

## When the

# WOLF RIVER GREENWAY IS COMPLETE,

The Wolf River Greenway will connect neighborhoods from Mud Island and Downtown Memphis to Germantown and Collierville, providing residents and visitors a window into Tennessee's wilderness.

Designed for active transportation and outdoor recreation, this path will extend a total of 36 miles, linking residents and visitors to nature, rural farmlands, jobs, schools, shopping, restaurants, parks, and other attractions. With over 7 miles already built, the trail system is already bolstering the quality of life of the Memphis region.

100,000
PEOPLE LIVE WITHIN A
10 MINUTE
WALK
OF THE PROPOSED

GREENWAY.

N

**MEMPHIS** 

SHELBY FARMS PARK



GERMANTOWN



EXISTING

PROPOSED

THE MEMPHIS **REGION WILL GAIN:** 



1,126,000 MORE BIKE TRIPS PER YEAR



4,650,000 MORE WALK TRIPS PER YEAR



\$26,972,000

IN ONE-TIME, UP-FRONT CONSTRUCTION



\$1,467,000 IN HEALTH BENEFITS PER YEAR



\$2,842,000 IN TRANSPORTATION BENEFITS PER YEAR



\$7,185,000 IN ENVIRONMENTAL BENEFITS PER YEAR



\$2,920,000 IN ECONOMIC BENEFITS PER YEAR

# \$14 MILLION

IN TOTAL BENEFITS PER YEAR





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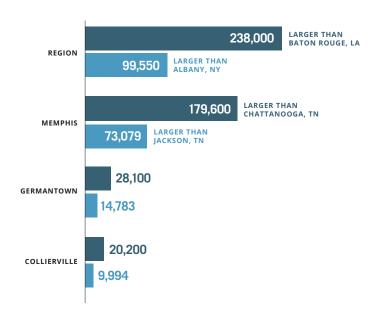
The fully built Wolf River Greenway will improve health, economic, environmental, transportation, and equity issues across our region. Memphis residents will have a higher quality of life because of the trail, and we will attract new visitors in the process.

Assigning dollar values to these benefits helps residents and decision-makers better understand how their investment in the trail network will impact the region.



# Who lives NEAR THE GREENWAY

While construction of the Wolf River Greenway will benefit all residents and visitors to the Memphis region, those living within one mile of the trail (about a 20 minute walk) and one-half mile (about a 10 minute walk) will have the most convenient access to the Greenway. These neighbors will gain the most from its construction. To calculate what this means, we have estimated impacts of the trail system for residents living within a 10 minute walk of the trail and then separated the estimates into three distinct communities: Memphis, Germantown, and Collierville. All estimated values are rounded and should be considered order of magnitude estimates rather than exact amounts.



POPULATION WITHIN 20 MINUTE WALK AND 10 MINUTE WALK OF THE WOLF RIVER GREENWAY<sup>1</sup>





#### **METHODS**

US Census data are one of the most common resources for measuring walking and bicycling activity.

In order to calculate health, environmental, economic, transportation, and equity impacts, this analysis utilizes five-year sociodemographic and travel behavior estimates generated by the US Census Bureau.

Currently, less than 1 percent of Memphis

residents bicycle to work and less than 2 percent walk to work.<sup>2</sup> With better access to trails that connect destinations and jobs, the number of people bicycling and walking in Memphis will rise to be more in-line with similar cities in the southeast.



#### **How MEMPHIS COMPARES**

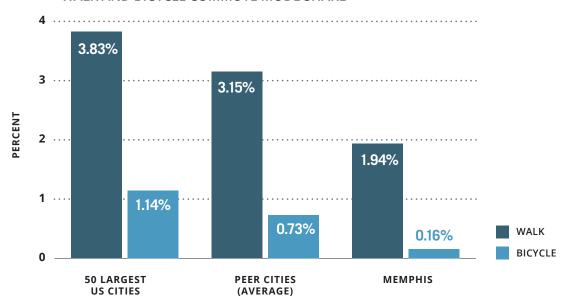
How will a fully-developed trail network change the way Memphis residents travel? To better understand this shift, we looked at travel behavior in cities similar to Memphis, but with more advanced bicycle and pedestrian networks. These cities, known as peer cities, were selected based on similarities in the design of their street networks, geographic locations, climates, terrain, street networks and the make-up of their populations.

Based on these criteria, Augusta, Charlotte, Nashville, and New Orleans were selected as peer cities to Memphis. With the exception of Augusta, all of the peer cities have achieved Bronze Level League of American Bicyclist's Bicycle Friendly Community ® award designation.<sup>3</sup> In addition, Charlotte and New Orleans each received a Bronze Level Walk Friendly Community ® award designation.<sup>4</sup>

Currently, Memphis is neither a Bicycle or Walk Friendly Community.

The designation of a city as a Bicycle
Friendly Community ® or as a Walk Friendly
Community ® represents a significant
investment in improving the bicycle and
walking environment. Because of this,
residents on average are more likely to bicycle
or walk in the four peer cities compared to
Memphis. Currently, only 0.16 percent of
the Memphis population bicycles to work
compared to an average of 0.73 percent in
the four peer cities. In addition, less than 2
percent of people in Memphis walk to work
compared to an average of over 3 percent
in Augusta, Charlotte, Nashville, and New
Orleans.<sup>5</sup>

#### WALK AND BICYCLE COMMUTE MODE SHARE



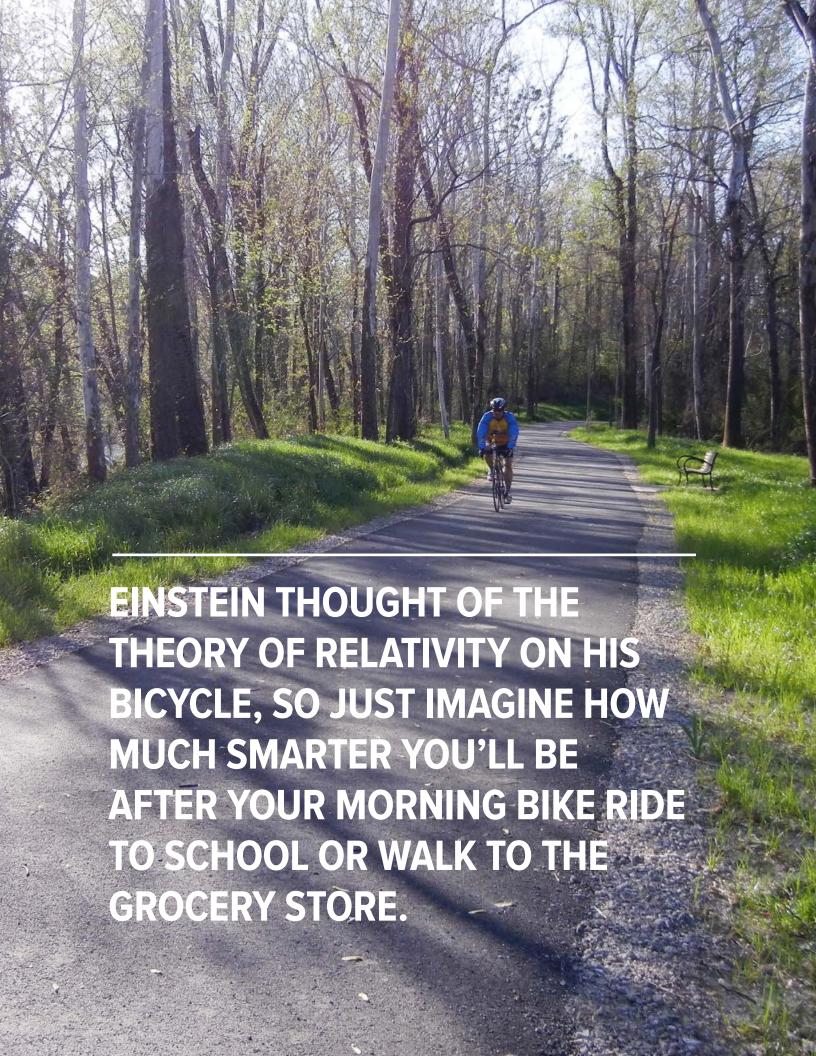
# HOW THE IMPACTS ARE CALCULATED

A series of over 50 factors from various studies and peer-reviewed journal articles were utilized to convert the estimated number of new bicycle and walking trips that will result from the construction of the Wolf River Greenway into dollar figures.

# LIMITATIONS OF THE ANALYSIS

The primary purpose of the analysis is to create a clearer, fuller picture of how the Wolf River Greenway will improve the quality of life of Memphis-area residents.

This analysis examines the Wolf River Greenway as an entire trail system, but reports on the localized impacts within Memphis city limits, Germantown city limits, and Collierville city limits. These localized impacts are for reference purposes only and should not be considered the potential impacts of developing individual segments of the Greenway. The true benefit of the Greenway comes from the expanded connectivity of the trail system across the Memphis region. The estimated impacts reflect the benefits that may be experienced with the full build-out of the 36 mile trail.







#### **HEALTH & ENVIRONMENTAL BENEFITS**

The health and wellness of Memphis residents and the health of the Memphis environment are tightly linked. We know that health conditions caused, in part, by a lack of physical activity are a fast growing problem in the United States, and the Memphis region is no exception. We also know that air pollution can intensify existing health conditions and contribute to severe health problems in children and pregnant women. The Memphis region released over 15 times more pounds of toxic material into the environment in 2012 than the Nashville region. These high levels of toxic material helped earn the state of Tennessee a spot on the National Resource Defense Council's "Toxic 20" list in 2011 and 2012, and contribute to the broader picture of negative health outcomes among residents.

Building a well-designed, connected trail system across Shelby County will encourage a shift from energy-intensive modes of transportation such as a cars and trucks to active modes of transportation such as bicycling and walking. While many of the active living-related benefits of a trail network can be difficult to quantify – such as improved mental health, educational growth, connection to nature, and sense of place – a growing body of literature links parks and trails to increased physical activity, decreased healthcare costs, and improved air quality (RBA, 2002; FHWA, 1993).

The completed Wolf River Greenway will dramatically shape the ability of residents in the Memphis region to get out and live more active, healthier lifestyles. It will help to generate over 2 million more bicycling and

walking trips, remove over 5 million pounds of pollutants from the atmosphere, and spur over 500,000 new hours of physical activity. This boost to wellness will save over \$1.4 million in healthcare-related costs per year.

In addition, studies show that increased physical activity helps seniors stay mentally fit<sup>9</sup>, reduces the risk of coronary heart disease, and even decreases the amount of insulin needed by people with Type I diabetes.<sup>10</sup>

The Centers for Disease Control and Prevention (CDC) identified the Type II diabetes rate in Shelby County as one of the highest in the country and listed Tennessee as one of 15 states in the U.S.'s "diabetes belt". 11 When combined with a healthy diet, increased physical activity has been shown to reverse the course of Type II diabetes. 12



## When the

## **WOLF RIVER GREENWAY IS COMPLETE,**

THE MEMPHIS REGION WILL GAIN

WALK TRIPS

1,190,000

MILES WALKED PER YEAR

That's the equivalent of

390
CROSS-COUNTRY
ROAD TRIPS



**BIKE TRIPS** 

1,254,000

MILES BIKED PER YEAR

That's the equivalent of



**50**TRIPS AROUND THE EARTH!

REDUCED HEALTHCARE COSTS

\$1,467,000

IN ANNUAL HEALTHCARE COST SAVINGS

That's the equivalent of 4,900 trips to the doctor!



MORE PHYSICAL ACTIVITY

**57**% **★|** 

MORE PEOPLE MEETING THE CDC RECOMMENDED HOURS OF PHYSICAL ACTIVITY (~30 minutes/day)

REDUCED VEHICLE EMISSIONS

\$7,185,000

SAVINGS FROM REDUCED VEHICLE EMISSIONS PER YEAR









### **ECONOMIC BENEFITS**

Creating a major recreational resource like the Wolf River Greenway that also provides access to businesses and jobs not only contributes to a sense of place for locals but also attracts tourists in hiking boots, running shoes, paddling gear, and funny-shaped hats.

The leisure and hospitality industry makes up a large portion of the Memphis region's economy, with more than one-tenth of the region's non-agricultural labor force in the business of making sure visitors enjoy their stay. While it is difficult to accurately forecast the change in tourism spending resulting from the construction of the Greenway, an examination of the current tourism activity and spending near similar trail projects provides a helpful comparison.

Studies of those trail systems show that nearby property owners can expect a minimum increase of 3.75 percent in the value of their properties after the Greenway is completed. Once built, the trail system will generate nearly **\$2 million in tourism spending per year**, with over \$0.25 million captured by local municipalities through tax revenue.

The same amenities that will draw tourists to the area also appeal to residents looking to buy new homes or open new businesses.

The total estimated increase in property value will top \$129 million, with nearly \$2.7 million of that captured in property tax revenue every year.

In addition to tourism spending and property tax revenue, the construction of the Greenway will pump almost **45 million construction-related dollars** into the local economy and create just under 500 permanent and temporary jobs.



**MAKING MEMPHIS A** 

# "CITY OF CHOICE"

FOR FAMILIES, YOUNG PROFESSIONALS, AND THE WORKING POOR

- MAYOR A.C. WHARTON19



OF BICYCLISTS
ON THE AMERICAN
TOBACCO TRAIL

REPORTED EATING AT **RESTAURANTS DURING THEIR** TRAIL EXPERIENCES<sup>21</sup>



**MORE THAN** 

OF MEMPHIS' NON-AGRICULTURAL

10% LEISURE & HOSPITALITY INDUSTRY<sup>22</sup>

## When the

## **WOLF RIVER GREENWAY IS COMPLETE,**

THE MEMPHIS REGION WILL GAIN

#### TOURISM SPENDING





\$261,000

IN ANNUAL TAX
REVENUE FROM
TOURISM SPENDING

**MORE JOBS** 

499
MORE JOBS



SUPPORTED BY THE EXPECTED INCREASE IN TOURISM AND CONSTRUCTION SPENDING

(INCLUDING PERMANENT & ONE-TIME JOBS)

CONSTRUCTION SPENDING



\$44,987,000

IN ONE-TIME, UPFRONT CONSTRUCTION SPENDING

(INCLUDING DIRECT & INDIRECT SPENDING)

PROPERTY TAX REVENUE



\$2,659,000

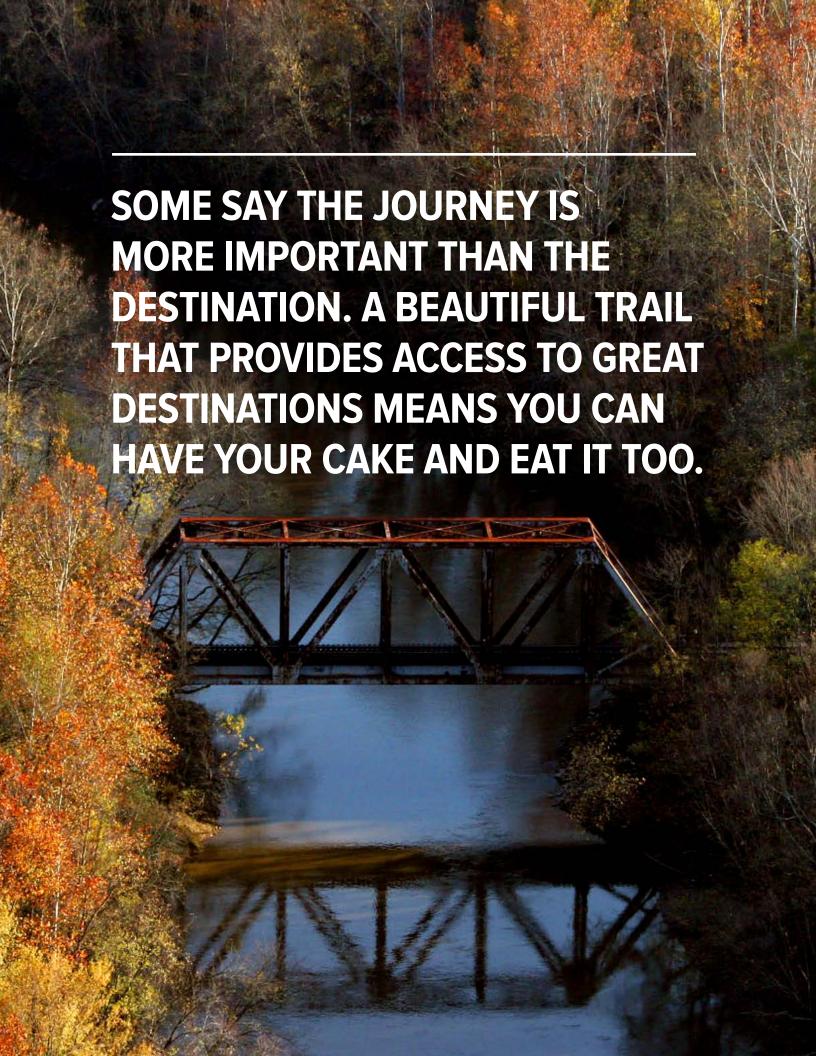
IN ANNUAL PROPERTY TAX REVENUE

PROPERTY VALUE



\$129,037,000

IN ESTIMATED PROPERTY VALUE GROWTH







### TRANSPORTATION & ACCESS BENEFITS

The Memphis region falls behind most other American cities when it comes to investment in parks, trails, and other recreational amenities. The region spends 74 percent less on parks per resident than the other 50 largest metro regions in the country."

This means that approximately 57,000 residents living within one mile of the Wolf River Greenway do not currently have access to a trail system. Of those 57,000 residents, approximately 5,000 are living below the poverty line, 2,500 do not have access to a motor vehicle, and nearly 12,000 are students.23 Currently, only 38 percent of residents in the Memphis region have access to parks and trails, and the region's ParkScore® ranks an unimpressive 53rd out of the country's 60 largest regions.24 The trail system will not only provide new access to trails and recreation for this underserved population, but it will also provide access to schools, jobs, retail, and other services.

In addition to improved access, the Greenway will also save money on transportation costs. While money doesn't always change hands, real savings can be estimated from the reduced costs associated with congestion, collisions, road maintenance, and gas. Construction of the trail system will save households over \$1.3 million annually in vehicle operation costs and \$1.4 million for the region.



MEMPHIS SPENDS

7/1% LESS ON PARKS

PER RESIDENT THAN THE TYPICAL U.S. CITY<sup>25</sup>



2,500

RESIDENTS
WITHIN A 10 MINUTE
WALK OF THE GREENWAY

DON'T HAVE ACCESS TO A CAR OR TRAIL SYSTEM<sup>26</sup>



5,000

RESIDENTS
WITHIN A 10 MINUTE
WALK OF THE GREENWAY

LIVE BELOW
THE POVERTY
LINE AND
DON'T HAVE
ACCESS TO
TRAILS<sup>27</sup>

17.6%

OF THE AVERAGE
U.S. HOUSEHOLD INCOME IS

SPENT ON TRANSPORTATION<sup>28</sup>

### When the

## **WOLF RIVER GREENWAY IS COMPLETE,**

THE MEMPHIS REGION WILL GAIN

HOUSEHOLD VEHICLE OPERATION COSTS



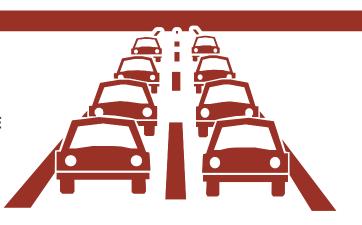
\$1,396,000

IN REDUCED HOUSEHOLD VEHICLE OPERATION COSTS PER YEAR

**COMMUNITY-WIDE VEHICLE OPERATION COSTS** 

\$1,446,000

IN REDUCED COMMUNITY-WIDE VEHICLE OPERATION COSTS PER YEAR



**VEHICLE MILES TRAVELED** 

TRAIL ACCESS



2,449,000

FEWER MILES TRAVELLED BY AUTOMOBILES EVERY YEAR



WITHIN A 10 MINUTE WALK OF THE GREENWAY WITH NEW ACCESS TO TRAILS

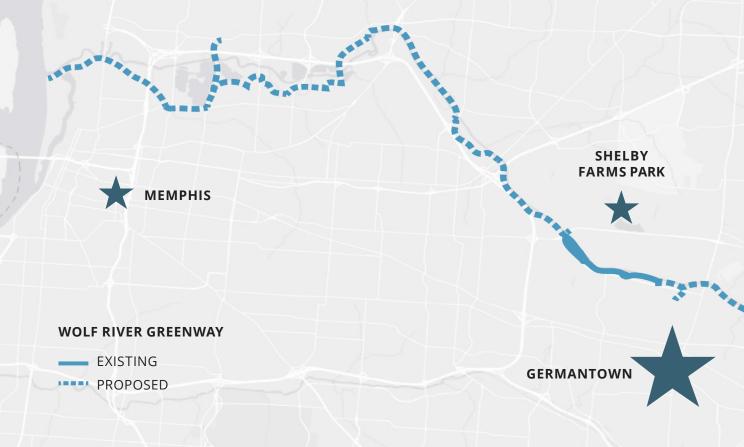
# **GERMANTOWN GETS MOVING**

The Wolf River Greenway will connect neighborhoods from Mud Island and Downtown Memphis to Germantown and Collierville, providing residents and visitors a window into Tennessee's wilderness.

Designed for active transportation and outdoor recreation, this path will extend a total of 36 miles, linking residents and visitors to nature, rural farmlands, jobs, schools, shopping, restaurants, parks, and other attractions. With over 7 miles already built, the trail system is already bolstering the quality of life of the Memphis region.

The fully built Wolf River Greenway will improve health, economic, environmental, transportation, and equity issues across our region. Germantown residents will have a higher quality of life because of the trail, and we will attract new visitors in the process.

Assigning dollar values to these benefits helps residents and decision-makers better understand how their investment in the trail network will impact the region.



#### WHEN THE WOLF RIVER GREENWAY IS COMPLETE, **GERMANTOWN WILL GAIN:**



797,000 MORE BIKE TRIPS PER YEAR



† 1,011,000 MORE WALK TRIPS PER YEAR



\$842,000 IN ACTIVE LIVING BENEFITS PER YEAR



\$561,000 IN TRANSPORTATION BENEFITS PER YEAR



\$1,421,000 IN ENVIRONMENTAL BENEFITS PER YEAR



\$265,000 IN ECONOMIC BENEFITS PER YEAR

over

# \$3.6 MILLION

IN TOTAL BENEFITS PER YEAR

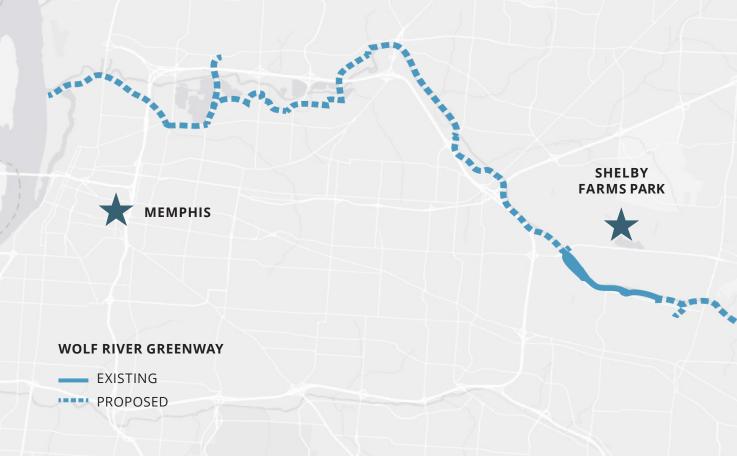
# **COLLIERVILLE GETS MOVING**

The Wolf River Greenway will connect neighborhoods from Mud Island and Downtown Memphis to Germantown and Collierville, providing residents and visitors a window into Tennessee's wilderness.

Designed for active transportation and outdoor recreation, this path will extend a total of 36 miles, linking residents and visitors to nature, rural farmlands, jobs, schools, shopping, restaurants, parks, and other attractions. With over 7 miles already built, the trail system is already bolstering the quality of life of the Memphis region.

The fully built Wolf River Greenway will improve health, economic, environmental, transportation, and equity issues across our region. Collierville residents will have a higher quality of life becuase of the trail, and we will attract new visitors in the process.

Assigning dollar values to these benefits helps residents and decision-makers better understand how their investment in the trail network will impact the region.



#### WHEN THE WOLF RIVER GREENWAY IS COMPLETE, **COLLIERVILLE WILL GAIN:**



728,000 MORE BIKE TRIPS PER YEAR



908,000 MORE WALK TRIPS PER YEAR



\$907,000 IN ACTIVE LIVING BENEFITS PER YEAR



\$467,000 IN TRANSPORTATION BENEFITS PER YEAR



\$1,178,000 IN ENVIRONMENTAL BENEFITS PER YEAR



\$166,000 IN ECONOMIC BENEFITS PER YEAR

over

# **\$3.0 MILLION**

IN TOTAL BENEFITS PER YEAR



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#### **PROJECT PARTNERS**

Relying on a unique network of community leaders and created through a base of knowledge since 1985, the Conservancy works to protect wilderness, to connect people to the outdoors, and to transform our community by completing the Wolf River Greenway.

The Conservancy is supported in the planning, design, and development of the Wolf River Greenway by a myriad of local partners, including the Hyde Family Foundations and the City of Memphis.

**Completed on December 9, 2014** 





## WOLF RIVER



#### **MISSION**

The Wolf River Conservancy is dedicated to the protection and enhancement of the Wolf River corridor and watershed as a sustainable resource. Relying on a unique network of community leaders and created through a base of knowledge since 1985, we work to protect wilderness, to connect people to the outdoors, and to transform our community by completing the Wolf River Greenway.

#### **WHAT WE DO**

- Protecting habitat within the Wolf River watershed.
- Spearheading the Wolf River Greenway project along the urban Wolf.
- Connecting people of all ages to the Wolf River through education.
- Providing outstanding recreational opportunities for our community.

#### CONTACT US

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