

Potomac Tributary Stakeholders Meetings

Gathering Input for Watershed Prioritization Agenda - September 20 and 21, 2004

*The following is a synopsis of a presentation given to those in attendance. It serves as background for the stakeholder input that we gathered at the meetings. We are mainly asking for help with **weighting the concepts** in the decision matrix. You can still give your input. Skip to number III and IV, below, for explanation and instructions.*

I. Introductions

A. West Virginia's Potomac basin/watersheds within it

Most of the eastern panhandle of WV (the 8-county area) is land that drains into the Potomac River. That is, it is part of the Potomac **watershed** or **basin**. Two relatively small areas in Hardy and Jefferson Co. have land that drains into the Shenandoah River, but even the Shenandoah eventually flows into the Potomac (at Harper's Ferry).

The Potomac River flows into the Chesapeake Bay, so that means that West Virginia has a stake in issues pertaining to the Bay. Other states with land that drains into the Bay are New York, Pennsylvania, Maryland, Virginia, and Delaware. Washington D.C. is also entirely within the Bay watershed.

We have divided the eastern panhandle into 24 smaller watersheds and given them names based on the major stream or river that flows through them. You can find this map elsewhere on this website (www.wvnet.org) It is these 24 watersheds that we're in the midst of prioritizing. That is, we would like to identify a few of these that we would work on first in our efforts to improve water quality, for the benefit of both the Bay and also for our own local interests.

B. The Chesapeake Bay Program

West Virginia agreed to participate in the Chesapeake Bay Program in 2002. Therefore, we are committed to reducing certain pollutants, but we also stand to receive funding to improve water quality, which will benefit us locally. The reductions to which we are committed are as follows:

- Reduce **Nitrogen (N)** loads delivered to the Bay by **33%** by 2010 (from 2002 numbers)
- Reduce **Phosphorus (P)** loads delivered to the Bay by **35%** BY 2010 (from 2002 numbers)
- Reduce land-based **sediment** delivered to the Bay by **6.2%** by 2010 (from 2002 numbers)

The Chesapeake Bay program is administered through the federal government within the U.S. Environmental Protection Agency. The headquarters of the program are in Annapolis, and several representatives of West Virginia Agencies attend meetings there and communicate with Bay Program staff. The website that contains volumes of information pertaining to this program is www.chesapeakebay.net. You can look there for the basics about nitrogen, phosphorus, and sediment pollution, as well as measures that can be taken to reduce these pollutants. For example, agricultural BMPs, or Best Management Practices, are explained on the website. Many of these, such as Nutrient Management Plans, are already popular with agricultural producers in West Virginia. We recognize that

many steps toward improving water quality have already been taken, sometimes with great expense to the landowner, by people in West Virginia. The current effort to prioritize watersheds for further work will ensure that we use money as wisely as possible to make the most improvements.

C. The groups that have partnered to guide the process

The following agencies and organizations in West Virginia are working together to plan water quality efforts in the Potomac Basin:

[WV Department of Environmental Protection](#)
[WV Department of Agriculture](#)
[WV Conservation Agency](#)
[Cacapon Institute](#)
[The Conservation Fund's Freshwater Institute](#)

The website we use to update the public on the process is www.wvnet.org. We encourage you to visit this site to read minutes of past public meetings, and to explore documents like the WV Potomac Tributary Strategy.

D. The WV Potomac Tributary Strategy

This document was prepared over the last year and a half, with input from public stakeholder meetings. Its contents are as follows:

Executive Summary

1.Introduction/Purpose

2.Background

3.Water Quality

4.Sources of Nutrient and Sediment

5.The Chesapeake Bay Watershed Model and Load Estimates

[6.Implementation Strategies:](#)

[Urban and Mixed Open, Point Sources, Agricultural, Forestry, Wildlife, and Overall Cost of Implementation](#)

7. Challenges to Implementation

8. End Notes

Appendices#1-7

The sections contained under #6 above, the Implementation Strategies, are significant because working groups, that included people from the stakeholder meetings, were formed to write these sections.

The April 2004 draft of this document is posted on the website www.wvnet.org, and it is currently being edited to meet the requirements of the Bay Program.

E. An Implementation Plan

The next step in the process is to devise a schedule of work, or an implementation plan, for West Virginia's Potomac Basin. We would like to prioritize watersheds so that we can apply the WV Potomac Tributary Strategy in a few watersheds at a time.

F. Stakeholders

We use the word “stakeholder” to include everyone who has an interest in the water quality of streams and rivers that ultimately flow into the Chesapeake Bay. All of the following are stakeholders in the current effort:

- Landowners
- Citizens
- Local governments
- State agencies
- Anyone who drinks the water or uses it for recreation
- Anyone whose business uses the water or affects it

II. The purpose of the September 2004 stakeholder meetings:

To gather information for watershed prioritization to develop a schedule of work for the implementation of the Tributary Strategy

III. The Decision Matrix

A. What is the Decision Matrix?

This is the tool we are using to help prioritize watersheds. It is in the form of a spreadsheet (MS Excel) can be found on this website www.wvnet.org.

B. How does it work?

Along the left side are listed the 24 watersheds. Across the top are 8 **concepts**. Values from 0 to 1 will be entered in each cell, so that numbers can be added across the columns. The totals, on the right-hand side, will show which watershed has the greatest overall value, and should be given the highest priority. Each of the concepts can be weighted, or emphasized, so that it will influence the result more than the other concepts. **We are asking for your help in determining what these weights should be.** The **concepts** cover all kinds of scientific and social values. They are as follows:

1. Nitrogen impairment index:

An average of 3 values:

- 303d miles
- Water quality data from various sources
 - Primarily Dept. of Agriculture
 - Gaps in coverage filled with data from WV DEP and Cacapon Institute
- Load (ESTIMATE)
 - 2000 Land Uses acres times specific loading rates from CBP Watershed Model. Includes point source and septic system loads.
 - This value was then normalized (highest value is re-assigned a value of 1, etc.)

2. Phosphorus impairment index:

An average of 3 values:

- 303d miles
- Water quality data from various sources
 - Primarily Dept. of Agriculture
 - Gaps in coverage filled with data from WV DEP and Cacapon Institute
- Load (ESTIMATE)

•2000 Land Uses acres times specific loading rates from CBP Watershed Model. Includes point source and septic system loads.

- This value was then normalized (highest value is re-assigned a value of 1, etc.)

3. Impaired high-quality stream miles:

- Calculated from WV DEP 303d lists and WV DNR list of high quality streams, 6th ed., 2001 (the criteria used for high quality stream designation is as follows: 1) All streams which are stocked with trout or that contain native trout populations. 2) Warmwater streams over 5 miles in length with desirable fish populations and public utilization thereof.)

- This value was then normalized

4. TMDL miles:

- Miles of streams with Total Maximum Daily Load requirements

- From DEP 303d lists

- This value was then normalized

5. Agricultural BMP saturation/likelihood of participation

- Your input welcome

- Difficult to estimate

- Rated on a scale of 1-5, where 5=very little saturation of Best Management Practices (BMPs), so much participation possible, and 1=virtually saturated with BMPs

-This value was then normalized

- See pp. 30-36 of Strategy for proposed BMPs.

6. Watershed group activity

- Your input welcome

- Difficult to estimate

- Scale of 0-5, with 5=watershed group's scope is equal to watershed being considered, and group is very active, and 0=no watershed groups

- this value was then normalized

7. Population growth

- Calculated using 1990 and 2000 census tract data

- This concept may help factor in the point source/urban needs of a watershed, and also future pollution potential

- this value was then normalized

8. Nitrogen Delivery Factor

- This is a way of factoring in the impact a given watershed has on the Bay, mostly because of how close to or far away from the Bay it is.

- Impact decreases the farther away you are from the Bay, because N can be lost from streams through pathways in the N cycle.

- Sediment and phosphorus delivery factors are equal across all watersheds in the Potomac Basin.

- this value was then normalized

IV. Your input

Please give each concept a weight between 1 (lowest priority) and 10 (highest priority). Assume all concepts start with a value of 10.

Please download or print the “[Weights Comment Form](#)”, fill it in, and return it by November 15 via e-mail to ahartman@wvdep.org or via snail-mail to Alana Hartman, WV DEP, HC 63 Box 2545, Romney, WV 26757.

Instructions

Please include your name and affiliation (if no affiliation, feel free to write "citizen" or "farmer" or whatever is true for you). This way we can ensure that no one is submitting more than one comment form.

For instructions on filling out the weights comment form, please see the "[Matrix Development](#)" file. Briefly, we want to know how much or how little you would emphasize (weight) each of eight concepts when deciding which watersheds to prioritize. We set up a "decision matrix," which is basically a table with cells we filled in with the most accurate numbers we could find, for each of the watersheds and for each of the eight concepts. Now we want to know which concepts should be emphasized the most or the least. Then we will add the numbers across for each watershed and get the final value on the right. Those with the highest values represent the highest priority watersheds.

For example, if you think the watersheds with the most population growth should get the most priority (a 10 on a scale of 1 to 10), then you would write "10" next to "population growth" on your form. You are saying you want all the watersheds' values in the population growth column of the decision matrix to be multiplied by 10.

Now look at the "matrix." All the weights listed under the eight concepts reflect the averages of responses we got at the two public meetings in September. We took the averages and re-assigned the highest one a value of "1." All the other weights were re-assigned values in proportion. To see the actual comments that went into these numbers, see the "[Public Meeting Results](#)" file. If you couldn't make it to one of those meetings, now is your chance to have your response averaged in, also. In the end, we would like to prioritize watersheds based on your informed responses and also cost considerations. We will accept responses until November 15th, 2004.

Thank you for your time.