

SCHEDULE FOR PHASE 6 WATERSHED MODEL COMPLETION

Disclaimer: Any additional tasks or priorities may adversely impact the proposed schedule.

P6 Watershed Model October Re-calibration Timeline

September 26 – all inputs are final for the October re-calibration. **DONE**

September 26-Oct 12 – four auto-calibrations & analysis ^[1] (4 x 3 days = 12 work days) **DONE**

October 6 - Select auto-calibration runs to go forward with and combine the four auto-calibrations as needed to make the final auto-calibration run. **DONE**

October 12 – WQGIT: report out progress and completed products at WQGIT conference call **DONE**

October 13 – Auto-calibration final (1 work day) **DONE**

October 17 – Mod WG Quarterly – progress on Phase 6 calibration status including nutrient budgets by basin and State incorporating tidal shoreline nutrients. **DONE**

October 16-19 – hand calibration (3-4 work days)

October 20-27 – lower Susquehanna reservoirs + DE (5-6 work days)

October 23 – WQGIT: report out progress and completed products at WQGIT conference call

October 30-30 – below fall line (1 work day)

October 31-31 – calibration final (1 work day)

November Post Re-calibration Timeline

November 1-8 – Key scenarios ^[2] completed by the WSM including 2010 No Action, 1985, 1993, 2013, 2010 WIP2 LOE, 2010 E3, All-Forest, and other scenarios (6 work days - See note 2)

November 6-10 – CERF

November 9-13 – Generate calibration plots.

November 13 – WQGIT: report out progress and completed products at WQGIT conference call

November 9-30 – Generate visualization products with final Phase 6 models (Olivia Devereux and John Wolf leads). Prep for December ~4-6 – Combined Mod WG & WQGIT 2-day meeting.

- Figure out drivers of WIP2 changes (WV, DC, VA)
- Develop new Relative Effectiveness values and graphics

- Assessment of assimilative capacity with Conowingo infill and no climate change
- Redo Climate Change assessment with 0.17 SLR
- Develop assessments of four Conowingo alternatives for who (Susquehanna only, Sus+MD &VA, All, Sus+effective)
- Need to include 2025 base conditions into Note 2 scenarios (2025 to be delivered from Peter 11/15...could be a timing problem)
- Rework presentation materials with final data for Combined Mod WG & WQGIT mtg

November 27 – WQGIT: report out progress and completed products at WQGIT conference call

December ~4-6 – Combined Mod WG & WQGIT 2-day meeting.

December 19-20 – PSC Meeting

NOTES:

[1] 3-4 auto calibration: (a) pending changes, (b) Without EVI, (c) Noe/Claggett Bank & Floodplain, (d) Daily weighted observations. Each requires hours to days of preparation.

[2] (a) Baseline, (b) 2010WIP2+90s, (c) *Baseline+Conowingo Infill*, (d) 2010WIP2+Conowingo Infill, (e) Baseline+CC, (f) 2010WIP2+Conowingo Infill+CC, (g) 1985 Progress, (h) 2010 No Action, (i) 2013 Progress, (j) 2010 E3

Additional details for [1] and tracking linkages

[1] (b): Process a new L2W factor table, renormalize

[1] (c): STB/STF loads based on Noe/Claggett regressions, calculate FDF, update EOR direct load inputs

[1] (d): work ongoing in collaboration with Ross and Guido

Additional details for [2]

Potential issues with the scenarios can be identified by CAST while the calibration is ongoing.

Secondary tests: (a) DENOXT, (b) N to Carbon Ratios

Other tasks:

- below fall line point source loading to WQM grid cells

SCHEDULE FOR PHASE 6 WATER QUALITY AND SEDIMENT TRANSPORT MODEL (WQSTM) COMPLETION

October-November Timeline

September 29 – Receive WQSTM Runs 214 and 223 (Run 214 is what Carl believes is his “best and final” WQSTM run the Director’s Cut” and Run 223 is Run 214 w/ algal composition adjusted to generate more phosphorus sensitivity and phytoplankton biomass) **DONE**

September 30-Oct 2 – Benchmark Runs 214 and 223. **DONE**

October 3-5 – Run 196 (August WQSTM calibration) Run 199 (September WQSTM calibration), Run 214, and Run 223 on the same Base input from September Phase 6 WSM **DONE**

October 6-10 – Using chlorophyll assessment from CoE ERDC and hypoxia volume day assessment from CBPO ^[3] and weighting toward the hypoxia calibration select the WQSTM version that has the highest fidelity to the observed data. **DONE**

October 12 – WQGIT: report out progress and completed products at WQGIT conference call **DONE**

October 11-16 – Run key scenarios on September P6 WSM calibration. Key scenarios needed in priority order are: WIP2 LOE, WIP2+Cono Infill, WIP2+Cono Infill+CC, E3, 1993, 2013, No Action, 1985, and All-Forest. **IN PROCESS**

October 17 – Mod WG Quarterly - Review selection approach for WQSTM and selected final WQSTM version as well as draft key scenarios. **DONE**

October 18-25 – Complete new geographic isolation runs on final WQSTM.

October 23 – WQGIT: report out progress and completed products at WQGIT conference call

October 26-Dec 3 – Develop presentations and analyses for combined Mod WG & WQGIT meeting, PSC, and other meetings.

November 6-10 – CERF

November 9-16 – Final key scenarios ^[2] completed by the WSM now run on the final WQSTM including 2010 No Action, 1985, 1993, 2013, 2010 WIP2 LOE, 2010 E3, All-Forest, and other scenarios.

November 13-24 – Estimate Bay assimilation capacity. Estimate change in assimilation capacity due to Conowingo Infill. Estimate change in assimilation capacity under 2025 climate.

November 13 – WQGIT: report out progress and completed products at WQGIT conference call

November 27 – WQGIT: report out progress and completed products at WQGIT conference call

December ~4-6 – Combined Mod WG & WQGIT 2-day meeting at MDE.

December 19-20 – PSC Meeting

Notes on 3:

The hypoxic volume day analysis will use paired simulated and observed hypoxic volume for stations with deep water or deep water and deep channel designated uses. The years applied will be 1993 to 1995. The stations will be examined for each day of observations and the paired simulated and observed stations will be examined at 0.2, 1, 3, and 5 mg/l DO. The paired stations can be plotted over time for simulated and observed at the station or at the CB segment level.

Additional Notes:

Modeling Team also reviewing E3, No Action, and other P6 scenarios and inputs.