

Iowa Watershed Approach: Year 1 Evaluation Activities Report Executive Summary

September 30, 2017

As submitted to:

Larry Weber, IWA Principal Investigator; the Iowa Economic Development Authority; and the
U.S. Department of Housing and Urban Development

Valerie R.M. Decker, M.A., Assistant Director and
Julie M. Kearney, M.A., Associate Director

Center for Evaluation and Assessment
The University of Iowa
Iowa City, IA 52242
valerie-decker@uiowa.edu
julie-kearney@uiowa.edu

The Iowa Watershed Approach is supported by a contract to the State of Iowa (Iowa Economic Development Authority (IEDA) as fiscal agent) from the United States Department of Housing and Urban Development, National Disaster Resilience Competition. Under the auspices of a sub-contract between the IEDA and the University of Iowa, The University of Iowa Center for Evaluation and Assessment is conducting the program evaluation supported by funds from the Community Development Block Grant- National Disaster Resilience Contract # 13-NDRP-013. This report covers IWA work conducted from first notice of funding in January 2016 to August 15, 2017.

COPYRIGHT: Center for Evaluation and Assessment, 2017

Table of Contents

Acronyms Used in this Report	2
IWA Evaluation Plan	6
Methods	6
Executive Summary	7

Acronyms Used in this Report

[Acronyms may not all appear in the body of this report, but may appear in material contained in an appendix.]

BBHHRP: Bee Branch Healthy Homes Resiliency Program

BMP: Best Management Practices

BOS: Board of Supervisors

CAP: Community Action Programs

CCWC: Clear Creek Watershed Coalition

CDI: Conservation Districts of Iowa

CDBG: Community Development Block Grant

CEA: Center for Evaluation and Assessment

COG: Council of Government

CRP: Conservation Reserve Program (land conservation program of the USDA)

CRS: Community Rating System (part of NFIP)

DR: Disaster Recovery

ECICOG: East Central Iowa Council of Governments

ENRWMA: East Nishnabotna Watershed Management Authority

EOR: Emmons and Olivier Resources (Engineering firm)

ERWMA: English River Watershed Management Authority

EWP: Emergency Watershed Protection

EWRP: Emergency Wetland Reserve Program

FEMA: Federal Emergency Management Agency

FRT: Flood Resilience Team (UI)

FSA: Farm Service Agency

GIS: Geographical Information System

HACAP: Hawkeye Area Community Action Program

HSEMD: Homeland Security and Emergency Management Division (Iowa)

HUC: Hydrologic Unit Code (lower #= larger area)

HUD: Housing and Urban Development

ICGA: Iowa Corn Growers Association

IDALS: Iowa Department of Agriculture and Land Stewardship

IDNR: Iowa Department of Natural Resources

IEDA: Iowa Economic Development Association

IFC: Iowa Flood Center (UI)

IHR: University of Iowa Hydroscience and Engineering

INHF: Iowa Natural Heritage Foundation

INRC: Iowa Nutrient Research Center (ISU)

INRS: Iowa Nutrient Reduction Strategy

INRCOG: Iowa Northland Regional Council of Governments

ISA: Iowa Soybean Association

ISU-EO: Iowa State University - Extension and Outreach

ISU-IWC: Iowa State University – Iowa Water Center

IWA: Iowa Watershed Approach

LAP-AID: Linn Area Partners Active in Disaster

LMH: Low and Moderate Income Housing

LMI: Low and Moderate Income

LOC: League of Cities

MAPA: Metropolitan Area Planning Agency (Council Bluffs – Western Iowa)

MCRWMA: Middle Cedar River Watershed Management Authority

MID-URN: Most Impacted and Distressed Unmet Recovery Needs

NDRC: National Disaster Resiliency Competition

NEICOG: Northeast Iowa Council of Governments

NEIRC&D: Northeast Iowa RC&D

NFIP: National Flood Insurance Program

NRCS: Natural Resources Conservation Services (US Dept of Agriculture)

NRRWC: North Raccoon River Watershed Coalition

PWA: Protected Water Area (Iowa)

RC&D: Resources Conservation and Development

RCPP: Regional Conservation Partnership Program

SWCD: Soil and Water Conservation Districts

SWCS: Soil and Water Conservation Society

SWIPCO: Southwest Iowa Planning Councils

TNC: The Nature Conservancy

TPC: Tallgrass Prairie Center (UNI)

UERPC: Upper Explorerland Regional Planning Commission

UIRWMA: Upper Iowa River Watershed Management Authority

USACE: United States Army Corps of Engineers

USGS: United State Geological Survey

UWRWMA: Upper Wapsipinicon River Watershed Management Authority

WMA: Watershed Management Authority

WNRWMA: West Nishnabotna River Watershed Management Authority

WQI: Water Quality Initiative (Iowa)

IWA Evaluation Plan

During Year 1 (covering the period from notice of funding in January 2016 to August 15, 2017), the Center for Evaluation and Assessment (CEA) began the process monitoring evaluation for the Iowa Watershed Approach (IWA). As the year progressed, the CEA, working in collaboration with IWA staff at the University of Iowa and in consultation with other IWA partners, created a process monitoring evaluation plan for the IWA. As described in that plan, the purpose of the evaluation is to document the activities of the IWA and to collect information to demonstrate the merit and worth of the program and its activities. While the plan is complete, it is also to some extent a living document because the course of the evaluation may change as the project moves from the assessment and planning phase into the implementation phase, however the evaluation plan as written was the CEA's best effort to characterize the approximate nature and scope of the IWA evaluation. The evaluation will also best meet the needs of the stakeholders if it is able to adapt to development and changes of the project itself.

The IWA evaluation plan is composed of three nested, but discrete sections: the overall IWA Process Monitoring Evaluation Plan, the Resilience Evaluation Plan, and the Dubuque Bee Branch Healthy Homes Resiliency Program (BBHHRP). The complete evaluation plan is attached to this report as Appendix A.

An important aspect of the IWA evaluation is the collaborative and participatory approach taken by the CEA in designing the evaluation, data collection methods, and evaluation instruments. The purpose of the collaborative approach is to maximize the usefulness of the findings for project personnel and stakeholders. For example, in planning for the key informant interviews that the CEA conducted during Year 1, the CEA asked IWA staff what they would like to learn from the interviews and who they recommended the CEA talk to in each watershed who would have the knowledge of and passion for the watershed to provide rich context for the project. Working from their suggestions, the CEA drafted an interview protocol and again asked project staff to review and make comments and additions. During the interview process itself, the CEA invited the interviewees to be part of the collaboration by asking them to review CEA's summaries of their individual interviews to make sure that they were accurate and complete, but also to provide them with an additional way to provide their input and to feel part of the process. Summaries of survey and interview findings were submitted to the IWA staff to review results and provide any clarification related to specific aspects of the summary before the report was considered final.

The CEA used similar procedures with all surveys that were administered during Year 1, and the CEA plans to continue to involve stakeholders in the evaluation process whenever possible.

Methods

The program evaluation of the first year of the Iowa Watershed Approach was conducted by the Center for Evaluation and Assessment (CEA). The CEA is a Board of Regents approved, independent center in existence under its charter since 1992.¹ CEA staff drafted all evaluation designs and instrumentation, shared the drafts with the IWA Principal Investigator and/or

¹ (<http://www.education.uiowa.edu/cea/>).

selected project staff, partners, and stakeholders for suggested revisions, and then revised as needed. At all times, significant groups of stakeholders, including the project partners, had opportunity to provide critiques of the evaluation materials and approaches. All aspects of the evaluation are informed by *The Program Evaluation Standards: A Guide for Evaluators and Evaluation Users, 3rd Edition (2011)*. All surveys and interviews collected by the CEA were first reviewed by the University of Iowa Human Subjects Office.

At least one member of the evaluation team attended and observed most University of Iowa team meetings, resilience team meetings, and hydrologic and hydraulic team meetings. The CEA provided ongoing informal evaluative feedback about ways to improve project processes and products, including project partner collaboration and interactions.

In addition, at least one CEA staff member attended most watershed meetings and affiliated team meetings. The case studies included in this report include summaries of all watershed meetings that took place during Year 1. These summaries were created using evaluator observation notes, as well as agendas and minutes published by the watershed boards, and IWA staff notes.

The focuses for the IWA evaluation in Year 1 were on process monitoring and providing timely formative information for project improvement. During Year 1, the CEA worked with the IWA staff to develop an evaluation plan for the IWA Process Monitoring evaluation, and separate evaluation plans for the Resilience and Dubuque/Bee Branch Creek Project Components (see Appendix A). Much of the evaluation efforts took the form of participant observation in project meetings and meetings of affiliate groups; conducting surveys of IWA partners, advisory board, and leveraged partners; and conducting surveys and interviews with participants in the IWA project development process in the watershed groups. The CEA provided project staff with quick turnaround reports of survey and interview findings for their formative use. In addition, CEA contacted project staff with informal feedback about potential concerns.

CEA team members, including graduate students, assisted with various aspects of instrument development, evaluation design, information collection, and analysis. Specific methods for data collection and survey results are described in detail in the sections below regarding the activities with which they were aligned, and surveys and complete findings for each survey are attached as appendices to this report.

Executive Summary

During the first year of the Iowa Watershed Approach, the work of the project has made progress toward achieving its goals. The IWA goals as stated in their National Disaster Resilience Competition proposal are:

- 1) Reduce flood risk
- 2) Improve water quality

- 3) Increase resilience
- 4) Engage stakeholders through collaboration and outreach/education
- 5) Improve quality of life and health, especially for vulnerable populations
- 6) Develop a program that is scalable and replicable throughout the Midwest and the United States.

During Year 1, the IWA staff and partners pursued their goals by developing new, strong relationships with each other, with the existing and emerging Watershed Management Authorities (WMAs) participating in the IWA, and with stakeholders concerned about water issues across the state of Iowa. The IWA team engaged in providing technical support to the watersheds in areas of hydrology, geology, and soil science, as well as providing technical advices on forming WMAs and hiring and providing support for watershed personnel and planning teams. In addition to IWA efforts with the eight WMAs, the IWA flood resilience team is making strides toward defining and operationalizing flood resilience and integrating flood resilience into the forefront of hazard planning, and the IWA initiative in Dubuque is moving forward with the Bee Branch Healthy Homes Resiliency Program.

The eight Watershed Management Authorities (WMAs) that are part of the IWA are functioning organizations that are ready to begin the work of the IWA. With support from IWA partners (the Iowa Department of Natural Resources (IDNR) and the Iowa Department of Agriculture and Land Stewardship (IDALS)), the five previously existing WMAs (Clear Creek, English River, Middle Cedar River, Upper Iowa River, and Upper Wapsipinicon River, all in Eastern Iowa) have all successfully conducted searches and hired project coordinators who have started the IWA work. The three watersheds that had not yet organized WMAs (East and West Nishnabotna River and North Raccoon), with the guidance of the IDNR, have recruited eligible entities and filed 28e agreements establishing the WMA with the State of Iowa. East and West Nishnabotna WMAs have hired a shared coordinator for the IWA and the project coordinator hiring process is underway in the North Raccoon.

WMA project coordinators have received consultation about how to get started on the IWA work from partner organizations (IDALS, IDNR, and Iowa Flood Center (IFC)). An event for the coordinators to network and discuss shared problems was organized for September 2017 by IFC project staff. A second event for project coordinators, organized by one partner (Iowa State University – Extension and Outreach (ISU-EO)) but with sessions to be carried out by additional partners, will bring the coordinators together for additional training in October 2017. During training, the IFC provided coordinators with extensive materials about the IWA and IDALS created a packet of materials about some of the HUD requirements and procedures and a “laundry list” of questions commonly raised by landowners who express interest in the project.

IWA staff and partners conducted IWA Kickoff Meetings in each of the eight watersheds during May and June 2016. Each of the WMAs (and or WMA formation groups for those who had not yet filed their official 28e agreements) has conducted at least five quarterly meetings. Attendance at WMA meetings was documented by the CEA and attendance patterns are not yet clear. At each of the meetings, IWA staff and partners have presented information about the project to meeting attendees, including introductions to their organizations and details about

the kinds of services and support that partner organizations will be able to provide to the WMAs as part of the IWA.

Surveys conducted by the CEA evaluation team early in the first year have found that WMA meeting attendees believe the IWA will: improve flood mitigation; have a positive impact on water quality in their area; foster new collaborations and increase communication among entities in their area to address watershed problems; and carry out the process of installing new conservation practices in the watershed. Most WMA meeting attendees in all watersheds indicated strong interest in being involved in the IWA project.

With guidance from the IDNR, the five already established eastern Iowa WMAs have engaged planning groups to create watershed plans, and most planning groups have met with WMAs to share the start of their planning process. In at least one watershed, planners have held meetings to involve the community members, particularly municipalities, in the watershed planning process. Three WMAs are in the process of conducting and analyzing surveys of landowners and other watershed residents to better understand stakeholder interest in watershed improvement in general (both in terms of flood reduction and water quality improvement), and in installing conservation practices in particular. Two WMAs are in the process of soliciting bids for planning (East and West Nishnabotna) and one has formed a committee to produce and publish an RFP to engage their planning services (North Raccoon).

All eight WMAs have finalized selection of nearly all of the HUC 12s (one remains to be selected in the West Nishnabotna watershed) in which the IWA conservation practices will be implemented. The IWA partners have also worked to support the watersheds in the planning process and in providing in-depth analysis of the HUC 8 watersheds. The IFC is in the process of carrying out the hydrologic assessment for all the watersheds and IFC engineers have attended all WMA meetings to provide updates on their progress. IFC engineers have demonstrated the work they are doing to understand the unique hydrologic characteristics of each watershed, and shared maps explaining historic heavy rainfall and flooding events and how these analyses help them simulate future heavy rainfall and flooding events. IFC staff are working with IDNR engineers to compare maps of existing Best Management Practices (BMPs) with output from a planning tool that recommends potential conservation practices (Agricultural Conservation Planning Framework (ACPF)) to begin the process of understanding where effective conservation practices to hold water on the land could be installed.

Flood Resilience Team

During Year 1, Iowa Watershed Approach Flood Resilience Team (FRT) experienced a year of intense definition and development. FRT members engaged in discussions related to the best ways to define and measure flood resilience, presented their program during two rounds of WMA meetings, and fostered connections with other people and groups interested in flood resilience work.

A noteworthy development during Year 1 was that FRT established a partnership with Iowa Department of Homeland Security and Emergency Management (HSEMD). Driven by both teams' interest in the human aspects of flood resilience, the teams created a partnership to

work with watersheds to develop watershed plans that will complement county Hazard Mitigation Plans.

Bee Branch Healthy Homes Resiliency Program

During Year 1, the City of Dubuque Bee Branch Healthy Homes Resiliency Program (BBHHRP) accepted and reviewed applications for participants and conducted home inspections as well as Home Advocate-driven intake assessments. Though team members noted that administrative setbacks have delayed beginning construction on homes, they have already seen benefits related to participants' relationships with Home Advocates and remain confident that the BBHHRP will have a positive impact on participants' lives.