

*Minutes - WG 4 Water Quality Work Group Meeting August 8, 2007
Henry County Office Complex, Martinsville, VA
Philpott Lake, VA (Section 216) Feasibility Study*

Richard Lewis – Overview

1. Lower Roanoke River objectives for Roanoke River John H. Kerr 216 Study Model for Philpott
2. Sub Work Groups
 - Natural Resources
 - Natural Resources- Recreation
 - Operating and Administrative Procedures
 - Water Supply
 - Water Quality
 - Public Involvement
3. Are we still operating Philpott the way we should? Can we improve the operation in an economically and environmentally sustainable way?

USACE web page for Philpott 216

http://www.saw.usace.army.mil/Authorized_Protects/Main.htm.

1. What are we doing for Philpott directly –focus on operations of Philpott Lake structures, operation release of water and consider all stockholders, not a—study –only to operations of Philpott Lake.
2. Now—ID Needs, Problems and opportunities

Cost Share Partner is the Commonwealth of Virginia

1. Team leader responsibilities –
 - lead and organize groups
 - Keep core planning team informed
 - Review of deliverable
2. Team
 - Review existing data and models
 - John Kerr scopes of work as possible
 - Model for Philpott
 - Develop Scope
 - Estimate of

Scope of work—

1. This is the task at hand for the Work Group. To prepare a SOW to collect the information needed to conduct the study.
2. SOW will estimate costs, determine responsibilities
3. Not a detailed analytical method for specific study
4. 10 page scope max. generalized scope
5. Project management plan –guide as we proceed, The PMP is updated as we go
Phase I PMP

Technical work groups—

Philpott 216 is not in the president's FY2008 budget. However, the project has been historically funded through Congressional adds.
The Natural Resources work group has begun its work. We envision a need for significant interactions between these groups.

Objective—Discussed a problem statement - We envision that the Smith River will be managed so that conservation and enhancement of natural resources, water uses, recreation, flood control, economic development, and hydropower production are balanced in ecologically and economically sustainable ways.

Water Quality—opportunities

What can we do to improve conditions in the Smith River

What are problems

- Daily change in flow
- Sediment issues
- Bacteria & benthics
- Temperature 3° Δ per day limit

Research data—WQ pollutants

- * Stanley Furniture Data & V Tech data
- * Didymo issue

Tools & Resources—

*Model to track and estimates flows, temperature, & sediment, hydrodynamic models,

Temperature and flow tools (models) are there

- * Reservoir Thermodynamic Model for temperature differences of Philpott
DEQ 4 locations mid 90's - 2003 every April-October monthly

Temperature-flow model

Do we need to model all the way down to the Martinsville Dam—can plug in different temperature and variable flow data to model patterns for releases

Benefits with modifications

* Sediment bank erosion Model peaking flows 3D hydro model mor---fed or boxed 1D build book erosion model

* VT-Dr. Diplas model development cost share model,

Turbidity monitors for sediment data

- Flow
- Temperature
- Sediment
- Bact./305b
- Benthos/305d
- Will investigate other data

* Water Quality problems due to operations at Philpott

Tools-

- Flow temp model
- Tie in with Kerr bank erosion/sediment model data needs to seal model
- Reservoir data-model there is DEQ data for stratification of Philpott Lake

* Funnel all collected data to

Notes to –Greg Anderson, Phil Paynok, Ben Lane

Next meeting scope of work development

Next meeting –Conference call after Natural Resources Work Group Meeting on Friday
conference call 17th August 10 am