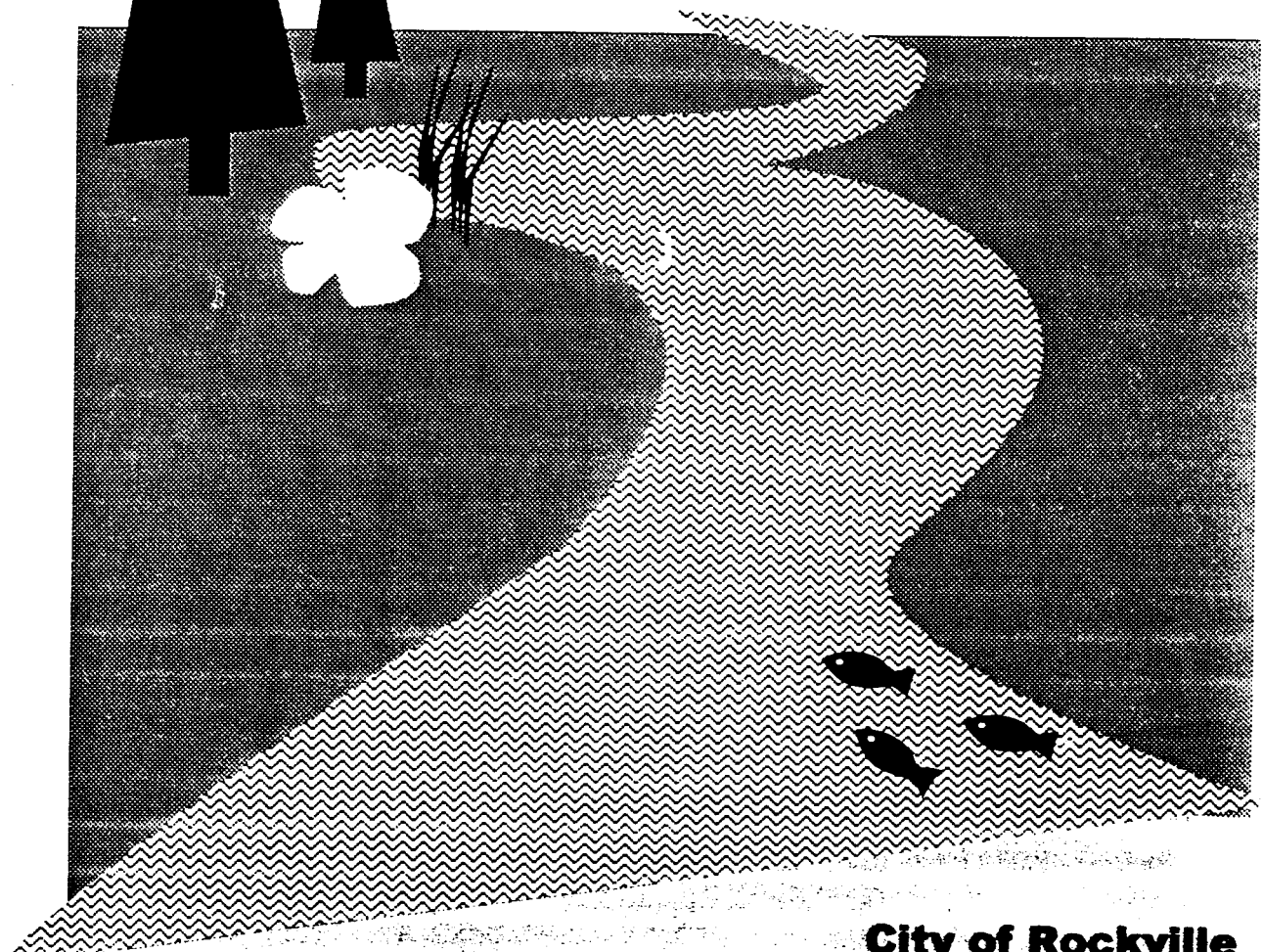


# Cabin John Watershed Management Plan



**City of Rockville**  
**February 1996**



**CABIN JOHN WATERSHED  
MANAGEMENT PLAN**

**-FINAL REPORT-**

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**ADOPTED FEBRUARY 26, 1996  
BY  
THE MAYOR AND COUNCIL OF ROCKVILLE**



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## **Review of the Public Information Process**

Several public information meetings were held to keep the citizens of Rockville informed about this watershed study and the potential impacts it has on them. Through each step of the process, meetings provided an opportunity for the residents to learn more about the Cabin John watershed and express their concerns and opinions on the proposed improvements to the watershed.

The public information process does not end with the Mayor and Council's approval of the plan. The design process will again solicit community comments that will enable each project to satisfy both the needs of the environment and Rockville's citizens.

## **Executive Summary**

The Cabin John watershed is located in the southern section of Rockville. It drains 3.6 square miles of heavily urbanized area through approximately eight miles of stream in three tributaries and seven subwatersheds. Although small, the Cabin John watershed affects both the Potomac River and the Chesapeake Bay.

Rockville adopted its Stormwater Management (SWM) program in 1978, when the city was over 75 percent developed and the Cabin John watershed was over 80 percent developed. City policy requires the discharge from a 10-year post-development storm to be released at the rate of the 2-year pre-development storm in which the site is assumed to have been in meadow condition. Created to prevent localized flooding, the policy was revised in 1986 to also provide water quality control.

Conducting a management plan for the whole watershed was first recommended by the Stormwater Management Task Force, formed in 1991 to assist the Mayor and Council in assessing the City's overall program. In addition, the task force recommended legislation to establish a water quality monitoring program, implement a comprehensive watershed maintenance program, increase public education and outreach, and develop new funding methods for long term operation and maintenance of the program. This watershed management plan is intended to reconcile the competing needs of an urbanized area while protecting the streams that exist in it.

Montgomery County's **Rapid Stream Assessment Technique (RSAT)** methodology was used to develop the plan.

As a result of the Cabin John watershed study and proposed changes to the State's SWM regulations, the City is proposing five actions: replace 10/2 control with one-year extended detention control for larger developments; expand the stormwater program to include a variety of water resource and enhancement projects; require approval of the SWM concept early in the development process; require annual certification of private SWM facility operation; and develop a memorandum of understanding with Montgomery County over compliance, monitoring, and enforcement as they relate to the National Pollution Discharge Elimination System (NPDES).

After reviewing the COG recommendations and conducting preliminary hydrologic-hydraulic analyses, staff proposes the following actions: **Fleet Street:** Construct an extended detention shallow marsh at a cost of \$172,300 per acre-foot in the later years of the SWM program; **Mount Vernon Place:** Convert an existing dry detention facility by adding a permanent pool and regrading to increase the storage capacity for quality control at a cost of \$23,300 per acre-foot, to be implemented in FY 96; **Hungerford Swim Center:** Construct an off-line excavated wet pond and levee system parallel to Cabin John Parkway to control the first one-half inch of run-off and decrease the two-year storm at a cost of \$37,800 per acre-foot, to be implemented in FY 96; **Dawson Farm:** Convert an existing dry detention facility to an extended detention shallow marsh at a cost of \$26,700 per acre-foot, with implementation in FY 2000; **Wootton Parkway:** Construct two weirs within the existing stream channel to provide extended detention and

improve water quality at a cost of \$108,800 per acre-foot, to be implemented in FY 97; **Potomac Woods:** Construct an off-line extended detention marsh to provide water quality and partial quantity control at a cost of \$51,600 per acre-foot, to be implemented in FY 96, plus a second wet extended detention pond to provide water quality and quantity control for smaller storms at a cost of \$47,800 per acre-foot, to be implemented in FY 99; **Locks Pond Court:** Convert an existing dry pond to an extended shallow marsh for water quality control at a cost of \$31,000 per acre-foot, to be implemented in FY 95; **North Farm:** Convert an existing dry pond into a shallow extended detention marsh to provide quality control for smaller storms and reduce stream channel erosion at a cost of \$39,500 per acre-foot, to be implemented in FY 99; **Woodmont Country Club:** Enlarge the existing golf course pond by six times to provide water quality and quantity control at a cost of \$59,500 per acre-foot, to be implemented at the time of redevelopment of the golf course; and **Montrose Park:** Prepare a detailed base survey of the existing conditions in FY 97 to develop alternative measures. These projects are summarized in Appendix A, page A-1.