TMAW – Tidal Monitoring and Assessment Workgroup, USGS – United States Geological Survey, WY – water year (Oct 1-Sept 30)

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