

An Action Plan for the Brodhead Watershed

This chapter includes a vision and broad goals for the Brodhead watershed as well as specific recommended actions and management options to achieve those goals. The goals and actions were developed through a significant public involvement effort.

Vision

The following represents how citizens in the watershed will view the landscape in the watershed within the next 20 years. It reflects input from the public derived in preparation of the plan and what could happen if the watershed conservation plan is effectively implemented:

Residents and visitors to the Brodhead watershed care about clean water. The pure streams and safe drinking water the watershed enjoys are viewed as precious assets and all are aware of how important it is to continually maintain and protect this resource. Planning at all levels of government continues to point to the importance of maintaining and enhancing this resource as a critical goal for supporting the quality of life within the watershed. Due to this acute awareness, actions are taken that assure that the streams in the watershed will remain healthy for future generations. Both individual actions and municipal policy decisions are made with the knowledge of how these actions affect the health of the watershed and with the understanding that we are all stewards of the natural and cultural resources that affect the health of the watershed. As a result of this understanding and many appropriate follow-up actions future generations are assured of a watershed that continues to sustain its human and natural residents.

Water in the watershed is not only clean and plentiful but many of the streams continue to support pristine trout fisheries. The stream corridors also provide an appropriate sense of place as greenway buffers have been maintained and enhanced in a continuous network or green infrastructure that supports other important ecological and cultural functions. In addition to trout habitat, a rich diversity of land and aquatic species are supported. Also residents and visitors alike are connected to much of this network by a series of trails that provide access to nature, interpret the rich history, and provide alternative routes of transportation.

Goal Statements

The following goal statements describe the broad, general goals the plan is striving for in each issue category. The recommended actions listed below were developed with the intention of achieving these goals:

Water Quality and Quantity – Maintain and improve water quality throughout the watershed and insure that an adequate quantity of surface water and groundwater is maintained.

Watershed Awareness – Achieve greater environmental education for all age groups to address water quality, planning & regulations, and habitat.

Policy Planning & Regulation – Encourage the development of local, state, and federal planning and regulations to collectively facilitate stated watershed management goals.

Fish and Wildlife Habitat – Manage natural habitat to promote biodiversity and to maintain, protect, and enhance natural systems.

Historic & Cultural Resources – Ensure that the historic resources of the Brodhead watershed are preserved and interpreted as educational examples of the area's heritage.

Recommended Actions

Within each issue category, several recommended actions have been identified through the public involvement process. These actions attempt to solve the problems and/or enhance the opportunities associated with that issue category. Potential lead agencies are identified for each action. These actions are summarized in the Management Options Tables below.

Setting Timeframes and Priorities

Each recommended action is associated with a timeframe, identifying the suggested implementation time necessary for completion of that action.

Timeframes are as follows:

- **Short** = One to three years;
- **Medium** = Three to five years; and
- **Long** = Five to ten years.

This plan recognizes that there will be limited financial and human resources available to execute the many recommended actions listed below. Some change in the timeframe for action implementation is expected, as well as the group(s) responsible for carrying out the recommended actions.

Priorities were assigned according to a review of the draft action items by steering committee members and municipal leaders. For a summary of these responses, see *Appendix C, Summary of Responses / Comments to Draft List of Potential Actions*.

Because headwater streams collectively represent a majority of the drainage network of any watershed, and because headwater streams are exceptionally vulnerable to watershed development, projects in headwaters areas should be given priority whenever possible. In addition, repairing a problem low in a watershed without addressing problems upstream will often lead to revisiting the repaired site sometime in the future.

Incorporating Related Planning Efforts

The ***Monroe County Comprehensive Plan (Monroe 2020)*** provides a countywide policy document to help steer growth and development in a positive economic fashion while maintaining, preserving, and enhancing a high environmental quality. The Comprehensive Plan, part of the three-year Monroe 2020 planning effort, was adopted in July of 1999 by the county commissioners. The ***Monroe County Comprehensive Plan*** is incorporated by reference in this watershed conservation plan and should be considered an integral part of the plan.

The ***Monroe County Water Supply and Model Wellhead Protection Study*** is incorporated by reference in the Comprehensive Plan and should also be considered an integral part of this plan. This plan recognizes that a primary recommendation of the ***Monroe County Water Supply and Model Wellhead Protection Study*** is to provide sewer systems as a primary means for handling wastewater. However, this plan strongly encourages alternatives to stream discharge whenever environmentally and economically feasible.

This plan also supports the goals and recommendations as put forth in the ***Monroe County Open Space Plan*** and ongoing ***Multi-Municipal Open Space Plans***. A planning effort recommended by the Comprehensive Plan, the Open Space Plan was adopted in June of 1999 by the county commissioners.

Also incorporated by reference in this watershed conservation plan are the two ***Act 167 Stormwater Management Plans*** – for the Brodhead and McMichael Creek watersheds, along with their model stormwater management ordinances. An update of the Act 167 Stormwater Management Plan for the Brodhead and McMichael Creeks is currently underway. Initially, Act 167 Plans were developed for the Brodhead Creek (1991) and the McMichael Creek (1988) separately. Since the plans and issues to be addressed are similar, the update currently underway is for the combined area of the Brodhead and

McMichael watersheds. Addressing stormwater runoff will help to reduce flooding, protect the quality of surface water, and address groundwater recharge. *Phase I, Scope of Study*, was completed in October 2000. *Phase II* of the update will set forth management recommendations.

This plan also supports the goals and recommendations as put forth in the ***Pocono Creek Pilot Project***. *Phase I* of the project, ***Goal-Based Watershed Management***, has been completed; *Phase II* has been initiated. The *Pocono Creek Pilot Project* is an important planning effort done at the subwatershed scale. *Phase I* of the study identified water resource goals, water resource targets, twelve watershed management areas and performed detailed studies that examined water quality, stream flow, stream channel stability, and macroinvertebrates. *Phase II* of the study will focus on an analysis of alternative watershed management scenarios and the selection of a preferred management plan.

The *Pocono Creek Pilot Project* provides an important benchmark for future subwatershed planning efforts in the Brodhead watershed.

Abstracts of these plans and others relevant to the planning process are included in this plan as *Appendix F, Prior Studies*. A review of these studies was conducted to identify issues, concerns and constraints and potential management options for the Brodhead Watershed Conservation Plan. These findings have been incorporated throughout.

Management Options Tables

The following management options tables include action items developed during the public involvement process for each of the identified goals. Potential lead agencies are identified for each action and a time frame for completion is included.

Water Quality and Quantity

Goal: Maintain and improve water quality throughout the watershed and insure that an adequate quantity of surface water and groundwater is maintained.

The Brodhead watershed, for the most part, boasts extremely high quality waters and streams that flow freely throughout the year. The watershed has not suffered many of the impacts of more highly developed areas where streams are unsafe for swimming, devoid of fish, and dry in summer months. However, some streams in the Brodhead watershed show signs of impact from encroaching development and other sources. As with any urbanizing area, the Brodhead watershed faces the threat of real impacts on the watershed. Studies have shown that as impervious cover (parking lots, roads and rooftops) increases, water quality and quantity declines. The Brodhead watershed in the lower reaches around Stroudsburg and East Stroudsburg is reaching the level of impervious cover at which the ability of the stream system to absorb urban impacts will be lost. Thus, it is even more important that upstream areas make every effort to minimize impacts of impervious surfaces on water resources.

In addition, many of the watershed streams receive effluent from point sources such as sewage treatment and industrial waste treatment plants. And development in rural areas depends on on-lot sewage systems for waste treatment and disposal. In either case, malfunctions, poor design, or lack of maintenance can cause these systems to fail and severely impact streams and groundwater.

To date, little use has been made in the Brodhead watershed of alternatives, such as land application, to stream discharge from sewage treatment plants. However, federal and state law requires that such alternatives be investigated and used when "environmentally sound and cost effective when compared with the cost of the proposed discharge."

In areas without central sewage collection and treatment systems, treatment and disposal of wastewater needs to be done in a manner that is compatible with conservation design such as that promoted and developed by Randall Arendt through the Natural Lands Trust and the Pennsylvania Department of Conservation and Natural Resources and endorsed by the American Planning Association and the American Society of Landscape Architects. Flexibility inherent in the design of conservation subdivisions makes them superior to conventional layouts in their ability to provide for adequate sewage treatment and disposal. Greater opportunities to implement environmentally sensitive sewage treatment systems are also offered in this approach. These "alternative technologies" are superior to conventional systems in many ways since they produce limited amounts of sludge by-products and they help replenish local aquifers. Recent Monroe County plans and planning efforts have endorsed and supported this approach.

The recommended actions and management options included in the table below are geared toward minimizing the impacts of urbanization on water resources.

<p style="text-align: center;">WATER QUALITY AND QUANTITY</p> <p><i>GOAL: Maintain and improve water quality throughout the watershed and insure that an adequate quantity of surface water and groundwater is maintained.</i></p>			
Action	Responsible Parties	Priority	Timeframe/ Record of Action
1. Encourage riparian landowners to create and maintain forested stream buffers.	Municipalities, with Brodhead Watershed Association Monroe Co. Planning Commission Monroe Co. Conservation District	Most Important	Short 1-3 Years & Ongoing
2. Strengthen land use ordinances to better protect floodplains.	Municipalities, with Monroe Co. Planning Commission Monroe Co. Conservation District	Most Important	Short ² 1-3 Years
3. Strengthen land use ordinances to better protect groundwater recharge areas. <ul style="list-style-type: none"> ▪ Locate, delineate, and map significant recharge zones throughout the watershed. 	Municipalities Scientific community Monroe Co. Planning Commission Monroe Co. Conservation District	Most Important	Medium ³ 3-5 Years
4. Strengthen land use ordinances to minimize effects of impervious surfaces.	Municipalities, with Scientific community Monroe Co. Planning Commission Monroe Co. Conservation District	Most Important	Medium 3-5 Years
5. Encourage DEP to take prompt action on known sewage treatment plant violations.	Municipalities Brodhead Watershed Association Trout Unlimited	Most Important	Short 1-3 Years
6. Develop sewage management programs to better manage on-lot septic systems.	Municipalities, with PA Dept. of Environmental Protection	Most Important	Short 1-3 Years
7. Develop programs to protect existing and potential future sources of drinking water.	Water suppliers Municipalities	Most Important	Ongoing
8. Use open space funds and other monies to protect critical riparian areas.	County and Regional Open Space Committees	Most Important	Short 1-3 Years

² The Monroe County Conservation District has conducted a review of ordinances relative to floodplain protection.

³ The Monroe County Planning Commission is overseeing the preparation of “Growing Greener” audits for all municipalities in the watershed.

9. Adopt ordinances consistent with the updated Brodhead / McMichael Stormwater Management Plan.	Municipalities	Very Important	Medium 3-5 Years
10. Organize partnerships to restore degraded streambanks and stream crossings.	Brodhead Watershed Association Municipalities Private landowners PennDOT	Very Important	Short 1-3 Years
11. Encourage alternatives (such as land application) to stream discharges from sewage treatment plants where feasible.	Municipalities PA Dept. of Environmental Protection	Very Important	Short 1-3 Years & Ongoing
12. Decrease non-point source pollution from runoff.	Municipalities Brodhead Watershed Association Monroe Co. Conservation District PennDOT	Very Important	Short 1-3 Years
13. Assure that the DRBC standard of "no measurable change" at the Brodhead Boundary Control Point is met in the future.	Delaware River Basin Commission	Very Important	Medium 3-5 Years
14. Protect headwaters areas.	Municipalities Monroe Co. Planning Commission Monroe Co. Conservation District PennDOT Pennsylvania Game Commission Brodhead Watershed Association	Very Important	Ongoing
15. Implement management strategies identified in the Pocono Creek Pilot Project Goal-Based Watershed Management Plan.	Monroe Co. Conservation District Delaware River Basin Commission Municipalities Monroe Co. Planning Commission Brodhead Watershed Association	Very Important	Short 1-3 Years & Ongoing
16. Correct existing stormwater problems identified in the updated Brodhead / McMichael Stormwater Management Plan.	Monroe Co. Conservation District Municipalities Monroe Co. Planning Commission Brodhead Watershed Association	Very Important	Short 1-3 Years & Ongoing
17. Identify environmentally sound lands to be used for land disposal of treated wastewater and acquire where economically feasible.	Sewage treatment plant permittees Monroe Co. Planning Commission Monroe Co. Conservation District Municipalities	Important	Short 1-3 Years
18. Coordinate existing water monitoring efforts: <ul style="list-style-type: none"> ▪ Hire paid monitoring coordinator. ▪ Review current monitoring plans. ▪ Maintain gauging stations. 	Monroe Co. Conservation District	Important	Ongoing
19. Improve environmental conditions at landfills.	Monroe Co. Conservation District PA Dept. of Environmental Protection Municipalities	Important	Ongoing

Watershed Awareness

Goal: Achieve greater environmental education for all age groups to address water quality, planning & regulations, and habitat.

Public understanding of how individual actions impact the watershed and drinking water supply is key. We must also inform the public about ways they can play a part in protecting and improving their environment. Perhaps the most important message to impart is that we all live in a watershed.

“Ownership” of the watershed and all its needs and assets will go a long way toward assuring that water resources are protected for future generations.

WATERSHED AWARENESS

GOAL: Achieve greater environmental education for all age groups to address water quality, planning & regulations, and habitat.

Action	Responsible Parties	Priority	Timeframe/ Record of Action
1. Organize watershed awareness raising activities, especially activities that involve children.	Brodhead Watershed Association, with Trout Unlimited Monroe Co. Conservation District Pocono Mountains Vacation Bureau Chamber of Commerce School districts Stroudsburg Municipal Authority and other water suppliers	Most Important	Short 1-3 Years & Ongoing
2. Develop educational programs about protecting sources of drinking water in the Brodhead watershed.	Water suppliers Brodhead Watershed Association	Most Important	Ongoing
3. Develop education programs to encourage landowners and citizens to plant native species, plant or maintain riparian buffers and improve stream habitat.	Monroe Co. Conservation District Monroe Co. Cooperative Extension Brodhead Watershed Association Non-profit organizations	Most Important	Short 1-3 Years & Ongoing
4. Publish information about watershed issues on a regular basis in the media (including newspapers, radio, television.)	Brodhead Watershed Association, with Trout Unlimited Scientific community Concerned citizens	Very Important	Short 1-3 Years & Ongoing
5. Make presentations on the Brodhead Watershed Conservation Plan at municipal meetings to seek endorsement of the Plan and integration of Plan actions into municipal goals.	Brodhead Watershed Association Monroe Co. Conservation District Stroudsburg Municipal Authority	Very Important	Short 1-3 Years
6. Create a speakers bureau to inform local organizations about watershed issues.	Brodhead Watershed Association	Very Important	Short 1-3 Years
7. Educate interested landowners about placing conservation easements on open land through donation or purchase.	Brodhead Watershed Association Pocono Heritage Land Trust The Nature Conservancy Other land trusts	Very Important	Ongoing
8. Hire full-time staff person to oversee and/or help implement the recommendations of this plan.	Brodhead Watershed Association	Very Important	Ongoing
9. Create a video or CD-ROM about the Brodhead watershed.	Brodhead Watershed Association Chamber of Commerce Pocono Mountains Vacation Bureau Channel 13 and others	Important	Short 1-3 Years

10. Create a "community conservation corps" to encourage riparian neighbors to work together.	Concerned Citizens Monroe Co. Conservation District Audubon Society Garden clubs	Important	Medium 3-5 Years
11. Establish an ongoing county-wide forum for watershed stakeholders to share information about watershed issues and actions.	Monroe Co. Conservation District (watershed specialist) Brodhead Watershed Association Monroe Co. Planning Commission	Important	Short 1-3 Years
12. Encourage landowners to conserve privately owned woodlots. <ul style="list-style-type: none">▪ Use sustainable forestry practices	DCNR Brodhead Watershed Association Monroe Co. Conservation District Concerned citizens Monroe Co. Cooperative Extension	Important	Ongoing

Policy, Planning and Regulation

Goal: Encourage the development of local, state, and federal planning and regulations to collectively facilitate stated watershed management goals.

Important as the individual is to protecting water resources, the job cannot be done without commitment from government agencies. And the most important level of government is the local municipalities. Municipalities control land use, which directly impacts both the quantity and quality of water resources.

Municipalities can also take the lead in land acquisition to protect riparian areas and critical wildlife habitats and in developing science-based plans for assuring that supplies of water are adequate for all users, including in-stream uses.

Municipalities cannot do the job alone, however. County, state, regional and federal agencies have resources, both financial and technical, to assist municipalities in making wise decisions. The Pennsylvania Department of Environmental Protection plays a major role in water resources protection in their permitting authority for discharges to and withdrawals from surface and groundwater. The Delaware River Basin Commission has additional permitting authority through Special Protection Waters Regulation, which are intended to assure that streams entering the Delaware River above the Delaware Water Gap do not degrade the river water quality.

Some municipalities are getting help with addressing environmental issues by establishing Environmental Advisory Councils. Municipalities are authorized by state law to appoint EAC's to assist and advise as needed. Like the Municipal Open Space Committees, which are advising local officials on priorities for open space and recreation, Environmental Advisory Councils can advise on a variety of environmental issues, apply for grants, or administer projects. Municipalities in other fast-growing areas are making use of EAC's; Brodhead watershed municipalities might find them useful as well.

<p style="text-align: center;">POLICY, PLANNING AND REGULATION</p> <p style="text-align: center;"><i>GOAL: Encourage the development of local, state, and federal planning and regulations to collectively facilitate stated watershed management goals.</i></p>			
Action	Responsible Parties	Priority	Timeframe/ Record of Action
1. Promote and develop greenways to link important natural, recreational and wildlife habitat areas in cooperation with willing landowners.	Municipalities, with Monroe Co. Planning Commission Non-profit organizations	Most Important	Short 1-3 Years & Ongoing
2. Pursue funding to prepare subwatershed assessments ⁴ (similar to the Pocono Creek Pilot Study) for each of the remaining subwatersheds within the Brodhead watershed.	Brodhead Watershed Association Municipalities Monroe Co. Planning Commission Monroe Co. Conservation District	Very Important	Short 1-3 Years
3. Conduct detailed analyses of impervious coverage for each subwatershed of the Brodhead watershed.	Delaware River Basin Commission	Very Important	Medium 3-5 Years
4. Perform a build-out analysis for each subwatershed area of the Brodhead watershed.	Monroe Co. Planning Commission	Very Important	Medium 3-5 Years
5. Promote conservation of important habitat areas through conservation-based ordinances and codes (also known as <i>Growing Greener</i> approaches.)	Municipalities, with Scientific community Monroe Co. Planning Commission Monroe Co. Conservation District	Very Important	Ongoing
6. Review proposed land development plans for impact on outstanding and unique features.	Municipalities, with Monroe Co. Planning Commission Monroe Co. Conservation District	Very Important	Ongoing

⁴ Including a study of fluvial geomorphology using Rosgen methodology.

7. Develop a water budget for each subwatershed to assure that surface and groundwater withdrawals do not exceed levels necessary to maintain adequate stream base flow.	Scientific community Delaware River Basin Commission Private geologists USGS Monroe Co. Planning Commission Monroe Co. Conservation District Brodhead Watershed Association Municipalities	Very Important	Medium 3-5 Years
8. Require sewage treatment plant permittees and/or operators to maintain in-stream habitat below sewage treatment plants. <ul style="list-style-type: none">Encourage the use of bio-monitoring⁵ techniques.	Pennsylvania Department of Environmental Protection	Important	Short 1-3 Years
9. Establish Environmental Advisory Councils.	Municipalities PA Environmental Council	Important	Medium 3-5 Years
10. Develop ordinances to maintain a minimum percentage of forest cover.	Municipalities Monroe Co. Conservation District	Important	Medium 3-5 Years

⁵ Macroinvertebrate analysis. Cost effective EPA and DEP rapid bio-assessment protocols have been developed.

Fish and Wildlife Habitat

Goal: Manage natural habitat to promote biodiversity and to maintain, protect, and enhance natural systems.

The Brodhead has long been famous for its fine trout fishing. The watershed also includes much public and private land that provides excellent wildlife habitat and popular hunting grounds. Fishing, hunting, hiking, bird watching and other recreational opportunities here contribute significant sums to the local economy. Good management of the natural resources of the watershed will assure that these opportunities continue for residents and visitors.

FISH AND WILDLIFE HABITAT <i>GOAL: Manage natural habitat to promote biodiversity and to maintain, protect, and enhance natural systems.</i>			
Action	Responsible Parties	Priority	Timeframe/ Record of Action
1. Use incentive-based approaches to protect, restore, and conserve important fish and wildlife habitat and direct development away from important habitat areas.	Municipalities Monroe Co. Planning Commission Monroe Co. Conservation District U.S. Fish & Wildlife Service Fishing and hunting clubs	Most Important	Short 1-3 Years & Ongoing
2. Increase public access to fishing waters.	County and regional open space committees	Most Important	Short 1-3 Years
3. Restore in-stream habitat in areas degraded by flooding, channelization, loss of riparian buffer, and increased runoff.	Trout Unlimited Brodhead Watershed Association Fishing clubs Municipalities PennDOT Army Corps of Engineers U.S. Fish & Wildlife Service	Most Important	Short 1-3 Years & Ongoing
4. Develop more effective deer, geese, and other nuisance wildlife management programs.	PA Game Commission DCNR Ducks Unlimited Fishing and hunting clubs	Very Important	Short 1-3 Years

5. Implement programs to control/manage invasive and exotic species.	Monroe Co. Cooperative Extension The Nature Conservancy Delaware River Invasive Plant Partnership (DRIPP) Volunteers	Very Important	Short 1-3 Years
6. Conduct inventories of terrestrial wildlife and their habitats, including birds, reptiles and amphibians. <ul style="list-style-type: none"> Conduct standard census work during breeding and non-breeding seasons. Hold a “bioblitz” throughout the watershed. Determine if areas in the watershed qualify as Important Bird Areas⁶. Continue with research on saw-whet owls and breeding birds. 	Scientific community	Very Important	Medium 3-5 Years
7. Conduct fisheries inventories in high priority stream areas ⁷ and review fish stocking programs.	PA Fish Commission	Important	Medium 3-5 Years
8. Create riparian parks, using Army Corps of Engineers habitat restoration program. <ul style="list-style-type: none"> Restore the bend in the creek below Analomink. 	Army Corps of Engineers PennDOT Municipalities Monroe Co. Conservation District	Important	Medium 3-5 Years

⁶ Sites that provide essential habitat for one or more species of bird. The Important Bird Area (IBA) program, a global effort to identify the areas most important for maintaining bird populations, is administered by the National Audubon Society.

⁷ Per a Sept. 12, 2001 memorandum with Don Baylor of Aquatic Resources Consulting, these include: Bulger’s Run, Scot Run, Cranberry Run, Reeder’s Run, Pocono Creek – Bartonsville area, Lake Creek, Kettle Creek, Spring Run, Leavitt Branch, Griscom Run – upper, Goose Pond Run, Cranberry Creek, Butz Run, Cranberry Run, Michael Creek, Middle Branch, Mill Creek – lower, and Marshall’s Creek (other than area of Bridle & Ironcolor Shiners).

Historic & Cultural Resources

Goal: Ensure that the historic resources of the Brodhead watershed are preserved and interpreted as educational examples of the area's heritage.

The Brodhead watershed contains many significant historic structures and landscapes dating from the days of the early settlers to the more recent early development of the tourism industry. Remnants of mills and other early industries, such as tanneries and icehouses, dot the landscape along with early boarding houses and hunting lodges. A few structures have been placed on the National Register of Historic Places, but many more are eligible.

Historic preservation has not been an important concern in much of the watershed, but in several areas local historical societies are beginning to take up the cause of preserving local heritage. Their efforts should be encouraged and supported. In many cases, little remains of area heritage except the memory of older residents; preservation of these memories is essential. Public information about local history, such as markers at historic sites, will help interpret the area to both residents and visitors.

HISTORIC & CULTURAL RESOURCES

GOAL: Ensure that the historic resources of the Brodhead watershed are preserved and interpreted as educational examples of the area's heritage.

Action	Responsible Parties	Priority	Timeframe/ Record of Action
1. Develop ordinances to encourage creative reuse of historic structures consistent with maintaining the historic character of the building.	Municipalities, with Monroe Co. Planning Commission	Very Important	Short 1-3 Years
2. Complete applications for historic structures eligible to be added to the National Register of Historic Places.	Monroe Co. Historical Association Property owners	Very Important	Short 1-3 Years
3. Amend municipal ordinances to require a permit for demolition of historic structures.	Municipalities	Very Important	Medium 3-5 Years
4. Implement or encourage projects which interpret historic resources.	Local Historical Societies Brodhead Watershed Association Monroe Co. Conservation District Monroe Co. Historical Association Pocono Mountains Vacation Bureau	Very Important	Ongoing
5. Identify and develop a plan to protect important historic structures and areas in the watershed.	Brodhead Watershed Association Monroe Co. Historical Association Local historical societies	Very Important	Short 1-3 Years
6. Develop a plan for interpreting historic and cultural resources in the watershed.	Monroe Co. Historical Association Monroe Co. Planning Commission	Important	Short 1-3 Years
7. Incorporate clear, reasonable design review standards for renovations to historic structures into municipal codes.	Municipalities	Important	Medium 3-5 Years
8. Acquire, restore, or interpret significant historical landscapes, structures, and features in the watershed where feasible.	Municipalities Non-profit groups County agencies	Important	Short 1-3 Years
9. Determine the feasibility of restoration of the historic Henryville House and/or acquiring the site to develop a facility for interpretive use.	Local Historical Societies Brodhead Watershed Association Monroe Co. Historical Association Municipalities	Important	Short 1-3 Years
10. Consider acquiring the 24-acre property containing Marshalls Falls and nearby Titania House as a local park/open space.	Municipalities	Important	Short 1-3 Years
11. Maintain the historic Double Arch Stone Bridge as necessary to preserve original features.	Municipalities Non-profit groups County agencies	Important	Medium 3-5 Years & Ongoing

12. Restore the Creekside Park at the Delaware Water Gap Train Station for historical interpretation and tourism.	Lackawanna Chapter of the Railway and Locomotive Historical Society Municipalities	Important	Medium 3-5 Years
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Funding Sources

Funding opportunities for many of the action items listed in the Management Options Table can be found through numerous government funding programs as well as through private organizations. A table listing approximately 40 of the government programs that offer funding opportunities can be found in *Appendix D, Rivers, Trails and Greenway Funding Options*.

Composite Mapping for Recommended Actions

Composite mapping was prepared to help translate the management options to their spatial component. This mapping is meant to be neither definitive nor complete but rather a starting point for identifying “where” in the watershed problems, issues or concerns are located.

The following maps show potential project locations for the resource categories *Water Quality and Quantity*, *Fish and Wildlife Habitat*, and *Historic & Cultural Resources*.