

West Virginia Watershed Assessment Pilot Project
Technical Advisory Team Meeting 6/13/2011
Feedback, Comments, Questions

Braven Beaty

TNC

- hope that project can be used to influence decisions within the development community
- Development by Design may have more useful datasets, but may be outside of time scope

Tom DeMoss

EPA Region III

- Suggested two panels of experts, one as the technical group and another representing political interests/development; the idea of combining the science with value judgments to ensure use of final products; MIRA (Multi-criteria Integrated Resource Assessment) tools include stakeholder concerns in analysis (start with science, then add value judgments and include them in results so that decisions will be made)
- Have more discipline regarding what are the assessment questions that decision-makers are trying to answer; can influence how you develop the tool and the results

Eddy Grey

Morris Creek, Triana Energy

- Liked the idea of weighted average; offered data from Morris Creek (as a sample to do a run-through to check results against expected output) and his own industry perspective if needed

Mike Hatten

USACE

(via email)

- IAW 2008 Final Rule, a watershed-based approach is required. Therefore, it would be helpful if the end product provides flexibility to set a watershed range (i.e. 12 digit HUC or smaller NHD plus catchment).
- A substantial part of the watershed assessment model and conclusions should be founded upon field data assessments (i.e. WV SWVM v2.0 includes USEPA RBPs, USACE HGM, WVSCI and key water quality parameters). The conclusions should be founded upon both landscape level (desktop) data collection as well as field data verification to support the conclusions. It would be helpful if the model is developed with these two components individually. Therefore, if current field data is not available then conclusions may be provided based solely upon desktop data collection.
- Landscape losses- Will the end product provide enough detail to depict/specify the type and extent of losses (i.e. 3 acres of scrub-shrub wetlands and 453 linear feet of ephemeral streams)? Will any ephemeral streams be factored into the equation?

Other potential programs to coordinate with this effort:

- USACE HGM development in WV
- FHWA recent Grant with WVU "Pilot Test the Ecological Approaches to Environmental Protection Developed in Capacity Research Projects CO6A and CO6B"

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- USACE Cumulative Effects Tool (draft form)

Christine Mazzarella

EPA Region III
(via email)

Related projects: EPA agreement with USGS who funded work with WVU (Todd Petty & Mike Strager)
Mike is involved in project developing statewide landscape data that should be available within our project timeframe and would be better than NLCD (Christine is the PO on this project), they have also developed ELU from SAMB DEMs

Datasets: Suggests the inclusion of septic system data as it may be helpful when looking at stressors to the aquatic system

Terence Messinger

USGS
(via email)

- Do not have gages on smaller streams, mostly larger rivers; do have a set of regional equations for high/low flow statistics and bankfull channel characteristics
- Need an index or metrics for biological productivity or value (WVSCI/GLIMPSS measure such things); could probably find some other data that distinguish productive, valuable streams without rare taxa (angler hours used or creel surveys as a metric; DNR should at least do estimates)
- DNR fish surveys (some were suitable for computing IBI); cluster analysis of fish assemblages (talk to Dave Thorne at Elkins) may be able to use species richness to help ranking
- Be sure to include underground mining/AML (in Kanawha River NAWQA study found a stronger positive correlation between overall, cumulative coal production in a basin and several chemical and biological effects, than between the effects and any other measure of mining)
- Plan to estimate or project future oil gas production (USGS and DOE have done some work on this for Marcellus shale)
- Some information at some spatial scales is available regarding groundwater (Census Survey of Households has water source info, which may help identify private wells); has a report on WV ambient groundwater quality in review (authored by Doug Chambers, hopefully finished by end of Sept), the wells were not randomly selected by geographically representative

Greg Pond

EPA Region III

- Are we going to empirically test the metrics for responsiveness?
- Suggested DEP genus level tool as more accurate (data matches WVSCI since 1999, confirmed by John Wirts); GLIMPSS

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Michael Schwartz

The Conservation Fund's Freshwater Institute
(via email)

Planning units: I would not go any smaller than HUC12 and would even lean towards HUC10. Whatever the case, wherever practicable I would strive to use true watershed boundaries i.e. those that drain to a single point. I would recommend using the NHDPlus catchments aggregated to whatever level HUC you decide on. A new version of NHDPlus will be released later this year, which hopefully will fix some of the shortcomings in the current version.

Limitations: Will be limited by the paucity of field data.

Related projects: WVDNR is currently developing a number of aquatic related dataset that will complement your project.

Chuck Somerville

Marshall University

Datasets: Will you compare microbiology of streams/metagenomics or other newer technologies with prioritization results? Has some data working on the Ohio River (will share), preliminary, but seeing some surprising results. Organisms used as water quality metrics are scarce in the field. Hard to determine baseline in microbial community- what they are finding is not what they expected. Can do analyzes based on prioritized sites.

Dennis Stottlemeyer

WVDEP

- Noted that this will be a “living” product that will be updated as new information comes in
- Datasets: working to catalog and inventory all on-the-ground mitigation projects at DEP, may be available by end of summer