

## **MANAGEMENT OPTIONS**

### **Introduction to Management Options**

Management options are suggestions to improve the quality of life within the watershed. They are non-regulatory in nature and may be used by any citizen, group, or agency. Potential partners are groups with the resources best suited to assist in meeting the objectives. Potential funding sources identify avenues through which the objectives may be financed. The groups listed as potential partners or potential funding sources are suggestions and should not be limited to the identified groups due to ever-changing circumstances.

The options were derived from correspondence, comments, issues, and concerns identified by local citizens throughout the planning process. The watershed community, through comments, interviews, and the completion of surveys, has provided the basis for the management options. This matrix of options includes recommended approaches, potential partners, and potential funding sources.

This section of the plan is intended to be used by communities in the Pine Creek watershed including the public, municipal officials, watershed associations, businesses and other groups of citizens coming together to solve particular problems and working on community development. It can be used to not only identify potential sources of funding but as a source of support for grants and other funding. We hope in some small way these management options can be used to help citizens explore the potential for improving the Pine Creek watershed.

As we all are painfully aware, the devil in any plan is in the details of implementation. The Pine Creek Watershed Rivers Conservation Plan is no different. The Steering Committee labored for many hours developing as comprehensive a list as we could to address many of the issues identified during the two years we worked on the various sections of the plan. Each subcommittee was charged with including as many options as possible under their specific category of Land, Water, Biological, Cultural and Recreation. Keep in mind they are not complete, not conclusive and may overlap somewhat.

We attempted to sort these management options according to the major sections of the plan. In addition, we tried to “fit” them into broad topics of Conservation and Natural Resources, Economic Development, Education, Flooding and Floodplain Management, Historic Preservation, Planning and Zoning, Sports and Recreation, Viewscapes, Water Resources and Water Safety. So if you are working on land use issues and want to find out what we felt was important, based on our research and public comment, navigate to the section on land resources and identify some of the topics pertinent to your project. In addition you will find suggestions on what was identified as important, including the specifics of what steps are necessary to address the issue and potential source of partners and funding. This list is by no means exhaustive but we hope it is useful as a starting point.

## ACRONYMS Used in Management Options for Pine Creek Watershed Rivers Conservation Plan

BMP	Best Management Practices
CBF	Chesapeake Bay Foundation
CCPP	Community Conservation Partnership Program
CD	Conservation Districts
CNHI	County Natural Heritage Inventory
CREP	Conservation Reserve Enhancement Project
CVI	Canaan Valley Institute
DAR	Daughters of the American Revolution
DCED	Pennsylvania Department of Community and Economic Development
DCNR	Pennsylvania Department of Conservation and Natural Resources
DEP	Pennsylvania Department of Environmental Protection
EMRC&D	Endless Mountains Resource Conservation and Development
EPA	U.S. Environmental Protection Agency
EPCAMR	Eastern Pennsylvania Coalition of Abandoned Mine Reclamation
FEMA	Federal Emergency Management Act
LUPTAP	Land Use Planning and Technical Assistance Program
N/D	Not dependent upon funding
NFIP	National Flood Insurance Program
NFWF	National Fish and Wildlife Foundation
NOAA	National Oceanic and Atmospheric Administration
NPC	Northcentral Pennsylvania Conservancy
NPS	National Park Service
NRCS	United States Department of Agriculture Natural Resource Conservation Services
ORV	Off-Road Vehicles
OSM	Office of Surface Mining
PABS	Pennsylvania Biological Survey
PACD	Pennsylvania Association of Conservation Districts
PA Green	Susquehanna Greenway Partnership
PANA	Pennsylvania Advocates for Nutrition and Activity
PASA	Pennsylvania Association for Sustainable Agriculture
PASDA	Pennsylvania Spatial Data Access
PCHPG	Pine Creek Headwaters Protection Group
PCPA	Pine Creek Preservation Association
PEMA	Pennsylvania Emergency Management Agency
PennDOT	Pennsylvania Department of Transportation
PENNTAP	Pennsylvania Technical Assistance Program
PENNVEST	Pennsylvania Infrastructure Investment Authority
PFBC	Pennsylvania Fish and Boat Commission
PGC	Pennsylvania Game Commission
PHFA	Pennsylvania Housing Finance Agency
PHMC	Pennsylvania Historical and Museum Commission
PMPEI	Pennsylvania Municipal Planning Education Institute
PNDI	Pennsylvania Natural Diversity Inventory
PSATS	Pennsylvania State Association of Township Supervisors

RUS	United States Department of Agriculture Rural Utility Service
SMART	Students Monitoring Aquatic Resources Together
TNC	The Nature Conservancy
TDR	Transfer Development Rights
TU	Trout Unlimited
UCC	Unified Construction Code
USACE	United States Army Corp of Engineers
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WREN	League of Women Voters Watershed Resources Education Network



# Management Options for Pine Creek Watershed Rivers Conservation Plan

## *Issues, Concerns, Constraints, Opportunities*

*(Refer to text in Section II of Pine Creek Conservation Plan;  
numbers are not meant to signify any rank)*

### **PA WILDS**

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
<b>1. Integrate analysis and implementation of management options from other sections of the plan from a regional and state perspective</b>	<b>A.</b> Develop consensus and adopt and develop a holistic approach to capacity building and support of gateway communities	PASDA, USGS, DEP, DCNR, County Planning Commissions & Municipalities	LUPTAP, USGS, DEP, DCNR, County Planning Commissions & Municipalities
	<b>B.</b> Use GIS and Internet to develop interactive maps of the region		
	<b>C.</b> Link to infrastructure planning of county and state		
	<b>D.</b> Discuss & consider unforeseen consequences of our actions		
	<b>E.</b> Carefully study any proposed marketing campaign to: a. target appropriate audiences, b. determine impacts on communities, c. focus on gateway communities		
<b>2. Develop and monitor indicators of carrying capacity of the watershed</b>	<b>A.</b> Provide support and funding to planning commissions - regional, county and multi-municipal	Colleges and Universities, DCNR, DEP, PASA, PACD, CCPP, CD, DCED, LUPTAP,	DCNR, DEP, PASA, PACD, CCPP, DCED, LUPTAP, SEDA-COG, PENNVEST, PennDOT
	<b>B.</b> Explore methods for low impact development` and best management practices in the watershed		

C. Assist communities in developing a vision of their future and that of the watershed to foster development and protection of community character and enhance and create appropriate infrastructure

SEDA-COG, PENNVEST, Reg. Planning & Development Commissions, Co Planning Commissions

***Pine Creek Trail (Rail-Trail)***

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
<b>1. Frame Pine Creek Trail in the state forest management and greenway plans</b>	<b>A.</b> Develop timeline and identify funding to support DCNR design, construction and operation of the trail	DCNR, PA Green, PennDOT	DCNR
<b>2. Coordinate Pine Creek Trail with PA WILDS initiative</b>	<b>A.</b> Bring ALL agencies: county, municipal, state resource, and PennDOT to consensus on the process, money and effort expended <b>B.</b> Insert terminus (north and south) into gateway communities <b>C.</b> Address issues and opportunities with community leaders	DCNR, PA Green, PA WILDS	DCNR

***Chesapeake Bay Tributary Strategy***

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
<b>1. Partner with Conservation Districts on strategy development and implementation</b>	<b>A.</b> Educate the public and clarify goal of the strategy <b>B.</b> Identify and coordinate efforts to avoid duplication and redundancy <b>C.</b> Clarify costs and benefits and share responsibility	CD, CBF, DCNR, DEP, EMRC&D	CBF, DCNR, DEP

- D. Improve on best management practices concept to set the stage for sediment and nutrient reductions
- E. Explore links of tributary strategies and community development

***Pine Creek Valley Emergency Services***

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
<b>1. Determine if the emergency services available in the Pine Creek Valley are adequate.</b>	<ul style="list-style-type: none"> <li>A. Track the usage of emergency services</li> <li>B. Research how emergency services respond in similar areas</li> <li>C. Assess those areas' solutions to their problems</li> </ul>	Emergency Mgt Agencies, County Planning Commissions, PEMA, Local Colleges	PEMA, Municipalities, PA WILDS
<b>2. Provide residents and visitors with appropriate levels of emergency service.</b>	<ul style="list-style-type: none"> <li>A. Study the ability of volunteer emergency responders to address the public needs for services in the watershed.</li> <li>B. Work to cooperatively implement recommendations from the study.</li> <li>C. Determine what mutual aid agreements exist and what agreements are needed.</li> <li>D. Discuss and assess the interoperability of the emergency responders in the watershed.</li> <li>E. If needed develop an interoperability plan that outlines specifications and standards, as well as a timetable for reaching full</li> </ul>	Fire companies, Hospitals, Emergency Management Agencies, County Planning Commissions, PEMA	PEMA, Municipalities, PA WILDS

interoperability.  
 F. Discuss the recommendations from the Senate Resolution 60 Task Force with local legislators and encourage them to work toward implementing the recommendations.

**3. Educate the public about the relative lack of services and delay in response time they may encounter in rural areas**

**A.** Encourage that signage and literature (brochures, websites, etc.) which advertise the area and its attractions include information about this issue.

DCNR, PA  
 WILDS,  
 PEMA,  
 Municipalities,  
 Fire companies

DCNR, PA  
 WILDS

***Implementing the Plan***

*Management Options*

*Specific Implementation Project*

*Partners*

*Funding Sources*

**1. Establish a Pine Creek organization to coordinate programs in the watershed**

**A.** Implement the Pine Creek Watershed Rivers Conservation Plan  
**B.** Use the structure of the Pine Creek organization to facilitate, coordinate, communicate and collaborate on current and future opportunities and issues in the watershed  
**C.** Act as clearinghouse for strategies or partners and communities in the watershed  
**D.** Enable municipalities to improve infrastructure and protect natural resources simultaneously

DCNR, DEP,  
 State and local municipalities,  
 CD, PCHPG,  
 PCPA,  
 watershed groups, TNC,  
 NPC,  
 EMRC&D

DCNR, DEP, CD

**2. Provide local officials and municipal staff with training**

**A.** Develop training on topics and skills needed to implement the plan  
**B.** Communicate and share

DCNR, DEP,  
 DCED,  
 PSATS,  
 Municipalities

DCNR, DEP,  
 DCED

**opportunities to assist in implementing this plan**

information on training offered by other groups

***Conservation Easements***

*Management Options*

*Specific Implementation Project*

*Partners*

*Funding Sources*

**1. Educate residents, visitors, public officials, landowners and non-landowners about conservation easements**

**A.** Public education campaign  
**B.** Specific education of property owners in key areas

TNC, NPC, CD, County Planning Commissions & Municipalities, Community and Economic Development Entities, Chambers of Commerce, EMRC&D, DCNR, DEP, PGC, NRCS

LUPTAP (DCED), Land Trust Reimbursement Grant Program (PA Dept. of Agriculture), Wetlands Reserve Program (NRCS, USDA), DCNR, PGC, DEP, NRCS

**2. Coordinate efforts of the various organizations working to conserve the watershed**

**A.** Establish communication network  
**B.** Schedule yearly meetings to discuss projects underway  
**C.** Create a network of help and funding sources for landowners to contact to assist with conservation projects  
**D.** Focus on securing easements in critical areas as identified by studies such as the Natural Areas Inventory

**3. Secure conservation easements on important properties**

**A.** Secure funding to assist with transaction costs  
**B.** Establish endowment to cover the long-term monitoring and legal costs

***Oral History***

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
<b>1. Collect oral histories from Pine Creek residents and visitors</b>	<p><b>A.</b> Develop a scope of work that outlines how people would be chosen how their stories would be collected and the format in which the stories would be stored</p> <p><b>B.</b> Create programs that would immediately begin to utilize the histories in educating residents and visitors about the watershed</p> <p><b>C.</b> Store the stories in a way that allows them to be used but also protects them and ensures they can be used for generations</p>	DCNR, Local Colleges, PA WILDS, Senior Citizens Centers, Historical Societies, Libraries	DCNR, PHMC, PA WILDS
<b>2. Develop Pine Creek rooms to display and interpret information about the watershed to educate residents and visitors</b>	<p><b>A.</b> Create a plan for locating Pine Creek Room(s) in the watershed</p> <p><b>B.</b> Look for immediate opportunities to display and interpret information about the watershed, such as in local libraries, in hotel lobbies, at community events</p> <p><b>C.</b> Generate displays and posters that can be used in local businesses, possibly utilizing college students in communication and education programs</p> <p><b>D.</b> Continue to update and upgrade information as new research is done or new opportunities arise</p>	DCNR, Local Colleges, Historical Societies, PA WILDS	DCNR, PA WILDS

## ***Land Resources***

*(Refer to text in Section III of Pine Creek Conservation Plan; numbers are not meant to signify any rank)*

## *Economic Development*

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
<p><b>1. Ensure that tourism promotion is consistent with county and municipal comprehensive plans and Rivers Conservation Plan (Nature tourism/sustainable tourism)</b></p>	<p><b>A.</b> Develop a regional marketing plan to assure that tourism occurs at sustainable levels and appropriate locations, and is coordinated with the Rivers Conservation Plan. A low volume, high yield tourism approach is preferable, as recommended by the FERMATA study.</p> <p><b>B.</b> Encourage downtown revitalization for communities.</p> <p><b>C.</b> Create, publish and distribute maps of watershed points of interest, such as the water trail, Pine Creek Trail, greenway, trailhead access points, boating access and campgrounds.</p> <p><b>D.</b> Revive special events such as canoe races and tube floats.</p>	<p>Visitors Bureaus &amp; County and Municipal Planning Commissions, EMRC&amp;D</p>	<p>Regional Marketing Initiative Grant (DCED), New Communities Grant Program (DCED), CCPP (DCNR), Business/Corporate Sponsorships</p>
<p><b>2. Encourage revitalization that is conducive to maintaining quality communities</b></p>	<p><b>A.</b> Encourage zoning that protects scenic areas.</p> <p><b>B.</b> Encourage protection of scenic vista areas.</p> <p><b>C.</b> Encourage enhancement of the natural character of the watershed</p> <p><b>D.</b> Encourage appropriate use of floodplain.</p> <p><b>E.</b> Encourage and maintain continued sound agriculture land uses.</p> <p><b>F.</b> Encourage ridgetop conservation within the</p>	<p>County Planning Commissions &amp; Municipalities, Community and Economic Development Entities, Chambers of Commerce, EMRC&amp;D, DCNR, DEP, PGC, NRCS, CD, Penn State</p>	<p>LUPTAP (DCED), Land Trust Reimbursement Grant Program (PA Dept. of Agriculture), Wetlands Reserve Program (NRCS, USDA), DCNR, PGC, DEP, NRCS</p>

	watershed.	Extension	
	<p><b>G.</b> Encourage landowners to work with professionals to manage their lands to ensure their sustainability and reduce impacts to the watershed that are inconsistent with the plan</p> <p><b>H.</b> Encourage and assist conservation districts and cooperative extension in working with Mennonite communities to understand the importance of sustainable farming practices</p>		
<b>3. Adapt to new hospitality needs for nature tourism (i.e. business practices and training)</b>	<p><b>A.</b> Encourage the continued communication and cooperation among visitors bureaus.</p> <p><b>B.</b> Develop an incubator program to assist developing businesses to meet nature tourism needs.</p> <p><b>C.</b> Promote continued cooperation between chambers of commerce, existing businesses, and new nature tourism businesses.</p>	Chambers of Commerce, DCED, Visitors Bureaus, EMRC&D	USDA, Pennsylvania Dept. of Agriculture, DCED, First Industries
<b>4. Local and County officials need to work closely with State officials to ensure that tourism-related development is carried out properly and does not cause adverse impacts on local</b>	<p><b>A.</b> Coordinate communication between local, county and state officials on state programs and state initiatives</p> <p><b>B.</b> Work to ensure all levels of government understand and discuss potential adverse impacts</p>	PGC, Municipalities and Counties, DCNR, DEP, PennDOT, DCED, State officials	N/D

infrastructure and services.

***Planning and Zoning***

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
<b>1. Develop resource protection ordinances and amendments</b>	<p><b>A.</b> Encourage municipalities to consider conservation zoning to promote and conserve open space and riparian buffers.</p> <p><b>B.</b> Include natural resource professionals when considering zoning ordinances so landowners can use their natural resources in ways that are consistent with the plan</p> <p><b>C.</b> Encourage conservation of environmentally sensitive areas: mountainsides, steep slopes, wetlands, floodplains, and riparian buffers.</p>	County Planning Commissions & Municipalities, DCNR	LUPTAP, DCED, DCNR
<b>2. Form county and municipal comprehensive plan partnership</b>	<p><b>A.</b> Protect and enhanced the natural, cultural, historical and recreational resources by providing incentives and utilizing multi-municipal, county and regional planning partnerships. For example, a joint municipal zoning ordinance with professional administration.</p> <p><b>B.</b> Encourage growth and development in appropriate areas.</p>	PFBC, DCNR, County Planning Commissions & Municipalities	LUPTAP (DCED)
<b>3. Review and upgrade existing</b>	<b>A.</b> Develop land use controls as needed for new	Counties and Municipalities	

**zoning ordinances for consistency with this watershed plan and other land use plans.**

- development.
- B.** Provide municipalities with the education, assistance, and resources they need in creating, maintaining, implementing, and enforcing land use regulations and ordinances.
- C.** Consider controls for potentially intensive land uses like CAFOs, resort development, oil/gas wells, wind farms and cell towers.
- D.** Encourage counties and municipalities to address those creek lots that are in violation of codes or ordinances.
- E.** Limit further development in areas designated as "Exceptional Value Watershed".
- F.** Educate the public on how to report health and safety violations.
- G.** To promote consistent zoning administration through training of zoning officers, permit officers and municipal officials.
- H.** Develop a model noise ordinance for use by municipalities, as needed.
- I.** Visitors should be made aware that they are entering a special place and asked to respect the rights of residents and visitors to enjoy the peace and quiet of the valley. Signage and website posting are examples of ways to convey this

County  
Planning  
Offices,  
Municipalities  
  
PCPA,  
PCHPG,  
Municipalities,  
Visitors  
Bureaus

message.

<p><b>4. Promote open space easements (including working farms, woodlots, and other natural resource industries)</b></p>	<p><b>A.</b> Educate landowners within the watershed on the benefits of conservation easements.  <b>B.</b> Encourage the use of different county funding programs for conservation easement acquisition.  <b>C.</b> County funding</p>	<p>County Conservation Districts &amp; Land Trusts</p>	<p>Environmental Education Grants (EPA)</p>
<p><b>5. Explore the use of county bonds and other funding methods for open space, greenway and recreational facilities</b></p>	<p><b>A.</b> Discuss process and benefits of open space and recreational bonds with county commissioners.  <b>B.</b> Encourage counties to use open space and recreational bonds.</p>	<p>County Planning Commissions &amp; County Commissioners</p>	<p>N/D</p>

***Viewscapes***

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
<p><b>1. Delineate and secure consensus on important viewscapes</b></p>	<p><b>A.</b> Map all areas of important scenic viewsheds and vistas.  <b>B.</b> Ask for public input to verify identification of important scenic viewsheds.</p>	<p>County Planning Commissions &amp; Municipalities</p>	<p>Updating County Natural Area Inventories and County Comprehensive plans</p>
<p><b>2. Recognize viewscapes in official plans and land use control ordinances</b></p>	<p><b>A.</b> Delineate and secure consensus on important viewscapes  <b>B.</b> Develop zoning that promotes the protection of scenic areas</p>	<p>County Planning Commissions &amp; Municipalities</p>	

C. Encourage methods such as conservation design and low impact development, site regulations, and landscape requirements with an emphasis on natural vegetation.  
 D. Consider scenic byways designation.

<b>3. Work to remove litter and illegal dumps from the watershed</b>	<p>A. Organize annual clean-up days in each watershed community to promote neighborhood and community pride.          B. Promote recycling activities.</p>	PA Cleanways & Municipalities	N/D
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<b>4. Secure voluntary easements of important viewscapes</b>	<p>A. Encourage landowners with key open space properties in the watershed to place their land under a conservation easement.</p>	Land Trusts, County Conservation Districts & Ag Preservation Boards	N/D
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***Waste Management***

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
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<b>1. Evaluate the effectiveness of the “carry in-carry out” trash policy and impacts of litter and other solid waste disposal.</b>	<p>A. Manage joint use solid waste facilities on a cost-share basis with the state</p>	Rail-trail Advisory Committee, DCNR	DCNR, DCED, PennDOT, Municipalities
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<b>2. Develop and update existing solid waste mgt ordinances</b>	<p>A. Prosecute violations          B. Encourage use of county solid waste ordinances          C. Encourage recycling          D. Provide education</p>	County Planning Commissions, Municipalities, DCNR, PGC, PFBC, PennDOT	
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about litter and waste regulations

- |   |  |   |
|---|--|---|
| <b>3. Increase refuse collection</b>                              | <p><b>A.</b> Consider joint management of dumpsters</p> <p><b>B.</b> Consider buffers around dumpsters</p> <p><b>C.</b> Collect white goods periodically</p> | Municipalities  |
| <b>4. Evaluate need for additional public sanitary facilities</b> | <p><b>A.</b> Provide as needed</p> <p><b>B.</b> Improve restroom facilities at private businesses</p>  | <p>Municipalities, DCNR,DCED, Visitors Bureaus, Municipalities, DCNR, DCED, PennDOT</p> <p>Pvt businesses</p> |

***Privately-owned Forest Land***

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
<b>1. Facilitate consensus on management of natural resources</b>	<b>A.</b> Develop program for use in beginning the dialog	DCNR, Conservation Districts, Forest Landowner Assns	U.S. Forest Service, Hardwood Development Council
<b>2. Develop watershed based data on private forests</b>	<b>A.</b> Intensify inventory and analysis of data to a watershed basis	U.S. Forest Service, DCNR, Hardwood Development Council	U.S. Forest Service, DCNR, Hardwood Development Council
<b>3. Convene a Forest Summit</b>	<b>A.</b> Align partners, identify needs, develop programs and policy	Forest Landowner Associations, PA Forestry Association	Hardwood Development Council, PA Forestry Association

***Water Resources***

*(Refer to text in Section IV of Pine Creek Conservation Plan; numbers are not meant to signify any rank)*

***Water Resources***

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
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**1. Implement better storm water management practices**

**A.** Encourage development of a multi-county Act 167 approved storm water management plan for the Pine Creek watershed.

**B.** Revise storm water management ordinances to reflect DEP's current policy for groundwater recharge and post-construction stormwater management.

**C.** Require new developments to implement best management practices for groundwater recharge where appropriate, including use of pervious surfaces and ground water infiltration techniques.

County Planning Commissions, DEP & Municipalities

LUPTAP (DCED), DEP

**2. Identify/reduce the effects of abandoned mine drainage within the watershed**

**A.** Continue restoration efforts within the Babb Creek sub-watershed and expand to other impacted sites in the watershed, for example Otter Run

**B.** Seek funding sources for continued operation, maintenance, and replacement of AMD treatment systems as their lifespan is exceeded.

**C.** Continue monitoring within the Babb Creek sub-watershed to document effectiveness of treatment facilities.

**D.** Explore re-mining to improve the quality of AMD discharges where appropriate.

Babb Creek Watershed Association, DEP, PCHPG, PFBC, Mining Companies, EPCAMR

Growing Greener (DEP), EPA-319, OSM, EPCAMR, TU Coldwater Heritage Program

**3. Reduce impacts from other non-point sources of pollution in the watershed, including sediment, nutrients, acid deposition, others**

- A.** Conduct assessments to identify all non-point pollution sources in the watershed, including all major sub-watersheds.
- B.** Develop restoration plans to address identified problems.
- C.** Encourage the installation of practices or projects to reduce negative impacts from non-point pollution sources through participation in grant and conservation programs, and regulations. Examples include but are not limited to: practices to reduce sediment and nutrient runoff from agricultural operations, improvements to dirt and gravel roads, stream bank stabilization projects, participation in sustainable forestry initiatives, etc.
- D.** Continue efforts to address pollution impacts from abandoned oil and gas wells.

DEP, DCNR, Local Colleges, Watershed Associations, CD, Municipal Governments, CBF, EMRC&D

Growing Greener (DEP), CBF, TU Coldwater Heritage Program, USDA, NRCS, DCNR, Pennsylvania Dept of Agriculture (DECD)

**4. Evaluate, protect, and restore riparian buffers and wetlands throughout the watershed**

- A.** Establish riparian conservation zones throughout the watershed such as by overlay mapping.
- B.** Identify areas that need riparian buffer improvement throughout the watershed and encourage landowners to install buffers.
- C.** Identify and map current wetlands within

County Planning Commissions, CD, Watershed Associations, NRCS, NPC, Private Landowners, EMRC&D, CBF, USDA

the watershed using a standard classification system.

**D.** Identify wetlands that could use enhancement or restoration.

**E.** Special consideration should be given to restoration and protection efforts of the "Muck" (Marsh Creek), while still allowing/encouraging agricultural use of the areas

**F.** Encourage the development of permanent easements or participation in programs such as CREP to protect riparian areas and wetlands.

**G.** Encourage landowners to participate in stream bank fencing programs where livestock is present near the stream.

**5. Promote improved management of point source pollutants through regulatory and permit requirements**

**A.** Encourage improvements and upgrades to municipal and industrial waste water treatment facilities where needed or as innovative technologies become available for better treatment.

**B.** Evaluate the problem of combined sewer systems and determine the most appropriate solution, one alternative being separate storm water and sanitary sewers.

Municipal Governments, Waste Water Authorities, Industries, DEP

**6. Protect, monitor,**

**A.** Develop a monitoring

Public Water

WREN grant,

**and maintain drinking water supplies**

program for private well owners to test at least once annually for bacteria.  
**B.** Educate the public on the causes of potable water supply contamination and symptoms of infection with waterborne pathogens.  
**C.** Encourage wellhead and source water protection measures to protect the quality and quantity of public water supplies.  
**D.** Encourage water treatment system upgrades where needed and as new technologies become available.  
**E.** Encourage efforts to address the problem of the improper location and construction of private wells, which can lead to contamination of water supplies

Supplies, Municipal Governments, PA Rural Water Association, CD, Well Drillers, DEP, DCNR

PENN VEST

**7. Determine if current on-lot sewage systems are effective and consider new or alternative treatments**

**A.** Investigate failure of on-lot septic systems.  
**B.** Promote innovative and affordable sewage treatment options.  
**C.** Encourage through education and agency cooperation, maintenance and upgrade of failing septic systems.

Sewage Enforcement Officers, DEP,

National Small Flow Clearing House

**8. Balance water needs within the watershed and protect critical uses**

**A.** Work with the Upper/Middle Susquehanna Water Resources Regional

Upper Middle Susquehanna Water Resource

**during droughts**

Committee in development of the regional component of the ACT 220 State Water Plan, specifically to include areas of special protection within the watershed and in determination of a water budget.

Regional Committee, Emergency Management Agencies, Public Water Suppliers, USGS, Private Businesses, Counties

**B.** Create a drought water use plan and encourage enforcement of drought regulations.

**C.** Establish a drought and/or flood trigger system in which appropriate emergency measures will be activated.

**D.** Develop minimum and optimum flow criteria, upgrade and improve stream flow monitoring.

**E.** Determine if enough water level gauges exist within the watershed and if not, work to add additional gauges.

**9. Evaluate and upgrade the Water Quality Classification of Pine Creek between Blackwell and Waterville**

**A.** Upgrade the State Water Quality Classifications within the watershed as merited.

**B.** Refer to the successful cleanup of Babb Creek.

DEP, PCHPG, PCPA, County Planning Commissions, PFBC DEP

***Flooding & Floodplain Management***

*Management Options*

*Specific Implementation Project*

*Partners*

*Funding Sources*

<b>1. Identify flood prone areas</b>	<p><b>A.</b> Complete detailed floodplain studies along tributaries in the Pine Creek corridor that have had no previous flood studies completed.</p> <p><b>B.</b> Create floodway and floodplain maps that show parcel and building locations.</p> <p><b>C.</b> Update FEMA maps</p>	FEMA, PEMA, Municipalities	Ongoing studies such as USACE engineering studies or local mapping initiatives may be used to cost-share a FEMA flood study, which is prioritized on the basis of need NFIP, PEMA, Cooperative Technical Partners Program (FEMA)
<b>2. Update and enforce zoning and subdivision regulations and floodplain ordinances</b>	<p><b>A.</b> Discourage new development for permanent or temporary residences or other structures in the corridor within the 100-year floodplain</p> <p><b>B.</b> Prohibit further development in areas designated as "Flood Way"</p> <p><b>C.</b> Encourage counties and municipalities to create, implement and enforce floodplain management ordinances if they have not already done so.</p>	Counties & Municipalities	N/D
<b>3. Allow flood prone areas to revert to open space</b>	<p><b>A.</b> Encourage municipalities to rezone flood prone areas as open space/conservation.</p> <p><b>B.</b> Purchase flood prone properties from willing landowners.</p>	FEMA, Counties & Municipalities	Hazard Mitigation Grant Program (PEMA), Flood Mitigation Assistance Program (PEMA)
<b>4. Study how upstream</b>	<p><b>A.</b> Educate the public on the consequences of</p>	Counties & Municipalities,	Growing Greener (DEP)

<b>development impacts downstream areas (stormwater management plan)</b>	developing lands in upstream areas. <b>B.</b> Encourage conservation of streamside riparian buffers and forested steep slopes. <b>C.</b> Promote and encourage the use of stormwater management, floodplain management, and stream restoration practices on all tributaries.	Watershed Associations, EMRC&D	
<b>5. Encourage voluntary conservation easements to protect floodplains</b>	<b>A.</b> Develop and promote program for landowners to place floodplains and riparian areas into permanent conservation easements. <b>B.</b> Encourage landowners to consider other conservation easement programs	Counties & Land Trust, USDA Farmland Preservation Program	DCNR
<b>6. Educate/ support municipalities with the use of Transfer of Development Rights (TDRs) in floodplain areas</b>	<b>A.</b> Amend municipal zoning and subdivision ordinances to include transfer of development rights in floodplains. <b>B.</b> Education about TDR <b>C.</b> Encourage education about FEMA and PEMA	FEMA, PEMA, Legislature, Municipalities, Planning Commissions	LUPTAP (DCED)
<b>7. Educate residents on their rights to remove flood debris</b>		Conservation Districts, DEP, Municipalities	NPC, Growing Greener (DEP), SRBC

***Biological Resources***

*(Refer to text in Section V of Pine Creek Conservation Plan; numbers are not meant to signify any rank)*

## *Conservation and Natural Resources*

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
<b>1. Inventory biological diversity and natural features</b>	<b>A.</b> Review the counties' Pennsylvania Natural Diversity Inventories and further inventory the watershed to identify plant, animal and aquatic species that are important to the unique habitats of the area.	PGC, PFBC, DCNR Bureau of Forestry & Local Colleges	Community Conservation Partnerships Program (DCNR), Growing Greener Program (DEP)
<b>2. Increase awareness of the natural resources as the foundation for comprehensive planning, zoning and enforcement</b>	<b>A.</b> Encourage regional planning efforts to update county and municipal comprehensive plans that reflect the objectives of the Rivers Conservation Plan. <b>B.</b> Discourage development in environmentally sensitive areas such as steep slopes, wetlands, and floodplains. <b>C.</b> Encourage local environmental organizations, like watershed groups, to pursue upgrades in stream designation, where applicable, to further protect natural resources.	DEP, DCNR, PFBC, Counties & Municipalities, Conservation Districts	LUPTAP (DCED)
<b>3. Evaluate the impact of invasive and noxious species to Pine Creek Watershed and recommend methods to control</b>	<b>A.</b> Identify methods to control the spread of non-native invasive species. <b>B.</b> Encourage property owners to landscape with native species. <b>C.</b> Review the different methods of invasive species removal and determine the resulting impact on wildlife and the environment. Choose management techniques to be used in each area. <b>D.</b> Develop a list of appropriate species for	PFBC, PA Dept. of Agriculture, DCNR Bureau of Forestry, County Conservation Districts & Local Colleges	Pulling Together Initiative (NFWF), Growing Greener Program (DEP), CCPP (DCNR)

landowner use

**4. Evaluate, improve and protect important habitats**

- A.** Identify and map important habitat areas.
- B.** Use a standard system to evaluate the quality of the habitat.
- C.** Encourage the use of buffers around important habitats.
- D.** Educate landowners on funding and partnership opportunities to protect habitats.
- E.** Increase awareness and support of native species restoration to river and streams.
- F.** Encourage conservation of important wildlife habitat areas.
- G.** Encourage wildlife habitat improvement through conservation planning

Land Trusts, County Conservation Districts, PNDI, Sportsmen's and Watershed organizations, PGC, Audubon of PA, USDA, NRCS, PFBC, EMRC&D

Wildlife Habitat Incentives Program (NRCS, USDA) Growing Greener Program (DEP), CCPP (DCNR), Bring Back the Natives (NFWF), Coastal Waters Program (TNC in partnership with NOAA)

**5. Manage the fishery to maintain the resource**

- A.** Work with PFBC to review the status of fisheries management plan for Pine Creek watershed and further develop or update as needed
- B.** Determine the need for fish ladders on dams within the watershed and consider the use of multi-use structures (fish ladder, portage channel, kayak course) where appropriate
- C.** Encourage the use of public participation and involvement on any proposed changes to fishing regulations
- D.** Protect the Trout resource in Pine Creek watershed

PFBC, Counties, Sportsmen's Organizations, DEP, USACE

Habitat Restoration Partnership (American Rivers/NOAA), Growing Greener Program (DEP), CCPP (DCNR)

especially during drought and warm water conditions at the mouth of tributaries

**E.** Continue to explore options to protect the wild Brook Trout populations in the Pine Creek watershed (such as consideration of seasonal and size limits).

## ***Cultural Resources***

*(Refer to text in Section VI of Pine Creek Conservation Plan; numbers are not meant to signify any rank)*

### ***Recreation***

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
<b>1. Upgrade, improve and maintain existing municipal recreational facilities</b>	<p><b>A.</b> Develop maintenance plans for recreational facilities in the watershed</p> <p><b>B.</b> Utilize interpretive trails/heritage trails in parks and recreational facilities</p> <p><b>C.</b> Develop safety signage standards for walkways/trails/bikeways throughout the watershed</p> <p><b>D.</b> Design and develop a more formalized trail in Galeton Borough at Berger Lake Park</p> <p><b>E.</b> Municipalities should expand or create new park and recreation resources as population increases and/or user demographics change</p>	<p>County &amp; Municipal Recreation Authorities &amp; DCNR Bureau of State Parks; Galeton Borough, Potter County Planning, CCPP</p>	<p>Community Conservation Partnerships Program (DCNR)</p>
<b>2. Improve and maintain the Pine Creek Trail, other trails, and state land</b>	<p><b>A.</b> Increase funding from the Commonwealth to State Forests and State Parks so that staffing levels are sufficient and maintenance can be properly conducted. The maintenance backlog is a</p>	<p>PA General Assembly, Governor, DCNR Administration PGC, CD</p>	

serious problem due to a lack of resources. Tiadaghton and Tioga State Forests were not provided increased manpower or funding for the Pine Creek Trail

**B.** Prior to building any new facilities the Commonwealth should explore the feasibility of rehabilitating existing amenities at State Parks and on State Forests

**C.** Complete the Pine Creek Trail from the US Route 220 bridge into Jersey Shore Borough and construct a trail head at Jersey Shore

**D.** Finish engineering design and construction of Pine Creek Trail from Ansonia to Wellsboro Junction

**E.** Direct mountain bikers off the Pine Creek Trail into the highlands where suitable trails are more abundant

**F.** Address erosion problems where Pine Creek threatens infrastructure. For example, erosion at Blackwell access left unchecked will jeopardize integrity and stability of the parking area

**G.** Include Conservation District support for resource management due to the potential for increased use of our local resources.

**3. Improve signage related to the Pine Creek Trail**

**A.** Replace kiosks at trailheads/parking areas on the Pine Creek Trail. Current kiosks are in poor condition. New kiosks should be designed, developed and installed to last longer, be

DCNR Bureau of Forestry, NPS, USFS

more informative and blend in with the surroundings. The NPS manual may assist in developing consistent and appropriate signage systems; it should be used in this project

**B.** Develop a consistent signage system used along the entire Pine Creek Trail

**C.** Utilize pictures and graphics to convey rules and other messages

**D.** Design signage to be appropriate for the setting, blending with the natural setting and consistent in content and placement. Sky blue mileage signs at parking areas are not complimentary to the context

**E.** Ensure signage is kept to a minimum

**4. Create linkages between recreational facilities and natural and cultural resources**

**A.** Design greenways that link recreational uses to the many natural, historical and cultural areas

**B.** Develop pedestrian access that connects communities to parks and recreation facilities

**C.** Identify and locate the important wildlife observation areas, unique wetlands, and scenic mountain views

**D.** Develop public access points from each community to the Pine Creek Trail and the creek

**E.** Create kiosks at each access area that depict other access areas, stores, restaurants, and other recreational facilities

NPC, Land Trusts & County Planning Commissions, DCNR, PennDOT, Tioga County Planning, GROW, Wellsboro Borough, Clinton County Planning, Lycoming County Planning, Avis Borough, SEDA-COG Joint Rail

CCPP (DCNR), Rivers, Trails and Conservation Assistance (National Park Service, U.S. Dept. of the Interior), Wildlife Conservation & Restoration Program (U.S. Fish and Wildlife Service), Pathways to Nature Conservation Fund (NFWF), Growing Greener, Private Foundations

**F.** Link Pine Creek Trail to the south with the proposed Susquehanna River Trail  
**G.** Connect Pine Creek Trail from Wellsboro Junction to Wellsboro Borough. Possible alignments include along the GROW railroad right-of-way and US Route 6.  
**H.** Evaluate the feasibility of developing a connector from Avis to the Pine Creek Trail  
**I.** Evaluate the feasibility of developing a connector from the proposed Pine Creek Trail parking area in Jersey Shore to other points in the community. One possibility may be a trail along the River Road.

Authority

**5. Review the role of recreation professionals in the watershed**

**A.** Develop and implement comprehensive recreation management plans  
**B.** Review and update the roles of existing Recreation Authorities or Recreation Boards  
**C.** Communities and municipalities that do not have authorities or boards should consider working together and working with recreation professionals in developing, maintaining and programming their facilities  
**D.** Examine the need for State Forest personnel at the local district level who have recreation management education background. If needed, new positions could be created or a relationships with the Bureau of State Parks could be established

County and Municipal Recreation Authorities, DCNR, State Civil Service Commission

Community Conservation Partnerships Program (DCNR)

<p><b>6. Prepare, adopt and implement a Greenway Plan for the watershed</b></p>	<p><b>A.</b> Encourage each county to work with the other counties in the watershed when preparing county open space and greenway plans  <b>B.</b> Work with municipalities and private property owners in greenway implementation  <b>C.</b> Utilize existing public lands as appropriate in the greenway plan  <b>D.</b> Raise the public's awareness of the watershed's many natural, cultural, historical and recreational resources and encourage people to use and enjoy those resources  <b>E.</b> Prepare a greenway maintenance plan, roles and responsibilities  <b>F.</b> Acquire grants and funding to implement the proposed greenway plan and associated projects</p>	<p>Land Trusts, County Planning Commissions &amp; County and Municipal Recreational Authorities</p>	<p>Growing Greener Program (DEP), CCPP (DCNR)</p>
<p><b>7. Assess use of whitewater courses and multi-use structures</b></p>	<p><b>A.</b> Determine the feasibility of adding a multi-use recreational structure, fish ladder and kayak course.</p>	<p>County Planning Commissions</p>	<p>Continuing Authorities Program (USACE)</p>
<p><b>8. Identify signage needs for access, portage and water hazards (required by PFBC law)</b></p>	<p><b>A.</b> Create a map showing access areas, navigation routes, portage trails, obstructions and danger areas.  <b>B.</b> Install signage and buoys for areas where boaters and canoeists need to pay special attention.</p>	<p>Lumber Heritage Region</p>	

**9. Develop watershed recreation maps**

- A.** Create, publish and distribute maps of watershed recreation features and a new trail brochure and/or trail guide with a map identifying trailheads, canoe access points, camping areas, restroom locations, and other pertinent user information.
- B.** Prepare maps so they can be easily posted to websites and downloaded
- C.** Develop a Pine Creek Water Trail brochure and pocket guide, detailing canoe access, camping areas and other amenities
- D.** Examine the impact of implementing fees for State Forest brochures and maps, with the revenue staying within the forest district in which it is generated

County Planning Commissions, Visitors Bureaus, DCED, Local Businesses, NPC, DCNR, PFBC, Penn College Technology's Graphic Arts Dept.

Regional Marketing Initiative Grant Program (DCED), Business/Corporate Sponsorships, County Tourism funds, NPS Chesapeake Gateways program, CCPP, and private sector

**10. Encourage those entities marketing the Pine Creek Valley and Pine Creek Trail to conduct their marketing in a consistent and appropriate manner**

- A.** Develop a logo to identify the Pine Creek Valley and the Pine Creek Trail that would consistently appear on all brochures, kiosks, and signs
- B.** Conduct user surveys on Pine Creek Trail to research and gather valuable data on use, attitudes, spending and economic impact. Carl Knoch has done some studies through PSU.
- C.** Include information about no trace camping, carry-in-carry-out recreation, respect for private property, and other issues on marketing material

DCNR, Counties, Visitors Bureaus, Penn. College of Technology's Graphic Arts Dept.

PANA

Outfitters

- D.** Partner with Pennsylvania Advocates for Nutrition and Activity to help educate and motivate local residents to utilize the recreation facilities in their community to improve and maintain their health
- E.** Provide training for visitor bureau staff and volunteers about the region's recreational assets

Counties, health care agencies, local hospitals, Visitors Bureaus, PANA

DCNR, PGC, Watershed Associations

**11. Improve and maintain access to Pine Creek**

- A.** Obtain Pine Creek Water Trail Designation
- B.** Stabilize canoe access areas to prevent erosion (examples at Hamilton Bottom and Blackwell). Guidelines for canoe launches can be found in Logical Lasting Launches: Design Guidelines for Canoe and Kayak Launches (Spring 2004) by the National Park Service and applicable U.S. Forest Service guidelines
- C.** Establish a canoe access/take out and parking area at the southern end of Pine Creek. One possibility may be the Tiadaghton Elm
- D.** Identify areas for public canoe access points between Ansonia and Galeton, as well as other locations deemed necessary based on user demands. Between Galeton and Ansonia the PennDOT rest area near Gaines is one possible location

Clinton County, Pine Creek Twp, DCNR, NPS Chesapeake Gateways Program

E. Canoe access points would be established where landowner welcomes the facility, or where properties can be acquired from willing owners

**12. Ensure camping facilities on state land in the watershed are appropriate to the area**

A. Develop a consistent camping policy in the Pine Creek Valley between the Tiadaghton and Tioga State Forests

DCNR

B. Camping should be limited to designated sites only, in order to limit impacts of camping on the natural resources, reduce trespassing on private property and for safety purposes

C. Consider implementing fees for campers in the State Forest Districts, particularly those camping in the Pine Creek Valley

D. If fees are implemented, revenue should remain in the Forest District's facilities

E. Consider developing the former Eliot Wagner Property (now part of the Tiadaghton State Forest) north of Cammal for canoe camping and as an equestrian destination for riders using Holt Trail and Big Trail Road. This would take some pressure off Black Walnut Bottom

F. Acquire properties from willing sellers to provide additional camping areas if such areas are needed

G. Prohibit the location of camping trailers/recreational

vehicles and associated paraphernalia in areas designated as floodway.

**H.** Develop and enforce ordinance provisions for campgrounds, including evacuation plans, appearance standards, and public health and safety measures.

**13. Ensure that the recreational pursuits in the watershed are not having a negative impact on the natural resources**

- A.** Provide information to recreationists on the appropriate use of the recreation resources
- B.** Monitor the impacts of recreation on the resources (land and water) over time. Utilizing college and university biology departments to assist would be one way to conduct the research in a cost-effective way while involving the community
- C.** Evaluate the impact/potential impact of proposed new ATV trails
- D.** If necessary limit development of new ATV trails and riding areas in the Pine Creek watershed

DCNR,  
Counties

**14. Maintain the hunting and fishing heritage of the Pine Creek Watershed**

- A.** Work with the PGC and PFBC to manage fish and game populations in a way that maintains the resource base and attempts to meet the recreational need
- B.** Inform private hunting clubs and sportsmen's groups of progress with the plan and solicit their help in implementing it

PGC, PFBC,  
Sportsmen's  
Organizations,  
Guides

## ***Archeological/Historical Preservation***

<i>Management Options</i>	<i>Specific Implementation Project</i>	<i>Partners</i>	<i>Funding Sources</i>
<b>1. Inventory the watershed's historic structures and features</b>	<p><b>A.</b> Identify the historical properties, features and districts eligible for the National Register of Historic Places within the watershed and the state inventory.</p> <p><b>B.</b> Prioritize efforts to preserve and restore the symbols of the lumber, mining and agricultural heritages of the watershed.</p> <p><b>C.</b> Document the watershed's historic structures and features</p> <p><b>D.</b> Nominate specific sites and historical districts to the National Register of Historic Places and to the state program</p> <p><b>E.</b> Continue to update the list of historic structures, to track structures that are being torn down, and to add structures as time passes and "new" historic structures are created</p>	County Historical Societies, PHMC	PHMC
<b>2. Determine which historic markers from PHMC's program are still in place, missing, in poor repair, or not visible to the public</b>	<p><b>A.</b> Maintain and update record of historic markers from 1994 for the watershed</p> <p><b>B.</b> Create a plan to replace, repair, or improve visibility as appropriate</p> <p><b>C.</b> Determine if there are events, figures, structures, or features not appropriately recognized, and seek</p>	Historical Societies, PHMC, County Planning, Local Businesses	

recognition for them

**D.** Develop tools to provide residents and visitors with more information about the historic markers in the watershed - such as brochures, maps, books, websites or exhibits.

**3. Document the watershed's history (in its entirety and in interest areas)**

**A.** Develop an oral history program to capture the region's history, folk lore, folk music, and culture.

**B.** Work with local historical societies, school districts, colleges and universities to document and collect history

**C.** Include historic interpretation as appropriate in public parks and public recreation areas

Local Colleges, CVI and Grange, Tioga County Agricultural Heritage Association

CVI

**4. Ensure information relating to the watershed's history is stored in such a way that public can access and benefit from the information**

**A.** Create a system for information sharing between historical societies, museums and libraries that serve the watershed and the counties that make up the watershed

**B.** Work with local genealogy and historical societies to hold programs for the general public on what information is available and how to access that information

**C.** Encourage internships (high school, college and graduate students) to catalogue and develop user friendly forms of access to information that also retains the integrity of the documents.

Local Colleges, CVI, DAR, Genealogy Society, Bucktail's civil war re-enactment

CVI

**5. Enhance**

**A.** Support existing museums

Historical

General

**museums' interpretation of Pine Creek's role in the region's development**

**B.** Support the lumber heritage region in their efforts to document and interpret the region's lumbering past

Societies & Visitors Bureaus, PHMC, PA Lumber Museum

Operating Support Grants (PHMC), DCNR

**6. Restore maintain, and recreate historical features of the lumbering and industrial era**

**A.** Document the communities that are shrinking or gone which were based on an industrial enterprise (examples may include Antrim)

Historical Societies, Chamber of Commerce, County Planning Commissions, PHMC

Historical Marker Grants, PHMC, DCNR, Capital Redevelopment Assistance, Capital Budget (PA General Assembly), Private Foundations

**B.** Restore where appropriate into a nature/history trail

**C.** Restore, repair and maintain features and facilities, such as logging railroad beds, small rock quarry areas, coal mining facilities, features related to tanneries, etc.

**D.** Develop a wide variety of facilities to portray the heritage of the watershed

**E.** Develop a local historical marker system.

**F.** Document the location and condition of remaining historical features relating to industry

**G.** Create museum exhibits that document the industrial influences the creek had on its communities

**7. Conduct an archeological survey of the watershed**

**A.** Work with PHMC and local colleges to determine the probable locations of Native American sites

PHMC, Local Colleges, Tribal Groups & Historical Societies, Local citizens

Private Foundations, PHMC

**B.** Categorize the sites as to treat the site's integrity, likelihood exploration would result in improved understanding and other criteria

**C.** Establish an appropriate program of exploration and

reporting  
**D.** Educate the public on archeological practices and the importance of these studies

**E.** Work with existing local historical societies to expand, update, and improve existing displays on Native American heritage

**8. Provide historic interpretation of the watershed in an appropriate manner**

**A.** Historic themes should be developed (such themes may include early settlement, logging, tanneries, railroads, CCC, and flood events)

**B.** Historic interpretation of each community's history would be of importance as well

**C.** Interpretation may include walking tours, brochures, websites, local newspapers running a series of historic pieces, creating maintaining and updating displays at existing historical societies and museums within the watershed, local historic marker programs, developing and executing a program for school children, developing and orchestrating programs for the general public, and panels for local businesses that provide an overview of the community's history or a segment/person/event in the community history

Historical Societies, Chamber of Commerce, Visitors Bureaus

Private Foundations, PHMC, DCED

***Education***

*Management Options*

*Specific Implementation Project*

*Partners*

*Funding Sources*

**1. Get more citizens involved**

- A.** Inform key property owners, municipal officials, businesses, residents, schools, and scouting groups about public demonstration workshops and presentations on natural resource conservation and restoration project initiatives.
- B.** Keep individuals and groups informed of conservation, restoration, and enhancement projects, including the volunteer opportunities available.
- C.** Hold outdoor environmental education events such as fishing derbies, guided hikes and watershed cleanups.

Watershed and Sportsmen's Organizations, Woodland Owners Association, CD, DEP, DCNR, NRCS, Pennsylvania Conservation Corps, EMRC&D and others

N/D

**2. Pursue environmental education funding with students and adults as target audiences**

- A.** Create Environmental Education Coordinators position for the watershed
- B.** Explore how to share information between environmental education providers, and develop materials for use in schools and for presentations to civic and environmental organizations such as the Lions Club, Rotary, and watershed groups
- C.** Develop materials for use in schools.
- D.** Develop programs for adults on the watershed's natural history.

PACD, County Conservation Districts, Colleges and School Districts

Circuit Rider Program (DCNR)

**3. Strengthen individuals' natural resource ethic and officially adopt policy statement**

- A.** Promote a natural resource ethic for the watershed.
- B.** Identify and utilize talents of local environmental educators and outdoor enthusiasts as spokespersons and future program entertainers.
- C.** Encourage municipalities, counties, and other interest

PACD, Land Trusts, County Conservation Districts & County Planning Commissions

Regional Marketing Initiative Grant Program, Heritage Parks Program (DCED)

groups to promote natural resource ethics

**4. Expand water safety education programs with PFBC**

- A.** Provide regulations, warning signs, and educational materials at access areas.
- B.** Provide water safety workshops at public facilities throughout the watershed

PFBC & Local Boating Groups

N/D

**5. Support development of recreational opportunities along the water that includes hands-on experience to allow an understanding of the environmental function, importance and historical significance of the watershed**

- A.** Organize and sponsor annual outdoor events within the watershed that tie the creek to its present and future potentials including canoe and kayak trips, guided hikes, birding, tubing and swimming outings.
- B.** Provide workshops on such things as watershed history, watershed impacts, recycling, riparian land management, and environmental ethics.
- C.** Develop a centrally located or traveling environmental education exhibit.
- D.** Develop educational curriculum and projects to learn about aquatic biology, riparian restoration and the Native American, lumber and canal history of Pine Creek
- E.** Continue and expand Pine Creek Watershed Awareness program

CD, Visitors Bureau, Watersheds, Guide services and Outfitters, Colleges and School Districts, Land Trusts, PCPA, PCHPG, Babb Creek Watershed Association

Corporate Sponsorship, Economic Development Initiative (VA/HUD), Circuit Rider Program (DCNR), Challenge Grants (NFWF), SMART (ALARM), PHMC

**6. Provide education to encourage public awareness about available programs that provide technical**

- A.** Provide opportunities for technical assistance providers to interact with property owners and the general public

CD, DEP, DCNR, PFBC, EMRC&D and others

assistance or funding for conservation practices.

**7. Support and build capacity of watershed and other conservation organizations within the watershed**

CD, DEP, EMRC&D

GROW, Chesapeake Bay Coldwater Heritage (NFWF)

**8. Promote the skills and talents of local and regional artists.**

- A.** Develop tools to direct residents and visitors to local/regional artists and craftsmen
- B.** Study the feasibility and need for a permanent outlet for local artists and craftsmen to display and sell their work
- C.** Support the work of the Gmeiner Center to provide exhibit space for local artists, as well as exhibits of regional, national, and international artists' work.
- D.** Encourage communities with public areas to use local artists and local themes if acquiring public art

Arts Councils, PA Guild of Craftsmen, Visitors Bureaus, Local Municipalities

PA Council on the Arts, PA WILDS, Lumber Heritage Region, Foundations

**9. Support the work of cultural organizations and events in the watershed**

- A.** Encourage the Green Free Library, Galeton Free Library, and the North Central Library Division to continue their efforts to provide residents with quality service
- B.** Support the Hamilton Gibson Productions in their effort to sustain a theatre

Visitors Bureaus, Local Municipalities

PA WILDS, Lumber Heritage Region, DCED, Foundations

**10. Promote the skills and talents of local and regional artists.**

**C.** Support community events that celebrate the region's heritage, history, and resources - such as Red Suspenders and the Laurel Festival

**A.** Develop tools to direct residents and visitors to local/regional artists and craftsmen

**B.** Study the feasibility and need for a permanent outlet for local artists and craftsmen to display and sell their work.

**C.** Support the work of the Gmeiner Center to provide exhibit space for local artists, as well as exhibits of regional, national and international artists' work.

**D.** Encourage communities with public areas to use local artists and local themes if acquiring public art.

Arts councils,  
PA Guild of  
Craftsmen,  
Visitors  
Bureaus, local  
municipalities

PA Council of  
the Arts, PA  
WILDS,  
Lumber  
Heritage  
Region,  
foundations

