

Welcome

Recreational Enhancements
on the Lehigh River

Public Information Workshop

18 February 2010

Cooperating Agencies



US Army Corps
of Engineers
Philadelphia District

Delaware River Basin Commission

Pennsylvania Fish & Boat Commission

Pennsylvania Department of Conservation
and Natural Resources

US Army Corps of Engineers

Agenda

- F.E. Walter Project Overview
- Review Performance of Previous Release Plans
- 2010 Release Plan

Francis E. Walter Dam

Completion Date: 1961
Single Purpose, Flood
Control Dam

Recreation was defined
as Authorized Project
Purpose in 1988

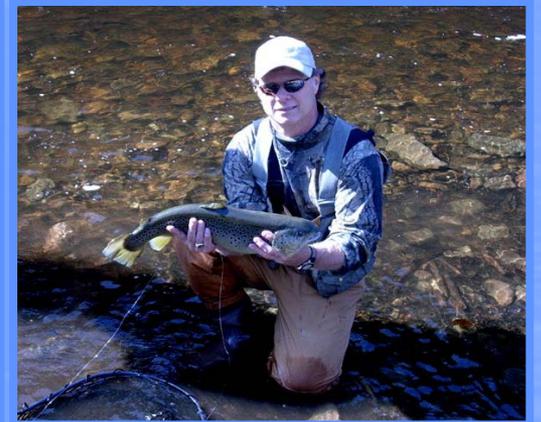
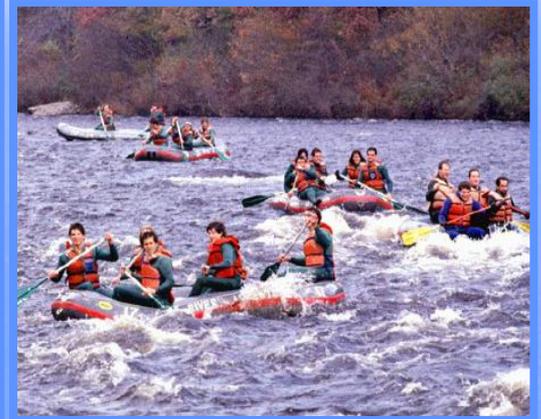
Access road across top of
dam was completed in
Spring 2005

Grouting Program for seepage
control (ongoing)



Water Based Recreation

- Whitewater Boating
 - Kayaking
 - Rafting
 - Canoeing
- In-Lake Boating
- Fishing
 - In-lake
 - Downstream



Review of Flow Management Plans

F.E. WALTER RECREATION PLAN REVIEW

<u>YR</u>	<u>STORAGE/LEVEL</u>	<u>PLANNED</u>	<u>EVENTS HELD</u>
2005	1335	22	10 ^①
2006	1365	22	22
2007	1365	22	19 ^①
2008	1370	24	23 ^②
2009	1370	24	24

① Supplemental events held in October.

② Final Monday white water event cancelled



2010 Flow Management Plan

The Francis E. Walter Flow Management Plan

2010 Planned Whitewater Release Dates

(24 Release dates, same as 2009)

May 15

August 7, 8

May 29, 30

August 14, 15

June 12, 13

August 21, 22*

June 26, 27

August 28*, 29*

July 10, 11

September 4*, 5*

July 24, 25

September 17**

July 31, Aug 1

* Release dependant on additional water becoming available

** If sufficient storage is available, Friday, 17 September is last added increment.

2010 Flow Management Plan

- Pool elevation 1370 Feet NGVD
 - 70 feet and 6.21 billion gallons above normal pool
- Whitewater releases from 1 a.m. to 1 p.m.
- Whitewater releases are generally planned for every other weekend in May and June. Then from late July thru early September they are planned every weekend. This is the largest change from last year.
- All storage is subject to evacuation for flood control or other emergencies. Evacuation of storage due to impending hurricanes or tropical storms may result in cancellation or modification of releases.

2010 Flow Management Plan

- As in previous years, white water release decisions will be made by Wednesday afternoon
 - Notifications posted to the Corps web site, White Water Release Hotline, email distribution list, and press releases will be issued when deviating significantly from the plan.
- Plan requires sufficient inflows to impound 70 feet of storage by 15 May.
- Releases are dependent on hydrologic conditions

2009 Flow Management Plan

April

- Start storing no later than April 1
 - Match inflow up to 1000 cfs on weekends while storing. Weekends of 17, 18 and 24, 25 April releases limited to 400 cfs for trout season.
 - Minimum release while storing will be 250 cfs.
- * If Hydrologic conditions indicate that reaching 1370 by 15 May is in jeopardy, weekend releases may be reduced to 750 cfs, and weekday releases to 225 cfs. If not at 1370 by 15 May agencies will reconvene to determine appropriate course of action.

2010 Flow Management Plan

May – June (unchanged from 2009)

Match inflow on non-whitewater weekends (up to 400 cfs if pool is below 1370)

- Limit pool fluctuations to elevations 1370-1365
 - Protect fish spawning areas in-lake
 - Conserve cooler water for later in season
- Target minimum release is 200 cfs in May, 200-250 cfs in June
- Target whitewater releases will be 800 cfs in May, 750 cfs in June. If insufficient water available, releases adjusted according to tables.
- Agencies meet by 8 June to assess situation and adjust June releases as necessary

Release Rate Priorities - May

Saturday		Sunday		Volume Required (DSF)
Rate (CFS)	Duration (DSF)	Rate (CFS)	Duration (HRS)	
600	12			300
650	12			325
700	12			350
700	12	500	6	475
750	12	550	6	512.5
800	12	600	6	550
800	12	700	6	575
800	12	600	12	700
800	12	700	12	750
800	12	800	12	800

Maximum release 800 cfs in May

Release Rate Priorities - June

Saturday		Sunday		Volume Required (DSF)
Rate (CFS)	Duration (DSF)	Rate (CFS)	Duration (HRS)	
600	12			300
650	12			325
700	12			350
700	12	500	6	475
750	12	550	6	512.5
750	12	600	6	525
750	12	700	6	550
750	12	750	6	562.5
750	12	750	12	750

Maximum release 750 cfs in June

2010 Flow Management Plan

After July 1

Utilizing storage between elevation 1365 and 1300, First priority will be:

- Provides sufficient storage for white water releases thru August 21 and fisheries releases thru September 10
 - Fisheries enhancement releases will be 100 cfs thru 25 July and 50 cfs to September 10 up to a maximum release of 300 cfs.
 - Whitewater releases will be 600 plus inflow (up to 700) in July and 650 plus inflow (up to 750) in August.

2010 Flow Management Plan

- Storage volume between elevation 1365 and 1300 is sufficient to support only the planned whitewater releases through August 21st. and fisheries enhancement releases thru September 10th.
- Additional planned whitewater and fishery enhancement releases can only occur if precipitation occurs during the recreation season to allow accumulation of additional water

2010 Flow Management Plan

September

- Any additional storage that becomes available will be equitably allocated to provide for fisheries enhancement and incrementally add additional whitewater events.
 - Fisheries priorities are to incrementally extend both periods of 50 cfs release and periods of increased release from 50 to 100 cfs.
 - White water priority is to add next upcoming weekend (two full days) before adding additional dates. Partial weekends determined according to table based on available volume.
- 17 September last added increment, release up to 4000cfs
- Updates will be posted on Corps of Engineers webpage as additional recreation and fishery releases can be accommodated. Changes may occur with little advance notice.

Release Rate Priorities – September

Saturday		Sunday		Volume Required (DSF)
Rate (CFS)	Duration (DSF)	Rate (CFS)	Duration (HRS)	
600	12			300
650	12			325
700	12			350
700	12	500	6	475
750	12	550	6	512.5
750	12	600	6	525
750	12	700	6	550
750	12	600	12	675
750	12	700	12	725
750	12	750	12	750

Maximum release rate will be 750 cfs in September

Working Together: Partnership in Action

- Public meetings held in February 2005, and 2006, January 2007, 2008, and 2009
- Received hundreds of responses after each meeting
- Compiled list of over 400 stakeholders
- Many comments received on the Flow Management web site
- Improved communication: Including press releases, notifications, announcements, emails, and web page updates
- Cooperating Agencies evaluated plan performance, and incorporated comments into subsequent Recreation Plan development

Working Together: Partnership in Action

- Corps of Engineers made a small turn around on Rt. 940 side of lower road to ease launch difficulties. Completed summer 2007.
- Replacement of Bypass valves.
- State agencies have partnered with the Lehigh Coldwater Fisheries Alliance and the Wildlands Conservancy to support Water Quality Monitoring and Modeling. Modeling efforts currently underway

Public Involvement

- Visit our web site for updated information and to submit your input:
www.nap.usace.army.mil/Projects/FEWalter/index.htm
- Public comments may also be submitted to:
U. S. Army Corps of Engineers
Philadelphia District
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107
Sarah.M.Rivette@usace.army.mil
- For most up to date information on Recreation plan go to:
www.nap.usace.army.mil/watercontrol/resreg.htm
- For most up to date information on Basin flow conditions go to:
www.nap-wc.usace.army.mil/nap