Funded Project

Water Use Impacts and Conservation Benefits

Project No. 934
Timeline 2009 – 2012
Award Amount $171,000
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The team identified, examined, and quantifiably estimated a suite of environmental impacts resulting from water use and conservation. A significant part of this work included exploring energy conservation and carbon reduction opportunities in detail. The team created several important assessment tools (links can be found below under Project Files):

- An interactive tool that enables water, wastewater and stormwater utilities to target and prioritize water conservation actions based on the water source, discharge receiving waters, and development history.
- An interactive tool—the Water Conservation, Emissions, and Emissions Credit Tool—that enables water, wastewater and stormwater utilities to calculate the potential electric cost savings from conservation and translate these savings into carbon (and other GHG) values and dollar value of carbon credits.
- A protocol (prepared by the Chicago Climate Exchange) for developing carbon and other emissions credits.

Through this work, the team is shifting the “less water use is better, more water use is worse” sentiment that drives many water conservation efforts. The team found that typical water conservation strategies, such as low flow toilets, often with a single-minded focus of “gallons of water used” do not necessarily drive ecological change in a water rich region. For systems using Great Lakes water, there is often no measurable environmental impact from conventional water conservation strategies. The prioritizing of conservation practices needs to take into account factors including the source of water, discharge location, and storm sewer system. The team found that restoring natural drainage patterns often presents far greater ecological gains than decreasing water withdrawals.

A key project outcome was the design of a pilot project and subsequent proposal to the Fund. In December 2011, the Fund made an additional award to build off the lessons learned here and develop and test different approaches that will provide a consistent source of capital for sustainable stormwater management solutions.