

URBAN Waters

LEARNING NETWORK

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About the Organization:

Groundwork Denver was created in response to a feasibility study that found while much of the City of Denver is known for its parks and well-maintained streetscapes, there are neighborhoods without the resources to develop this level of infrastructure. The mission of Groundwork Denver is to bring about the sustained improvement of the physical environment and promote health and well-being through community-based



River Watch

River Watch is a state-wide organization that supports groups in analysis of metals, nutrients and macroinvertebrates for water bodies. A River Watch team was instituted as part of Groundwork Denver's work on the Lower Bear Creek. The data gathered will be used by the State, in addition to the data collected by Groundwork Denver, to help build a more comprehensive profile of contaminants in the creek.

A Watershed Plan is Born

Setting

The Lower Bear Creek is an 8.2 mile stretch of creek that flows through the City of Lakewood in Jefferson County, the City and County of Denver, and the City of Sheridan in Arapahoe County. Land uses around the Creek include low and high-density residential areas, open spaces, and business developments.

Lower Bear Creek is a place where residents can recreate, host family gatherings, and enjoy the outdoors. The Creek begins as a trickle on top of Mount Evans which is Denver's nearest 14,000ft peak. The creek travels through forests, unaffected by urban pollution until it reaches the suburbs west of Denver. Here the water quality of Bear Creek



A probe is used to test water quality.

changes dramatically. In 2010 the Lower Bear Creek, between Kipling Parkway and the confluence with the South Platte River, was listed as impaired by the Colorado Department of Public Health and Environment (CDPHE) because of elevated levels of the bacterium *Escherichia coli* (*E. coli*).

Groundwork Denver's Green Team had been working, since 2010, on invasive species removal and habitat restoration along the Bear Creek. As

a result of the Green Team's work on the Lower Bear Creek Groundwork Denver became interested in doing more to improve the creek. They met with CDPHE who encouraged them to apply for a non-point source pollution grant for watershed planning.

Developing a non-point source watershed plan was a necessary next step in the process of addressing the elevated levels of *E. coli* in Lower Bear Creek.

You are a Clean Water Partner!

Since you live in the Lower Bear Creek watershed, everything that washes from your yard and street ends up in the creek: trash, car oil, fertilizers, animal poop and other pollutants. This runoff water is not treated — it flows directly into Lower Bear Creek. Polluted water threatens human health and the environment.

We need your help: Email or call to tell us how you use Bear Creek, what you see, and what you would change to keep our water clean.

What you can do at home to keep Lower Bear Creek clean:

- Clean up after your pet.
- Carry waste bags on walks.
- Use organic fertilizer such as compost.
- Don't fertilize dormant lawns or before rain.
- Don't dump paint, oil or chemicals in the street or storm drains.
- Wash vehicles at commercial car washes, which dispose of used water.



Groundwork DENVER
Groundwork Denver is a 501(c)(3) non-profit organization
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Partnerships, Science, and Education

In 2012 Groundwork Denver received funding from the Colorado Department of Public Health and Environment through the Environmental Protection Agency's (EPA) 319 Nonpoint Source funds. With EPA's funding Groundwork Denver has successfully created a non-point source watershed plan for the Lower Bear Creek.

To make this project possible, a strategic effort was made to form the right partnerships. Because non-point source contamination is not the issue of one entity, per-se, it made sense to bring many partners to the table. Denver Parks and Recreation; Denver Environmental Health; the City of Sheridan; Lakewood Parks and Open Space; the National Parks Service Rivers, Trails, and Conservation Assistance program; the Cutthroat Chapter of Trout Unlimited; and residents of Lakewood, Denver, and Sheridan, were all convened by Groundwork Denver. Each partner participated in the Lower Bear Creek project either as part of the steering committee or members of sub-committees.

Using EPA's 9 Elements for a Watershed Plan as their guide, these groups helped determine what a watershed plan for Lower Bear Creek should look like. Tasks associated with completing the watershed plan included identification of causes of impairment and pollutants, community engagement, and water quality sampling. In addition to *E. coli* sampling, a River Watch team was instituted during the planning process. River Watch is a state-wide organization that supports groups



Invasive species removal along Lower Bear Creek. Credit: Groundwork Denver.

in analysis of metals, nutrients and macroinvertebrates for water bodies. River Watch sampling of Lower Bear Creek began in winter 2013.

Community Engagement

Community members were engaged through various methods over a two year period. Door-to-door canvassing and volunteer events along the Lower Bear Creek ensured area residents were informed about the watershed planning process, and ensured participation, by over 100 area residents, in clean up and habitat restoration activities along the creek. Events offered residents and volunteers the opportunity to learn about urban water quality, wildlife habitat preservation, and actions individuals can take to protect urban waters.



Digital water sampling on Lower Bear Creek. Credit: Groundwork Denver.

Success

The watershed plan was completed in October 2014. It was a major success for Groundwork Denver and their partners. Achieving success meant bringing the right combination of experts to the table. Natural areas, environmental health, and public health experts share the Groundwork passion for clean air and water. The next step for the Bear Creek project is to accumulate several years of data based on the water quality monitoring plan described in the watershed plan. This data will be used to implement structural best management practices (BMPs) along the creek.

For more information about the Learning Network visit www.UrbanWatersLearningNetwork.org
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