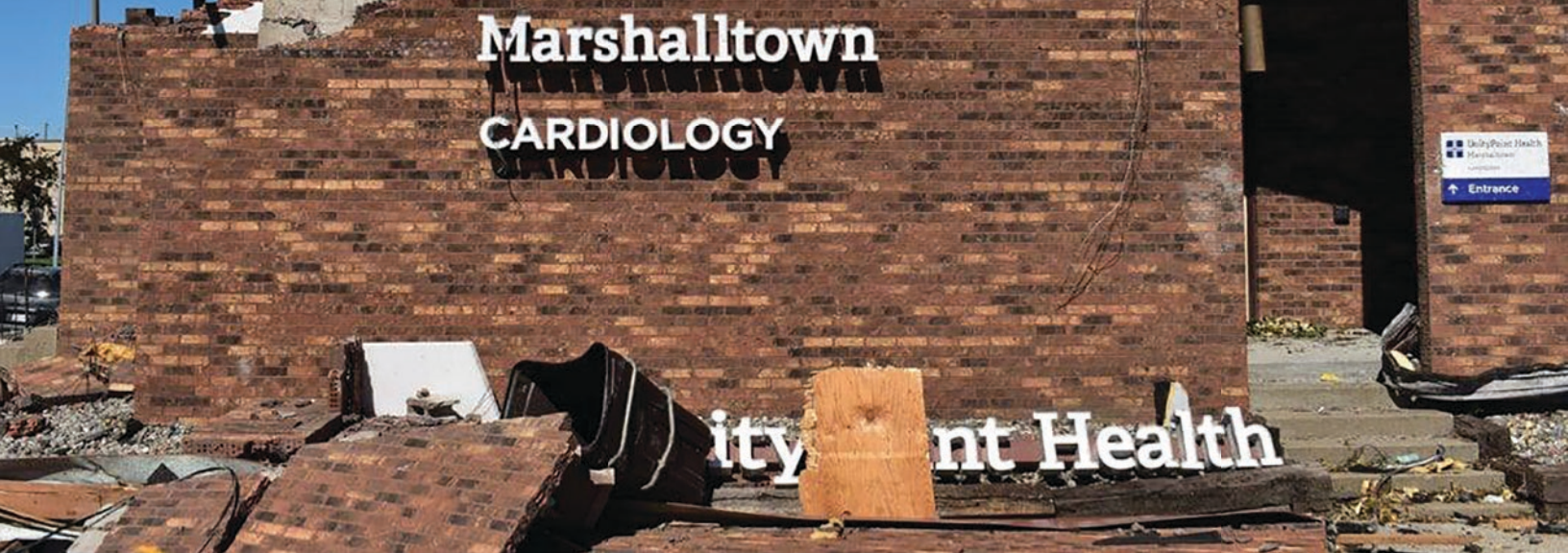


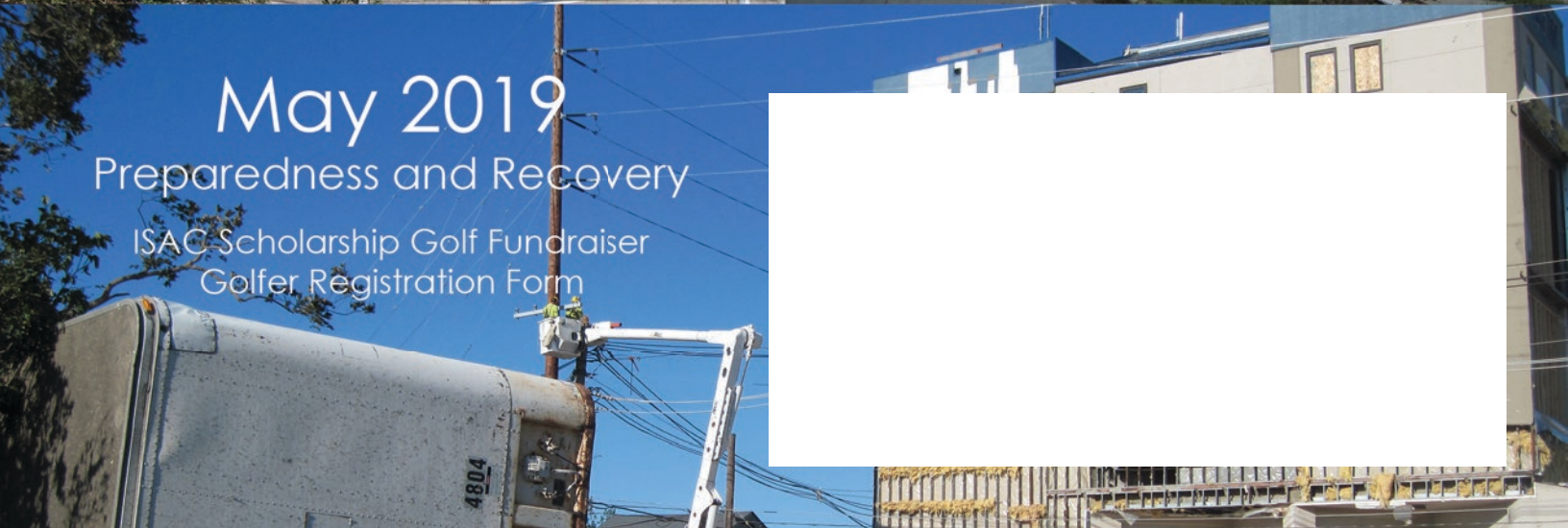
# The Iowa County



May 2019

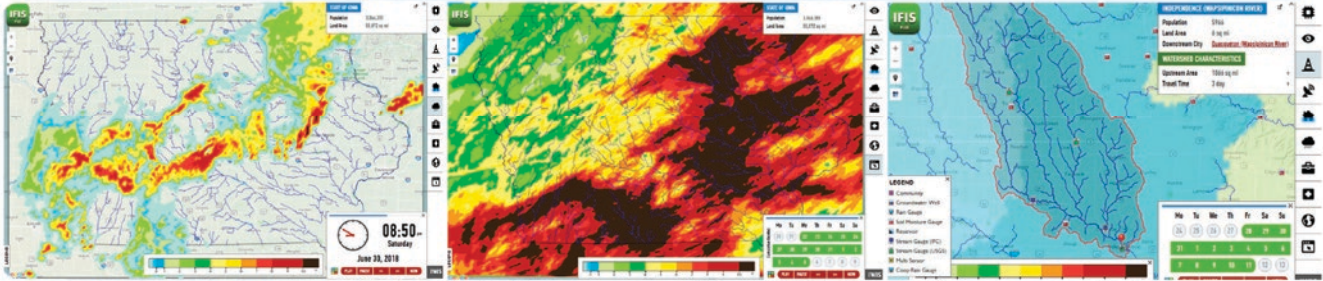
Preparedness and Recovery

ISAC Scholarship Golf Fundraiser  
Golfer Registration Form





## Serving Iowans with innovative tools & reliable information



Call 319-384-1729 for  
more information, or visit  
[iowafloodcenter.org](http://iowafloodcenter.org).



The IFC puts science-based information and technology in the hands of Iowa's decision-makers, emergency managers, home- and business-owners, and the general public. Our work is accessible to everyone through the online Iowa Flood Information System (IFIS). IFIS features include:

- **Current flood alerts and stream forecasts** for over 1,000 communities;
- **Dense network of over 250 IFC stream sensors** that measure river levels every 15 minutes;
- **Real-time rainfall maps** displaying current conditions and past accumulations;
- **Statewide floodplain maps** showing the 2, 5, 10, 25, 50, 100, 200, and 500-year floodplain boundaries;
- **Scenario-based flood inundation maps** showing the extent and depth of predicted flood waters for over 25 Iowa communities (with more on the way!);
- **And much more!**

View IFIS at [ifis.iowafloodcenter.org](http://ifis.iowafloodcenter.org).

### SAVE THE DATE!

IFC is teaming up with ISAC for its annual conference, August 21–23, 2019, on a track dedicated to “Building a More Flood-Resilient Iowa,” focused on how we can work together to prepare for the next flood. Learn more at [iowacounties.org](http://iowacounties.org).

# The Iowa County

May 2019 \* Volume 48, Number 5

The Iowa County: The official magazine of the  
Iowa State Association of Counties  
5500 Westown Parkway, Suite 190  
West Des Moines, IA 50266  
515.244.7181 FAX 515.244.6397  
[www.iowacounties.org](http://www.iowacounties.org)  
Rachel Bennett, EDITOR

Copyright © 2019 Iowa State Association of Counties

**ISAC Scholarship Golf Fundraiser** 13-14

**FEATURE - Disaster Preparedness and Recovery**

**County Emergency Management** 4-5  
AJ Mumm

**Teamwork in Marshall County** 6-7  
Kim Elder

**COOP/COG Toolkit** 8-9  
Leanne Lawrie Harter

**Taking On Iowa's Flood Problem** 10-11  
Witold Krajewski

**Disaster Damage and Social Vulnerability** 12  
Eric Tate

**Planning Ahead** 15  
Linda Langston

**Disasters Will Happen** 16-17  
Todd Christanson

**Prioritizing Conservation Practices** 18-19  
Rob Davis, Dean Matloon

**Miscellaneous** 20

**Employment** 20

**Calendar of Events** 21



Iowa State Association of Counties

## ISAC's Mission:

To promote effective and responsible county government for the people of Iowa.

## ISAC's Vision:

To be the principal, authoritative source of representation, information and services for and about county government in Iowa.

## ISAC OFFICERS

**PRESIDENT** Eric Stierman - Dubuque County Treasurer  
**1ST VICE PRESIDENT** Burlin Matthews - Clay County Supervisor  
**2ND VICE PRESIDENT** Carla Becker, Delaware County Auditor  
**3RD VICE PRESIDENT** Richard Crouch, Mills County Supervisor

## ISAC DIRECTORS

Jean Keller - Bremer County Assessor  
John Werden, Carroll County County Attorney  
Russell Wood, Franklin County Community Services  
Matt Cosgrove - Webster Conservation Director  
AJ Mumm - Polk County Emergency Management  
Brad Skinner - Montgomery County Engineer  
Joe Neary - Palo Alto County Environmental Health  
Joel Rohne - Worth County IT  
Kathy Babcock - Chickasaw County Public Health  
Kim Painter - Johnson County Recorder  
Brian Gardner - Linn County Sheriff  
Gene Meiners - Carroll County Supervisor  
Elizabeth Ledvina - Tama County Veterans Affairs  
Shane Walter - Sioux County Zoning  
Joan McCalmant - Linn County Recorder (Past President)  
Peggy Rice - Humboldt County Auditor (Past President)  
Lonny Pulkrabek - Johnson County Sheriff (Past President)  
Melvyn Houser - Pottawattamie County Auditor  
(NACo Board Representative)  
Grant Veeder - Black Hawk County Auditor (NACo Board)

## ISAC STAFF

William R. Peterson - Executive Director  
Nick Ballard - Developer I  
Jacy Ripperger - Administrative Assistant  
Lucas Beenken - Public Policy Specialist  
Rachel Bennett - Member Relations Manager  
Jamie Cashman - Government Relations Manager  
Ashley Clark - IT Support Coordinator  
Tyler Connelly - Network Administrator  
Katie Cook - Office Coordinator  
Robin Harlow - Innovation and Research Manager  
Kristi Harshbarger - General Counsel  
Molly Hill - Staff Accountant  
Brad Holtan - Finance and Program Services Manager  
Bailey Krebs - IT Technician  
Beth Manley - Compliance Officer  
Tammy Norman - IPAC Program Manager  
Chris Schwebach - Software Developer II  
Jeanine Scott - Information Technology Manager  
Kelsey Sebern - Event Coordinator  
Molly Steffen - Program Support Coordinator  
Jessica Trobaugh - ICACMP Project Manager/Trainer  
Dylan Young - Senior Software Developer

\*\* The views and opinions expressed in articles authored by anyone other than ISAC staff are those of the authors and do not necessarily reflect the official policy or position of ISAC.

ISAC members are elected and appointed county officials from all 99 counties. The Iowa County (ISSN 0892-3795, USPS 0002-150) is published monthly by the Iowa State Association of Counties, 5500 Westown Parkway, Suite 190, West Des Moines, IA 50266. Periodicals postage paid at Des Moines, IA 50318. POSTMASTER: Send address changes to rbennett@iowacounties.org. Subscriptions: \$25 per year.

# Feature - Disaster Preparedness and Recovery

---

The public expects that their local officials are prepared, coordinated, and responsive to their needs. Residents of our communities count on us to keep their safety and security as THE number one priority. They demand that we are capable of handling the hazards that have affected our neighborhoods in the past and that we anticipate new threats in this 21<sup>st</sup> century. The public insists that we do this with a spirit of teamwork, a willingness of cooperation, and the ability to collaborate with one another to make wise use of their resources. This mandate is substantial but not unfair or unattainable.

Iowa Code, Chapter 29C.9 creates the Local Emergency Management Commission to oversee the effort of mitigating and preparing for, responding to, and recovering from natural and human-caused disasters. The Commission is comprised of a member of the county board of supervisors, the sheriff, and the mayor of each city within the county. It is required to establish an agency and hire a coordinator to lead a countywide program to fulfil the responsibilities and requirements.



**AJ Mumm**  
Polk County Emergency Management  
Director  
[aj.mumm@polkcountyiowa.gov](mailto:aj.mumm@polkcountyiowa.gov)

---

The most effective emergency management programs are those that are locally developed and executed, reinforced and aligned with state initiatives, and federally supported. Through the Commission, cities and counties must implement these programs through their vision, goals, and desired outcomes. Local governments, businesses, non-governmental organizations, and community members form a critical partnership that informs decisions, investments, and actions. These partners must be the ones that define their resource needs and deliver a program the public expects.

When a disaster occurs and exceeds the collective capabilities or capacities of local governments, the Commission may ask the Iowa Homeland Security and Emergency Management Department (HSEMD) to request a Governor's State of Emergency Disaster Proclamation. The Governor's Proclamation enables the use of state resources. Examples of state resources include: equipment; personnel; technical guidance; supplies and assistance in the form of debris removal; traffic control; security; and transportation. Direct state financial assistance is NOT included.

Should the disaster go beyond the capabilities of the State of Iowa, the Governor may request federal assistance through a Presidential Disaster Declaration. When the President grants a Disaster Declaration the Iowa HSEMD and local jurisdictions work with the Federal Emergency Management Agency (FEMA) and other federal agencies to deliver assistance to local and state governments (Public Assistance Program) and potentially individual Iowans (Individual Assistance Program) to assist in the recovery process. State and federal response and recovery efforts DO NOT take over the incident; they exist to SUPPORT the local response.

A number of statutory and regulatory requirements exist to ensure the local emergency management program is comprehensive. These foundational blocks are designed to build capabilities at the local level and increase hometown resiliency. The following paragraphs briefly describe these program elements.

**Hazard Analysis, Risk Assessment, and Capability Assessment** A process is used to identify natural and human-caused hazards, threats, and resulting risks. Historical occurrences, probabilities, vulnerability, severity of impact, geographic extent, speed of onset, and cascading potential are all factors considered when evaluating hazards based on the risk they pose to the community. Several methodologies are used to reveal objective risk rather than working from perceived risks. This analysis forms the foundation of the overall program. From here, planning, training, exercise, and resource management decisions can be made with greater clarity and understanding.

**Planning** Through multi-disciplinary collaboration and understanding of capabilities and limitations, mutually agreed-upon expectations are documented and formally adopted by all jurisdictions in the county. The resulting document is called the Comprehensive Emergency Plan (CEP). Due to the uncertain threat environment, a capabilities-based planning approach is used rather than a hazard-specific plan. This planning practice is a flexible, highly adaptable, and multi-hazard method. Broad components of the plan called Emergency Support Functions (ESFs) are detailed through identified activities and resources (see inset on the next page).

# Feature - Disaster Preparedness and Recovery

**Operations and Procedures** The specific tasks and assignments used to implement the Comprehensive Emergency Plan are written as standard operating procedures or guidelines. Complex processes and non-routine activities can be described in checklists, flow-charts and other job aids.

**Training** The most valuable resources we have are the people needed to execute the plan. Clear understanding of responsibilities and expectations we have of one another is critical. Individuals, teams, and organizations need to have the knowledge, skills, and abilities to fulfill their duties. Both classroom and hands-on training methodologies are used to increase competencies of performance.

**Exercises** A variety of approaches may be used to evaluate the plans, procedures, policies, and training. Seminars, workshops, tabletop exercises, and drills as well as functional and full-scale exercises can be employed to validate plans and improve understanding. Exercising without first establishing a plan and prior training will prove to be a frustrating false start.

**Resource Management** The hazard analysis, risk assessment, and capability gap analysis will inform the resource management process. The resource management cycle includes: identifying; ordering; acquiring; mobilizing; tracking; recovering; and resupplying. Resources are not always materials and equipment. Resource management also includes services, facilities, information, and most importantly: PEOPLE, TEAMS, and ORGANIZATIONS. A collaborative planning approach will reveal partners around you that may provide the resources and services needed to complement your own. Mutual aid agreements, compacts, and stand-by contracts extend your reach far and wide...proving valuable as the emergency may evolve into a regional disaster and the demand for resources extends beyond the capabilities or capacities of your day-to-day operating partners.

**Direction and Control** Effectiveness of organizations depends on clear communication, delegation of assignments, and accountability. The ability to efficiently command and coordinate groups of people continues to evolve from the days of the Roman Empire to the tested history of the United States military units into today's modern first responder agencies. An organizational model called the Incident Command System (ICS) emerged as the professional standard beginning in the 1960s and was adopted into doctrine through a Presidential Directive as the National Incident Management System (NIMS) in the early 2000s. This modular system connects field responders and support organizations, as well as Emergency Operations Centers (EOCs) at the local, state, and federal levels. Complex incidents are managed through clearly identified objectives and appropriate division of labor all the while maintaining a unity of effort

**Communication and Warning** The 21<sup>st</sup> Century has provided our society with abundant communication tools. These technology developments have provided emergency managers a variety of assets to use. At the same time, the audience we are trying to reach expects custom applications to receive information when and how their lifestyle desires. Disseminating warning products will get easier in certain respects but the audience's expectations are increasing at an equally fast pace. Integration of technologies, interoperability of communications systems and personalization of messaging remain challenging issues as we continue to evolve in our means to notify and interact with the general public and response officials.

**Damage Assessment** Every response should begin with a size-up of the situation and initial damage assessment. Without an accurate damage assessment, we are unable to provide the most appropriate response resources in type or quantity. The damage assessment process serves many purposes but is too frequently performed out of sequence. Debris management, scope and scale of the response required, and determination of potential future needs are dependent on knowing the magnitude, distribution, and severity of impacts to our communities. A damage assessment team should be ready and resourced to gather this information quickly and report it in a way that enables better decision making in subsequent phases of the emergency or disaster.

## Comprehensive Emergency Plan Emergency Support Function (ESF) Annexes:

1. Transportation
2. Communications
3. Public Works and Engineering
4. Firefighting
5. Emergency Management
6. Mass Care and Sheltering
7. Resource Support
8. Public Health and Medical Services
9. Search and Rescue
10. Hazardous Materials
11. Agriculture, Natural Resources and Pets
12. Energy
13. Law Enforcement and Security
14. Mitigation and Recovery
15. Public Information

Continued on page 9.

# Feature - Disaster Preparedness and Recovery

---

## Teamwork in Marshall County

Teamwork! I have to mark up the amazing response and continuing recovery to teamwork...great teamwork.

The morning of July 19, 2018, was like any summer Thursday morning. There was a beautiful blue sky, the National Weather Service (NWS) had put out information on high probability of thunderstorms, some maybe severe, for later that day, and I headed to work at my office in the middle of Marshall County. As the day progressed I looked at the information on the NWS site and decided that today was going to be a day that I would go out and storm spot early. I had a gut feeling that we might see some severe weather, although when I left the office about 1:45 pm that afternoon, the skies were still blue and barely a cloud could be seen from my third floor office windows.

I stopped by my home in the western part of the county to change out of dressier work clothes and into something a bit more appropriate for storm spotting. I told my daughter I may be late that evening getting home, and headed out with a bit of spring in my step, as I love weather watching. By 2:30 pm I was out on the west-central border of our county watching a few puffy clouds develop and talking to the local law enforcement officer on the phone. He, too, felt that today may be active and was out spotting. I received a call about 2:45 pm from county volunteer firefighters headed back from out of county, stating they had seen several funnel clouds in the Colo area, which is approximately seven miles to the west of where I was currently spotting. That's when it started getting active. The puffy clouds soon turned darker and fuller, making beautiful thunderheads towards the west and northwest of where law enforcement and I were stationed. County law enforcement and firefighters who are storm spotter trained were alerted to begin storm spotting in their locations. The fast developing thunderstorms were building and falling apart quickly, repeating and moving to the northeast at that time. NWS was putting out tornado warnings in several places, and one was on the southwestern corner of Marshall County. Soon tornado warnings for the area we were watching were posted (NW Marshall County). Law enforcement throughout the county were reporting funnels and a storm was building around the northcentral portion of Marshall County near Albion. NWS and I were on the phone talking as the storm built, and then quickly fell apart. We discussed what I was seeing, and they saw the same on the radar. Soon after, though, the storm redeveloped rapidly with an amazing updraft, which I still remember to this day as being as blue as the Caribbean waters, one of the most brilliant colors I have ever seen. This storm developed tremendously fast, growing into a monstrous black and gray thunderstorm, and instantly we had reports of a funnel and then a tornado in the Marietta township area (southeast of Albion, near Summit Road which is just northwest of Marshalltown). From where I was west of the storm, I could tell it was not going to be good for Marshalltown. It was a violent looking storm, even from that distance. I was on the phone with the NWS and the Marshall County Communications Center at the same time, we all agreed it was a Tornado Emergency, the first Tornado Emergency ever given from the Des Moines NWS office.

The tornado struck on July 19, 2019 at 4:40 pm with 144 mph winds (EF3) right through the center, the heart, of Marshalltown, Iowa. People were just getting off of work, wondering whether to attempt to flee from downtown or shelter-in-place. The path of destruction was through residential areas as it began working its way east, slightly south at times, through the downtown business district, and then into more residential areas and into factory areas before lifting back into the sky at the east city limits. Destruction everywhere.

As the Emergency Management Coordinator for the county, I was already on heightened alert, but this kicked me into another gear. I was calling immediately for mutual aid and working on the radio and phones with our local responders as I drove into Marshalltown to greet the devastation head-on.

I was told before I could reach the center of the city that the Emergency Operations Center (EOC) for Marshalltown was part of the devastation, and the Incident Command Post and the EOC would be temporarily in the Marshalltown Fire Department. I headed to meet everyone there.

Government buildings had taken direct hits: city hall, courthouse, secondary roads building, and Marshalltown Police Department which also houses the communications center, to name a few. Racom, which is our communications hub, took a direct hit. Marshalltown Unity Point also took a direct hit. The worst destruction in a residential areas was a lower income area with many migrant workers, young families, and elderly. Radio channels were congested. Cell phone towers were overloaded, communications were nearly impossible, other than face-to-face. The communications center was evacuated due to a gas leak. This was the "perfect storm" of events to overload all of our communications and responders. In addition, onlookers and community members loaded out into the dangerous streets to see what had happened and began live-streaming back to their friends and family. The streets looked like the Iowa State Fair...congested to say the least.

I feel it is important to recognize that team effort and team training with exercises are very important prior to any disaster. Had we, as a county, not worked together and been a well-oiled machine, a team, we would have never made it through the first, and very vital

## Kim Elder

Marshall County Emergency  
Management Coordinator  
[kelder@marshallcountya.gov](mailto:kelder@marshallcountya.gov)

See photos on front cover.

---

# Feature - Disaster Preparedness and Recovery

---

24-48 hours like we did. Had there not been cooperation, coordination, and communication between all public safety agencies and volunteers, there would not have been the outcome of the Marshalltown tornado response that we have seen. Many of us worked with little or no sleep for the first four to five days, and looking back, we needed to relinquish duties to someone else, although some, like EMA, are a one person office and there are not trained individuals to take over duties.

Emergency Management and the Communications Center have tornado siren testing weekly in Marshalltown and other communities in Marshall County every Tuesday. EMA uses social media and local media outlets (radio and newspapers) to put out information on preparedness daily to community members. Our local CERT (community emergency response team) volunteers are out at local events to share printed information on preparedness throughout the year. Severe weather spotter training is offered by NWS and hosted by EMA annually free for our responders and community members, and we also welcome surrounding counties. This is a very well attended training. EMA works with various groups, clubs, businesses, places of worship, and schools on preparedness and planning through presentations and hands on demonstrations. Walk-throughs at locations to talk about tornado safety and sheltering is offered through EMA for local businesses, schools, and others. EMA encourages preparedness and planning for community members, although I have found there are some challenges with those that live in our area. Some have come from areas that do not have tornado warnings/sirens and that are not familiar with tornados and what they can do. Many do not understand the sirens and what they mean, despite EMA efforts to get this information out in several languages and to various different outlets that serve diverse populations.

Exercises are done frequently, not only with first responders (law enforcement, communications dispatchers, EMA, EMS, fire, and CERT) but also with schools, businesses, and others so that they are more realistic, and the other community members can participate and work on their individual plans as well as the responders working on their standard operating guidelines and plans.

Marshall County RSVP (Retired Senior Volunteer Program) had been previously identified to work with incoming spontaneous volunteers. They are working in conjunction with Story County RSVP on how to better gather information on volunteer hours and will continue to improve their capabilities.

Our county also organized a Long Term Recovery Committee (LTRC), although it was inactive and small prior to the tornado, they were ready to start back up and help when needed, and the committee grew to over 40+ members very quickly in response to need. We will continue to improve on our LTRC, which is very active and supporting the community in many ways through recovery after the tornado.

Committees of responders and elected officials have reviewed an After Action Report (AAR). The improvements and changes are being made to our response plans according to the AAR recommendations. Our sharing of information out to our citizens is improving. We continue to work on planning and policies to improve them for our future response and recovery efforts. Plans will continue to improve and evolve as we review and revise, and also exercise our plans. EOC training showed the need to be improved. This is a focus for EMA to train more stakeholders in the EOC setting. Continuous training is a must due to change over of elected officials with newcomers needing training as soon as they take office, whether that be a new mayor or a newly elected fire chief, it is important that they know and learn their role in an emergency operations center and incident command post setting. The Emergency Management Commission (mayors, board of supervisor representative, and sheriff) is also a focus of updated training, as they are very active in the EOC setting during and after a disaster, being aware of their role during and after an emergency and what emergency management can assist them in doing. It is important that all responders and elected officials know the role of the EMA and what the EMA can do to assist them in all aspects of an emergency, including the resources that are available through EMA, and the proper procedures to get those resources through EMA.

Working with the whole county team, the first responders, other public safety entities, and others is definitely important through the year. We are very lucky and blessed to have a great community with all of our first responder training, exercising, and planning together frequently no matter if they are with a paid or volunteer service, which helps us all in responding as a team. We will continue to exercise the plan annually with specialized training going out to cities and county with requests. We continue to work with our Firefighters' and EMS Associations and others that request training so that we are able to work with each other on common ground in incident command.

Public information went very well during the tornado. We continuing to include more diverse information to go out in more languages to serve all of those in our community, i.e. working with interpreters so they are able to get information out and are familiar with disaster work in a joint information center.

In conclusion, it is all about being a team in which each member knows their part and is ready for their job when it comes time.

# Feature - Disaster Preparedness and Recovery

---

## COOP/COG Planning

Continuity, defined as an “uninterrupted connection, succession, or union” or the “uninterrupted duration or continuation especially without essential change,” (Merriam-Webster Dictionary) assures a degree of confidence and commitment. Things all continue as they always have, despite what may come our way, right? That is the general sentiment...and what citizens expect

from local government, even when government faces a catastrophic event. The courthouse, sitting in the center of town, is resolute, representing assurances spoken and unspoken. That structure, so purposely placed in the county as Iowa’s history defines, provides the foundation of the community. When the foundation shifts, however, in order to maintain our citizens’ confidence in the strength of the structure – both physically and in terms of services provided – counties must focus efforts to ensure those activities and services continue when the core is rocked.

## Leanne Lawrie Harter

County Outreach and Special Projects  
Manager

[lharter@storycountyiowa.gov](mailto:lharter@storycountyiowa.gov)

---

Story County’s journey did not happen overnight, nor is it related to a singular event the county itself faced. Early discussions began when Emergency Management Coordinator Keith Morgan started at Story County, stressing to leadership that action needed to occur to plan ahead and be proactive rather than react after an event occurred. His messaging included videos from Tuscaloosa, Joplin, and Moore, showing the devastation they faced and how the communities reacted. Setting the stage for the conversations to begin, and supporting the effort, Mr. Morgan provided educational materials and background information. A key message he sent, however, was that, you (Story County) have to do this, you have to develop it internally, and you have to apply it wholesale.

That is where it began. Incorporating continuity of operations planning/continuity of government (COOP/COG) into the county’s strategic plan, the board of supervisors identified and directed staff to develop a project approach, recognizing Story County had to start somewhere in this discussion. Following Morgan’s guidance, staff reviewed various business continuity models, diving deep into resources available from the Federal Emergency Management Agency (FEMA). While FEMA’s templates provided direction, we discovered that developing this plan could not simply follow a boilerplate template, with the outcome a cookie-cutter plan lacking substance. It needed to be Story County.

Story County’s approach built in a planning committee representing elected officials and department heads. County government is perhaps the most intriguing form of local government within our system. Acknowledging this upfront in the planning process by establishing a representative committee ensured all voices were at the table. Realizing that collectively, if something were to happen causing Story County to activate a plan, we are all Story County and to recover and find the “norm” again succeeds best when we all work in a unified rather than competitive force.

The plan itself is an official document approved by the board of supervisors. It identifies planning assumptions; pre-determines where Story County offices may relocate, if needed, and what resources are required to restore operations at a new site; and defines essential functions and the time period in which they may (or may not be) interrupted. Along with these elements, Story County’s plan establishes orders of succession and delegations of authority – both critical components to address as all of our ongoing efforts rely on the human capital factor. Events may affect staff and leadership individually, in addition to our operations, so defining how to maintain operations using existing and/or limited staff resources becomes essential. Under the provisions of the Code of Iowa, much of the plan is considered confidential, due in part to the inclusion of personal information. But, also, so that if activating the plan, Story County may undertake all needed steps unencumbered by general public demands to relocate and reorganize to respond accordingly to needs present. It ensures time to first “put our house in order” in order to help our citizens recover and move forward.

Our planning model fills a gap in the Code of Iowa, especially relevant for three-member Board of Supervisors structures. A board may reach decisions when all three members are present, obviously, but decisions may also be reached with only two board members present. What happens when one only board member remains? Surprisingly, the Code of Iowa is silent in this regard. This state extremely hampers the ability of a county to make decisions and move forward during the activation of a continuity plan. Story County’s COOP/COG Management Team (CCMT) is our solution. Membership on the CCMT includes all elected officials and various department heads. The CCMT role is dual purpose: first, it ensures careful coordination and collaborative resource management so that these services may be provided and that Story County recovers successfully; and second, the CCMT is built into the Story County Order of Succession model to address that gap in the Code of Iowa. If Story County faces a situation with one board member available, the CCMT becomes a “de-facto” board member (one vote for the entire group, operating on a consensus basis). If the situation becomes dire where no board members remain, the CCMT assumes legal authority acting as the board of supervisors until such time vacancies are filled.

# Feature - Disaster Preparedness and Recovery

---

Continued from page 8.

So, great, you have a plan...put it on the shelf and hope you will never use it. This cannot be any jurisdiction's mentality. Story County's adopted plan requires annual review and updating as necessary, but also builds in an exercise component. Over the past 18 months, Story County officials have participated in an exercise to learn and test our plan. The scenario is set on a Tuesday in January, with light snowfall to begin, and electrical power lost in Story County's buildings. As the exercise progresses, we learn that the outage is due to a cyber-attack on the electrical grid, resulting in extensive damage to elements of the electrical grid from software commands that pushed equipment beyond designed capacities. Communications are limited, and we are starting to hear that it will take weeks, if not months, to restore capabilities. On top of that, the snow has turned from light snowfall to blizzard conditions, affecting travel. Such an exercise intended and designed to practice the plan and take everyone out of our comfort zones, provided Story County the opportunity to discuss potential pitfalls in order to highlight areas of concern or weakness in the plan. The exercise drives necessary modifications to the plan forward and increases familiarity and awareness of the plan.

Last fall, ISAC released the COOP/COG Toolkit. Story County's staff assisted in its development so that other counties had a starting point. Key to the toolkit, just like the FEMA templates, are draft language and worksheets to develop potential ways to move forward for a county. True, some of it is "fill in the blank," but the hope is that counties go beyond that, carefully considering each discussion point and decision. In the end, the goal is to help counties have a plan, with the hope it is never needed, but acting as an insurance policy if a situation requires plan activation. You can find this toolkit at [www.iowacounties.org](http://www.iowacounties.org).

Story County's primary "lesson learned" is quite simple. Start. Somewhere, anywhere....even if it just meeting to discuss "what ifs." This builds momentum and support, both necessary to see this process through from the beginning to the, well, it never really ends... We are in county government because of our desire to serve. Continuity of government and continuity of operations planning is just another piece of that service we strive to provide.

## Continued - Iowa Emergency Management

---

Continued from page 5.

**Public Education and Information** Similar to the points described under Communication and Warning above, the emergency management public information strategy attempts to get the right information to the right people at the right time to make the right decisions. Crisis and risk communication are an imperfect science, but the content usually includes three basic elements; 1) What is happening; 2) What is being done about it; and 3) What the public is expected to do to keep themselves safe. Dissemination of protective action recommendations can take many forms and mediums. A healthy relationship with our partners in the broadcast media is critical while at the same time we need to understand the emerging forms by which the public not only consumes but interacts with each other to inform themselves.

**Administration and Finance** At the end of the day, the entire emergency management program depends on time, effort, and money. A well-managed budget is critical for each of those dependencies. As a public entity, the Emergency Management Agency and the Commission to which it reports are accountable to the public. Open records, open meetings, and public hearings on the Commission's adopted budget all apply. Professional administration of the agency can prove challenging. Balancing the technical requirements of the emergency management job with soft skills to maintain and enhance collaborative relationships is essential.

In conclusion, results matter. The right amounts of professional leadership, investment, competency, and compassion yield a local emergency management program that proudly serves the whole community. Resources are shared in a cost-effective manner. Trusted relationships and effective teamwork generate broad situational awareness and shape a common picture from which to operate. Proven methods are validated around shared experiences. Agreement and mutually established expectations are supported through collaboration. The outcome? A prepared, responsive, and resilient community.

*Resources: Introduction to Homeland Security and Emergency Management for Local Officials. [https://www.homelandsecurity.iowa.gov/documents/county/COORD\\_LocalOfficialsGuide.pdf](https://www.homelandsecurity.iowa.gov/documents/county/COORD_LocalOfficialsGuide.pdf)*

# Feature - Disaster Preparedness and Recovery

The Iowa State Association of Counties will present a special track at its upcoming conference to share information about the Iowa Flood Center and other resources available to help Iowans work together to prepare for the next flood. We hope to see you there! More at [www.iowacounties.org](http://www.iowacounties.org).

## Witold Krajewski

Director, Iowa Flood Center  
[www.iowafloodcenter.org](http://www.iowafloodcenter.org)

### Taking on Iowa's Flood Problem

In the decade since the founding of the Iowa Flood Center (IFC), Iowans have seen serious flooding somewhere in the state almost every year. After record-setting precipitation through the fall and winter of 2018–19, Iowans are once again battling severe flooding this spring.

The impact of floods in Iowa is even more serious than it is nationwide, says IFC research Antonio Arenas, who studies Federal Emergency Management Agency (FEMA) data. About 80% of federal disaster declarations in Iowa between 1988 and 2016 were related to flooding. In the last 30 years, no Iowa county has escaped with fewer than four flood-related presidential disasters. And this trend is only increasing.

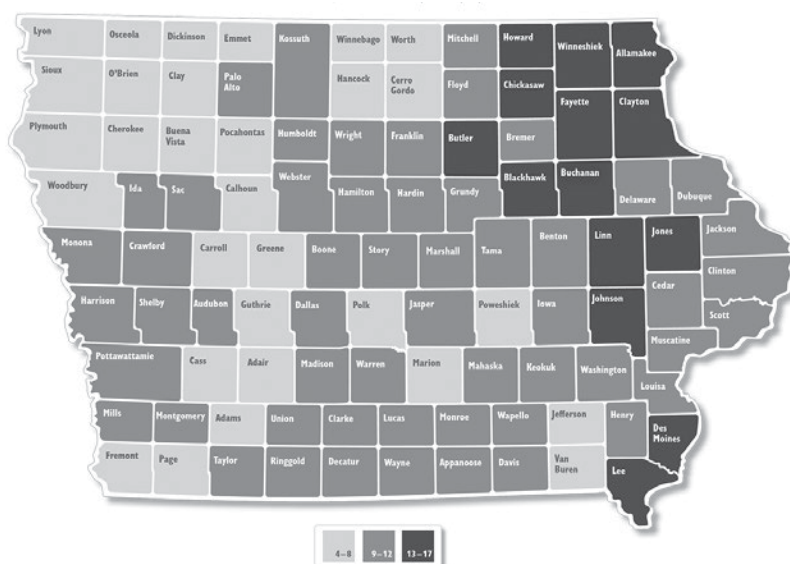
Iowa's financial losses from flooding are huge. Estimates from a University of South Carolina database (SHELDUS) report \$13.5 billion in direct flood-related property losses in Iowa from 1988–2015. Seven of the 10 Iowa counties bordering the Mississippi River sustained property losses of more than \$100 million.

Iowa also suffered direct crop losses; Marshall County has the highest crop losses (about \$300 million) in the state (1988–2015). The average direct crop losses in Iowa counties during this period was \$41 million.

Flood control and mitigation are expensive but reacting to disasters after they occur is even more costly—in dollars (think trillions), lost economic potential, and even lives.

**A Decade of Progress** Iowa is home to the nation's only academic center devoted to flooding, the Iowa Flood Center (IFC). Appropriations from the Iowa Legislature support the center's goal of providing accurate, science-based, up-to-the-minute information to help Iowans plan for and lessen the impacts of floods. This proactive investment has repaid itself many times over, costing Iowans only about 50 cents per person each year.

At the IFC, we have developed a suite of tools, maps, and resources that Iowans can access to enhance their flood-resiliency. These resources are of particular interest to emergency managers, communities, decision-makers, and all who hold responsibility for the safety of others.



In the last 30 years, Iowa has received nearly 1,000 flood-related Presidential Disaster Declarations.

# Feature - Disaster Preparedness and Recovery

One of our most innovative achievements is the Iowa Flood Information System (IFIS), which gives the people of Iowa online access to information about rainfall, river and stream levels, flood predictions, and even flood inundation maps for 26 communities (with more to come) that show what a predicted flood stage will mean for their homes, businesses, and schools. IFIS puts data directly in the hands of the people who need it — emergency managers, public safety personnel, and the public. With this information, Iowans can make better decisions to protect their property, their families, and their livelihoods.

**Setting the Standard** When asked if the IFC can actually stop flooding from occurring, we like to say (only half in jest) “Not yet, but we are working on it!” Through the Iowa Watershed Approach (IWA), we hope to develop a template to restore flood resiliency to the Iowa landscape. This statewide watershed improvement program, funded with a \$97 million grant from the U.S. Department of Housing and Urban Development, is designed to reduce flooding by strategically building farm ponds, wetlands, and other conservation practices in the watershed. We hope the project will restore some of Iowa’s natural resiliency to heavy rainfall, while also improving water quality, creating wildlife habitat, and restoring ecosystem services.

In addition, IWA’s focus on the human and societal aspects of flooding will help Iowans develop flood resilience; after all, flooding doesn’t only damage buildings and infrastructure, it also destroys lives.

**Building a More Flood-Resilient Future** We at IFC are proud of what we have achieved by working together with people and organizations statewide. Through collaborations with communities, individuals, government agencies, and decision-makers, IFC is bringing engineering and scientific expertise to flood-related issues.



Fayette County Conservation Board Director Rod Marlatt describes the flood control benefits of an on-road structure built in the Otter Creek Watershed as part of the IFC-lead Iowa Watersheds Project.

Thanks to these partnerships, Iowans are more flood-resilient today than we were 10 years ago. However, we also understand the immense scope of the work still to do.

Save the date! Wednesday, August 21, 2019 of the ISAC Annual Conference will offer a special track focused on flooding that’s been developed for county emergency managers, supervisors, conservationists, planning and zoning officials, and engineers. IFC experts, key agencies, and local county representatives will provide content and propose ideas and solutions to help us prepare for future flood risks. Together, we can build a more flood-resilient environment for generations to come.

For additional conference details, visit the ISAC website, [www.iowacounties.org](http://www.iowacounties.org).

# Feature - Disaster Preparedness and Recovery

## Disaster Damage and Social Vulnerability

Natural disasters extract a deep and continuous toll on the wealth and wellbeing of Iowans. Major events like the 1988 drought, floods of 1993 and 2008, and the 2018 Marshalltown tornado disrupt lives, damage infrastructure, and become seared into memory. The destruction from this year's Missouri River floods are the latest evidence of our vulnerability to natural hazards. Based on analysis of the online SHELATUS database, (<https://cemhs.asu.edu/sheldus>) direct damage from natural hazards in Iowa averaged over \$11 billion in the decades since 1980. The majority of this damage has been driven by hydrological extremes of severe floods and drought.



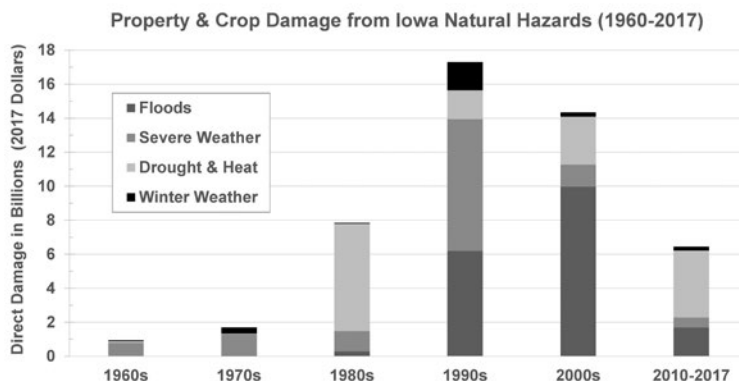
**Eric Tate**

University of Iowa

[eric-tate@uiowa.edu](mailto:eric-tate@uiowa.edu)

Analysis of natural disaster impacts typically includes only direct economic damages because they are easiest to measure. Direct impacts include damage to buildings and contents, roads and infrastructure, and crops and livestock. This excludes indirect impacts such as lost tax revenue and productivity decline from disrupted public services. Also frequently excluded are non-monetary impacts including injuries, displacement of people from their homes, and emotional stress. As a result, natural disasters inflict far more damage on Iowa than is reflected in media and government reports. As a measure of societal impact, direct damage estimates both understate the problem and are highly uncertain. (<https://www.nap.edu/catalog/25381/framing-the-challenge-of-urban-flooding-in-the-united-states>)

Focusing on direct economic damage also obscures sometimes large differences in impacts within affected communities. Disaster planners and emergency managers increasingly understand that some populations face more barriers in preparing for, responding to, and recovering from extreme natural hazards. These populations are described by researchers as socially vulnerable, meaning that they experience outsized disaster impacts resulting from social, economic, and political processes inherent in society.



For example, members of low-income households tend to inhabit less disaster-resistant housing, have lower rates of insurance coverage, and experience slower recovery. Renters have less control over protecting their homes prior to disaster and are ineligible for many forms of governmental assistance afterward. People with limited English language proficiency often experience greater difficulty navigating bureaucracies required to receive disaster recovery resources. Socially vulnerable groups also often include children, frail elderly, people with disabilities, members of racial and ethnic minorities, and residents of rural areas with less robust

emergency management capabilities. Researchers have made recent advancements in analyses and tools to help communities identify socially vulnerable populations and places.

Economic damage from disasters has remained high over several decades, despite major investments in flood control, hazard insurance, and early warning technology. This suggests a need to broaden focus in efforts to reduce disaster vulnerabilities. Including social vulnerabilities in such a broader focus will lead to different questions when considering disaster resilient investments. For example, the effectiveness of levees is often evaluated based on the extent and value of protected land. An expanded emphasis on social vulnerability might also ask who is protected and to what degree? Likewise, what barriers impede greater adoption of flood insurance? Who is receiving and correctly interpreting early warning messages? Who is not? Who experiences evacuation barriers and why?

Continues on page 17.



The Iowa State Association of Counties (ISAC) announces the 15th Annual ISAC Scholarship Golf Fundraiser to be held Wednesday, June 12, 2019 at Toad Valley Golf Course in Pleasant Hill, Iowa. The event raises money for the ISAC Education Foundation, which awards scholarships to high school seniors who are children of county officials or county employees.

The 18-hole scramble (best-shot) with a shotgun start will begin promptly at 10:00 am. Registration begins at 9:00 am. You may register individually or in a group of up to four people. The \$80/golfer fee includes golf with a shared cart, driving range balls, lunch, beverage tickets, and dinner following golf.

Individuals wishing to golf or just attend the meal/s should fill out and return the registration form by Friday, May 10, 2019. Payment must accompany your registration and is non-refundable. The course is limited to 144 golfers, and we have sold out in the past, so register early to reserve your spot! If you have any questions, please contact Jacy Ripperger at 515.244.7181 or [jripperger@iowacounties.org](mailto:jripperger@iowacounties.org).

**\*\*A reminder to participants that Iowa law prohibits county officials from accepting gifts (including food, drink, registration fees, and anything of value in return for which legal consideration of equal or greater value is not given and received) from restricted donors unless an exception applies. Exceptions that may apply at ISAC conferences likely do not apply to this event and generally speaking the only exemption likely available is a gift that is valued at \$3 or less. If you have questions about your compliance with the gift law, please consult with your county attorney.**

#### Directions:

Please find detailed directions at [www.iowacounties.org](http://www.iowacounties.org). Toad Valley Golf Course is located at 237 NE 80<sup>th</sup> Street, Pleasant Hill, IA 50327.

**We look forward to seeing you on June 12! Remember, registration begins at 9:00 am and golf begins with a shotgun start at 10:00 am sharp - please be prompt.**



**SPEER FINANCIAL, INC.**  
INDEPENDENT PUBLIC FINANCE CONSULTANTS SINCE 1954

**Registered Independent Municipal Advisors**



40+ Years  
Experience  
In Iowa  
Public  
Finance

**Larry Burger, Vice President**

[lbarger@speerfinancial.com](mailto:lbarger@speerfinancial.com)

*We're on Your Side!*



9 Years  
Experience  
In Iowa  
Public  
Finance

**Maggie Burger, Vice President**

[mburger@speerfinancial.com](mailto:mburger@speerfinancial.com)

Iowa Office:  
531 Commercial Street, Suite 608, Waterloo, IA 50701  
Website [speerfinancial.com](http://speerfinancial.com) Phone (319) 291-2077



**When:** **Wednesday, June 12, 2019**  
**9:00 am – Registration**  
**10:00 am – Golf - four-person scramble (best-shot)**  
**Approximately 4:00 pm – Dinner (immediately following golf)**

**Where:** **Toad Valley Golf Course**  
**237 NE 80<sup>th</sup> Street, Pleasant Hill, Iowa 50327**  
**515.967.9575**

**Cost:** **\$80 (18 holes of golf with a shared cart, lunch, beverages, and dinner)**  
**\$35 (Lunch and dinner only)**  
**\$25 (Dinner only)**

\_\_\_ I will play in the ISAC Golf Fundraiser on June 12. My \$80 is enclosed.

\_\_\_ I will play in the ISAC Golf Fundraiser on June 12. As a qualifying sponsor my fee is waived.

\_\_\_ I have organized a group to play in the ISAC Golf Fundraiser. Our total entry fee is enclosed.

*\*\*\*A reminder to participants that Iowa law prohibits county officials from accepting gifts from restricted donors unless an exemption applies.*

\_\_\_ No golf, meal/s only. My \$35 or \$25 is enclosed.

Contact Name: \_\_\_\_\_

County/Company: \_\_\_\_\_

Address: \_\_\_\_\_ City/State/Zip: \_\_\_\_\_

Phone/Fax/Email: \_\_\_\_\_

If you wish to arrange a group of players, please confirm your group prior to indicating the names on this form. Individuals and groups of less than four will be paired with other players.

1) Name: \_\_\_\_\_ County/Company: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

2) Name: \_\_\_\_\_ County/Company: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

3) Name: \_\_\_\_\_ County/Company: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

4) Name: \_\_\_\_\_ County/Company: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**Payment MUST accompany registration and is non-refundable. Make checks payable to the ISAC Education Foundation. Entries must be received by Friday, May 10, 2019, and are filled on a first come, first served basis. Mail to: ISAC, Attn: Golf Fundraiser, 5500 Westown Parkway, Suite 190, West Des Moines, IA 50266. If you have any questions, please contact Jacy Ripperger at 515.244.7181 or [jripperger@iowacounties.org](mailto:jripperger@iowacounties.org).**

# Feature - Disaster Preparedness and Recovery

## Planning Ahead – Know and Invest in Your Hazard Mitigation Plan

Some of us are better planners than others and some just don't plan at all. In the landscape of county planning and emergency managers, planning ahead is important. Building a plan for what might happen may not seem to be necessary or important, but for anyone who has experienced a disaster like the counties in western Iowa this year, the importance of planning ahead takes on new significance.

While active in the National Association of Counties (NACo) I discovered that there were county elected officials all over the nation who did NOT know what their hazard mitigation plan was, where to find it, or what it said. I was surprised and disappointed. However, I continue to advocate to those who will listen about the importance of knowing your hazard mitigation plan and taking mitigation efforts seriously.

For many years it was accepted that an investment of \$1 in mitigation resulted in \$4 saved after a disaster occurred. More recent research suggests that for every \$1 invested in mitigation \$6 is saved after a disaster. That kind of return on investment is worth paying attention to and is what makes planning so important.



**Linda Langston**  
[llangston@naco.org](mailto:llangston@naco.org)

Many counties across Iowa do not have local planning departments, but they do work with their local Council of Governments (COG) to accomplish building a hazard mitigation plan. A hazard mitigation plan must be updated if a county experiences a federally declared disaster and wants to receive federal disaster funds in the future. Sometimes counties in a rush to just get it done may not put a lot of thought and care into the updates that are required. But post disaster is the perfect time to examine what your county could do to improve your mitigation efforts, and to better protect your constituents from future disasters, and to save tax payer dollars at the county, state, and federal levels. Engage with your planning department or your COG to learn more about how you can improve your hazard mitigation plan.

No level of government can continue to spend the kind of money on disasters that has been spent in the last 30 years in the United States. The federal government spent over \$200 billion on disaster aid in the last 30 years, but most significantly the federal government spent \$100 billion in disaster aid in the last two years. Disasters are becoming more frequent and more destructive. It is time for local governments to take a larger share of the responsibility when they plan and re-build after disasters. Taking the time to engage the community in planning will make for safer and more resilient counties. And good planning is likely to save your county money too.

The federal Disaster Response and Recovery Act (DRRA) has the potential to offer communities much more support for pre-disaster mitigation. Pre-disaster mitigation is the action you take prior to the disaster to help prevent the disaster from being so bad. Guidelines for the DRRA and the rules about the availability of pre-disaster mitigation money is expected sometime this spring. Please consider contacting Lindsay Holman at NACo ([lholman@naco.org](mailto:lholman@naco.org)) for more information on DRRA.

It is so much more prudent to plan to mitigate for disasters before they happen than after they happen. FEMA has lobbied successfully for more money to be invested in pre-disaster mitigation work. Now it is time for every county to be aware of what they can do to plan for the potential of high impact disasters. Iowa is prone to flooding, tornados, drought, and winter storms. Iowa does better than most states in investing in mitigation, but we can do better. Local elected officials can make a big difference by taking the lead to support planning and encourage investment in the National Flood Insurance Program in their communities.

If your county is not invested in FEMA's Community Rating System (CRS) take the time to learn more about this program. By investing in even small planning efforts you can save individuals as much as 25% off their flood insurance bills. Check with your flood plain manager to discover how many of the people who live in the flood plain in your county actually have flood insurance. If at least 75% of people living in the flood plain are not signed up for the National Flood Insurance Program encourage your community and businesses to do a public information campaign to ask people to sign up. It could save people thousands of dollars and help your county to respond more effectively if flooding should happen.

Take the time to learn more about your local hazard mitigation plan and how it can be made even better. Talk to your emergency manager to find out what more can be done to make your county a more prepared county. And take the time to attend your next emergency management drill!

Better planning, investment in mitigation, and being prepared will save your county money. It is an easy investment that will provide great returns!

# Feature - Disaster Preparedness and Recovery

---

## Disasters will happen

"Disasters will happen," Chris Luhning, City of Parkersburg Administrator, declared.

Chris knows this all too well as he was the police chief of Parkersburg when an F5 tornado struck the city on May 5, 2008. The tornado destroyed half of the city, and took the lives of seven people. Cost estimates have been shown to be anywhere from \$150 to \$250 million in damages.

Just over 10 years later, on July 19, 2018, the City of Marshalltown was also struck by a tornado. The city was in the direct path of the storm, which destroyed a number of buildings and other assets in the downtown and surrounding areas. Preliminary cost estimates from the storm ranged from \$6 to \$7 million in damages.

Nearly nine months later, Jessica Kinser, Marshalltown City Administrator, commented, "The city is still recovering." Echoing Kinser's sentiment, Luhning commented, "We never recovered. We just created a new normal."

The two tornado events mentioned were largely catastrophic in nature; however, even smaller events, such as a building fire, can have a dramatic impact on operations and services.

Disasters can happen anytime, anywhere. When it comes to surviving, adequate preparation is key. We suggest entities start with the following:

1. Develop good relationships or partnerships. This is probably the single most important factor when it comes to recovery. Fostering relationships and creating new ones should be the main foundation for disaster planning and recovery. It can include working closely with safety and risk management staff; IT support; insurance providers; emergency response and management agencies; and outside safety and risk control representatives. Know the roles and responsibilities of each, and how they can help during both the planning and recovery process.
2. Identify essential operations and functions. Consider medical services; security; food and water distribution; electricity; shelter; communications; sanitary and health controls; tools; vehicles and equipment availability; document preservation; facilities and point of coordination access; positional leadership and authority; and information technology (IT) and communications. Determine which organizational functions are essential in the short and long term. If a disaster or disruption occurs, what will be required to continue or rapidly resume operations? Create a written emergency response plan, and keep it readily accessible with insurance policies; property value statements; financial records; and employment files. Keep duplicate paper or electronic copies of these records in multiple locations and formats, so they are accessible by authorized persons in the event of a disaster or emergency.
3. Establish backup locations for critical operations. This must not be overlooked. If infrastructure is lost, certain operations will be of immediate importance. These include medical facilities, incident command centers, and other points of coordination. Secondary facilities might include temporary daily operational offices, daycares, educational centers, food banks or reserves. Consider the fact temporary structures, such as tents or trailers, may need to be erected or acquired immediately after a disaster. Also be aware loss of life or temporarily incapacitated individuals can delay the ability to get infrastructure and services back up and running. Identifying critical positions of response and appointing backups can help enable a swift recovery, should a disaster or tragedy occur.
4. Review IT systems and related assets, and appoint appropriate individuals to manage them. Consider essential system operations and software at the server and workstation level. Ask 1.) Are backup processes for data adequate? and 2.) Can data be accessed from remote locations or otherwise quickly recovered? The answer to both should be "yes." If it isn't, start adjusting to ensure your entity is able to respond should a disaster occur. Similarly, ensure your entity has adequate communication systems in place should normal services be disabled. Handheld radios, Voice over Internet Protocol (VoIP), and local radio stations may all be viable communication options.
5. Determine the inventory of assets held and their value. Even small cities own millions of dollars in assets. Ensuring those assets are properly covered may be the difference between restoring financial operations quickly, rather than experiencing financial hardship and possible bankruptcy. Assets that are not identified or appropriately valued may have inadequate coverage (if they are even covered at all).



## Todd Christianson

Senior Risk Control Specialist III  
York Risk Services Group, serving ICAP  
members across Iowa  
[www.icapiowa.org](http://www.icapiowa.org)

# Feature - Disaster Preparedness and Recovery

---

Continued from page 16.

With this, it is also important to consider the ability to replace loss of assets. With half the city leveled, Parkersburg lost a large portion of its tax base, which almost bankrupted the city. With a large residential area unlikely to recover, Marshalltown is also in a similar position now. Though the loss in tax revenues cannot be replaced, the city's proper and comprehensive coverages will help absorb some of the cost, at least to a certain degree.

Luring commented, "You can never plan and be fully prepared for the magnitude of an F5 tornado," and he's right. Fortunately, there are things we can do to prepare for such a storm.

The City of Marshalltown was fortunate to have had an Iowa Communities Assurance Pool (ICAP) building valuation – as well as a review of the city's assets and coverage policies – completed in the year before the tornado. ICAP and the city's local insurance agent worked together to add coverages and update building values accordingly. This helped ensure Marshalltown's assets were covered adequately after the storm.

This was crucial for the city, as it would be for most Iowa public entities in a similar situation.

We encourage every entity and organization to routinely determine values of their owned assets. Don't rely on blanket coverages! Value buildings, structures, and other "big ticket" items individually. Take advantage of any services or resources that can help you do this.

ICAP actually provides its members a free property valuation program to assist with this. The Pool also offers its members a number of other services and resources that can assist with disaster planning and preparation.

Remember: this is key to recovery. Look at the big picture, and start your preparations now. Build and enhance relationships with those in the emergency response, risk management, and insurance fields. Scheduled planning exercises and mock drills. Review property valuations and coverage limits periodically. Schedule risk control visits (also offered free to all ICAP members). Review systems. Plan alternative forms of communication. And more, many of which are covered in depth in this publication.

Look at other public entities that have experienced disasters, and learn from what they went through. Address deficiencies and make improvements now, before a disaster strikes.

York Risk Services Group provides loss control services to ICAP. ICAP provides property and casualty coverage to public entities across Iowa and is an Endorsed Elite Preferred Vendor of ISAC.

## Continued - Social Vulnerability

---

Continued from page 8.

Accounting for social vulnerability is a path toward greater equity in disaster risk reduction. Several Iowa communities have recognized this and increasingly emphasize equity in program decision making and expenditures. For example, since the 2008 floods, the City of Cedar Rapids has steadfastly sought to protect areas on both the East and West Sides of the Cedar River. This is despite only the East Side having a favorable economic benefit-cost ratio based on Corps of Engineers analysis guidelines. By contrast, populations on West Side have more renters, disabled, elderly, and low-income residents. ([http://www.cedar-rapids.org/discover\\_cedar\\_rapids/flood\\_of\\_2008/flood\\_management\\_system.php](http://www.cedar-rapids.org/discover_cedar_rapids/flood_of_2008/flood_management_system.php)) Are West Side neighborhoods any less worthy of protection? The City of Dubuque has invested millions in disaster recovery funds into their Healthy Homes Resiliency Program. The program provides housing repairs to low-to-moderate income residents to withstand frequent flooding and remove chronic mold. (<https://www.cityofdubuque.org/2339/Bee-Branch-Healthy-Homes-Resiliency-Prog>)

Economic damage from natural disasters in Iowa is persistently high and underestimated, suggesting that some course correction is needed to reduce impacts. A focus on socially vulnerable populations offers such a correction and is low hanging fruit toward improving the lives of many Iowa residents. It is a complimentary path toward a more equitable and disaster resilient future.

# Feature - Disaster Preparedness and Recovery

## Prioritizing Conservation Practices at the Watershed Scale

**Setting out to achieve a water quality goal** The City of Dubuque's goal to engage and empower residents around water resources goals makes them one of the leading communities to address water quality issues in Iowa. Like dozens of other communities in Iowa, the city is investing upstream in the watershed to improve water quality with specific goals, including:

- educating farmers about cover crops and other conservation practices,
- reducing peak discharges through structural and grade stabilization projects, and
- conducting stream restorations.

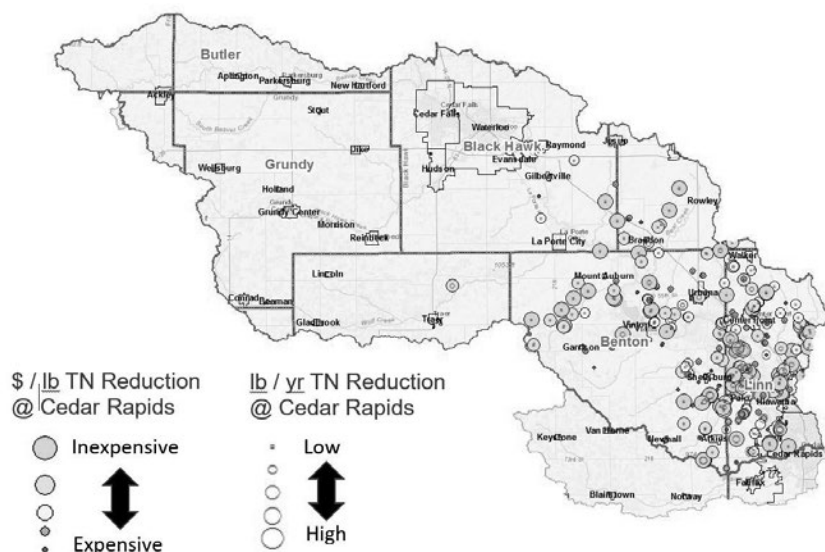
What sets Dubuque apart is their decision to take this investment up a notch by assessing the cost-benefit of conservation practices at the watershed scale. They're also leveraging prioritized practices to achieve water quality goals in a more cost-efficient manner.

## Rob Davis

Houston Engineering, Inc.  
[rdavis@houstoneng.com](mailto:rdavis@houstoneng.com)

## Dean Mattoon

City of Dubuque  
[dmattoon@cityofdubuque.org](mailto:dmattoon@cityofdubuque.org)



Illustrative example of how conservation practices are prioritized for both cost and nitrogen- reduction efficiency to meet a water quality goal downstream for Cedar Rapids in the Middle Cedar Watershed. The most cost-effective practices are inexpensive and have a high potential to reduce total nitrogen, in this case the water intake for the City of Cedar Rapids.

Like other cities in Iowa, Dubuque is largely within one watershed—in this case the Catfish Creek Watershed. The Catfish Creek Watershed's primary mission is to improve water quality and to promote a healthier existence for all living things that call the watershed home, including local trout fisheries. Excess sediment delivery to local waters can cloud water conditions. In the case of a trout fishery, this impacts the juveniles' ability to eat. Similarly, excess nutrient delivery (such as nitrogen and phosphorus) can cause algal blooms that impact local aquatic life and recreation as well as contribute to the hypoxic zone downstream in the Gulf of Mexico. The Iowa Nutrient Reduction Strategy is a statewide framework for reducing nutrients in Iowa waters and the Gulf of Mexico. Therefore, reducing sediment and nutrient delivery to surface waters in Catfish Creek helps to meet both local and statewide water quality goals.

The city is now in the early stages of setting water quality goals to reduce sediment and nutrients at the watershed scale. City staff received a Natural Resources Conservation Service 2017 Iowa Partners in Conservation grant. They used this grant to set water quality goals. The staff prioritized conservation practices that reduce sedimentation and nutrient pollution. They then established a transparent process to inform decision-makers on how focusing on conservation at the watershed scale will maximize the return on their investment. To achieve this goal, the city partnered with Houston Engineering, Inc. (HEI) to arm local decision-makers and staff with key information about:

- The largest sources of sediment and nutrients (nitrogen and phosphorus) in a watershed;
- How well conservation practices can improve water quality at multiple locations downstream;
- The lifecycle cost estimates for these practices; and
- Approximately how many practices and how many dollars are needed to achieve water resource goals within the watershed.

**The “how to” of prioritizing conservation practices to achieve a water quality goal** Understanding the best locations in a watershed to implement conservation practices is vital, as funding to implement them is limited. To generate information about agricultural conservation practices in the watershed, the city and HEI will first use the Agricultural Conservation Plan-

# Feature - Disaster Preparedness and Recovery

---

ning Framework (ACPF), developed by the USDA Agricultural Research Service, to identify locations on the landscape that are technically feasible for conservation practices. However, ACPF lacks information about the water quality value (or “load reduction value” of sediment and nutrients), estimated practice cost, and cost effectiveness of the conservation practices. HEI collaborated with the International Water Institute, the Red River Watershed Management Board, and the Minnesota Board of Water and Soil Resources to develop a related tool called the Prioritize, Target, and Measure Application (PTMApp) to fill these gaps. HEI coupled these two tools with NRCS funding as part of a 2017 Conservation Collaboration Grant with the Iowa Agriculture Water Alliance. Termed **IAPA**, the “**I**ntegrated **A**gricultural Conservation Planning Framework – **P**rioritize, **T**arget, and **M**easure **A**pplication” greatly improves information products available for water quality practitioners to help achieve a measurable water quality goal. IAPA represents an approach to inform conservation decisions; prioritize outreach efforts to make the process cheaper, faster, and more effective; and ultimately accelerate the rate of conservation adoption and implementation in order to meet watershed goals.

Using tools to inform investments about conservation practices means addressing the not-so-trivial question of where to evaluate progress made towards local goals. The low-hanging fruit is at the outlet of the watershed. For Dubuque this is Catfish Creek, which drains to the Mississippi. However, this does not benefit the trout fishery on Catfish Creek or the parks that offer recreational opportunities a few miles upstream of the outlet. Residents of Dubuque value these features and want to protect them. With IAPA, the City can evaluate the conservation practices’ water quality value at the locations the public wants to protect. This ensures that the public will see the water quality improvements as a success.

**Supporting local stakeholder goals** Stakeholder input is critical in enabling effective conservation and, as such, must be locally led. IAPA assesses where conservation practices might go (be technically feasible) on the landscape and quantifies the load reduction and cost of each practice. However, as conservation adoption is a largely voluntary effort, this is just one piece of the implementation puzzle. Efforts toward conservation will only be effective if there is local support and understanding through local staff outreach. When addressing agricultural conservation practices, proposed solution(s) must make agronomic and economic sense.

Dubuque’s local initiative focuses on improving soil health and prioritizing conservation opportunities that prevent the loss of soil and nutrients downstream, while making the farmer more economically competitive by reducing inputs over time. Local knowledge from Dubuque staff and partners provides crucial insight into what cost-share or other funds are available to implement practices, how practice incentives may need to be amended locally, or how a conservation practice is perceived by farmers in the region. For an urban perspective, water quality goals can also serve as an opportunity to invest upstream to decrease costs downstream, such as at a municipal waste water treatment plant through a nutrient reduction exchange. The IAPA process is designed to provide economic, cost-benefit information as part of a transparent process to inform discussions among upstream and downstream communities within a watershed. This also allows Dubuque to package IAPA information about desired practices, estimated load reductions, and costs into grant applications. However, Dubuque determines what they value most and IAPA reflects their local water quality goals to chart a course to achieve them.

Conservation decision-support materials will be tailored for Dubuque watershed practitioners to facilitate outreach. First, the watershed is characterized by incorporating practices identified by the Iowa State University best management practice (BMP) project to celebrate local watershed efforts. Building on those past efforts, the most cost-effective conservation practices—supporting Dubuque’s water quality goals and the staff’s knowledge—will be prioritized to support targeted outreach by local staff and partners. Focusing on Dubuque’s goals and knowledge to inform the deliverables ensures that the project goals are transparent to not just city staff and project partners but also the public. In this case, transparency is achieved by communicating how the return on an investment of a water quality or quantity outcome is directly related to a local goal. With limited public funds available to invest in achieving water quality goals, being well-informed is critical to cost-effectively achieving a water quality goal.

**Informed local decisions** Improving water quality requires a change in mindset from that of opportunity to prioritization. By initiating the conversation about how to prioritize the agronomics and economics of conservation, the City of Dubuque will be better prepared to achieve their local water quality goal. Dubuque staff can use information on farm economics and the cost to build a practice to meet water quality goals to create a transparent process. This process will reduce staff time and cost-effectively prioritize practices to identify partners that will help meet their water quality goals. Prioritized conservation opportunities are like precision agriculture—both are now part of the Iowa playbook of conservation.

## Summary of Minutes - ISAC Spring Conference General Session – March 14, 2019

The General Session was called to order by President Eric Stierman at 10:30 am. Linda Zuercher, Clayton County Treasurer, gave the invocation, and President Stierman led the membership in the Pledge of Allegiance. The ISAC Executive Committee and the remainder of the ISAC Board of Directors were introduced, and Bill Peterson gave announcements.



Bill Peterson gave an overview of the ISAC #MentalHealthMattersIA campaign and introduced and thanked ISAC members and Mary Neubauer and Larry Loss who were featured in the videos. The videos were shown, and Mary and Larry addressed the audience.

Bill Peterson presented the FY 2020 ISAC Budget. He gave an explanation of the budget process and a general overview of the FY 2020 budget that included county dues of \$5,900 and no changes to conference registration fees. The recommended budget was unanimously approved by the membership.

Lonny Pulkrabek, Johnson County Sheriff and ISAC Past President, presented the 2019 ISAC scholarships. The \$2,000 Past President Scholarship was awarded to Clay Garretson from Appanoose County. The \$2,000 ISAC scholarship winners were awarded by district and presented with a certificate by President Stierman. The District 1 winner was Cierra Johannes from Story County. The District 2 winner was Alexis Stirling from Butler County. The District 3 winner was Kade Griesse from Lyon County. The District 5 winner was Madison Lozano from Lee County. The District 6 winner was Erin O'Keefe from Johnson County. The District 4 winner was Connor Shipley from Linn County. Connor gave a speech about his motivations. Sheriff Pulkrabek announced that this year's ISAC Scholarship Golf Fundraiser will be held on June 12, 2019 at the Toad Valley Golf Course in Pleasant Hill and encouraged participation.



President Stierman adjourned the meeting at 12:00 pm.

## Employment - Page County Safety/Risk Management

### Page County seeks a Full-time Safety/Risk Management Coordinator

This position is responsible for the coordination of the county's risk management, overall worker safety, worker's compensation programs, and insurance policies for Page County. This position will work closely with the all departments and the Board of Supervisors to create a safe environment. Applicants with a bachelor's degree in risk management, business, or a closely related field and three years of experience in a risk management position are preferred. Send resume to: Page County Board of Supervisors, 112 E. Main Street, Clarinda, IA 51632 or [auditor@co.page.ia.us](mailto:auditor@co.page.ia.us). Detailed Job Description Available at Auditor's Office or [www.co.page.ia.us](http://www.co.page.ia.us)

**HOUSTON**  
ENGINEERING INC.

**Watershed Planning & Resources**  
Beyond successful projects—building professional relationships to provide creative water resource solutions

**Watershed Planning | Urban Stormwater  
Rural Drainage | Stream Restoration**

**5550 Wild Rose Lane, Suite 400, West Des Moines | 515.401.1471**



Check out Rob's article in this issue!

**Rob Davis**  
Watershed Planner

**houstoneng.com**

**CONNECTED COMMUNITIES  
ARE COLLABORATIVE COMMUNITIES**



Tyler's software for Iowa counties can help you build a collaborative community. See our ideas take flight at [tylertech.com/connectedcommunities](http://tylertech.com/connectedcommunities).

**tyler**  
technologies  
Empowering people who serve the public

**AN IOWA COMPANY  
SERVING  
IOWA COUNTIES**



**FOR COST ALLOCATION SERVICES AND  
FINANCIAL MANAGEMENT SERVICES**

**Contact Jeff Lorenz (515)-238-7989  
or Roger Stirler (515) 250-2687**



**The Leading Solution**  
for Infrastructure Construction  
Management

— **APPIA** —

- Real-Time **Project Collaboration**
- Comprehensive **Daily Reporting**
- Efficient **Payment Management**

Learn more at [infotechfl.com](http://infotechfl.com) InfoTech

## 2019 calendar

### May

- 7-10 Treasurers Conference  
(Ameristar Holiday Inn, Council Bluffs)
- 15-19 NACo WIR Conference  
(Spokane, Washington)

### June

- 5 Registration Opens - ISAC Annual Conference
- 5-7 Recorders Summer School  
(Council Bluffs)
- 12 ISAC Scholarship Golf Fundraiser  
(Toad Valley Golf Course, Pleasant Hill)
- 13 Hotel Registration Opens - ISAC Annual Conference
- 18-21 ITAG Conference  
(Sheraton, West Des Moines)
- 26 ISAC Board of Directors Meeting  
(ISAC Office)

### July

- 11-15 NACo Annual Conference  
(Clark County, Nevada)
- 17-19 Auditors Annual Conference  
(Burlington)

### August

- 20 ISAC LPC Meeting  
(Veterans Memorial Community Choice Credit  
Union Convention Center, Des Moines)

- 21-23 ISAC Annual Conference  
(Veterans Memorial Community Choice Credit  
Union Convention Center, Des Moines)

### September

- 15-18 ISSDA Jail School  
(Holiday Inn Airport, Des Moines)
- 18-20 ISAC Board of Directors Retreat  
(Dubuque County)
- 26 ISAC LPC Meeting  
(ISAC Office)

### October

- 6-9 Assessors Fall Conference  
(Airport Holiday Inn, Des Moines)

### November

- 20-21 ISAC Board of Directors Meeting  
(ISAC Office)

### December

- 8-10 ISSDA Winter School  
(Airport Holiday Inn, Des Moines)
- 11-13 2019 Iowa County Engineers Conference  
(Veterans Memorial Community Choice Credit  
Union Convention Center, Des Moines)

If you have any questions about the meetings listed above or would like to add an affiliate meeting to the ISAC calendar, please contact Kelsey Sebern at [ksebern@iowacounties.org](mailto:ksebern@iowacounties.org).

### **2019 ISAC Preferred Vendors**

#### **Endorsed Elite Preferred Vendors**

County Risk Management Services, Inc.  
representing ICAP and IMWCA  
Kingston Life and Health

#### **Elite Preferred Vendor**

IP Pathways

#### **Endorsed Platinum Preferred Vendor**

Iowa Public Agency Investment Trust  
(IPAiT)

#### **Platinum Preferred Vendors**

Community State Bank  
D.A. Davidson Companies  
Election Systems & Software  
Henry M. Adkins and Son

Hopkins & Huebner, P.C.  
ISG  
MidAmerican Energy  
Northland Securities, Inc.  
Schneider Geospatial  
Tyler Technologies

#### **Endorsed Gold Preferred Vendors**

Wellmark Blue Cross Blue Shield of  
Iowa

#### **Gold Preferred Vendor**

Ahlers & Cooney, P.C.  
Cost Advisory Services, Inc.  
Delta Dental  
DEVNET, Inc.  
Dorsey & Whitney LLP  
Forecast5 Analytics  
Houston Engineering Inc.

InfoTech, Inc.  
ITC Midwest, LLC  
Matt Parrott/ElectionSource  
Purple Wave Auction, Inc.  
Speer Financial, Inc.  
The Sidwell Company  
Wells Fargo  
Ziegler CAT

#### **Silver Preferred Vendors**

Clifton Larson Allen, LLP  
Cott Systems, Inc.  
Nyhart

#### **Endorsed Preferred Vendors**

National Association of Counties  
(NACo)  
Nationwide Retirement Solutions  
Omnia Partners

## THE IPAIT DIFFERENCE... Since 1987



Knowledge.

We have long been honored to serve the investment, liquidity, and cash management needs of Iowa's public agencies.

We know how important it is to understand your needs and offer peace of mind through money market and fixed-term investments.

Safety ~ Liquidity ~ Yield



Iowa Public Agency Investment Trust | (800) 872-4024 | [www.ipait.org](http://www.ipait.org)

Call us today to let us know how we can serve you!

Sponsored by ISAC

Investment Advisory Services provided by Miles Capital, Inc.

**HOPKINS  
& HUEBNER, P.C.**  
ATTORNEYS AT LAW  
Des Moines - Adel - Quad Cities

Experienced legal counsel for Iowa's counties, cities, and other local government entities.

877-ASK-ATTY  
877-275-2889

[www.hhlawpc.com](http://www.hhlawpc.com)

# FOR ALL YOUR ELECTION NEEDS

Contact Your Election Sales Representative

**DANI DUNHAM, C.E.R.V.**

800-728-4621 EXT. 3427 | DDUNHAM@MATTPARROTT.COM



# Dorsey & Whitney

We are a proud supporter of ISAC and Iowa Counties.

Dorsey's attorneys provide specialized legal services for county financing, economic development and public health.

- Robert Josten
- John Danos
- Cris Kuhn
- Amy Bjork
- Emily Hammond
- Brian Damman
- Dave Claypool



801 Grand, Suite #4100 | Des Moines, IA 50309-2790 | (515) 283-1000



Developing  
Solutions,  
Delivering  
Results.

GIS done right.

purplewave.com

## GOVERNMENT AUCTIONS



• We market your equipment online and in your community.  
• We sell your equipment to the highest bidder

**866.608.9283 | www.purplewave.com**

## Simplify Your Cash Management & Focus On Managing Your Budget

*Building your trust by effectively managing  
your entire banking relationship.*



Member  
**FDIC** bankcsb.com

The Community State Bank  
Treasury Management Team  
offers the solutions you need  
to increase the efficiency of  
your day-to-day operations and  
maximize your profitability.

- Liquidity Management
- Receivables Management
- Payables Management
- Risk & Fraud Management
- Information Reporting
- Merchant Processing Solutions
- Business Credit Card Services

Expertise in:

- Association Financial Services
- Government & Public Funds



**Crystal Edwards**

VP Portfolio Management Officer

515-350-3448

cedwards@bankcsb.com



**Mark Rathbun**

SVP Business Development

515-249-4236

mrathbun@bankcsb.com



6903 Vista Drive  
West Des Moines, IA 50266  
[www.northlandsecurities.com](http://www.northlandsecurities.com)  
515-657-4675  
Member FINRA and SIPC  
Registered With SEC and MSRB

Helping Iowa counties  
manage debt and plan for the  
future in changing times

Competitive Bonds Sales  
Debt Refinancing  
Property Tax Impact Analysis  
Tax Increment Financing  
Financial Management Plans

Bond Underwriting  
Continuing Disclosure  
Bank Private Placement  
Referendum Assistance  
Capital Improvement Plans



Jeff Heil  
[jheil@northlandsecurities.com](mailto:jheil@northlandsecurities.com)  
641-750-5720



Michael Hart  
[mhart@northlandsecurities.com](mailto:mhart@northlandsecurities.com)  
515-657-4683



Heidi Kuhl  
[hkuhl@northlandsecurities.com](mailto:hkuhl@northlandsecurities.com)  
515-657-4684

RC 18-72 / MUNI 18-58

ROOTED IN IOWA COUNTIES

ISG  
Architecture + Engineering + Environmental + Planning

f in   
[www.is-grp.com](http://www.is-grp.com)



## Experience the ES&S Difference

Election Systems & Software is the most experienced provider of total election solutions. For more than 40 years, ES&S has remained true to our vision,

"maintain voter confidence and enhance the voting experience."

Providing our customers with trusted, quality and timely election services and products is our purpose, our promise and our passion.

Learn more about our mission by visiting our website:

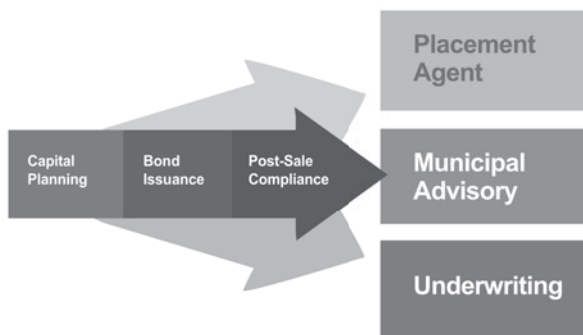
[essvote.com](http://essvote.com)



## FINANCING SOLUTIONS FOR MUNICIPAL INFRASTRUCTURE



### Project Finance: Planning Through Maturity



**D | A | DAVIDSON**

FIXED INCOME CAPITAL MARKETS  
D.A. Davidson & Co. member SIPC and FINRA

#### Scott Stevenson

Managing Director  
(515) 471-2721  
[SStevenson@dadco.com](mailto:SStevenson@dadco.com)

#### Michael Maloney

Senior Vice President  
(515) 471-2723  
[MMaloney@dadco.com](mailto:MMaloney@dadco.com)

#### Nathan Summers

Vice President  
(515) 471-2722  
[NSummers@dadco.com](mailto:NSummers@dadco.com)

#### Aaron H. Smith

Associate Vice President  
(515) 471-2720  
[ASmith@dadco.com](mailto:ASmith@dadco.com)

515 East Locust St., | Suite 200 | Des Moines, IA | (515) 471-2700 | (800) 642-5082 | [dadavidson.com](http://dadavidson.com)

# THE CAT® 12M3 MAKES THE GRADE



The Cat® 12M3 motor grader and its all-wheel-drive (AWD) counterpart not only meet EPA Tier 4 Final emission standards, but also provide improved fuel efficiency and operator comfort.

#### **COMFORT AND CONVENIENCE**

Electronic joysticks reduce hand and arm movements by 78 percent to help reduce operator fatigue and enhance productivity. The cab features a more comfortable seat with heated and ventilated options, as well as several convenient storage bins.

#### **FUEL EFFICIENCY AND EMISSIONS REDUCTION**

The 12M3 motor grader meets Tier 4 Final standards using emissions reduction technology that requires no interaction by operators. Selective catalytic reduction (SCR) utilizes diesel exhaust fluid (DEF), which can be conveniently filled from ground level while machines are fueled.

Standard economy mode (ECO) saves fuel — an average of 10 percent — by reducing engine speed, so that machines work in a more efficient range.

***Contact Ziegler CAT today to learn more about the benefits of adding the fuel-efficient Cat 12M3 motor grader to your fleet.***

**800.342.7002**

Altoona • Atlantic • Fort Dodge • Mason City • Postville • Sheldon • Sioux City

**ZIEGLER CAT**

[www.zieglercat.com](http://www.zieglercat.com)

# EMPLOYEE BENEFITS CONSULTING

- ISAC Association Health & Dental Plans
- Exclusive ISAC Life & Disability Trust
- Voluntary ISAC Worksite Benefits
- Leveraged Resources
- Claims Experience Discounts
- Wellbeing Rewards & Discounts
- Customized County Contracts
- Healthcare Analytics
- Actuarial Modeling
- Human Resources and Benefits Technology
- Dedicated Service and Support Team



Kingston Life and Health

phone: 515-223-1114 fax: 515-223-9994

1755 Westlakes Parkway, West Des Moines, Iowa 50266

web: [www.kingstonlifeandhealth.com](http://www.kingstonlifeandhealth.com)

email: [timothyj@kingstonlifeandhealth.com](mailto:timothyj@kingstonlifeandhealth.com)



**KINGSTON**  
LIFE & HEALTH

# Have you applied for the **\$1000 ICAP Safety Grant?**

**Don't leave money on the table.**

Details at [www.icapiowa.com](http://www.icapiowa.com)

**Law Enforcement Agencies are eligible  
for additional funds.**

<10 Officers	\$1,500
11-20	\$2,000
21-30 Officers	\$3,000
31-40 Officers	\$4,000
41+ Officers	\$5,000

**COUNTY RISK  
MANAGEMENT SERVICES, INC.**

*representing*

