



Red River Gorge Watershed Plan and Restoration

Created by the Red River Watershed Team

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Chapter 1: Getting Started

1.1 Introduction

The Red River Gorge Restoration and Watershed Plan is part of a watershed planning project, and it addresses watershed-scale issues facing the Red River Watershed. This plan will focus primarily on *nonpoint source pollution*, but will also identify point sources and causes of pollution within the entire watershed. Nonpoint source pollution is pollution originating from diffuse areas (land surface or atmosphere) having no well-defined point of origin. Nonpoint source pollutants are generally carried off land and into waterways by rain or melting snow. Point sources are those with a specific point of origin, like a discharge pipe coming from a factory. This project focuses on identifying pollution sources in the watershed, quantifying pollution coming from each source, and making recommendations for Best Management Practices (BMPs) to improve and protect water quality in the Red River and four of its major tributaries. The creation of this watershed plan is made possible, in part, with a grant, titled “Red River Gorge Restoration and Watershed Plan,” from the Kentucky Division of Water (KDOW) to the Daniel Boone National Forest.

Watershed planning is an interactive and iterative process that involves organizations, groups, and community members coming together to develop a tool (a watershed plan) to help improve water quality and meet other group goals. A watershed plan can be used to better understand a watershed, inform the public on local water resource issues, improve water quality by implementing recommended BMPs, and as a basis for applying for future funding.

1.2 The Watershed

The Red River flows for over 97 miles through eastern Kentucky, until it reaches the Kentucky River near Winchester. Over the years, the river formed the Red River Gorge. The Gorge is a beloved part of our state, known for its natural stone arches, caves, rock shelters, and cliffs overlooking magnificent stream valleys. The Red River is Kentucky's only Wild & Scenic River. Its headwaters are in the hills of the Cumberland Plateau in eastern Wolfe County.

This watershed plan focuses on four tributaries to the Red River: Swift Camp Creek in Wolfe County, Clifty Creek in Menifee and Wolfe Counties, Gladie Creek in Menifee County, and Indian Creek in Menifee and Powell Counties (see Figure 1.1). These tributary streams are headwaters streams to the Red River, and they each begin on private land surrounding the Gorge. The project study area includes the communities of Campton, Valeria, Pomeroyton, and Mariba. Frenchburg is just outside of the project area, to the north.

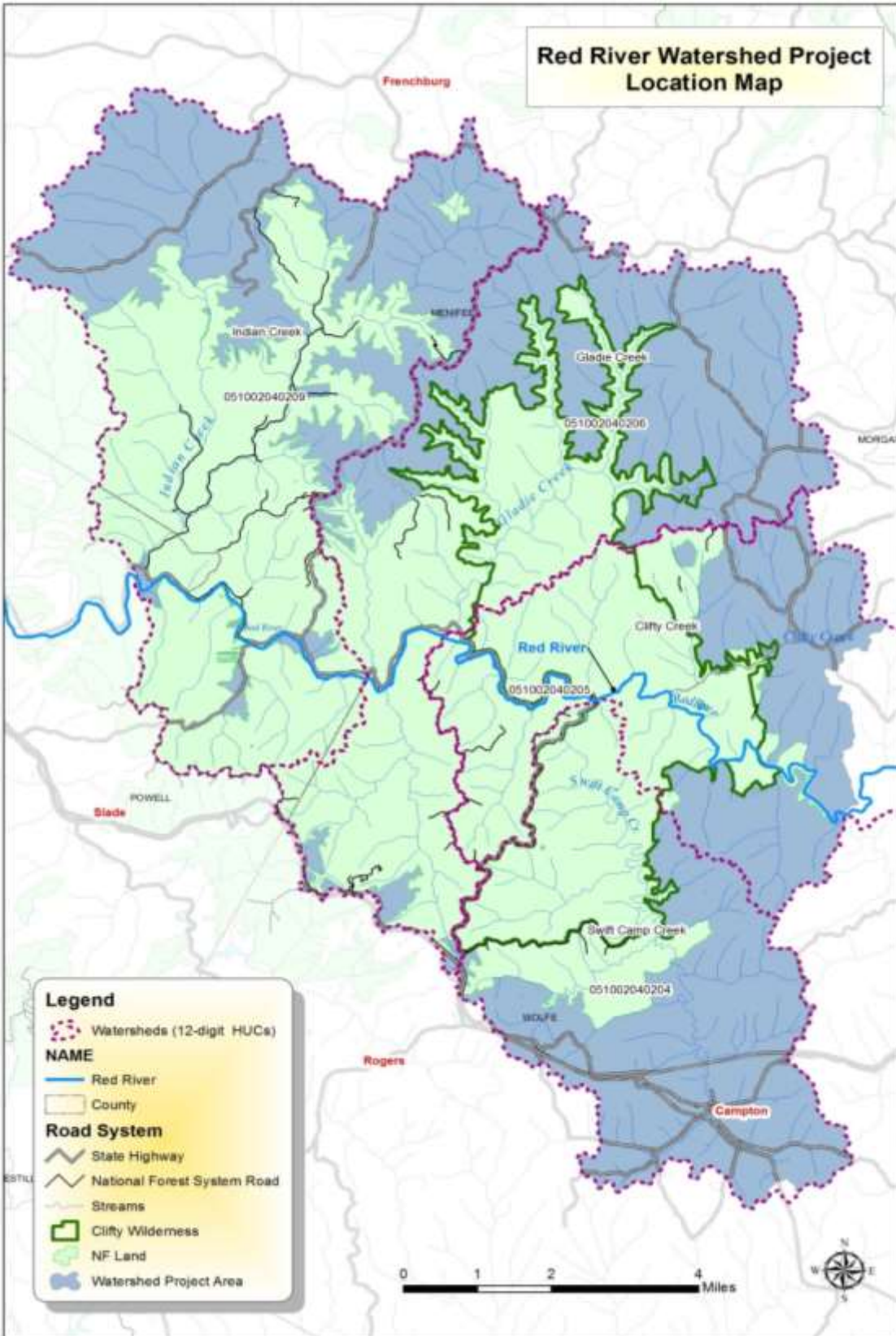


Figure 1.1: Map of the project area (USFS 2012).

What is a watershed plan, and why do Red River tributaries need one?

Watershed planning is a comprehensive, collaborative way to plan for the protection and improvement of the water quality in a given body of water. It makes sense to look at all the things affecting the Red River instead of just the water itself. Watershed planning involves gathering local stakeholders to share their knowledge, concerns, and ideas in developing the plan. It is a great way to take care of a stream with pollution issues, protect the streams in good condition, and outreach to communities about local water quality issues. The knowledge gathered from stakeholders, background research, water quality sampling data, and best management practices recommendations to combat pollution all go into the plan.

Swift Camp Creek, Clifty Creek, Indian Creek, and Gladie Creek were chosen for this project because they are all headwaters streams on private lands that flow into the Red River.

These headwaters streams are mostly in good condition (see Chapters 3 and 4) but are threatened by illegal dumps, loss of streamside vegetation, runoff from towns, agriculture, and mines. Bacteria in some creeks may exceed water quality standards. Swift Camp Creek and one of its unnamed tributaries are listed as impaired in the Kentucky 2010 Integrated Report to Congress (KDOW, 2010) for aquatic habitat. Suspected causes are sedimentation, loss of riparian habitat, septage disposal, and other unknown causes.

A portion of Indian Creek was also listed as impaired in 2010. Since that time, however, it has been determined through a thorough data review that the stream is not, in fact, impaired. A 'de-listing' process has been initiated by KDOW. The 2012 Integrated Report will address the delisting and is currently under review by the EPA. New information on this process will be added to this plan as available.

This plan will also serve as the foundation for seeking future funding to implement Best Management Practices (which can be both on-the-ground projects and educational outreach efforts). The plan can be used by local officials and leaders for planning purposes and to help protect water resources. The streams in good condition, and the streams with pollution issues, need a plan to help improve and protect water quality – a watershed plan.

1.3 A brief history of this project

The Daniel Boone National Forest (DBNF) began a process called the "Limits of Acceptable Change" in 2008 to address resource concerns on their land and to involve stakeholder groups in understanding and mitigating the issues.

Through this process, a watershed-based plan was created called *The Limits of Acceptable Change Watershed Plan*. It covers DBNF lands in the Red River Gorge. The plan showed that due to unregulated recreational use, some streams in the area are being severely degraded.

The headwaters of most of the tributaries to the Red River are located on privately owned land and have not yet been part of a comprehensive watershed based planning process.

Some of the streams draining into the Red River have been identified as impaired or threatened. Therefore, the *Red River Gorge Restoration and Watershed Plan* project is divided into two parts: the first part will finish the *Limits of Acceptable Change Watershed Plan* and its recommended Best Management Practices on the DBNF. The second part is the creation of local watershed teams and *this* watershed plan addressing the four tributaries Swift Camp Creek, Indian Creek, Clifty Creek, and Gladie Creek. These private headwaters streams have been studied through this watershed planning process, and solutions to identified issues have been proposed. Private landowners may choose to participate in any resulting programs to address water quality issues, or not. Likewise, city and county governments and other stakeholders may or may not choose to participate in proposed programs or initiatives.

1.4 Project Goals, Stakeholder Concerns, and Project Partners and Stakeholders

The following lists of project goals, stakeholder concerns, and project partners and stakeholders were compiled at public meetings in Campton and Frenchburg over the course of several meetings in 2011 and 2012.

Watershed Team Member Goals for the project:

- That the Red River be a world class river (and a draw for tourism)
- Get young people involved (and their parents)
- Build partnerships (between USFS and local citizens, organizations, govt., and businesses)
- Local action for clean water
- Education (specially discussed in context of soil degradation and eroding hillsides)
- Set framework to secure funding for Best Management Practices implementation locally
- Local ownership and action
- Trout fishing in Campton (Swift Camp Creek)
- Better coordination between all partners and agencies; streamline way to address issues
- To improving trail conditions from upper end to lower end
- To involve local horse breeding community

Stakeholder Concerns:

- Swimmable, fishable, usable
- Hanging out
- Recreational uses
- Headwaters
- Lessons learned and how to apply to entire watershed
- Eastern edge of Wilderness Area is adjacent to private land. Concerns about Wilderness areas and wilderness study areas (in lower watershed) and their water quality. Also issues of solitude, intrinsic value, and other services and amenities provided by wilderness.

- OHVs and horses in Wilderness
- Fish in Swift Camp Creek
- Trout throughout the watershed
- Trash (including tires)
- Clear, good waters
- Safe for kids
- Drinking water
- Physical stream issues, like bank erosion
- Economic aspect of recreation
- Red River used to flow year round
- Like to see river restored to past quality
- Educate public
- Less sediment in the water
- Scenic Beauty
- Project not comprehensive enough to address ecological function
- Buffers along the Red River tributaries
- Flooding, development, and land use
- Mussel species
- Horse damage to trails and river put-ins and safety (in regards to horses on local roads)

Project Partners and Stakeholders:

A number of people, agencies, and companies have been involved in the development of this Watershed Plan. These include but are not limited to the following list.

- Local citizens
- Conservation Board
- Agricultural extension agent
- User groups, including: fishers, climbers, hikers, horseback riders, OHV drivers, solitude seekers, water sports people, etc.
- Fish and Wildlife Service
- U.S. Forest Service
- Friend of Red River
- Land owners
- Farmers
- Water and waste water utilities
- Local elected officials
- Schools
- Faith Community
- Eastern KY PRIDE
- Business Owners
- Transportation Department
- Tourism entities
- Loggers

Watershed planning is an iterative process. As this plan develops, it will be possible to edit these lists and this chapter.

Technical Consultants: Rita Wright Consulting was the primary technical consultant on this project, collecting and analyzing water quality data. Third Rock Consulting, LLC, acted as a consultant for biological sampling on Swift Camp Creek.

Sponsoring organizations: Daniel Boone National Forest and Kentucky Division of Water

Subcontractor: Kentucky Waterways Alliance