

**U.S. Environmental Protection Agency
2012 Campus RainWorks Challenge Winner**

Missouri University of Science & Technology, 2nd Prize, Small Institution

The Missouri University of Science & Technology, located in Rolla, Missouri, was awarded second prize among small institutions in EPA's first-ever Campus RainWorks Challenge competition. The competition was created by EPA to inspire the next generation of landscape architects, planners, and engineers to develop innovative green infrastructure systems that mitigate the impacts of urban stormwater while supporting vibrant and sustainable communities.

The goals of the team's design plan were:

- To improve campus stormwater management in order to mitigate eutrophication and sedimentation in Frisco Lake, a recreational and ecological resource for S&T students.
- To select cost-effective technologies that can be integrated into existing plans for university projects.

The team's design plan recommends the phased implementation of three green infrastructure projects in the campus's northeast quadrant, each selected for its potential to cost-effectively reduce and treat stormwater runoff, minimize operation and maintenance costs, and provide an educational experience for students. The team developed designs for five green infrastructure projects, but identified the green roof, rain garden, and permeable pavement projects as the most cost-effective. The team selected highly visible sites for all three projects, and calculated the anticipated runoff reduction, pollutant removal, and cost of each project to identify the most cost-effective practices.

The team's plan was unique among the entries received in seeking input from campus planners and decision makers to coordinate their proposal with planned university improvements and reduce project costs. In addition to presenting their designs to faculty and students, the team consulted with the Chancellor, Physical Facilities, Landscaping and Maintenance, and Environmental Health and Safety. This collaboration allowed the team to phase their projects to coincide with planned demolition and construction activities. The permeable pavement project, for example, is phased to coincide with the conversion of a parking area into a pedestrian walkway.