

I. INTRODUCTION

Nonpoint source (NPS) pollution has emerged as a major source of water quality problems nationwide. It occurs as rain water or snow melt washes pollutants off of the surrounding landscape and into streams and rivers. The other major category of pollution, point sources, originate from discrete locations, such as the end of a pipe, and have been the focus of natural resource management agencies since the Clean Water Act was passed in 1972. Reduction of point sources in Alum Creek improved water quality dramatically in the 1980's early 1990's, but water quality has again declined in recent years as a result of NPS pollution.

The purpose of this action plan is to identify and restore impaired reaches of Alum Creek and tributaries through reducing NPS pollution (although point sources will also be taken into consideration). Protecting areas that are currently meeting water quality standards is an equally important component. The plan strives to incorporate the vision of local communities for improving neighborhoods as they relate to water quality, and improving the capacity of local government officials to address NPS pollution through stronger collaborations. This plan presents an analysis of the underlying environmental, economic, and social factors related to the impaired areas and outlines strategies for restoration and preservation.

The process of creating the action plan began in 1999 when the newly formed Friends of Alum Creek & Tributaries (FACT) applied for funds to facilitate planning with local communities. Leaders in local government, natural resources protection, interested citizens, and many others participated in authoring the plan and have already begun the implementation process.

A. The Lower Alum Creek Watershed

The Alum Creek watershed is located in central Ohio, running through portions of Morrow, Delaware, and Franklin Counties. The watershed basin drains 199 square miles along Alum Creek's 55.8 miles. The focus of this document, however, is the lower Alum Creek watershed, which extends from the Alum Creek Lake Reservoir in southern Delaware County to the creek's mouth and confluence with Big Walnut and Blacklick Creeks in southeastern Franklin County (Figure 1).

The lower Alum Creek watershed drains 100 square miles and contains almost 27 miles of Alum Creek. It includes two 14-digit Hydrologic Unit Code (HUC's) subwatersheds, as defined by the U.S. Geological Survey: the Upper Subwatershed HUC (05060001160010) and the Lower Subwatershed HUC (05060001160010). The two 14-digit HUC subwatersheds and their boundaries are shown in Figure 1. Along the mainstem of Alum Creek, the boundary between the upper and lower subwatershed falls near Schrock Road in Westerville.

The Friends of Alum Creek & Tributaries (FACT), who sponsored coordination and funding of the planning process, focused planning solely on the lower Alum Creek watershed for several reasons. The group has historically focused on this portion of the watershed due to resource limitations and the vastly differing land use and water quality conditions found in the two

sections. These differences are exaggerated by the Alum Creek Lake Reservoir, which spatially separates the segments and acts as a buffer between them. Lastly, results of other watershed planning projects have shown that a smaller scale approach is more likely to be successful in targeting and reducing impairment.

Six tributary streams are addressed within this document:

- Unnamed Tributary at Alum Creek river mile 25.50 (Delaware County – OH38 4.6)
- Unnamed Tributary at Alum Creek river mile 23.47 (Delaware County – OH38 4.5)
- Spring Run (Franklin/Delaware County – OH38 2.3)
- Spring Run West (Franklin County – OH38 2.1)
- Kilbourne Run (Franklin County – OH38 2.7)
- Bliss Run (Franklin County)

While numerous other tributaries exist, these six are the only ones for which water quality data exists (OEPA, 2003a). While actions in Section IV will apply to the entire watershed, other tributaries were not specifically included because planners were unable to assess their water quality status or form a basis for measuring results of planning efforts.

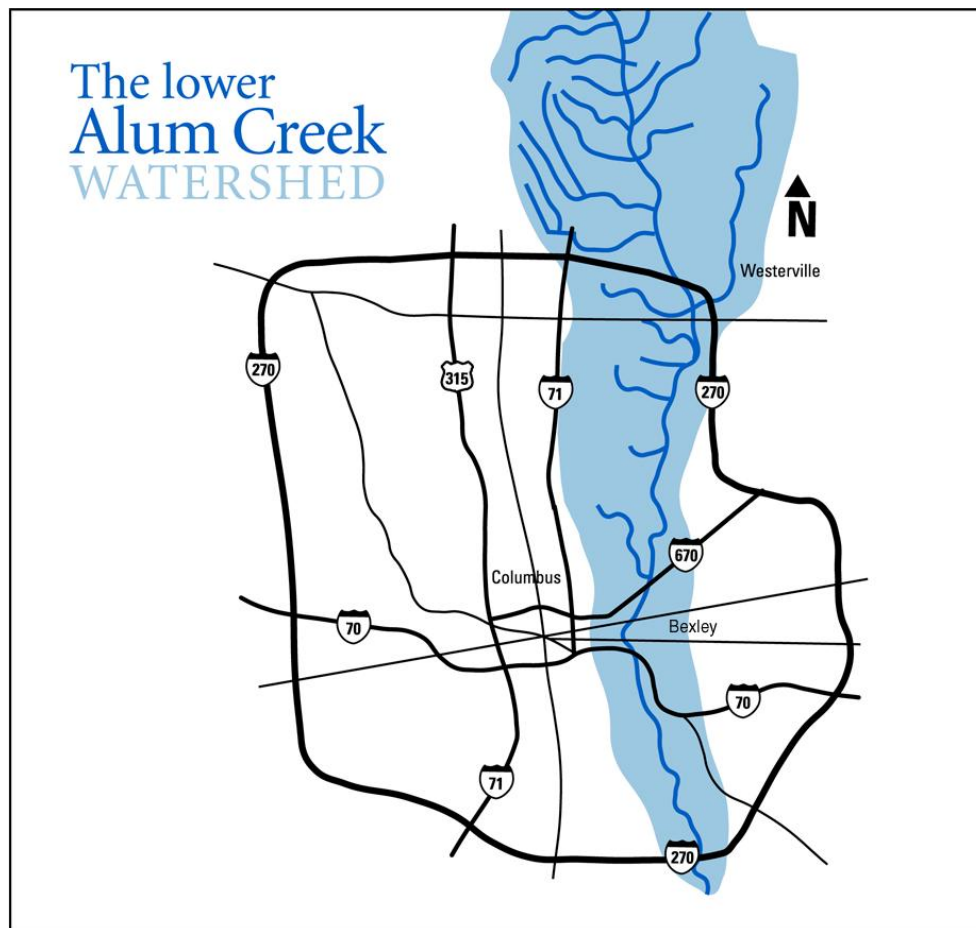


Figure 1: The Lower Alum Creek Watershed

B. Lower Alum Creek Demographics

The lower Alum Creek watershed contains portions of 13 political jurisdictions (listed below) and a population of 257,000 people. According to the 2000 census, 62% of the watershed population is White, 32% is African American, and the remaining 6% is American Indian, Asian, Hispanic, or Other. These numbers reflect that the Alum Creek watershed is home to many minority communities; 38% of residents within the watershed consider themselves “non-white,” compared to 24% in Franklin County as a whole. Census data show similar percentages between the lower Alum Creek watershed and Franklin County for home ownership and median per capita income, although education levels in the watershed are somewhat lower.

It is interesting to note that the watershed contains not only an ethnically diverse population, but diverse neighborhoods in terms of history, density, and land use. For instance, areas in the northern end of the lower watershed have experienced vast land use changes in the last decade as agricultural lands have been converted to suburbs, while the City of Bexley was established almost 200 years ago and retains little open land for new development.

Lower Alum Creek Watershed Political Jurisdictions	
Counties / Townships	Delaware County / Genoa, Orange Franklin County / Sharon, Blendon, Clinton, Mifflin, Madison
Cities	Westerville, Columbus, Bexley
Villages	Minerva Park

C. Other Watershed Management Activities

Alum Creek Greenways Plan

The Franklin County Greenways Initiative, housed within the Mid-Ohio Regional Planning Commission (MORPC), created a Greenways Plan for Franklin County in early 1997. Alum Creek was chosen as the first watershed for local application of the plan, and so “Greenways – A Plan for Alum Creek” was completed in 1999 (MORPC, 1999). Strategies such as surveys of creek-side residents, a “Getting to Know You” stream walk and canoe float series, and a community planning forum were used to involve the public in the development of the plan.

The Greenways Plan established seven goals:

- 1) Increase awareness
- 2) Improve access
- 3) Create a ‘Friends of Alum Creek’ community group
- 4) Provide a safe environment
- 5) Protect and enhance the natural greenway
- 6) Improve water quality for recreational use and biological diversity, and
- 7) Develop a multi-use trail

As both a goal within the plan and a result of new networks established among individuals, natural resource managers, and environmental groups during the planning process, the Friends of Alum Creek & Tributaries were formed in 1998. Many other greenway plan goals have been achieved since then, while others that were more costly or complex are included in the action plan and will receive the benefit of staff time dedicated to their implementation and further grant funding. The Greenways Initiative and numerous other partnering organizations continue to lend support to FACT and have been extensively involved in the development of this action plan.

The protection and enhancement of a natural greenway along Alum Creek for both active and passive recreation continues to be a primary goal of local parks and recreation departments. In addition to pre-existing park land, significant portions of the riparian corridor have been purchased or placed under conservation easement to accommodate a 27 mile multi-use trail along the creek. Several components are already finished, and the trail is scheduled to be fully completed by 2007.

Big Walnut Basin Total Maximum Daily Load (TMDL) Study

As the action plan was going to print, the Ohio EPA released a draft Total Maximum Daily Load (TMDL) restoration plan for the Big Walnut Creek Watershed basin, which includes Alum Creek, Big Walnut Creek, and Blacklick Creek (Ohio EPA, 2004). The Ohio EPA must develop TMDL's for impaired waters to determine the extent of pollution reduction necessary for a given stream to regain ecological health (i.e., achieve full use attainment). This is accomplished by identifying pollutant sources, estimating their load contributions, and then determining appropriate load reductions.

In the Alum Creek watershed, TMDL's were developed for sediment, pathogens, and habitat. Although the action plan was developed primarily during 2003 and 2004 prior to the release of the draft TMDL, data and targets from the TMDL were incorporated while final revisions were being made to the action plan in early 2005. The ease of this transition was made possible by efforts of action planners and the TMDL team to maintain communication during the planning process. For example, the TMDL development team helped design the format and focus of the planning effort and plan goals (see Section II). Priority status has been given to actions that will help address TMDL parameters. Please see Section IV for more details.

Westerville Source Water Assessment & Protection

The Ohio EPA conducted a "Drinking Water Source Assessment" for the City of Westerville in 2003 in accordance with the state and federal Source Water Assessment and Protection program (SWAP) (OEPA, 2003b). Assessments are conducted to ensure the long term availability of drinking water through identifying protection areas and ways to reduce the risk of contamination. Alum Creek surface water is the primary source of Westerville's public water system. The report identified development activities and spills as potential sources of contamination, and protective strategies such as controlling storm water runoff and coordinating with local emergency response agencies. Local protection planning to achieve these strategies is already underway via stormwater control efforts described in this action plan and a source water assessment and protection plan currently being drafted by Westerville.