

# 2016 STATE OF THE IOWA RIVER SUMMARY

## Introduction to Iowa River Friends

In April 2013 a group of people who were meeting regarding the state of “their river” decided to become form “Iowa River Friends” (IRF), with the goal of “protecting, improving, and enjoying the Iowa River and its tributaries.” The 2016 Annual Meeting in April is the first that they have convened.

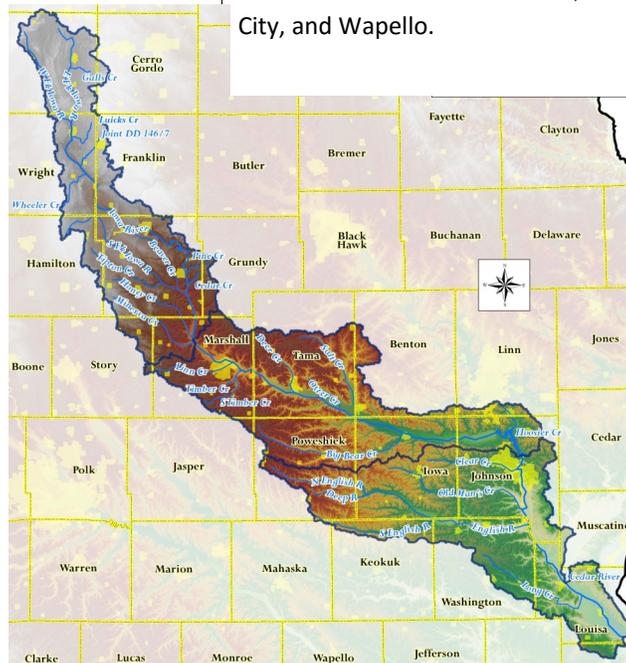
IRF relies on voluntary membership, inexpensive annual dues, and continues to diversify their board of directors with rural and urban stakeholders from around the watershed. In the last few years, IRF members have been connecting with people across the watershed, serving on area Watershed Management Authority (WMA) boards, sponsoring and participating in river and creek clean-ups, showing up at council meetings and engineering offices to support watershed improvement projects, and have been active in recreational events on the river.

As stakeholders continue coming together as a watershed, it is anticipated that future annual reports will reflect a broader base of participation and knowledge in development.

IRF seeks to learn more about the public’s relationships with the Iowa River, and believes that together we will make a difference—for the river’s benefit, for the benefit of generations of humans and wildlife who depend on the river. You can join Iowa River Friends by submitting a modest annual membership fee to Treasurer Del Holland, 1701 E. Court St., Iowa City, and IA 52245. Make checks out to “Iowa River Friends.” Annual membership dues are \$5 for students, \$10 for individuals, \$15 for families, and \$50 for organizations / businesses. Join us on Facebook, or email [sessions.bob@gmail.com](mailto:sessions.bob@gmail.com) to join our mailing list. We encourage you to consider serving on our Board of Directors. All IRF meetings are open to the public.

## What is the Iowa River Watershed?

The Iowa River Watershed is a drainage basin of land mass and tributaries that all drain into the Iowa River. The area spans 5,501 square miles in central and southeast Iowa. The Iowa River originates in Hancock County and outlets at the Mississippi River in Louisa County, near Oakville. The watershed includes all or portions of Hardin, Marshall, Tama, Poweshiek, Iowa, Johnson, Washington, and Louisa Counties; and the communities such as Iowa Falls, Marshalltown, Tama, Marengo, Iowa City, and Wapello.



## Land Use

Some of the best farmland in the state can be found in the Iowa River Watershed, particularly in the Middle and Upper Iowa River areas, where corn suitability ratings range from 70.4 in Tama County, to 82.2 in Wright County. Most of the land in the Iowa River Watershed is used for row crop agriculture (37% corn, 27% soybeans). Around 25% of the watershed is covered in grassland, forest, or wetlands. Only 7.6% of the watershed is urban or residential.

## Public Lands

There are a number of public lands, such as wildlife management areas and state or county parks, in the Iowa River Watershed, providing wildlife habitat and recreational opportunities. The largest such public area is the Iowa River Corridor Wildlife Management Area (10,100 acres) of Iowa, Benton, and Tama Counties. This area includes Otter Creek Marsh, a large habitat for migrating waterfowl and other breeding birds. Port Louisa National Wildlife Refuge / Odessa Wildlife Management Area in Louisa County, is the next largest area (6,465 ac.), which is jointly managed by the United States Fish & Wildlife Service and IDNR. It is a hub for environmental education and outdoor recreation. Other public lands include those run by County Conservation Boards and the IDNR, including Union Grove State Park and Otter Creek Lake (Tama Co.), Pine Lake State Park (Hardin Co.), Kent Park Lake and Lake McBride (Johnson Co.).

**Iowa River Friends thanks the following individuals for their contributions of maps, photos, and data for this report: Mel Schlacter (Chair, Iowa River Friends: [melschlacter@gmail.com](mailto:melschlacter@gmail.com)) Josh Spies, Jody Bailey, Mary Beth Stevenson, Dr. Mary Skopec, Andy Asell, Garry Brandenburg, Bob Sessions, Cindy Quast, Perry O. Ross, Judith Joyce, Howard Goldman, and Paul Sleeper.**

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## Water Quality

The Iowa Department of Natural Resources (IDNR) has monitored twelve sites throughout the watershed over the last 15 years. Of these, six sites are monitored monthly: Gifford, Lone Tree, Marshalltown, Old Man's Creek, English River, and Wapello. Water quality index (WQI) values vary year to year; they are generally higher in drought / dry years (1999, 2000 and 2012), when the movement of pollutants is decreased by lower rainfall. During these years, a higher proportion of sites fall into the "fair" and "good" categories. Conversely, flood years generally have lower WQI values (2007, 2008), more sites fall into the "poor" category. WQI values were substantially lower in 2014 than previous years with all monitoring sites falling into the "poor" category. During the last fifteen years, the Iowa River at Marshalltown has consistently had the lowest WQI scores, and Old Man's Creek and the English River have generally had the highest.

WQI patterns are seasonal. During 2014, water quality was higher during winter months when frozen conditions decreased pollutants from entering waterbodies. WQI values then declined in spring due to rainfalls that washed sediment, bacteria, and nutrients into waterways. Water quality generally improved in the Iowa River during fall months as cooler temperatures improved oxygen levels in streams.

Water quality can also be measured by examining the types and numbers of fish and aquatic invertebrates (biological quality) in a waterbody. Assessments at over 12 locations on the Iowa River, over the last 20 years have showed that the Iowa River generally has "poor" to "fair" biological quality. Excessive sedimentation, nutrients (phosphorus and nitrates), and the loss of habitat have contributed to the decline in area rivers. A few locations in the watershed, however (Gifford and Eldora) have shown "good" biological communities.

## Impaired Waters

Every two years Iowa Department of Natural Resources is required to report impaired waters to the United States Environmental Protection Agency. A waterbody is listed as impaired when it does not meet its designated use (primary contact, aquatic life, drinking water, etc.)

In total, 73 different stream segments and 9 lakes in the Iowa River watershed have at least one impairment. Some streams or lakes have more than one impairment; the number of impairments in the Iowa River Watershed are as follows: Indicator bacteria (51); Algae (6); Ammonia (3); Biological (Fish Kill) (4); Biological (9); Mercury in fish (14); Organic enrichment / Low Dissolved Oxygen (2); Coal tar (3); Turbidity (2); Unknown toxicity (3).



Oxbow on the Iowa River. Photo courtesy of Gary Brandenburg, *Iowa Outdoors*

## Watershed Improvement Projects in the Iowa River Watershed

A watershed-based approach seeks to identify and treat pollutants from all sources within the watershed before they reach waterbodies, and promotes land management practices that absorb, slow, and filter polluted urban and agricultural runoff. Below is a list of current watershed improvement projects in the Iowa River Watershed:

- Rapid Creek Watershed Project (Johnson Co.): Johnson County Soil and Water Conservation District (SWCD) ([www.jcswcd.org](http://www.jcswcd.org))
- Price Creek (Iowa & Benton Co.): Iowa County SWCD ([www.facebook.com/pricecreekwatershed](https://www.facebook.com/pricecreekwatershed))
- Clear Creek (Iowa & Johnson Co.): Johnson County SWCD ([www.jcswcd.org](http://www.jcswcd.org))
- Kent Park Lake (Johnson Co.): Johnson County Conservation ([www.johnson-county.com](http://www.johnson-county.com))
- Little Bear Creek, (Poweshiek Co.): Poweshiek County SWCD ([www.facebook.com/PoweshiekSWCD](https://www.facebook.com/PoweshiekSWCD))
- English River: (Poweshiek, Iowa, Johnson, Washington, Keokuk co.), English River WMA ([www.EnglishRiverWMA.org](http://www.EnglishRiverWMA.org))
- South Fork Watershed Alliance: (Hardin, Hamilton, Franklin and Wright Co), South Fork Watershed Alliance ([www.southforkwatershed.org](http://www.southforkwatershed.org))
- Otter Creek Lake, Tama County SWCD, 102 W Hwy 30, Toledo, Iowa 52342, (641) 484-2702