

# Appendix J - Stakeholder Engagement

---

## Contents

One objective of this project was a transfer of knowledge gained to “stakeholders, other interested parties, and USACE Districts and Divisions”. In addition, other tasks included elements specifying consultation and/or review of interim products by stakeholders or experts. The project team addressed these requirements by building a website for sharing information about the project, presenting webinars, holding two workshops, and establishing a Technical Advisory Group and having two meetings with that group.

### Disc Contents

Document (PDF file)

- AppendixJ\_StakeholderEngagement.pdf (146 KB) – this file
- Potomac PMP signed.pdf (815 KB)
- MPRWA\_fact\_sheet\_2011.pdf (591 KB)
- MPRWA\_Intro\_09\_29\_09.pdf (4,470 KB)
- LgRivWorkshopIntro\_090910.pdf (3,841 KB)
- WebinarSeriesIntro\_030811.pdf (5,667 KB)
- TechOverview\_No1\_041211\_V3.pdf (1,110 KB)
- HumanUsesOfWater\_No2\_051011.pdf (2,073 KB)
- ModelingStreamflow\_No3\_061611.pdf (2,484 KB)
- FlowEcology1\_No4\_071411.pdf (3,166 KB)
- FlowEcology2\_No5\_090811.pdf (3,874 KB)
- Science\_to\_Mgmt\_No6\_102711.pdf (3,175 KB)
- FutureScenarios\_No7\_022312.pdf (2,341 KB)
- FinalWebinar\_No8\_06-20-12.pdf (2,066 KB)
- MPRWA\_ATR.pdf (163 KB)
- MPRWA\_constituent\_comments\_10\_12\_2012.pdf (175 KB)

Three directories (MB)

- TAG - contains materials presented at 28 September and 26 October, 2011 meetings of the Technical Advisory Group
- Workshop – contains materials presented at the 29-30 November, 2011 workshop
- Correspondence – contains copies of correspondence to federal and state agencies regarding the Middle Potomac River Watershed Assessment

### Project Management and Fact Sheet

The signed project management plan for the project is provided in the file Potomac PMP signed.pdf. A fact sheet developed for the project is provided in the file MPRWA\_fact\_sheet\_2011.pdf.

## Website

The website started with introductory information about the project and then, as the project progressed, copies of webinar slides were posted as references and for those who missed the event. Some interim products, for example the *Potomac Basin Large River Environmental Flow Needs* report (see Appendix A), also were posted. When approved for public release the project's final report also will be posted on the website, which will remain a part of the ICPRB website for the foreseeable future. The website address is [www.potomacriver.org/2012/projects/middle-pot-assess](http://www.potomacriver.org/2012/projects/middle-pot-assess). In its original form the website was organized to provide visitors with documents ordered in time in the expectation that they would be checking the website periodically and would want to quickly find what are the most recent additions. At the end of the project the website is being reorganized to focus on access to project results, so drafts of some documents have been deleted, leaving only the final versions, and files are organized by topic. Those drafts are not included on this disc.

## Webinars

With respect to sharing project methodology with a broad community of stakeholders in Potomac basin flow issues (as opposed to technical experts invited to the two workshops), the technical team recognized that the volume and complexity of material to be discussed was too much to absorb at one time and so a series of webinars was presented (Table 1). The first webinar was organized to introduce the topic and project in September 2009 and then a multi-part series was held between March 2011 and February 2012. In addition to breaking the topic up into comprehensible chunks, the webinar format had the additional advantage of making it possible for people to participate who otherwise might not because of schedule conflicts and mileage and time costs associated with travel to an in-person meeting. These webinars were open to all interested persons and were advertised initially via contact lists prepared by project team members and thereafter by word of mouth as webinar listeners informed their colleagues. An exact count of participation is not possible because the project team did not know when multiple people were listening at one connection. Distinct connections varied between 30 and 50 per webinar. PDF format copies of the webinar presentations are included in this disc folder. The reader of these files is cautioned that the webinars were presented while the project was underway and project methodology was evolving over that time period. Some information and description of approach, therefore, changes from beginning to end of the webinar series.

## Workshops

Two workshops were organized and held: the Potomac Basin Large River Environmental Flow Needs (hereinafter, Large River Flows) workshop on September 22-23, 2010, and the Potomac Watershed Small Stream Environmental Flow Needs (hereinafter, ELOHA) Workshop on November 29-30, 2011. For both workshops, invitation lists were developed by the project team with a view toward obtaining participation from all state jurisdictions, stakeholders such as water utilities and environmental stewardship organizations, and subject matter experts from federal and state agencies and academia.

The purpose of the Large River Flows workshop was to have a group of stakeholders and subject matter experts review and discuss the findings and draft conclusions of an assessment of the environmental flow needs in five selected Potomac River segments: Harpers Ferry/Shenandoah confluence to Point of Rocks; Point of Rocks to Great Falls; Great Falls to Little Falls; Little Falls to Chain Bridge (head of tide); Chain Bridge to Occoquan Bay; and two large tributaries – the Monocacy (PA/MD) and Opequon (WV/VA). More specifically, the workshop was intended to:

- Raise awareness of the importance of environmental flow protection in the Potomac basin.
- Discuss flow hypotheses and environmental flow needs to maintain a natural flow regime that is protective of Potomac mainstem and large tributaries' ecosystem health and functioning.
- Initiate a discussion of the monitoring, analysis, and management actions that could support and maintain environmental flow protection in the Potomac.

Attending the Large River Flows workshop were sixty participants, including representatives from the five Potomac watershed jurisdictions, Federal agencies, two county agencies, non-profit organizations, and two universities. Feedback from workshop participants was captured in notes of workshop proceedings taken by project team members, in a workshop participant survey, and from written comments submitted by participants. An introductory webinar was held for the Large River Flows workshop (see file LgRivWorkshopIntro\_090910.pdf). All other material related to that workshop and other material related to stakeholder engagement for the Large River Flows element of the project is contained within the Large River Flows final report, which is in the Appendix A.

The purpose of the second, “ELOHA”, workshop was to provide technical peer review of draft Potomac basin small stream flow alteration-ecological response relationships. Much of the workshop time was allocated to presentations of background material, explanation of analytical methods, and discussion. Forty experts attended, representing, as with the Large River Flows workshop, state and federal agencies, non-profit organizations, and academia, with an emphasis on technical expertise with respect to flow and aquatic biology. A workshop summary report was prepared and is included in this disc folder. The summary report is in file Nov 2011 Potomac Flow workshop summary\_Final.pdf. That report includes: an overview description of the workshop; key messages and suggestions from participant's review; identification of biometrics and flow metrics of greatest interest to participants; workshop agenda; list of participants; participant survey results. Referenced in the report and included in this disc folder are file copies of presentations, which are described in Table 2.

## **Technical Advisory Group**

When the project team began developing flow alteration – ecological response relationships, a Technical Advisory Group (TAG) was recruited to review proposed methods, ask questions, and provide suggestions for additional issues for the project team to consider. The group was composed of subject matter experts in stream hydrology, aquatic ecology, and data analysis, selected with a view toward having representation from all state jurisdictions. A charter for the group was drafted and the group met September 29, 2011 and then again on October 26, 2011. Most TAG members also attended the November 29-30, 2011, ELOHA workshop. The TAG charter and a list of members are in the file TAG\_Charter\_9Sep11.pdf. At the first TAG meeting, the project team described their data, methodological approach, and some draft concepts for how to characterize

flow alteration – ecological response relationships. Key points from the ensuing discussions were recorded in meeting notes, which included a series of questions or suggestions for the project team to respond to. At the October 26 TAG meeting, the project team did provide responses to those question and suggestions and also presented the latest refinements to the draft concepts for flow alteration – ecological response relationships. With the knowledge gained by their two meetings and the reading materials provided to them, TAG members were then able to make significant contributions to discussions at the November 29-30 workshop about methodology and interpretation of results. Files related to the TAG are listed in Table 3 and can be found in the TAG directory.

## **Correspondence**

Federal and state agencies were notified of the Middle Potomac River Watershed Assessment at the beginning of the study. Copies of some of the notice and responses are included on the disc in the Correspondence directory. Notices were sent to the following organizations:

Chesapeake Bay Program  
U.S. Environmental Protection Agency  
District of Columbia Department of the Environment  
Maryland Department of Natural Resources  
Maryland Department of the Environment  
Maryland Geological Survey  
National Oceanic and Atmospheric Administration  
National Park Service  
Natural Resources Conservation Agency  
Pennsylvania Department of Conservation and Natural Resources  
Pennsylvania Department of Environmental Protection  
Pennsylvania Fish and Boat Commission  
United States Geological Survey  
United States Fish and Wildlife Service  
Virginia Department of Conservation and Recreation  
Virginia Department of Environmental Quality  
Virginia Department of Game and Inland Fisheries  
Virginia Marine Resources Commission  
West Virginia Department of Environmental Protection  
West Virginia Department of Health and Human Resources

## **Document Review**

As part of the USACE review process, a draft version of the MPRWA underwent Agency Technical Review (ATR), in which USACE experts from outside Baltimore District provide review comments. ATR was conducted from June 25, 2012 through July 30, 2012 with three USACE experts. ATR documentation, including comments and responses are included in MPRWA\_ATR.pdf.

A draft report was also provided to MPRWA constituents who had participated in the TAG or stakeholder workshops. Comments were solicited from this group from June 19, 2012, through August 13, 2012. Comments were received from several individuals representing utilities, resource agencies, and conservation organizations. Comments and responses are included in MPRWA\_constituent\_comments\_10\_12\_2012.pdf.

Table 1. Files for webinars.

<b>Filename</b>	<b>Description</b>
MPRWA_Intro_09_29_09.pdf	Webinar (9/29/2009): Introduction to the project
LgRivWorkshopIntro_090910.pdf	Webinar (9/9/2010): Introduction for Potomac Basin Large River Environmental Flow Needs Workshop.
WebinarSeriesIntro_030811.pdf	Webinar (3/8/2011): Applications for jurisdiction water use decision making
TechOverview_No1_041211_V3.pdf	Webinar (4/12/2011): A technical overview of the small stream environmental flow needs analysis
HumanUsesOfWater_No2_051011.pdf	Webinar (5/10/2011): How current and future water demands and impacts on flow were calculated
ModelingStreamflow_No3_061611.pdf	Webinar (6/16/2011): How synthetic flow time series were created
FlowEcology1_No4_071411.pdf	Webinar (7/14/2011): Quantitative flow-ecology relationships Part 1: Data, variables, and methodology
FlowEcology2_No5_090811.pdf	Webinar (9/8/2011) Quantitative flow-ecology relationships Part 2: ELOHA curves, uncertainty, and interpretation
Science_to_Mgmt_102711.pdf	Webinar (10/27/2011): A discussion of possible management applications for flow alteration – ecological response relationships
FutureScenarios_022312.pdf	Webinar (2/23/2012): Development of future flow scenarios and results with respect to flow alteration and biological impact

Table 2. Files for Potomac Small Streams Environmental Flow Needs Workshop, in folder AppendixJ \Workshop

<b>Filename</b>	<b>Description</b>
Nov 2011 Potomac Flow workshop summary_Final.pdf	Summary report for Workshop. Includes summary, key messages, workshop agenda, list of participants, and workshop presentations
Workshop_ReferenceMaterials.pdf	Information provided to participants prior to the workshop.
Workshop_Synthesis-of-Results_11-27-11B.pdf	Tables and plots describing biometrics and flow metrics, provided at the workshop and intended to be a resource for participants during breakout sessions.
Workshop_ProjectReview_Day1AM.pdf	Day 1 overview presentation on project methodology
Intro_to_FA-E_plots2.pdf	Day 1 presentation, introduction to flow-ecology relationships
Forest_for_trees2.pdf	Slides of maps showing land use and water use characteristics for the basin
Potomac_FA-E_plots_the essentialsB.pdf	Packet of draft flow-ecology relationships for breakout discussions

Table 3. Files related to the Technical Advisory Group, in folder AppendixJ \TAG

<b>Filename</b>	<b>Description</b>
TAG_Charter_9Sep11.pdf	Technical Advisory Group Charter
TAG_Sep28_Agenda.docx	Agenda for 9/28/2011 meeting
TAG 28Sep11.pdf	Powerpoint slides (1st set) for 9/28/2011 meeting
ELOHA TAG meeting 9-28-11 Claire Slides.pdf	Powerpoint slides (2nd set) for 9/28/2011 meeting
TAG meeting notes 092811.pdf	Meeting notes for 9/28/2011 meeting
TAG_Oct26_Agenda.docx	Agenda for 10/26/2011 meeting
TAG Discussion Items from Sep.pdf	ICPRB responses to TAG suggestions made at 9/28 meeting and discussed at 10/26 meeting
FlowMetricDefinitions_101911.doc	Flow metric definitions provided at 10/26 meeting
Where-to-draw-the-threshold-line.pptx	Powerpoint slides for 10/26 meeting discussion