

**QUITTAPAHILLA WATERSHED ASSOCIATION**  
**Minutes of the Special Meeting on the Watershed Implementation Plan (WIP)**  
**Annville Town Hall**  
**December 7, 2017**

The purpose of this special meeting was to coordinate the efforts of Rocky Powell of Clear Creeks Consulting, the Watershed Association, Doc Fritchey Trout Unlimited, and other partners to develop in a timely fashion a viable Watershed Implementation Plan (WIP) for the watershed.

Present: Rocky Powell, Mike Schroeder, Stephan Vegoe, Russ Collins, Kent Crawford

1. The meeting began at 6:30 PM.
2. **Status of WIP Tasks.** Rocky provided a summary:
  - a. **Identify Restoration Projects.** Completed at our meeting of 2 May 2017.
  - b. **Prioritize Projects.** Completed at our May 2 meeting. Some shuffling of priorities is necessary, e.g., Snitz Creek Section 16 becomes priority no. 1, Project 5 is now a residential subdivision and no longer a problem. Rocky is developing a detailed list of priority projects.
  - c. **Calculate Pollutant Loadings by Project Reach.** Rocky is using the sediment loading estimates developed with the BANCS Methodology (based on field data from the Quittie mainstem and Snitz Creek) to calibrate the pollutant loading estimates for the subwatersheds developed with the WQ Model used during the original Watershed Assessment (2006). This will allow a calculation of pollutant loadings by project reaches.
  - d. **Develop Cost Estimates for Design, Permitting and Construction of Projects.** Underway.
  - e. **Develop public education, participation and outreach strategy.** Mike is point-person.
    - 1) Coordination with Townships, City of Lebanon and Lebanon County Representatives. Mike is point-person.
    - 2) Landowner contact and participation. Mike & Kent are point-persons.
3. **Implementation Monitoring and Evaluation Criteria.**
  - a. **Implementation Monitoring.** Evaluating the success of our long-term restoration effort will require a monitoring program. Some components of the monitoring program will be required as a condition of the State and Federal permit process for individual projects. Other components will be a condition of the WIP and associated funding. Rocky is developing a comprehensive monitoring program that will satisfy both requirements. This will get pretty involved and will require considerable labor over the years.
  - b. **Monitoring Program**
    - 1) **Pre-Construction Assessments and Post-Construction Monitoring and Assessments.** In order to evaluate the relative success of restoration projects, we

will need to collect pre-construction or baseline data. This will be followed up with post-construction monitoring over multiple years.

## **2) Monitoring Components**

**(a) Geomorphic Assessments.** Interns needed to do essentially what Sam Soliday did this past summer on Upper Snitz Creek. Interns will be needed! Also, quite a bit of equipment to purchase, around \$2,000, for geomorphic assessments. Equipment includes: laser-level, survey rod and receiver; 100' tape, clinometer, centimeter ruler, 35mm digital camera, "bank pins" from ½-inch steel rebar. Interns will need to use laser-level survey rod with receiver; technically pretty involved, with "pebble-counts" and more.

**(b) Water Quality Monitoring.** Rocky has identified monitoring sites (Original 10+4 stations). Water Quality Monitoring will include quarterly baseflow sampling and sampling during 6 storm events; for pH, dissolved oxygen, conductivity, turbidity, and suspended sediments. Temperature will also be monitored using continuous reading thermographs (Tidbit) installed at sampling sites. Purchase of a standard WQ multi-meter would allow field measurements of pH, dissolved oxygen and conductivity. The State will analyze water samples for free: PA Bureau of Water (Gary Waters). Also: Aaron Ward, Chief Watershed Support Section, Office of Water Resources Planning, PA-DEP ([award@pa.gov](mailto:award@pa.gov)).

**(c) Biological Monitoring.** Sampling can be conducted by trained volunteers. Bureau of Water does training (Gary Waters). An Aquatic biologist will be needed for identifying macroinvertebrates collected. Mike will inquire at LVC.

**3) Data Management.** The data collected as part of the monitoring program must be managed. This includes compilation, analysis, interpretation, cataloging and submitting (as part of a detailed report) to the permitting and funding agencies. The Watershed Association, their partners or their consultant will be responsible for this function.

**4) Monitoring Resources and Funding.** Need interns for summer 2018! Consensus was reached that these should be paid internships, and that grant & funding opportunities should be vigorously pursued. A range of specific possibilities were discussed, including Doc Fritchey Trout Unlimited, the NRCS, the DCNR, the Chesapeake Bay Foundation, and others.

The meeting adjourned at 8:05 p.m.

Respectfully submitted,

Michael Schroeder  
Secretary Pro Tem