



The logo features a stylized teal 'M' shape on the left, containing a green leaf and a cluster of reeds. Below the 'M' is a light blue horizontal band with white wavy lines representing water. To the right of the 'M' is the text 'Maquoketa River' in a teal, sans-serif font, with 'Watershed Management Plan' in a smaller, black, sans-serif font below it.

Maquoketa River

Watershed Management Plan

Asmita Poudel
Ellie Mullins
Heather Flynn
Hikmatullah Jamili
Jessica Oliver



PROJECT PARTNERS



City of Andrew
City of Baldwin
City of Cascade
City of Delaware
City of Delhi
City of Dyersville
City of Epworth
City of Goose Lake
City of Hopkinton
City of Lamont
City of La Motte
City of Manchester
City of Maquoketa
City of Monticello
City of New Vienna
City of Preston
City of Ryan
City of Spragueville
City of Strawberry Point
City of Worthington
City of Wyoming

Buchanan County
Clinton County
Delaware County
Dubuque County
Jackson County
Jones County
Linn County

Special thanks:

- Iowa Initiative for Sustainable Communities (IISC)
- The University of Iowa
- The University of Iowa School of Planning and Public Affairs
- Faculty Advisors: Steven Spears, Scott Spak, and Travis Kraus
- Alumni Mentor: Ben Curtis
- Maquoketa River Watershed Management Authority (MRWMA)
- MRWMA Project Partners: Lori Scovel and Jeff Tisl
- City of Manchester

Thank you !



**Why is a watershed
management plan
needed?**

What the plan is

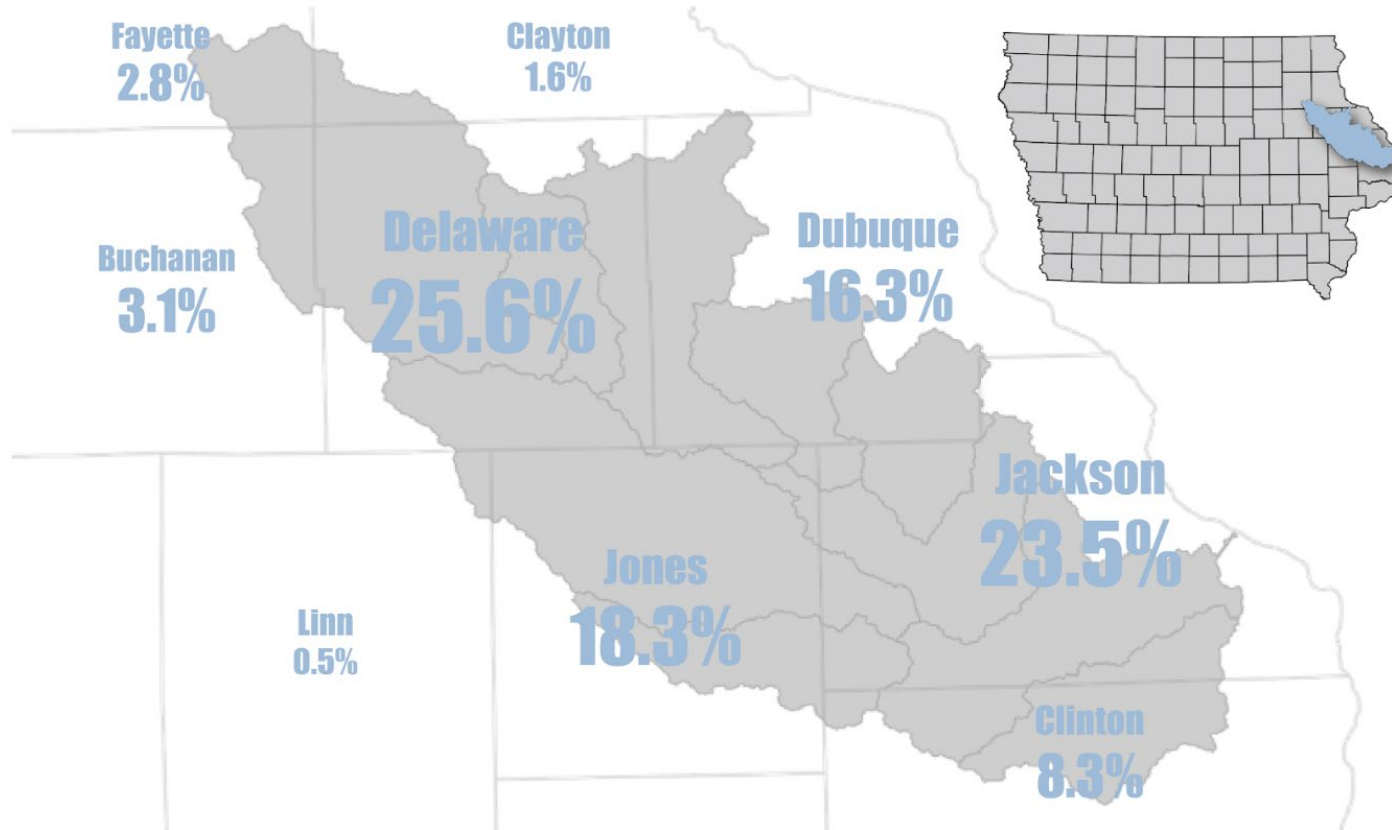
- A regional community-driven vision
- A guidebook for decision making
- An educational tool that seeks to elevate the quality of life via

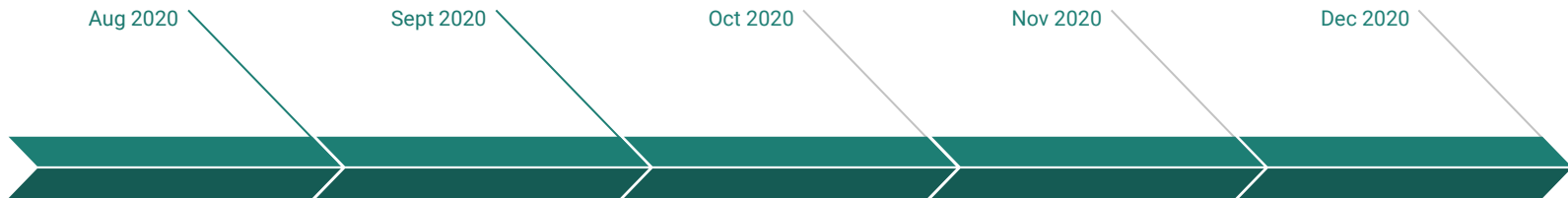


Scope and Limitation

- **1,100,000** acres of HUC-8 watershed (MRW) boundary
 - **9** Counties
 - **80** Townships
 - **72,000** Residents
- **NOT** a regulatory tool

Maquoketa River Watershed Location





Visited Watershed

Identified Stakeholders

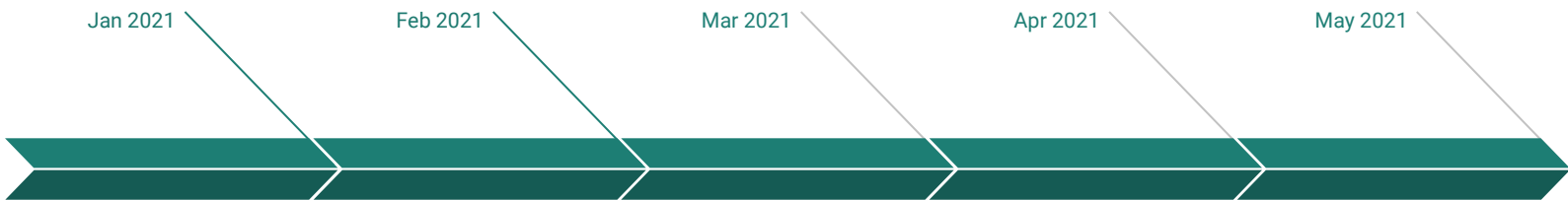
Est. purpose and scope of the project

Researched Case studies

Collected Data

Conducted Community outreach events

Prepared Fall Semester Report



Released Survey

Identified Stakeholders

Presentation

Cont. Survey

Focus Groups

Developed Goals and Objectives

Cont. Survey

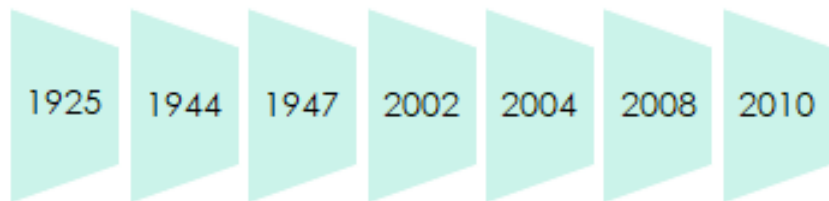
Public Input Meeting

Finished Plan Design

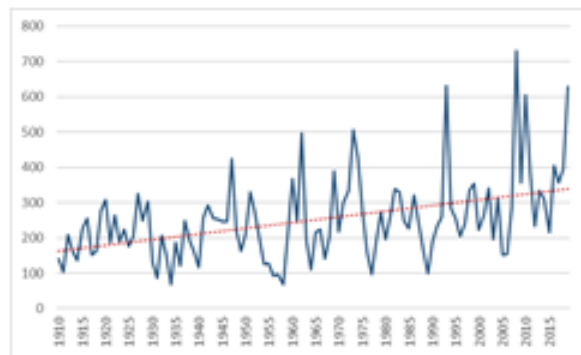
Presented to Partners

Existing Data Review

- **16 streams** and **3 lakes** have been listed as **impaired** as of 2018
- **New impairment** cause - 'fish loss due to animal waste' for **3 streams** in 2018
- **Increasing runoff** levels for last eleven decades
- Increasing irregularity in runoff levels
- Higher risk of **flood** and **drought** events as well as **soil erosion**, sedimentation and pollutant wash-off from urban surfaces
- **Major flooding events**



Impaired Waters in MRW in red, 2018



Source: United States Geological Survey 2020

Runoff levels in MRW, 1910-2015

Outreach

Manchester **Press**

Cascade Pioneer
YOUR HOMETOWN PAPER SINCE 1876

Dyersville Commercial

THE **MONTICELLO EXPRESS**
Monticello's Newspaper Since 1865

MAQUOKETA
Sentinel-Press



Are you concerned about flooding and clean water?

400+ people from your community have already shared their opinions with us. Have you?

Please join us to learn more about the Maquoketa River Watershed Management Plan

April 27, 2021 @ 7:00 pm

Find the registration link here: maquoketariverwma.org or scan the QR code.

Maquoketa River Watershed Management Planning Team invites you to a public forum to share your opinions on strategies recommended by the team for improvement of water quality and flood resiliency in the community. The recommendations will guide Maquoketa River Watershed Management Authority's actions in the upcoming years.

Questions? Reach out to us at fb.com/MRWMPanningTeam



IOWA FARM BUREAU
PEOPLE. PROGRESS. PRIDE.®

Outreach

- The News & The Guide
- Monticello Express
- Delaware County Leader
- Cascade Pioneer
- KDST Radio 99.3
- Dyersville Commercial
- Edgewood Reminder
- Maquoketa Sentinel
- KMAQ Radio & many more...



Press Release

+++ Information +++ News +++ Information +++



Community Engagement

Survey

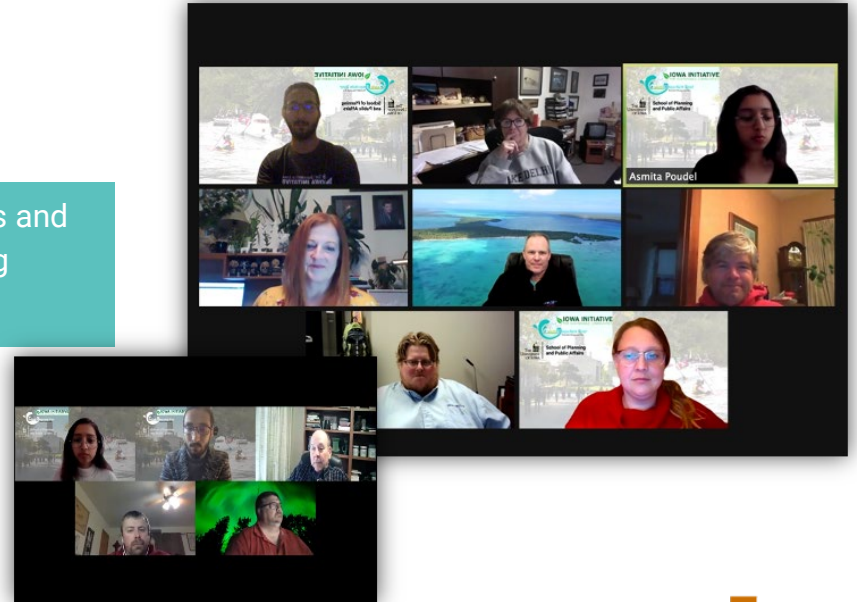
Our stakeholder reached over 400 respondents. It gathered views, values, and experiences related to water quality, flooding, recreation, conservation strategies, and information resources.



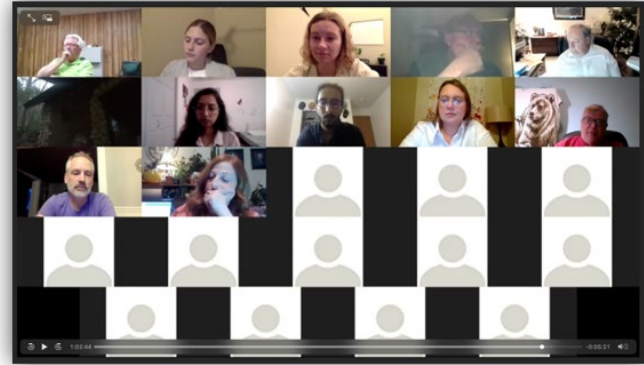
Community Engagement

Focus Groups

Five focus groups gathered more specific experiences and recommendations on reducing flooding and improving water quality.



Community Engagement



Public Meeting

The public meeting gathered input on the prioritization of the goals and objectives in the plan.



MAQUOKETA RIVER WATERSHED STORIES

A PhotoVoice Project

Community Engagement

Photo Voice

The Photo Voice website allowed people to share photos and stories from the watershed and a total of 10 submissions were made.

SHARE YOUR
STORY



Photo Court



Let's Chat!

⚡ We'll reply as soon as we can



Goals and Objectives



Goal 1

Improve water quality through techniques for nutrient management, erosion reduction, and increased infiltration

Goal 2

Improve watershed flood management

Goal 3

Increase watershed awareness and involvement among stakeholders

Goal 4

Preserve, protect and improve ecologically sensitive habitats and ecosystems in the watershed


Goal 5

Establish the WMA as a trusted community resource



Goal 1

Improve water quality through techniques for nutrient management, erosion reduction, and increased infiltration

A background image of a field with young green plants and dry straw. The image is faded and serves as a backdrop for the text.

Objective 1.1: Engage with the agricultural community to encourage techniques that increase field infiltration and reduce soil erosion.



Goal 1

**Improve water
quality through
techniques
for nutrient
management,
erosion reduction,
and increased
infiltration**

Objective 1.2: Engage with the agricultural community to reduce and maximize efficiency of agricultural nutrient application.



Goal 1

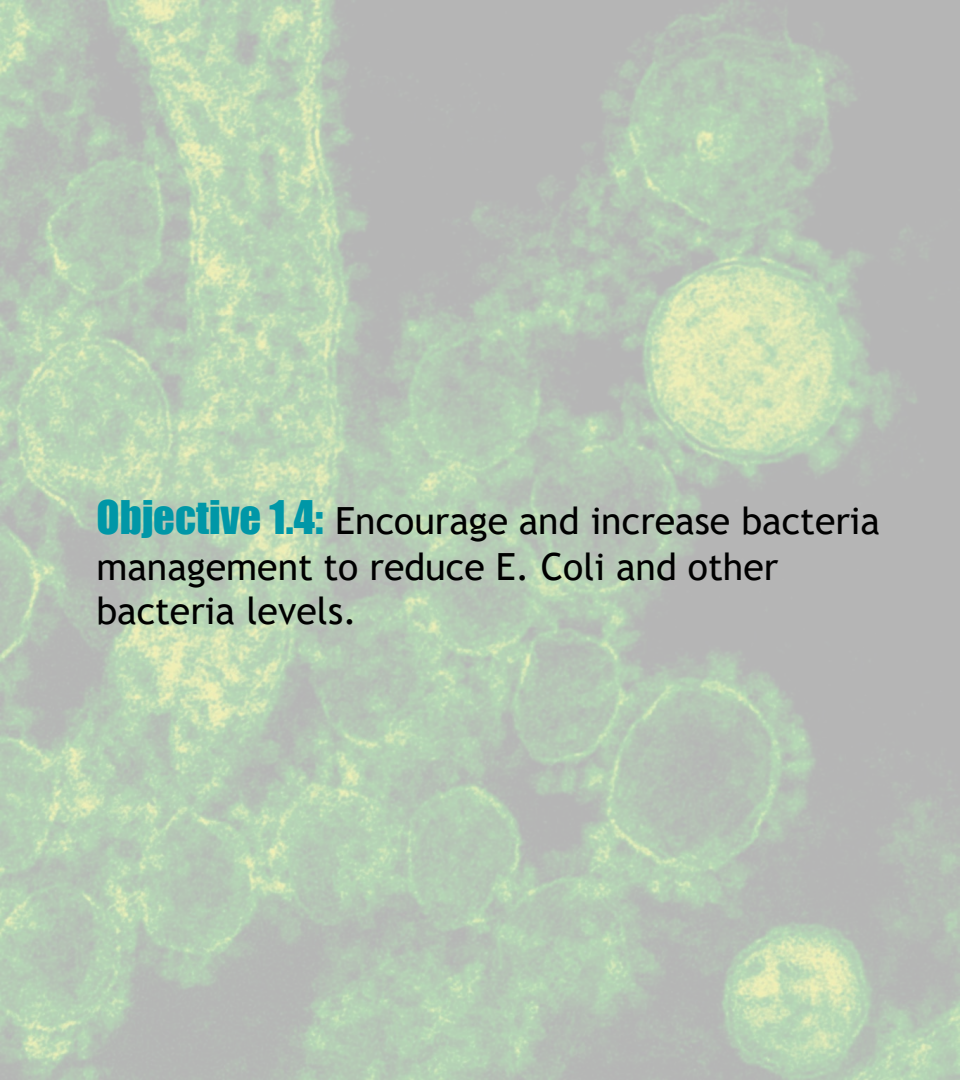
**Improve water
quality through
techniques
for nutrient
management,
erosion reduction,
and increased
infiltration**

Objective 1.3: Encourage practices that slow the flow of urban stormwater to increase infiltration and reduce erosion.



Goal 1

Improve water quality through techniques for nutrient management, erosion reduction, and increased infiltration

A microscopic image showing numerous green, glowing bacterial cells. The cells are of various shapes, including spherical and rod-like forms, and are densely packed. The background is dark, making the green fluorescence stand out.

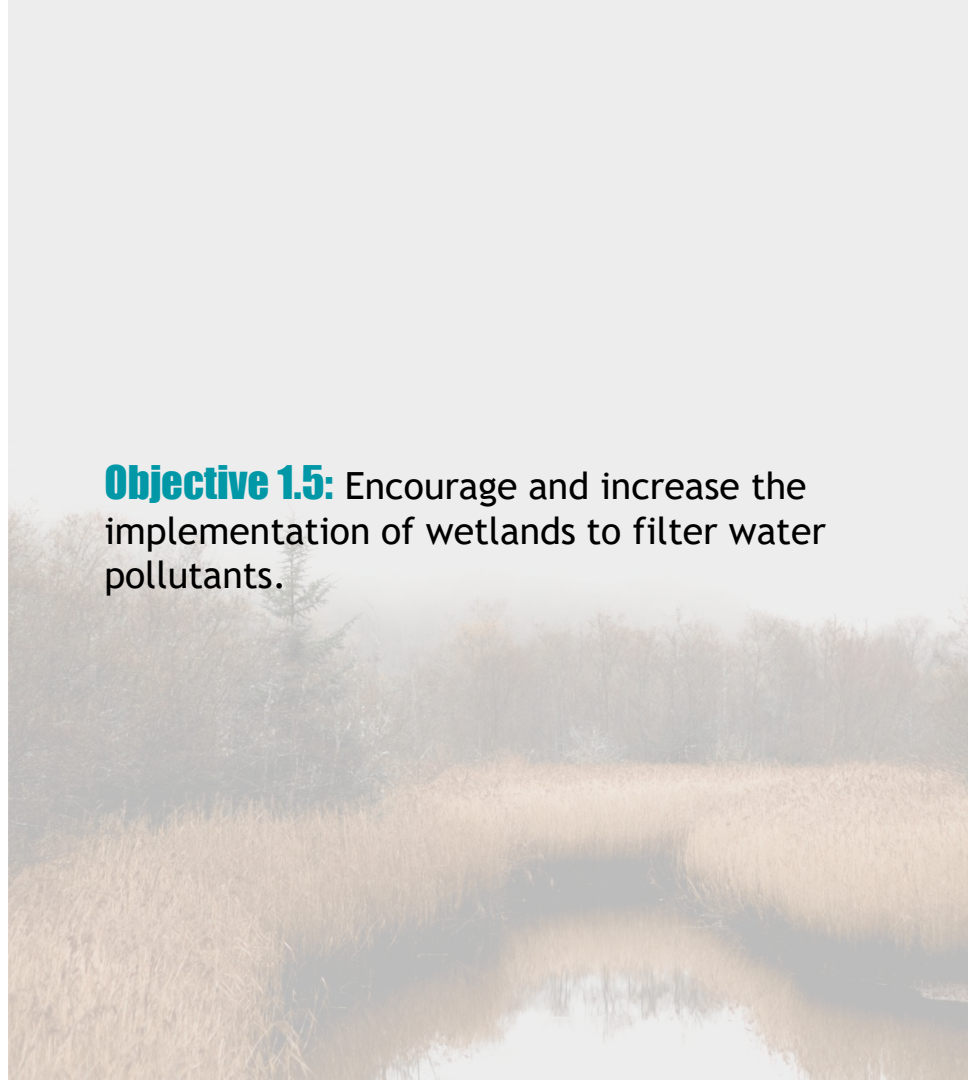
Objective 1.4: Encourage and increase bacteria management to reduce E. Coli and other bacteria levels.



Goal 1

**Improve water
quality through
techniques
for nutrient
management,
erosion reduction,
and increased
infiltration**

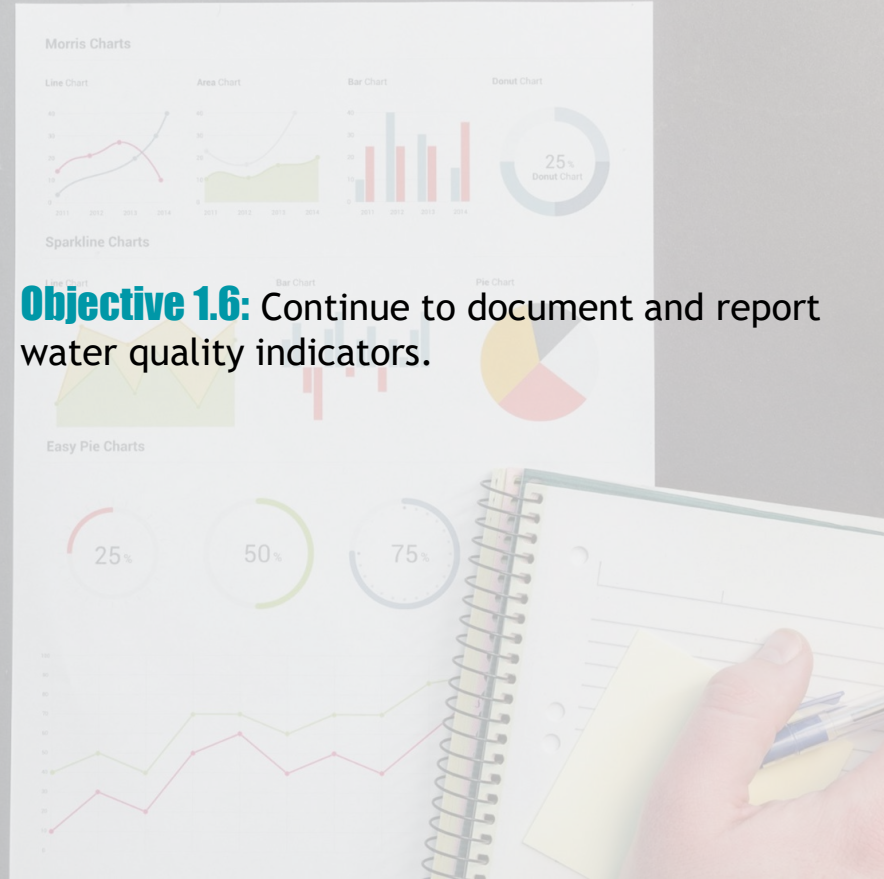
Objective 1.5: Encourage and increase the implementation of wetlands to filter water pollutants.





Goal 1

**Improve water
quality through
techniques
for nutrient
management,
erosion reduction,
and increased
infiltration**



Objective 1.6: Continue to document and report water quality indicators.



Goal 2

Improve
watershed flood
management

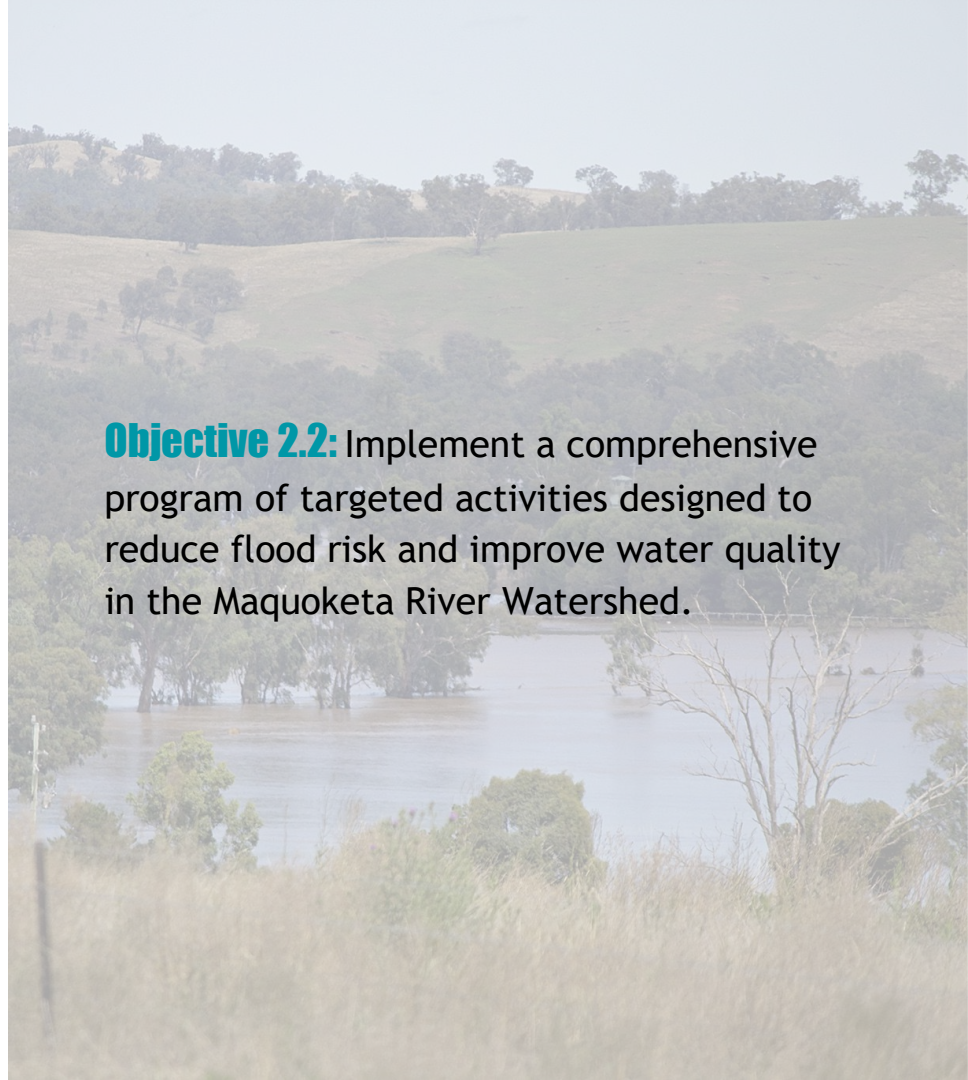
Objective 2.1: Advance the mission and goals of the WMA by fostering partnerships between agencies, organizations, and political entities regarding flood prevention and recovery.



Goal 2

Improve
watershed flood
management

Objective 2.2: Implement a comprehensive program of targeted activities designed to reduce flood risk and improve water quality in the Maquoketa River Watershed.

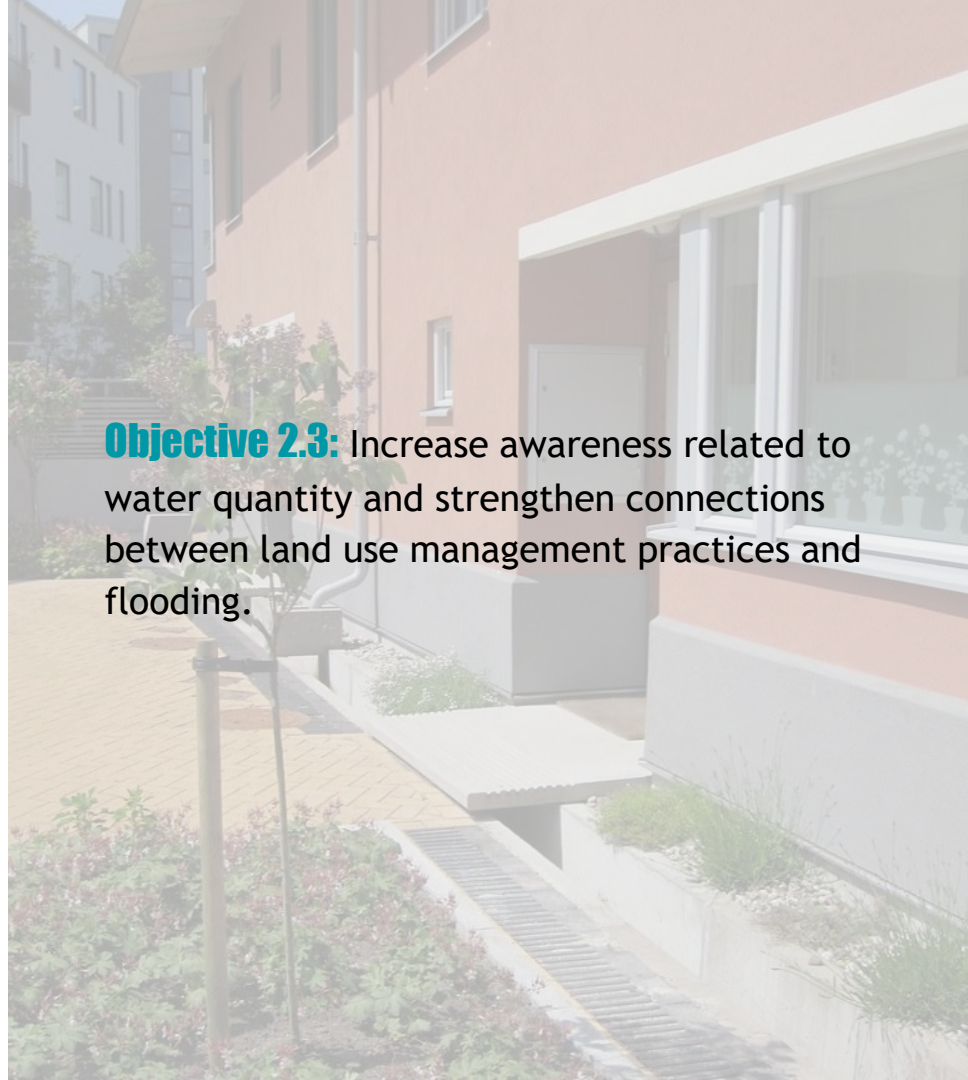




Goal 2

**Improve
watershed flood
management**

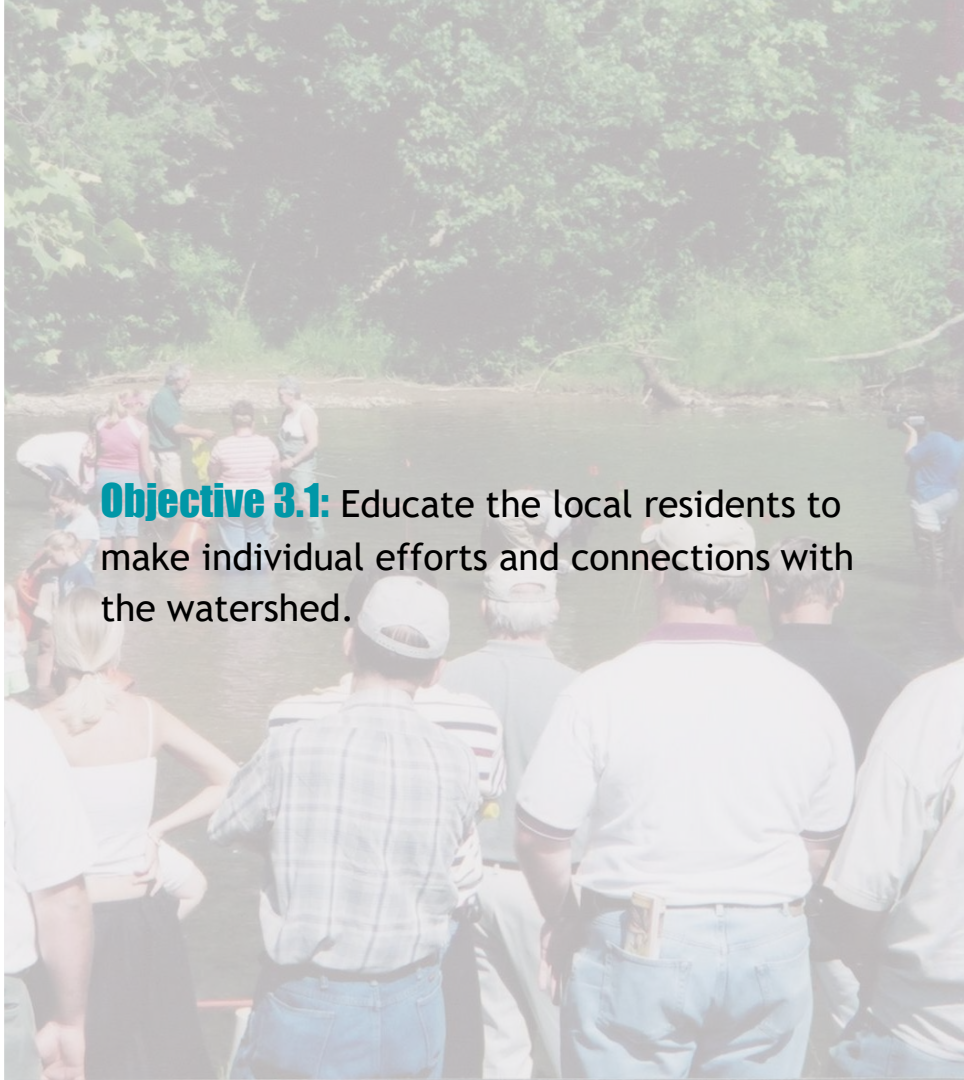
Objective 2.3: Increase awareness related to water quantity and strengthen connections between land use management practices and flooding.





Goal 3

Increase
watershed
awareness and
involvement
among
stakeholders

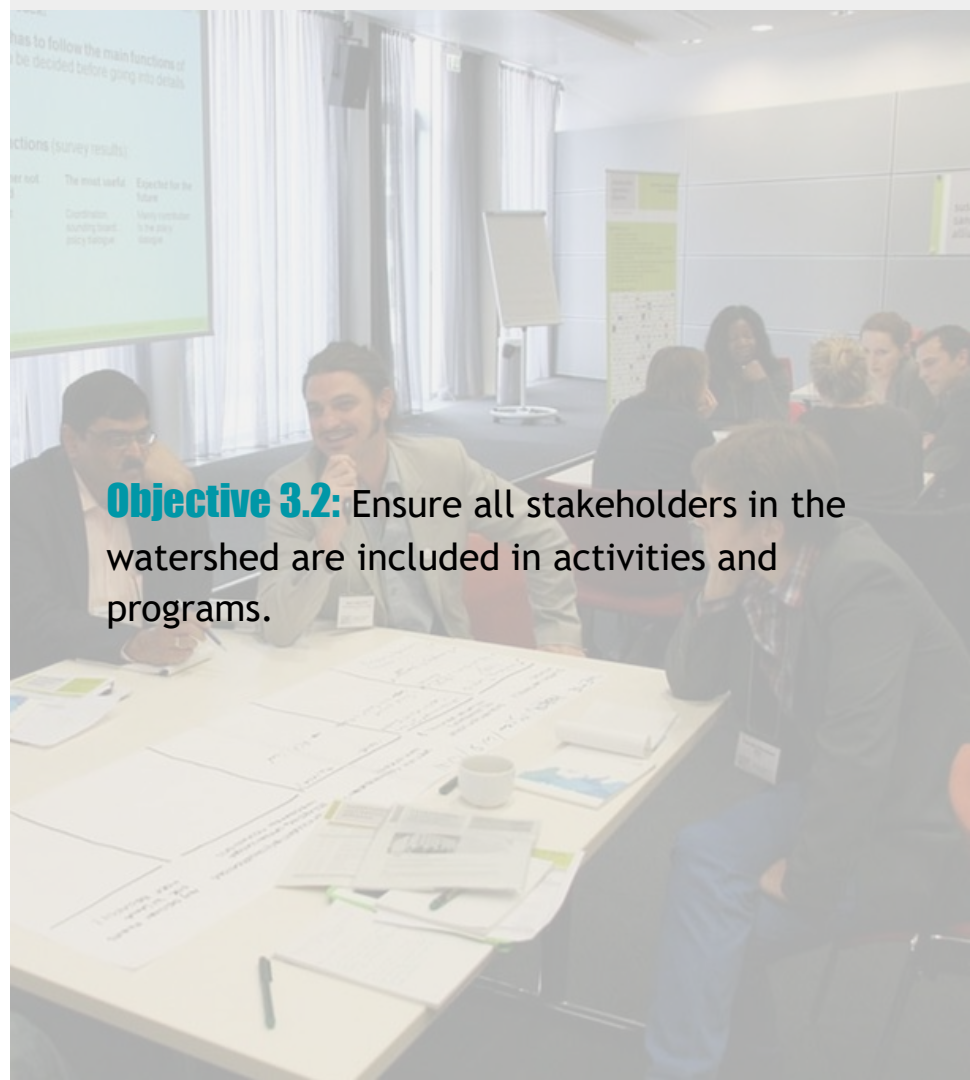


Objective 3.1: Educate the local residents to make individual efforts and connections with the watershed.



Goal 3

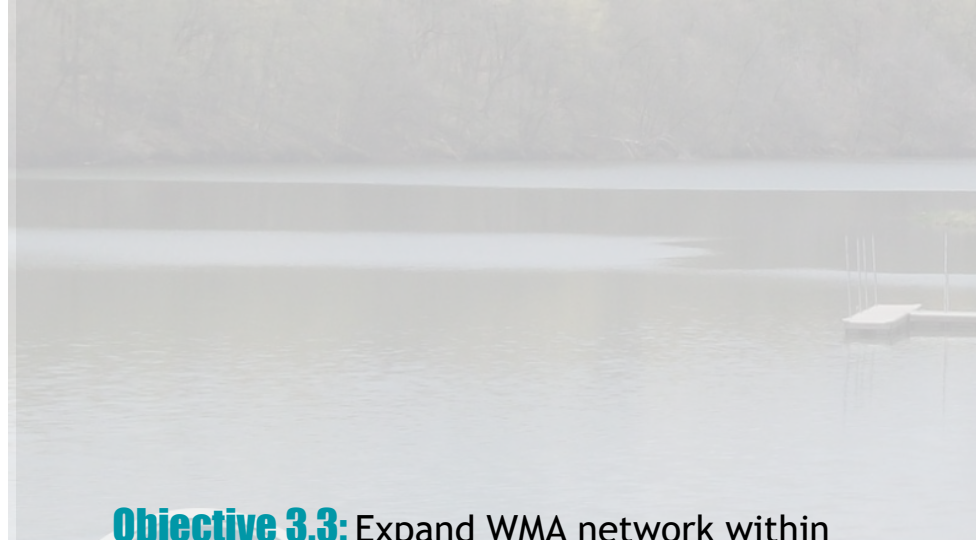
Increase
watershed
awareness and
involvement
among
stakeholders



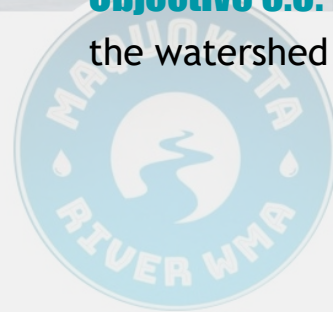


Goal 3

Increase watershed awareness and involvement among stakeholders



Objective 3.3: Expand WMA network within the watershed through outreach.



Maquoketa River Management Aut

@MaquoketaRiverWMA · Con

Home

About

Photos

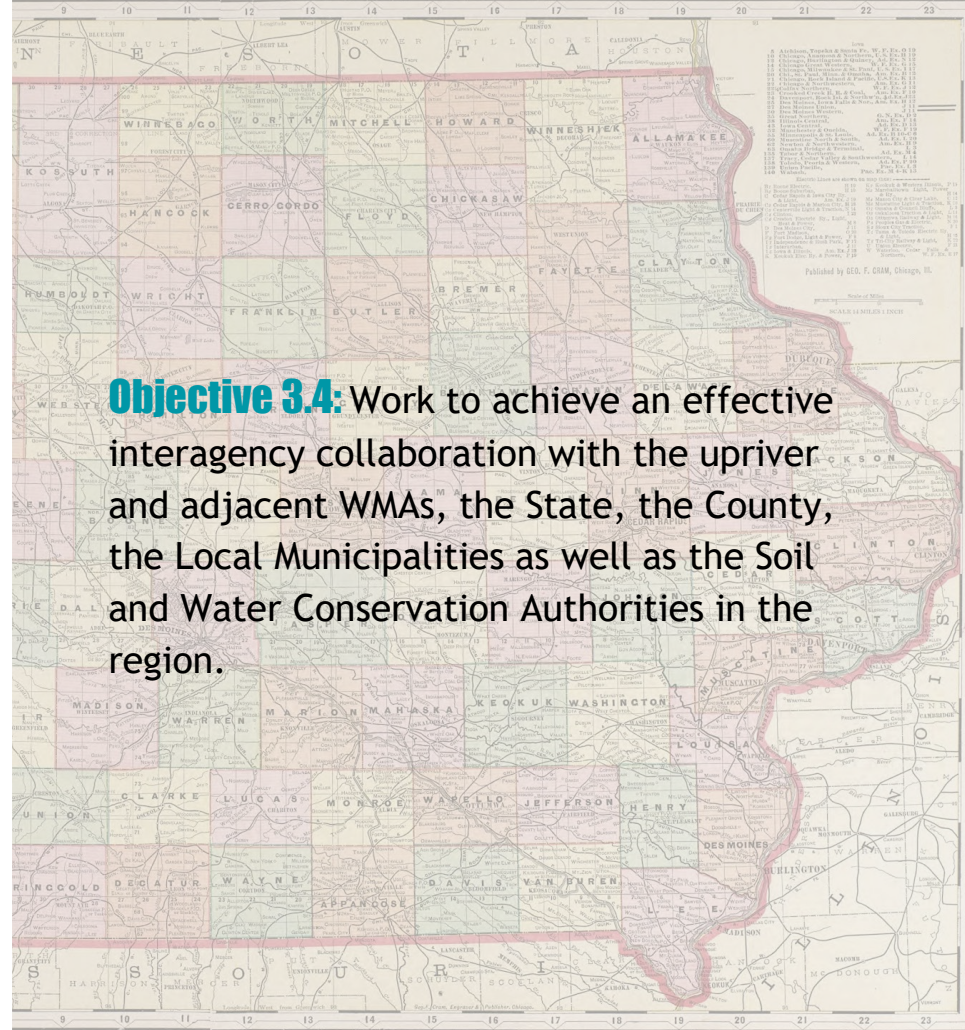
Videos

More ▾



Goal 3

Increase watershed awareness and involvement among stakeholders





Goal 4

**Preserve, protect
and improve
ecologically
sensitive habitats
and ecosystems in
the watershed**

Objective 4.1: Prioritize natural resource sites in the watershed for preservation, protection and restoration



Goal 4

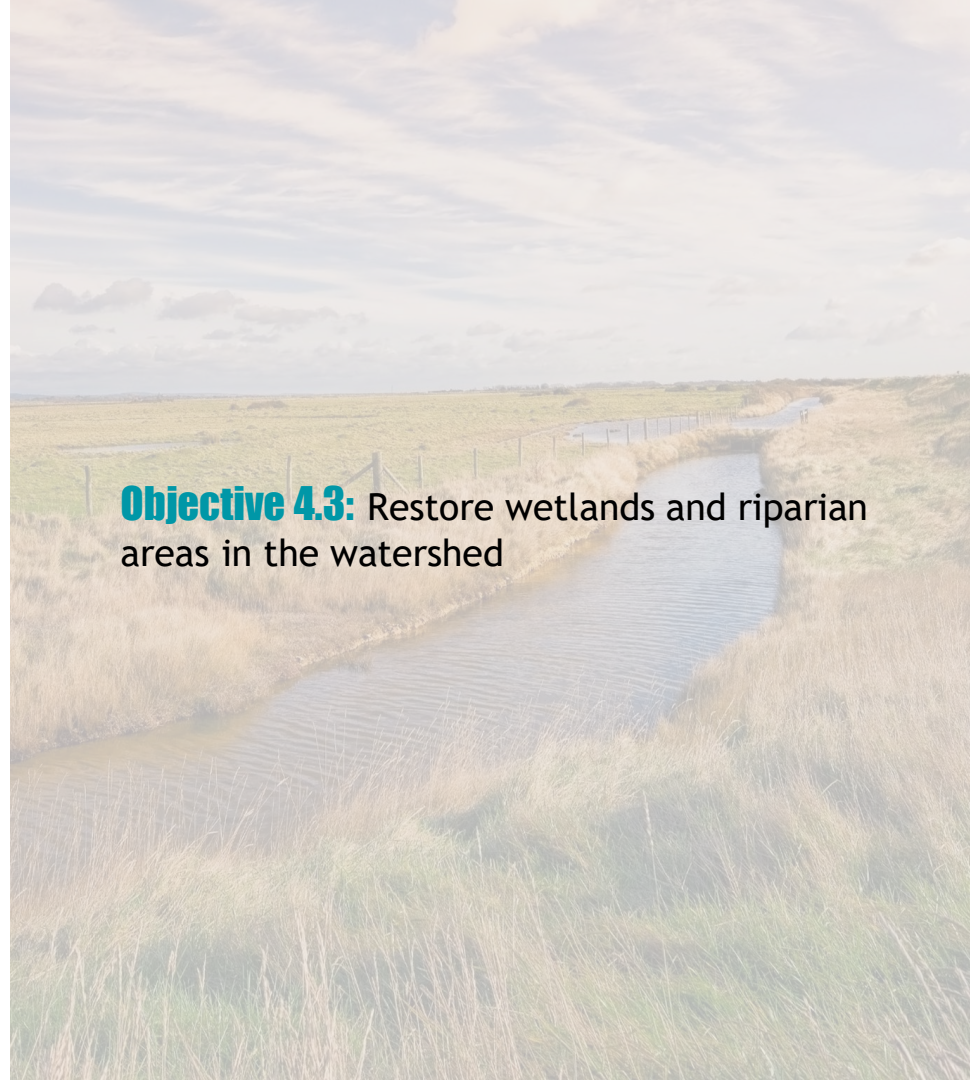
**Preserve, protect
and improve
ecologically
sensitive habitats
and ecosystems in
the watershed**

Objective 4.2: Protect streambanks, shorelines, and buffer areas within the watershed



Goal 4

**Preserve, protect
and improve
ecologically
sensitive habitats
and ecosystems in
the watershed**

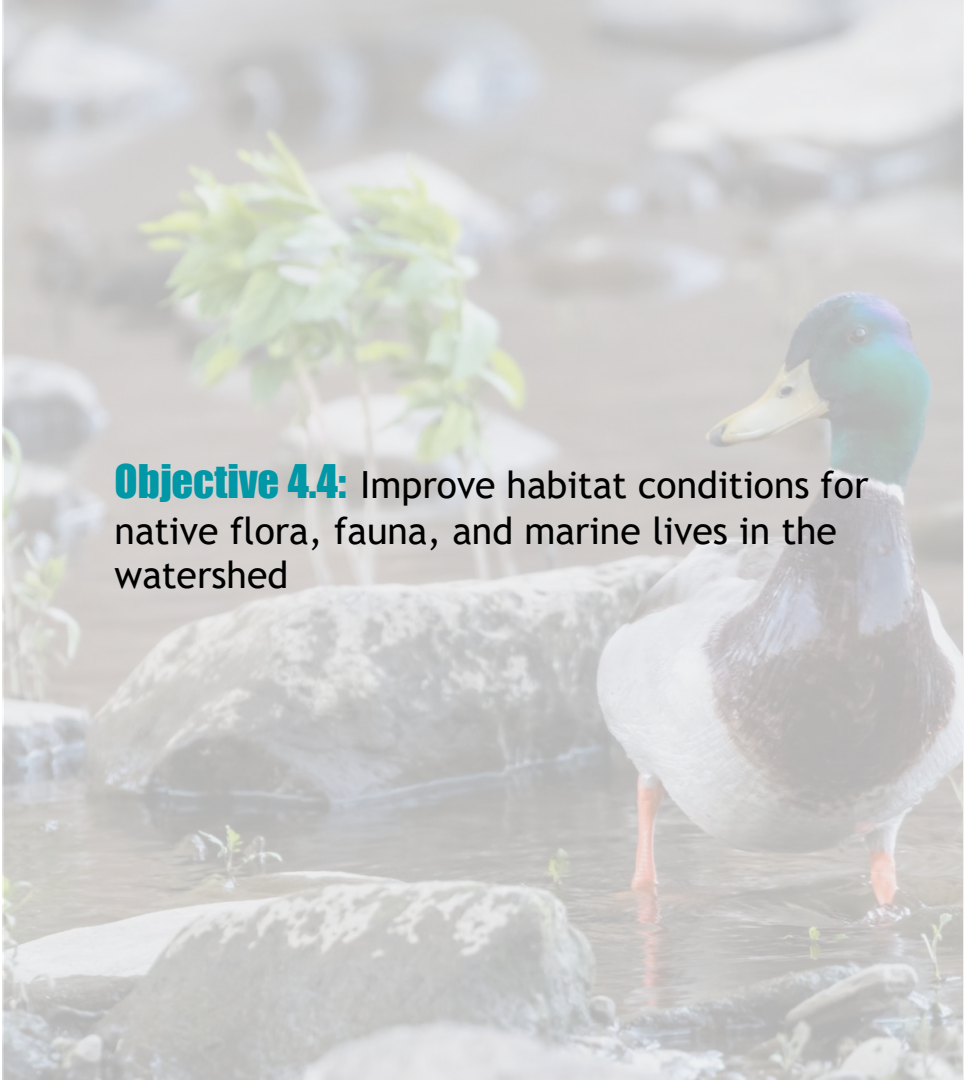


Objective 4.3: Restore wetlands and riparian areas in the watershed



Goal 4

**Preserve, protect
and improve
ecologically
sensitive habitats
and ecosystems in
the watershed**

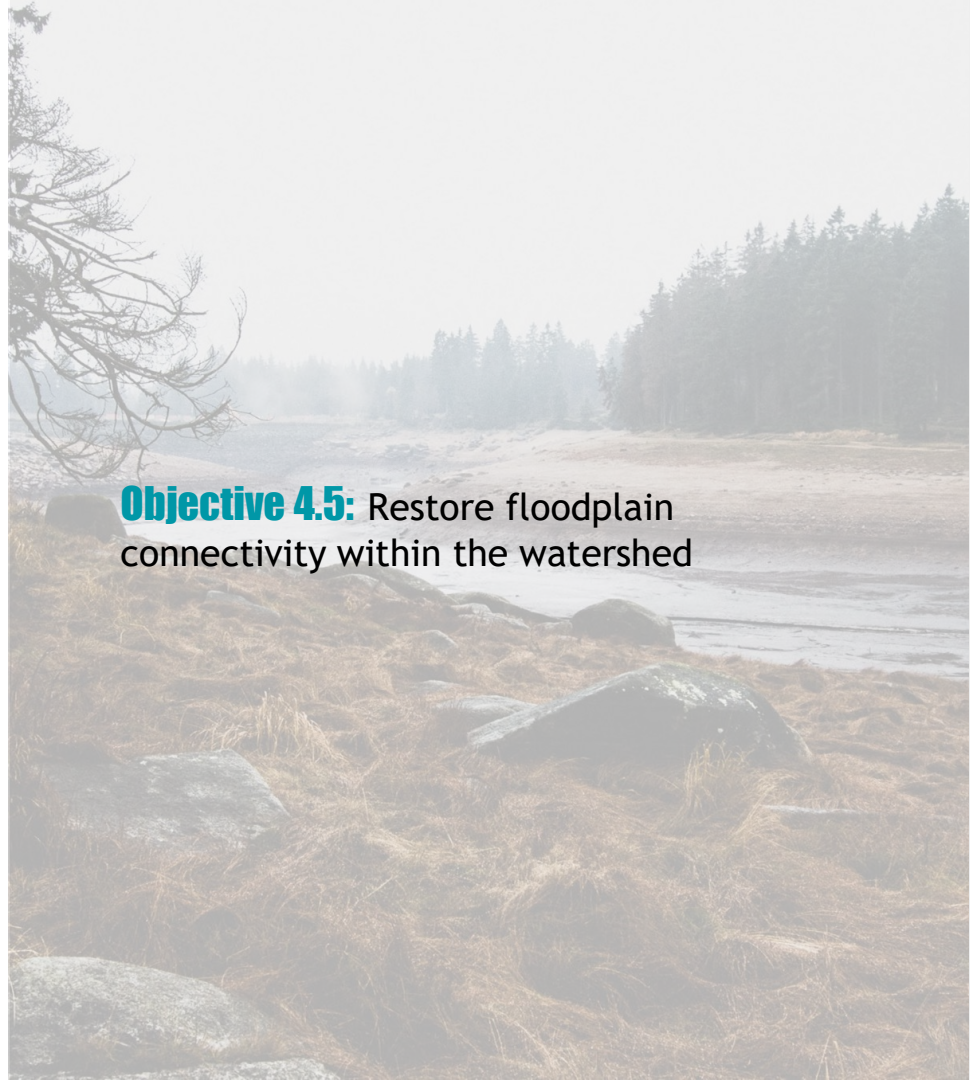
A photograph of a mallard duck standing in a shallow stream. The duck has a green head, a yellow beak, and a white body with a dark brown breast. The stream is surrounded by large grey rocks and green plants. The background is slightly blurred.

Objective 4.4: Improve habitat conditions for native flora, fauna, and marine lives in the watershed



Goal 4

**Preserve, protect
and improve
ecologically
sensitive habitats
and ecosystems in
the watershed**



Objective 4.5: Restore floodplain connectivity within the watershed



Goal 4

**Preserve, protect
and improve
ecologically
sensitive habitats
and ecosystems in
the watershed**

Objective 4.6: Protect source water sites in the watershed

A close-up photograph of water flowing over a metal grate into a stream. The water is clear and bright, creating a white foam as it falls. The surrounding area is lush green grass, and the background is slightly blurred, showing more of the stream and foliage.



Goal 5

**Establish the
WMA as a trusted
community
resource**

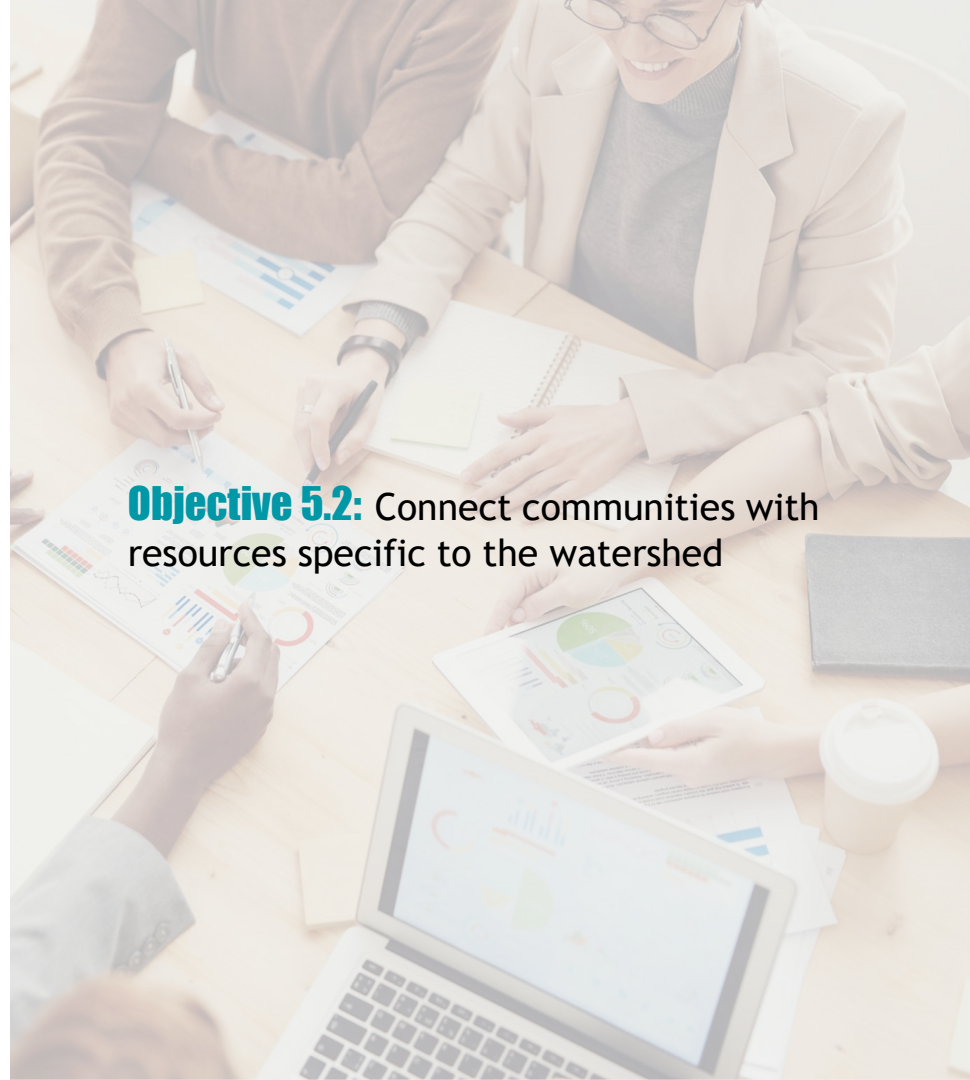
A background image showing several people's hands stacked together in a circle, symbolizing teamwork and community. The image is semi-transparent and serves as a background for the text on the right side of the page.

Objective 5.1: Make the WMA representative of the people and interests in the watershed



Goal 5

Establish the
WMA as a trusted
community
resource



Objective 5.2: Connect communities with resources specific to the watershed



Goal 5

**Establish the
WMA as a trusted
community
resource**

A background image showing a tree with bare branches partially submerged in murky, brown floodwater. The scene is dimly lit, suggesting an overcast day.

Objective 5.3: Recognize and identify vulnerable populations in the watershed that may be affected by poor water quality and flooding

Next Steps



Thank you!

Questions?

