

FACT SHEET: WATERSHED PLANNING 101

As Iowa looks to address its water quality problem, enabling success through watershed-level planning and project implementation is a crucial step. Developing a watershed management plan is an early part of the water quality improvement process that enables local buy-in and jump starts action in a watershed.

WHAT IS A WATERSHED MANAGEMENT PLAN?

A watershed management plan is a road map for reducing flood risk, improving water quality, assessing resource concerns, and outlining actionable steps that can be taken within a watershed to address these challenges.¹ As of November 2019, there are 14 Watershed Management Authorities (WMAs) that have a completed watershed plan on file.² Notably, this does not include watershed projects statewide that have developed watershed plans outside of the 26 WMAs.

A WMA = A chapter 28 E cooperative agreement between cities, counties, and Soil and Water Conservation Districts that is organized within the boundaries of Hydrologic Unit Code (HUC)-8 watershed.

WHAT MAKES A STRONG WATERSHED MANAGEMENT PLAN?

A robust watershed management plan provides detailed watershed information, sets goals and priorities, and helps guide the implementation of future projects. The main goal of a plan is to provide a road map for improving water quality and reducing flood risk in a watershed. In addition to basic requirements, strong watershed management plans include the following components:

- **Provides a detailed assessment** of land use within the watershed. This information is crucial for goal setting and identifying priority areas for improvement. Solid plans should be updated as the information changes.
 - The Walnut Creek WMA watershed management plan includes this detailed breakdown in addition to other information about land use. See Figure 1 on reverse side.
- **Contains strong community and stakeholder input** and has demonstrated local support. Plans that intentionally incorporate feedback from social cohorts such as farmers, landowners, and community leaders often enjoy increased public confidence and acceptance.
 - Walnut Creek WMA hosted monthly meetings with WMA representatives, two open house events, and two meetings with agricultural landowners and producers to guarantee local buy-in.³
 - East Nishnabotna WMA hosted two facilitated stakeholder meetings, a flood resiliency workshop, and three public meetings to secure public input on their newly-completed plan.⁴
- **Flexible enough to fit multiple sources of funding** which may have different priorities. From state sources alone, funding priorities can vary drastically among achieving the goals of the Iowa Nutrient Reduction Strategy, reducing flood impacts, and restoring impaired lakes, rivers, and streams.
- **Sets clear goals and measurable outcomes** that align implementation with long-term planning efforts. This may include designating a “leader of implementation,” or a jurisdiction who handles the logistics and coordinates implementation efforts of all members.

Tip: A robust project list which contains “shovel-ready” projects that can be implemented once funding becomes available can provide a competitive edge when seeking funding.

Sources

- ¹ “Walnut Creek Watershed Management Authority.” Des Moines Area Metropolitan Planning Organization, dmampo.org/walnut-creek-wma/. Accessed December 2019.
- ² “Iowa Watershed Resource Library.” Center for Rural Affairs, cfra.org/water/iowaWatershedResourceLibrary. Accessed January 2020.
- ³ “Walnut Creek Watershed Management Authority.” Des Moines Area Metropolitan Planning Organization, dmampo.org/walnut-creek-wma/. Accessed December 2019.
- ⁴ “East Nishnabotna River Watershed Management and Flood Resiliency Plan.” East Nishnabotna Watershed Management Coalition, Iowa Watershed Approach, June 2019, dropbox.com/sh/x7adpq85ed3a1t0/AAD_ewAWScoVnrBHWBL2tsqta/East%20%26%20West%20HUC%208%20Plans?dl=0&preview=East+Nishnabotna+Plan.pdf&subfolder_nav_tracking=1. Accessed December 2019.



BENEFITS OF A WATERSHED MANAGEMENT PLAN:

- **Sets expectations and responsibilities** of WMA members. This ensures members are consistently engaged and active in achieving the goals set forth in the plan.
- **Collects feedback** from a diverse group of stakeholders within the watershed. Engaging residents of the watershed, including farmers, landowners, urban residents, and others, strengthens any goals set for the future.
- **Evaluates resource challenges**, such as erosion, pollution sources, and land use concerns within the designated watershed. Identifying these issues will help inform any solutions that may be proposed to address significant contributors to problems in the watershed and ensure community resiliency.
- **Identifies priority areas** within the watershed which prompt the greatest degree of concern and urgency for flood management, water quality, and more. A clear picture of where resources can get the biggest return on investment for funders can help accelerate progress toward the goals of the plan.
- **Secures funding** from various sources to achieve better flood mitigation, while improving water quality and quality of life in the watershed. A plan helps cities, counties, and Soil and Water Conservation Districts (SWCDs) leverage sources of funding to improve watershed conditions.

EXAMPLES OF FUNDING USED TO CREATE SOME OF THE 14 EXISTING WATERSHED MANAGEMENT PLANS IN IOWA INCLUDE:



- Mud Camp Spring Creek WMA used funds from the Flood Planning Assistance to States from the **U.S. Army Corps of Engineers** and Section 319 and 604 (b) funds from the **Environmental Protection Agency** (granted through the Iowa Department of Natural Resources) to cover the costs of developing a watershed management plan.
- Beaver Creek WMA used funds from the Comprehensive Water Quality Management Planning Grant from the **Iowa Department of Natural Resources** to create a watershed management plan.
- The East and West Nishnabotna WMAs,^{5,6} used funding from the **Iowa Watershed Approach**, which was awarded through a U.S. Department of Housing and Urban Development grant, to develop their watershed management plans.
- Turkey River WMA, through support from Howard County SWCD, used funds from the **Iowa Department of Agriculture and Land Stewardship** through the Iowa Water Quality Initiative's Water Quality Planning and Development grant to help cover some of the remaining costs associated with the formulation of their watershed management plan.⁷

FIGURE 1: WALNUT CREEK WMA WATERSHED MANAGEMENT PLAN BREAKDOWN

Land use	2001		2011		2001 to 2011 Percent change
	Area (in acres)	Percent of watershed	Area (in acres)	Percent of watershed	
Open water	146	0.3%	147	0.3%	0.0%
Urban	18,663	35.3%	22,936	43.4%	8.1%
Forest	1,650	3.1%	1,446	2.7%	-0.4%
Grasslands/wetlands	1,209	2.3%	1,135	2.1%	-0.1%
Pastureland	3,530	6.7%	2,147	4.1%	-2.6%
Cropland	27,626	52.3%	25,013	47.4%	-4.9%
Total	52,825		52,825		

OTHER RESOURCES

Connecting with other WMAs who have completed a plan could offer great insight. Organizations that provide technical guidance include the Iowa Department of Natural Resources (iowadnr.gov), Iowa Flood Center (iowafloodcenter.org), and the Iowa Water Quality Initiative (cleanwateriowa.org). The WMAs of Iowa (water.iastate.edu) is a collection of WMA leaders across the state who aim to provide resources and assistance to WMAs.

Sources, continued

- ⁵ "East Nishnabotna River." Iowa Watershed Approach, 2017, iowawatershedapproach.org/resources/ghost/east-nishnabotna-river/. Accessed December 2019.
- ⁶ "West Nishnabotna River." Iowa Watershed Approach, 2017, iowawatershedapproach.org/resources/ghost/west-nishnabotna-river/. Accessed December 2019.
- ⁷ "2019 Water Quality Initiative Projects: Planning & Development Projects & Urban Demonstration Projects." Iowa Department of Agriculture and Land Stewardship, 2019, iowaagriculture.gov/news/secretary-naig-announces-funding-19-new-water-quality-projects-earth-day. Accessed December 2019.

