



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: DC3881

Title: Escherichia Coli in the Anacostia and Potomac Rivers

Focus Categories: Water Quality, None

Keywords: Wastewater, Escherichia Coli, Water Quality

Start Date: 03/01/2001

End Date: 02/28/2002

Federal Funds: \$8,300

Non-Federal Matching Funds: \$52,506

Congressional District: DC

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Abstract

The two major rivers that flow through DC are the Anacostia and the Potomac Rivers. These two rivers have several contamination issues, especially the Anacostia. The majority of the contaminants are from non-point source runoff, effluents from the Blue Plains Wastewater Treatment Plant and combined water sewer overflows. One of these contaminants is Escherichia Coli (E.coli). This is a form of bacteria which lives normally in humans and animals without causing disease. However, a new strain has been recognized, E.coli type 0157:H7, which is known to cause acute diarrhea. When this pathogen infects the human body, through under-cooked beef or directly from the contaminated water, it can cause hemolytic uremic syndrome (HUS) a blood and kidney illness as well as thrombotic thrombocytopenic purpura, TTP (another blood and kidney illness, which affects the nervous system).

The objective of this research will be to collect data on the level of contamination of E.coli that the District of Columbia Water and Sewer Authority allows into the Anacostia and Potomac Rivers and to ensure it is within the required limit for the 0157:H7 strain of the bacteria.