

A group of cyclists is riding on a paved path that runs alongside a river. The path is bordered by lush green grass and bushes. In the background, a concrete bridge spans across the river. The sky is filled with soft, white clouds. The overall scene is bright and scenic, suggesting a pleasant day for cycling.

Indiana Bicycle Trails TASK FORCE

FINAL REPORT



Bicyclists can find outstanding trails in many parts of Indiana. Currently, Indiana has more than 1,500 miles of hard-surface, off-road trails open to bicycles. Some communities have more miles than others, while others have none at all. Additionally, while some regions and organizations are working together on trail projects and connectivity, many are isolated.

The Bicycle Trails Task Force studied the feasibility of creating a larger, more comprehensive and connected trail network. Expanding the trail network would allow more Hoosiers and communities to enjoy the many benefits that trails and cycling provide. Additionally, such expansion would help Indiana to better compete with other states in areas such as quality of life for residents, economic development, and tourism. In comparisons to other states, and even other regions, Hoosiers are missing opportunities when it comes to both trail miles and connectivity. In fact, a recent Bicycle Friendly State report card ranked Indiana 38th out of the 50 states. We can do better.

As the Indiana Bicycle Trails Task Force began its statutory work to try to connect trails, Task Force members agreed that local communities were doing a great job of creating trails that served their citizens. Instead of drawing lines on a map that local communities must follow, the Task Force decided that finding ways to assist and encourage local communities to create trails would be more helpful to those communities. At the same time, if the Task Force could create an inspirational vision and network, communities that don't currently have trails would be inspired to develop trails that would connect to the network and bring recreation and tourism to their community.

Fortunately, Indiana has several models where a trail has become a catalyst for economic development, and communities have embraced trail expansion and support.

LEGISLATIVE MANDATE

During the 2017 session of the Indiana General Assembly, Representative Wes Culver of Goshen introduced legislation to connect bicycle trails in Indiana. Twelve legislators were listed as co-authors and sponsors, including Representative Carey Hamilton. As adopted, House Enrolled Act 1174 called for the governor to appoint members of a newly created Bicycle Trails Task Force. Both Representatives Culver and Hamilton were appointed to the Task Force. The Bicycle Trails Task Force was given specific tasks and directed to report its findings by July 1, 2019. Those tasks and the findings are outlined in this Final Report.

INVENTORY WHERE ARE THE TRAILS?

Indiana is blessed to have many miles of safe, accessible bicycle trails throughout our state. The Indiana Department of Natural Resources (DNR) tracks all types of trails, including bicycle trails that are open, under development or planned in the DNR Indiana Trails Inventory.

Under the leadership of former Governor Daniels, the DNR developed the first State Trails Plan in 2006. That plan included a goal of having a trail within 7.5 miles of every Hoosier. The plan also contained the State Visionary Trail System Map (see Exhibit A on page 3), which was derived with feedback from trail stakeholders and features a collection of trail corridors which form the backbone of connected trails across the state. Many of the trails on the Visionary Trail System Map have been created or advocated for by local governments, bicycle advocacy groups and other forces in local communities, often with the assistance of Metropolitan Planning Organizations (MPOs). As Indiana's trails became more popular and the system grew, the DNR updated the Visionary Trail System Map for 2016 State Trails Plan with the input of local trail managers, developers and other stakeholders.

This map can serve as a guide to future trail development and the connectivity of those trails. Although tremendous progress has been made since 2006, Governor Holcomb created Next Level Trails, a \$90 million competitive grant program, as a way to fund trail connections and further the build-out of the State Visionary Trail System.

As of May 2019, 488 miles of the 1,035-mile Visionary Trails System are open

TOP TRAILS

A few of the notable, longer trails in Indiana include:

Cardinal Greenway

62MI, Richmond–Muncie–Marion

Columbus People Trail System

22MI, Columbus

Monon Trail

24MI, Indianapolis–Hamilton

Nickel Plate Trail

42MI, Rochester–Kokomo

Panhandle Pathway

23MI, Winimac–Kenneth

Pumpkinvine/Mapleheart Trail

23 MI, Elkhart–Goshen–Middlebury–Shipshewana

Rivergreenway

25MI, Fort Wayne



or under development. This means that Indiana’s Visionary Trail system is currently 45.6% complete. Contrast this with 2016, when Indiana had 370 miles (37.1% complete). Without the Next Level Trails program, the system would most likely add 15-20 miles per year; however, with the exciting infusion of Governor Holcomb’s NLT program, trail development will grow across the state at faster rate for several years.

As the Visionary Trail System map reveals, many urban centers have expanding trail systems. Smaller cities and towns have important local trails, too. In most of these communities, there are discussions, or maybe just dreams, to expand and connect these trails to create a broad regional, state or even national trail network.

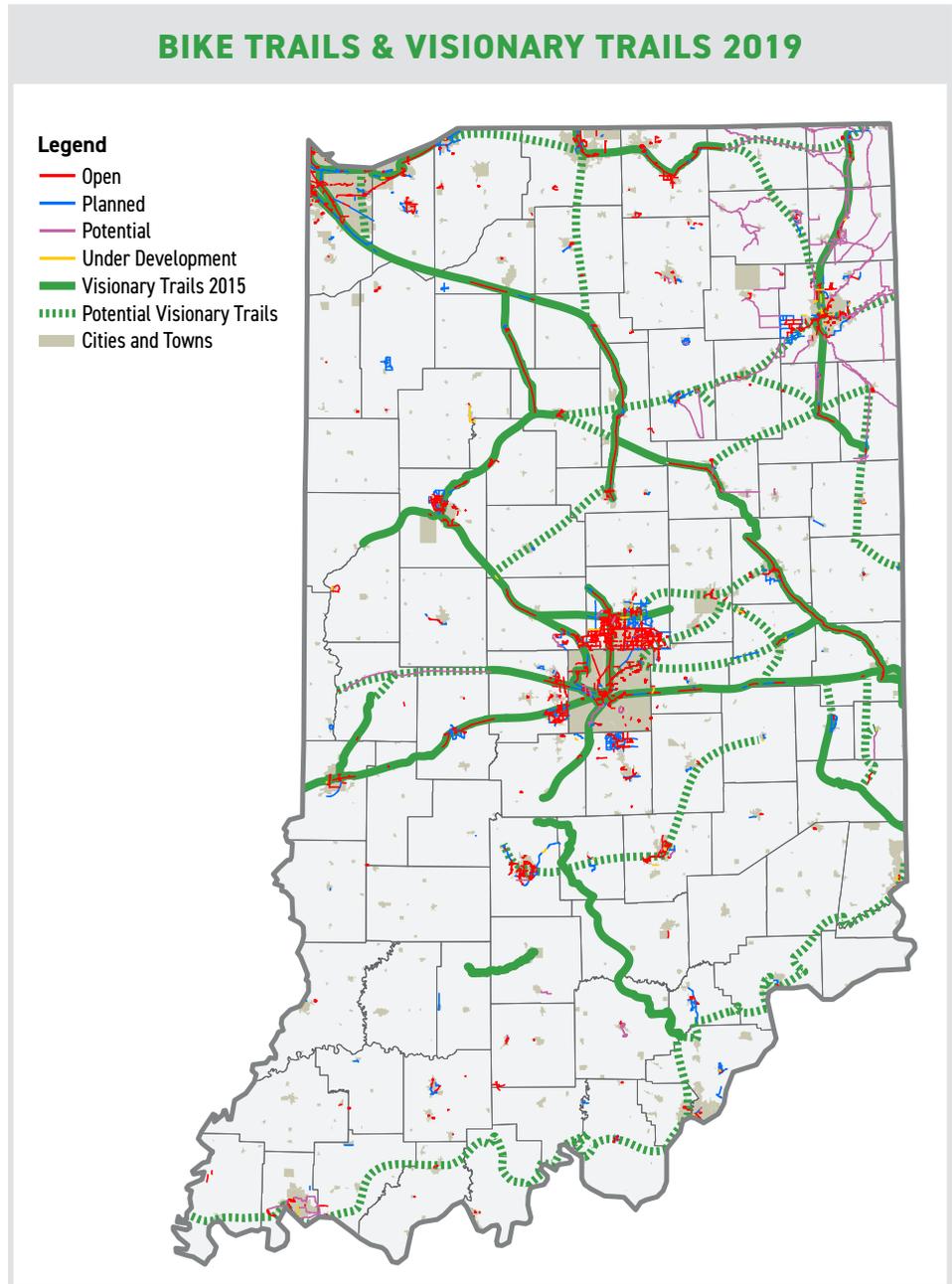


Exhibit A

GOVERNANCE WHO IS IN CHARGE?

One challenge to simply expanding all trails to connect with each other is that the governance of the trails varies from community to community. Most trails are owned and maintained by the local park service or similar government group, and therefore often stop at jurisdictional boundaries. Some trails have a “Friends of” volunteer, not-for-profit organization that seeks funding and provides maintenance. Some use a combination of public and private resources. And some are overseen by a small group of kindhearted volunteers.

Given this variety and complexity of ownership, governance, and maintenance abilities, the Task Force wrestled with promoting connectivity while respecting and preserving local control. Ultimately, the Task Force realized the governance was not as crucial as the result. If Indiana adopted a statewide brand for a Visionary Trail System, trail groups who wanted their trail to be included in the visionary brand would use whatever means they could organize and work with neighboring trail groups to meet the branded standard. (See “What Makes our Trail Special” below.)

**FUNDING WHO PAYS?**

The biggest challenge to simply completing all the proposed trails and connecting them to each other is funding. Lawmakers understood this challenge and specifically charged the Task Force to provide six innovative ways to fund the connections.

To adequately study and discuss the funding puzzle, the Task Force formed a Funding Subcommittee, chaired by the DNR's Amy Marisavljevic. First, the subcommittee reviewed the variety of sources used to fund the existing trails and possible new trails in Indiana (see Appendix A). These sources include several federal and state programs, a few of which are currently unfunded. Locally, there are opportunities for local governments to dedicate some of their local-option funding toward trails.

Private philanthropic organizations, whether national or local, are also an important source for trail funding. Community foundations and trail groups can help fund important trails. Many grant programs, including federal and state, require matching funds. Private companies and foundations can be the vital partner in providing that match. Local government funds may be leveraged to provide the match for an endowment or foundation grant if required.

To propose new funding opportunities, the Funding Subcommittee looked at successful trail-funding models in other states, as well as the expertise of Task Force members. Understanding the funding ideas needed to be acceptable to Hoosiers and lawmakers, the Task Force looked at proposals that (with one exception) did not create new taxes and proposals that could be tied to bicycling, outdoor recreation, transportation or the environment.

Though we were asked to propose six alternatives, the Task Force settled on seven recommendations for funding the connections:

1. **INCREASE TIPPING FEE:** This is the portion of waste management fees for trails. The Indiana fee is low compared to those of other states. An increase in the fee, which is paid to dump trash in community landfills, would also encourage recycling. The environmental tie-in matches outdoor recreation promotion, like bicycling. In 2019, tipping fees will generate \$4.7 million.
2. **ENCOURAGE USE OF PUBLIC-PRIVATE PARTNERSHIPS:** While it is difficult to predict how much would be generated, it should be noted that communities are finding the revenue. The Next Level Trails program requires a 20% local match. Local communities have largely been able to find that money and more, from local government, businesses, foundations and individual philanthropy. A branded state trail system may be more attractive to private funders as well as government.
3. **WASTE TIRE FEE REALLOCATION:** Part of this existing fee could be reallocated rather than increased. It was created to clean up waste tire dumps, most of which have been cleaned. Again, this is an environment and transportation-related fee that could support trails. IDEM collects \$1.3 to \$2.3 million a year, according to previous IDEM reports.
4. **DEDICATE A PERCENTAGE OF SALES TAX ON SPORTING GOODS:** This would not be a new tax. The change would dedicate a percentage of the existing sales tax representing the sale of bicycles, accessories and other recreation items. This is done in other states, like Texas. This portion of the sales tax on bicycles is projected to yield more than \$2.4 million a year.
5. **REALLOCATE SOME OF STATE GAS TAX:** This recommendation would reallocate the portion of this tax that represents gas sold for snowmobile and off-road vehicles (ORVs). Tennessee and South Dakota use a portion of their fuel tax for trails and outdoor recreation. A 1% gas tax paid by ORV and snowmobile users (similar to Federal Recreational Trails Program) would raise between \$800,000 and \$2 million a year, de-





pending on the formula used. A flat 1% (similar to existing federal Transportation Alternatives program) of all state gas tax sales would be around \$2 million a year for bike/pedestrian and alternative transportation projects.

6. **APPROPRIATE GENERAL FUNDS:** A semi-regular or occasional appropriation of General Funds would go into a trail fund and drastically accelerate trail development across the state. An example is the \$90 million fund for trails announced by Governor Holcomb and passed by the Indiana Legislature in 2019.
7. **CREATE A REAL ESTATE TRANSFER TAX:** This new tax would be on real-estate transfers. The revenue gained would go to quality-of-life amenities, such as trails and parks. At least eight other states collect taxes that go to improving quality of life. The tie-in to trails is that trails have been shown to increase the value of real estate. Arkansas, a smaller state than Indiana, brings in \$8 million annually from its Real Estate Transfer Tax, which goes to quality-of-life initiatives, such as parks, trails, tourism, arts, preservation, etc.

Combined, these alternative funding methods could generate significant funding for trail projects, including both development and maintenance. Review the next section, and the “How Close Are We?” section, to consider the impact of that funding.

COST HOW MUCH?

The cost of a bicycle trail depends on many factors. Is the route flat or hilly? Does it use an abandoned railroad bed? Does it follow a river or stream? Does it need to cross the stream, or even a drainage ditch? What surface is going to be used? What is the source of funding?

To assist the Task Force with its legislative charge to determine the cost of designing and constructing a connected trail system, INDOT and the consulting firm Cambridge Systematics and Toole Design developed a spreadsheet-based cost-calculation formula (see Appendix B). This cost estimator will be available to local communities to anticipate costs. From that report, some basic guidance emerges:

- In a rural setting, a crushed stone trail is \$265,000 per linear mile; asphalt is \$532,000 per linear mile; and concrete is \$586,000 per linear mile.
- In an urban setting, asphalt is \$798,000 per linear mile, and concrete is \$879,000 per linear mile. Crushed stone is not recommended in an urban setting.
- Hilly terrain could increase costs by 20%, due to more extensive grading and mobilization costs.
- Using abandoned railroad beds can reduce costs by 50%, due to reduced grading and mobilization expenses.
- Following river and streams can increase costs by 20%, due to increased environmental constraints.
- Due to increased permitting and environmental reviews, federal funding could increase costs by 50%, and State funding by 30%. Local funding requirements have little to no impact on costs.

Other factors that will influence costs include land acquisition; structures such as bridges, boardwalks, crosswalks; signage and traffic signals; and amenities such as restrooms, potable water, directional signage, benches, and bicycle racks. Additionally, the number of years to complete construction of a connected bicycle trail system will also drive costs, with annual bicycle trail construction inflation at 1 - 2% forecast for the next five years, according to INDOT.

Establishing a statewide brand and design guidelines would help communities anticipate the level of services and amenities, as well as the experience to expect. This would provide them a better picture of the costs.

For expense projection purposes, INDOT and DNR agreed on a base-cost estimate of \$600,000 per mile of bicycle trail for design and construction. This figure does not include any land acquisition expenses or any special structures or conditions in the calculations, since identifying those requirements is beyond the scope and resources of the Task Force.

While accepting the variations and limitations to predicting the costs of a statewide trails system, Hoosiers can begin planning for connecting trails. See “How Close are We?” below.



ROUTES & CONNECTIONS WHERE SHOULD THEY GO?

Bicycle trail plans often use maps to show where trails are going to go. These maps can inspire bicyclists and community members to envision families enjoying recreation and living in Hoosier cities and towns. At the same time, maps can make property owners anxious about what is going to happen to their property and their rights.

From the first meeting, the Task Force decided to avoid drawing maps. Communities have been determining the need and placement of bicycle trails for years. Even as the Task Force seeks to encourage communities to expand trail development, the rights of property owners as well as communities must be respected.

Instead, the Task Force talked about establishing criteria for a broader trail system. Local communities are always encouraged to develop local trails for local needs. A state system needs criteria to meet objectives of a statewide system. Furthermore, the criteria can be used to prioritize how much funding a project receives. A community can use the criteria to determine where a trail should be located.

Understanding the complex and sometimes controversial nature of route planning, the Task Force formed the Trail Corridor Subcommittee, chaired by Mitch Barloga, from the Northwest Indiana Regional Planning Commission. The DNR Visionary Trails System map shows where many of the state's trails exist, and where they are planned. The subcommittee used the map to identify broad geographic routes to connect existing trails. In addition, the map showed areas of the state that are underserved. In the underserved regions, it will still be the local communities' discretion if and where trails will be established.

From the study, the subcommittee suggested another way to categorize the trails for the Visionary Trails System. These trails are either completed, under development, planned or potential trails. The Visionary Trails System should be realigned and used to prioritize how money is spent on trails.

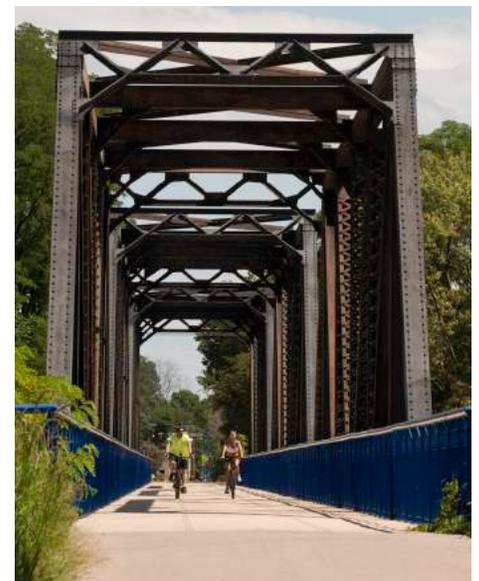
- **PRIORITY VISIONARY TRAILS:** Completed or well-planned and near completion.
- **POTENTIAL VISIONARY TRAILS:** Have a lesser degree of planning and support, and are likely to become Priority trails in time.
- **PROPOSED VISIONARY TRAILS:** Corridors that close gaps and connect major destinations. These may have no planning or very little planning. Stakeholders should be encouraged to work with the DNR to help these trails to become Secondary and Priority Visionary Trails. Though identified on a map, these are not exact routes as much as broad corridors connecting areas of interest or significance, such as those listed below.

As a way to prioritize trails that receive state funding, and to prioritize routes that should be Proposed Visionary Trails, stakeholders, with the assistance of the DNR, should use one or more of the following criteria:

- Corridor connects two or more counties.
- Corridor connects other Visionary Trails.
- Corridor connects cities and towns.
- Corridor connects to parks, recreation, or cultural destinations.
- Corridor follows, to the greatest extent feasible, abandoned railroad routes, utility corridors, and rivers/streams.

It should be noted that Governor Holcomb's Next Level Trails program adopted similar criteria.

An important point is that trails should go where people want to go. Indiana has beautiful amenities, like parks, recreation areas, and breathtaking scenery. In addition, there are lively cities, quaint towns, and entertainment venues that trails can connect. By capitalizing on these assets, and developing trail systems to link them, Indiana has the opportunity to create a regionally important, tourism-driven, recreational destination.





WHEN CAN WE CONNECT?

HOW CLOSE ARE WE?

It would be unrealistic to put a timeline and price tag on completing all the needed bicycle trails. Quite frankly, it is a growing project. As communities see the excitement of the trail system, and they see the benefits to the community (see “What’s in it for me?” below), they are going to seek to create a trail system or expand an existing one. The creation of an inspirational state brand will embolden the local communities’ efforts.

It should be noted that the first round of Next Level Trails grants provided \$25 million in funding for 17 projects; however, more than \$144 million in grant requests and 82 applications were submitted. Obviously, local communities are ready to expand their trail systems.

As noted earlier, Indiana has been making steady progress in trail development, using existing funding sources. More than 45% of the Visionary Trails System has been completed (see Exhibit B). Current funding would have provided for 15 – 20 miles per year, but, thanks to the boost from Governor Holcomb’s Next Level Trails program, it may see much more. The DNR anticipates that Indiana will have 50% of the Visionary Trail System completed in just a few years.

With a sustainable funding source, such as those listed in the “Who Pays?” section, the progress from 50% to upwards of 70% of the Visionary Trail System would be much faster. A new funding source would also allow communities to make significantly more progress on the Potential Visionary Trail System, which is currently 15.2% complete.

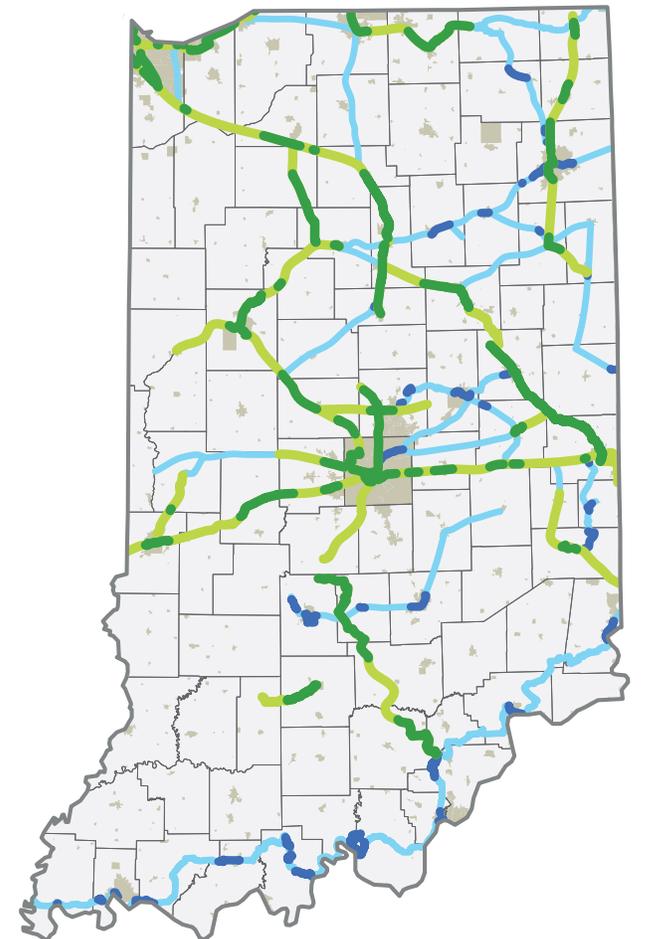
Another approach to the timeline is to look at the current status of funding and consider how many miles can be completed, then consider what dedicated funding sources can provide. We will use the cost of about \$600,000 per mile (see the “How Much?” section above).

- Current model, with no new funding = 20 miles per year.
- \$15 million from new funding sources = 25 more miles per year.
- Next Level Trails boost = an additional 150 miles over the next three years.

In the next 10 years:

- 200 miles from current model.
- 250 miles from new funding sources
- 150 miles from Next Level Trails
- 600 miles total

VISIONARY TRAILS SYSTEM PROGRESS



Legend

- Visionary Trails System - Open
- Visionary Trails System - Unopened
- Cities and Towns
- Potential Visionary Trails System - Open
- Potential Visionary Trails System - Unopened

VISIONARY STATUS			
	Total System Mileage	Open Mileage	Percent Complete
Visionary	1,070	488	45.61%
Potential Visionary	1,144	174	15.21%

Exhibit B

Governor Holcomb jump-started bicycle trails development by infusing \$90 million through the Next Level Trails program. In addition to boosting the bicycle trail efforts in Indiana, his program demonstrates how an influx of funding can speed up the progress of Indiana’s bicycle trail infrastructure and get more communities collaborating on connecting their trail systems.



THE BRAND

WHAT MAKES OUR TRAILS SPECIAL?

Indiana has an opportunity. We have an outstanding trail system. With the right brand and marketing, it could become a premier attraction in the state and serve as a tourism destination of regional importance.

At the first meeting of the Task Force, Representative Wes Culver brought up the idea of “The Indiana 500,” a connection of Indiana trails, equaling at least 500 miles, that people from around the country would like to visit. At each meeting, the concept of the brand, whether the Indiana 500 or something else, was discussed.

A successful brand would assure bicyclists from Indiana and beyond of what kind of trail experience they could expect. Bicyclists on the branded trail would know what kinds of amenities, like water, bike racks and restrooms, would be available. While established trails could retain their name and character, they would get a boost from being part of the network. For example: “The Monon Trail – part of the (brand) trail system.”

People who visit a McDonalds restaurant know what the experience is going to be. Likewise, visitors to an Indiana State Park know what to expect, even though the landscape and attractions can be very different. A franchise-type brand for the Indiana bicycle trail system would provide that same level of familiarity and comfort to visitors.

Furthermore, by demonstrating a broader, statewide effort, the Indiana bicycle trail plan could attract support from major benefactors and foundations. Independent trails can still serve local communities and be a very important part of that community. But if those trails are also part of the statewide, branded trail, they are sending a signal to funders that they are part of something bigger.

Examples of branded trails that are well -known in the bicycling community include: Iron-Belle Trail (Michigan); Katy Trail (Missouri), Great Allegheny Passage (Pittsburgh to Washington, DC), Ohio-to -Erie Trail (Ohio), Empire Trail (New York), Cowboy Trail (Nebraska), and Elroy-Sparta Trail (Wisconsin). These trails attract tourists from all across the country, while serving and benefiting their local communities.

THE VALUE OF TRAILS

WHAT'S IN IT FOR ME?

INDOT confirmed its commitment to active transportation with the creation of Towards an Active Indiana: Walking and Bicycling in the Hoosier State. The 2019 document focuses on bicycle and pedestrian infrastructure, including trails, and its many benefits. Though many groups cite the public health and other benefits of active lifestyles, including bicycling, below are some of the key points made during an INDOT presentation to the 2018 MPO Conference on Sept. 26, 2018 in Indianapolis.

HEALTH BENEFITS

- Obesity Rates: Increase 6% per hour spent in a car; Decrease 4.6% for each kilometer walked.
- Diabetes Rates: Rates decrease as percentage of trips to work by bicycle or walking increases.

TRANSPORTATION BENEFITS *(According to the Future of Transportation Survey)*

- 66% Americans want more transportation options so they have the freedom to choose how to get where they need to go.
- 73% currently feel they have no choice but to drive as much as they do.
- 57% would like to spend less time in the car.

ECONOMIC BENEFITS *(From the Indiana Office of Tourism Development (IOTD) 2016 report on the economic impact of recreation and tourism)*

- \$12.2 billion in spending
- 242,000 jobs
- \$2.9 billion in tax revenue

Residents and visitors, whether they are bicyclists or not, enjoy the expanded shops, restaurants, and activities that have sprung up around developed trails like the Indianapolis Cultural Trail, the Monon Trail and others.



STAYING SAFE HOW DO WE PROTECT BICYCLISTS?

Another legislative mandate for the Task Force was to recommend changes to Indiana law to make bicycling safer in Indiana. This was an important job for Task Force members because most members knew stories of traffic crashes and fatalities involving bicycle-automobile collisions. To adequately review crash statistics and safety proposals, the Task Force formed the Safety Subcommittee. The subcommittee was chaired by Pete Fritz from the Indiana State Department of Health (ISDH).

While bicyclists have legal rights to use most of the same roads motorists use, they are still vulnerable to interactions with motorized vehicles. Efforts to avoid those interactions, with a marked lane or a separated path, are best for bicyclists. The subcommittee generally agreed that separated paths are best for safety and for attracting bicyclists.

To capture the picture of bicycle crashes in Indiana, the subcommittee reviewed the *2012 Bicycle Collision Report* funded by the Indiana Criminal Justice Institute and The Governor's Highway Safety Association 2017 Safety Issues report. Unfortunately, bicycle fatalities have been rising in the United States since 2010. Crashes tend to concentrate around urban areas.

The subcommittee reviewed state law and regulations that have been adopted by local communities to increase safety for bicyclists. Many communities are trying various approaches to safety in their areas. To be most effective, any changes to state law should support best practices and standards, and support local efforts.

Ultimately, the Task Force recommends law amendment or change that supports and clarifies local efforts.

- **ADOPT A STATEWIDE SAFE PASSING LAW (3 FEET):** Several states have adopted this law. More importantly, some Indiana communities have adopted a 3-foot passing law. But those communities were unable to display traffic signs about the law on State Roads that go through their town, because it is not a state law.
- **ADOPT A STATEWIDE COMPLETE STREETS POLICY:** Many communities are adopting Complete Streets policies. The Task Force encourages Complete Streets concepts. To ensure consistency between communities, statewide policy and terminology need to be developed.
- **CLARIFY E-BIKE LAWS IN STATE STATUTE:** Electronically assisted bicycles, known as e-bikes, are growing in popularity. They can help people with physical limitations continue to enjoy cycling. Currently e-bikes come in three different power levels. Local communities have been attempting to pass regulations and limitations on e-bikes. It would be helpful to communities to have a common set of definitions about e-bikes. Further, the Task Force recommends local communities enact speed limits on their trails, rather than prohibiting e-bikes.

We applaud the 2019 Indiana General Assembly for adopting a safe passing law and e-bike clarification in HEA 1236. The legislature adjourned before this report was submitted, demonstrating that the Indiana General Assembly continues to be aware of important bicycling issues.

While not laws, safety programs can greatly increase the safety of families. The Task Force is recommending programmatic improvements in addition to the earlier legal recommendations.

- **PROVIDE BICYCLE SAFETY CURRICULUM FOR ELEMENTARY AND MIDDLE SCHOOLS:** This will help ensure children are aware of bicycle safety.
- **PROVIDE REGULAR TRACKING AND UPDATING OF BICYCLE CRASH DATA STATEWIDE:** Studying trends in accident data will help lead to future legal and policy changes.
- **CONSISTENT TRAINING OF POLICE AND LAW ENFORCEMENT REGARDING BICYCLE SAFETY:** Law enforcement are working very hard to keep our communities safe. As new bicycle safety rules and laws are adopted, law enforcement needs to be provided with adequate training and equipment.

Bicycle safety is extremely important as cycling increases in popularity. As our state develops a bike trail brand, riders will expect a certain level of safety and comfort.

**WHAT'S NEXT?**

Meetings of the Bicycle Trails Task Force included staff and information support from the Department of Natural Resources, Indiana Department of Transportation, Indiana Office of Tourism and the Indiana State Department of Health. Most members of the Task Force are involved in the planning, development, and promotion of bicycle trails in their community or across the state. The Task Force listened to reports from local communities, the Rails-to-Trails Conservancy and other relevant groups to learn more. In addition, members of the audience represented several groups interested in the status of trails. Each agency, group and individual is important to the future of Indiana's bicycle trail network.

Though the task force has reached the end of its legislated creation, the effort to coordinate the various bicycle interest groups needs to continue. Several tasks are not finished:

- Create the Indiana bicycle trail brand.
- Promote and monitor the brand.
- Seek funding for the system.
- Monitor and promote progress toward the system.
- Serve as a central service point for communities seeking trail assistance.
- Assist in the passage of laws and creation of programs that make Indiana safer and more bicycle-friendly.

The legislature created something important by pulling interests together with the Bicycle Trail Task Force. The task force recommends that this important work continue.

Thank you to the task force members for their time and energy over the past two years:**Mitch Barloga**

Northwest Indiana Regional Planning Commission

Rep. Wes Culver

Indiana House of Representatives District 49

Andrew Forrester

City of Madison

Pete Fritz (Designee of Dr. Kristina Box)

Indiana State Department of Health

Paul Grayson, *Vice Chairman*

Indianapolis Zoo

Vincent Griffin

Retired from Indiana Chamber

Rep. Carey Hamilton

Indiana House of Representatives District 87

Mayor SuzAnne Handshoe

Mayor of Kendallville

Kyle Hannon, *Chairman*

Ivy Tech Community College*

Rebecca Holwerda

Indiana Governor's Office

Bruce Kimball

Carmel City Council

Kara Kish

Vigo County Parks and Recreation

Amy Marisavljevic (Designee of Cameron Clark)

Indiana Department of Natural Resources

Jay Mitchell (Designee of Joe McGuinness)

Indiana Department of Transportation

Noelle Szydlyk (Designee of Misty Weisensteiner)

Indiana Office of Tourism Development

Dean Peterson

Marian University

Justin Schneider

Indiana Farm Bureau

Jeffrey Smallwood

Hendricks County Trail Development





APPENDIX A

Current Trail Funding Opportunities

Federal

- Surface Transportation Block Grant (STBG)
<https://www.fhwa.dot.gov/specialfunding/stp/>
- Transportation Alternatives (TA)
https://www.fhwa.dot.gov/environment/transportation_alternatives/
- Recreational Trails Program (RTP)
<https://www.in.gov/dnr/outdoor/4101.htm>
- Congestion Mitigation & Air Quality Improvement (CMAQ) Program
https://www.fhwa.dot.gov/environment/air_quality/cmaq/
- Better Utilizing Investments to Leverage Development (BUILD)
<https://www.transportation.gov/BUILDgrants/about>
- Land and Water Conservation Fund (LWCF)
<http://www.in.gov/dnr/outdoor/4071.htm>

State

- Next Level Trails (NLT)
<http://on.in.gov/nextleveltrails>
- President Benjamin Harrison Conservation Trust
<http://www.in.gov/dnr/heritage/4426.htm>
- Place Based Investment Fund
<http://www.in.gov/ocra/pbif.htm>
- Destination Development Grant
<http://www.visitindianatourism.com/industry-partners/awards-grants>
- Regional Cities
<https://www.iedc.in.gov/programs/regional-cities-initiative/home>
- Stellar Communities
<http://www.in.gov/ocra/stellar.htm>
- Wabash River Heritage Corridor Fund
<http://www.in.gov/dnr/outdoor/4067.htm>
- Bicycle and Pedestrian Plan Funding Program
<https://www.in.gov/isdh/25141.htm>
- State Trails Grants (no more funds)
- Bicentennial Nature Trust (no more funds)
- Recreational Trails Maintenance Fund (no funding mechanism)

**Individual communities, counties, townships appropriations**

- Local Option Income Tax (LOIT)
 - County Option Income Tax (COIT)
 - County Adjusted Gross Income Tax (CAGIT)
 - County Economic Development Income Tax (CEDIT/EDIT)
 - <https://www.agecon.purdue.edu/crd/localgov/Second%20Level%20pages/locinctaxtab.pdf>
- TIF-Only in designated areas
- Local/County Recreation Impact Fees (RIF)
- County “Wheel” Tax

Other

- Community Foundations
<https://www.tgci.com/funding-sources/IN/community>
- Non-Profit Trail Grants
 - Rail-to-Trails Doppelt Family Trail Development Grant
<https://www.railstotrails.org/our-work/doppelt-family-trail-development-fund/>
 - People for Bikes Community Grants
<https://peopleforbikes.org/our-work/community-grants/>
 - Greenways Foundation
<http://www.greenwaysfoundation.org/grants.html>
 - Indiana Trails Fund
<http://www.indianatrails.com/?q=content/indiana-trails-fund>
 - Local Bicycle Clubs
 - Bloomington Bicycle Club
 - CIBA Foundation
- Private Foundations/Endowments
 - Lilly Endowment
 - Ball Foundations
- Corporate Grants, Sponsorship, Partnerships
 - REI
 - Walmart
- Utility Companies Funding Sources or Partnerships
 - Citizens Energy
 - Duke Energy
 - Northern Indiana Public Service Company (NIPSCO)
 - Vectren Energy
- Individual Donors

**APPENDIX B****Trail Planning-Level Cost Calculator Instructions****Instructions**

To estimate the cost of a trail, enter the information you know about the potential trail in the **yellow cells** on the **Calculator** Tab.

How It Works

Each "variable" is linked to a multiplier that changes the relative cost of the trail based on the cost implications of that specific trail characteristic. All the multipliers embedded in this trail calculator can be found on the "Back Office" worksheet.

Variables are cumulative, that is, each multiplier builds on the one before it.

Assumptions

Trail width is user-defined and is assumed to have 2' gravel shoulders on each side of the trail.

Unit costs are based on INDOT 2017 average unit costs.

Cost opinions do not include easement and right-of-way acquisition; permitting, inspection, or construction management; extensive surveying, geotechnical investigation, environmental investigation, documentation, and mitigation; special site remediation, escalation, or the cost for ongoing maintenance.

It is recommended that planning-level cost opinions include a 30 percent contingency to cover items that are undefined or are typically unknown early in the planning phase of a project.

A cost range has been assigned to certain general categories such as utility relocations; however, these costs can vary widely depending on the exact details and nature of the work.

Construction costs will vary widely based on the ultimate project scope, actual site conditions and constraints, schedule, and economic conditions at the time of construction.

The overall cost opinions are intended to be general and used only for planning purposes. Toole Design Group, LLC makes no guarantees or warranties regarding the cost opinion herein.



Trail Planning-Level Cost Calculator

Trail Descriptor	Variable
Surface	Asphalt
Length (miles)*	1
Width	12
Setting/Location	Urban
Terrain	Flat
Former railroad grade	Yes
Along stream/river bank	No

Constuction Subtotal	\$ 462,000
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Construction Contingency	30%	\$ 139,000
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Estimated Construction Cost of Trail	\$ 601,000
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Estimated Cost of Design	\$ 93,000
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Funding Source Design Escalation	Local	\$ -
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Total Estimated Cost of Trail	\$ 694,000
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Average Cost per Mile	\$ 694,000
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*Need help calculating the miles of trail? Enter the number of feet or meters to get the length in miles!

	Trail Length	Miles
Feet	5,280	1.00
Meters	1,600	0.99



Trail Cost Multipliers

Trail Type	Cost/Mile	Notes
Crushed Stone	\$ 75,000	Cost per mile for two 2' wide gravel shoulders
Asphalt	\$ 112,000	Cost per mile for two 2' wide gravel shoulders
Concrete	\$ 76,000	Cost per mile for two 2' wide gravel shoulders

Trail Type	Cost/Mile	Notes
Crushed Stone	\$ 19,000	Cost per mile per foot of trail width (not including shoulders)
Asphalt	\$ 42,000	Cost per mile per foot of trail width (not including shoulders)
Concrete	\$ 51,000	Cost per mile per foot of trail width (not including shoulders)

Setting	Multiplier	Notes
Rural	1	
Urban	1.5	Accounts for increased crossings, utility adjustments

Terrain	Multiplier	Notes
Flat	1	
Hilly	1.2	Accounts for increased cost of mobilization and grading

Railroad Grade	Multiplier	Notes
Yes	0.5	Accounts for reduced grading and mobilization
No	1	

Stream/River	Multiplier	Notes
Yes	1.2	Accounts for increased environmental constraints
No	1	

Funding Source	Multiplier	Notes
Local	0%	
State	30%	Accounts for increased permitting, environmental review
Federal	50%	Accounts for increased permitting, environmental review



Trail Cost Components by Surface Type



Unit Costs

Grading (CY)	\$ 20	INDOT 2017 Unit Costs
Aggregate - Base (CY)	\$ 50	INDOT 2017 Unit Costs
Aggregate - Surface (CY)	\$ 60	INDOT 2017 Unit Costs
Asphalt - Base (TON)	\$ 80	INDOT 2017 Unit Costs
Asphalt - Surface (TON)	\$ 100	INDOT 2017 Unit Costs
Concrete (SY)	\$ 50	INDOT 2017 Unit Costs

Fixed Costs

Landscape	5%	Applied to trail cost subtotal
Drainage/Erosion/Sediment	10%	Applied to trail cost subtotal
Maintenance of Traffic	5%	Applied to trail cost subtotal
Utility Adjustments	10%	Applied to trail cost subtotal
Design	20%	Applied to trail cost subtotal

Conversions

Asphalt - Tons/Cubic Yard (CY)	1.96
Cubic Inches to Cubic Yard (CY)	46,656
Inches per foot	12
Inches per mile	63,360

Crushed Stone Surface Trail

Shoulder Width (in/side)	24
Aggregate Base (in)	8
Aggregate Surface (in)	4

Shoulder Cost per Mile (4 FT total w Quantity	Quantity	Cost
Grading (CY) Aggregate	782	\$ 15,644
- Base (CY) Aggregate -	521	\$ 26,074
Surface (CY)	261	\$ 15,644
Shoulder Subtotal / Mile		\$ 57,363
Landscape	5%	\$ 2,868
Drainage/Erosion/Sediment	10%	\$ 5,736
Maintenance of Traffic	5%	\$ 2,868
Utility Adjustments	10%	\$ 5,736
Shoulder Total / Mile		\$ 75,000 Cost does not vary with trail width

Trail Cost per Mile (1 FT total width) Quantity	Quantity	Cost
Grading (CY) Aggregate	196	\$ 3,911
- Base (CY) Aggregate -	130	\$ 6,519
Surface (CY)	65	\$ 3,911
Trail Subtotal / Mile		\$ 14,341 Cost per mile per foot of width
Landscape	5%	\$ 717
Drainage/Erosion/Sediment	10%	\$ 1,434
Maintenance of Traffic	5%	\$ 717
Utility Adjustments	10%	\$ 1,434
Trail Total / Mile		\$ 19,000 Cost does not vary with trail width



Asphalt Surface Trail

Shoulder Width (in/side)	24
Aggregate Base (in)	12
Trail: Asphalt Base (in)	4
Trail: Asphalt Surface (in)	2

Shoulder Cost per Mile (4 FT total width)

	Quantity	Cost	
Grading (CY) Aggregate	1,173	\$ 23,467	
- Base (CY) Aggregate -	782	\$ 39,111	
Surface (CY)	391	\$ 23,467	Depth equal to total paved
Shoulder Subtotal / Mile		\$ 86,044	Cost does not vary with trail width
Landscape	5%	\$ 4,302	
Drainage/Erosion/Sediment	10%	\$ 8,604	
Maintenance of Traffic	5%	\$ 4,302	
Utility Adjustments	10%	\$ 8,604	
Shoulder Total / Mile		\$ 112,000	Cost does not vary with trail width

Trail Cost per Mile (1 FT total width)

Grading (CY) Aggregate	293	\$ 5,867	
- Base (CY) Asphalt -	196	\$ 9,778	
Base (TON) Asphalt -	128	\$ 10,208	
Surface (TON)	64	\$ 6,380	
Trail Subtotal / Mile		\$ 32,232	Cost per mile per foot of width
Landscape	5%	\$ 1,612	
Drainage/Erosion/Sediment	10%	\$ 3,223	
Maintenance of Traffic	5%	\$ 1,612	
Utility Adjustments	10%	\$ 3,223	
Trail Total / Mile		\$ 42,000	Cost does not vary with trail width

Concrete Surface Trail

Shoulder Width (in/side)	24
Aggregate Base (in)	7
Trail: Concrete Surface (in)	5

Shoulder Cost per Mile (4 FT total w Quantity Cost

Grading (CY) Aggregate	782	\$ 15,644	
- Base (CY) Aggregate -	456	\$ 22,815	
Surface (CY)	326	\$ 19,556	Depth equal to total paved
Shoulder Subtotal / Mile		\$ 58,015	Cost does not vary with trail width
Landscape	5%	\$ 2,901	
Drainage/Erosion/Sediment	10%	\$ 5,801	
Maintenance of Traffic	5%	\$ 2,901	
Utility Adjustments	10%	\$ 5,801	
Shoulder Total / Mile		\$ 76,000	Cost does not vary with trail width

Trail Cost per Mile (1 FT total width) Quantity Cost

Grading (CY)	196	\$ 3,911	
Aggregate - Base (CY)	114	\$ 5,704	
Concrete (SY)	587	\$ 29,333	
Trail Subtotal / Mile		\$ 38,948	Cost per mile per foot of width
Landscape	5%	\$ 1,947	
Drainage/Erosion/Sediment	10%	\$ 3,895	
Maintenance of Traffic	5%	\$ 1,947	
Utility Adjustments	10%	\$ 3,895	
Trail Total / Mile		\$ 51,000	Cost does not vary with trail width