

VILLAGE CREEK WATERSHED MANAGEMENT MASTER PLAN



BIRMINGHAM FORWARD
— MAYOR WILLIAM A. BELL, SR. —

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WHAT IS THE PROBLEM

The Village Creek Watershed, a State designated impaired waterbody within the City of Birmingham, encompasses an area of more than 60,000 acres. Not only is it impaired for sediment, pathogens, pesticides, and nutrients in some stream segments, it is also implicated as having the most flood prone areas within the City. Village Creek has been studied by the Federal Emergency Management



Agency (FEMA), as part of the National Flood Insurance Program, in the early 1980's to delineate floodplain boundaries and by the U.S. Army Corps of Engineers (ACOE) in 1981. The latter study recommended implementation of an evacuation plan with some structural modification for flood damage reduction and resulted in Congressional Project Authorization, but no funding was ever appropriated for construction. Therefore, only the evacuation portion was ever implemented with the ACOE by the City. In 1997, FEMA announced Hazard Mitigation Grant funding for the purchase of about 200 flood prone parcels of property along Village Creek, which has been completed. However, to date, no solution to the drainage flooding and/or water quality conditions in Village Creek have been studied nor improvements with funding recommended.

WHAT IS A WATERSHED MANAGEMENT PLAN

A watershed plan is a strategy and work plan for achieving water resource goals that provides assessment and management information for a geographically defined watershed. It includes analyses, actions, participants, and resources for plan development and implementation. The watershed planning process uses a series of cooperative, iterative steps to characterize existing and future conditions, identify and prioritize problems, define management objectives, and develop and implement protection or remediation strategies as necessary. The main components of a watershed plan are:

- ◆ *Public Concerns*
- ◆ *Water quality, physical, and social data inventory*

- ◆ *Problem Identification*
- ◆ *Identify Sources of Problems*
- ◆ *Selection of Critical Areas*
- ◆ *Set Goals and Objectives*
- ◆ *Measure Success*

The plan guides watershed coordinators, resource managers, policy makers, and community organizations to restore and protect the quality of lakes, rivers, streams, and wetlands in a given watershed. It is intended to be a practical tool with specific recommendations on practices to improve and sustain water quality. These are "living documents", meaning that as conditions change over time in a watershed, the plan must be reexamined and revised to reflect goals that have been achieved or not met.



"I have come to understand that we are really talking about changing the culture of our relationship to water in the region. We can propose some regulatory changes that could have some impact, but the real change will be based on people having a different relationship with water and a culture of water responsibility becoming part of our regional ethic. That cannot be mandated."

Bob Schultz,
Watershed Plan Outreach Facilitator



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WHAT IS THE SOLUTION

The Birmingham City Council has approved a contract with Arcadis-US, Inc. to develop the Village Creek Watershed Management Plan by December 2015. To date, the project has already identified the hydrologic/hydraulic and water quality models needed for Village Creek and created the needed technical partnerships that include the U.S. Environmental Protection Agency (EPA), the U.S. Geological Survey (USGS), the Alabama Department of Environmental Management (ADEM), Jefferson County Stormwater Management, Jefferson County Environmental Services and Land Planning, and the University of Alabama at Birmingham to name but a few. Forthcoming in 2014-15 the watershed planning team will verify and calibrate the final models, assess the existing and future conditions of the Creek based on comprehensive land uses, implement a public consensus campaign, develop the watershed improvements toolbox, coordinate future conditions with the framers of the North Birmingham Plan, and prepare a final report with recommendations that will include prioritization of capital improvements and funding initiatives to implement project recommendations.

WHAT ARE THE MANY BENEFITS

- ◆ Complements & coordinates environmental activities
- ◆ Provides for close cooperation with local citizens groups, local governments, state & federal partners
- ◆ With permitted discharges considered together, needed controls are better focused
- ◆ Greater efficiency in the allocation of fiscal & personnel resources
- ◆ Focus on water quality goals, not program activities
- ◆ Improved decision making, promoting
- ◆ timely & focused development of TMDLs
- ◆ Increased public involvement in watershed related community decisions
- ◆ Restoration of Village Creek
- ◆ Improved water quality
- ◆ Protection of stream associated floodplains
- ◆ Potential for increased revenue & job opportunities
- ◆ Greater opportunity for exercise & lower incidence of illness
- ◆ Unique economic development opportunity
- ◆ Protection of the natural Village Creek waterway
- ◆ Improved ecosystem habitat
- ◆ Focal point for citywide green infrastructure development, particularly in North Birmingham
- ◆ Opportunity to leverage city funds to implement "multi-purposed" City projects
- ◆ Improved flood protection & reduced property damage



NEXT STEPS AND PUBLIC INVOLVEMENT

In anticipation of the final plan being finished in December of 2015, the following are next steps:

- ◆ Monthly project coordination meetings (First Thursday of each month; Emergency Management Agency Training Center)
- ◆ Present Village Creek Watershed Management Plan to all associated Homeowners Associations
- ◆ Conduct leadership charrettes in the Spring of 2015
- ◆ Present Village Creek Watershed Management Plan to businesses, industries & commerce
- ◆ Assess current sedimentation & erosion conditions of Village Creek
- ◆ Draft an agreement with Jefferson County to develop the watershed plan for the entire Village Creek
- ◆ Request funding through the U.S. Army Corps of Engineers for "Planning Assistance"
- ◆ Partner with EPA, Office of Research and Development for Low Impact Development Model enhancements to the City Website for GREEN development support
- ◆ Finalize, verify, and calibrate the hydrology, hydraulic, and water quality models for Village Creek Watershed to address the significant flood prone areas and incorporate water quality improvements
- ◆ Prepare final operation, maintenance, & capital improvements implementation plan