# **Developing the Plan**

With the Watershed Management Plan as its foundation, the planning team convened local experts to develop a list of criteria that would help identify the highest quality land in the watershed. The final criteria included: land use; wetlands; proximity to water bodies and conserved lands; presence of cold water streams; and threatened or endangered species. The model emphasized conservation of existing high-quality landscapes, as opposed to restoration of degraded landscapes. Then, based on these criteria, the team undertook a geographic information systems (GIS) analysis to prioritize the lands in the Kalamazoo River Watershed based on their conservation value.

The analysis revealed the eight sub-watersheds with the highest density of priority land for conservation. The protection of these high-priority lands (shown and described on the map inside) is the most important for improvement of water quality, the health of the Kalamazoo River, and ultimately, Lake Michigan. The landscapes in these areas are extremely diverse, with everything from forested floodplains to prairie fen wetlands to coldwater trout streams.

The Plan will be adopted by the Michigan Department of Environmental Quality as the Land Conservation component of its Kalamazoo **River Watershed Management** Plan.

This large parcel along the Kalamazoo River floodplain near Augusta was ranked among the top 20 parcels to protect. It is a candidate for conservation grant funding in 2016. photo by Emily Wilke

# **Plan Next Steps**

SWMLC and KRWC, along with other organizations active in the watershed, will use this land conservation plan to secure funding and guide land protection efforts, reaching out to landowners with high-ranking properties. We will send informational mailings to policymakers and high-priority landowners, and host meetings and workshops for those landowners interested in learning more about land conservation. Working together to permanently protect these important lands will ensure the long-term viability and continued improvement of the health of the Kalamazoo River system.

### Kalamazoo River Watershed Land **Conservation Plan Project Partners**

Southwest Michigan Land Conservancy and the Kalamazoo River Watershed Council would like to thank all of the organizations and planning team members who made this project possible

- Dr. J. David Allan and graduate students from the School of Natural Resources and the Environment at the University of Michigan: Kyle Alexander, Jamie Jackson, Fumi Kikuyama Ben Sasamoto, and Allison Stevens
- Kalamazoo Community Foundation; Frey Foundation
- Michigan Department of Environmental Quality, Water Resources Division
- Michigan Department of Environmental Quality, Office of the Great Lakes

And we are grateful to all partner organizations that participated in our planning meetings and provided invaluable support and input.





# **A Strategic Plan for Land Conservation** in the Kalamazoo River Watershed

## Introduction

The Kalamazoo River Watershed Management Plan was completed in 2011 to develop a unified vision for water resource management within the watershed. This plan, however, did not provide locationspecific guidance for land conservation to improve water quality.

To address this missing piece, the Southwest Michigan Land Conservancy (SWMLC) and the Kalamazoo River Watershed Council (KRWC) worked in partnership with over 40 governmental and conservation groups to complete the first-ever land conservation plan for the Kalamazoo River Watershed.

# Why the Kalamazoo?

The Kalamazoo River Watershed is the seventh largest river basin in Michigan, beginning in Jackson and Hillsdale counties and eventually draining into Lake Michigan near Saugatuck. With an area of 2,020 square miles, this watershed includes portions of ten counties: Allegan, Barry, Calhoun, Eaton, Hillsdale, Jackson, Kalamazoo, Kent, Ottawa, and Van Buren. The Kalamazoo River Watershed provides vital natural resources and recreation opportunities to all the people living in these counties and beyond.

The key to protecting and enhancing the health of the river system is in conserving surrounding natural lands. By protecting the natural The river has seen a great deal of abuse over the years, lands that surround our lakes and primarily by receiving industrial and municipal wastes, streams, we minimize pollutant although its water quality has been steadily improving over runoff and ensure the land's ability the past few decades as point pollution sources have been to absorb and clean the water mitigated. Nonpoint sources, such as diffuse nutrient loading, before it enters our public sedimentation, and microbial pathogens, remain a water waterways and drinking quality challenge. The Kalamazoo River Watershed maintains an water supply. abundance of natural landscapes, including high quality headwater streams, wetlands, and floodplains, and these natural features just might be the saving grace for the river. Protecting the many intact healthy natural communities in the watershed will reduce nonpoint source pollution and improve the health of the river and Lake Michigan.





# Protecting Land

# **Clean Water**

# **Highest Priority Sub-Watersheds**

A 2014 assessment model, created by watershed experts and local stakeholders, identified the top 10% priority parcels for conservation. The sub-watersheds with the greatest concentration of these parcels were combined into eight priority areas for protection.

### Pottawatomie Marsh

Before draining into Lake Michigan, the Kalamazoo River flows through a large wetland complex and forms Kalamazoo Lake. Marshes in this area serve as important habitat for waterfowl and migratory birds. This area is also notable for its remarkable, yet fragile, sand dunes. Protecting land in this area is important to conserving large tracts of wetland and paleodune habitat.

### Swan Creek & Lake Allegan

Swan Creek flows north into the Kalamazoo River below the Lake Allegan dam. The headwaters area consists primarily of farmland, with the downstream portion of the creekshed permanently conserved and surrounded by the Allegan State Game Area and designated as a Natural River under the Natural Rivers Act.

### Pine Creek

This small creek is located at the intersection of Kalamazoo, Van Buren, and Allegan Counties and flows north into the Kalamazoo River, downstream of Otsego. Land use consists of small headwater lakes, with associated wetlands surrounded by farmland. The creek's documented fish community has remained unchanged for over 50 years with some natural reproduction of brown trout in the headwaters.

### Fish Lake Area

Set in Barry County, this small creekshed contains the Fish Lake section of the Barry State Game Area that flows west into Gun River. While most of the Gun River watershed consists of agriculture, pockets of important wetlands and forested floodplain can be found around Fish Lake. Much of the area has natural land cover and a variety of unique plant and animal species.



flood storage.

photo by Peter D. Ter Louw

### Augusta Creek

This spring-fed creek flows south through Barry and Kalamazoo counties on the eastside of Gull Lake, a primarily rural area dotted by residential homes, conserved parcels of land, and agricultural fields. Augusta Creek contains a rich diversity of habitats, especially wetlands, and a variety of rare and uncommon plants and animals - including at least 16 different species of fish, two of which are species of greatest

conservation need. the lake chubsucker and the tadpole madtom. A focus for conservation, over 1.800 acres have been conserved between MSU, DNR and SWMLC.

### Silver Creek & **Spring Brook**

Silver Creek and Spring Brook are two separate - yet adjacent tributaries - to the

Kalamazoo River, located in the corner where Allegan and Kalamazoo Counties meet. Both are recognized as high quality trout streams with topquality coldwater designation. The headwaters are a combination of fallow farmland and scrub shrub wetland; the lower reaches are dominated by active farmland and the Kalamazoo River

### **Battle Creek River Headwaters**

This headwaters area includes Ackley Creek, Big Marsh Lake, Wanadoga Creek & Clear Lake. The area boasts numerous lakes and wetlands, including Big Marsh Lake, home to a sandhill crane migration stopover site that is largely protected by Michigan Audubon's 898-acre Bernard W. Baker Sanctuary. Portions of Wanadoga Creek and the area surrounding Clear Lake have tracts of undeveloped forests and wetland complexes. Wanadoga Creek is characterized as a cool to cold water system supporting mottled sculpin, blacknose dace, and white sucker.