

# Beaverdam Creek Needs You!

Beaverdam Creek subwatershed is an incredibly unique area of primarily publicly owned forest and agricultural land in the middle of the Washington Metropolitan Area. The headwaters of the Anacostia River are found in this subwatershed, which is home to a diverse array of plants and animals, such as bald eagles, blue herons, river otters, pitcher plants, orchids, brook lamprey and chain pickerel to name a few. While the Beaverdam Creek subwatershed is an area of unique beauty in the midst of suburban development, it is also home to a number of problems ranging from uncontrolled stormwater runoff, trash and eroding streambanks. In addition, the best and healthiest portion of the subwatershed (i.e., the Beltsville Agricultural Research Center) is under constant pressure from



various development projects. You are needed to help protect and restore this jewel of the Anacostia! Join the newly-forming Beaverdam Creek watershed group to learn more about this unique area, to become an advocate for the health of the watershed and to participate in hands-on activities like tree planting events and stream clean-ups that will improve water quality and increase the beauty of this area.

**Location:** Beaverdam Creek is a free-flowing tributary to Indian Creek, with their confluence approximately one-half mile upstream of the Capitol Beltway. The Beaverdam Creek subwatershed is roughly outlined by Muirkirk and Bowie Roads to the north, Greenbelt Road to the south, the old, abandoned Beltsville Airport to the east, and Edmonston and Powder Mill roads to the west. The subwatershed is located completely within Prince George's County and

includes communities in Laurel, Beltsville and Greenbelt and is also home to NASA Goddard Space Flight Center and Capitol College.

**Dominant Land Uses:** The dominant land uses in the Beaverdam Creek subwatershed are forest cover (61%), agricultural (17%) and residential/institutional (12%). Approximately 75% of the subwatershed is owned by The U.S. Department of Agriculture and is operated as the Beltsville Agricultural Research Center (BARC).

**Physical Characteristics:** The 14.1mi<sup>2</sup> Beaverdam Creek subwatershed is contained wholly within the Coastal Plain physiographic province. Elevations range from 170 feet at the subwatershed divide to 65 feet at the confluence with Indian Creek.

**Biological Characteristics:** The state of Maryland has designated Beaverdam Creek as being fishable and swimmable (Use I

## VITAL STATISTICS:

**Total Area:** 9,008.0 acres (14.1 mi<sup>2</sup>)  
**Average Imperviousness:** 11%  
**Population:** 21,260  
**Population Density:** 1,509/mi<sup>2</sup>

### Forest Cover (61%)

**Deciduous:** 2794.3 acres  
**Coniferous:** 477.2 acres  
**Mixed:** 1500.4 acres  
**Shrubland/Rangelands:** 295.6 acres

### Wetland Cover (1.4%)

**Deciduous Wooded:** 80.5 acres  
**Evergreen Wooded:** 41.14 acres  
**Emergent Herb-Sedge:** 8.9 acres  
**Mixed:** 0.0 acres  
**Open Water:** 15.79 acres

Waters). From the limited data available, fish and macroinvertebrate populations in the middle Beaverdam Creek mainstem portion of BARC appear to support a diverse population of species with a high number of organisms that are not tolerant of pollution. This stream area has very good aquatic habitat and is used as a reference station for Anacostia Coastal Plain streams.

However, downstream of BARC the macroinvertebrate population is in relatively poor condition (e.g., low level of species diversity and high number of pollution tolerant organisms), possibly due to higher nutrient loadings and stormwater runoff-related impacts.



Chain Pickerel, rarely collected in the Anacostia watershed, are found in Beaverdam Creek.



An eroding streambank along the upper section of Beaverdam Creek.

**Condition Summary:** With most of the Beaverdam Creek subwatershed managed as part of the BARC property, the land is predominantly in forest cover and agriculture. More than 85% of the stream miles have an adequate riparian forest buffer (300-foot total width). However, water quality monitoring has detected problems of nutrient enrichment (e.g., elevated ortho-phosphorus levels), high turbidity, and low dissolved oxygen levels.

While populations of aquatic biota in Beaverdam Creek are relatively healthy and diverse, the stream is affected by

animal waste and runoff from roads, such as the B/W Parkway and older residential subdivisions. Also, stream surveys conducted by MWCOG staff revealed that several smaller feeder tributaries are experiencing moderate-to-severe channel erosion from uncontrolled stormwater runoff.

**The Watershed and You:** Activities within the watershed determine what happens to the water within its streams. For example, impervious surfaces contribute to irregular flows in the headwaters. Litter, grease, and other debris on roadways wash into streams with each rain event. Pesticides or fertilizers used on land could lead to contamination and nutrient overload in streams. Join the newly forming

Beaverdam Creek watershed group and participate in activities that could maintain, or even improve, the rare quality of the Beaverdam Creek system. For information on upcoming events and how to get involved in this new watershed group, contact Susan Barnett (301-474-7465) or Mi Ae Kim (301-441-2770).



A wetland area in the Beaverdam Creek subwatershed.



(top to bottom) Upper, Middle and Lower Sections of the Beaverdam Creek Mainstem in spring of 2004.