



Iowa Flood Center / University of Iowa IWA Support Services for Counties and WMAs

October 2016

Iowa Flood Center: Hydrologic Assessment

- Outline trends and hydrologic conditions at the full watershed scale
 - Including hydrology, geology, topography, land use, hydrologic/meteorologic instrumentation, and summary of previous floods on record
 - Will collaborate with watershed partners to utilize existing watershed data
- Develop a hydrologic model to understand the effect existing conservation practices have on flooding and water quality in the watershed
- Identify areas with high runoff potential
- Run simulations to investigate the potential impact of additional flood mitigation strategies
- Consult with WMAs on selecting subwatersheds to begin implementing practices to reduce flooding and improve water quality
- Attend quarterly WMA meetings to share updates on hydrologic assessment work, data collection, and the evaluation of built projects
- Interpret results from the hydrologic assessment to include in the Watershed Management Plan
- Provide information to the entity developing the Watershed Management Plan

Iowa Flood Center/IIHR—Hydroscience & Engineering: Hydrologic Network

- IFC will deploy a hydrologic network of monitoring stations with rain gauges, soil moisture and temperature probes, and shallow groundwater wells in each target watershed
 - Data will be made available on the Iowa Flood Information System (IFIS) at <http://ifis.iowafloodcenter.org/ifis/en/>
- IIHR will deploy water quality sensors that measure nitrate loads
 - Data will be made available on the Water Quality Information System (IWQIS) at <http://iwqis.iowawis.org/>
- Develop a new information system based off the IFIS/IWQIS platform to visualize hydrologic and water-quality data and to share watershed information specific to the IWA
- Provide real-time data
 - IFC and IIHR sensors will transmit data every 10-15 minutes and information is made available to the public
- Assist with pre and post construction monitoring
 - Data collected will support the development of the hydrologic models used to determine the best locations for implementing practices and will evaluate the success of these practices
- Provide necessary maintenance for sensors for the duration of the IWA project
- Utilize data collected to understand varying hydrologic conditions that influence the models
- Provide relevant data and information to the entity developing the Watershed Management Plan



University of Iowa: Flood Resilience Program

- Develop a flood resilience framework that can be tailored to the specific needs in each watershed
- Partner with organizations in target watersheds to increase flood resiliency that will benefit the local communities, and particularly low to moderate income (LMI) community members
 - Engage Community Action Programs to leverage existing organizational capacity building platforms to incorporate flood resilience programming
- Share updates about the Flood Resilience Program at quarterly meetings
- Facilitate activities to help communities prepare for, respond to, recover from, and adapt to floods
 - Implementation of educational programs to increase flood resilience
- Collect baseline data regarding each watershed's local network connectivity, vision of flood resilience, and their flood resilience status to guide WMAs on their Flood Resilience Action Plans
- Develop a Flood Resilience Action Plan tailored to each watershed to help guide future priorities and decision-making
- Incorporate flood resilience into flood modeling systems

Iowa Flood Center: Outreach and Education

- Develop and maintain a website and social media for the IWA
 - <http://www.ihr.uiowa.edu/iwa/>
- Send out quarterly e-newsletter to share IWA project updates across all watersheds
- Assist with outreach and communications, including organizing meetings, events, interacting with media, and serving as a knowledgeable and reliable contact for IWA watershed partners to ask questions and seek guidance
- Work with IWA partners to plan, organize and facilitate quarterly WMA Advisory Board meetings that will include bringing together representatives from each WMA to review IWA progress and strategize common challenges
- Work with IWA partners to plan, organize, and facilitate at least two specialized trainings for the watershed coordinators each year
- Promote and engage in IWA events organized by partners (i.e. ISU, UNI-TPC)
- Deliver educational content to the WMAs
- Interpret existing data available through IFIS and IWQIS
 - The 100-year and 500-year Iowa draft flood hazard maps available at <http://www.iowafloodmaps.org>
 - Iowa flood risk management maps show areas likely to experience scour during major flood events are available at <http://ifis.iowafloodcenter.org/ifis/newmaps/risk/map/>

For questions or additional information, please contact Breanna Shea, IWA Outreach Coordinator, at breanna-shea@uiowa.edu or at 319-384-1729.