

HIGHLIGHTS

Since its launch in late 2007, the IDALS urban conservation program has had great success. By utilizing REAP, WIRB and SRF funding, an estimated 400 urban practices, treating an estimated 83 million gallons of stormwater runoff have been installed. Our urban conservationists have reached an estimated 15,000 people through presentations, workshops and field days. Many thousands more have been reached at the Iowa State Fair booth and through television and radio coverage, such as IPTV and Bob Quinn's rain garden campaign on WHO 1040 AM. Many additional practices are being installed by the private sector as the result of outreach and training efforts. The photos below feature a number of projects from around the state that help Iowans manage stormwater runoff more sustainably.



Delf's Landscaping and Aunt Rhodie's Landscaping – two firms from the Quad Cities - along with a group of volunteers, partnered with the Scott SWCD to install three rain gardens and perform soil quality restoration at a new Habitat For Humanities house in Davenport. REAP funding provided financial assistance.



Woodard Insurance and Realty – a main street business in West Union – installed permeable pavers, a rain garden and a rain barrel to capture and treat roof runoff in the back of the building. This project serves as a model for the major "green street" revitalization project West Union is planning for the business district.



Iowa's first permeable paver street was installed in this Dubuque subdivision in 2009. Stormwater infiltrates through the pavers and is temporarily stored in a rock chamber below ground, which provides water quality protection and eliminated the need for detention basins.



A rain garden catches runoff from a new parking lot on the campus of UNI, as part of the Dry Run Creek Watershed Project. UNI has installed multiple practices to reduce runoff and protect water quality.

IOWA'S URBAN CONSERVATION PROGRAM



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Bill Northey, Secretary of the Iowa Department of Agriculture and Land Stewardship (IDALS), created an urban conservation program two years ago within the Division of Soil Conservation (DSC). As a Commissioner for Dickinson Soil and Water Conservation District, he saw how urban conservation complemented traditional conservation programs for agricultural lands.



*Wayne Petersen,
Urban Conservation
Program Coordinator*

Four urban conservationists are strategically stationed in Soil and Water Conservation District (SWCD) offices throughout Iowa. Wayne Petersen, program coordinator, is located in the Central Office in Des Moines. IDALS also helps support a position focused on urban conservation in Davenport. Watershed projects with significant urban conservation components are located in Cedar Falls, Clear Lake, Dubuque, Ottumwa, and Storm Lake.



Permeable pavers and a rain garden protect Clear Lake from polluted runoff. Runoff is temporarily impounded and infiltrated to remove pollutants that otherwise would flow directly into the lake.

Each of the urban conservationists are developing local programs with unique features, but all of the urban conservation programs have similarities. They all are helping usher in a new paradigm for more sustainable stormwater management. The new paradigm focuses on infiltrating runoff from frequent, small rains to protect water quality.

Runoff from small rains traditionally has not been managed. These small rains constitute the vast majority of rainfall and transport the vast majority of pollutants in urban runoff. Infiltrating dirty urban runoff reduces pollutant delivery to receiving streams and helps reduce flashy stream flows that cause erosion in urban stream corridors.



This rain gardens is one of fifteen installed to treat runoff as part of Iowa's first "green street" project in Okoboji.

Technical and financial assistance is being provided by IDALS to help implement urban conservation across Iowa and expand efforts to protect soil and water resources. Another priority for urban conservationists is providing information and educational assistance to a multitude of audiences.

A new educational initiative being launched is "Rainscaping Iowa". This program is a resource for landscape architects, engineers and landscapers. Rainscaping Iowa promotes methods and practices to create landscapes that protect and improve Iowa's water quality. Urban Conservationists will help provide training on sustainable landscape design and installation. Rainscaping will create customer demand and provide opportunities for businesses to market themselves as 'Rainscapers' and meet the growing demand.



www.rainscapingiowa.org



Amy facilitated weekly stream monitoring in Iowa City to help city staff develop watershed management plans.



Amy Bouska | Eastern Iowa | Iowa City

Many of the communities Amy works with were hit hard by the extreme floods of 2008. The flooding has intensified the need and interest in addressing stormwater runoff. Amy is pleased to see communities actively engaging in watershed planning.

A key activity has been to organize and facilitate stream assessment training for communities. Stream assessment identifies problems and runoff-related concerns.

Further investigation of watershed characteristics identifies issues and helps communities plan corrective strategies. Watershed assessment helps identify green infrastructure for preservation. Utilization of green infrastructure for sustainable water management will lead to economically and ecologically sound growth.

Amy is excited about the \$20 million conservation bond passed by Johnson

County voters to acquire land that will be managed by the Johnson County Conservation Board. The conservation bond will help protect and acquire green infrastructure for the future. Green infrastructure helps protect water quality and air quality, while providing multiple environmental and recreational amenities.



Forever Green, a Coralville landscaping firm, installed their own rain garden to promote rain gardens and expand their business.



Jennifer inspects native landscaping at Prairie Trail, a conservation development in Ankeny that resulted from her outreach activities. Prairie Trail utilizes green infrastructure to create open space that manages stormwater sustainably and provides recreational amenities.



Jennifer Welch | Central Iowa | Ankeny

Educational outreach and training are high priority activities in Central Iowa. Jennifer helped create the Iowa Storm Water Education Program (ISWEP). ISWEP is a membership organization created to help Iowa communities comply with Clean Water Act stormwater regulations. She partners with ISWEP on publication development, workshops, the Iowa Water Conference, and most recently helped develop the Rainscaping Iowa program and its website. These activities benefit the entire urban conservation program and communities across the state.

Jennifer has provided leadership in securing WIRB and REAP grants for four active watershed projects. She recently assisted with seven grant applications for I-JOBS stormwater funding. Grant funding has helped implement new and retrofit practices to improve water quality in Central Iowa.

Cities frequently request Jennifer's assistance to review proposed stormwater management practices. She often provides recommendations for water quality protection in new developments.



These constructed wetlands treat storm water from a residential subdivision in Prairie Trail before it's released into the stream.



Rich Maaske | Western Iowa | Council Bluffs

Urban conservation services have been growing rapidly in Western Iowa. Promotion of Low Impact Development principles is a priority. Low Impact Development (LID) focuses on infiltration based practices that reduce the volume of runoff that increases with urban growth.



Rich oversees soil quality restoration at a newly constructed home. Construction causes soil compaction. Compacted soils increase runoff. This compost will be incorporated to increase organic matter content and soil porosity. Restored soil absorbs more rain, sheds less runoff, and requires less fertilization and irrigation.

Rich has provided technical assistance to help install many practices that manage stormwater runoff more sustainably. A high profile project involved one of Iowa's first conservation subdivisions. The development features many LID practices and infiltrates about 570,000 gallons of runoff per year.

In the past year, Rich has created a task force to develop a model county ordinance for Low Impact Development and a stormwater best management practice manual for the unique soils of the Loess Hills region. He is presenting these tools to the seven Loess Hills counties. Adoption of the ordinance and utilization of the manual will help guide more sustainable growth in the Loess Hills.



West Pottawatomie SWCD partnered with Habitat for Humanity and a church youth group to install rain gardens and restore soil quality at a new home in Council Bluffs.



Steve Anderson | Northwest Iowa | Spirit Lake

The Iowa Great Lakes region has been a leader in urban conservation. Their economy is based on recreation and tourism. The lakes communities were the first in Iowa to realize that dirty stormwater runoff impacts their economy and quality of life. In 2004, the Dickinson County Soil and Water Conservation District (SWCD) started an urban conservation program that won a national award in 2007. They continue to lead the way in advancing the urban conservation efforts in Iowa.

The SWCD developed a three step strategic plan that led to the award winning program. First they launched a strong information/education program. These efforts



Runoff enters a rain garden thru a curb cut on Lakeshore Dr in Okoboji. Rain gardens treat and slowly release dirty street runoff.

created knowledgeable supporters of new stormwater management strategies that protect water quality. Secondly, funding was secured to demonstrate stormwater management practices and strategies that reduced pollutant delivery to the lakes. The first two steps led to the third step- institutional change. Okoboji, Spirit Lake, Wapaton, and Dickinson County have all changed local code to require water quality protection in all new development. These were the first communities to adopt these progressive changes.

Steve serves in the National Guard and was called to active duty in 2009. He is serving a year in Kuwait. John Wills is keeping the urban conservation program growing while Steve is serving our country.



Pervious paving at Triggs Bay Resort eliminates polluted runoff and protects East Okoboji Lake.