

US EPA ARCHIVE DOCUMENT



EPA Facilities Reduce Water Consumption and Meet Goals

At two EPA facilities, innovative landscaping techniques conserve water while helping the facilities meet federal environmental goals.

The landscapes at the National Computer Center (NCC) in Research Triangle Park, North Carolina, and EPA Region 8's laboratory in Golden, Colorado, are designed to reduce the need for irrigation by using water-efficient designs and native plants suited to local conditions. With these water-conserving measures, the facilities meet resource efficiency and sustainability goals under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED™) for Existing Buildings as well as federal Executive Order 13101 Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition. In addition, Golden's laboratory plan is part of EPA's sustainability efforts under EO 13148, Greening the Government Through Leadership in Environmental Management. The plan will also help the laboratory achieve its Environmental Management System (EMS) and LEED® goals.

When a water conservation study at the Golden, CO laboratory revealed that irrigation consumed more water than any other activity, the laboratory set goals to reduce water usage. Goals also seek to provide a more self-sustaining landscape while preserving existing trees. Plans are now being considered to convert an acre of irrigated turf into a wildflower meadow or

drought-tolerant perennial bed and reduce pesticide use. Once instituted, these measures could reduce water usage around 50 percent and save more than 650,000 gallons of water and \$1,600 to \$1,900 per year over the life of the project.

Going the Extra Mile

In addition to its native plant use, NCC employs the use of one of the largest solar roofs in the eastern United States, which covers more than 15,000 square feet. Seventy photovoltaic streetlights illuminate the roads around NCC and form the longest stretch of roadway in the United States lit by solar energy. These two photovoltaic systems combined prevent nearly 100 tons of greenhouse gas and air-polluting emissions every year.

Instead of non-native ornamental grass and plants that need extra water to cope with summertime conditions, NCC uses native plants, which are accustomed to hot summers. Native plants require no irrigation or maintenance and, in fact, there are no water sprinklers on the entire NCC campus.

Through the use of water- and energy-efficient designs, the NCC complex expects to achieve a LEED™ Silver rating and comply with EO 13101.

EPA's Green Statistics

- 50 percent (650,000 gallons) projected water reduction for Golden, CO lab.
- 100 tons of greenhouse gas and air-polluting emissions saved each year at NCC.

For more information on the Golden, CO laboratory, please contact Arthur Wake at 303 312-7756 or <wake.arthur@epa.gov>. For more information on the NCC laboratory, please contact Chris Long at 919 541-0249 or <long.chris@epa.gov>.



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