



United States
Department of
Agriculture

Forest
Service

Eastern Region

310 West Wisconsin Ave.
Suite 580
Milwaukee, WI 53203

File Code: 2350-4
Route To: (2350)

Date: January 22, 2003

Subject: Section 7 Determination - Forest School Outfall

To: Forest Supervisor, Allegheny National Forest

A team of regional resource specialists has evaluated the Forest School Outfall Project on the Allegheny Wild and Scenic River that was submitted for Regional Forester determination, as required by Section 7 of the Wild and Scenic Rivers Act (P.L. 90-542). This letter documents the key considerations from that review, and forms the foundation for my determination under the "Direct and Adverse Effects" standard for the portions of this project that are within the bed and bank of that nationally designated river.

The proposed activity is considered a ground-disturbing action within the designated Wild and Scenic River corridor. Based upon the review and recommendation by the team, it is my determination that there are no direct and adverse effects to the free-flowing condition of the river, or to the outstanding remarkable values that are not mitigated by project design and/or permitting agency requirements. These are incorporated through reference in this analysis. I find that reasonable precautions and mitigations have been included within the scope of the proposed activity. The proposed activity is within the recreational designated segment of the river.

This determination for compliance with Section 7 of the Wild and Scenic Rivers Act is based upon the enclosed analysis, disclosure of effects, and required mitigation. As the project is not on National Forest System lands, this determination is not an appealable decision, nor does it require any National Environmental Policy Act (NEPA) decisions with regard to this project.

Should any actions or activities proposed by the project proponent change in any way that would have the potential to affect the free-flowing condition and/or outstanding remarkable values other than described within the referenced analysis, this determination will need to be re-evaluated.

We ask that you share this determination with the Army Corps of Engineers and other entities for reference and consideration under their delegated authority.

If you have any questions, please contact John Romanowski at (414) 297-3727 or jromanowski@fs.fed.us.

/s/ Sherry L Wagner (for)
RANDY MOORE
Regional Forester

Enclosure



Allegheny River
C.O.E. Application #200201119, (Forest School Outfall)
Section 7(a) Evaluation, Wild and Scenic Rivers Act

USDA Forest Service, Allegheny National Forest,
Administering Agency

Prepared by:

Don A. Clymer, Trails Specialist

Specialist Input

Brady N. Dodd, Hydrologist

Rick Kandare, Archeologist

Gary Kell, Landscape Architect

January, 2003

Introduction

This document follows the evaluation procedure documented in the Wild and Scenic Rivers Reference Guide compiled by the Interagency Wild and Scenic Rivers Coordinating Council.

The U.S. Army Corps of Engineers (ACOE) Pittsburgh District has received an application (#200201119) for authorization to construct a sewage outflow on the bank of the Allegheny River under the Clean Water Act, Section 404, Nationwide Permit #7, for Outfall Structures and Maintenance, from Pascoe Engineering, New Castle, PA. for the Forest Area School District in Tionesta, Forest County, Pennsylvania. See Figure 1 – Project Location. The U.S. Army Corps of Engineers is the federal agency responsible for issuing a permit under the provisions of Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. The construction activity qualifies as a water resources project per FSM 2354.75 and thus requires an evaluation for effects as prescribed in Section 7 of the Wild and Scenic Rivers Act. The USDA Forest Service is the federal agency responsible for the Section 7(a) Evaluation under the Wild and Scenic Rivers Act for the Allegheny River. Appendix A includes a copy of the application received from the ACOE on August 28, 2002, with a request for review and comment, and a revised proposal from Pascoe Engineering dated October 17, 2002. This document determines if there are any direct and adverse effects to the outstandingly remarkable values (ORV's) for which the river was designated and also evaluates the impacts of the completed construction on free flow of the Allegheny Wild and Scenic River.

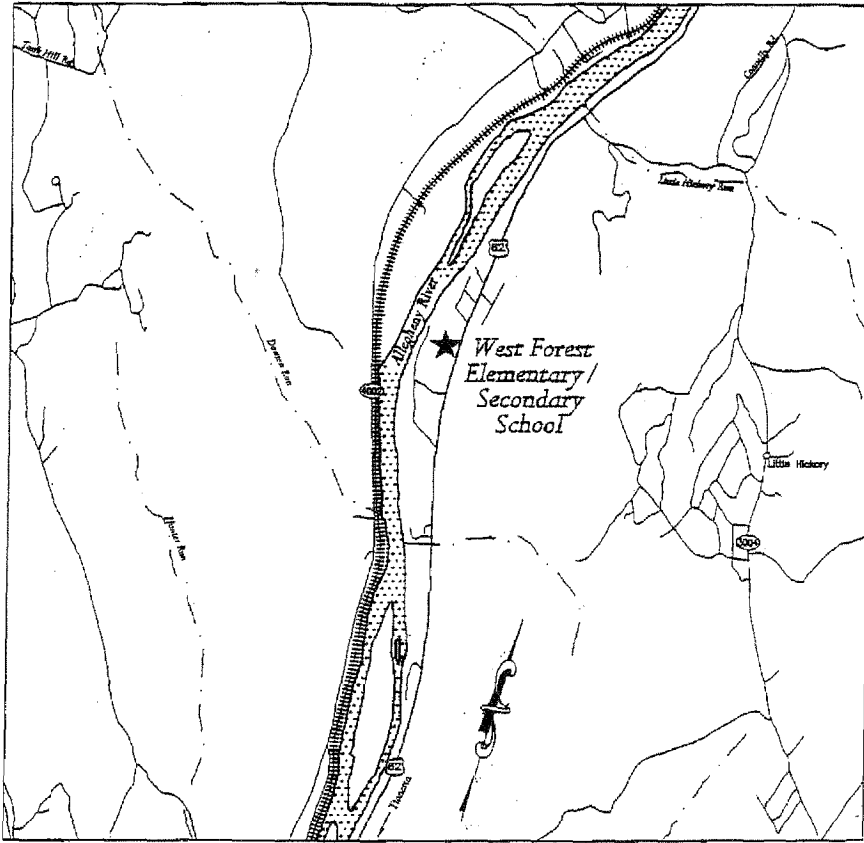
Comment: Although omitted at this section, the third component of a Section 7 determination (water quality) was evaluated in the Hydrological Report.

The outstandingly remarkable values (ORV's) for the Allegheny River include scenic, heritage and natural (undeveloped islands) values. The purpose of the Wild and Scenic designation is to maintain free flow and protect or enhance those values present when the river was designated.

Factors contributing to the scenic values of the river are the three distinct landscapes of: broad valleys with pastoral/rural scenes; narrower valleys with over 100 scattered undeveloped islands and adjacent undeveloped shorelines; and narrow, sharply winding valleys with steep side slopes. A broad river valley with pastoral rural scenes is characteristic of the immediate permit area. The river is approximately 500 feet wide at this point.

The upper section of the river measuring 37.6 miles in length (Kinzua Dam to Tionesta) is classified as recreation and is characterized as Rural on the Recreation Opportunity Spectrum (ROS). This section, which includes the project area, has many residences, camps, small towns, parallel roads and access points. Human activities can be seen and heard from the river. The major recreation activities along the river are boating, canoeing, boat fishing, bank fishing and swimming. Other river related activities occurring within the corridor include driving for pleasure, viewing scenery, bird watching, hunting, photography, hiking, biking, picnicking, etc.

The project area is known to support natural populations of the northern riffleshell and the clubshell mussels, two fresh water mussels listed as federally endangered mussel species. The American Bald Eagle also uses this reach of the river for feeding and perching. Several state and federally listed darters have been documented as inhabiting the river, as well as the burbot and smallmouth buffalo.




	HHSOR Architects & Engineers 40 Shenango Ave., Sharon, PA 16146 130 Seventh Street, Pittsburgh, PA 15222		(724) 981-8820 (412) 281-2280
	Project West Forest Elementary/Secondary School Comm. No. 3189		Date 07/12/02
Sketch Title <u>Vicinity Map</u>		Sketch No. 71202P-1	

Figure 1 – Project Location

Section One

Define the Proposed Activity

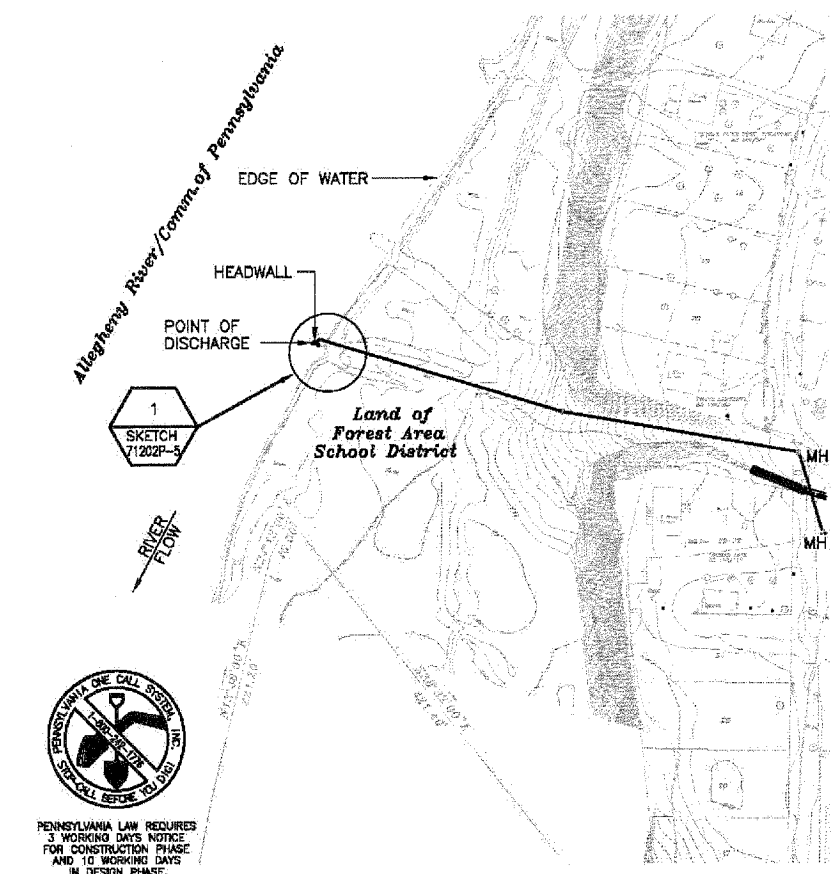
The proposed activity is to construct an outflow structure along the shoreline of the Allegheny River (including a six-inch pipeline and a pre-cast concrete headwall) for treated sewage discharge from a new sewage treatment plant.

A new sewage treatment plant is being proposed to handle a maximum of 12,000 gallons per day. The plant contains a flow equalization tank which releases the flow evenly over 24 hours so that the maximum flow will be 8.33 gallons per minute. The sewage treatment plant will be constructed with ultra-violet disinfections (as opposed to chlorine) so as to avoid introducing chemicals that might harm aquatic life forms.

Comment: The plant was designed to address water quality concerns.

The land through which the six-inch diameter outflow pipe will pass is all owned by the school district. See Figure 2 – Plumbing site plan and Photo 1 – pipeline location. The trench required for burial of this six-inch pipe will be dug by an excavator and will be approximately 2 foot wide and varying depth from 0 to 10 feet as shown in Figure 3 – Sanitary Sewer Profile. No trees or shrubs will be disturbed for this installation. Perimeter silt fence will be installed prior to any earthwork, and after pipe burial the trench will be backfilled and the disturbed area limed, fertilized, seeded and mulched per the approved Erosion and Sedimentation Plan. The Army Corps of Engineers has determined that there are no wetlands on the proposed project.

The outflow pipe will end at a pre-cast concrete headwall installed at the river's edge facing almost due south. See Figure 3 – Sanitary Sewer Profile "B". This location is in the side of a small cove where an ephemeral stream enters the river. See photos 2 & 3 – Headwall location. The headwall will have native river rocks placed in the structure to provide a natural visual appearance during low water. The plans state that the headwall will be set with its outfall at or slightly above the current (10/4/02) water level. See figures 4, 5, & 6 – Headwall Detail Plan and Sections.



PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE
FOR CONSTRUCTION PHASE
AND 10 WORKING DAYS
IN DESIGN PHASE

PA ONE CALL SERIAL No. 3050836

PLUMBING SITE PLAN

REVISED 12/23/02

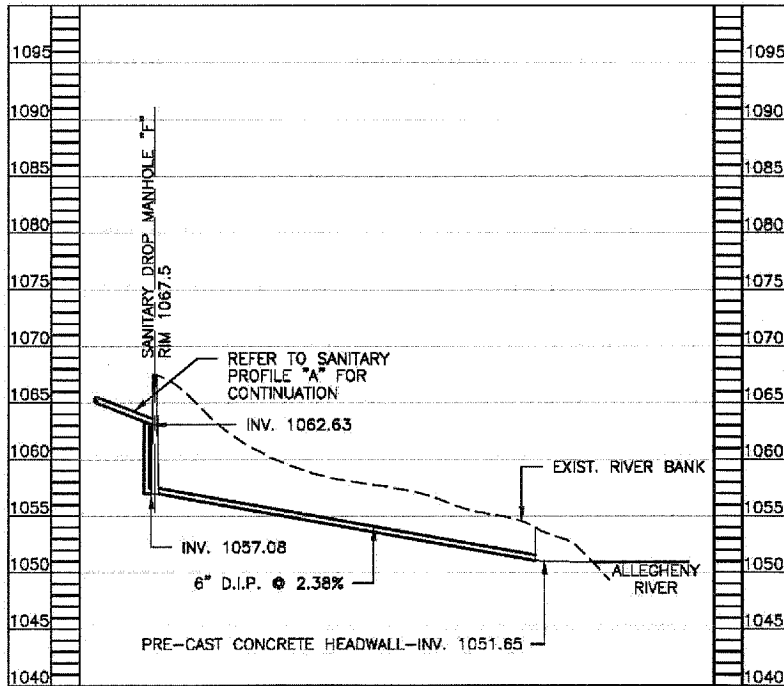
SCALE: 1"=100'0"

	HHS DR Architects & Engineers 40 Shenango Ave., Sharon, PA 16146 130 Seventh Street, Pittsburgh, PA 15222		(724) 981-8820 (412) 281-2280
	Project <u>West Forest Elementary/Secondary School Comm. No. 3189</u>		Date <u>07/12/02</u>
	Sketch Title <u>Plumbing Site Plan</u>		Sketch No. <u>071202P-2</u>

Figure 2 – Plumbing Site Plan



Photo 1 – Pipeline location



SANITARY SEWER PROFILE "B"

SCALE: HORIZ. 1"=60'
VERT. 1"=10'

REVISED 12/23/02


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	Project West Forest Elementary/Secondary School Comm. No. 3189		Date 07/12/02
Sketch Title Sanitary Sewer Profile "B"		Sketch No. 071202P-4	

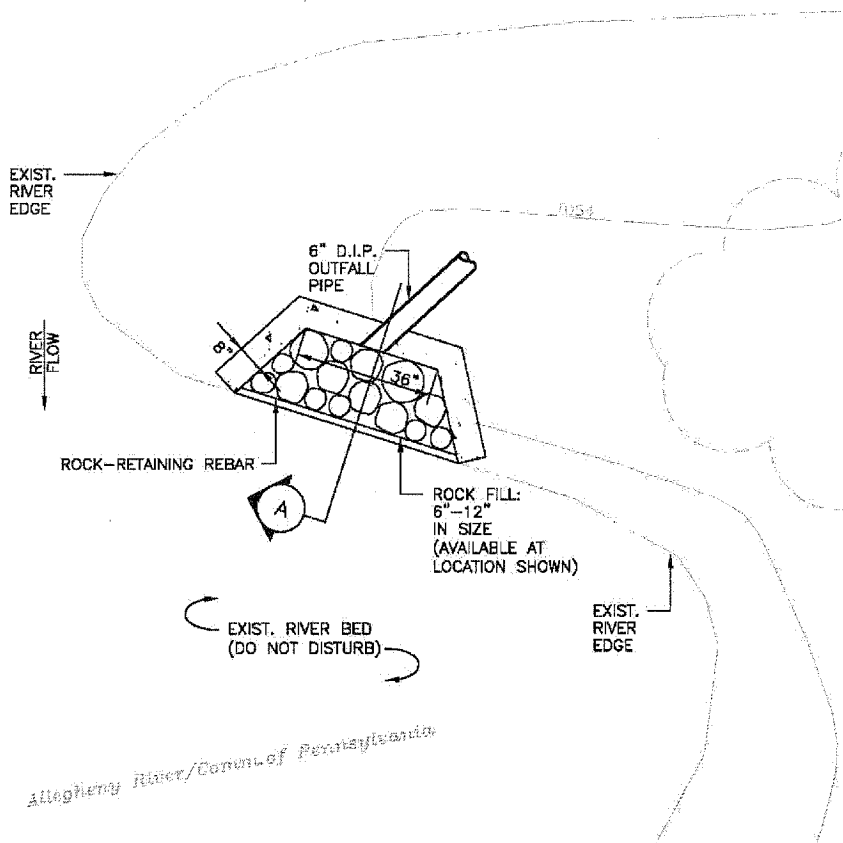
Figure 3 – Sanitary Sewer Profile "B"



Photo 2 – Headwall Location



Photo 3 – Headwall Location



HEADWALL DETAIL-PLAN

REVISED 12/23/02

SCALE: 3/8"=1'0"


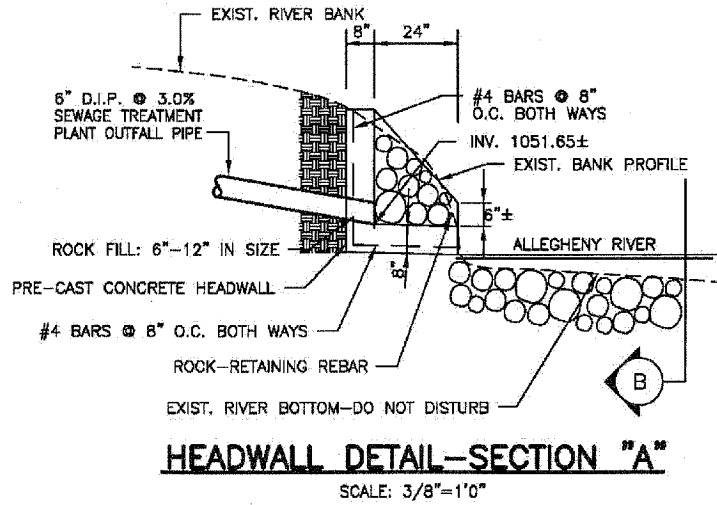
	HHSR Architects & Engineers	
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	(724) 981-8820 (412) 281-2280	
Project <u>West Forest Elementary/Secondary School Comm. No. 3189</u>		Date <u>07/12/02</u>
Sketch Title <u>Headwall Detail-Plan</u>		Sketch No. <u>71202P-5</u>

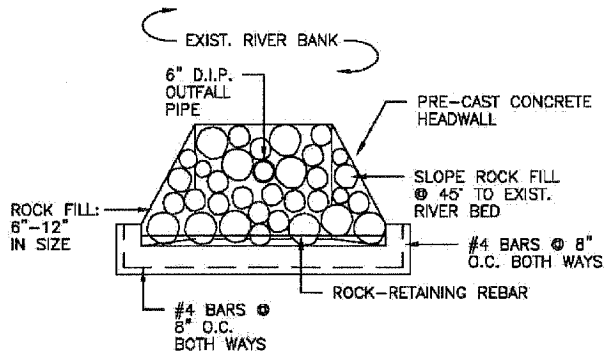
Figure 4 – Headwall Detail Plan



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	Project <u>West Forest Elementary/Secondary School Comm. No. 3189</u>		Date <u>07/12/02</u>
Sketch Title <u>Headwall Detail-Section</u>		Sketch No. <u>71202P-6</u>	

Figure 5 – Headwall Detail – Section “A”



HEADWALL DETAIL-SECTION "B"

SCALE: 3/8"=1'0"

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	Project <u>West Forest Elementary/Secondary School Comm. No. 3189</u>	Date <u>07/12/02</u>
Sketch Title <u>Headwall Detail-Section "A"</u>	Sketch No. <u>71202P-7</u>	

Figure 6 – Headwall Detail – Section “B”

Section Two **Alteration of Within-Channel Conditions**

Excavation of the bank (5' x 2.5' x 2.5') will have to occur to accommodate the headwall. The depth of excavation proposed is not anticipated to destabilize adjacent banks. Excavation will be done during low water when the site is dry. The pipe outflow would likely create a small channel (discharge will be a maximum of 8.33 gal/min) during low flow conditions from the outlet to the wetted river edge. During higher river flow conditions the pipe would be submerged and therefore discharge directly into the flow of the Allegheny River.

Section Three **Alteration of Riparian and/or Floodplain Condition**

The pipeline and outflow are within the floodway of the river. The floodplain and shoreline in this location are very stable. It is gently sloping and densely vegetated with grass. See photo 1 – Pipeline Location. The area of disturbance will be 0.01 Ac. Some grass cover will be displaced in excavating the approximately 2 foot wide pipeline trench but the area will be revegetated with a native grass seed mix as per the E&S Plan.

Section Four **Alteration of Upland Conditions**

Under the proposed permit there is no planned alterations of upland conditions. Any soil disturbed by the installation process for the outflow pipe will be restored to its original state afterward. Changes in upland vegetation, soils, and hydrologic properties are not expected to occur as a result of this project.

Section Five **Alteration of Hydrologic or Biologic Processes**

A field visit to the site occurred on November 5, 2002, during flow conditions that were below average for that date. The flow observed on November 5, 2002 was 3,080 cfs (average flow for this day is 5,465 cfs.). The engineering plans and sections are based on the water level that existed on October 4, 2002 when the flow was 1,590 cfs, considerably lower than

Comment: Often beneficial to conduct on-site visits.

our visit on Nov 5. Therefore our pictures show a much higher water level than the plans depict, a difference of 4 to 5 feet.

This section of the Allegheny River is designated as a warm-water fishery in PA Code, Title 25 Chapter 93 (PA DEP 2001). The Allegheny River supports a wide variety of fish species in this area of the river, including several game fish such as smallmouth bass, yellow perch, muskellunge, walleye, northern pike, white bass, channel and flathead catfish, and brown and rainbow trout. There are also many non-game fishes, such as species of chubs, darters, shiners, and suckers. Several state and federally listed darters have been documented as inhabiting the river, as well as the burbot and smallmouth buffalo.

The project area is located in an area known to have two federally endangered mussel species. Surveys conducted by the Western Pennsylvania Conservancy indicate that two federally listed endangered mussel species, the northern riffleshell (*Epioblasma torulosa rangiana*) and the clubshell (*Pleurobema clava*), occur in this reach of the Allegheny River. The US Fish and Wildlife Service has conducted a review of this project (see appendix C letter dated 12/13/02) and concluded “that construction of this project will have no permanent or temporary impacts on riverine habitats occupied by the clubshell and northern riffleshell.” The PA Department of Environmental Resources has also reviewed the project (see appendix D letter dated October 11, 2002) and found that “no adverse impacts are expected from the proposed project to the species of special concern.”

Comment: Often necessary and appropriate to coordinate with USFWS and state agencies.

Whenever relatively immovable structure is added to a stream channel, there will be some level of change in morphologic process. In this case, the headwall would act to restrict movement of the bank that it is placed against and influence the distribution of flow as it moves over the bank and down the face of the headwall. To this extent, there would be a modification to the free-flow of the river. We do not anticipate that these potential changes in flow would have any adverse affects on channel stability or water quality of the Allegheny River.

assure that the rock harmonizes with the natural character of the shoreline, native river rock should be used.

Comment: Appropriate mitigation to protect scenic value.

Cultural or Historic Resources: There is a known archeological site within the project area. The Pennsylvania Historical and Museum Commission has reviewed the project and determined that a Phase I archaeological survey is needed. They have notified Pascoe Engineering of this need and will continue to monitor the project to ensure that it will have no effect on the historic or archaeological resources.

Biological Diversity: Whenever relatively immovable structure is added to a stream channel, there will be some level of change in morphologic process. In this case, the headwall would act to restrict movement of the bank that it is placed against and influence the distribution of flow as it moves over the bank and down the face of the headwall. To this extent, there would be a modification to the free-flow of the river. We do not anticipate that these potential changes in flow would have any adverse affects on channel stability or water quality of the Allegheny River.

Water quality of the discharge, under the oversight of DEP, will be monitored to insure it meets not only state standards, but standards set forth by the USFWS to protect the northern riffleshell and clubshell mussels, both federally listed endangered species.

2. Promote the recreational use of the river while maintaining its present free-flowing character and high quality fishery.

Recreational Use: There will be no change to recreational use.

Free-Flow: Effects on free-flow are anticipated to be so minor as to be insignificant.

High Quality Fishery: There will be no effects. The water quality will be protected through the discharge permit process.

3. Minimize conflicts between river use and private landowners.

There will be no conflicts caused by this project.

4. Coordinate the activities and responsibilities of Federal, State, and Municipal regulatory and managerial agencies to carry out the Management Plan.

The Corps of Engineers permit process is ensuring that all agencies are coordinating their river management responsibilities.

As planned and designed this project meets with established river management goals.

Determination

1. The effects of the project on free-flow indicate that there will be no significant change in the flow of the river from this project and it has no adverse impacts occurring to the river channel. The water quality standards set forth and agreed to by the DEP, US Fish and Wildlife Service and the PFBC will protect the biological values and specifically the endangered mussels.
2. The analysis of the effects on ORV's does indicate that this project currently meets the desired future condition of protecting the scenic, cultural and historic, and natural biological values.

Comment: Advisable to use the language in the Act; i.e., there are no direct and adverse effects to free-flowing condition, water quality and [specifically identified] outstandingly remarkable values.

Mitigation Measures that are paramount to protecting the wild and scenic river values are:

1. Use of native river rock in the headwall structure.
2. The top of the headwall elevation placed below the existing grass level.
3. Immediate re-vegetation of disturbed areas with native seed mixtures.
4. Adherence to the water quality discharge parameters set forth by the PA DEP including any specified by the US Fish and Wildlife Service.

Comment: Important to clearly identify if mitigation measures are conditional (i.e. required) or optional.

APPENDIX

Comment: Only Appendix E, the Hydrology Report, is included.

Appendix A – ACOE Permit Application

Appendix B – Pascoe Engineering amended proposal titled “Project Narrative For Wildlife Agency Review”

Appendix C – USDI Fish and Wildlife Service letter dated 12/12/02

Appendix D – PA Department of Environmental Services letter dated 10/11/02

Appendix E – Hydrology Report: Brady N. Dodd 11/25/02

Appendix F – References

the face of the headwall. To this extent, there would be a modification to the free-flow of the river. I do not anticipate that these potential changes in flow would have any adverse affects on channel stability or water quality of the Allegheny River. Water quality of the discharge is under the oversight of PA-DEP, and would be monitored to insure it meets not only state standards, but standards set forth by the USFWS to protect the northern riffleshell and clubshell mussels, federally listed endangered species.

Brady N. Dodd
Allegheny N.F. Hydrologist

Appendix A – Photos

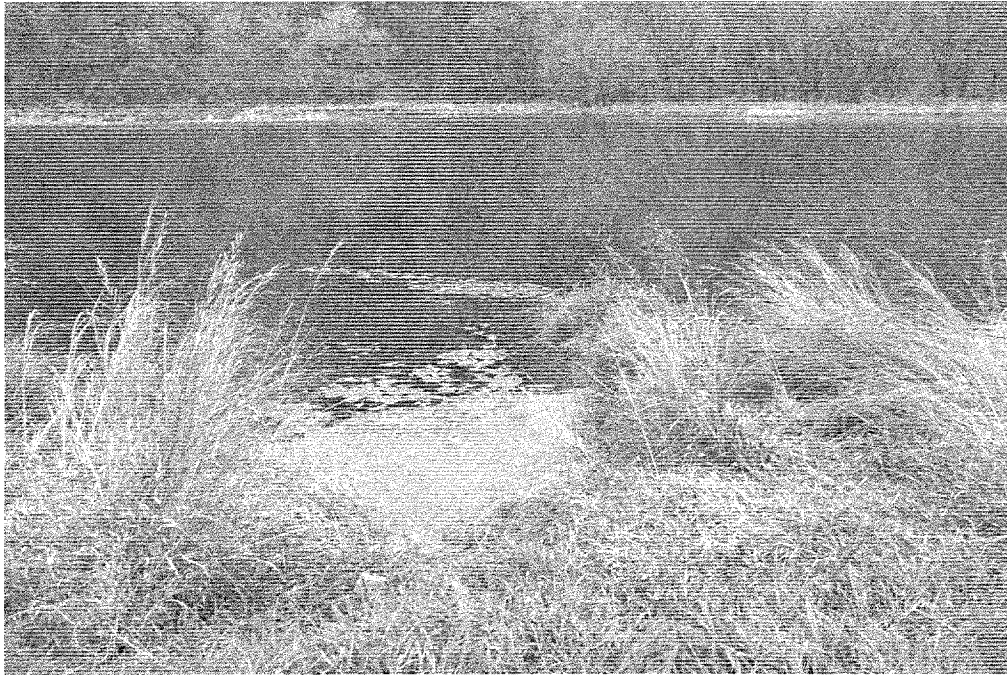


Photo 1. Proposed wastewater discharge pipe location looking from the floodplain out across the channel. The pink flag marks the outlet location

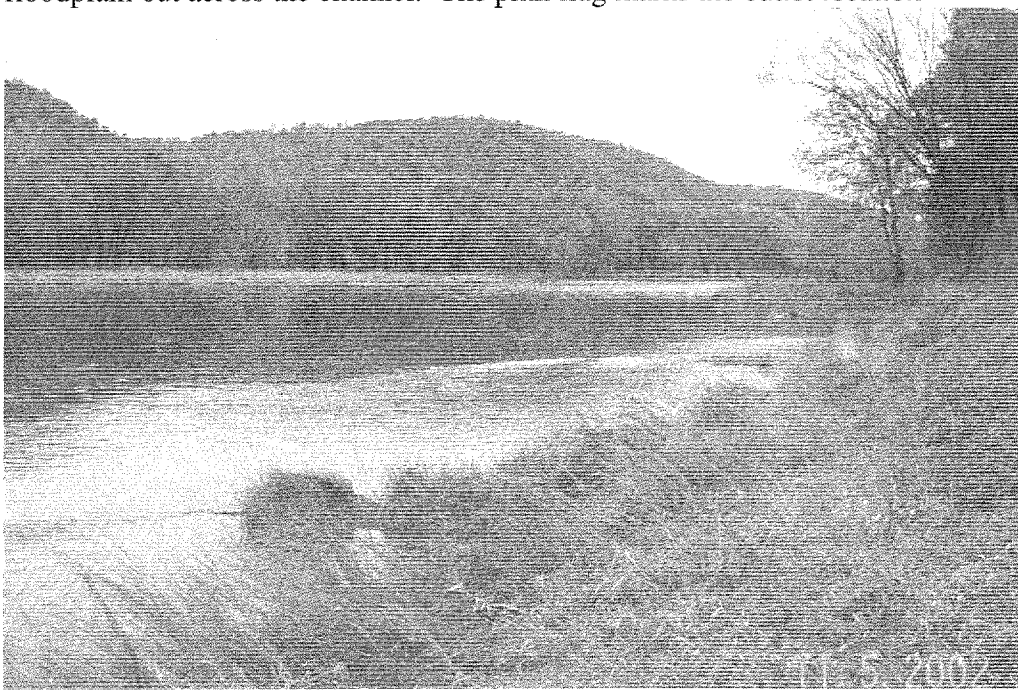


Photo 2. Proposed wastewater discharge pipe location looking upstream along the bank. The pink flag marks the outlet location



Photo 2. Proposed wastewater discharge pipe location looking downstream along the bank. The pink flag marks the outlet location.

