Summary of Decisions and Working Updates to Schedule

Presentation E3
WQGIT meeting
1:30 pm, October 23, 2012
Carroll Valley, PA

Updated October 25, 2012

Chesapeake Bay Program
A Watershed Partnership

Recap

Recap

- Majority of priorities have to do with Principle 2, credibility with local partners.
  - Local credibility is the biggest barrier to implementation
- Some priorities also have to do with Principle 4, Current and Emerging Issues
- A lot, but not everything, has to do with making the models credible to local partners
  - Includes model inputs as well as assumptions
- Some items received few votes because WQGIT feels that the process is working well – eg, BMP panel process

Decisions

- Start to test shift of CBP models from agchem to pqual
- Add in constant delivery factors as a separate priority, with one vote
- Separate out federal segmentation as a separate category from model data processing, with one vote
- WQGIT recommends shifting Phase III draft and final WIP deadlines to June and December 2018
- WQGIT asks EPA to consider options/incentives for not requiring Phase III WIPs
- For lower priorities (4 votes or less) proposed by a single Workgroup, that Workgroup is the lead
- See slides 9-11 and 19- 27 for additional decisions on priorities and leads

Decisions (continued)

- What to Bring Forward to Management Board (November 14) and PSC (December 5) for concurrence:
  - Guiding Principles
    - WQGIT comments by November 2
  - Midpoint assessment recommendations
  - Recommended General Schedule for midpoint assessment and Phase III WIPs (see slides 14-17)
  - Doing Phase III WIPs in future (2025) vs. current land use – creating an incentive for conservation and planning
  - Loss of trapping capacity at Conowingo Dam

Actions for Guiding Principles, PSC/MB Meetings and High Priorities

- Provide comments on summary materials by November 2
- If any further comments on draft Guiding Principles, provide by November 2 so can be incorporated before 11/14 Management Board meeting
- WQGIT members should brief their MB and PSC members before November and December meetings
- For high priorities (5 or more votes), lead entities (eg, Workgroups) charged with developing work plan by December 3 to present to WQGIT on December 10 call. Work plans must consider:
  - Data and analysis needs
  - Staff and resource needs
  - Timing so that **all** priorities are incorporated into models by October 1, 2016 (eg, not everything is due 10/1/2016)

Actions for Lower Priorities Identified by Single Workgroup

- For priorities that received 4 or less votes, lead Workgroup decides whether to move forward, taking into consideration
  - Doesn't interfere with Workgroups' higher priorities
  - Doesn't interfere with key staff's ability to work on higher priorities
- If lead Workgroup decides to move forward with priority, must identify supporting partners and needs and draft a work plan with schedule to present to WQGIT in February 2013

Actions for Lower Priorities Identified by Multiple Workgroups

- Have Workgroup chairs decide by December 3 who is the lead and report lead to WQGIT on December 10
- By February 2013, Lead Workgroup decides whether to move forward with priority, identifies partners and needs, and develops work plan to present to WQGIT
  - Again, work cannot interfere with higher priorities
- Lower priorities identified by multiple workgroups includes:
  - Methods for backcasting historic land uses (present to 1980) and developing future land use scenarios that are locally credible and relevant. Consider 2025 land use for Phase III WIPs to incentivize land conservation and land-use planning – LU and Forestry WGs

Actions for Lower Priorities Identified by Multiple Workgroups

- Lower priorities identified by multiple workgroups includes(continued):
  - Explore evaluation of wastewater in the annual progress runs examining current versus average flows and to ensure increases due to growth are expected/acceptable– Milestones and WWT WGs
  - Bay TMDL and WIP/Milestones Policy, including stability in allocations vs. model changes, and consideration that WWTPs have already upgraded – Ag WG, Other
  - Come up with way to account for trades – TOWG and WWTWG
  - Evaluate how biosolids land applied and accounted for – WWTWG (would require coordination w/ Ag WG)

Other Issues – Who's the Lead?

- TMDL revision – how, why, when – ***2 votes -*** EPA lead, but consider based on input from Partners as to whether modification is needed (including in part based on margin of error)
- Items mentioned in TMDL as needing to be addressed
  - Assessment of Chlorophyll-a Standard in James ***– 0 votes -*** VA lead, work underway
  - Trapping capacity behind the dams, particularly in the Susquehanna (see item 1) – ***5 votes*** - already assigned (see slide 25)
  - Filter Feeders***– 0 votes -*** Modeling Workgroup lead, working with Corps (for tidal simulations) and data input from partners (sanctuaries, biomass, etc). VA recommendation at MB to work with STAC, VIMS, UMCES on filter feeders as BMP. Would go through WTWG
  - Climate change – ***1 vote -*** EPA lead, support from science community including USGS, Modeling Workgroup, STAC workshop

Other Issues – Who's the Lead?

- Algal Turf Scrubbers (added 10/23/12) – WTWG
- Expectations for Phase III WIPs***– 0 votes*** – EPA lead, will share expectations and seek feedback from WQGIT and workgroups
- How to credit 60% by 2017 ***– 0 votes*** – EPA lead, communicate to WQGIT and get feedback
  - Programmatic credit
  - Timing

Other Issues – Who's the Lead?

- Air – what CBP GIT or workgroup owns this topic? ***– 1 vote*** – EPA lead, working through Modeling Workgroup. Will work to bring in state air modelers and local governments as well.
- How do we transition to new models while maintaining stability? ***– 0 votes*** (combine with Ag priority on policy) – WQGIT lead
- Communication – what's happening in real vs model world***– 0 votes*** – fits w/in regional factors and integrated assessment. STAR lead
- Need to consider that wastewater plants have completed upgrades based on past allocations ***– 0 votes*** (combine with Ag priority on policy) – N/A
- Constant Delivery Factors – do we still want to use them given that they make interim progress look lower in some cases? This was a decision of the WQGIT in summer 2011 – ***1 vote*** – WQGIT lead
- Federal land – segmentation vs. separate land use? Property land uses assigned to federal lands. – ***1 vote*** – LUWG lead

Recommended Schedule: October and November 2012

- Deliverables and next steps from this meeting:
  - Working Draft by 3:30 pm, 10/23
  - Send out draft to WQGIT by 10/25
  - Comments by 11/2
  - Post on 11/6
    - To WQGIT, for discussion on 11/13
    - To Management Board, noting draft and will be updated on 11/13

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Recommended Schedule: November 2012 – February 2013

- November: Workgroups and STAR develop work plans for priorities
- December WQGIT call - Report out:
  - Proposed work plans for high priorities
  - Who is lead for lower priorities identified by multiple Workgroups
- December PSC meeting:
  - Report out on WQGIT's proposed path forward
- February WQGIT call: Leads present work plans for lower priorities

Speaking of Schedule…

- Communication to date on Phase III WIP dates (source – June 2010 letter to PSC)
  - Draft Phase III WIPs: 6/1/2017
  - Final Phase III WIPs: 11/1/2017
  - Modify TMDL, as necessary: 12/15/2017
- Other considerations:
  - Time for calibration – 6 months vs. 1 month
  - Review – need full 6 months after updates done?
  - Time for modelers to respond to review and develop Phase III planning targets
  - Time to develop Phase III WIPs – 1 year from setting targets?
  - What will guide implementation from 2018 on?

WQGIT Feedback on Phase III WIP and Midpoint Assessment Schedule

- Still want 6 months after model changes complete and fully calibrated to:
  - Review
  - Test
  - Conduct sensitivity analysis
  - Determine appropriate scale for use
- Need 1 year between when Phase III planning targets set and final Phase III WIPs due
- Phase III WIPs should be done after know whether met 60% goal
- Consider making Phase III WIPs only for states that are behind on implementation
  - EPA concerned that Phase II WIPs do not offer enough reasonable assurance and long-range planning to guide implementation from 2018 – 2025
- Consider modifying TMDL before Phase III WIPs
  - Some partners: ways to set allocations without Phase III WIPs
  - Other partners: states need to have way to have input into allocations

WQGIT Schedule Recommendation: 2016 - 2017

- October 1, 2016: Start “proposed final” model calibration
- December 1, 2016: Complete “proposed final” calibration; start Partners’ review
- March 30, 2017 – Interim progress report – DE suggestion
- June 1, 2017: Partner review period ends
- December 1, 2017: Complete final changes to model based on Partner review and set Phase III targets

WQGIT Schedule Recommendation: 2018

- March 30, 2018: 2017 progress run done and evaluation of whether jurisdictions met 60% goal and 2016-2017 milestones
- June 1, 2018: Draft Phase III WIPs due
- December 1, 2018: Final Phase III WIPs due
- 2019: Public notice and finalize any modifications to TMDL, as needed
  - Note: WQGIT proposal to modify TMDL before Phase III WIPs

Priorities for Midpoint Assessment: High Priority, Will Do

1. Improve spatial, temporal, and categorical representation of urban, agricultural, federal, and natural land uses and, to the extent possible, assign separate loading rates. Where local data unavailable, develop more accurate distribution of loads	
Lead	Land Use – in terms of how to build in new land uses rec'd by Sector Workgroups based on available data. Responsible for convening Sector Workgroups on land use topics
Supporting Partners	Sector Workgroups (USWG, AgWG, Forestry) will have the lead to make recommendations for what land uses should be added in and loading rates. WTWG, BMP panels willing to have supporting role. WQGIT will help settle any cross-workgroup issues.
Necessary Datasets, Analyses, or Decisions	Recommendations on what new land uses should be added in or removed. Loading rates associated with different land uses – LUWG might need to convene panels in conjunction with sector Workgroups to develop loading rates.
Approximate Start Date	ASAP - LUWG convene discussion w/ sector workgroups, WTWG of what new land uses to add. Report back to WQGIT in Dec. with work plan for next few years
Target End Date	April 2015? Depends on Phase III WIP schedule
Issues for MB or PSC?	
Notes	WQGIT will have role in making decisions across workgroups. Combined with loading rates priority

Recommended Process for Land Uses and Differential Loading Rates

- Step 1: Land Use Workgroup convenes Sector and Watershed Technical workgroups to develop more specific work plan by December 2012
- Step 2: Sector Workgroups (Ag, Urban, Forestry) list what land uses they want added, removed
- Step 3: Land Use Workgroup sets data criteria
- Step 4: Sector Workgroups assess data availability
  - For differential loading rates
  - Local data
- Step 5: Land Use Workgroup develops method to synthesize, fill gaps. Vetted by Sector WGs, WTWG
- Step 6: To WQGIT for approval

2. Revisit Watershed Model calibration methods with goal of improving local watershed results , including revisiting regional factors	
Lead	Modeling Workgroup
Supporting Partners	Sector Workgroups (given loading rates of different land uses) and Watershed Technical Workgroup. Potentially reaching out to outside partners. STAR?
Necessary Datasets, Analyses, or Decisions	Get data from some small watersheds – eg, Occoquan May need STAC review of appropriate scale for models' use further down the road
Approximate Start Date	Could start now if had time Charge Modeling Workgroup to work with CBPO modeling team to flesh out work plan
Target End Date	Depends on Phase III WIPs
MB or PSC?	
Notes	Priority is about getting model calibration results to better match with local water quality. Process is straightforward, and have concrete suggestions. Use of multiple models is a separate item. Note that related to model data input for calibration.

3. Modeling Baseline/Input Data and Assumptions	
Lead	Ag Workgroup
Supporting Partners	CBPO Modeling Team, Watershed Technical Workgroup, Verification Subcommittee and Panels, Forestry Workgroup (given forests on ag lands)
Necessary Datasets, Analyses, or Decisions	National Cropland Data Layer – issues in past. Now accurate enough to use? NASS annual vs. 5-year datasets – not all crop types, but ways to use for crops where this data available State data – eg, PA's tillage and crop residue surveys Poultry Litter Subcommittee findings
Approximate Start Date	Some of this work underway now
Target End Date	Start of calibration (though provide new data iteratively as becomes available, and review so iterative calibrations). Therefore end date depends on Phase III WIP schedule
MB or PSC?	
Notes	Eg, use of national or more local data sets; frequency (eg, 5-year vs 1-year) datasets. This is linked to the calibration issue

4. Develop schedule to achieve an effective balance between sufficient review time for tool revisions/review/ concurrence and sufficient time for target development and implementation planning	
Lead	Modeling Workgroup (for model development) and EPA for Phase III WIP schedule
Supporting Partners	Watershed Technical Workgroups, WQGIT as whole (or perhaps higher since getting into broader policy) for recommendations to EPA on Phase III WIP schedule
Necessary Datasets, Analyses, or Decisions	Decision on schedule Transition to new rapid model development approach
Approximate Start Date	Set recommendations for schedule this fall, possibly bring to PSC
Target End Date	Proposal: Ask PSC to recommend schedule at Winter meeting
Issues for MB or PSC?	Yes
Notes	This is bigger than the model. Gets at whole schedule issue, and building in time to allow for review of appropriate scale and formal review. Also includes transitioning among models

5. Improved modeling accuracy of hydrologic networks, land use characteristics, phosphorus and sediment	
Lead	USWG
Supporting Partners	WTWG, Ag WG, Forestry, Modeling Workgroup
Necessary Datasets, Analyses, or Decisions	Data on smaller watersheds Data on differential loading rates associated with hydrologic networks
Approximate Start Date	??
Target End Date	??
MB or PSC?	
Notes	Following this priority would lead to more, smaller scale regional factors. May be counter to earlier priorities (eg, Priority 2). One option might be to smooth regional factors. This is a very complex issue. This issue ties into differential loading rates (Priority 1).

6. Trapping capacity behind dams, esp. Susquehanna, and greater capture of local impoundments and reservoirs	
Lead	STAR (USGS)
Supporting Partners	USWG, Ag WG (farm ponds – Smith Creek data), CBPO Modeling Team, jurisdictions, MDE and DNR (involved in relicensing), Corps, EPA
Necessary Datasets, Analyses, or Decisions	Data needs for reservoir information Where reservoirs are USGS data and analysis on Susquehanna dams, including trapping capacity Relicensing information
Approximate Start Date	ASAP – CBPO modeling team provide jurisdictions with data needs for impoundments so that jurisdictions can start gathering this information. Relicensing underway for Conowingo
Target End Date	??
Issues for MB or PSC?	Flag Conowingo issues for PSC
Notes	Combination of USWG and Other priorities

8. Revise modeling system structure (ie, transition to all PQUA L model) to enhance decision support and improve transparency, accuracy and confidence	
Lead	Modeling WG, CBPO Modeling Team
Supporting Partners	Sector Workgroups (Ag, Urban, Forestry), WTWG
Necessary Datasets, Analyses, or Decisions	Have default sensitivities in PQUAL version of model now; effort will be documenting all the sensitivities and, where missing, work with sector workgroups to provide Will then update, rerun, and give to workgroups to assess
Approximate Start Date	Now – Start developing PQUAL version of model, and provide to Modeling Workgroup and then Sector Workgroups to review
Target End Date	When modeling updates need to be complete, depending on Phase III WIP schedule (propose October 1, 2016)
Issues for MB or PSC?	Will give them an update, but this is a WQGIT decision
Notes	Combo of a few WGs' priorities. Ag WG: clearer documentation, transparency of data sources, ability to assess. Modeling WG: Transition to pqual as a better decision support tool

7. Model Data Processing – when the data is in, how do the models combine (eg, how do manure and inorganic fertilizer nutrients move through system)? How can data and processes be combined (eg, stackable BMPs)?	
Lead	Ag WG
Supporting Partners	WTWG, Modeling WG, CBPO modeling team
Necessary Datasets, Analyses, or Decisions	
Approximate Start Date	Some work underway
Target End Date	Start of calibration
Issues for MB or PSC?	
Notes	Separate out federal segmentation into separate item

Thank You for a Productive Meeting!