

EPA's Village Blue: A Real-Time Water Quality Monitoring Project supporting ongoing efforts to understand and improve water quality in Baltimore Harbor

What is Village Blue?

EPA and the U.S. Geological Survey (USGS) have initiated the "Village Blue" research project to provide real-time water quality monitoring data to the Baltimore community and increase public awareness about local water quality in Baltimore Harbor and the Chesapeake Bay. The Village Blue demonstration project complements work that a number of state and local organizations are doing to make Baltimore Harbor "swimmable and fishable" ² by 2020.

Village Blue is designed to build upon EPA's "Village Green" ¹ project which provides real-time air quality information to communities in six locations across the country.

Who are the partners?

EPA and USGS are collaborating on the project and seeking partnerships with state and local organizations in Maryland.

Where will the Village Blue project take place?

EPA and USGS staff will use a new monitoring site on the Jones Falls



Sensors placed near the Baltimore Inner Harbor Water Wheel on the Jones Falls River will gather real-time water quality measurements for the Village Blue research project.

River in Baltimore to test, evaluate and develop new low-cost water sensors that will collect real-time water quality data. These sensors will be located near the Waterfront Partnership of Baltimore Inner Harbor Water Wheel (popularly known as Mr. Trash Wheel) which removes trash before it enters the harbor. USGS is establishing the new monitoring site.

How does it work?

EPA plans to install sensors near the Water Wheel to gather real-time water quality monitoring data that will be displayed on the Village Blue website, and will complement work that a number of state and local organizations are doing to make water quality data available to the public.

The interactive website, which is being developed by EPA, will display the data in a mobile friendly, easy-to-understand, visual manner and will provide the community with insights on the relationship between water quality and the external environment. For example, it may show how factors in the Baltimore Harbor, like high rainfall, may contribute to environmental challenges such as combined sewer overflows and harmful algal blooms.

EPA will provide the sensor measurement data in a readily-accessible format to existing Baltimore community group websites to amplify the data and make it available to a wider audience.

This project may provide opportunities for additional research efforts, such as assessing the benefits and impacts of providing water quality information to the public.

Results and Impact:

Over the next three years, the Village Blue project will provide important water quality information for Baltimore Harbor; support the development and test the accuracy of new low-cost water sensors; increase public awareness of water quality and ecosystem health through



Example of water quality sensor being used in the Village Blue research project.

integration and visualization of real-time water quality data; and develop an open source “Village Blue data integration and visualization framework and how-to manual.”

In the future, the how-to guide will be made available so that other communities can develop their own Village Blue stations.

Village Blue stations and low-cost sensors can help close information gaps in the nation’s water quality and provide additional data to scientists — both citizen and professional — to help them inform relevant

communities, policies, and environmental restoration efforts.

MEDIA CONTACT:

David Sternberg
EPA Region 3
215-814-5523
Sternberg.david@epa.gov

1. www.epa.gov/air-research/village-green-project
2. <http://gizmodo.com/baltimore-stealthy-plan-to-make-its-harbor-swimmable-b-1741438268>