

Public Comment Meeting
Draft Environmental Assessment
(EA)
Musconetcong River Restoration
at Finesville Dam

Musconetcong Watershed Association
Assisted by USDA Natural Resources Conservation Service
December 1, 2009





Finesville Dam



Meeting Purpose

- Musconetcong Watershed Association (MWA) assisted dam owner in exploring options for dam
- MWA sought NRCS funding for river restoration
- Public Scoping Meeting held on December 1, 2008, on Restoration Options for Finesville Dam
 - Provided Information
 - Listened to your issues and concerns
- Tonight's public meeting is to give an overview of the Draft Environmental Assessment (EA) and receive your comments regarding the Draft EA

Role of NRCS

- Science-based, non-regulatory agency
- Involved as a result of an application for Wildlife Habitat Incentive Program (WHIP) funds by Musconetcong Watershed Association
- Federal actions such as federal financial assistance require National Environmental Policy Act (NEPA) compliance
- NRCS does not assume ownership
- NRCS will make final selection of alternative to be funded

Musconetcong River Restoration Partnership

- Cooperating Agencies
- Other Partners

Cooperating Agencies

- Other Federal agencies that have assisted NRCS in developing, reviewing and commenting on the draft environmental assessment.
- Cooperating Agencies are:
 - National Park Service
 - National Marine Fisheries Service (NOAA)
 - US Fish and Wildlife Service

Other Partners

- American Rivers
 - Delaware River Basin Commission
 - Musconetcong Watershed Association
 - Natural Resources Conservation Service
 - New Jersey Department of Environmental Protection
 - Division of Fish and Wildlife
 - New Jersey Geologic Survey
 - North Jersey RC&D Council
 - Trout Unlimited
 - Private landowners
 - Others
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Purpose and Need

- Impaired Aquatic Ecosystems
- Impaired Public Health and Safety
- Increased Operation, Maintenance and Liability Costs

Underlying Need for Action

Musconetcong River Restoration Project

Primary need is two-fold:

- Aging dams present public health and safety issues
 - Do not currently meet State Dam Safety requirements
 - Potential liability issues for owners
- Aquatic ecosystems adversely impacted
 - Connectivity of river system
 - Fish and wildlife habitat

Objectives

Musconetcong River Restoration Project

Restoration of:

- Natural hydrology and hydraulics
 - Sediment movement
 - Nutrient cycling
 - Fish and wildlife habitat
 - Native plant populations and riparian forest buffers
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Example Practices

- Tree/shrub establishment
 - Stream channel stabilization
 - Fish passage improvement
 - Stream habitat improvement
 - Streambank protection
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Photo Courtesy of USDA-NRCS

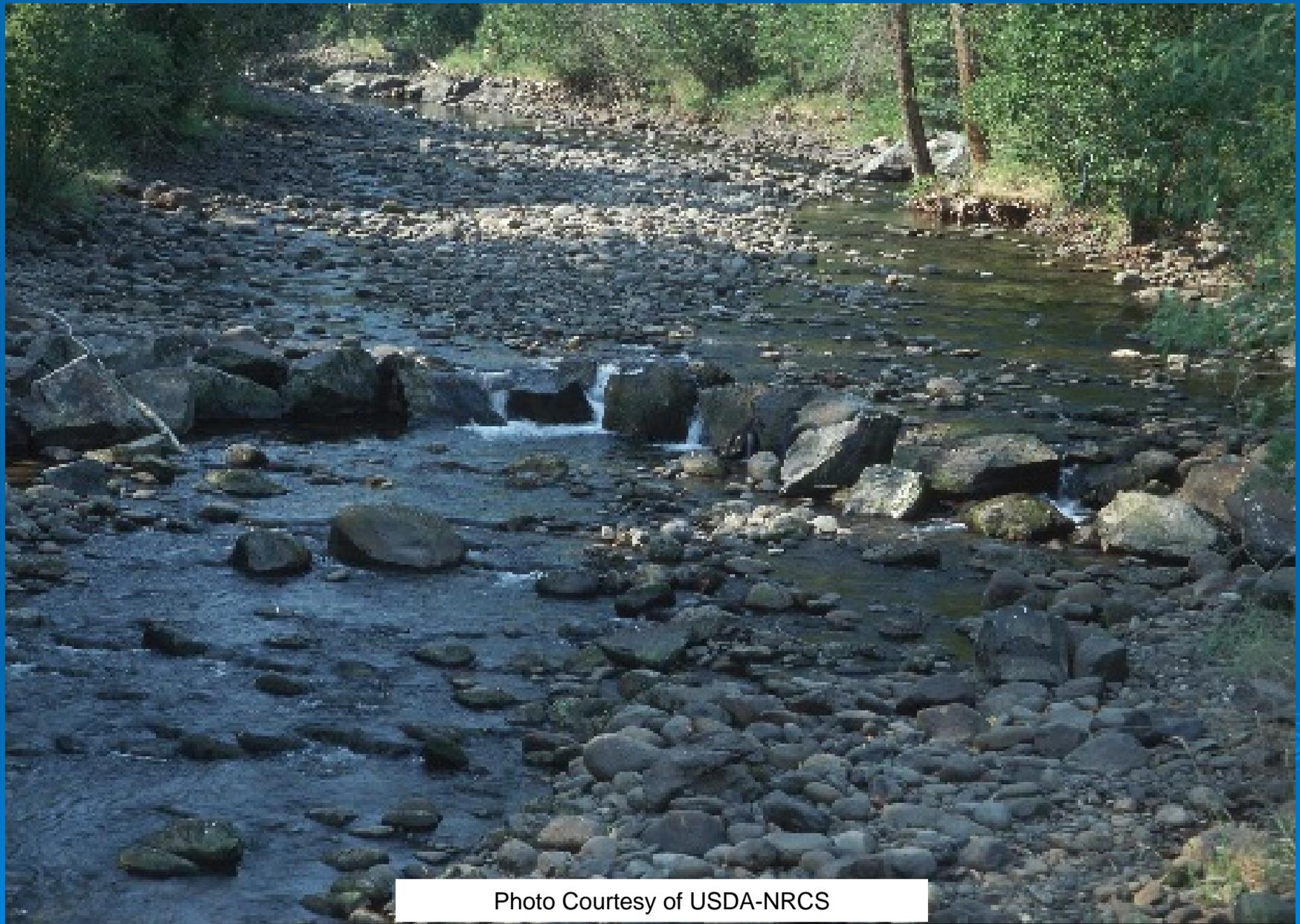


Photo Courtesy of USDA-NRCS



Photo Courtesy of USDA-NRCS





Photo Courtesy of USDA-NRCS

Issues Identified at December 2, 2008 Scoping Meeting and Followup Comments for Evaluation in EA

- “Legacy sediments” and impoundment pool sediment quality
- Impacts of dam alteration and associated complementary structures and features on the process of designation of Finesville village as a National and State Historic District
- Impacts of partial or full dam removal on private wells in Finesville
- Change in ambient “noise” of existing dam structure
- Costs of the various alternatives

“Legacy” Sediments

- Princeton Hydro, LLC sampled and determined that more than 90 percent of sediment is coarse-textured and that no parameters were exceeded
- NJDEP Office of Site Remediation has stated that no further sampling and testing of sediments is necessary

Impact of Dam Alteration on Finesville Historic District Designation

- NRCS has been working with the State Historic Preservation Office and local historic preservation groups
- NRCS has funded a Phase IA and IB study of the cultural and historic resources in the dam vicinity
- The above study recommended that any future work on the dam be monitored

Impact of Dam Modification on Private Wells

- New Jersey Geologic Survey and NRCS have analyzed the location and number of private wells relative to the dam location and local groundwater hydrology
- Approximately five wells may be impacted with those wells that are dug and very shallow being the most vulnerable
- NRCS and other project partners will use publicly available data before, during and after any partial or full removal of the dam.

Impact on Ambient “Noise”

- Short-term construction-related noise during dam modification
- The ambient noise of the flow over the dam should be replaced by the sound of water moving over and through boulders
- A North Carolina study determined that sound levels diminish quickly as you move away from a dam and that riffles on the river were louder than the dam under both high and low flow conditions.

Costs of Various Alternatives

Project Costs	
Alternative	Cost
No Action	No Cost
Partial Dam Removal	\$195,100*
Full Dam Removal	\$139,500*

*Princeton Hydro, LLC Feasibility Study

Issues Identified for Evaluation in EA

(Continued)

- Revision of the flood zone mapping as it may relate to the partial or full dam removal alternatives
- Availability of monitoring results from other areas to determine impacts on water quality and other criteria for the partial or full dam removal alternatives
- Post implementation monitoring of downstream sediment movement and upstream passage of the target fish species

Impact of Dam Modification on Flood Zone Mapping

- According to the Pohatcong Flood Insurance Study, the dam does influence the 10-year, 50-year and 100-year flood levels but not the 500-year event.
- Partial removal of the dam will result in a decrease in flood levels associated with more frequent storm events (10 year -10% chance in any year, 100 year – 1% chance in any year). The extent of the decrease will, in part, depend on the width of the dam removed.
- The partial or complete removal of Finesville Dam would neither negatively affect the downstream reaches, nor increase the water surface elevations of the 10-, 50- and 100-year flood events (Princeton Hydro, LLC, 2009).

Impact on Sediment, Water Quality and Target Species Monitoring

- Previous dam modification projects have had monitoring performed which shows natural sediment movement, improved water quality and up and down river movement of target fish species
- Musconetcong Watershed Association has received a grant from the Watershed Institute to monitor the before, during and after dam modification conditions

Issues Identified for Evaluation in EA

(Continued)

- No current economic use of Finesville dam
 - Private dam owner liability
 - Dam operation and maintenance costs
 - Public safety – total of two lives lost in May 1989 and August 2000
 - Recreational use
 - Aesthetics
- 

Alternatives Removed from Further Consideration

- Conversion of dam for hydroelectric power
- Divesting ownership
- Fish ladder
- Installing signs, buoys, cables, fences, portages and rescue facilities
- Reshaping downstream face of dam

Conversion of Dam for Hydroelectric Power

- Increases dam owner's liability and costs to meet the security and licensing requirements of NJDEP and FERC, dam modification and maintenance
- Does not meet the aquatic restoration goal
- Does not meet public safety need
- Dam owner not interested in this alternative

Divest Ownership

- May eliminate liability issue for dam owner
- Does not meet aquatic restoration need
- Does not meet public safety need

Fish Ladder



Fish Ladder

- Does not eliminate dam owner cost of maintenance and liability
- Does not meet aquatic restoration need for all species
- Does not meet public safety need

Installing signs, buoys, cables, fences, portages and rescue facilities

- Does not eliminate dam owner maintenance cost and liability
- Does not meet aquatic restoration need
- Does not fully meet the public safety need and has not met the need in other locations

Reshaping Downstream Face of Dam



Reshaping Downstream Face of Dam

- Does not address the dam owners maintenance costs and partially addresses the liability issue
- Does not address the aquatic restoration goal
- Partially addresses the public safety issue by reducing the hydraulic roller effect on downstream side of dam

Alternatives Considered

- No Action
- Partial Dam Removal
- Full Dam Removal

No Action



Partial Dam Removal



Full Dam Removal



Socio-economic Concerns

Alternative	1	2	3
Concern	No Action	Partial Dam Removal	Full Dam Removal
"Legacy" Sediments	No effect	Mitigation of sediment movement, no further sampling or testing required by NJDEP	Same as Alternative 2
Cultural and Historic Resources	No effect	Mitigation by leaving dam abutments intact	Mitigation by installation of educational signage regarding the dam

Socio-Economic Concerns

(Continued)

Alternative	1	2	3
Concern	No Action	Partial Dam Removal	Full Dam Removal
Property Values/Taxes	No effect	Negligible, but reduced flooding could increase values/taxes	Same as Alternative 2
Flooding/ Flood Insurance	No effect	Potential for reduced flood insurance if flood maps updated	Same as Alternative 2
Wells	No effect	Potential drop in water table may result in lower water levels in some wells	Same as alternative 2

Socio-Economic Concerns (Continued)

Alternative	1	2	3
Concern	No Action	Partial Dam Removal	Full Dam Removal
Aesthetic value “waterfall effect”	No effect	Minimal effect – as the remaining pools and riffles through this River reach will generate similar sound	Same as Alternative 2
Recreational Opportunities	No effect	More diverse fishing and paddling opportunities	Same as Alternative 2

Socio-economic Concerns

(Continued)

Alternative	1	2	3
Concern	No Action	Partial Dam Removal	Full Dam Removal
Public Safety	No effect	Public safety hazard reduced	Same as Alternative 2
Environmental Justice	No effect	No effect	No effect
Fire Protection	No effect	May have to relocate draft sites	Same as Alternative 2

Socio-economic Concerns

(Continued)

Alternative	1	2	3
Concern	No Action	Partial Dam Removal	Full Dam Removal
Liability Risk	No effect	Greatly reduced long-term but remaining liability with dam abutments being an “attractive nuisance”, increased during de-construction	Greatly reduced long-term, increased short-term during de-construction
Dam Operation and Maintenance	No effect	Minor operation and maintenance costs	No operation and maintenance costs
Project Costs	No effect	\$195,100.*	\$139,500.*

* Princeton Hydro, LLC.

Alternatives Summary and Comparison

Alternative	1	2	3
Affected Environment	No Action	Partial Dam Removal	Full Dam Removal
Air Quality	NI	-	-
Noise	NI	-	-
Water Resources	NI	+	+
Sediments	NI	-/+	-/+
Vegetation	NI	-/+	-/+

Note: NI: No Impact

+ : Indicates item has a beneficial impact

- : Indicate item has an short term adverse impact

Alternatives Summary and Comparison

(Continued)

Alternative	1	2	3
Affected Environment	No Action	Partial Dam Removal	Full Dam Removal
Aquatic Resources	NI	Short term minor adverse (sedimentation); long-term substantial beneficial (connectivity)	Same as partial dam removal
Threatened/Endangered Species	NI	NI	NI
Wetland Resources	NI	+	+

Note: NI: No Impact

+ : Indicates item has a beneficial impact

- : Indicate item has an adverse impact

Next Steps

- NRCS will accept and review all public comments including those written comments received through December 29, 2009
- NRCS will make any changes to the EA necessary to address public and agency comments
- NRCS will finalize the EA
- NRCS will issue a Finding of No Significant Impact (FONSI) or begin the Environmental Impact Statement (EIS) process

Future Public Input

- Comments can be made on the Draft Environmental Assessment until December 29, 2009
- Written comments may be sent via letter or email to:

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