

Back Creek Watershed Protection Plan

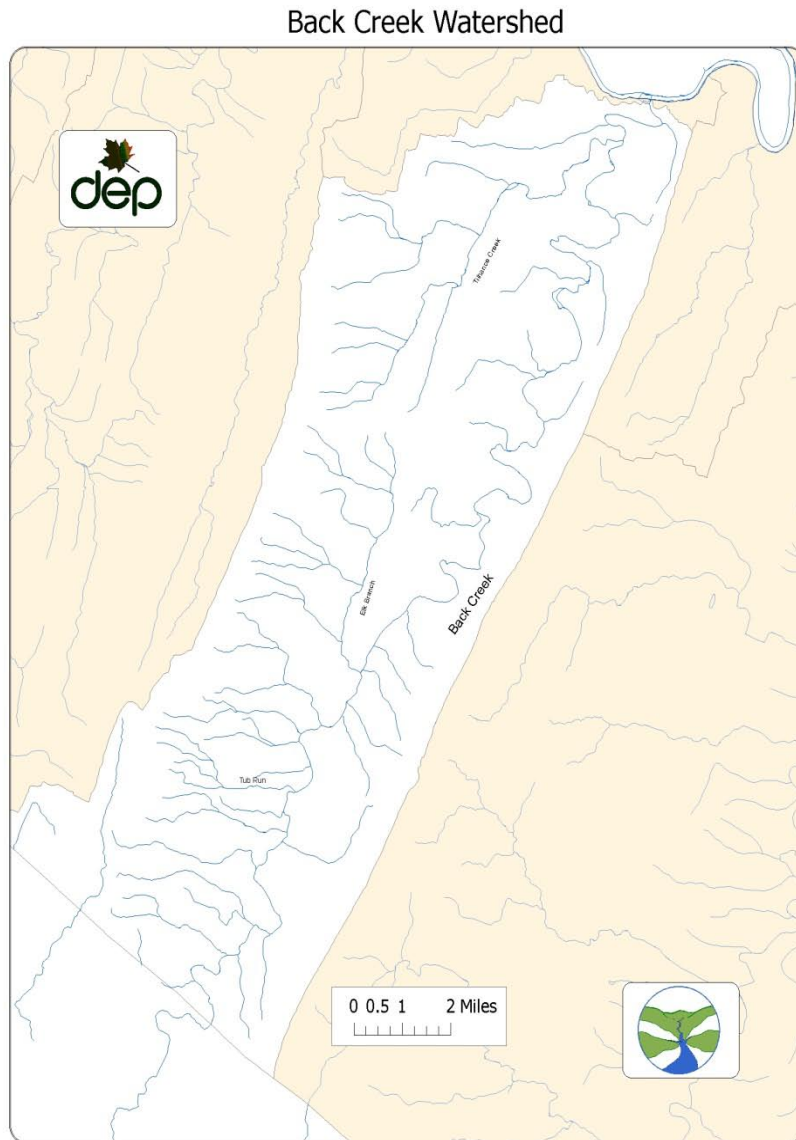


Potomac Direct Drains Berkeley County, WV
HUC code: 02070004
WV Stream code: WVP-6

West Virginia Conservation Agency
February 15, 2011

Funding	Amount
319 funds	\$30,000
Match	\$20,000
Totals	\$50,000

Introduction



Back Creek watershed is approximately 374 square miles and originates in Frederick County, Virginia. Upon entering Berkeley County, West Virginia, the watershed is already 172 square miles. It flows 34 more miles northeast toward its confluence with the Potomac River. Thus it is part of the Chesapeake Bay watershed. It is one of the only large streams in West Virginia's Potomac Direct Drains basin which meets its designated uses.

In an Ecological Assessment based on June 1998 stream samples, it was determined that "Back Creek sub-watersheds appeared to have good stream health based upon the results from the sites sampled during this assessment effort. The data show that not only were forested headwater tributaries supporting diverse benthic communities, but also the main stems over their entire West Virginia lengths produced benthic samples rated as unimpaired. Water quality was good throughout the sample population."

Back Creek is classed by the WV Division of Natural Resources (WVDNR) as a "High Quality Recreational Stream" for fishing, swimming, canoeing and kayaking. The American Whitewater Association deemed a segment from the Route 9 Bridge/Hedgesville district to the confluence with the Potomac as "Class II Whitewater." As early as 1982 this segment was also considered a viable candidate for Wild and Scenic River Designation by the same organization. Blue Heron Environmental Network, Inc (BHEN), a local non-profit focused on Back Creek, has been gathering information to have this segment formally nominated.

Agency staff and stakeholders aim to begin assessing the aspects of the watershed which protect its water quality and ecological function. In particular, we believe the large percentage of forest cover in the watershed is a key characteristic whose extent and benefits will be documented. These forests are part of

the most expansive hardwood forests in the world. They provide wood, clean air, water, and places for recreation and spiritual renewal. The loss and fragmentation of these forests are threatening the functions that are critical to the environment, economy, public health, and quality of life of the watershed.

We also intend to describe actions that will ensure the protection of these resources. Stakeholders at an initial planning meeting expressed a wish to avoid the word “preservation,” however, and to focus on strategies that are compatible with the community’s uses of land and water in Back Creek watershed. At the same time, they are open to learning and helping to promote ways of protecting water quality.

The potential for land use change in the coming years is acknowledged. “A recent increase in second home development in the Sleepy Creek and Back Creek subwatersheds raises traditional concerns about inadequate sewage treatment, increased erosion, diminished vegetated riparian zones, and increased soil imperviousness. However, many of the new homeowners were attracted to the area because of clean air, clean water, forestland recreation opportunities, and friendly neighbors. These new citizens may join forces with local farmers to prevent the environmental degradation that usually follows suburbanization of rural landscapes. This potential alliance, if properly fostered by conservation-oriented agencies and organizations, may serve to demonstrate to other citizens in rapidly developing regions how the habitat needs of humans can be met with minimal negative impact to aquatic resources”.

The writing of a protection plan for Back Creek watershed is an application of the Healthy Watersheds concept as promoted by US EPA. “The Healthy Watersheds concept is based on a holistic systems approach to watershed protection and conservation. Maintenance of aquatic ecological integrity requires that we understand, not only the biological, chemical, and physical condition of waterbodies, but also critical watershed functional attributes, such as hydroecology, geomorphology, and natural disturbance patterns. The benefits and services provided by healthy watersheds are numerous and include reduced vulnerability to invasive species, climate change, and future land use changes. Healthy watersheds with natural land cover and soil resources also provide vast carbon storage capabilities, offsetting greenhouse gas emissions. Healthy watersheds also provide habitat for fish, amphibians, birds, and insects and stream corridors which provide a key connection across the landscape for animals and birds. Aside from the reduced costs of restoring impaired waters, there are many other economic benefits to protecting and conserving healthy watersheds. Healthy watersheds preserve recreation opportunities such as fishing and water-related recreation (e.g. boating) and contribute to tourism (e.g., hiking and birding). Vulnerability to floods, fires, and other natural disasters is minimized, thereby reducing costs to communities. Similarly, by protecting aquifer recharge zones and surface water sources, costs of drinking water treatment may be reduced.”

The scope of this project will not allow the partners to entirely and completely explore “the biological, chemical, and physical condition of [the waterbody, and] critical watershed functional attributes, such as hydroecology, geomorphology, and natural disturbance patterns.” However, the outputs described below will provide a review of several elements of the recommended assessment framework including landscape condition, biotic condition, and chemical/physical parameters. We will attempt to make use of the tools US EPA has provided on these websites, including samples of assessments, conservation approaches, and outreach tools.

Management Measures

Agency and NGO partners will compile data on Back Creek Watershed and write a Phase I watershed protection plan to guide land conservation and watershed restoration projects. The plan will identify critical resources to protect (e.g. high-priority forested lands) and critical sites to restore (e.g. severely eroding streambanks).

A project prioritization list will take into account:

- The threatened and endangered species that depend on the water resources of this valley, such as harperella (federally endangered plant), wood turtle, eastern cricket frog, green floater mussel, and recently noted freshwater sponge (not yet identified)
- Existing information gathered by BHEN during an attempt to designate Back Creek as a Wild and Scenic River
- A stakeholder workshop, facilitated by professionals in the fields of forest conservation and/or green infrastructure, will be conducted to identify local priorities for conservation, and the results will be analyzed with a Geographic Information System (GIS)
- Maps will be generated of the most desirable parcels for forest conservation.
- A stream assessment will be conducted to identify and prioritize streambank and riparian area restoration opportunities.

A working group, consisted of project partners, will be meeting throughout the protection plan's development to review and assess its progress. Some partners will likely provide information for the plan, pertaining to their area of expertise or experience, without payment from this grant. All project partners will be encouraged to attend work group meetings to ensure that each agency or partner remains involved and updated on the project's development. The WVCA Conservation Specialist will be responsible for coordinating the meetings and distributing the information gathered from the work sessions.

The consulting firm contracted to conduct the stream assessment, GIS analysis and land-use will report periodically to the WVCA on their progress of the protection plan. When contracted work is completed all information gathered will be presented to the working group.

Once the protection plan is completed a watershed protection plan (WPP) document will be created. The WPP will be distributed to project partners and stakeholders. It will serve as a baseline document that can be utilized by state agencies or stakeholders to secure federal or private funding to conserve areas of interest stated in protection plan.

Technical and Financial Assistance

WVCA is requesting \$30,000 to compile data on Back Creek Watershed and write a Phase I watershed protection plan to guide land conservation and watershed restoration projects.

1. WVCA will be the state agency coordinating the development and implementation of the protection plan as well as offering support for education and outreach efforts.

2. The Eastern Panhandle Conservation District (EPCD) will administer the funding for the development of the protection plan.
3. The West Virginia Department of Environmental Protection's (WVDEP) Nonpoint Program will oversee the reporting of this grant, and will provide support through the Potomac Basin Coordinator in the Nonpoint Office, who can assist the WVCA with the development of the protection plan.
4. The West Virginia Division of Forestry (WVDFOF) will assist the WVCA with the forest prioritization section of the protection plan.
5. The Potomac Headwaters Resource Conservation and Development (PHRCD) will provide technical assistance in the development of the protection plan to the WVCA and WVDEP.
6. The BHEN will assist with workshop development, public awareness and outreach, and landowners' coordination. Blue Heron is a 501(c) 3 organization committed to environmental education and conservation in the Back Creek watershed. BHEN has two decades of experience on a broad spectrum of environmental subjects and many accomplishments including the placement of road signs identifying the names of Back Creek tributaries, twice-yearly trash cleanups, and maintaining the Back Creek Watershed Water Quality Initiative. This program includes water quality monitoring using WV Save Our Streams (WVSOS) methods at key locations in Back Creek and its major tributaries. Data generated from this program has been used by state, federal and local agencies and universities. Blue Heron members are also locally recognized as skilled trainers of these methods for its volunteers and members of other nearby watershed groups.
7. WVDNR will provide technical support for including summaries of the habitat needs of some rare species. We would also like input from this agency regarding the status of the fishery in Back Creek and features of the watershed that should be conserved in order for the fishery to continue in its current condition.
8. A consulting firm will be contracted to conduct the stream assessment, GIS analysis and land-use, and to present this information to the partners in text, chart, and/or map formats that are easily incorporated into word processing or publishing software. The firm will also facilitate two of the stakeholder workshops. Their participation in the workshop will ensure that the communities concerns are present and documented in the protection plan.
9. A vendor will be identified to analyze forested parcels using stakeholder priorities for conservation, and provide resulting maps of conservation priorities to the partners in formats that are easily incorporated into word processing or publishing software.

Budget

GIS and land use analysis	\$10,000	Stream Assessment	\$6,000
Forest Prioritization	\$7,000	Workshops, hospitality, advertising, postage	\$3,000
Printing, copies, design	\$ 4,000	Totals	\$30,000

Matching Funds

The development of this protection plan will require a match of \$20,000. Sources identified to meet this requirement are the following:

- Landowner's cooperation with GIS analysis and streambank assessment
- Workshop attendees
- BHEN assessment of existing data
- Personnel
- EPCD's Agricultural Enhancement Program

Education and Outreach

The WVCA and WVDEP will coordinate with the EPCD and the BHEN to promote the protection plan process to stakeholders, and landowners through mailings. The EPCD Outreach and Education Specialists will provide assistance at workshops and project awareness.

Workshops will be held periodically (at least one to kick off the project and discuss priorities for conservation, and at least one to present contractor's results) to keep stakeholders and landowners aware and involved in the protection plan's development. The contracted consulting firm will facilitate two of the workshops. Information gathered from the community outreach events will be utilized in the creation of the protection plan. WVCA, WVDEP, WVDOF and BHEN will coordinate and promote the stakeholder workshops.

Milestones

February 2011	Submit plan to WVDEP and US EPA
March 2011	Receive project funding
April - May 2011	Determine vendor with ability to analyze forested parcels using stakeholder priorities for conservation
April 2011	Contact environmental consulting firms and request for RFP
May 2011	Award RFP to firm to performing stream assessment, GIS and land use analysis
June 2011	Host Community Workshop
June - August 2011	Vendor completes forested parcel prioritization map(s)
September 2011	Review stream assessment and status of GIS analysis and workshop
October 2011	Protection plan content finalized
November 2011	Protection plan document compiled, designed, printed
December 2011	Distribution of protection plan to project partners and stakeholders, workshop

The milestones set forth in this plan are contingent upon project funding being delivered according to schedule and could result in an extension of timeline.

References

1. The State of Chesapeake Forests: The Conservation Fund, 2006.
2. West Virginia Division of Water and Waste Management, 2005, An Ecological Assessment of the Potomac River Direct Drains Watershed, Report No. 02070004
3. <http://water.epa.gov/polwaste/nps/-watershed/framework.cfm>
4. <http://water.epa.gov/polwaste/nps/watershed/concept.cfm>