



# Section 319

# NONPOINT SOURCE PROGRAM SUCCESS STORY

# District of Columbia

## Oil and Grease Water Quality Goals Achieved in DC Area Stream

**Waterbody Improved** Illegal oil and grease dumping has historically plagued Hickey Run, a tributary of the Anacostia River approximately 1 mile downstream of the Washington, DC–Maryland border. As a result of extensive outreach efforts targeting the major sources of oil and grease—including local automotive repair shops—Hickey Run was removed from the 303(d) impaired waters list for oil and grease.

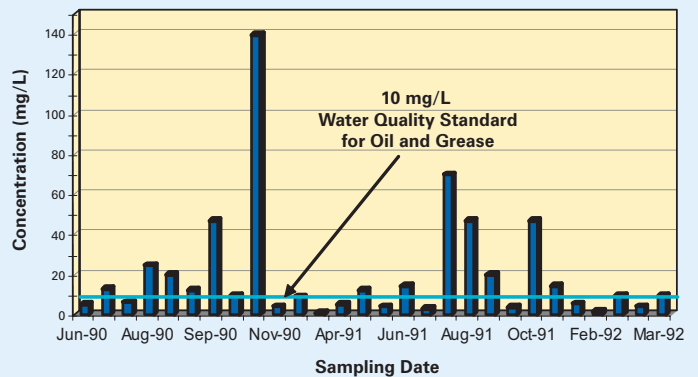
### Problem

Land use in the Hickey Run watershed is largely composed of industrial and manufacturing uses, including a number of transportation-related facilities and automotive repair shops. The stream has been historically plagued by oil and grease from illegal dumping, and also during rain storms as oil and grease from surrounding parking lots, roads, and bridges flush into the storm sewer system, often overflowing directly into the stream. In 1996 Hickey Run was included on the DC 303(d) list for oil and grease, PCBs, and chlordane. In 1998 organics and bacteria were added to the list of pollutants impairing Hickey Run.

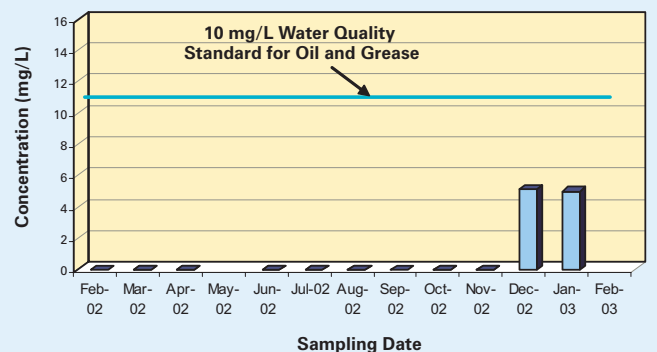
### Project Highlights

In 1998 the DC Department of Health (DOH), Environmental Health Administration, developed a total maximum daily load (TMDL) for oil and grease calling for a reduction in point source loads by 89 percent and nonpoint source loads by 30 percent. The TMDL set the overall reduction goal at 77 percent of existing oil and grease loads. Because the automotive repair shops were an easily recognizable source of oil and grease in Hickey Run, the DOH reached out to them through the Environmental Education Compliance of Auto Repair Shops (EE-CARS) Program. Businesses were provided educational resources, comprehensive surveys, and follow-up visits. The industry responded by reducing the amount

Hickey Run Oil and Grease 1990-1992



Hickey Run Oil and Grease WQS Attainment Data



These graphs illustrate an 88 percent reduction in oil and grease that has led to the removal of Hickey Run from the 303(d) list of impaired waters.

of oil and grease entering Hickey Run by an even larger percentage than what the TMDL required.

In addition, in January 2004 the DC DOH, Environmental Health Administration, DC Water and Sewer Authority (WASA), and USDA Agricultural Research Service (ARS) signed a Memorandum of Understanding (MOU) that outlined the responsibilities of each organization in the cleanup. The MOU calls for the installation of a debris/floatables and oil/grease removal system that would be designed and constructed by the ARS in collaboration with the DOH and WASA. As effective as outreach has been, the proposed system will ensure that oil and grease will not degrade Hickey Run in the future for storm events of half an inch or less. Industry around Hickey Run faces high employee turnover, making technological control beneficial in protecting the waterbody from the impacts of poor shop management practices, intentional dumping incidents, and infrequent, but significant spills. Construction is expected to begin in 2006.

The DC government, in partnership with ARS, is also developing a restoration plan to address other problems in the Hickey Run watershed. The stream experiences unnaturally high flows during storm events—due to large areas of paved or otherwise impervious surfaces—resulting in severely eroded stream banks and channels. The lowest mile of the stream currently loses 1,100 tons of sediment per year. The U.S. Fish and Wildlife Service (USFWS) finished a comprehensive assessment of Hickey Run and its tributaries in December 2004 and is

now preparing a plan intended to mitigate the damage and restore the stream by using natural channel design. Implementing the plan will produce 850 feet of natural channel design, resulting in reduced sediment loss, improved stream functioning, and increased wildlife habitat.

## Results

Water quality data obtained in 2002 suggest that implementation efforts reduced overall oil and grease loading to Hickey Run by 88 percent compared to loading amounts reported in 1998. This result exceeds the 77 percent total reduction goal established by the TMDL. The District of Columbia 2002 and 2003 Discharge Monitoring Reports indicate that Hickey Run is achieving water quality goals for oil and grease levels less than 10 mg/L. As a result, Hickey Run has been removed from the 303(d) list of impaired waters for oil and grease.

## Partners and Funding

The USDA's U.S. National Arboretum, National Park Service, District of Columbia WASA, USDA ARS, U.S. Environmental Protection Agency Region 3, and Government of the District of Columbia all contributed to the success of oil and grease load reductions in Hickey Run. With the assistance of section 319 funding, almost \$2.2 million is allocated for the design and construction of the debris/floatables and oil/grease removal system. Of the USFWS and section 319 funding that DOH has received, \$234,040 was spent on creating the design plans for the restoration project and \$115,370 was spent on assessing the water quality.



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