



The Case for the Mounds Greenway

Overview of the Mounds Greenway—White River Conservation Area

The Mounds Greenway will be a linear park and trail connecting the trails and parks of Muncie to the trails and parks of Anderson and the communities in between. The Greenway and Conservation Area will protect the West Fork White River as a free-flowing natural river and also conserve bottomland hardwood forest, wetlands, and riparian habitats in the river's floodplain – an area roughly 2,300 acres in size.

Ownership and management of the Mounds Greenway is to be determined, but it could be a state project or a partnership of state and local governments and private organizations.

The Greenway will provide a variety of quality outdoor recreational opportunities – trails for hiking and bike riding, river access points for canoeing, kayaking and fishing, picnic and camping areas, and wildlife observation.

Cultural and historic features will be noted and protected. An Interpretive Center at Rangeline Preserve will offer displays and other learning opportunities about the West Fork White River valley. Once completed, the Mounds Greenway's trails will allow a hiker or bicyclist to travel from the Cardinal Greenway in Muncie to Mounds State Park to the Anderson city trail system.

Along the way, Greenway visitors and local residents can enjoy the variety of restaurants, brewpubs, coffee shops and retailers which will be attracted to the riverside "villages" in the communities along the river.

The greenway will complement and be compatible with existing public outdoor lands and cultural sites, including Mounds State Park, Rangeline Preserve, Walbridge Acres Park, Camp Chesterfield and other facilities.

Land for the greenway and conservation area will be acquired through fee simple acquisition or conservation easements, from willing sellers only. No eminent domain will be utilized.

Why the Mounds Greenway?

Land development and other land use changes threaten Indiana’s natural spaces, wildlife habitats and water resources, both directly and indirectly. These changes also threaten the capacity of our natural resources to provide ecosystem services – protection of air and water quality, converting waste back to its basic components and making it less harmful, and providing pollination for our crops and other plants that provide food, fiber, and shelter for humans and other species as well. The value of these ecosystem services provided by natural habitat in the 48 contiguous United States is estimated at about \$1.6 trillion annually, which is equivalent to more than 10% of the U.S. GDP (in 2009).¹

Among these adverse land use changes is the proposed Mounds reservoir.

In contrast, the Mounds Greenway and White River Conservation Area will provide a positive, sustainable land conservation and economic development project for the White River valley between Anderson and Muncie. A similar idea was proposed as far back as 1979 in a recreational study prepared by the Indiana Department of Natural Resources. *The Recreation Potential of the White River – Anderson – Muncie* report² concluded, “The White River offers the greatest potential for recreational development in the Indianapolis and **Anderson-Muncie areas**. [emphasis added] The significance of this riverine resource to the urban populations found along its banks, and to the people of Central Indiana in general, cannot be overstated.” The DNR plan recommended the establishment of 1,000 acre “resource areas” in the Mounds State Park area and the Yorktown area, with smaller river access sites at key points along the river. The plan also recommended a 14 mile protected river corridor from the Mounds Resource area to Muncie that would connect the large resource areas.

The Mounds Greenway will protect high quality natural areas and the free-flowing West Fork White River.

- Conversion of forest and farm lands to developed areas threatens high quality natural places like the West Fork White River and its floodplain. Between 1987 and 2010, developed land area in Indiana increased by 725,000 acres.³
- The West Fork White River is classified as an Indiana outstanding river. The river qualified because it is a state designated canoe trail, and has been identified by the Indiana natural heritage program as having outstanding ecological importance.⁴ This river segment was identified in the Nationwide Rivers Inventory (1982) by the National Park Service as being qualified for inclusion in the National Wild and Scenic Rivers System.⁵
- The river in Madison County and downstream supports a high quality warm water fishery, as a result of excellent pool, riffle and run structure in the river channel.⁶ Native

fish species living in this stretch of the river include smallmouth and largemouth bass, crappie, and bluegill. A fishery survey for Madison, Hamilton and Marion Counties reveals an increasing number of darter and minnow species, indicating improving water quality.⁷ Five endangered freshwater mussels – clubshell, northern riffleshell, rabbitsfoot, sheepnose, and rayed bean – have been recorded as occurring in the river in Madison and Delaware counties.⁸

- The West Fork White River is bordered by a wooded shoreline (riparian zone) consisting of mostly mature hardwood trees, shrubs and other riparian vegetation. This forested shoreline on both sides of the river is largely unbroken, with the exception of a cleared area adjacent to the Anderson airport.⁹
- Wildlife found along and nearby the river include whitetail deer, beaver, the endangered Indiana bat, and birds including kingfisher, great blue heron, wood ducks and other waterfowl, and a variety of wood warblers.¹⁰
- National Wetland Inventory maps indicate there are several hundred acres of wetlands along the river between Anderson and Muncie.¹¹ The exact acreage is determined by field surveys.
- The Mounds Greenway will serve as a buffer to prevent surface water runoff – from agricultural lands, roads, parking lots, and other sources – from entering the river and lowering water quality. The Greenway Plan calls for protection of forests and wetlands along the river which will provide beneficial vegetative buffers. What’s more, the Greenway will restore former forestland and wetlands, expanding the area of vegetated buffers. By protecting wetlands, the Greenway provides a natural water filtration system, providing additional water quality protection for the river.

By protecting the river’s floodway, the Mounds Greenway will provide flood control benefits by allowing floodwaters to be slowed, and flood crests reduced, as the floodwaters are retained in the floodway.

- Rivers and their floodplains are integrated natural systems. Changes to the river’s floodplain can change conditions in the river in a multitude of ways:
 - Filling in or building in a floodplain can reduce the capacity of the floodplain to store and hold floodwaters, raising flood crests upstream and downstream, and increasing the velocity of floodwaters downstream.
 - Shoreline vegetation helps moderate water temperatures, and provides organic inputs, which are important to the survival of aquatic life. Wooded shorelines also help prevent shoreline erosion.
- Rivers are also typically linked to adjacent groundwater systems, with water being exchanged between the river and the aquifer in one or both directions, depending on

topographic and geologic conditions. By keeping the river's floodplain in a natural condition, the Greenway will allow more surface water, from rainfall and from surface runoff, to percolate through the soil and recharge the groundwater system as well as the White River which is "sustained by the discharge of groundwater."¹²

Natural river corridors and associated parks and greenways provide a multitude of economic, tourism and outdoor recreation benefits.

Participation in outdoor recreation, in Indiana and the U.S. is growing. The outdoor recreation economy grew approximately 5 percent annually between the years 2005 and 2011. This occurred during an economic recession when many other sectors contracted.¹³ Among the most popular activities are water-based recreation and trail-based recreation, both of which will be provided by the Mounds Greenway.

- Greenways, trails, and parks increase the property values of adjacent and nearby residential properties.
 - A study for the National Fish and Wildlife Foundation found that "Home owners near parks and protected areas are repeatedly seen to have property values more than 20% higher than similar properties elsewhere."¹⁴
 - In Cincinnati, Ohio, research found that homeowners are willing to pay a premium of \$9,000 on houses that are within 1,000 feet of bike paths.¹⁵
- In Indiana, over 1.1 million people participate in trail-based recreation, and another 1.3 million participate in bicycling. Nearly 600,000 take part in non-motorized water sports which includes canoeing and kayaking.¹⁶ The average expenditure for a day trip on a trail is \$60; for an overnight trip almost \$150.¹⁷
- Nearly 780,000 people fish in Indiana every year.¹⁸ 1.5 million people take part in wildlife watching activities in Indiana.¹⁹ Wildlife watchers spent \$751 million in Indiana in 2011, on trip-related expenditures and equipment costs.²⁰
- Overall, outdoor recreation in Indiana generates over \$9 billion annually in consumer spending, employs over 105,000 Hoosiers, and contributes over \$700 million to state and local tax coffers, according to the Outdoor Industry Association.²¹
- Tourism impacts extend beyond outdoor recreation. Tourism revenues come from visits to museums, historic sites and buildings, entertainment events such as concerts, plays, and sports, and the money that tourists spend on food, beverages and lodging. In 2012, tourists in Indiana paid over \$560 million in state sales tax²².
- The outdoor recreation and tourism attractions created by the Mounds Greenway will provide new opportunities for businesses that provide the services and goods sought by the people who will visit the Greenway. Craft beer pubs, restaurants, coffee shops, outdoor outfitters, and other retailers will find a growing market in the communities connected to the Greenway. The towns of Daleville, Chesterfield, and Yorktown, along

with Anderson and Muncie, may experience renewed interest in redeveloping their commercial areas nearest the Greenway and the river to attract the small businesses that serve the Greenway's visitors. For example, the Jeffersonville, Indiana downtown business district is seeing new restaurants and businesses open as a result of the completion of the Big Four pedestrian and bicycle bridge across the Ohio River.²³

Natural areas and open spaces such as parks, greenways, and rivers, improve the quality of life for residents in the nearby communities.

- Besides the direct economic benefits described above, the recreation opportunities provided by the Mounds Greenway will offer residents and visitors a place to get healthier, by hiking, biking, or paddling. It will expand the opportunities for children and young people to get outside and gain valuable learning experiences from the outdoors.

Quality of life is also a very important factor in business location decisions, and in the choices of people deciding where to live and work.

- A May 2014 survey of millennials and active baby boomers by the American Planning Association reported that, "Traditional business recruitment strategies are seen as less important than investing in local amenities and quality of life. Job prospects and economic health are not the overriding factors for choosing where to live. Quality of life features such as transportation options, affordability, parks, local vitality, health, and presence of friends and family are equally or often more important."²⁴
- That Americans place a high priority on quality of life is also recognized by World Business Chicago, a non-profit economic development organization, which reports that, "[average wages, overall labor pool statistics or skills availability] are important, but the quality of life is what draws people to live and work in a particular region. Quality-of-life is as important today as wages, advancement, or stock options."²⁵

The Mounds Greenway will ensure that unique and valuable historic and cultural sites along and nearby the river are protected, and where appropriate made available for learning opportunities.

- The prehistoric Adena and Hopewell mounds in Mounds State Park will be protected from encroachment or damage by development outside the park.
- Other sites known or to be discovered along the river will benefit from the Greenway's presence. Camp Chesterfield, listed on the National Register of Historic Places²⁶, will be buffered from incompatible developments along its boundaries.
- The Greenway will include a White River Watershed Interpretive Center at Rangeline Preserve in Anderson.

Endnotes

- ¹ Ingraham, M.W. and S.G. Foster, 2008, "The value of ecosystem services provided by the U.S. National Wildlife Refuge System in the contiguous U.S. Ecological Economics 67: 608-618.
- ² Indiana Department of Natural Resources, Division of Outdoor Recreation, The Recreation Potential of the White River – Anderson – Muncie, July 1979
- ³ 2010 National Resources Inventory, Natural Resources Conservation Service, U.S. Department of Agriculture, <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/nri/>
- ⁴ Outstanding Rivers List for Indiana, Indiana Natural Resources Commission, Information Bulletin #4, <http://www.in.gov/legislative/register/20070530-IR-312070287NRA.xml.pdf>
- ⁵ Nationwide Rivers Inventory, National Park Service, <http://www.nps.gov/ncrc/programs/rtca/nri/states/in.html>
- ⁶ West Fork White River, Madison, Hamilton and Marion Counties, 2011 Fish Research Report, Indiana DNR, 2012, http://www.in.gov/dnr/fishwild/files/fw-WFWR_2011.pdf
- ⁷ West Fork White River, Madison, Hamilton and Marion Counties, 2011 Fish Research Report
- ⁸ Indiana County Endangered, Threatened and Rare Species List for Delaware County and Madison County, Indiana Natural Heritage Data Center, Indiana DNR
- ⁹ On site observation, Tim Maloney, May 2013
- ¹⁰ Indiana County Endangered, Threatened and Rare Species List for Delaware County, Indiana Natural Heritage Data Center, Indiana DNR
- ¹¹ <http://www.fws.gov/wetlands/Data/Mapper.html>
- ¹² Tony Fleming, geologist, presentation at Heart of the River community event, May 12, 2014, <http://www.moundslakereservoir.org/panel-discussion-may-12>
- ¹³ The Outdoor Recreation Economy, Outdoor Industry Association, 2012, http://outdoorindustry.org/pdf/OIA_OutdoorRecEconomyReport2012.pdf
- ¹⁴ The Economics Associated with Outdoor Recreation, Natural Resources Conservation and Historic Preservation in the United States, for The National Fish and Wildlife Foundation, Southwick Associates, October 10, 2011, http://www.trcp.org/assets/pdf/The_Economic_Value_of_Outdoor_Recreation.pdf
- ¹⁵ vom Hofe, Rainer, and Parent, Olivier, University of Cincinnati, 2011, www.uc.edu/news/NR.aspx?id=14300
- ¹⁶ The Economic Contributions of Outdoor Recreation: Technical Report on Methods and Findings For: Outdoor Industry Association, Southwick Associates March 15, 2013, http://outdoorindustry.org/images/ore_reports/oia-state-recreation-economy-technical-report-2013.pdf
- ¹⁷ The Economic Contributions of Outdoor Recreation: Technical Report
- ¹⁸ 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation: State Overview, U.S. Fish and Wildlife Service, Department of the Interior, http://wsfrprograms.fws.gov/Subpages/NationalSurvey/National_Survey.htm
- ¹⁹ 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation: State Overview
- ²⁰ 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation: State Overview
- ²¹ The Economic Contributions of Outdoor Recreation, Outdoor Industry Association, 2013, <http://outdoorindustry.org/advocacy/recreation/economy.html>
- ²² 2012 Economic Impact of Tourism in Indiana, Rockport Analytics, for Indiana Office of Tourism Development, December 2013, <http://www.visitindianatourism.com/sites/default/files/documents/2012-Economic-Impact-Of-Tourism-In-Indiana.pdf>
- ²³ Personal observation, Tim Maloney, July 2014
- ²⁴ American Planning Association, Investing in Place for Economic Growth and Competitiveness, May 2014, <https://www.planning.org/policy/polls/investing/pdf/pollinvestingreport.pdf>
- ²⁵ World Business Chicago, Site Location and Expansion, <http://www.worldbusinesschicago.com/Location-Expansion>, accessed August 14, 2014
- ²⁶ National Park Service, National Register of Historic Places, <http://www.nps.gov/nr/>