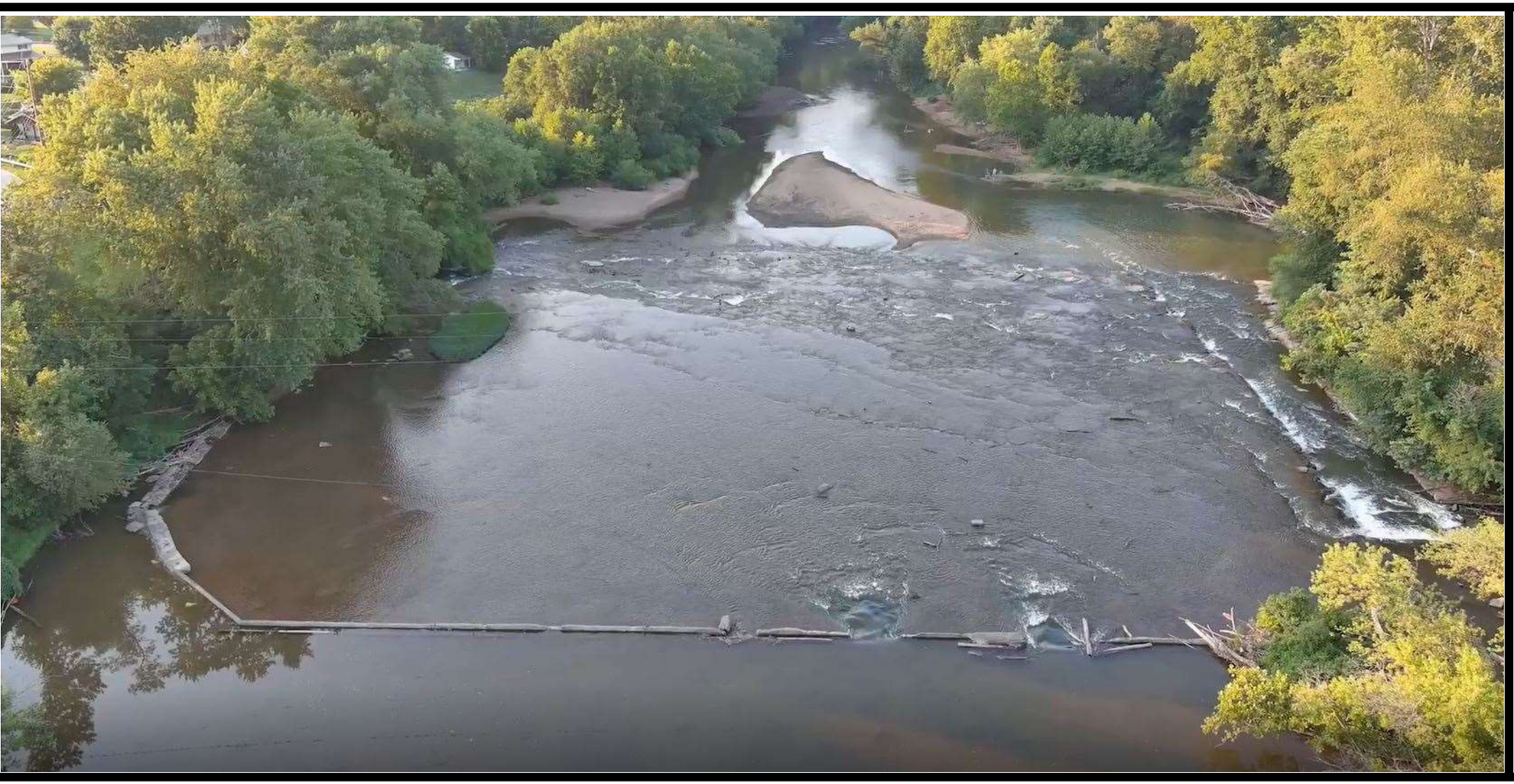
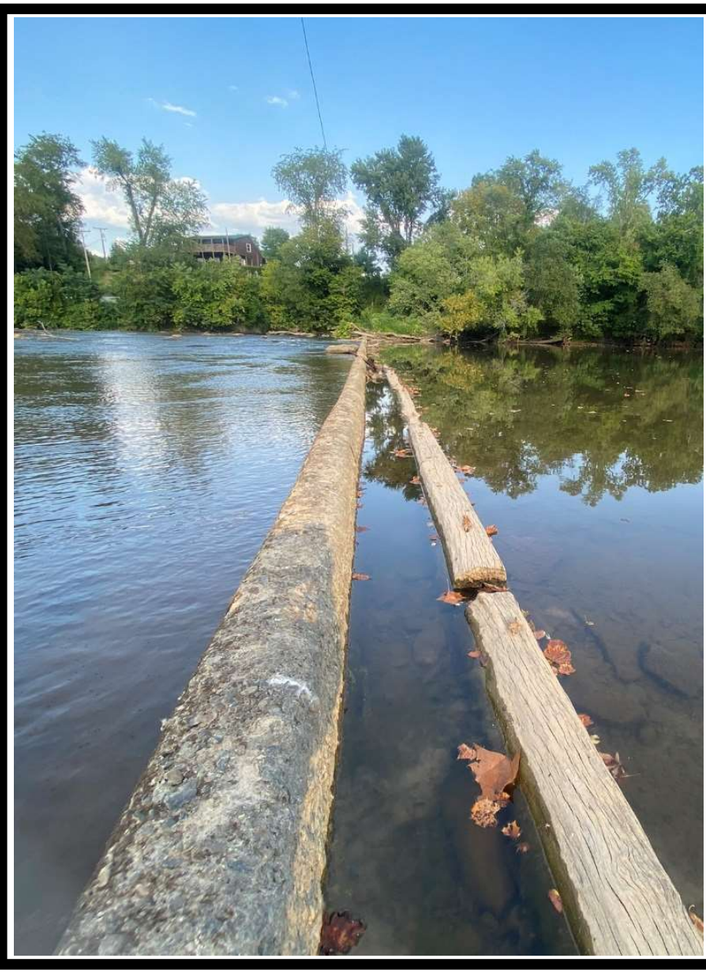
CAPITOL Conservation District
serving Kanawha County

Coal River Watershed Planning Study
Kanawha County, West Virginia





USDA United States Department of Agriculture
Natural Resources Conservation Service

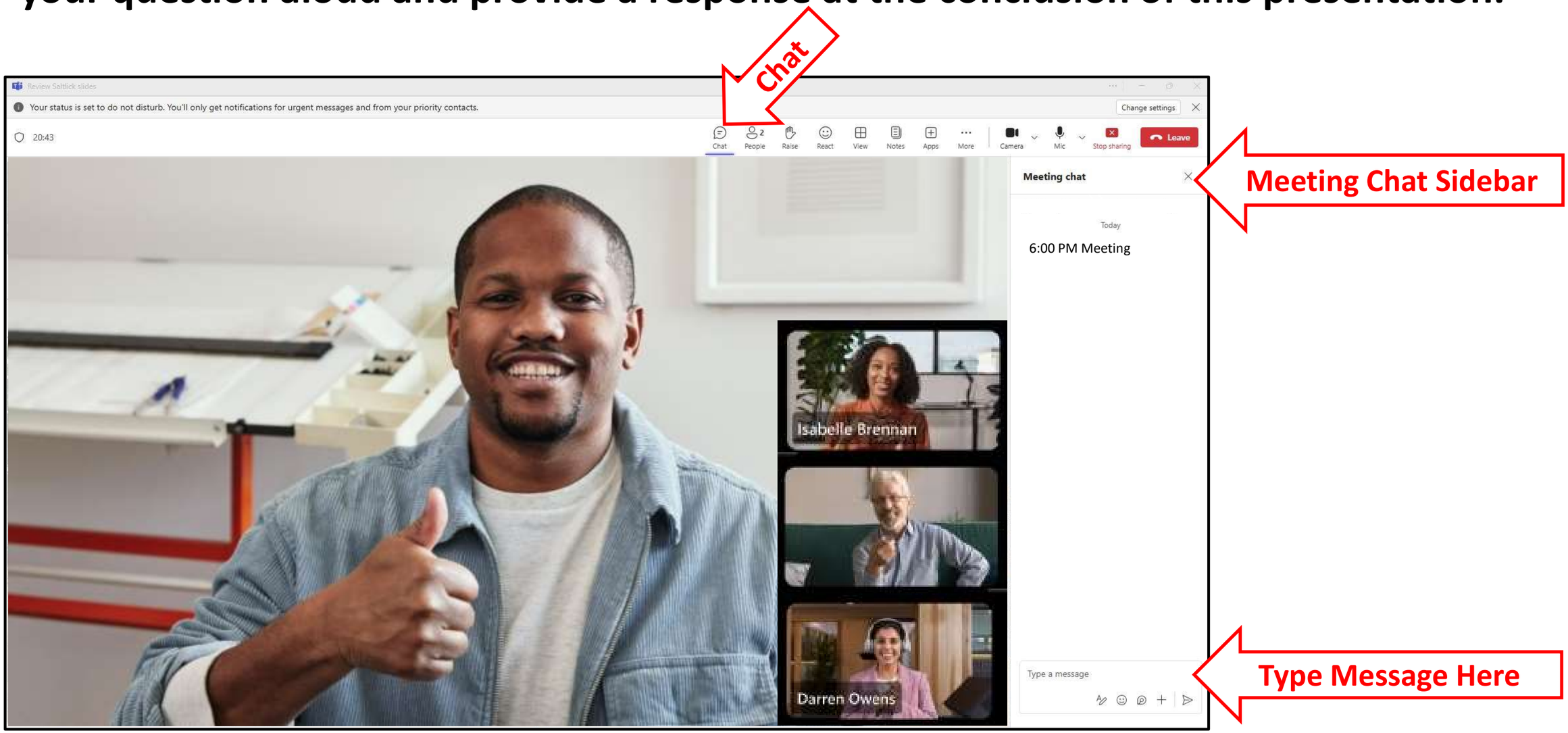
West Virginia Conservation Agency

GANNETT FLEMING

Public Scoping Meeting
July 21, 2025

How to Submit a Question During This Meeting

Submit your question and comments in the “Meeting Chat” sidebar. We will read your question aloud and provide a response at the conclusion of this presentation.



Meeting Agenda

- Welcome and Introductions
- Project Overview
- NRCS Watershed Planning Process
- History of the Coal River
- Examples of Similar Projects
- Project Schedule
- Open Discussion

CAPITOL
Conservation District
serving Kanawha County

Key Players in Planning Process

<u>Local Sponsors:</u>

Capitol Conservation District (CCD)

- **Mr. Terry W. Hudson, Chairperson**

<u>Technical Support:</u>

USDA, Natural Resources Conservation Service (NRCS)

- **Jon Bourdon, State Conservationist, NRCS West Virginia**
- **Hannah Thacker, NRCS West Virginia**
- **Titus Smith, NRCS West Virginia**

<u>Technical Contractor:</u>

Gannett Fleming

- **Eric Neast, Project Manager**
- **Kate Sharpe, Deputy Project Manager and NEPA Lead/Economist**

What is the Project

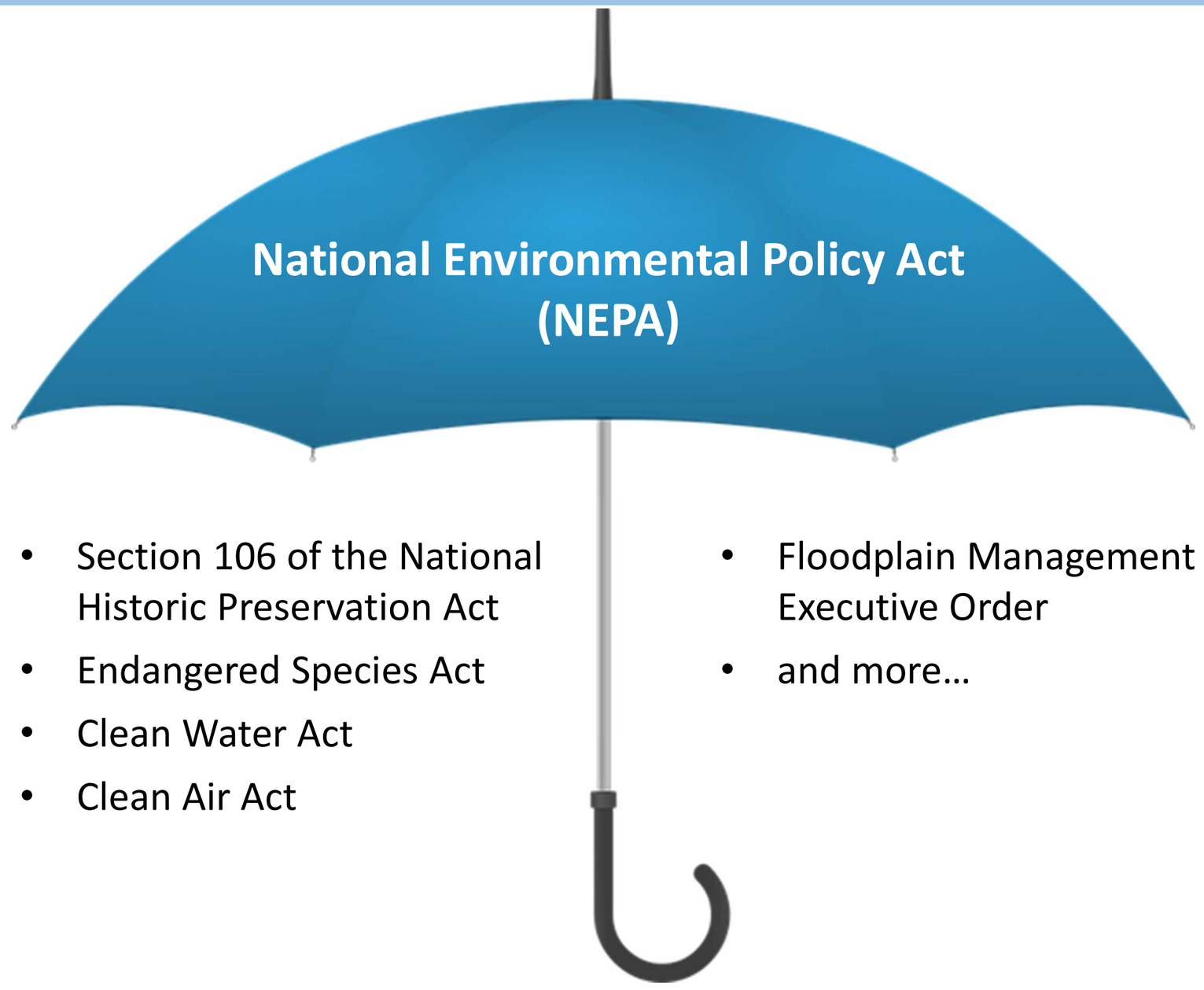
The Capitol Conservation District and the NRCS are evaluating alternatives for the future of the Coal River Lock and Dam #3. These may include public safety improvements, public recreation enhancements, improved fish and wildlife habitat, and improved water quality.

The Plan-EA is being developed in accordance with the National Environmental Policy Act (NEPA) and NRCS guidelines.

NRCS Watershed Planning Process

- Identify problems and opportunities
- Determine objectives
- Inventory and analyze resource data
- Formulate alternatives
- Evaluate and compare alternatives
- Select preferred alternative and submit funding request
- Implement and evaluate the plan

Watershed Planning and NEPA



- Section 106 of the National Historic Preservation Act
- Endangered Species Act
- Clean Water Act
- Clean Air Act

- Floodplain Management Executive Order
- and more…

What is Scoping?

The scoping process is used to identify:

- ✓Concerns of watershed stakeholders
- ✓Input from regulatory agencies
- ✓Environmental resource issues
- ✓Potential alternatives to be studied
- ✓Relevant laws and regulations

Scope

The range of actions, alternatives, and impacts considered.

Scoping: Identify Resource Concerns

Natural Environment

- Wetlands and water resources
- Soils and geology
- Fish & wildlife resources and habitat
- Ecologically critical areas
- Threatened & endangered species
- Floodplain management
- Forest resources
- Invasive species
- Riparian areas
- Wild & scenic rivers

Scoping: Identify Resource Concerns

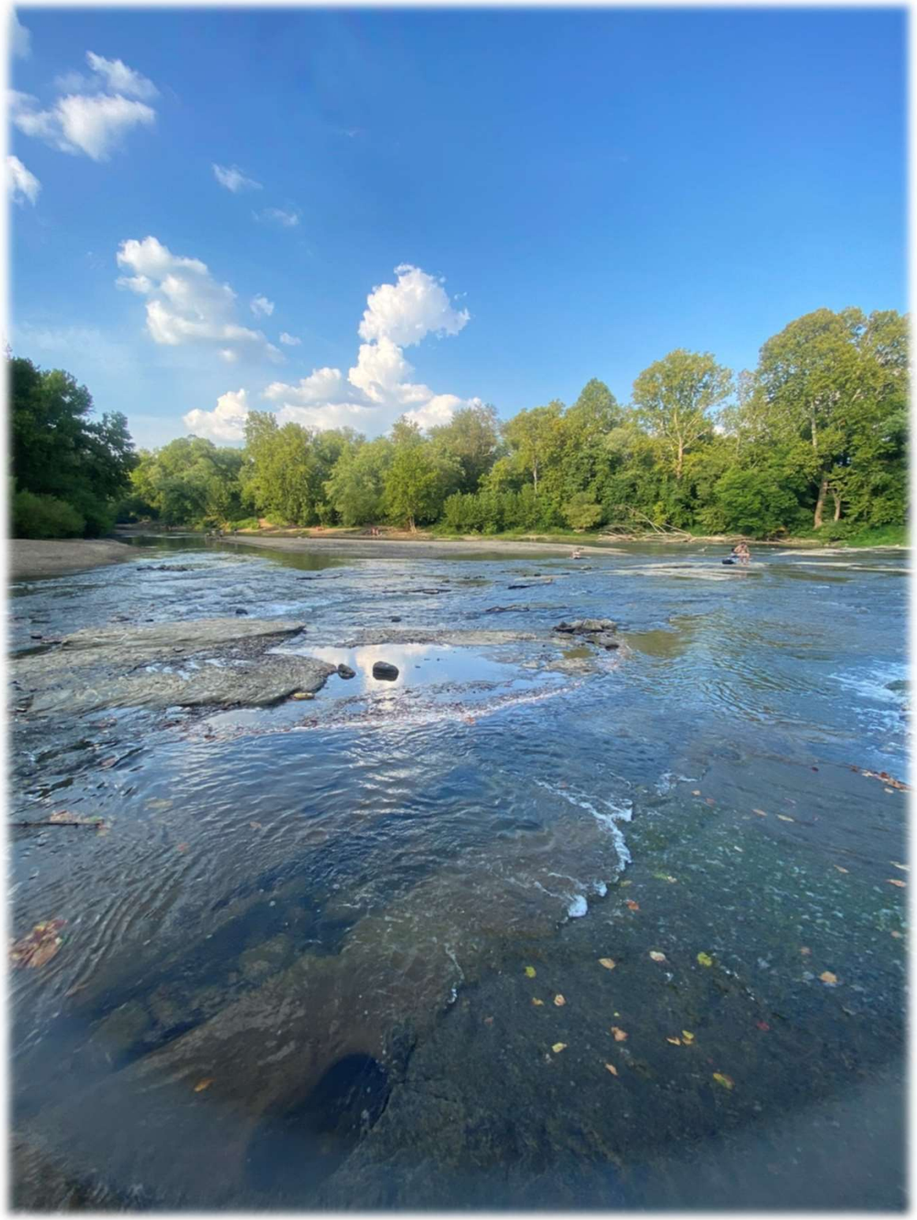
Human Environment

- Public health & safety
- Land use & planning
- Prime farmlands
- Scenic areas
- Water quality
- Recreation and park lands
- Economic efficiency
- Air quality
- Cultural & historic properties
- Hazardous wastes and materials

Purpose and Need

NRCS Authorized Project Purposes

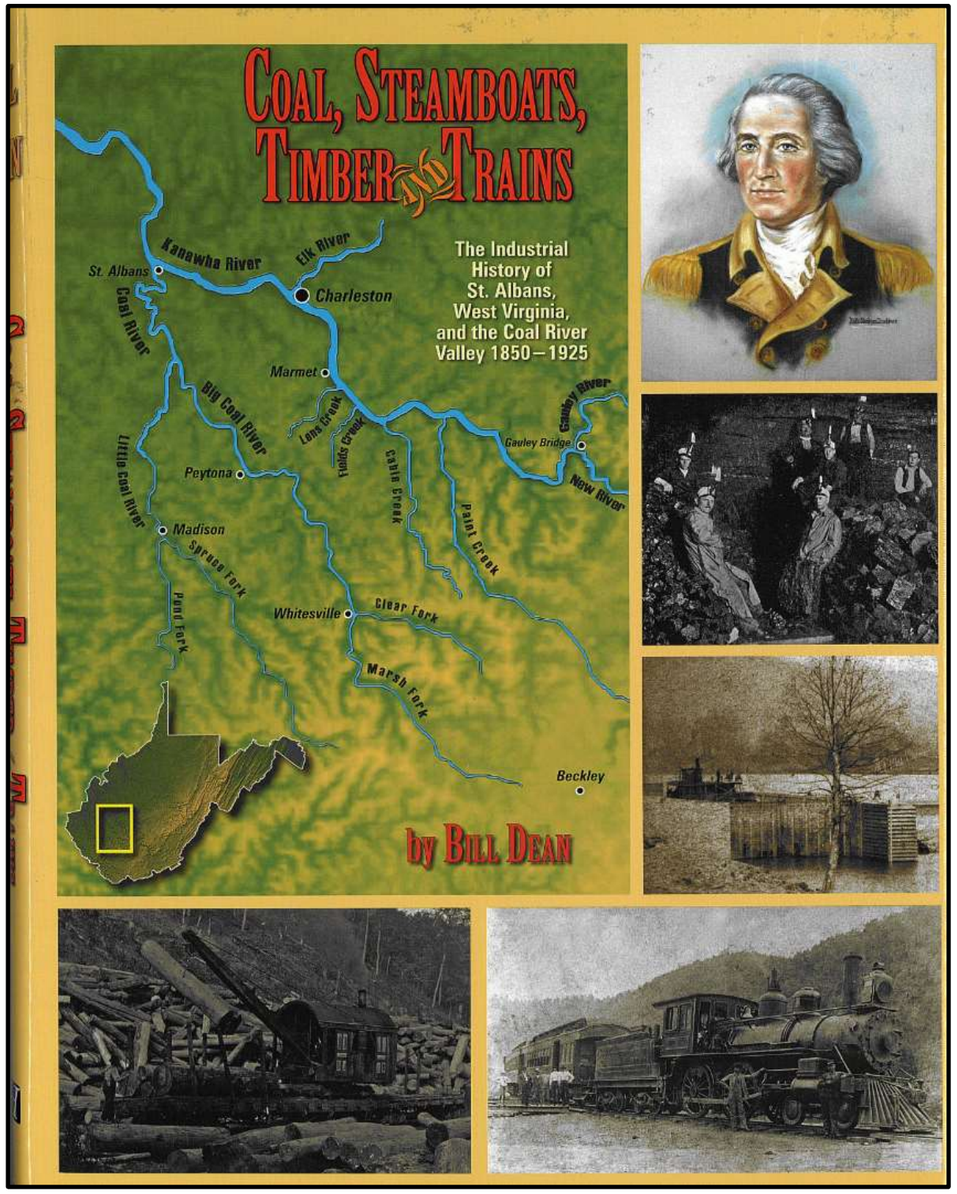
1. Flood Prevention (Flood Damage Reduction)
2. Watershed Protection
3. Public Recreation
4. Public Fish and Wildlife
5. Agricultural Water Management
6. Municipal and Industrial Water supply
7. Water Quality Management

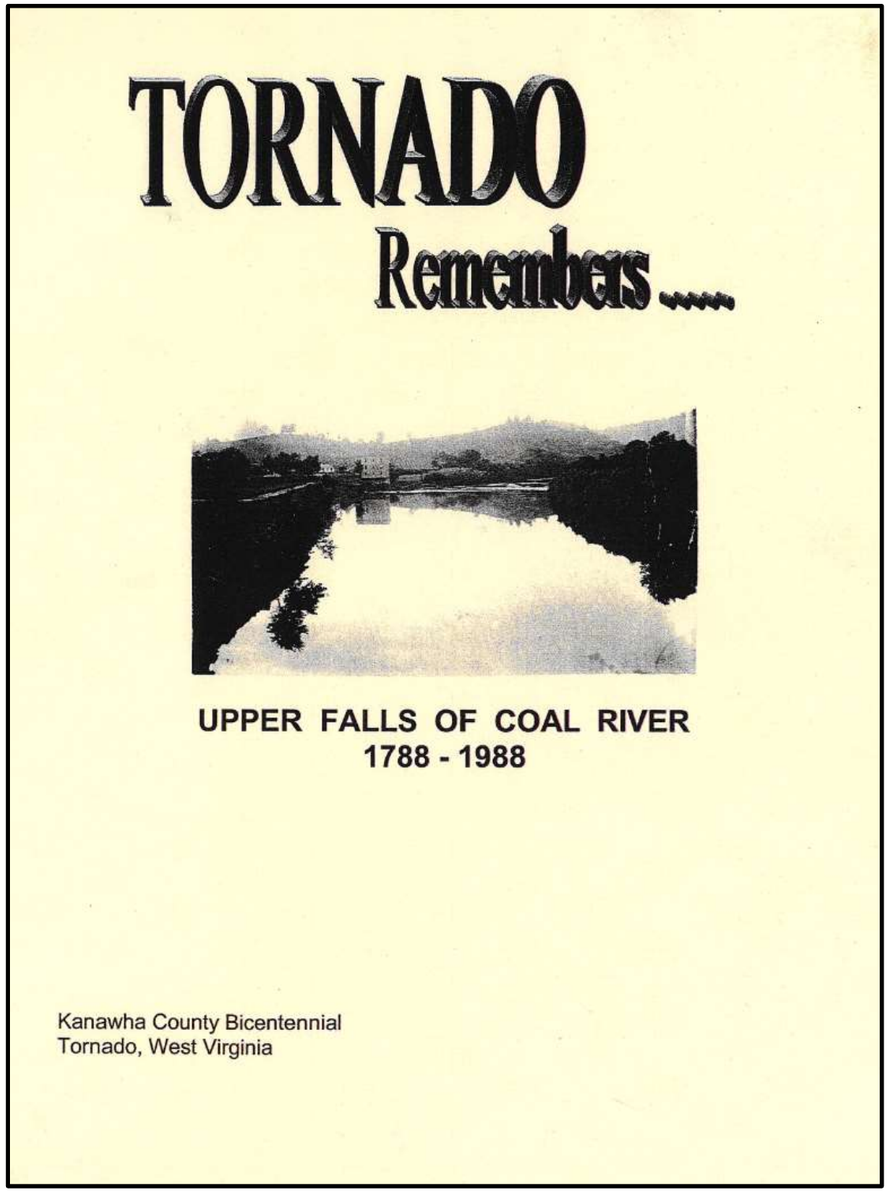


Required Alternatives

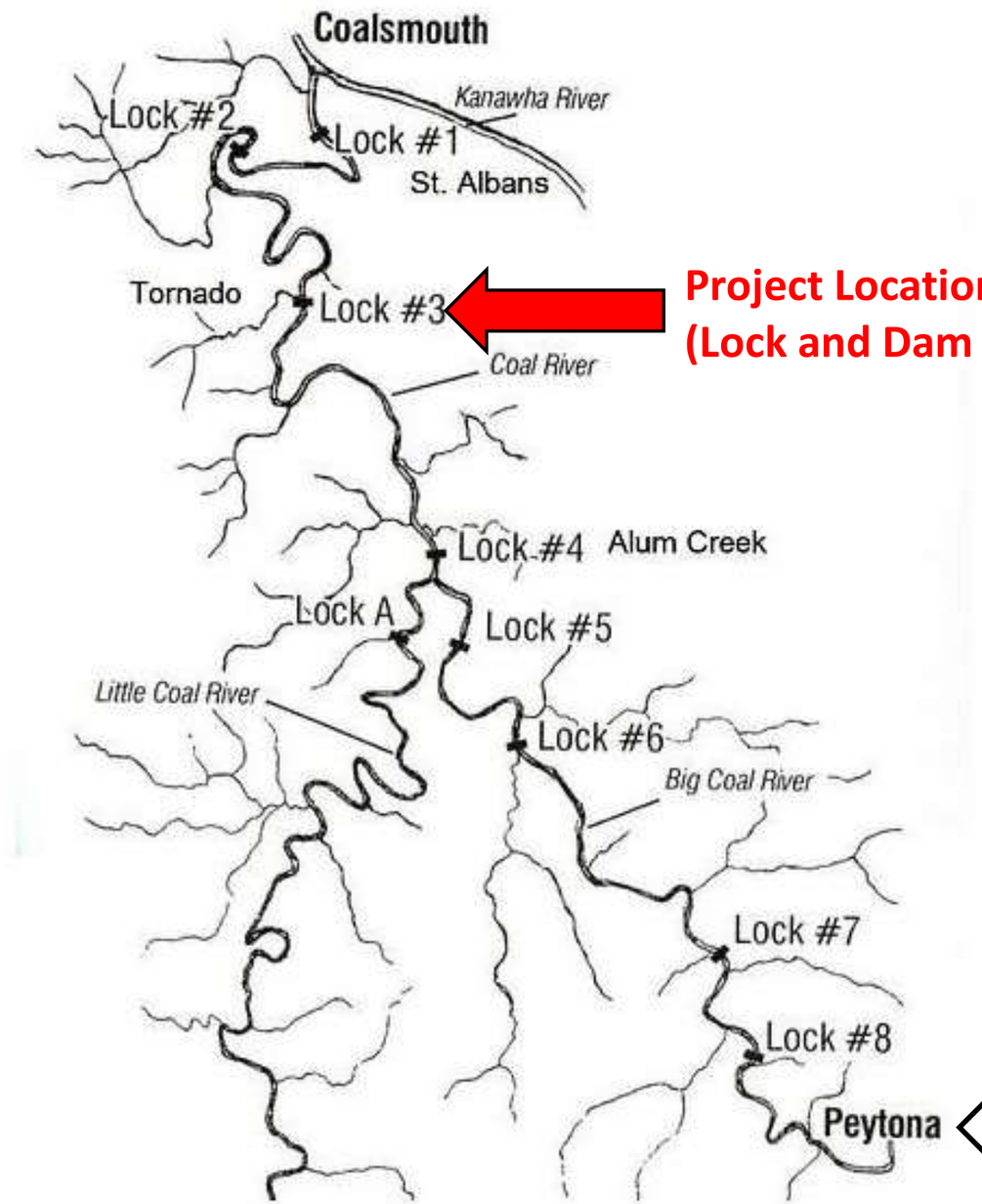
- **No Action/Future Without Federal Investment**
- **Non-Structural Alternatives**
- **Structural Alternatives**
  - **Modify the structure**
  - **Dam Removal**
- **Other Alternatives**
  - **Locally Preferred**
  - **Environmentally or Socially Preferred**

History of the Coal River Watershed





Coal River Watershed

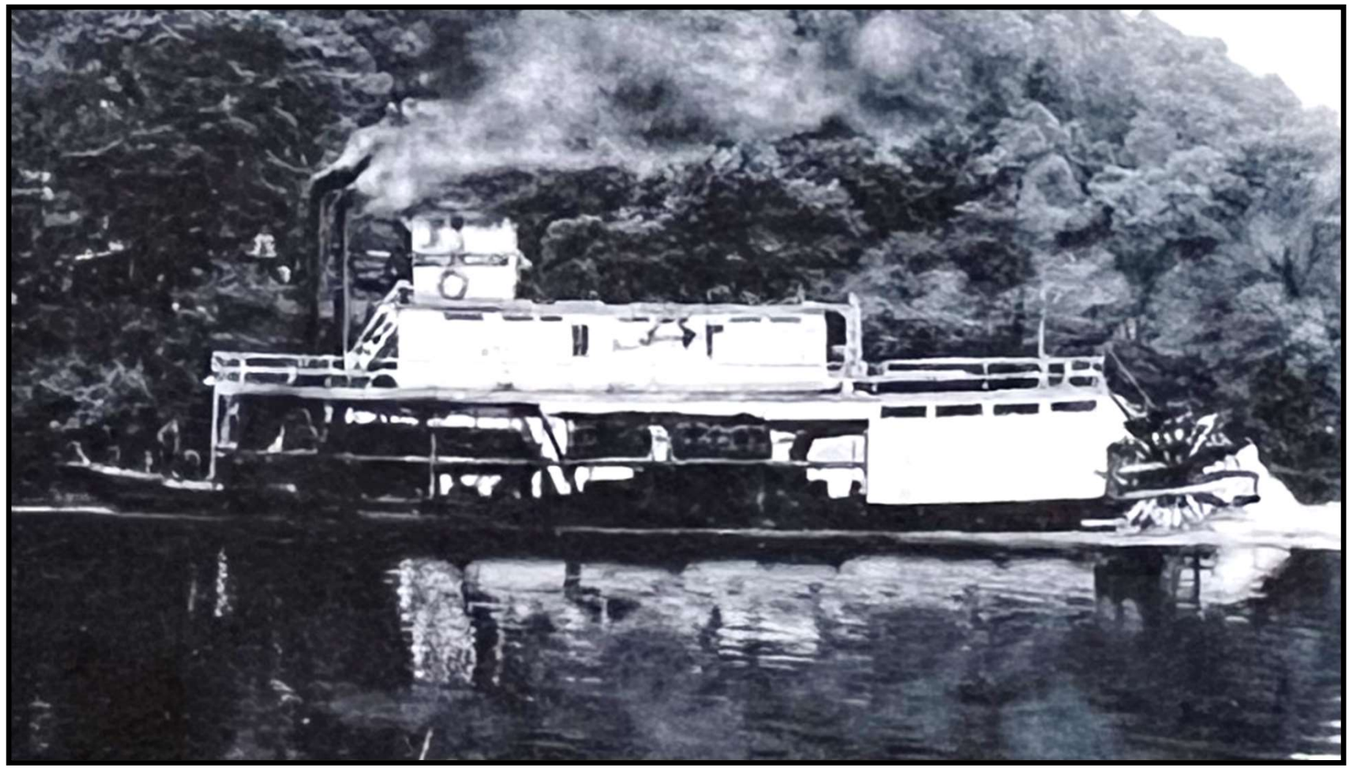


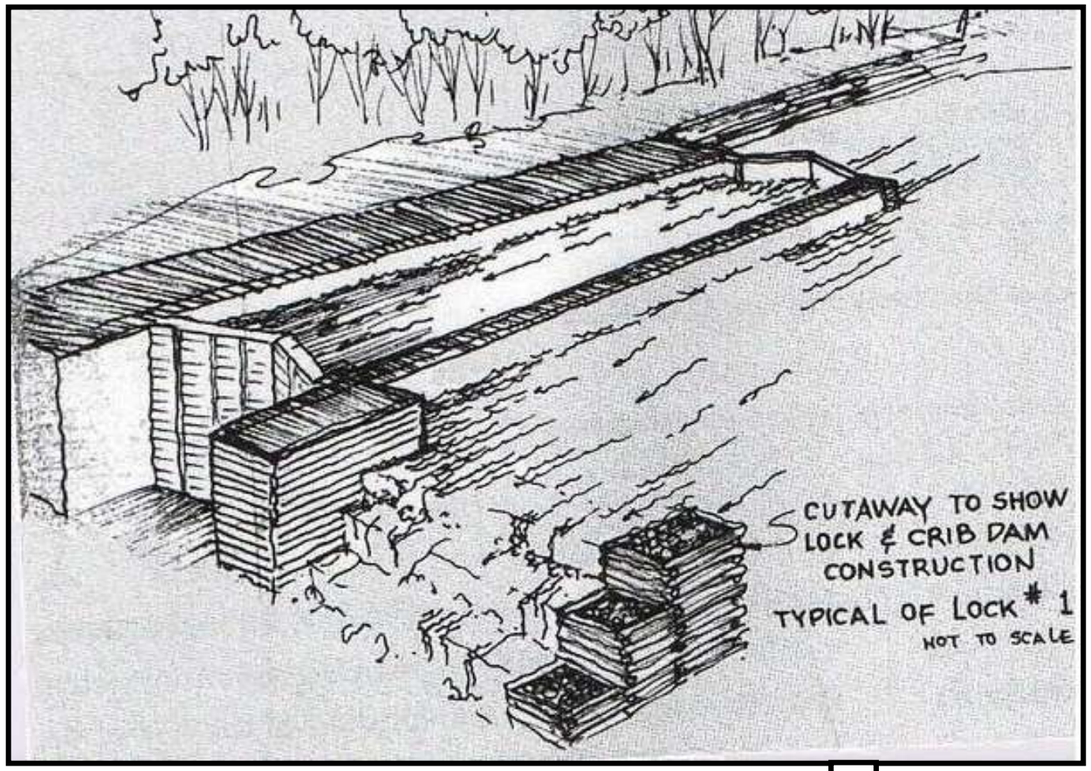
Project Location
(Lock and Dam No. 3)

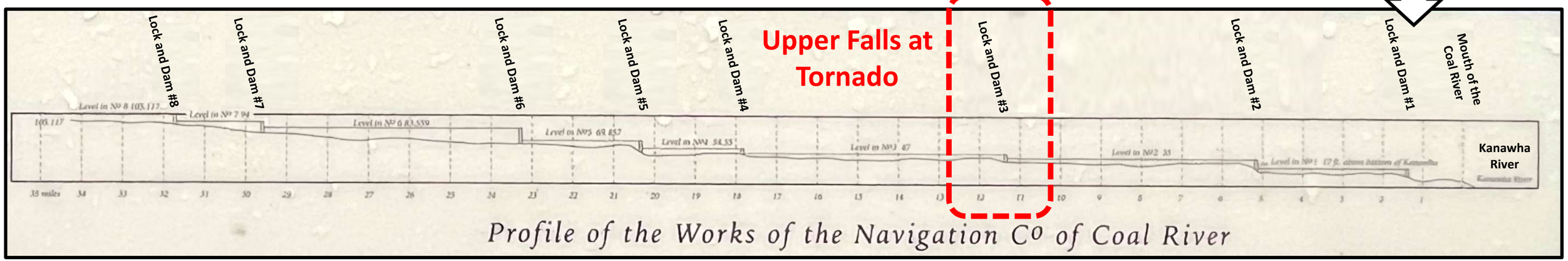
Blank Stock Certificate for the Peytona Cannel Coal Company, 1866

Coal Mines at Peytona
(50± Miles to Kanawha River)

Coal River Lock and Dam System

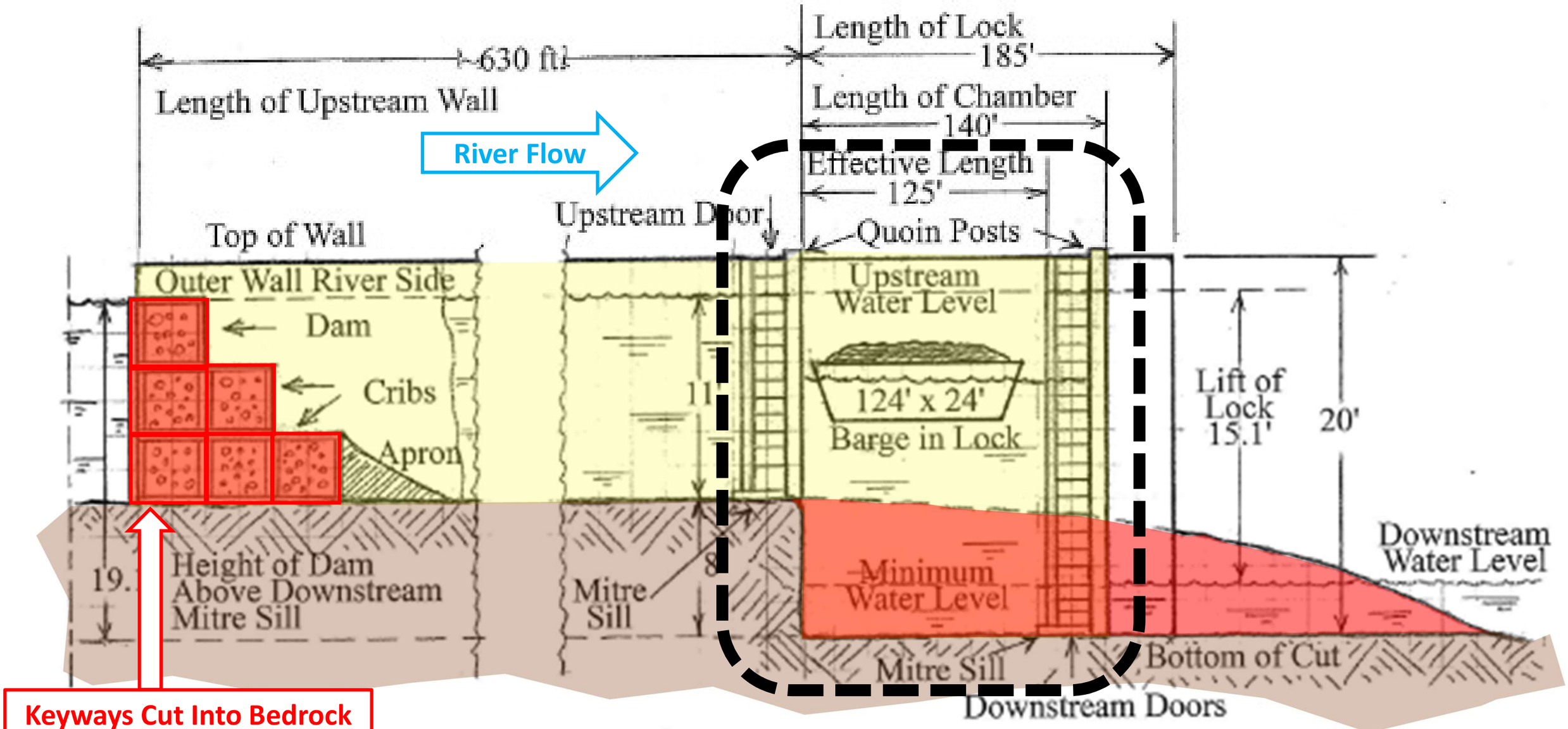






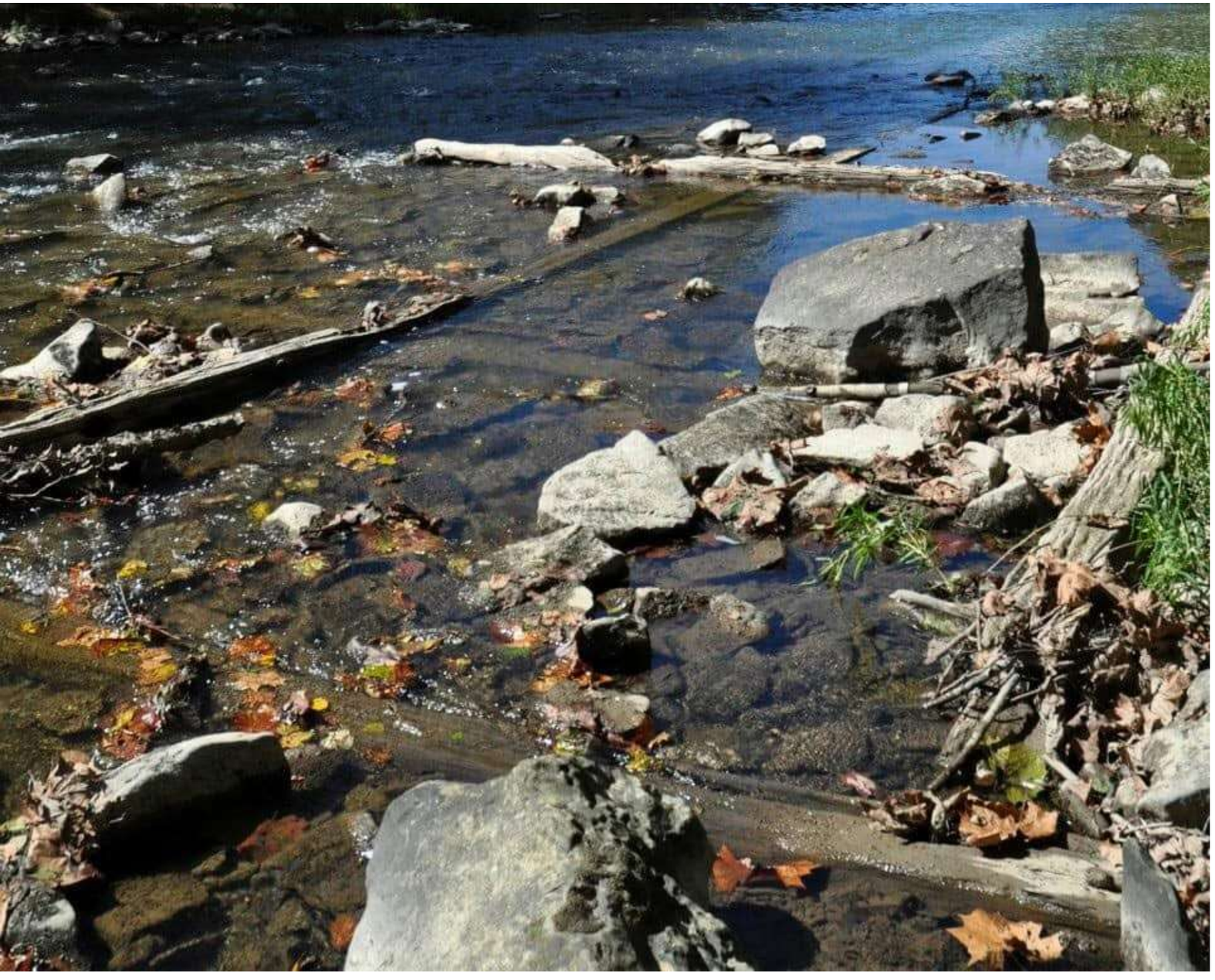
Coal River Lock and Dam No. 1 Near St. Albans

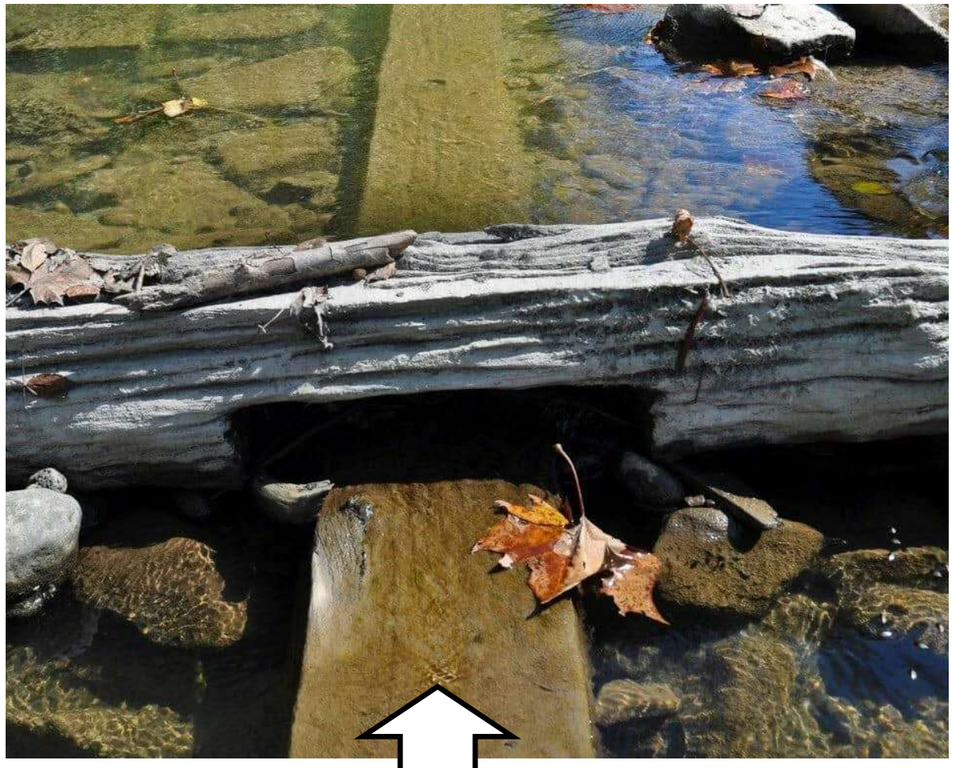
Coal River Lock and Dam No. 2



Lock & Dam No. 2

Coal River Lock and Dam No. 8





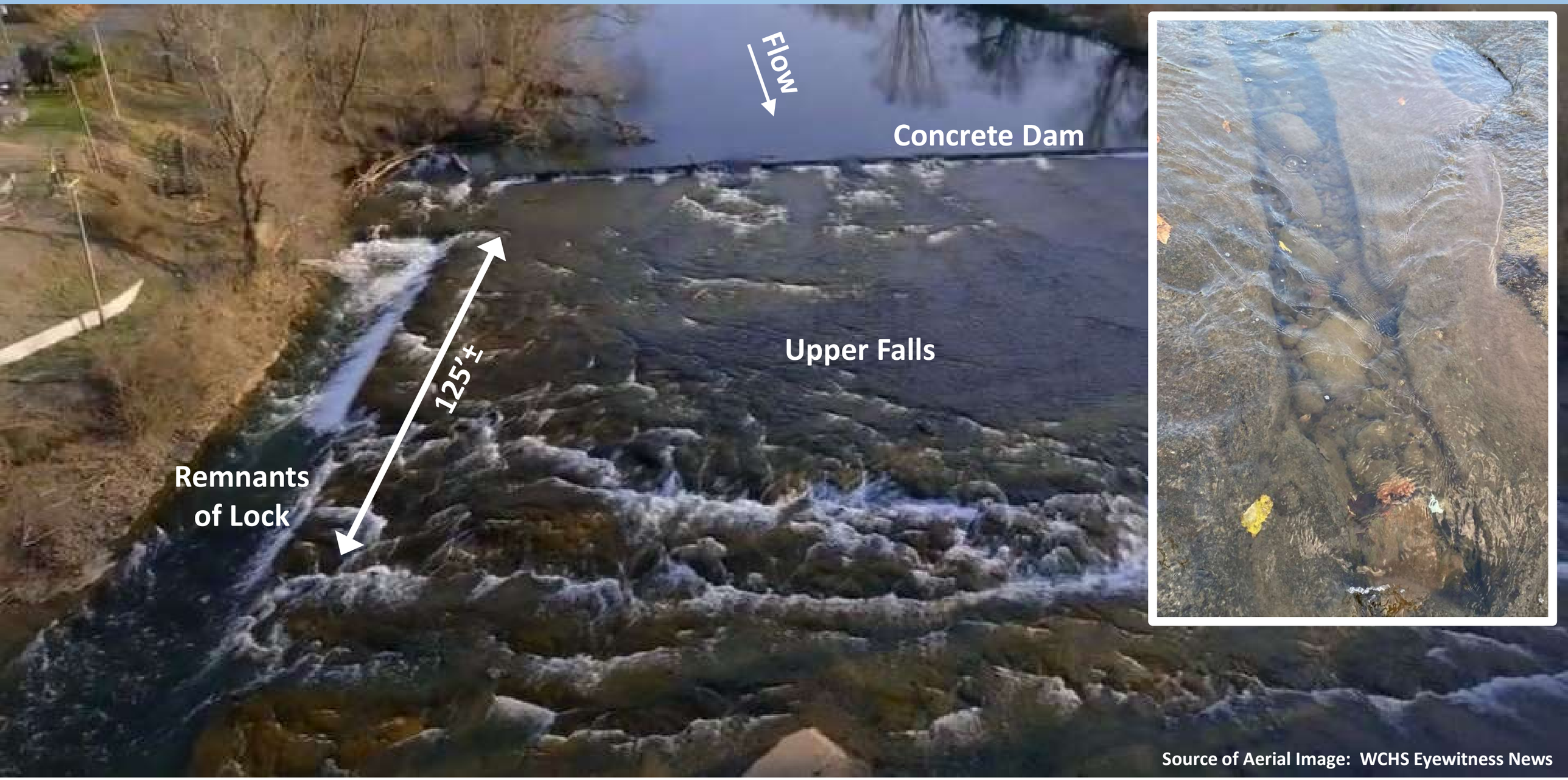
Base Timber Set in Keyway
Cut into Bedrock

Remnants of Timber Crib Foundation at Lock and Dam No. 8

Example of Timber Crib Dam

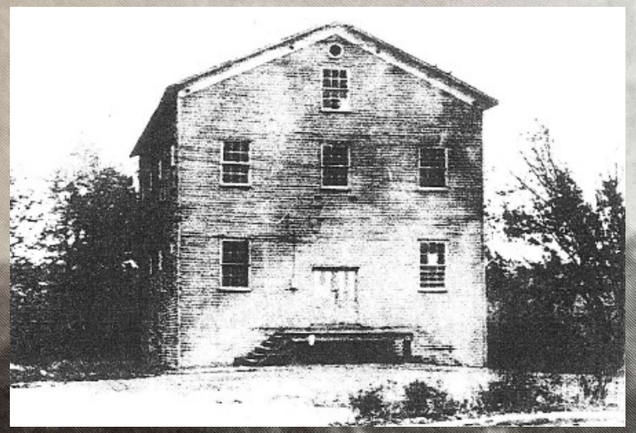
Plymouth Dam on Schuylkill River, PA

Coal River Lock and Dam No. 3 at Tornado



Source of Aerial Image: WCHS Eyewitness News

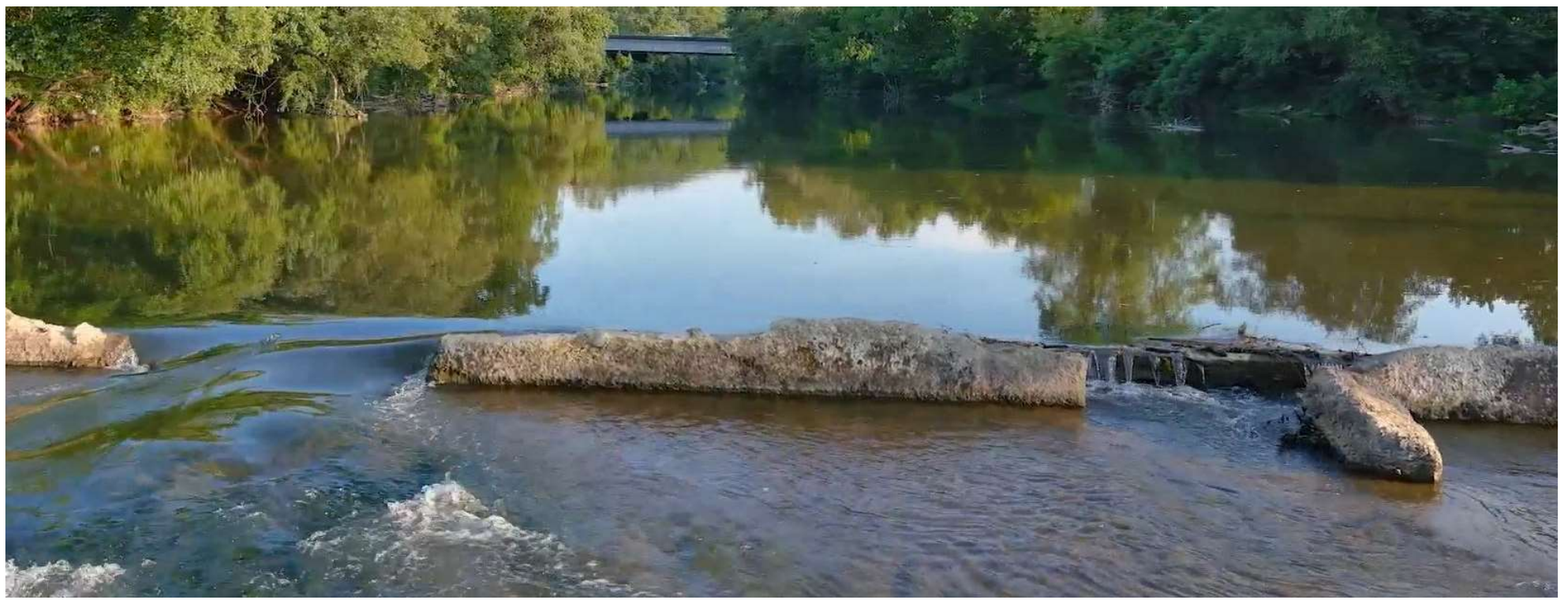
Coal River 1920’s Dam To Support Gristmill



Gristmill

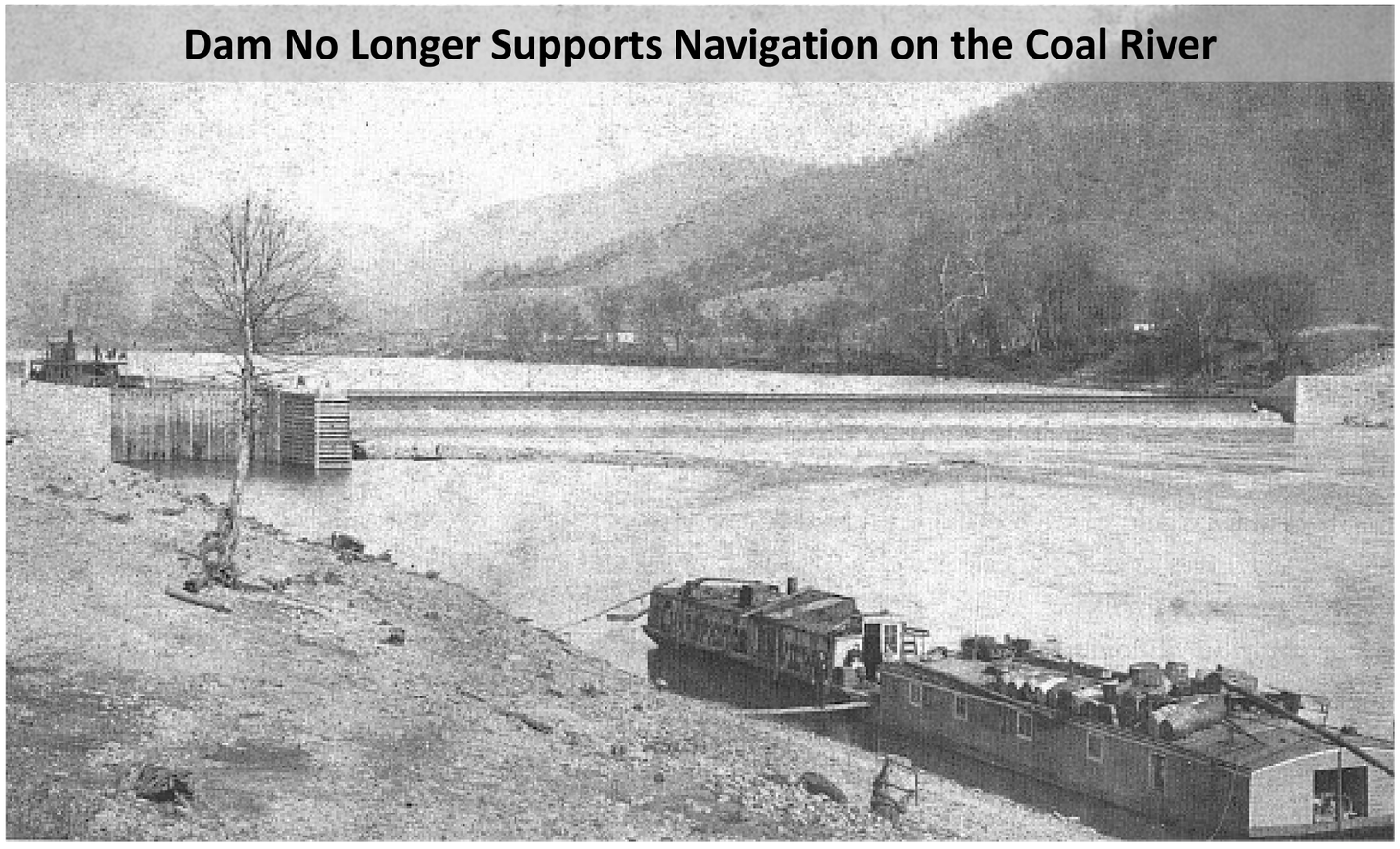
Dam to Support Gristmill (1920’s)

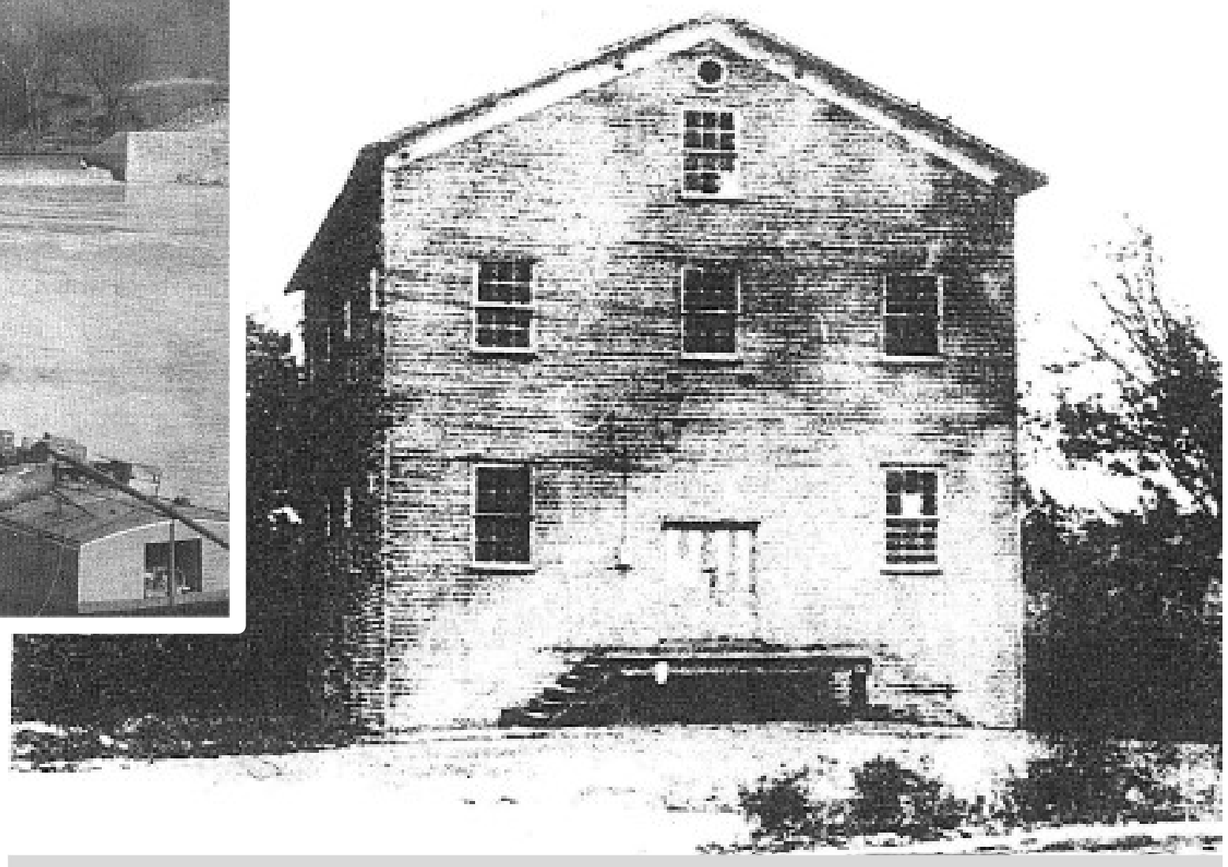
Coal River 1920’s Dam To Support Gristmill



Dam Has Outlived Its Intended Purpose

Dam No Longer Supports Navigation on the Coal River





Dam No Longer Supports Gristmill

23,837 Low-Head Dams Across the Country (Source: americanrivers.org)

Cultural Resources

WEST VIRGINIA
DIVISION OF
CULTURE & HISTORY

The Cultural Center
1900 Kanawha Blvd., E.
Charleston, WV
25305-0300

Phone 304.558.0220
Fax 304.558.2779
TDD 304.558.3562
www.wvculture.org
EEO/AA Employer

January 21, 2009

Mr. William E. Simmons, Jr.
Deputy Director
WV DEP
601 57th Street, SE
Charleston, WV 25304

RE: Coal River (Upper Falls) Dam Removal
FR#: 08-771-KA-1

Dear Mr. Simmons:

We have reviewed the additional information for the above referenced project to determine its effects to cultural resources. As required by Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties," we submit our comments.

Architectural Resources:
Thank you for providing the additional information. It is our understanding that as a result of a site visit by your staff in September 2008 it is has been determined that the 1962 replacement dam was constructed at the site of the original dam which is as a part of the old Coal River lock system and listed in the National Register of Historic Places.

According to the information submitted we understand that remnants of a wooden crib have been discovered and may be a part of the original dam. Please provide photographs of the wooden crib and state if it will be removed as a part of the project. We reserve the right to request the completion of a West Virginia Historic Property Inventory form and additional information based upon our review of the photographs.

As stated in our letter dated August 4, 3008 that when they are ready, please provide a copy of the final plans. This originally was in reference to the placement of the demolition rubble. However, with the discovery of the wooden crib this information will need to be included on the plans as well.

We will continue our review upon receipt of the information requested.

We appreciate the opportunity to be of service. *If you have questions regarding our comments or the Section 106 process, please contact Ginger Williford, Structural Historian, in the Historic Preservation Office at (304) 558-0240.*

Sincerely,

Susan M. Pierce,
Deputy State Historic Preservation Officer

SMP/GW

Environmental Investigations

Stream Assessments

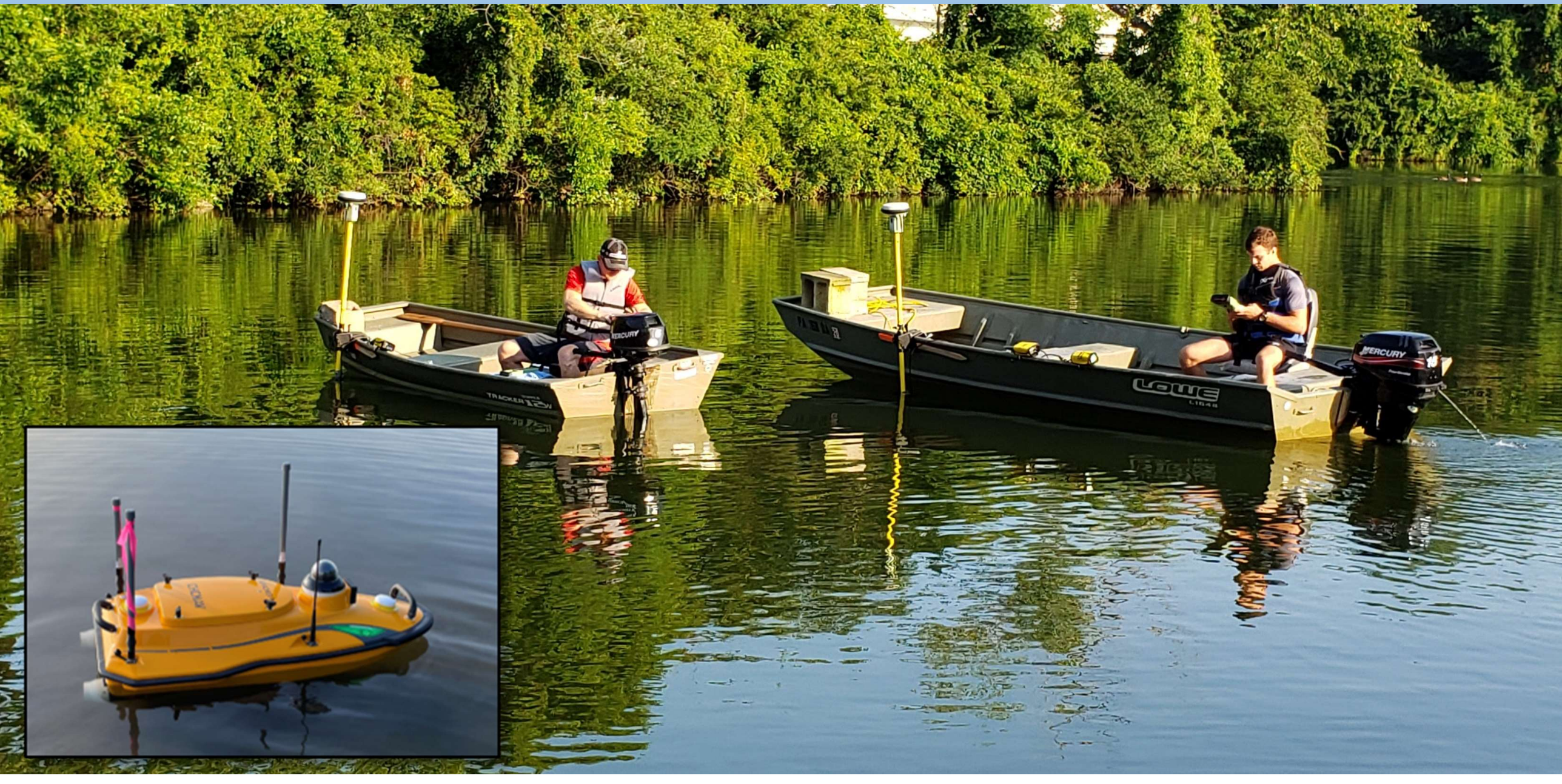
Threatened and Endangered Species

Sedimentation

Sediment accumulation decreases water depths which can:

- **Increase water temperature**
- **Increase potential for algae outbreaks**
- **Decrease oxygen levels**
- **Increase potential for methane generation**

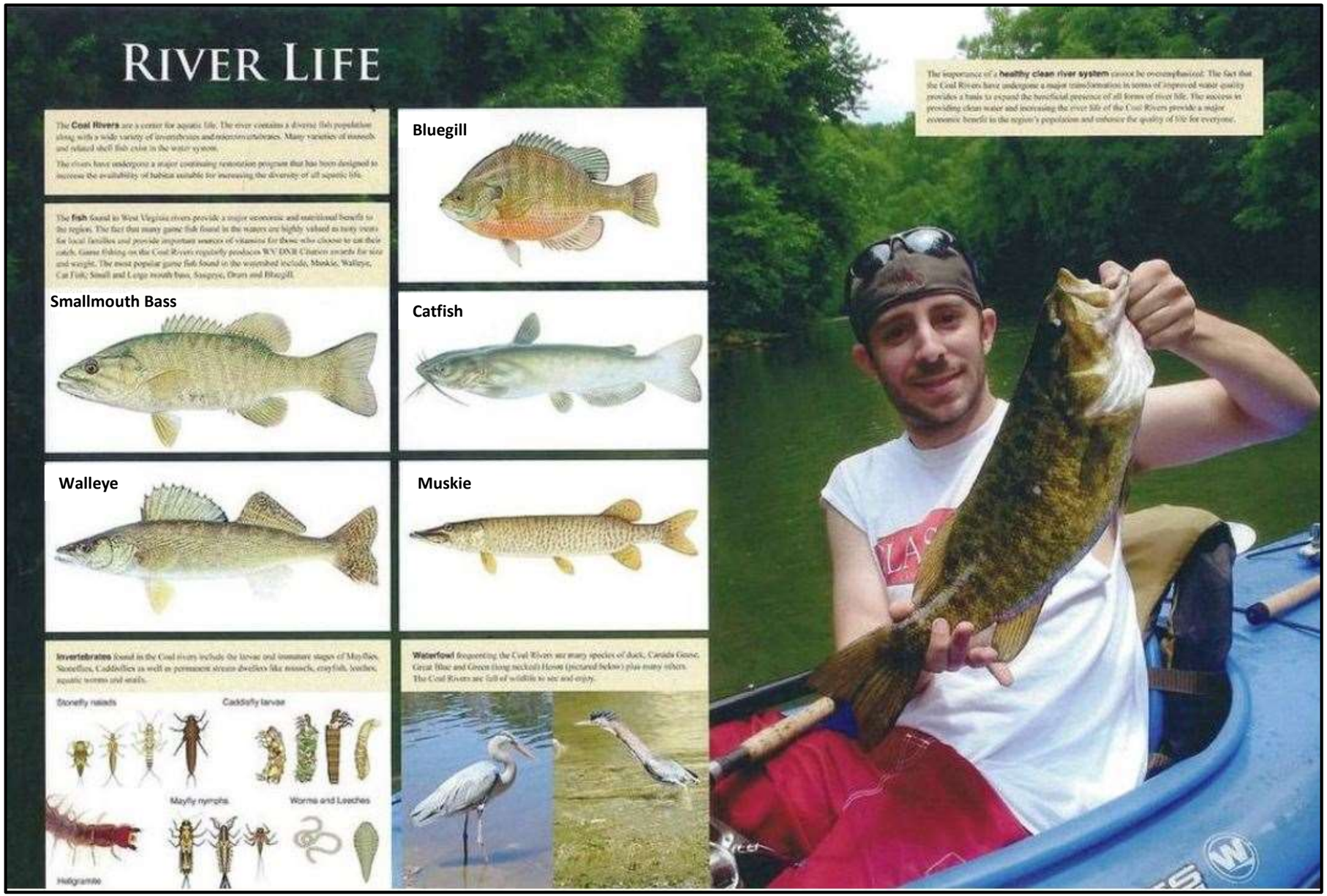
Bathymetric Survey



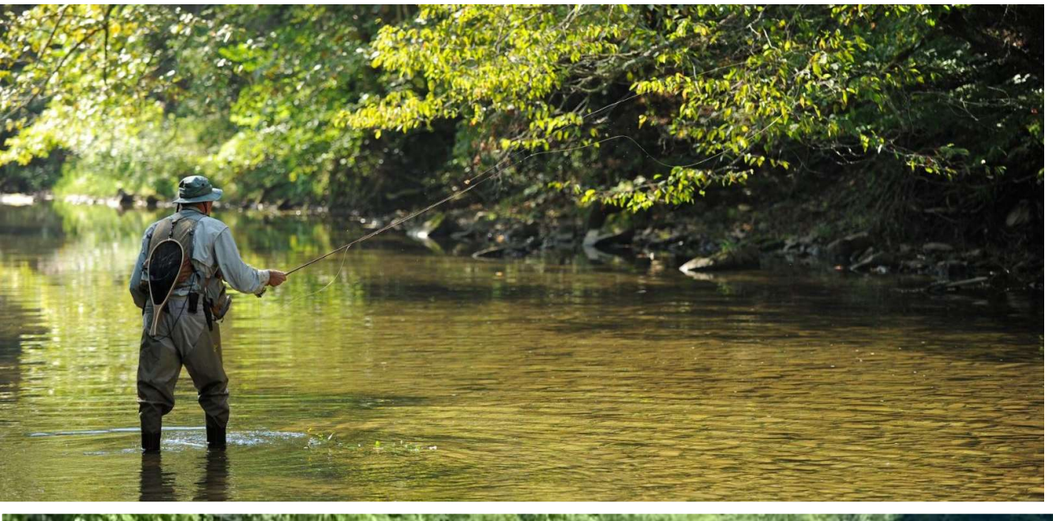
Impacts to Migratory and Local Fish

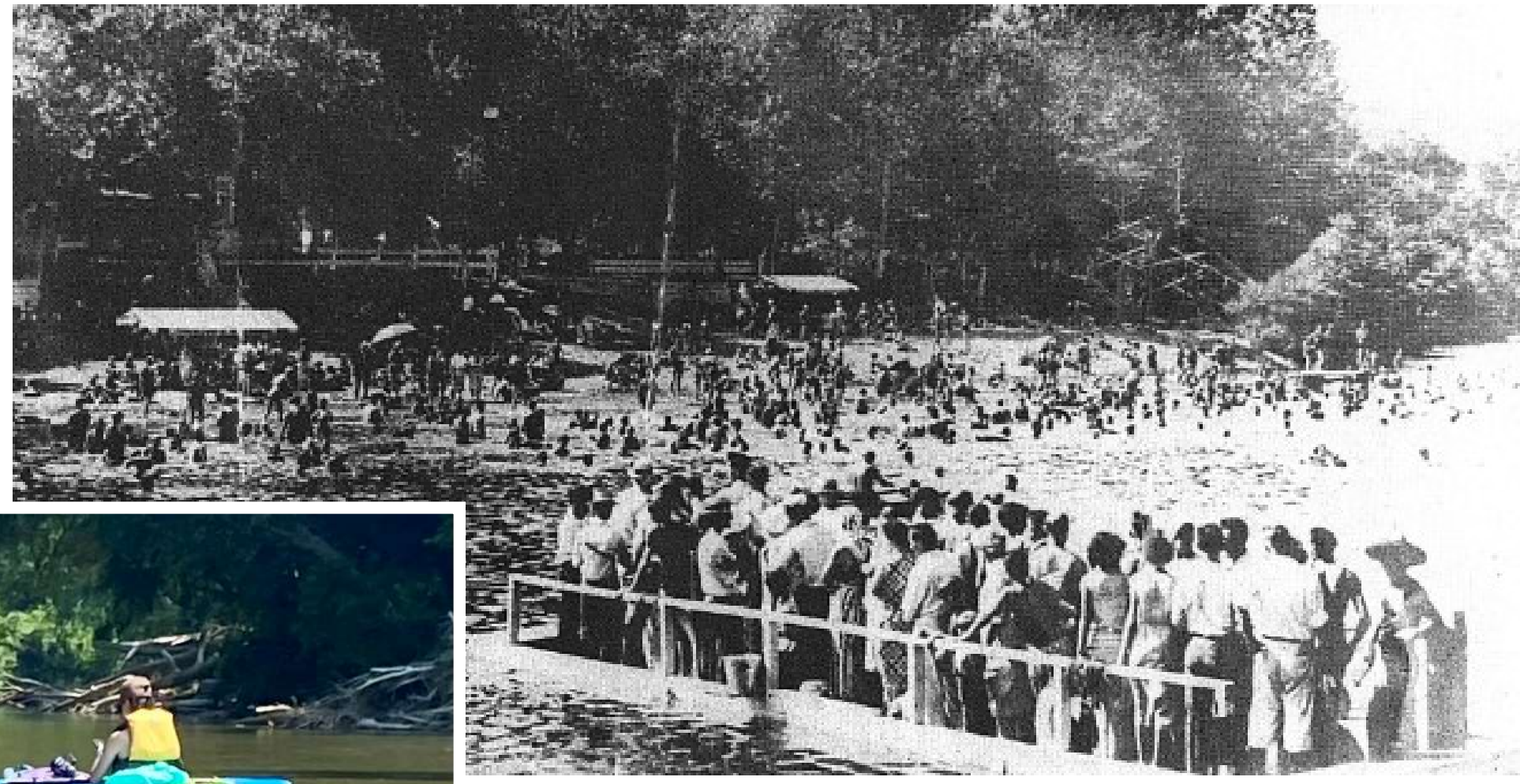
Source: National Fish Habitat Partnership

Coal River Wildlife



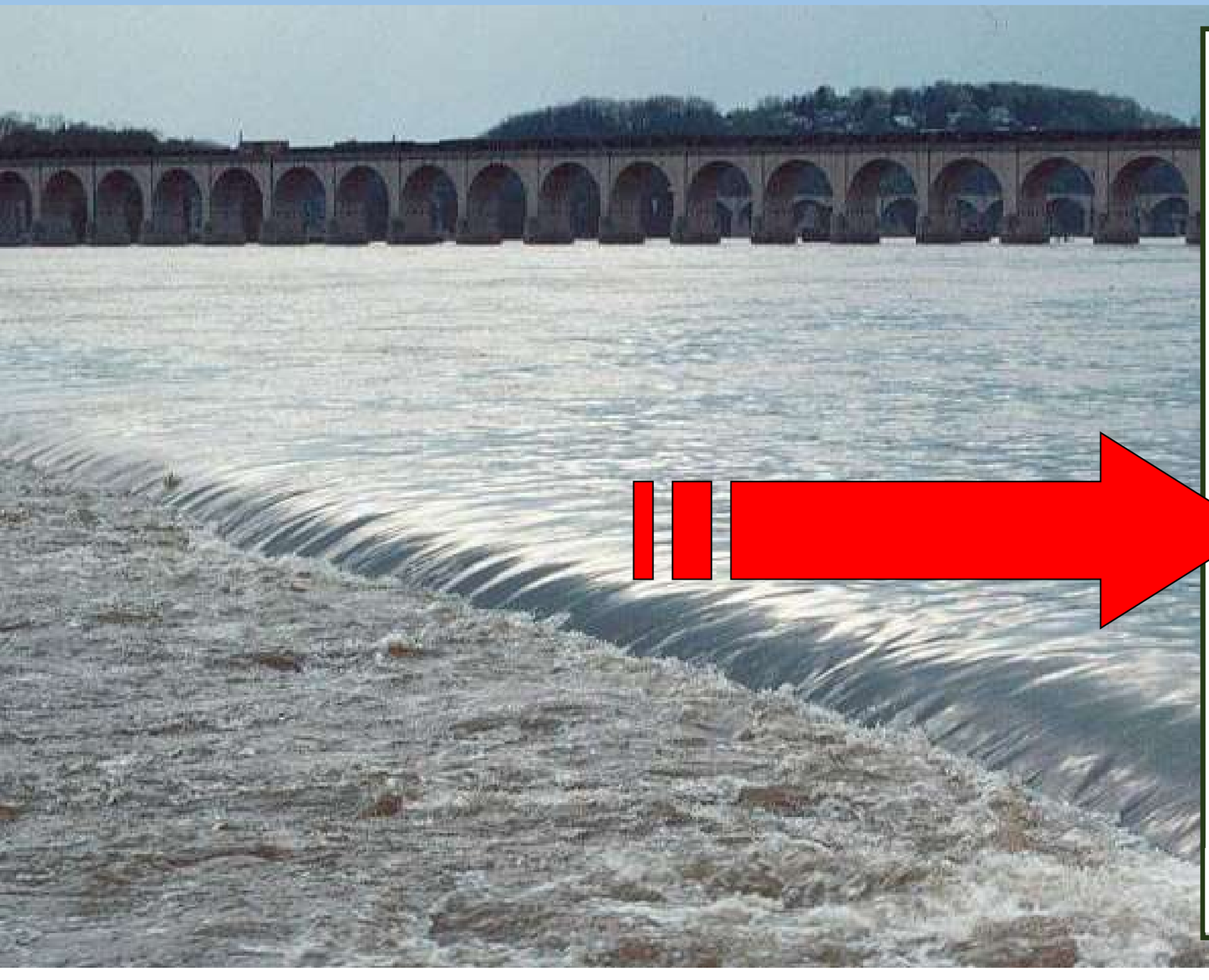
Recreation

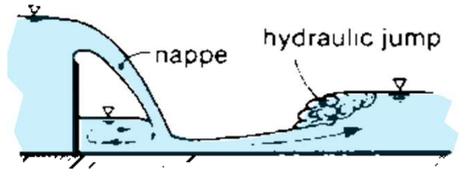




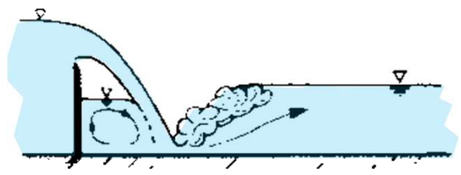
Lower Falls (1930s)

Public Safety

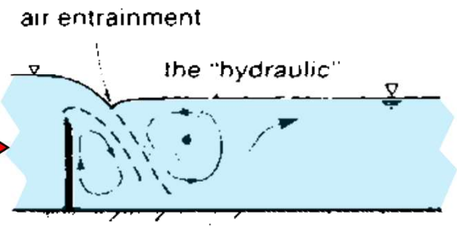




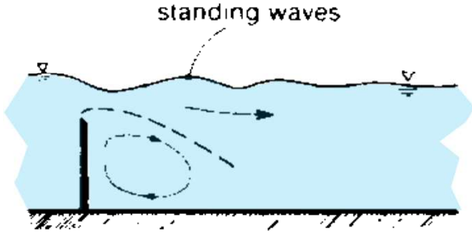
Case A - Low Flow (swept-out jump)



Case B (optimum jump)



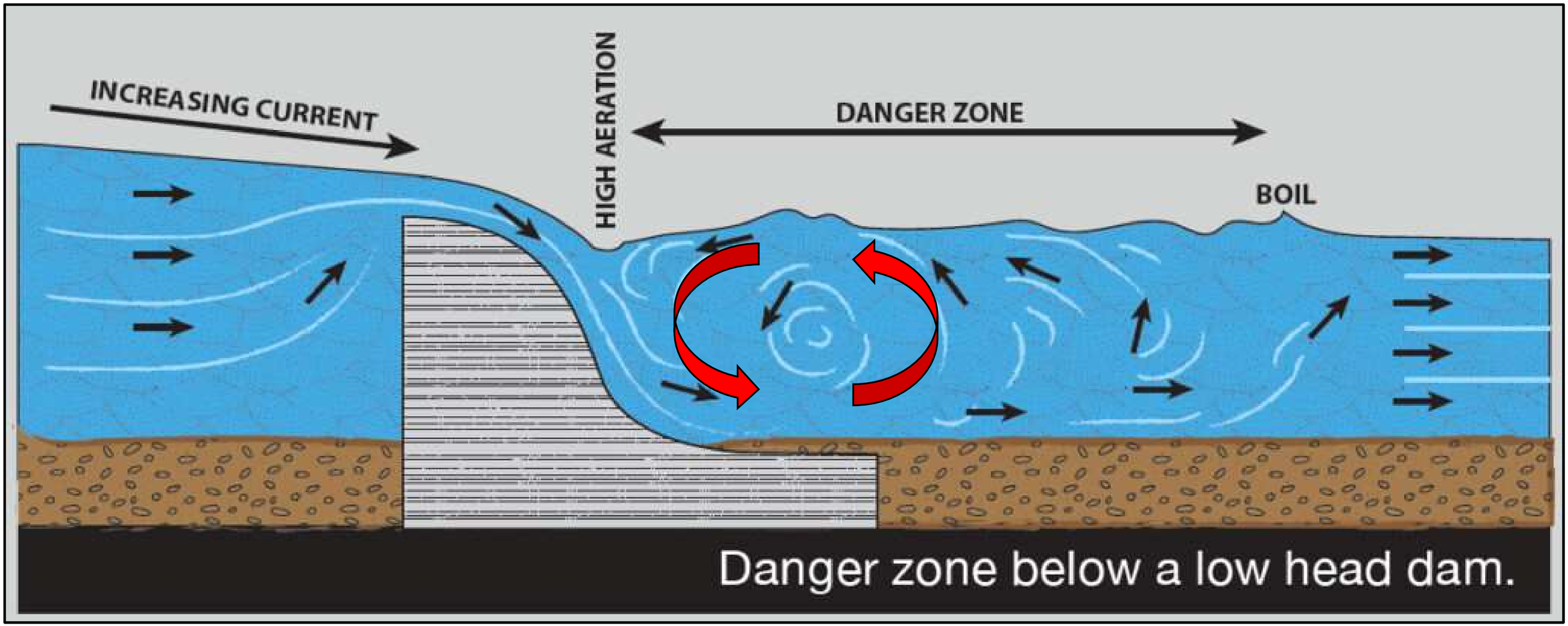
Case D (plunging nappe)



Case E – High Flow (surface nappe)

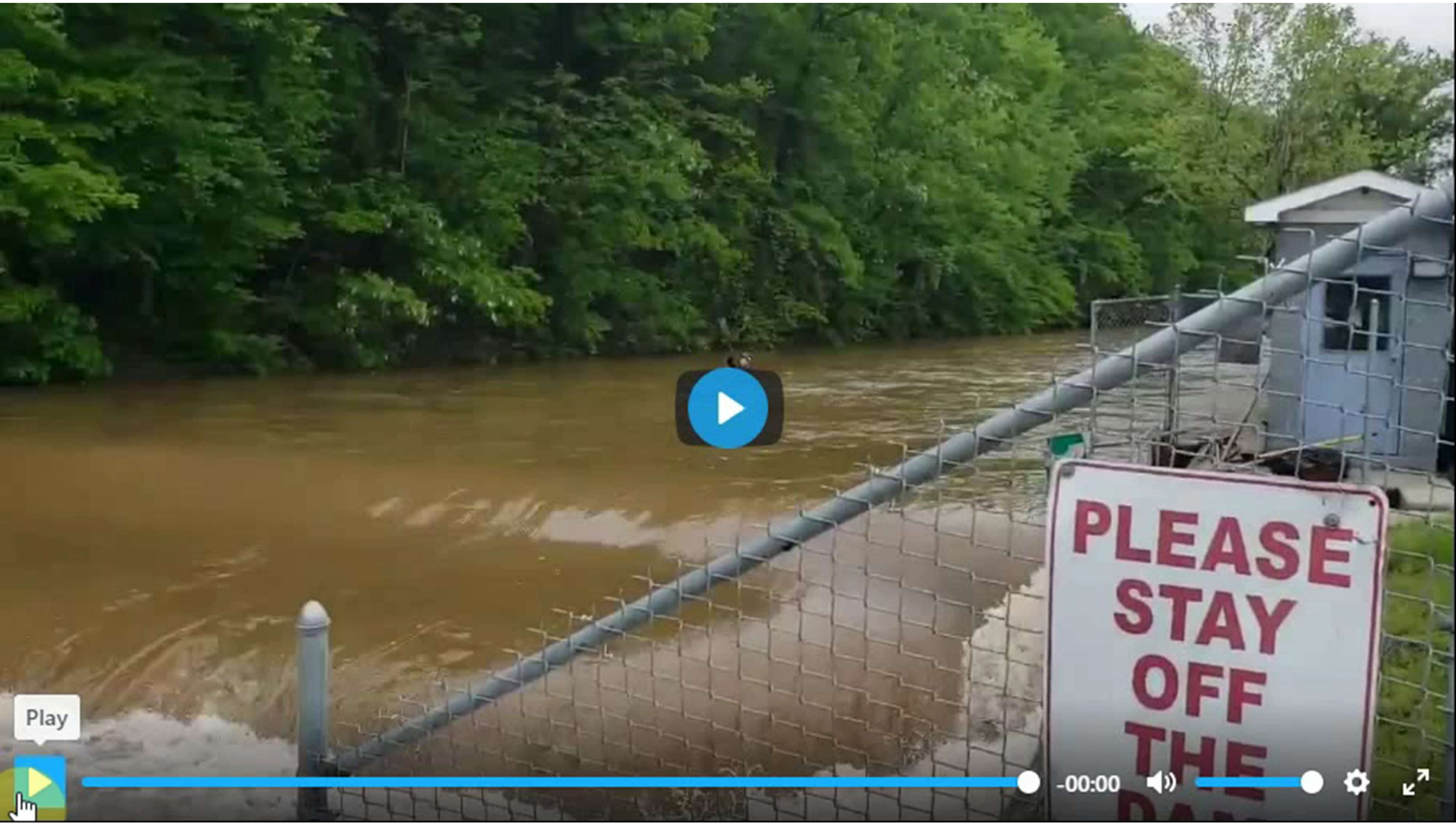
Source: Hans Leutheusser, Drownproofing of Low Overflow Structures, 1991

Public Safety



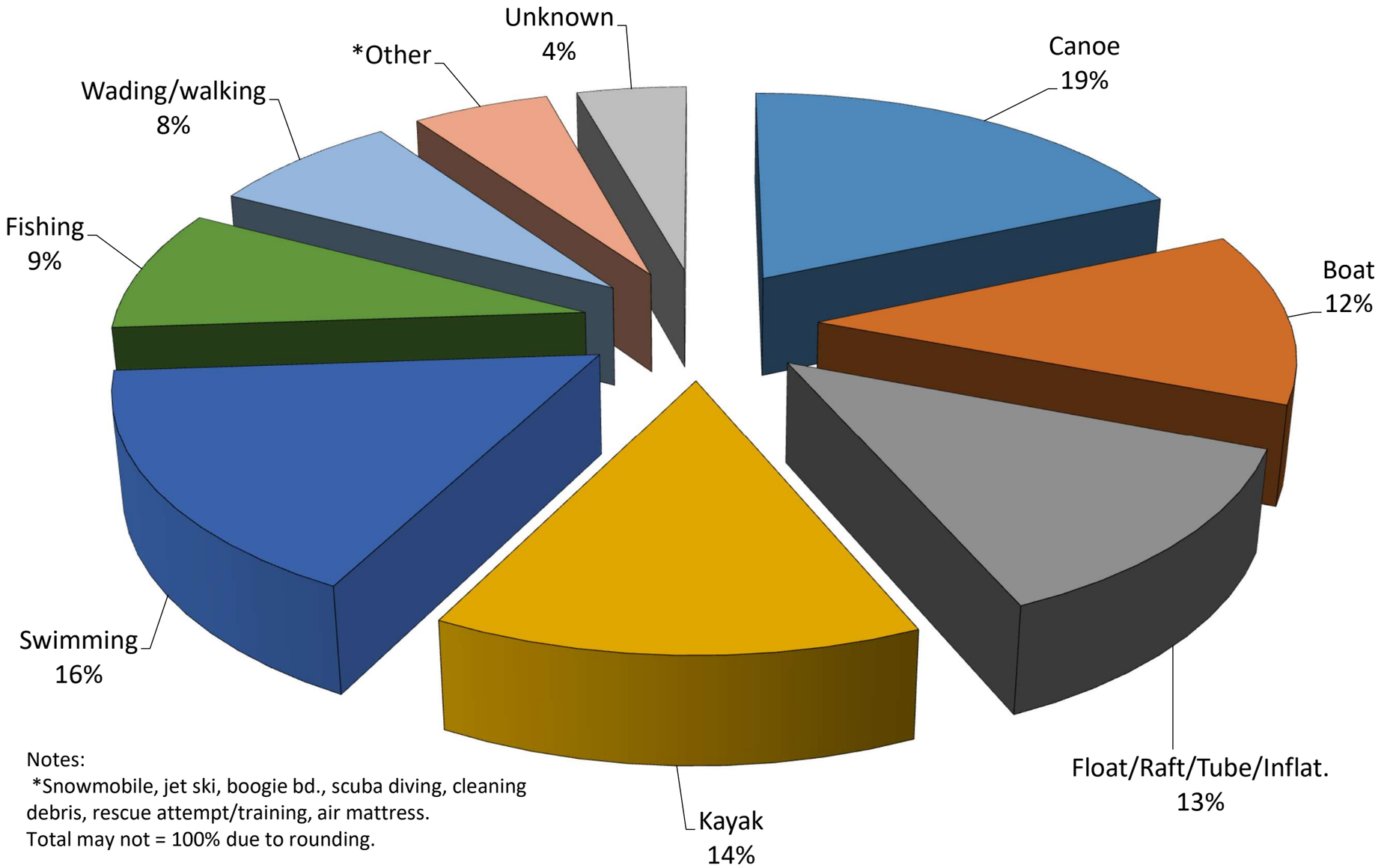
- **Recirculating Current**
- **Reduced Buoyancy Due to Increased Air Content in Water**

Source: americanrivers.org


PLEASE
STAY
OFF
THE
Play
-00:00

Known drowning activities: 264 of 276 fatalities

(1960s - August 2013)



Notes:
*Snowmobile, jet ski, boogie bd., scuba diving, cleaning debris, rescue attempt/training, air mattress.
Total may not = 100% due to rounding.

Public Safety

Documented Fatalities at the Upper Falls on the Coal River

Jennings Crawford, 16, Tornado WV, June 1, 1919

Earl Roberts 13, Tornado WV, June 1, 1919

Myrtle Norvell, 32, St Albans WV, July2, 1933

Abbie Anderson Gessel 28, St Albans WV July 2, 1933

Margaret Gilliam, 29, Lytle TX, July 26, 1936

Egbert Shirkey Jr, 21, Charleston WV May 28, 1939

James M. Robinson, 15, Charleston WV May 28, 1939

Carl Edward Pickens Jr, 13, Bancroft WV June 1, 1950

Barbara Vineyard, 20, Charleston WV July 26, 1951

Jean Marie Jones, 15, Charleston WV August 13, 1956

Michael Hinzman, 14, St Albans WV August 13, 1959

Sebert Allen Harless, 16, St Albans WV July 2, 1961

Henry Edward Ennis, 44, St Albans WV July 2, 1967

Tony Milbee, 12, St Albans WV May 30, 1969

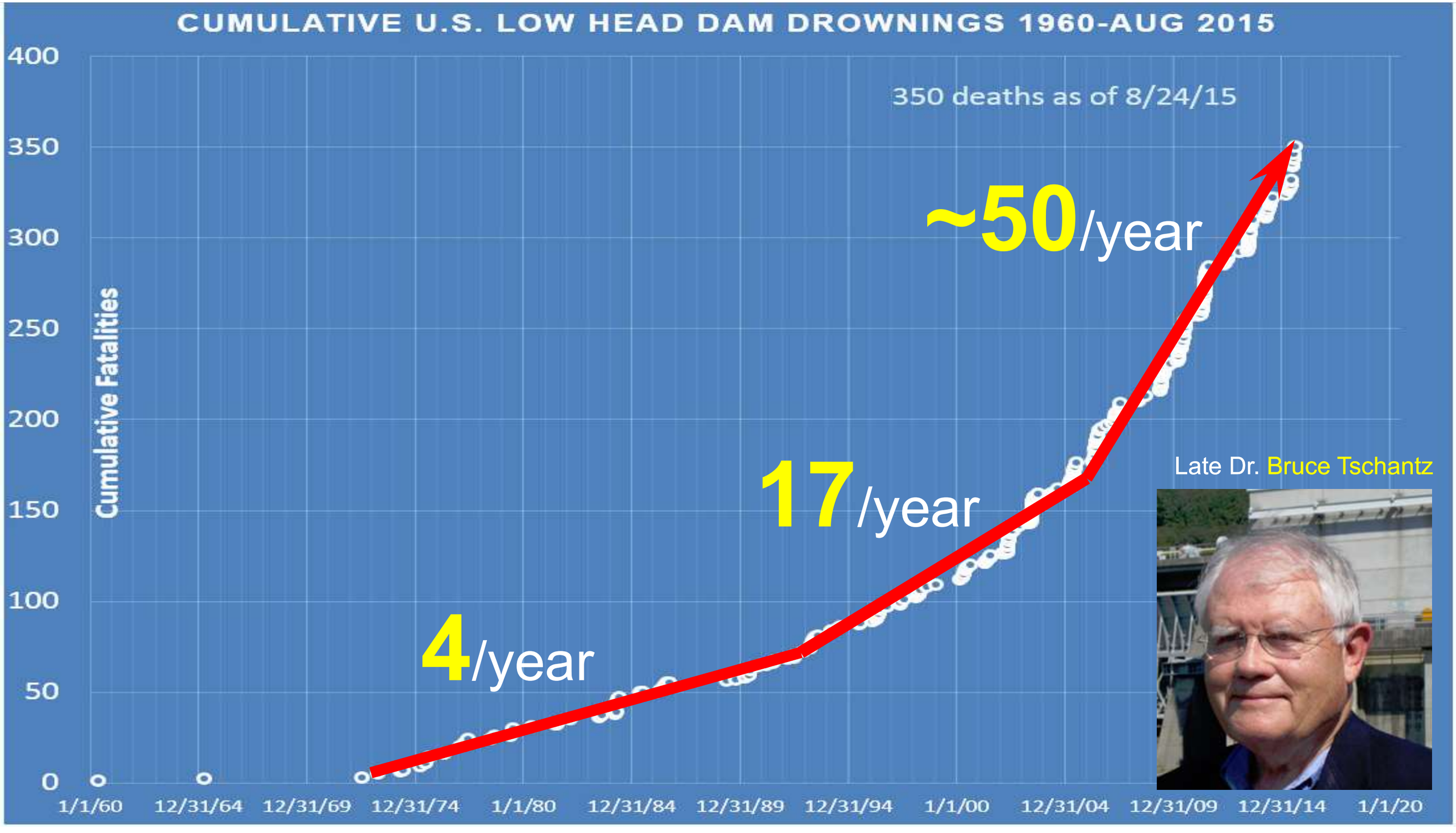
Bobby J Martin II, 11, Charleston WV June 14, 1969

Jerry Thomas Pomeroy, 16, Charleston WV June 30, 1971

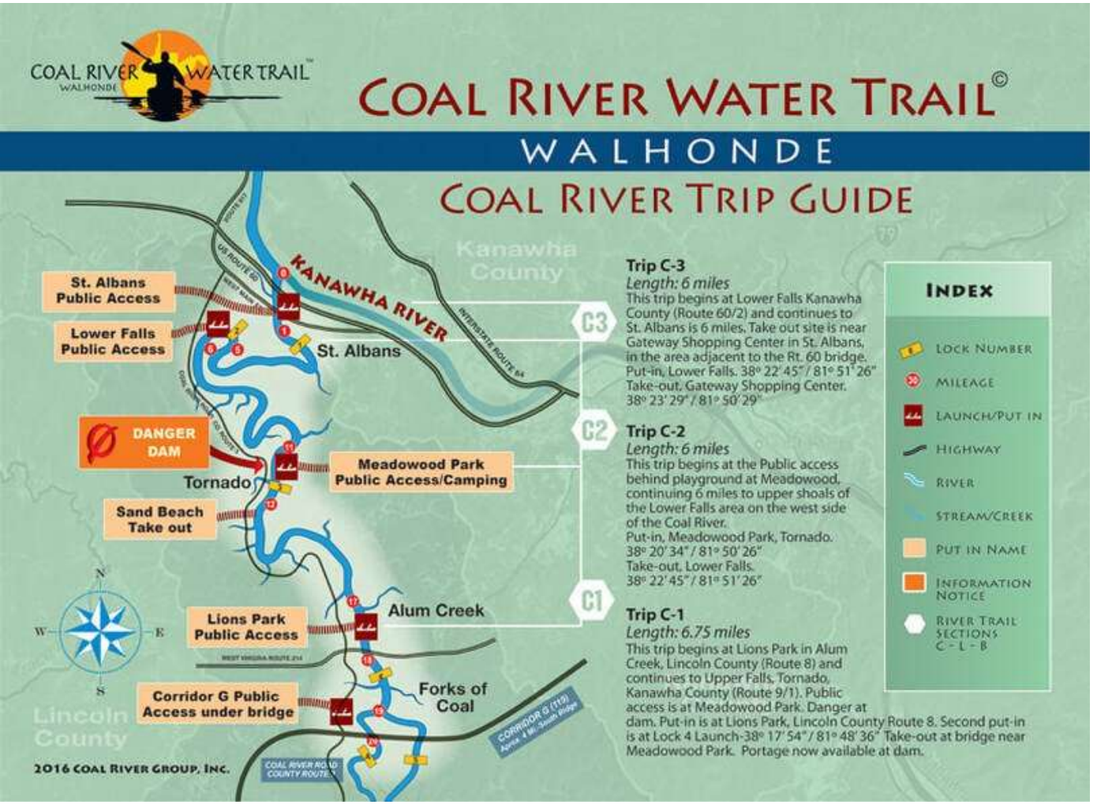
Joey Meadows, 37, Cleveland OH, June 14, 2007

Charles Edward Fitzgerald, 33, Pulaski TN, July 11, 2011

American Rivers Reports Over 1,400 Fatalities at Low-Head Dams


CUMULATIVE U.S. LOW HEAD DAM DROWNINGS 1960-AUG 2015
Cumulative Fatalities
400
350
300
250
200
150
100
50
0
1/1/60
12/31/64
12/31/69
12/31/74
1/1/80
12/31/84
12/31/89
12/31/94
1/1/00
12/31/04
12/31/09
12/31/14
1/1/20
350 deaths as of 8/24/15
~50/year
17/year
4/year
Late Dr. Bruce Tschantz

Revitalization of the Coal River



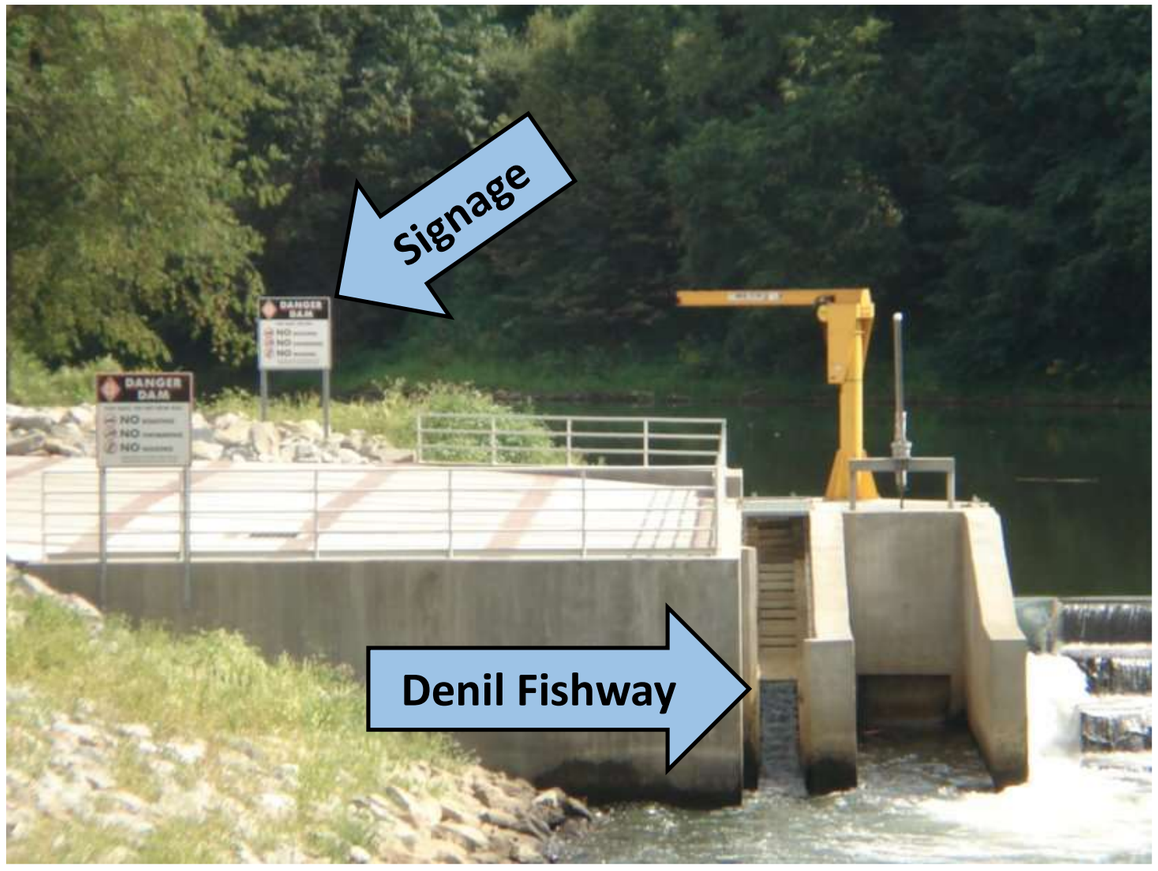
COAL RIVER WATER TRAIL
WALHONDE

Examples of Projects which Addressed Similar Issues

Redbank Dam – New Bethlehem, PA

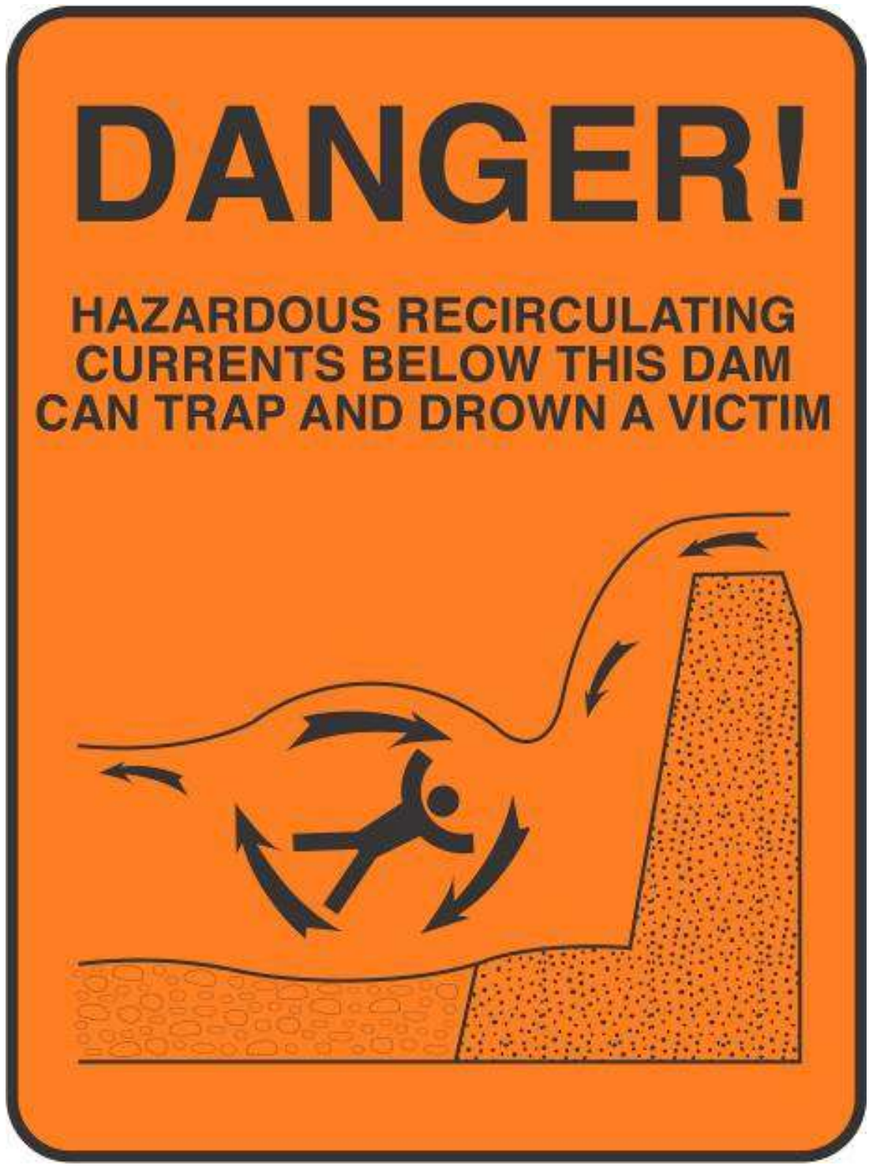
Conditions Prior to Project

Redbank Dam – New Bethlehem, PA



Dam Modifications for Improved Public Safety & Aquatic Movement

Signage


DANGER!
HAZARDOUS RECIRCULATING CURRENTS BELOW THIS DAM CAN TRAP AND DROWN A VICTIM


DANGER
DAM
STAY BACK 200 FEET
NO BOATING
NO SWIMMING
NO WADING
Strong currents and turbulent water above and below this dam can trap and drown a person.
Penalty for Violation as Provided by Law • Pennsylvania Fish and Boat Commission

Two Lick Dam on the West Fork River – Clarksburg, WV

Dam Modifications for Improved Public Safety

Shenango Intake Dam – Sharon, PA

Conditions Prior to Project

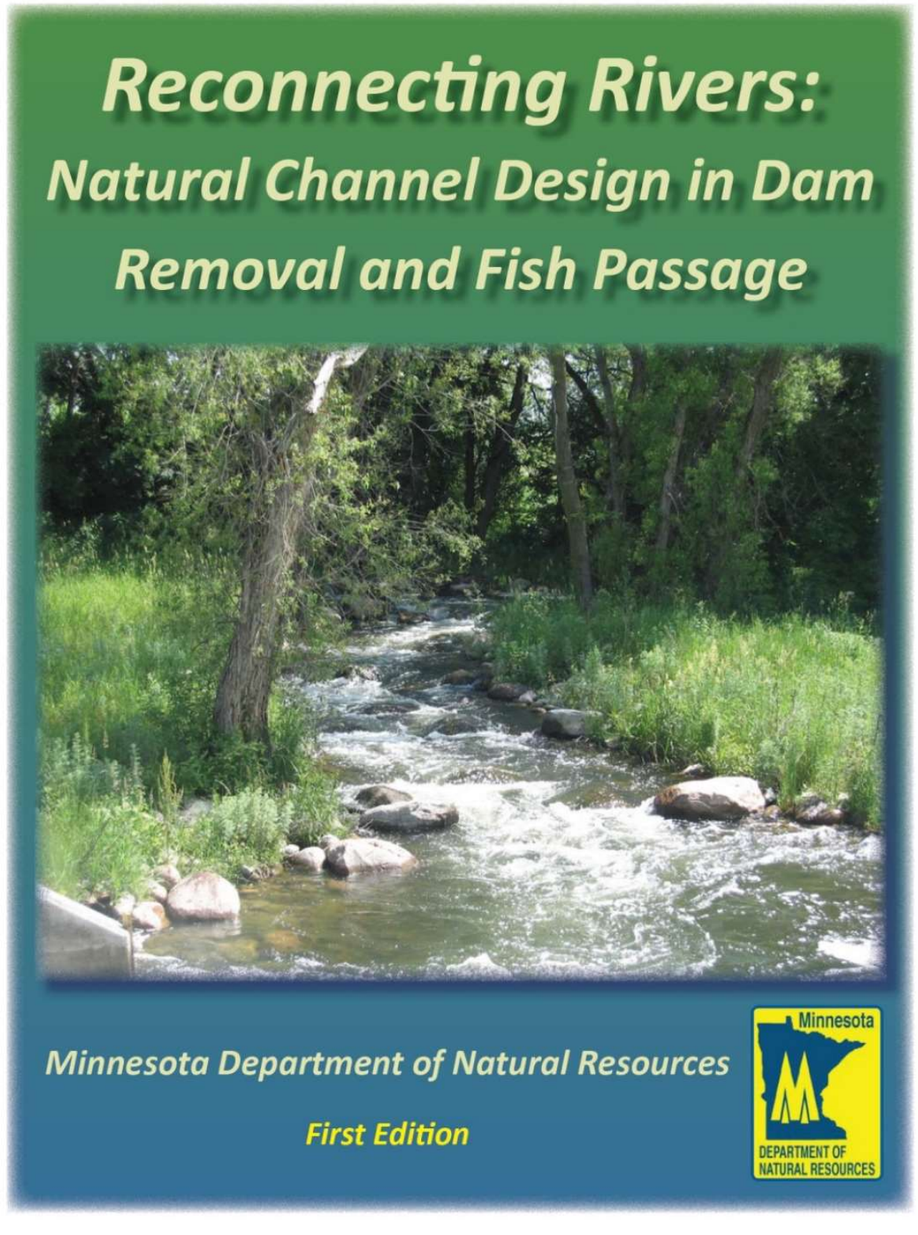
Shenango Intake Dam – Sharon, PA

Placement of Slush Grouted Riprap

Shenango Intake Dam – Sharon, PA

Dam Modifications for Improved Public Safety

Natural Channel Design



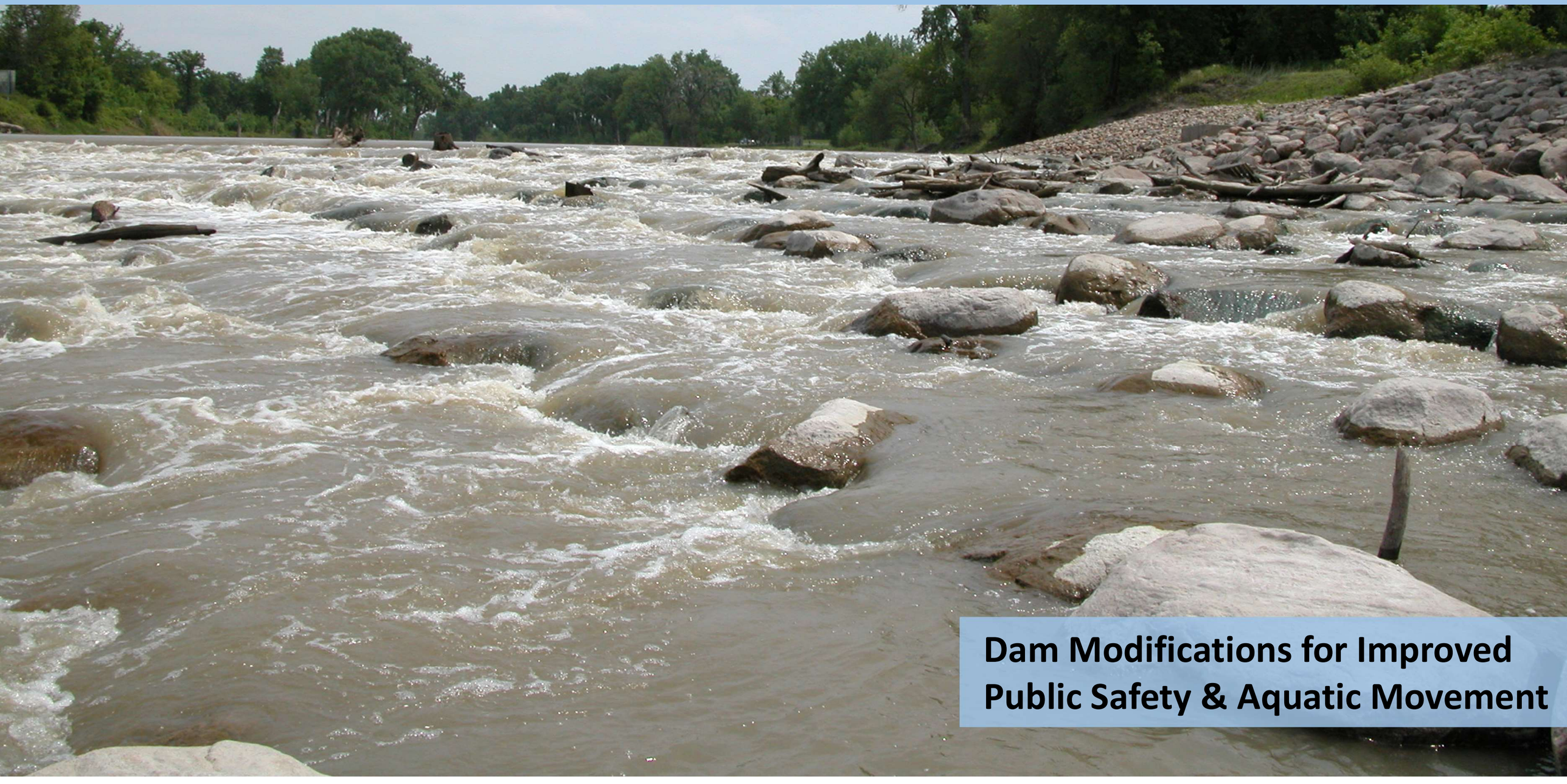
Dr. Luther Aadland
MN DNR

Riverside Dam on the Red River – Grand Forks, MN

Photos courtesy of Dr. Luther Aadland, Minnesota DNR

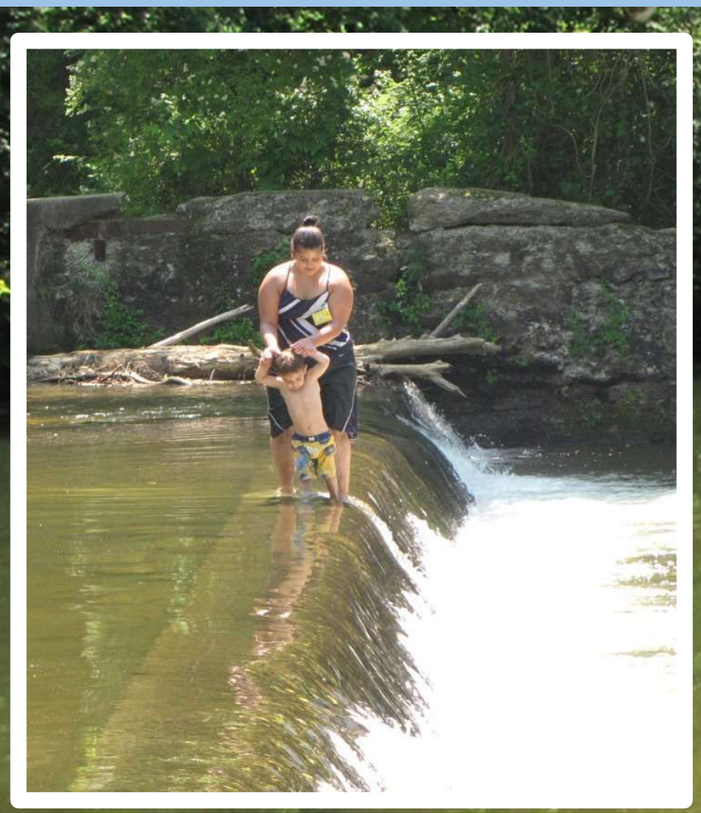
Dam Modifications for Improved Public Safety & Aquatic Movement

Riverside Dam on the Red River – Grand Forks, MN



Dam Modifications for Improved Public Safety & Aquatic Movement

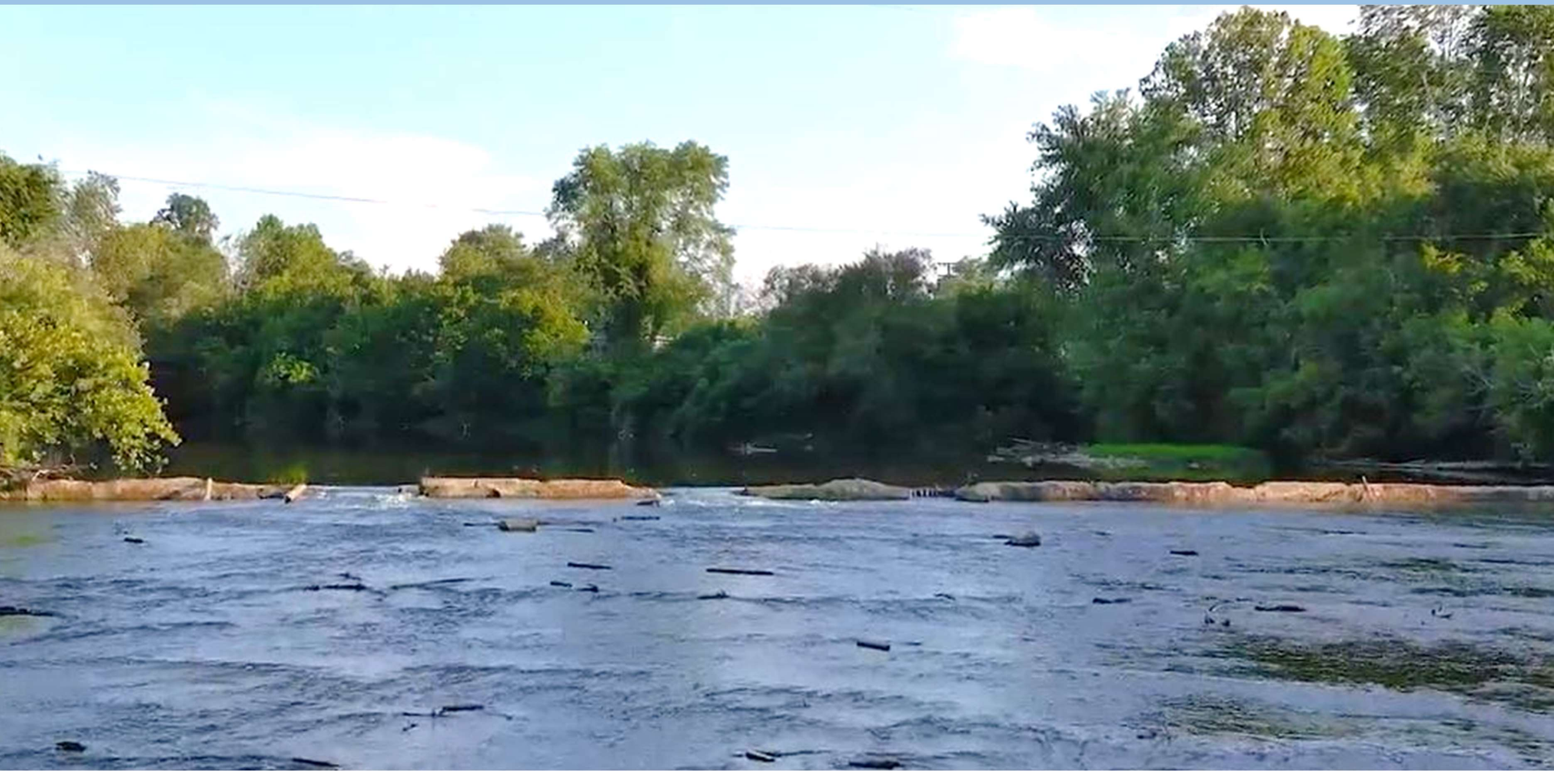
Brandywine Dam Removal – Chester County, PA



Brandywine Dam Removal – Chester County, PA

Brandywine Dam Removal – Chester County, PA

Coal River



Next Steps

- Collect Public and Agency Input ✓ — July 2025
- Inventory Resources and Data Collection — February 2026
- Alternative Formulation — July 2026
- Draft Plan-EA Available for Review and Comment — February 2027
- Public Meeting to Solicit Comments on Draft Plan-EA — March 2027
- Final Plan EA and Decision — April 2027

We Need Your Help

If you have specific information or concerns related to the project, please complete a comment form and provide it to a member of the design team.

Comments Due by **August 22, 2025**

Contact Information

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Open Discussion

Source of Aerial Image: WCHS Eyewitness News