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December 12, 2008

## **Army Corps of Engineers – Francis E Walter - Lehigh River Recreational Enhancement Study Comments**

The following comments are submitted by the Lehigh Coldwater Fishery Alliance (LCFA) regarding the Section 22, Lehigh River Recreational Enhancement Study.

On July 13, 2005, LCFA officers met with Army Corps of Engineer representatives to discuss a way of bringing the Lehigh River Recreational Enhancement Study (the “Study”) to fruition. It was during this meeting where the Study’s goals were outlined. Our interpretations of the Study’s goals are as follows:

- 1) Determine how much water can be safely stored in the Francis E Walter (FEW) reservoir;
- 2) How to maintain a release of coldwater (55 F +/-) from FEW and eliminate the depletion of the coldwater pool;
- 3) Determine what releases will obtain trout conducive temps (below 68 F) at various locations downriver from FEW, and;
- 4) Determine a balance between whitewater releases and conservation releases for the aquatic ecosystem and fishery.

It is now our understanding that the discussion in bullet #1 above will require a separate study. This secondary study will make the necessary determinations required to increase the height of the pool in FEW. In addition, congressional authorization or re-authorization will likely be required once the additional study is completed.

The performance and data collected from this ongoing Study are very important in paving the way for future improvements to the Lehigh’s wild trout fishery. Information regarding water releases for the Lehigh’s whitewater industry is an already known component. However, what is unknown is how whitewater releases affect the wild trout fishery, coldwater pool in FEW, and how to maintain coldwater releases that are vital to a healthy wild trout fishery.

A crucial component of this Study is the performance of a model run that will provide data exclusively for the fishery (“a fisheries only scenario”) to determine the potential of FEW, if it were only utilized for sustaining the trout fishery. The data collected from this type of model run will determine one end of the “spectrum.” It is also imperative the other model runs and scenarios for the Study are not limited or bound in scope, since this will prohibit collection of the best available information to formulate conclusions and make science-based decisions that will improve the Lehigh’s aquatic ecosystem and recreational opportunities.



Some of the potential benefits of implementing findings of the Study are, but not limited to:

- Increase in overall regional tourism,
- Increase in out of state fishing license sales,
- Increase in fishing guide permits (DCNR & PFBC),
- Potential recognition for a world class wild trout fishery (PFBC Class A designation),
- Less in-lake fluctuation, improvement of lake fishery and In-lake boating opportunities,
- Higher minimum flows below FEW, thus improving the boating experience during non whitewater release periods,
- Guaranteed “X” number of whitewater releases (to be determined),
- Dilution of AMD, sewage effluent and, improvement to the overall aquatic ecosystem of the Lehigh.

In closing, on behalf of the LCFA, I want to thank all the agencies for their cooperation and hard work in the performance of the Study and the overall willingness to work towards the preservation, protection, and enhancement of the water resources of the Lehigh River.

Sincerely,

Dean Druckenmiller, President  
Lehigh Coldwater Fishery Alliance  
[www.thelehighriver.com](http://www.thelehighriver.com)

cc: Senator Arlen Specter  
Congressman Charlie Dent  
PA Congressman Keith McCall  
PA Congressman Robert Godshall  
Chris Kocher, President – Wildlands Conservancy

[EMAIL, December 15, 2008]

TO: USACE  
FROM: Lehigh River Outfitters Association  
RE: Comment on Proposed Lehigh Flow Study

At the recent public meeting on November 18, a series of ten flow models (5 pairs of models) were presented for possible inclusion in the Lehigh River Water Quality Flow Study that's about to be undertaken. Scenarios A & B have apparently already been approved for the study, and public input has been requested regarding which of the remaining 8 scenarios, or versions thereof, (C through J) should be selected.

With respect to the model that includes ramping (scenarios E & F) it would seem prudent, in the absence of any specific Lehigh River studies to the contrary, to select a ramping plan that more realistically mirrors the ramping plans associated with whitewater release programs on countless other rivers around the country. These typically involve ramp-down schedules in which flows drop immediately to the river's inflection point (defined as the "critical flow" at which the vast majority of the streambed substrate remains covered by flowing water), and then ramp down over a period of several hours to the target base flow. Examples of this are the Savage River (Maryland), and the Cheoah River (North Carolina), where studies to evaluate stranding and ramping determined that whitewater release flows of 1000 cfs should drop to 100 cfs (the river's inflection point) in one step, and then ramp down to the base flow of 50 cfs in several additional steps.

Given the finite amount of cold water available at FE Walter, and given the keen desire to preserve that water for summer flow augmentations, it doesn't seem appropriate to study a ramping proposal that appears to be so unnecessarily consumptive of cold water and that so severely jeopardizes FE Walter's mandated project purpose of enhancing downstream recreation.

Based the above, it would be our strong recommendation that scenarios E and F should be modified so that the ramp-down schedule is more realistic. Our suggestion would be that until there is Lehigh-specific data to suggest what that model should look like, our best guidance comes from studies performed on other rivers of similar gradient, similar shoreline characteristics, similar base flows and similar release flows. On that basis, the model to be studied should be one in which the Lehigh whitewater release flow drops in one step to a realistically presumed critical flow of approximately 300 cfs (the level at which the vast majority of the streambed substrate remains covered by flowing water), and then drops in stages, over a period of several hours to the base flow, which ordinarily ranges between 100 to 300 cfs, depending on time of year.

This model realistically addresses concerns about the potential for stranding of fish and other potential impacts, while preserving a vast amount of additional cold water for use during July and August, when it is most needed.

Also, with limited funding available for a limited set of potential scenarios, it strikes us as wasteful to choose a model that either includes no whitewater releases (scenarios G & H) or a model that includes no fisheries augmentations (scenarios I and J). Let's focus instead on realistic alternatives that will prove useful in guiding real-life decisions that need to be made at the conclusion of this study. With that in mind, we recommend that the flow models include Scenarios A & B, C & D, and E & F (as modified above), and exclude Scenarios G & H, and I & J.

Respectfully submitted,

Lehigh River Outfitters Association  
Jim Thorpe River Adventures, Jerry McAward  
Pocono Whitewater, Doug Fogal  
Whitewater Challengers, Ken Powley  
Whitewater Rafting Adventures, Joe Flyzik