

I. INTRODUCTION

Nonpoint source (NPS) pollution has emerged as a major source of water quality problems nationwide. It occurs as rain water washes pollutants off of city streets or agricultural fields 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 the 1970's. 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 nonpoint source pollution.

The purpose of this action plan is to identify and reduce impaired reaches of Alum Creek and tributaries through reducing NPS pollution, although point sources will also be addressed. 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 planning process began in 1999, when the newly formed Friends of Alum Creek & Tributaries (FACT) applied for funds to hire staff and facilitate planning with local communities. Leaders in local government, natural resources protection, interested citizens, and many others have participated in authoring the plan and already begun the implementation process (see Section II).

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. The lower watershed 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).

Several factors influenced the decision to focus planning solely on the lower Alum Creek watershed. The Friends of Alum Creek & Tributaries, who sponsored coordination and funding of the planning process, have historically focused on the lower watershed. This was due to both

resource limitations and the vastly differing land use and water quality conditions found in the upper reaches of the watershed. These differences are exaggerated by the Alum Creek Lake Reservoir, which spatially separates the segments and acts as a buffer between them. Lastly, resource agencies have learned that watershed planning on a smaller scale is more likely to be successful in targeting and reducing impairments.

Six tributaries in the lower watershed (listed below) were included in the most recent water quality assessment conducted by the Ohio EPA (OEPA, 2003a), and are addressed within this document. Other tributaries were not included because no data are available to assess their status or form a basis for measuring results of planning efforts.

- 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)

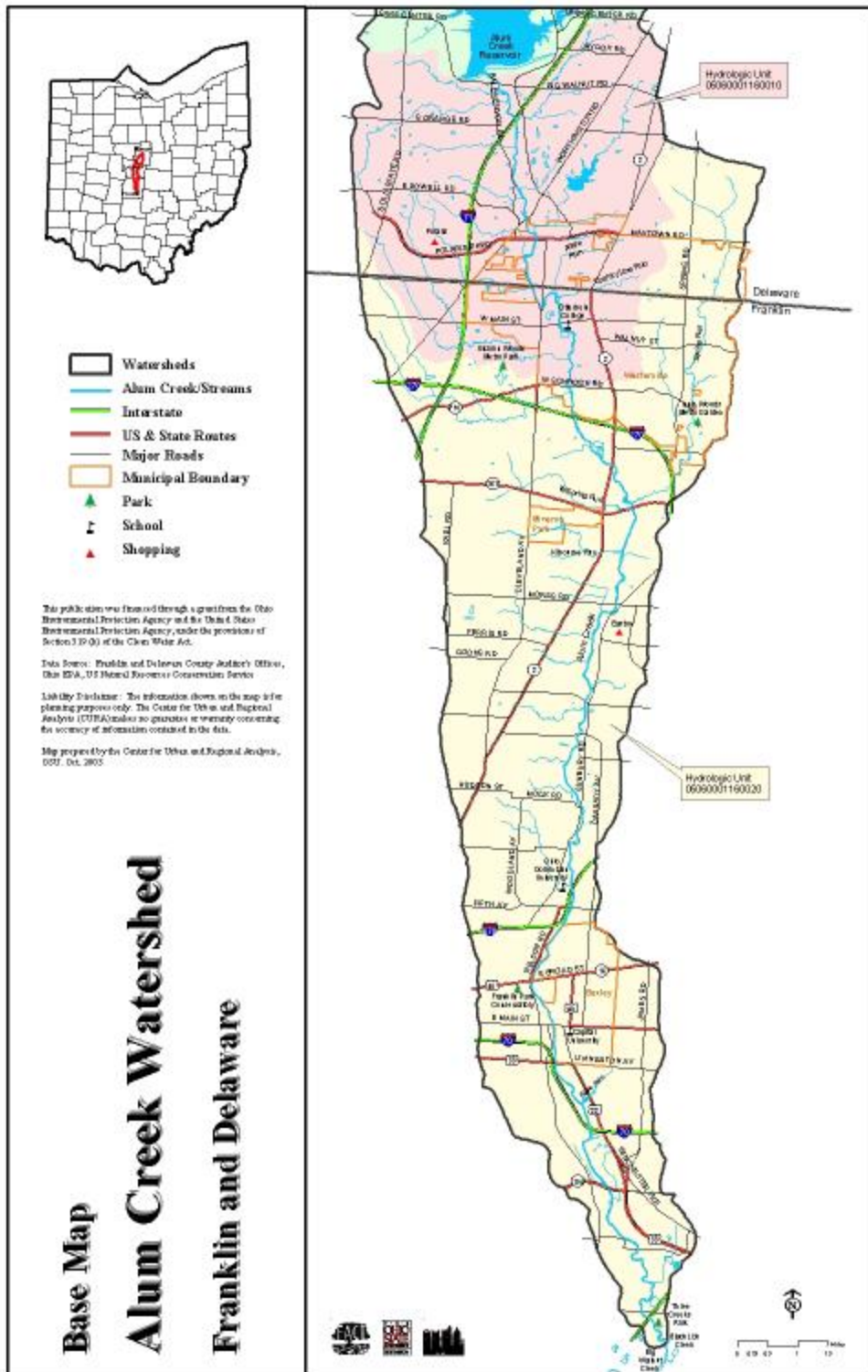


Figure 1: the Lower Alum Creek Watershed

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 a home to many minority communities; 38% of residents with 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 over 150 years ago and retains little open land for new development.

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

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. The 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 planning process. The Greenways Plan established seven goals:

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

As both a goal within the plan and a result of new networks established among individuals, natural resource management agencies, and environmental groups during the planning process, the Friends of Alum Creek & Tributaries were formed in 1998. Components of many of the other goals set forth in the plan have been accomplished, including the formation of FACT. This, plus the hiring of a staff person and the completion of the current planning document were necessary to begin addressing other goals that were more costly and complex, such as conservation easement acquisition and creating a network of canoe access points. The Franklin County 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 has been actively pursued by 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. The trail is scheduled to be completed by 2007 and several components are already finished.

Big Walnut Basin Total Maximum Daily Load (TMDL) Study

The Ohio EPA is currently developing a Total Maximum Daily Load (TMDL) restoration plan for the Big Walnut Creek Watershed basin, which includes Alum Creek, Big Walnut Creek, and Blacklick Creek. TMDL's are developed for impaired waters to determine the extent of pollution reduction necessary for a given stream to regain ecological health (ie, achieve full use attainment). This is accomplished by identifying pollutant sources, modeling their load contributions, and then determining load reductions for each.

In the Alum Creek watershed, TMDL's will be developed for sediment and pathogens. Although the report has not been completed at the time of this draft, efforts to maintain communication with the TMDL development team have been made to create an easy transition and incorporation of TMDL data as they become available. The TMDL development team contributed to the format and focus of the planning effort (see Section II) and plan goals. Priority status will be given to actions that will help achieve load reduction recommendations.

Westerville Drinking Water 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). The goal of such assessments is to ensure long term availability of drinking water in Ohio through identifying protection areas and ways to reduce the risk of contamination. Alum Creek surface water is the primary source for the City of Westerville's public water system. The report identified development activities (storm water runoff) 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 is recommended to achieve these strategies, and is already underway via cooperative stormwater control efforts described in this action plan and a source water protection plan currently being drafted by the city of Westerville.

