

## 2010 Bay Barometer Communication Challenges for the Water Quality Goal Implementation Team (Part 1)

The following is background information related to the Bay Barometer (BB) discussion the Water Quality Goal Implementation Team (WQGIT) will be having on September 13, 2010.

The purpose of the discussion is as follows:

- Discuss indicators for assessing pollution reduction efforts via BB
  - Agree on recommendations for changes
- Discuss options related to “2-yr milestone progress reporting” via BB
  - Agree on recommendations for HOW to report
  - Discuss options for WHAT to report (recommendations to be determined at Oct 25 meeting)
- Recommendations to be provided to Scientific and Technical Analysis and Reporting team (STAR) and Communications Workgroup (CWG)
- Final recommendations (from STAR, CWG and WQGIT) provided to Management Board (MB) for their decision in November or December, 2010

### Challenge I: TMDL will require changes to “reducing pollution” measures

#### Context

Current Pollution Control Measures	Why Are Changes Needed
<ul style="list-style-type: none"> <li>▪ Goals based on allocations adopted in 2003 and old Tributary Strategies</li> <li>▪ Assessment uses 4.3 Watershed Model</li> <li>▪ Baseline for assessment is 1985</li> <li>▪ Deadline for goal achievement is 2010</li> <li>▪ <i>Refer to the <a href="#">current pollution control measures</a>. Be sure to view the top-level index charts displayed on the “multi-year” tab and the reporting-level indicator charts for <a href="#">agricultural</a>, <a href="#">wastewater</a>, <a href="#">urban/suburban</a> and <a href="#">air controls</a></i></li> </ul>	<ul style="list-style-type: none"> <li>▪ New goals based on Total Maximum Daily Load (TMDL) allocations to be adopted Dec 2010.</li> <li>▪ Assessment will utilize phase 5.3 Watershed Model</li> <li>▪ Baseline for assessment is 2009</li> <li>▪ Deadline for goal achievement is 2025</li> </ul>

#### Considerations

When we report percent achievement of the pollution reduction goals in the “Restoration Efforts” section of BB we need to:

- explain the new goals (TMDL allocations, including allocations for nitrogen deposition to tidal water),
- new deadline (2025),
- new baseline (2009),
- new model (phase 5.3 watershed model simulations using 1991-2000 average hydrology).

Furthermore, we need to explain that these are regulatory goals, not voluntary goals and that states will be accountable for 2-year milestones and there will be “consequences” for not achieving the milestones.

Since there is a new baseline year the “percent achievement of goal” charts will start at 0% in 2009.

- In 2009 BB, we reported 62% achievement of the pollution reduction goals. We’ll need to be especially careful to explain the different deadlines, baselines and models used in the 2009 BB and the 2010 BB.
- Since there is a new baseline year (2009), it will be hard to show progress from 1985 through 2009 in the “percent achievement of goal” charts.
- Need to show progress from 1985 through 2009 using a different format

### **Revised Indicators for Assessing Pollution Reduction Efforts**

Use the “percent achievement of goal” charts for the “top-level” and “reporting-level” indices to convey the following information:

- 2009: 0%
- 2010: TBD%
- 2017: 60%
- 2025: 100%

Create these types of charts for:

- Top-level index: average of N, P and Sediment indicators
- Reporting-level indices: N, P and Sediment
- *Refer to the accompanying presentation for examples*

Supplement the “percent achievement of goal” reporting-level indicators with “supporting-level” indicators that show model-simulated loads\* for the following scenarios:

- 1985
- 2009
- 2010
- 2017 interim goal
- 2025 allocation

Create these types of charts to show:

- Historical progress (prior to 2009)
- Breakout by sector
- Breakout by state
- *Refer to the accompanying presentation for examples*

\*Need to be especially careful that these supporting-level indicators include caveats to explain that these “loads” are based on simulations, using 10-year average hydrology and can not be compared to the loads data we report in the “Factors Impacting Bay and Watershed Health” section of the BB.

### ***Recommendations from WQGIT:***

WQGIT will agree on recommendations for revised indicators/indices on Sept 13th

## Challenge II: EC expects 2-yr milestone progress to be tracked annually in the BB

### 2011 Milestones: Background

- Refer to the [2011 Voluntary Milestones](#) Agreed to in May 2009
- The Milestone Documents Contain Common Elements:
  - Reduction Milestone: amount of pollution the jurisdiction will reduce
  - Pollution Reductions by Source: sources that will achieve the reductions
  - Funding During Milestone Period: projected funding to implement pollution reduction measures through 2011
  - Pollution Reduction Actions by End of 2011: actions to be taken to reduce pollution to meet milestones
  - Additional Reduction Options: options for reducing pollution that could be pursued if necessary to meet milestones

### EC and MB decisions

- Chesapeake Executive Council (EC) expects “The 2011 Bay Barometer will be updated and revised to provide a vehicle for reporting on each partner’s progress on implementing their milestone actions and achieving the accelerated nutrient and sediment reductions committed to in May 2009.”
  - Need to clarify that the 2011 BB will be released in March 2012 and the 2010 BB will be released in March 2011. Which BB do they mean?
- MB asked STAR and CWG to develop options and recommendations.
- Scientific and Technical Advisory Committee (STAC) asked to be involved.
- WQGIT needs to weigh in with any options and recommendations related to the content (CWG should not be involved with any “policy decisions”)

### How to report

#### *Considerations*

- BB has never discussed milestones of any type – these need to be explained
- First set of milestones are focused on the water quality goal; second set may be expanded to include 2-yr milestones for other goals
- First set of 2-yr milestones for water quality (Dec 2011 deadline) are “voluntary” and next set of 2-yr milestones for water quality (Dec 2013 deadline) are “regulatory” (e.g. there will be “consequences” for not achieving)
- First set established using phase 4.3 watershed model (which is no longer being used); second set of water quality milestones to be measured using phase 5.3.
- First set included efforts over a period of more than 2 years (May 2009-Dec 2011); second set will include efforts over 2 years (Jan 2012-Dec 2013)
- First set was established prior to the availability of a 2009 “progress run” and relied on using the 2008 “progress run” as a “baseline”. Further complications arose from a revision to the 2008 progress run. Some states used the revised version and some states used the original version as their baseline.
- States have in some cases revised commitments for specific actions in relation to what was published at the May 2009 EC meeting
- Some states have already established milestone reporting systems, independent of the BB (e.g. <http://www.baystat.maryland.gov/2yearplan.html>)

*Suggested Options:*

- OPTION 1: Publish 2010 BB (in spring 2011), driving home our best accounting of progress in meeting the 2011 voluntary milestones.
- OPTION 2: Publish 2010 BB (in spring 2011) as usual with a 2011 fall/winter supplement on voluntary 2-Year Milestones.
- OPTION 3: Phased approach
  - Phase 1: 2010 BB (to be published spring 2011) includes an introduction to 2-yr milestones; lays out the issues and groundwork for 2011 BB (published in spring 2012). Reports some state examples of progress.
  - Phase 2: 2011 BB (to be published spring 2012) introduces the new 2-yr milestones to be tracked (Jan 2012-Dec 2013 period)
- Option 4: Variation on option 3 (four-phased approach)
  - Phase 1: same as option 3
  - Phase 2: Late spring 2011 (concurrent with EC mtg?), mid-term progress report on the first set of 2-year milestones (May 2009-Dec 2011 period)
  - Phase 3: Late fall 2011, publish document introducing concepts and issues for new, regulatory 2-yr milestones and milestones for other Executive Order Strategy outcomes
  - Phase 4: 2011 BB (to be published spring 2012) announces the new 2-yr milestone commitments (Jan 2012-Dec 2013 period) and, reports on the accomplishment of the first set of 2-year milestones (May 2009-Dec 2011 period)
- Option 5: Use ChesapeakeStat to report progress on 2-yr milestones (instead of the Bay Barometer)

***Recommendations for HOW to report:***

- STAR recommended option 3 or 4: a phased approach whether it is two phases or four (only had first four options to consider when they discussed)
- CWG is still debating and will make a recommendation 9/9/10, but is leaning toward option 2 or 3 (only had first three options to consider when they initially discussed)
- STAC will discuss on 9/14/10
- WQGIT will discuss recommendation on HOW to report on 9/13/10

**What to report**

*Content Issues for First Set of 2-yr Milestones (established May 2009):*

- WHAT: Reporting on actions or load reductions or both?
- TIMEFRAME: Reporting actions and/or load reductions as of what date (May 2009? Other date?)
- HOW: If we report load reduction progress, how do we account for commitments made using phase 4.3 now that we are using phase 5.3 for BB reporting?

*Suggested Options: Actions/Loads/Both?*

- For 2010 BB,
  1. Report actions taken in relation to commitments made in 2009.
  2. Report load reductions in relation to commitments made in 2009.
  3. Report both
  4. Others options? (Will discuss on Sept 13th)
- For 2011 BB, same options as above (could choose different options for 2010 and 2011 BBs.

*Suggested Options: Timeframe?*

- If we report “load” reductions, need to use phase 5.3 model. Progress runs currently use reported actions taken July through June and submitted in December
  1. Do we compare 2009 and 2011 progress runs?
    - 2009 based on actions from July 2008-June 2009
    - 2011 based on July 2010-June 2011
  2. Do we compare 2009 progress run to a revised 2011 progress run reporting window (through Dec 2011)?
  3. Do we compare 2010 progress run to 2011 progress run?
    - 2010 based on actions from July 2009-June 2010
    - 2011 based on July 2010-June 2011 (or Dec 2011)?
  4. Other options? (Will discuss on Sept 13<sup>th</sup>)
- If we report actions, jurisdictions can track this without using watershed model. However, need to agree on timeframe
  1. Align w/ Milestone document: May 2009-Dec 2011 (2 yrs, 7 months)
  2. Align w/current progress run reporting window:
    - a) July 2009-June 2011 (2 years)
    - b) July 2008-June 2011 (3 years)
  3. Align w/revised progress run reporting window:
    - a) July 2009-Dec 2011 (2 yrs 5 months)
    - b) July 2008-Dec 2011 (3 yrs 5 months)
  4. Other options? (Will discuss on Sept 13<sup>th</sup>)

*Suggested Options: How do we account for commitments made using phase 4.3 now that we are using phase 5.3 for Bay Barometer reporting??*

1. This is not an issue if we decide to report actions only
2. If we decide to report our progress on simulated load reductions, we could compare the slope of the lines in the published Milestone document charts (based on phase 4.3) to the slope of lines generated for the same time period using phase 5.3 progress runs
  - These slopes would be converted to percent reductions
  - Then percent reduction commitments (using 4.3) could be compared to the percent reductions achieved (using 5.3)
  - This could be considered a "default option" since it really does not report simulated load reductions
3. Other options?

***Recommendations for WHAT to report:***

WQGIT will discuss additional options on Sept 13<sup>th</sup> and make a final recommendation on WHAT to report on Oct 25<sup>th</sup>.