

## Research Spotlight

# Mapleton: Model for Disaster Recovery and Research-based Planning

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Community Relations Specialist

It has been roughly two and a half years since a Category 3 tornado ripped through Mapleton, Iowa, destroying or damaging 60% of the town. For the most part, the debris is gone and some rebuilding has been done. However, in terms of disaster recovery, cleaning up is only the beginning of a process that can take decades.

After completing the initial cleanup, Mapleton was ready to think about long-term planning, and Iowa State University landscape architecture students and faculty were ready to help. In working with ISU, the Mapleton Rebuild and Recover Committee, which is spearheading these planning efforts, had the foresight to understand the importance of research-based planning.

In fall 2012, Julia Badenhope, associate professor of landscape architecture, and J. Timothy Keller, professor of landscape architecture, brought their community design studio to Mapleton to identify landscape-based strategies for the town's long-term recovery. The designs that the students developed were based on site visits, a community survey, and public workshops (see *Community Matters*, vol. 6, #3).

Because the recovery process can take years, giving residents time to grieve while keeping them engaged is challenging. "People need to understand that disaster recovery is really hard because it's complicated," said Badenhope. "Recovery for Mapleton will be a 10- to 20-year process, because it involves replacement of infrastructure damaged by both the disaster and the cleanup effort." Furthermore, the community has to negotiate finances and practice due diligence to ensure that all residents' needs are met.

Badenhope, who is also the director of the Iowa's Living Roadways Community Visioning Program, encouraged the Rebuild and Recover Committee to keep the community engaged by participating in the visioning program, a participatory planning process that involves residents in community assessment, goal setting, and project implementation. As such, the Community Visioning Program played an integral part in Mapleton's long-term planning. Research methods including focus groups, mapping, and a community survey brought forward information critical for understanding the needs of the community as well as opportunities for enhancement.

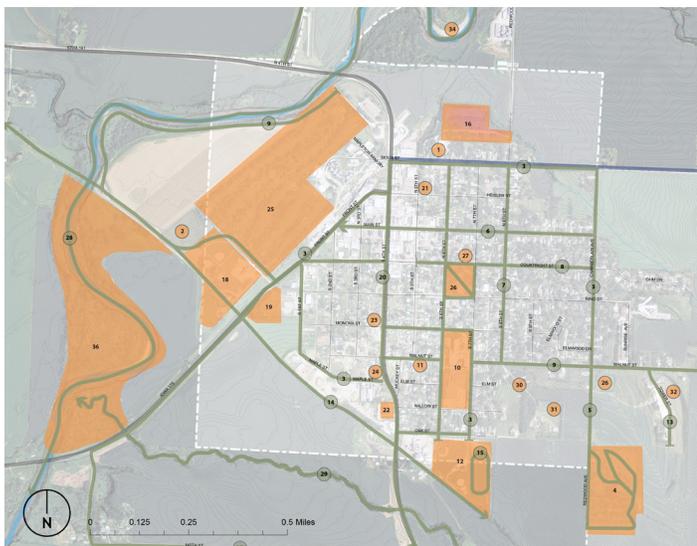
"Through the focus groups and survey conducted as part of the visioning process,

the Rebuild and Recover Committee and the City of Mapleton were able to see that drainage issues in the Westside District are impeding both rebuilding and healthy activity in that area," said Badenhope.

To better understand the situation, visioning program staff conducted an urban watershed study in which the drainage system was quantified and mapped. With the data from the watershed study, the visioning design team developed a proposal for mitigating storm-water runoff and improving walkability in the Westside District.

"The design concepts have led our Mapleton Rebuild and Recover Board to a much deeper understanding as to how we can mitigate problems, even those we knew [of] before the tornado, [such as] where water flows in Mapleton and how we can address those issues to create beautiful green spaces and living spaces we didn't know were possible," said Marie Whiteing, chair of the Rebuild and Recover Committee.

According to Badenhope, communities recovering from disaster need to do projects that help people regain confidence. With assistance from ISU, the Rebuild and Recover Committee applied for an Iowa's Living Roadways Projects grant, which they



The Community Visioning Program assessment process included focus groups with Mapleton residents that addressed transportation assets (map on the left) and barriers (map on the right). Participants' responses were mapped on aerial photos, revealing residents' needs and desires.

used to plant native grasses and forbs in the gazebo park along the roadside of Highway 141 this summer. The Lion's Club immediately replaced the gazebo that was destroyed by the tornado. However, the rest of the park had virtually no vegetation. The committee chose to do this planting project first because it could be done quickly and is highly visible. In addition, the gazebo is an important cultural landmark to residents.

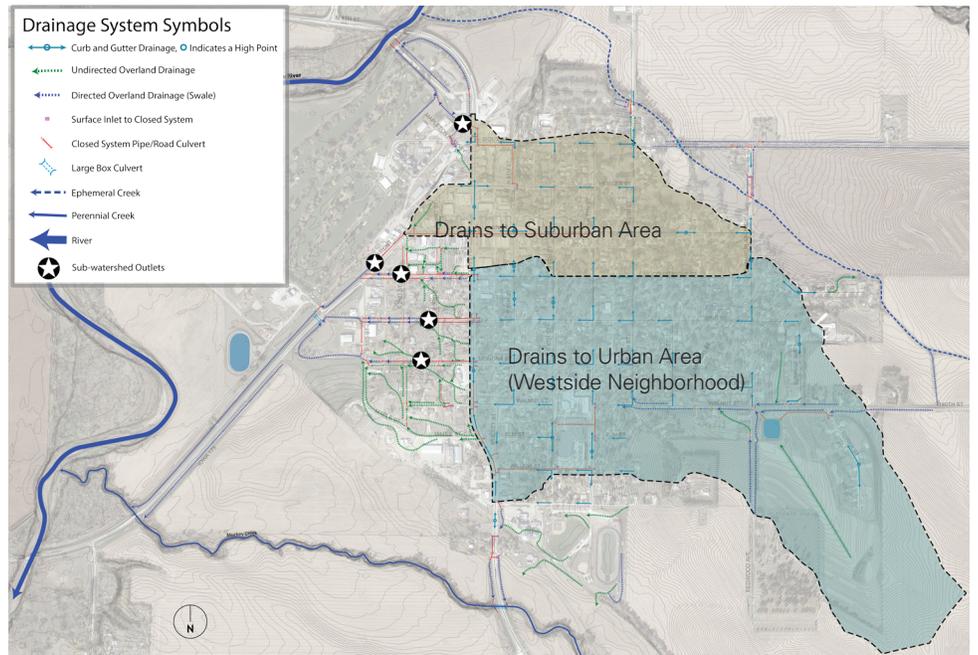
The Mapleton Valley–Anthon Oto Community School District also received an ILR Projects grant to landscape the bus barn area south on Highway 141.

“Using the money the school set aside for this project as a match, we will be able to landscape the south side of Highway 141 to the intersection which goes to Danbury [Highway 175],” said Whiteing. “This is a great addition to our storm-torn community.”

The next project was a tree-planting day on September 30. Following the tornado, Zella Craig Thomas, former Mapleton resident and current mayor of Rodney, established a tree fund, which was used to purchase 63 trees. Brad Riphagen, Trees Forever field coordinator, demonstrated for residents the proper way to plant and care for the trees.

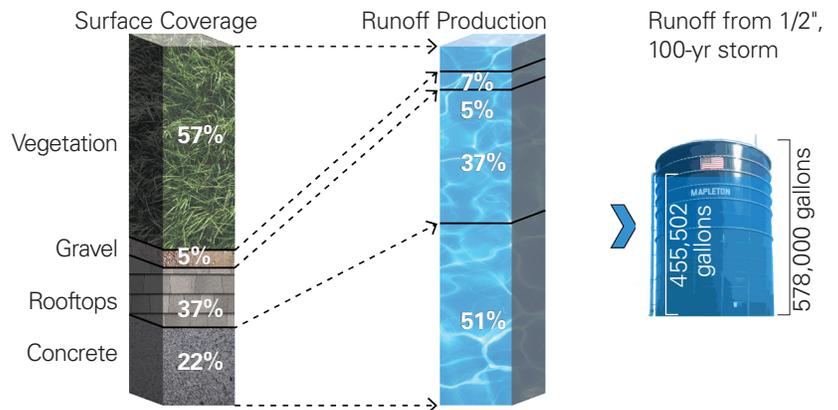
“Every recipient of a tree or trees had lost trees in the tornado,” said Whiteing. “We hope to continue with this fund and eventually replace the 1,200–1,500 trees estimated to be lost [from the storm].”

The focus groups conducted through the visioning process also showed Mapleton residents’ strong connection to the land and the countryside. Many of the assets identified by focus group participants were natural features such as the Maple River, Mucky Creek, and the Schoenjahn Wildlife Area. Participants also expressed the desire for a trail system. The Community Visioning Program design team responded with open space and trails plans.

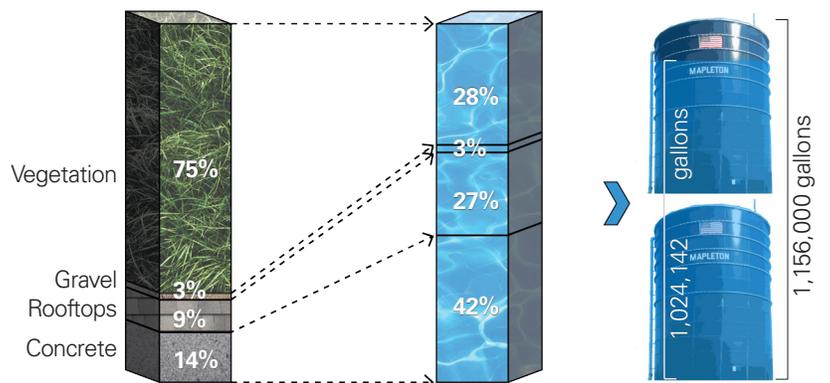


The map shows the study area has two sub-watershed areas—suburban and urban. The suburban sub-watershed produces 31% of the study area runoff and the urban sub-watershed produces 69%, which drains into the Westside Neighborhood.

Drains to Suburban Area



Drains to Urban Area



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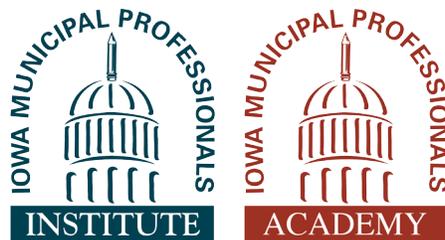
A 1/2', 100-year storm model produces 455,502 gallons of runoff into the suburban area, compared to 1,024,142 gallons into the urban area.

# Attendance at Municipal Professionals Training Remains Strong

By Cindy Kendall, Program Specialist  
ISU Extension and Iowa League of Cities

The 38th annual Iowa Municipal Professionals Institute (MPI) and Academy (MPA) remained strong in 2013. This year the attendance of the Institute represented 133 communities, with 29 attendees from cities of less than 500 in population. The Institute and Academy are sponsored by the Iowa Municipal Finance Officers Association (IMFOA) in conjunction with the Iowa State University Extension Office of State and Local Government Programs and the Iowa League of Cities.

A host of new city clerks and deputies from across the state received a broad perspective of their new jobs and were able to network with other city representatives and experienced instructors. Additionally, many communities sent other support staff to the Institute as a way to strengthen cross training, leadership, team building and internal controls. Courses are taught by instructors specializing in teaching adult learners who have varied experiences



and who need to focus on aspects of Iowa city government. Those attending also participated in an informational luncheon where participants could put a face to the many resources available to them. Five participants this year received tuition assistance to attend the Institute. Those scholarships came from the IMFOA and the profits from sweatshirt sales at the Institute and the Academy.

Attendance at the MPA was also strong this year with 144 participants. This two-day event focuses in more depth on current topics such as the new oversight law, personnel issues, the new urban renewal reporting requirements, funding capital projects, and bond reporting requirements

for the Internal Revenue Service and the Securities and Exchange Commission. ISU Extension CED specialists and Iowa League of Cities staff also presented at the Academy on topics ranging from property tax legislation, community diversity, GIS work in various communities, and budget trends and analysis.

These trainings are available each year; however, preregistration is required. The dates for 2014 for the Iowa MPI are July 14–19 and July 21–25. The Iowa MPA is scheduled July 23–25. All courses provided at the Institute and the Academy qualify for certification credit through the International Institute of Municipal Clerks, the IMFOA (certification for clerks, deputy clerks and finance officers), and the Iowa Association of Municipal Utilities.

For additional information regarding the MPI and MPA or the ISU Extension Office of State and Local Government Programs, contact Cindy Kendall at 515-290-1811 or [ckendall@iastate.edu](mailto:ckendall@iastate.edu), or visit the website at [www.extension.iastate.edu/communities/oslgp](http://www.extension.iastate.edu/communities/oslgp).

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A component of the open space plan is development of the Carhart Conservation Area located west of town in a riparian area along the Maple River. The area is named for Arthur H. Carhart, a Mapleton native who introduced integrated conservation and recreation planning to the US Forest Service, and advocated for conservation, game management and hunting access of Forest Service lands as opposed to timber harvest. In October, the Iowa Department of Natural Resources awarded Mapleton a REAP (Resource Enhancement and Protection) grant for the Carhart Conservation Area.

Through the ongoing recovery process, ISU continues to be involved. Badenhope and Carl Rogers, associate professor and licensed landscape architect, are continuing work in Mapleton with the 2013 community design studio. One group of students will do neighborhood designs incorporating lighting and open space plans. A second group will develop a pedestrian network using Complete Streets



In June 2013, a group of volunteers installed more than 1,300 prairie plants in the gazebo park along Highway 141.

principles. Again, research will play a significant role in the design process.

“The issues revealed by the focus groups and survey led to the urban watershed study, which led to the redesign of the streetscape on the west side of town,” said Badenhope. “The city supports infrastructure improvements to the west side so the community design studio is going to work on housing in that neighborhood.”

ISU Extension Community and Economic Development is collecting data that will



inform the students' work. Abbie Gaffey, community development specialist, is studying housing needs and Biswa Das, Extension specialist and assistant professor of community and regional planning, will conduct an economic analysis that shows the economic impact of the tornado, as well as projects the long-term tax revenue needed to maintain improved infrastructure.

“The recovery process in Mapleton is an ideal example of how research matters,” Badenhope said.