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## **Illinois Water/Wastewater Agency Response Network (ILWARN)**

### **Seminar and Tabletop Exercise After Action Report**



**Centre of Elgin  
Elgin, Illinois**

**April 29, 2014**

**Sponsored by:** United States Environmental Protection Agency (U.S. EPA) and Illinois Water/Wastewater Agency Response Network (ILWARN)

**Additional Support from:** Illinois Section American Water Works Association (ISAWWA)

**Facilitated by:** Horsley Witten Group, Inc.

## Executive Summary

On April 29, 2014, a total of 33 representatives from Illinois drinking water and wastewater utilities, the Illinois Environmental Protection Agency (IEPA), Illinois Emergency Management Agency (IEMA), Illinois Rural Water Association (IRWA), Illinois Section American Water Works Association (ISAWWA), Rural Community Assistance Program (IL RCAP), and public officials from cities and towns across the state participated in a day-long United States Environmental Protection Agency (U.S. EPA) sponsored training event. The overall event focus was on emergency preparedness and response to incidents affecting the water sector (water, wastewater, and stormwater utilities).

The exercise design team (EDT) identified the following objectives for the Illinois Water/Wastewater Agency Response Network (ILWARN) event:

1. Involve ILWARN members and promote the benefits of joining to non-members.
2. Strengthen the relationship between ILWARN and water associations that work with smaller communities.
3. Strengthen the relationship between ILWARN and all levels of emergency management.
4. Discuss the resource request process during an ILWARN activation.
5. Discuss communication and coordination during an incident.

Participants were also asked about their expectations for the event. They identified the following items:

1. Discuss previous ILWARN responses and/or requests for assistance.
2. Allow time for participants to network.
3. Discuss interstate water sector mutual aid and assistance.

The ILWARN training event consisted of water sector specific presentations in the morning (Section 2) and a facilitated tabletop exercise (TTX) in the afternoon (Section 3). Immediately following the TTX, an improvement planning session was held to further discuss the key concepts raised during the training event (Section 4). Finally, a facilitated hotwash was conducted to encourage any additional comments from attendees regarding the achievement of the objectives for the training (Section 5). The seminar and TTX were designed to provide participants with an opportunity to learn about ILWARN capabilities, discuss resource management during a water sector incident, and identify the path forward to further develop ILWARN.

The Horsley Witten Group, Inc. (HW), a U.S. EPA contractor, will develop an Improvement Plan (IP) based on the recommendations and comments received during the event. The IP will serve as a guide to assist ILWARN in achieving its long range objectives. Both U.S. EPA and HW will be available to assist ILWARN as it works through the improvement planning process over the next nine months.

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## Acronym List

Acronym	Term
AAR	After Action Report
BCP	Business Continuity Plan
BEOC	Business Emergency Operations Center
EDT	Exercise Design Team
EM	Emergency Management
EMA	Emergency Management Agency
EMAC	Emergency Management Assistance Compact
EOC	Emergency Operations Center
EPFAT	Emergency Power Facility Assessment Tool (USACE)
FAQ	Frequently Asked Questions
FEMA	Federal Emergency Management Agency
GIS/GPS	Geographic Information System/Global Positioning System
HW	Horsley Witten Group, Inc. – U.S. EPA Contractor
ICS	Incident Command System
IEMA	Illinois Emergency Management Agency
IEPA	Illinois Environmental Protection Agency
IL RCAP	Illinois Rural Community Assistance Program
ILWARN	Illinois Water/Wastewater Agency Response Network
IDNR	Illinois Department of Natural Resources
IP	Improvement Planning
IRWA	Illinois Rural Water Association
ISAWWA	Illinois Section American Water Works Association
LEPC	Local Emergency Planning Committee
MAA	Mutual Aid and Assistance
SME	Subject Matter Expert
TTX	Tabletop Exercise
USACE	United States Army Corps of Engineers
U.S. EPA	United States Environmental Protection Agency (Federal)
WARN	Water/Wastewater Agency Response Network
Water Sector	Drinking water, wastewater, and stormwater
WIFIA	Water Infrastructure Finance and Innovation Act

## **Section 1: Introduction**

The United States Environmental Protection Agency (U.S. EPA) sponsored a one-day Illinois Water/Wastewater Agency Response Network (ILWARN) water sector (water, wastewater, and stormwater utilities) emergency preparedness and response training event hosted at the Centre of Elgin on April 29, 2014, in Elgin, Illinois. The event consisted of water sector specific presentations, a facilitated tabletop exercise (TTX), an improvement planning session, and a hotwash. A total of 33 people, representing 25 different utilities and agencies, participated in the event.

The day began with presentations on topics related to water sector preparedness and response. Representatives from public and private water sector utilities, along with response partners from emergency management (EM), county and state agencies, non-governmental organizations, and the private sector then engaged in a TTX. The TTX scenario was designed to promote a discussion of water sector preparedness for and response to heavy rain and flooding. The TTX concluded with an improvement planning session during which key issues were discussed in further detail in a small group setting. Finally, players discussed objective achievement during a hotwash.

At the conclusion of the training event, all exercise participants were asked to fill out an exercise evaluation. Each participant was presented with a personalized certificate indicating the number of training contact hours earned for his or her attendance at the event.

Refer to Appendix A for a summary of written evaluation comments and to Appendix B for a complete list of participants.

### **Seminar and Exercise Objectives**

The following objectives were established by the exercise design team (EDT):

1. Involve ILWARN members and promote the benefits of joining to non-members.
2. Strengthen the relationship between ILWARN and water associations that work with smaller communities.
3. Strengthen the relationship between ILWARN and all levels of emergency management.
4. Discuss the resource request process during an ILWARN activation.
5. Discuss communication and coordination during an incident.

Participants were also asked about their expectations for the event. They identified the following items:

1. Discuss previous ILWARN responses and/or requests for assistance.
2. Allow time for participants to network.
3. Discuss interstate water sector mutual aid and assistance.

The After Action Report (AAR) describes overall objective achievement and Section 5 includes an objective summary.

### **Presentation Topics**

The EDT selected the presentation topics and determined the overall event agenda, which can be found in Appendix C. The following presentations were given during the morning seminar and are summarized in Section 2:

- “Introduction to ILWARN” – Jim Strutz, ILWARN Chair
- “WARN Successes from other States” – Will Keefer, Horsley Witten Group, Inc. (HW)
- “Benefits of ILWARN membership for smaller communities” – Don Craig, Illinois Rural Water Association (IRWA)
- “Rural Community Assistance Program” – Bud Mason, Illinois Rural Community Assistance Program (IL RCAP)
- “Lessons learned from incidents in Illinois” – Bob Shull, City of Ottawa
- “ISAWWA and the Water Sector” – Kyla Jacobsen, City of Elgin
- “IEPA and the Water Sector” – Segundo Nallatan P.E., Illinois Environmental Protection Agency (IEPA)
- “IEMA and the Water Sector” – Edie Casella and Darryl Dragoo, Illinois Emergency Management Agency (IEMA)

### **Tabletop Exercise**

The afternoon multiagency, multijurisdictional TTX was designed to promote a discussion of the roles and responsibilities of response partners during an incident affecting the water sector. The overarching goals were to improve water sector preparedness and discuss the procedures for requesting and providing assistance through ILWARN. The key lessons learned from the TTX can be found in Section 3.

### **Improvement Planning**

At the conclusion of the TTX, participants were organized into small groups consisting of 6 – 8 people. Each group was given a discussion topic that related to an issue brought up during the TTX. Groups were asked to discuss their particular topic and to record their recommendations. Each group then selected a spokesperson to present its recommendations to the larger group. Participants were encouraged to comment on each small group presentation. Notes were taken during the improvement planning session and each group’s notes were collected for inclusion in the draft Improvement Plan (IP). A summary of the improvement planning session can be found in Section 4.

### **Hotwash**

A facilitated hotwash was conducted to encourage any additional comments from attendees regarding the achievement of objectives and participant expectations. An objective and expectation achievement summary is found in Section 5.

## Section 2: Seminar Presentations

This section provides a summary of the water sector related seminar presentations. Will Keefer of the Horsley Witten Group (HW) provided opening remarks and welcomed everyone to the event prior to the following presentations.

### **Introduction to ILWARN**

Jim Strutz, the ILWARN Chair, provided an overview of the history of the WARN initiative and explained the need for ILWARN. Since its inception in 2007, nearly 80 utility members have signed the Mutual Aid and Assistance (MAA) agreement. Additionally, there are approximately 100 associate members. WARN members cover approximately 80% of the population in Illinois. The Illinois Section of the American Water Works Association (ISAWWA), Illinois Rural Water Association (IRWA), and the Illinois Water Environment Association (IWEA) jointly support ILWARN, with the majority of the funding coming from ISAWWA.



Mr. Strutz explained that ILWARN was designed to be a network of “utilities helping utilities” whose purpose is to provide a method for utilities to receive emergency assistance in the form of personnel or equipment. ILWARN fills a gap in the Illinois Public Works Mutual Aid Network (IPWMAN), which does not cover private utilities. Visit [www.ipwman.org](http://www.ipwman.org) to find more information about IPWMAN. To date, ILWARN has successfully been used to share information among members, but has not been used to share resources during an incident.

Mr. Strutz explained the registration process and led a tutorial of the ILWARN website ([www.ilwarn.org](http://www.ilwarn.org)). He explained that members can contact other members through an email function on the website or call another member directly if they are in need of assistance. Several tutorials are available on the ILWARN website that guide members through the process of requesting assistance. Members have no obligation to provide assistance during an emergency; however, if assistance is provided, responding members should be reimbursed for their assistance or they can donate the assistance without charge. A responding member should charge for the assistance based on either Illinois Department of Transportation (DOT) rates or Federal Emergency Management Agency (FEMA) rates.

### **WARN Successes from other States**

Will Keefer provided examples of successful WARN-facilitated responses that illustrate how WARN assistance is relevant during all types of incidents, regardless of size or complexity. The examples showed how unaffected members (large and small) have helped other members. Mr. Keefer stressed the fact that these responses were successful because the WARNs had defined operational procedures prior to the incidents and the membership understood how to contact

other members. Additionally, Mr. Keefer described varying roles that steering committees have within other WARNs, as well as a number of resource management options.

### **Benefits of ILWARN membership for smaller communities**

Don Craig, Deputy Director for IRWA, discussed how his association assists rural water/wastewater utilities throughout Illinois. The primary role of IRWA is to assist rural communities in preserving water and wastewater resources through a combination of education, representation, and on-site technical assistance. In addition, IRWA offers its members access to sewer video inspection, geographic information system/global positioning system (GIS/GPS) mapping, and access to equipment. IRWA circuit riders are the “boots on the ground” who provide on-site technical assistance during incidents such as the November 2013 tornado that caused major destruction in the towns of Gifford and Washington. IRWA has been supportive of ILWARN from the beginning, but ILWARN includes members from all public works departments, and IRWA focuses on meeting the needs of smaller water and wastewater systems (population served < 10,000). Mr. Craig explained that ILWARN and IRWA are complementary and IRWA actively promotes the benefits of smaller utilities being a signatory to ILWARN. Representatives of ILWARN and IRWA will continue to discuss how ILWARN can be used to meet the needs of smaller communities.

### **Rural Community Assistance Program**

Bud Mason, Illinois State RCAP Coordinator, discussed how his association assists underserved, rural populations in developing and maintaining community infrastructure to improve the quality of life through partnership with public and private organizations. IL RCAP provides technical assistance to address drinking water, wastewater, and community development needs.

Mr. Mason described the response to the Formosa Plastics plant vinyl chloride explosion on April 23, 2004. The explosion at the plant killed five workers. Many surrounding communities and associations, including his own, provided mutual aid to the town during the incident. He also described the importance of the partnerships between ILWARN, IL RCAP and IRWA.



### **Lessons learned from incidents in Illinois**

Bob Shull, Director of Public Works for City of Ottawa, discussed the city’s preparedness and response to record flooding in April 2013. The city received 5 inches of rain in a four-hour period on April 18, 2013. Over 500 homes and businesses were flooded and the wastewater treatment plant flooded due to the heavy rain combined with a weir system malfunction. During the incident, the city utilized their Flood Warning System, which includes public notifications through a Reverse 911 system, social media, radio and cable television. The city



was fortunate that an even larger disaster did not occur as several barges crashed into the Marseilles Lock and Dam just upstream on the Illinois River from Ottawa.

Prior to the predicted flooding, the city received donations of sandbags from a private company and enlisted the help of volunteers to place the sandbags around the perimeter fence of the wastewater plant. Mr. Shull said that the city documented all the volunteer assistance and included this information in its application for FEMA reimbursement.

Mr. Shull shared the following lessons learned from the incident with the group:

- Check the integrity of your dykes and floodwalls – muskrat holes were discovered in the dykes around the wastewater treatment plant;
- Verify that there are no open conduits into the walls of your plants – several of these allowed floodwaters into the wastewater treatment plant;
- Always follow unity of command – in several instances; multiple people were trying to give instructions to utility staff during the incident;
- Become a member of ILWARN – the City of Ottawa did not utilize ILWARN, but in retrospect, it should have put out a request for assistance;
- Hire a certified floodplain manager – creates an emphasis on mitigation and can lead to lower overall insurance costs; and
- Document all flood losses as soon as possible after an incident.

The City's advanced planning, based on lessons learned from a 2008 flood, reduced its overall damage costs by 50%.

### **ISAWWA and the Water Sector**

Kyla Jacobsen, the City of Elgin Utilities Director and ISAWWA Director, shared information about the benefits of ISAWWA membership. ISAWWA offers a wide variety of training and certification opportunities, as well as networking events throughout the year. ISAWWA and the national AWWA are heavily involved in lobbying efforts on behalf of their membership. Currently, they are lobbying on behalf of the Water Infrastructure Finance and Innovation Act (WIFIA), which is an innovative federal loan program (modeled after a similar transportation bill) that could help meet critical water infrastructure needs nationwide with a minimal budgetary impact. Visit <http://www.awwa.org/portals/0/files/legreg/documents/wifia.pdf> for more information about WIFIA.

### **IEPA and the Water Sector**

Segundo Nallatan, P.E., Elgin Regional Manager for the IEPA Public Water Supplies Division, discussed the role of IEPA in Illinois. The mission of the IEPA is to safeguard environmental quality to protect health, welfare, property and the quality of life. During and after an incident IEPA mainly assists utilities by:

- Providing guidance to water suppliers;
- Protecting water sources and treatment plants from flood waters; and
- Establishing a plan for recovery after a disaster (e.g., advising on disinfecting water mains, boil order protocol, lab testing required to assure water is safe).

Mr. Nallatan explained that IEPA has representatives at both local and state Emergency Operations Centers (EOCs) during emergencies.

### **IEMA and the Water Sector**

Edie Casella and Darryl Dragoo from IEMA led a discussion of their agency's role in coordinating the state's response to and recovery from disasters. Mr. Dragoo led the participants in a "Know, Don't Know, Think" activity to utilize when planning for disasters. Utilizing a tornado scenario, participants were asked to identify:

- What they know will happen (e.g., power outages, staff shortages, debris);
- Don't know or unsure of (e.g., resources that might be needed); and
- Think when they hear about this type of incident (e.g., how bad was it, was there any loss of life).



IEMA wants to know what the likely water/wastewater critical needs are after an incident. Mr. Dragoo noted that under most circumstances emergency management's response to a water or wastewater incident is to provide bottled water and portable toilets. He also explained that IEMA relies on the Illinois Department of Natural Resources (IDNR) flood inundation mapping to determine at what level floods will affect water/wastewater infrastructure. Mr. Dragoo recommended that utilities work with IDNR to verify that their own information is consistent.

Mr. Dragoo also described ongoing coordination between IEMA and ILWARN. IEMA envisions that ILWARN could act as a Subject Matter Expert (SME) during incidents. IEMA could contact ILWARN for advice, technical assistance, or to share resource needs with their membership. Mr. Dragoo also described the different IEMA sections and their roles during planning and response.

Ms. Casella described public-private partnerships and the Business Emergency Operations Center (BEOC). The BEOC coordinates information available through the private sector with disaster recovery operations. ILWARN has a representative in the BEOC.

Finally, Mr. Dragoo led the participants in a final "Know, Don't Know, Think" activity with a large water main break as the scenario.

## Section 3: Tabletop Exercise Overview

Will Keefer of HW served as the exercise facilitator and Carl Simons acted as the exercise recorder. Each participant received a situation manual that provided an overview of the TTX (e.g., objectives, rules, roles) and included an appendix with U.S. EPA's "Policy Clarifications on the Eligibility of Water and Wastewater Utility Projects for FEMA's Public Assistance and Hazard Mitigation Assistance Grant." The TTX utilized a severe weather/flooding scenario that allowed participants to discuss water sector response to the cascading weather incidents. While the TTX utilized a specific scenario, participants were encouraged to discuss preparedness and response from an all hazards perspective. The flooding scenario is described in Appendix D.

The TTX scenario was developed through a series of injects that were presented to all the participants simultaneously through a PowerPoint presentation. The injects were designed to spark discussion relating to the exercise objectives. The facilitator asked leading questions to prompt discussion among the participants. A complete list of the injects used during the TTX is provided in Appendix E.



### **Key Lessons Learned**

The following participant comments collected during the TTX have been identified as key lessons learned that support the overall event objectives and are included in the ILWARN IP:

- Continued and varied outreach to rural utilities is needed to encourage them to become ILWARN members.
- ILWARN members need to develop strong relationships with their emergency management partners, specifically they need to share their potential resource needs as part of all-hazards planning in their communities.
- ILWARN members need refresher training on how to request resources and respond to incidents through ILWARN.
- IEMA and ILWARN should finalize their emergency response relationship.
- ILWARN should find ways to proactively reach out to its members.

### **General Lessons Learned and Observations**

Additional lessons learned and observations that were captured during the TTX are organized below into the following categories: Preparedness, Coordination, Resource Sharing, Communication, and Other. Discussion topics under each category are not listed in any priority order.

#### *Preparedness*

- Most utilities represented believe that they have a good relationship with their local emergency manager.

- Some utility personnel stay at their plant when flooding is forecasted, as travel may be restricted due to washed out roads. Some have even sheltered their families with them at the plant. One operator stayed at his plant for 11 days during a previous flooding incident.
- Although many Illinois communities have experienced water and wastewater outages due to flooding, it is the consensus of the participants that their customers are not very prepared for outages. Each community should continue their outreach, possibly through public service announcements or pamphlets.
- Utility personnel should be briefed regularly prior to a forecasted storm so they are aware of any specific advisories that may impact or change normal schedules and/or responsibilities.
- Utilities should develop a Business Continuity Plan (BCP) which outlines key positions and their orders of succession. There is a possibility that utility personnel affected by an incident will be unable to come to work thus reducing workforce availability. Guidance on developing a BCP can be found at: <http://collab.waterrf.org/Workshops/BCP/default.aspx>.
- Utilities should develop checklists of important tasks that need to be completed prior to and after severe weather/flooding (e.g., fill tanks, test generators, clean catch basins, conduct damage assessments, check on staff, reopen access roads).
- Preplan likely resource (e.g., equipment, personnel) needs after an incident and then determine options for getting that assistance.
- Utilities should conduct an assessment of their overall electrical needs to determine whether they have enough generator capacity. This can be done through the U.S. Army Corps of Engineers (USACE) Emergency Power Facility Assessment Tool (EPFAT) which is available at: <http://epfat.swf.usace.army.mil>. In addition, many electrical providers can provide this service. CoWARN has created an Emergency Electrical Power Survey, which is available on their website: (<http://www.cowarn.org/news.aspx?id=26>).
- Most participating utilities have worked with their electrical providers to ensure that they are high on the priority list for power restoration after an outage.

### *Coordination*

- ILWARN representatives continue to meet with IEMA to build and define their relationship.
- During an incident, IEPA shares information collected regarding the status of water sector utilities with other agencies in the state.
- Most Illinois water sector agencies and associations have associate member status with ILWARN. Associate members receive an email if there is a request posted on the ILWARN website.
- It is important for utilities to reach out to their emergency response partners to build a relationship. The U.S. EPA developed the “Coordination of the Water and Emergency Services Sectors: An Important Step to Better Response,” which describes the benefits of water sector and emergency management coordination. The document is available at <http://water.epa.gov/infrastructure/watersecurity/emmerplan/upload/epa817k12001.pdf>

- Some water utilities hold yearly exercises that involve their response partners.
- Utilities are required to have spill response plans. In the event of a spill or bypass, utilities are required to contact their upstream and downstream neighbors. IEPA will also contact upstream and downstream utilities.
- Utilities should share resource needs with their local emergency management agency (EMA), as well as ILWARN, during an incident. Although a utility may not need assistance from EM, it is important to provide the information for situational awareness.
- A Utility Director represents most utilities in their local EOC and personnel in the field will provide updates during an incident.
- Many utilities represented at the event send representatives to their Local Emergency Management Planning Group, which is similar to a Local Emergency Planning Committee (LEPC). LEPCs hold regular meetings to discuss “all hazards” planning in their communities.
- Utilities should determine if their local EMA has additional communications systems (e.g., radios, Reverse 911) that might be available during an incident.
- The Illinois State Police usually manages the credentialing process during a large incident. Credentialing and the water sector will be a topic of discussion during the Central United States Earthquake Consortium (CUSEC) June 2014 Capstone Exercise. Visit <http://www.cusec.org/plans-a-programs/multi-state-planning/173> for more information about the Capstone Exercise.

### *Resource Sharing*

- An ILWARN member has the ability to make resource requests through the ILWARN website or by calling a Steering Committee at 1-888-ILWARN1. A steering committee member will post the request on the website and send the request to all members. If the internet is down, the request will be shared through a Reverse 911 call to all utilities that have provided their contact information and signed the MAA agreement.
- There are tutorials on the ILWARN website that describe how to request resources via email.
- There are forms available on the ILWARN website for members to use when requesting or providing resources.
- ILWARN members should inventory their resources.
- ILWARN can provide short-term assistance to fill the gap prior to the arrival of state or federal resources (if applicable) and/or contractors.
- ILWARN can be used for any type of emergency from a regional incident (e.g., tornado, flooding) to a local incident (e.g., water main break).
- ILWARN members are under no obligation to provide resources during an incident and responding utilities can recall their resources at any time.
- Some ILWARN members have certified laboratories and could analyze samples for another utility during an emergency.
- Utilities should be very specific when requesting resources to ensure that they get what they need.
- A requesting utility must inform all member utilities of filled resource requests to avoid a duplication of effort. There is a form available on the website for this action.

- Most participants believe that it would be tough to bring in an operator through mutual aid to run their plant, but such a person could take samples or assist other trained operators.
- Illinois utilities are not required to provide their customers with alternate water (e.g., water tankers, bottled water).
- Utilities should send appropriately trained operators (e.g., generator with an electrician, backhoe with an operator) when they loan out equipment.
- Utilities should provide damage assessments to their local EM after an incident, as jurisdictions must meet financial thresholds to be eligible for state and FEMA reimbursement.

### *Communication*

- Utilities should have redundant forms of communication to be able to rely on more than cell phones during an incident. Most utilities represented have company-wide radio systems (e.g., 800 MHz).
- A recommended communications planning resource is “Developing Risk Communication Plans for Drinking Water Contamination Incidents” which is available at: <http://water.epa.gov/infrastructure/watersecurity/lawsregs/upload/epa817f13003.pdf>.
- Amateur radio operators are available through Amateur Radio Emergency Services/Radio Amateur Civil Emergency Services (ARES/RACES) to set up emergency communications.
- Utilities should sign up for the following telecommunication services which greatly increase the probability of call completion during an incident and the priority reestablishment of services:
  - Government Emergency Telecommunications Service (GETS) (<http://www.dhs.gov/government-emergency-telecommunications-service-gets>);
  - Wireless Priority Service (WPS) (<https://www.dhs.gov/wireless-priority-service-wps>); and
  - Telecommunications Service Priority (TSP) (<http://www.dhs.gov/telecommunications-service-priority-tsp>).

### *Other*

- Utilities that have gone through a declared disaster discussed the importance of documenting incident response actions (e.g., checklist, photos) so the information can be included in damage assessments, which are a critical part of the FEMA reimbursement process.
- ILWARN is a FEMA recognized MAA agreement, but FEMA does not recognize “handshake” or other informal MAA agreements for reimbursement.
- U.S. EPA’s web tool, Federal Funding for Utilities – Water/Wastewater – in National Disasters (Fed FUNDS) (<http://water.epa.gov/infrastructure/watersecurity/funding/fedfunds/index.cfm>), was discussed as a means to learn about pre and post disaster funding opportunities, as well as a location to access damage assessment forms.

## Section 4: Improvement Planning

At the conclusion of the TTX, participants engaged in an IP session in order to identify key objectives to further develop and improve ILWARN. For this session, participants were organized into small groups and were given discussion topics that were based on the lessons learned and recommendations brought up during the training event. The discussion topics were as follows:

1. What can ILWARN do to promote membership to rural utilities?
2. What can ILWARN do to foster a stronger relationship with local and state emergency management?
3. What additional training should ILWARN encourage (e.g., ICS/NIMS, exercises, technical training)?
4. What kind of public outreach should utilities be conducting in their community?
5. How can utilities build a stronger relationship with their interdependent utilities (e.g., Health, Power Utilities, Fire, Police, others)?
6. What can ILWARN do to be more proactive during an incident?

The small group discussions, as well as discussions held throughout the training event, were successful in identifying the following five IP objectives and corresponding suggestions to accomplish them:

1. ILWARN should promote membership benefits to rural utilities and recruit new members.
  - Have an ILWARN presentation at an IRWA or RCAP conference.
  - Develop a Frequently Asked Questions (FAQ) document, geared toward rural utilities, that answers questions and dispels myths about ILWARN.
  - Continue to build the relationship with IRWA and IL RCAP.
  - Continue to have Illinois water sector associations promote ILWARN to their membership.
  - Discuss the importance of ILWARN with the Illinois Municipal League (<http://www.iml.org/>) and present at future conferences.
  - Build a stronger relationship with IEPA.
  - Ask current ILWARN members to reach out to non-members in their area.
  - Create a FAQ document that describes the difference between IPWMAN and ILWARN.
  - Include an article about ILWARN in a state water association magazine or newsletter.
2. ILWARN should continue to develop their relationship with IEMA and encourage member utilities to build a relationship with emergency management at the local level.
  - Define and clarify the role of ILWARN as an SME for IEMA.
  - Encourage ILWARN members to participate in response partner drills and exercises.
  - Encourage ILWARN members to discuss having a seat at their local EOC.

- Add county EMA contact information to the ILWARN website (<http://www.iema.illinois.gov/iema/contacts/contacts.htm>).
  - Include an ILWARN presentation at a future Illinois Emergency Management Agency or Illinois Emergency Services Management Association (IESMA) conference ([www.iesma.org](http://www.iesma.org)).
3. Discuss and exercise ILWARN as part of water sector training throughout the state.
- Discuss the possibility of a communications exercise (e.g., test requests sent via email or phone call).
  - Hold a webinar to explain the process of how to request and respond to incidents through ILWARN.
  - Hold a webinar to explain resource typing.
  - Use the email feature of the ILWARN website to regularly share information with members.

The EDT, with the assistance of HW and U.S. EPA, will conduct follow-up meetings (i.e., conference calls) to discuss these IP recommendations. During these follow-up calls, the EDT will work to develop a schedule for implementing improvements. Some IP recommendations may be completed during this nine-month period, while other recommendations may take longer.

The approximate timing for these meetings is as follows:

3-month Follow-Up Meeting (Conference Call)	<i>July 2014</i>
6-month Follow-Up Meeting (Conference Call)	<i>October 2014</i>
9-month Follow-Up Meeting (Conference Call)	<i>January 2015</i>

Although the calls will be tentatively scheduled for three, six, and nine months after the training event, it is up to ILWARN to determine whether all three calls are necessary. The coordination calls are designed to assist ILWARN with the IP process.

## Section 5: Hotwash/Event Objective Summary and Conclusion

A facilitated hotwash was conducted to encourage any additional comments from attendees regarding the achievement of the objectives and expectations for the training. Listed below are the five overall objectives for the event with an objective achievement summary:

1. Involve ILWARN members and promote the benefits of joining to non-members.

The training event attracted representatives from current ILWARN member utilities and from non-member utilities. Participants heard many different perspectives as to why ILWARN membership was beneficial to their utilities. In addition, the ILWARN Chair led participants through a website tutorial. This included a question and answer period to make sure the participants understood the basic processes. Participants ultimately came away with information and answers to membership questions that they could bring back to their utilities/jurisdictions.

2. Strengthen the relationship between ILWARN and water associations that work with smaller communities.

Both the IRWA and IL RCAP gave presentations during the ILWARN seminar. In general, many rural utilities are reluctant to sign onto a formal agreement when they are already involved in handshake agreements that have been sufficient thus far. IRWA circuit riders routinely promote the benefits of a formal MAA agreement like ILWARN, but it has been tough to convince many rural utilities to join ILWARN. ILWARN representatives will continue to work with both IRWA and IL RCAP to recruit rural utilities.

3. Strengthen the relationship between ILWARN and all levels of emergency management.

Jim Strutz (ILWARN) and Darryl Dragoo (IEMA) continue to discuss how IEMA can leverage the information and resources that are available through ILWARN. IEMA envisions that ILWARN could serve as a SME during water sector incidents and IEMA could ask ILWARN to relay requests for assistance to their membership. IEMA will continue to discuss ILWARN and promote ILWARN to local EM as well.

4. Discuss the resource request process during a WARN activation.

Jim Strutz discussed ILWARN and led an overview of the ILWARN website. To date, ILWARN has not been used to facilitate a response in Illinois, although it has been used to share information. ILWARN developed an Operational Plan and several tutorials, which are available on the website, but it would be helpful to hold a webinar or regular training to make sure all members understand the steps to request assistance through ILWARN.

5. Discuss communication and coordination during an incident.

Jim Strutz's "ILWARN Introduction" presentation described the overall process for requesting and providing resources during an incident. In addition, the website tutorial

included a step-by-step process of how a resource request is made through the ILWARN website. The step-by-step process is only a guide and a resource request may only involve making a phone call to another utility member. The ILWARN Steering Committee should discuss a communications exercise to make sure contact information is up-to-date.

Listed below are the three participant expectations for the event with an achievement summary:

1. Discuss previous ILWARN responses and/or requests for assistance.

ILWARN has never been used to facilitate a response to an incident in Illinois. At this time it has only been used to share information. Jim Strutz showed several examples of the information shared on the ILWARN website during his tutorial.

2. Allow time for participants to network.

The event included several opportunities for participants to network and share experiences.

3. Discuss interstate water sector mutual aid and assistance.

HW shared how the U.S. EPA is sponsoring interstate WARN workshops in different regions of the country. Water sector resources have been shared during previous Emergency Management Assistance Compact (EMAC) responses. For example, the response to Superstorm Sandy in October 2012 included an EMAC deployment of generator assets from DC Water to support utility requests in New Jersey. However, obstacles to the water sector's use of EMAC remain. Some of the important discussion topics related to interstate MAA include:

- How can EMAC be used and what are the benefits and challenges with this system?
- Does state law allow or prohibit public utilities from entering into interstate agreements?
- Are there indemnification, worker's compensation, liability or license reciprocity issues?
- Are there similar interstate mutual aid networks in other sectors that could be used as a model for water sector interstate MAA?

After the hotwash, participants filled out an evaluation form. Of the 33 participants, 16 filled out the forms. Participants rated the overall training using a scale of 1-5 (1=Strongly Disagree, 3=Agree, and 5=Strongly Agree). When asked whether the seminar and TTX was a valuable use of their time, the average score was 4.3. Average scores for the other questions, written evaluation comments, and a detailed compilation of participant evaluations can be found in Appendix A.

The April 29, 2014, ILWARN event succeeded in bringing together a number of ILWARN members, non-members, and response partners to achieve the goals and objectives set forth by the EDT and participants agreed that it was a valuable use of their time. The training event provided the opportunity for many of the participants to meet as a group for the first time, evaluate their current capabilities, become more comfortable with each other's roles and responsibilities, and identify opportunities for enhancing ILWARN. Follow-up IP will be

conducted to discuss objectives defined during the event. The U.S. EPA and HW will be available to assist ILWARN as it works through the IP process.

## Appendix A: Evaluation Summary

**A total of 16 participants turned in evaluations which are summarized in the following tables.**

	<b>Strongly Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
	(1	2	3 4 5)
	<b><u>Average*</u></b>		
1. The seminar and tabletop exercise (TTX) were well structured and organized.			<b>4.2</b>
2. The event provided an opportunity to promote the benefits of being a member of ILWARN.			<b>4.3</b>
3. The event provided an opportunity to involve both ILWARN members and non-members.			<b>4.6</b>
4. The event helped strengthen and refine the relationship between Illinois water/wastewater utilities and all levels of emergency management.			<b>3.9</b>
5. The event provided an opportunity to discuss the resource request process during an ILWARN activation.			<b>4.4</b>
6. The event provided an opportunity to discuss communication and coordination during an incident.			<b>4.1</b>
7. The event provided an opportunity to identify potential gaps in planning at your own agency.			<b>4.4</b>
8. Overall, the event was a valuable use of my time.			<b>4.3</b>

**ILWARN Event Participant Evaluation Responses (April 2014)**

<b>Question 1</b>	<b>The seminar and Tabletop Exercise (TTX) were well structured and organized.</b>	<b>1-Strongly Disagree</b>	<b>2</b>	<b>3- Agree</b>	<b>4</b>	<b>5-Strongly Agree</b>
		0	0	3	7	6
<b>Question 2</b>	<b>The event provided an opportunity to promote the benefits of being a member of ILWARN.</b>	<b>1-Strongly Disagree</b>	<b>2</b>	<b>3- Agree</b>	<b>4</b>	<b>5- Strongly Agree</b>
		0	1	0	8	7
<b>Question 3</b>	<b>The event provided an opportunity to involve both ILWARN members and non-members.</b>	<b>1-Strongly Disagree</b>	<b>2</b>	<b>3- Agree</b>	<b>4</b>	<b>5- Strongly Agree</b>
		0	0	1	5	10
<b>Question 4</b>	<b>The event helped strengthen and refine the relationship between Illinois water/wastewater utilities and all levels of emergency management.</b>	<b>1-Strongly Disagree</b>	<b>2</b>	<b>3- Agree</b>	<b>4</b>	<b>5- Strongly Agree</b>
		0	1	5	4	6
<b>Question 5</b>	<b>The event provided an opportunity to discuss the resource request process during an ILWARN activation.</b>	<b>1-Strongly Disagree</b>	<b>2</b>	<b>3- Agree</b>	<b>4</b>	<b>5- Strongly Agree</b>
		0	0	2	5	9
<b>Question 6</b>	<b>The event provided an opportunity to discuss communication and coordination during an incident.</b>	<b>1-Strongly Disagree</b>	<b>2</b>	<b>3- Agree</b>	<b>4</b>	<b>5- Strongly Agree</b>
		0	1	3	6	6
<b>Question 7</b>	<b>The event provided an opportunity to identify potential gaps in planning at your own agency.</b>	<b>1-Strongly Disagree</b>	<b>2</b>	<b>3- Agree</b>	<b>4</b>	<b>5- Strongly Agree</b>
		0	0	2	5	8
<b>Question 8</b>	<b>Overall, the seminar and TTX were a valuable use of my time.</b>	<b>1-Strongly Disagree</b>	<b>2</b>	<b>3- Agree</b>	<b>4</b>	<b>5- Strongly Agree</b>
		0	1	1	6	8

**Comments**

(Comments are not listed in any priority order.)

1. I would recommend actually going through a sample request for aid, response for aid on the ILWARN website.
2. You should maybe try to have more tabletop exercises subsidized by the federal government next year with AWWA.
3. Get more cities/villages to attend.
4. Had never heard of ILWARN until the email/advertisement last month. Don't believe any of my area facilities have either.

## Appendix B: List of Participants

Count	Name	Agency
1	Greg Boulnois	City of Elgin
2	William John Brink	Bloom Township 206
3	Edie Casella	Illinois Emergency Management Agency
4	Jim Chang	City of Highland Park
5	Kevin Cheatom	N/A
6	Kevin Conover	Clark Edgar Rural Water District
7	Don Craig	Illinois Rural Water Association
8	Kevin Culver	Aqua Illinois
9	Korrie Davis	City of Marquette Heights
10	Darryl Dragoo	Illinois Emergency Management Agency
11	Reed Dring	Metropolitan Water Reclamation District of Greater Chicago
12	Carolyn Grieves, P.E.	Baxter & Woodman, Inc.
13	Larry Hake	City of Sandwich
14	Tom Hoffman	City of Woodstock
15	Kyla Jacobsen	City of Elgin
16	Michael Lake	Village of Dolton
17	Scott Lasken	Village of Hoffman Estates
18	Ricky Lester	City of Woodstock
19	Bud Mason	Illinois Rural Community Assistance Program
20	Segundo Nallatan	Illinois Environmental Protection Agency

<b>Count</b>	<b>Name</b>	<b>Agency</b>
21	Angela Podesta	Illinois Section American Water Works Association
22	Jeff Pruski	City of Sandwich
23	Mike Pubentz	Village of Montgomery
24	Byron Ritchason	City of Batavia
25	Edward Santen	Village of Indian Head Park
26	Bob Shull	City of Ottawa
27	David Stoiser	N/A
28	Juana Stoiser	Village of Bloomingdale
29	Jim Strutz	ILWARN
30	Robert VanGyseghem	City of Geneva
31	Eric Weiss	City of Elgin
32	Haileng Xiao	Village of Hoffman Estates
33	Larry Yuknis	Village of Glenwood

## **Appendix C: Seminar and Tabletop Exercise Schedule**

8:00 a.m. – Check-In

8:30 a.m. – Welcome and Introduction to event

8:50 a.m. – “Introduction to ILWARN”  
Jim Strutz, ILWARN Chair

9:10 a.m. - “WARN Successes from other States”  
Will Keefer, Horsley Witten Group

9:30 a.m. – “Benefits of ILWARN membership for Smaller Communities”  
Don Craig, Illinois Rural Water Association

10:00 a.m. – Break

10:15 a.m. – “Illinois RCAP”  
Bud Mason, Illinois Rural Community Assistance Partnership

10:30 a.m. - “Lessons Learned from Incidents in Illinois: Ottawa Wastewater Treatment Plant”  
Bob Shull, City of Ottawa

10:45 a.m. – “ISAWWA and the Water Sector”  
Kyla Jacobsen, City of Elgin

11:00 a.m. – Break

11:15 a.m. - “Illinois EPA and the Water Sector”  
Segundo Nallatan, P.E., Illinois Environmental Protection Agency

11:30 a.m. – “IEMA and the Water Sector”  
Presenter: Edie Casella and Darryl Dragoo, Illinois Emergency Management Agency

12:00 p.m. – Lunch

1:00 p.m. – Tabletop Exercise Overview, Objectives, and Ground Rules

1:15 p.m. – Scenario Discussion

2:30 p.m. – Break

2:45 p.m. – Scenario Discussion

3:30 p.m. – Improvement Planning Session

4:00 p.m. – Hotwash Session

4:15 p.m. – Evaluations and Closing

4:30 p.m. – Adjourn

## Appendix D: Tabletop Exercise Synopsis

### Scenario Narrative

**Date:** Monday, March 12<sup>th</sup>

**Time:** 1100 a.m.

The National Weather Service has issued a Severe Thunderstorm Watch for much of Illinois. A strong cold front is expected to pass through in the next 48 hours. Forecasters are predicting severe thunderstorms with heavy rain, gusty winds and the risk of hail. Up to 5 – 15 inches of rain is possible in some areas.



## Appendix E: Tabletop Exercise Injects

The following injects were provided to the participants during the TTX:

- **March 13<sup>th</sup> (4:00 p.m.):** Severe thunderstorms with heavy rain are continuing to affect many areas of the state. Flash flood warnings have been issued
- **March 14<sup>h</sup> (6:00 a.m.):** As a result of the continuous rain and flooding across the state, many communities are experiencing intermittent power, unreliable communication due to downed power lines, and flooded roads which is making travel difficult.
- **March 14<sup>th</sup> (9:00 a.m.):** ILWARN members have made requests for qualified operators, water distribution repair, and have requested portable generators.
- **March 14<sup>th</sup> (10:00 a.m.):** Utility workers in many areas have called into work saying that they are having problems getting around due to impassable roads and public safety road blocks.
- **March 14<sup>th</sup> (11:00 a.m.):** Many utilities are receiving complaints from customers who say that they have no pressure or their water is discolored. Other customers are complaining of sewage backing up in their homes.
- **March 14<sup>th</sup> (1:00 p.m.):** The State EOC and several county EOCs are fully staffed and inundated with requests for assistance from across the state. They want to know what resources have been provided through mutual aid, as they have been receiving requests for utility resources and do not want to duplicate efforts.
- **March 15<sup>th</sup> (8:15 a.m.):** A utility must recall the resources (personnel and equipment) that they loaned out due to incidents in their jurisdiction. In some cases, those resources are still needed at the requesting utility. In the affected area, personnel are worn out from working under emergency conditions and will need to be replaced.
- **March 16<sup>th</sup> (2:00 p.m.):** It is likely that this incident will be declared a federal disaster, opening the way for federal funding. Damage assessment teams are requesting cost estimates from all sectors. How are costs being tracked at your utility?
- **Long Term Issue:** Water and wastewater utilities have restored safe distribution/collection and have lifted advisories, but there are renewed public concerns about the safety of their water supply.

## Appendix F: Improvement Planning Matrix

The ILWARN EDT will use the matrix below to identify priority actions/tasks/follow-up requirements and assign responsibilities for each. Improvement planning objectives were identified as result of the discussions during the event and the improvement planning matrix will be populated during the improvement planning conference calls which will occur at regular intervals after the event. HW and U.S. EPA will assist in the development of the IP.

Action/Task/ Follow-up	Responsible Individual or Agency	People Who Should Be Involved	Resources and Possible Sources	Short Term Activity	Long Term Activity