Forestry Work Group Conference Call

November 7, 2012

Minutes

Participants: Derrick McDonald, Al Todd, Sally Claggett, Rebecca Hanmer, Anna Stuart Burnett, Anne Hairston-Strang, Lou Etgen, Eric Sprague, Megan Lang, Julie Mawhorter, Matt Poirot, Alli Baird, Gary Speiran, Tracey Coulter, Donna Murphy, Greg Evans, Herb Petticord, Linda Carnell, Frank Rodgers, Tom Ward

Water Quality Meeting in October

* FWG proposed several forest related improvements to the model as part of the midpoint assessment
* Separate out upland forest from riparian/floodplain forest
* Separate the “mixed open” (not true forest) that is currently included in the forest category
* FWG recommendations were well received and supported by recommendations of Land Use Workgroup and others; addressing the land use category changes was voted top priority by the WQ GIT, of all the mid-point assessment priorities
* Need to present our FWG plan on moving forward with the proposed changes by Dec 10th WQ GIT meeting
* We should be able to answer the four questions from the Briefing paper (answer must be “yes” for at least one question):

1. *Does the new land use have unique nutrient or sediment loading characteristics?*
2. *Is the new land use needed for planning, tracking and reporting of BMPs and/or regulatory actions?*
3. *Will the new land use help inform management decisions and implementation at the local level for any other reasons?*
4. *Would the (can the) proposed land use be better served as a BMP?*

* Pursuing these changes will require more work for the forestry workgroup to support their recommendations to the WQ GIT
* FWG needs to commit to these new land uses (true forests and riparian/floodplain forests) by December 10 but has ~5 more months to determine what different pollutant loading rates should be assigned to them
* Another issue FWG raised was the need to better communicate the connections between forest loading rates and air deposition; it needs to be clearer that forests are already reducing loads from air deposition significantly. Questions?
  + What kind of work will be required of the FWG? Need proportional loading differential between land uses, going to have to coordinate with forest buffer BMP panel and others
  + Sally suggests trying to combine riparian and floodplain forests for modeling
  + Where do the non-forested areas go? Distinguish them as mixed open; the Land Use Workgroup will have the lead to figure out how to categorize these areas (e.g. some could be low density pervious urban, or…)
  + What kind of work do we need to do? Some redistribution of loading will occur, but what we hope happens is that there is more recognition of the value of the conservation of these lands.
  + Peter Claggett (USGS and Land Use Workgroup) will be the lead for the mapping work that is needed for these changes
  + We should carefully consider what should be a change in land use vs. BMP
* Look at the paper Sally developed for the WQ GIT meeting as a good starting point (posted online)

Remote Sensing to Characterize Connectivity: Megan Lang, USFS (Megan’s PowerPoint is posted on the FWG website)

Comments:

* Need to have more discussion on functioning of floodplains and riparian areas and how to map them
* Case study presented: Choptank watershed is one of the most polluted
* We need to know where the best managed forested floodplains are located
* NHD stream maps are inaccurate and we need to better understand these limitations
* Use LiDAR because it can help map wetlands and surface water channels
* Channelized streams cannot respond as well to floods and they remove water from wetlands
* Ditches can bypass floodplains
* SAR: Synthetic Aperture Radar, can discern saturation, can be used to determine soil moisture
* SAR + LiDAR = synergy: they can be used together
* Some of these data could be used to support the Bay Model
* Questions:
  + Have you tried other geographic provinces? Starting to do this in other areas

Several characteristics to consider for mapping to target placement of effective riparian forest buffers for water-quality improvement: Gary Speiran, USGS (Gary’s PowerPoint is posted on the FWG website)

Comments:

* Hydrologic characteristics are important because they determine the pathways for contaminant transport
* Don’t have a clear understanding of the groundwater system
* Placement and location of buffers is critical
* Hydrology is different in karst, carbonate systems
* Stream flow is related to precipitation levels and groundwater flow
* Contaminants are only removed from forest buffers when the contaminants are transported through the buffer

Discussion

* Do deeper, slower flow paths result in denitrification? Depends on underlying bedrock, groundwater systems are deeper than roots, so buffers are more effective for surface runoff and shallow groundwater flow
* Need to be able to map it, what is available for mapping? Need to know how much groundwater vs. surface water is feeding streams
* Will take these issues up at the expert panel level and may inform how we differentiate floodplains and upland forests and how their function changes in different settings
* What is the use of increased accuracy? How does this improved mapping help us? It helps us to improve targeting more effective buffers. In the Bay Model, we are trying to assign removal efficiency, and all buffers aren’t equal, so it helps us do this better. We are trying to get higher incentives in these areas as well.
* Different tree species have different rooting depths, so including deep rooting species in planting mixes could help, and need sub-soiling

Announcements

* Sally: we will postpone the programmatic review on Dec 4-5 until February or March. Will have a conference call on Dec 5th instead, and will discuss the 2013 work plan.
* Anne Hairston-Strang: MD has some new grants to discuss with the FWG in the next meeting when there is more time for announcements.
* Rebecca: send announcements to Anna Stuart to send to the group.