

Task Five: Connectivity

In this task, the team developed an understanding for existing opportunities and gaps related to connectivity along the White River. The team evaluated efforts underway in both Hamilton and Marion Counties, and recommended potential areas for improvement.

The following pages detail our understanding of the current conditions and plans for the river.

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TASK FIVE: CONNECTIVITY

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Adjacent Parcel Documentation

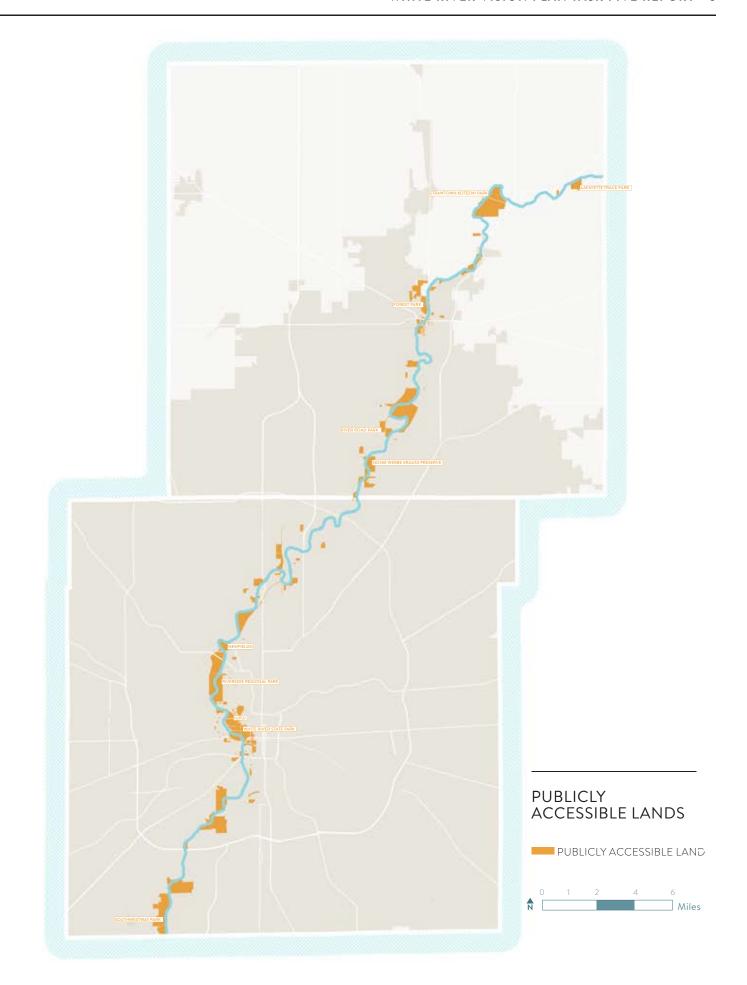
Adjacent Parcel Documentation

Central Indiana's economic, social and environmental health is interconnected and tied to the health of the White River. Flooding is not the only detractor from this fine balance; yet, it is often one of the first issues considered and most directly apparent. Other significant issues include lost cropland, lack of affordable access to safe housing, poor access to parkland and the river, and loss of native species. All three regional health indicators need to be leveraged in order to address increasing pressures on the White River and access to it. In the last few decades, both Hamilton and Marion County have made major strides to protect floodplains and wetlands from flooding and runoff.

To begin, evaluating land ownership adjacent to the river helped to provide an overall snapshot at the two-county scale and a way to understand opportunities for improved river access, connectivity, and flood resilience or adaptability. Along the river, there are four general parcel types related to river access:

- Publicly Owned, Publicly Accessible: land owned by state, county, city or other public organizations. Publicly owned and accessible land includes primary and secondary schools, city or state-owned higher education institutions, public parks, plazas, open spaces and preserves.
- Publicly Owned, Limited to No Access: these lands include those that are publicly owned but have limited public access like public utilities or utility easements.
- Privately Owned, Publicly Accessible:
 Private colleges and private parks that are open to the public fall within this category.
- Privately Owned, Limited Public Access: These lands include non-profit organizations with entry fees like museums and private education institutions.
- Privately Owned, No Public Access: private residences, businesses, industries, farms, and other privately held land falls within this category.

The map to the right summarizes parcels that are publicly accessible to the waterfront and are either publicly owned or on private property.



Publicly Owned Land

Only twenty percent of all property adjacent to the White River is publicly accessible and either privately owned/operated or publicly accessible and publicly owned. About four percent of land along the river is publicly owned, but deemed to be inaccessible because of the nature of its operations – including utilities like wastewater treatment facilities, electrical substations, and lifting stations.

Overall, only a small amount of land adjacent to the river is publicly-owned or accessible. Much of this public land also is comprised of environmentally sensitive areas or contains major utilities. Consideration will need to be sensitive to privately-owned land, as well as areas where there is regular flooding.

Limited access is an issue in certain areas where the river banks are steep, rugged, and dense with vegetation that offers little or no clear view of the river. While these conditions exist only in certain areas along the study area, they do serve ecological functions. Areas dominated by scrub or invasive vegetation can be ideal locations for native landscape restoration initiatives and incorporation of accessible pathways.

Access to the river from major public rightsof-way is also an issue throughout the study area. While bikeways and pedestrian ways are being incorporated into some roadways and bridges, there are still many missed opportunities for allowing multimodal access down to the river edge.

Privately Owned Land

Within Hamilton County and Indianapolis, about 76% of the parcels adjacent to the river (within a half-mile from the river) are privately owned. These parcels are primarily agricultural, industrial or residential land uses – the former two land use types have been shrinking over the past several decades. This reduction has given way to more waterfront residential land uses, particularly close to economic centers like Downtown Noblesville, Keystone Crossing, and Downtown Indianapolis.

Methodology

Data for the public land study and model was drawn from publicly available sources, including the State of Indiana and GIS shapefiles from Hamilton County and the City of Indianapolis. Field verification during the fall and winter months of 2019 occurred with County officials, and partially aided in the completion of this model; discrepancies in owner exempt status and changes in ownership may still exist. Property ownership was deciphered by property type classification codes and tax exempt status. Due to the fact

that datasets varied in level of detail, publicly owned data within each county's dataset was simplified into the following classification code organization:

- 600 Federal
- 610 State
- 620 County
- 630 Township
- 640 Municipality
- 650 Board of Education
- 660 Park District
- 670 Private Academy or College
- 680 Charity
- 690 Cemetery
- 800 Utility

Existing Mobility Documentation

In conjunction with Task Report One, the following summarizes the review of implemented and planned pedestrian, bicycle, and shared mobility infrastructure within the study area. Site visits were performed to confirm the accuracy of existing documentation.

Hamilton Gounty

Non-motorized

There are a number of planned projects within non-motorized pedestrian and park spaces which will enhance connectivity within Hamilton County. These initiatives are listed in the subsequent paragraphs.

Serving as the northern "bookend" to the White River Vision Plan (WRVP) study area, Strawtown-Koteewi Park is currently accessible via the east-west 234th & 236th Street corridor, and offers direct connectivity to the White River. This corridor is classified as a primary arterial due to current traffic volume. The existing right-of-way width is sufficient for a multi-use trail, which is identified in the North Hamilton County Trail Master Plan. The trail will connect

Strawtown-Koteewi Park and the White River to Cumberland Drive, the main north-south road just west of Koteewi and the Towns of Cicero, Arcadia, and Atlanta to the north and west.

A primary east-west corridor, 234th Street becomes Strawtown Avenue and winds parallel with the river. At State Road 13, it becomes West 8th Street Road and continues as it winds east and in close proximity to the river all the way to downtown Anderson – creating significant connectivity potential.

This area spans between and contiguous to 146th Street north to the entrance to the White River Canoe Company approximately at 170th between River Road and the White River. 146th Street is a significant east-west primary arterial in Hamilton County and extends between the far eastern end of Noblesville past I-69, Hamilton Town Center's retail and commercial district, and west through the City of Carmel to the Boone County and Hamilton County line. At that juncture, it becomes County Road East 300 South, and terminates at I-65 North after over thirty-six miles.

Within the study area, 146th Street currently has separated multi-use trails on both sides. The pedestrian ways need to be widened and



STRAWTOWN KOTEEWI TRAIL UNDER 234TH STREET.



TRAIL AT BROAD RIPPLE ARTS CENTER



MONON TRAIL IN BROAD RIPPLE



WHITE RIVER STATE PARK

improved, but offer opportunities to provide dual multi-use trails, a wide central median, an iconic bridge structure, other smaller open recreation areas, public art, interpretive rest areas, and direct access to the river.

The 146th Street corridor is located halfway between Noblesville and Fishers. Any improvements associated with the roadway could be shared since there are contiguous parcels in each jurisdiction.

Nickel Plate Multi-use Trail, Noblesville, Indiana: Plans for the trail extend from downtown Noblesville south to 146th Street through Fishers and into Indianapolis creating a seventeen-mile trail between Noblesville and Fishers. Plans for the trail in Noblesville are currently on hold to prioritize other transportation-related projects, including the expansion of Route 37.

Conner Prairie Nature Amphitheater Stage and White River Overlook: Located at 134th and Allisonville Road in Fishers, this fiftyseat nature amphitheater is nestled in the trees near the river and features a covered, raised stage for nature chats, performances, and storytelling. The White River Overlook provides a place to appreciate nature and highlight the history and ecology of the White River through interpretive signage and interactive displays.

Midland Trace Trail, Noblesville, Indiana: This multi-use trail is planned to extend six and a half miles between the City of Westfield and downtown Noblesville. Phase II is currently under construction. The trail will eventually connect the Monon Trail in Westfield and

the White River in Noblesville. Phase III is expected to be completed in 2019, and will complete the final section between Willowview Road and Hague Road.

Cumberland Road Connector: This connector trail is planned between Potter's Bridge, Noblesville, and Town of Cicero along Cumberland Road. Potters Bridge is located just north of 191st Street in Noblesville and crosses the White River. The proposed trail will head north and east from the bridge to Cumberland Road, just west of Highway 37 and north to Cicero.

Logan Street Pedestrian Bridge: This is a joint project between Hamilton County and the City of Noblesville. The existing bridge in downtown Noblesville will be rehabilitated and widened to provide pedestrian connectivity between downtown Noblesville, the River Walk, and Federal Hill Park. A pedestrian walkway will be added to the south side of the roadway and separated from vehicular traffic by bridge railing.

Phase I of the downtown Noblesville Riverwalk: This is a county-led project and consists of a trail connecting the county employee parking lot and the Hamilton County Judicial Center, under the Conner Street/State Road 32 Bridge. Phase Two of Riverwalk was a city-led project, extending the trail under the Logan Street Bridge and connecting with the pedestrian bridge, Forest Park, Potter's Bridge, and Field Drive. Phase Three connected the two completed portions behind the Judicial Center. It also joins with the southern extension between Maple Avenue and Division Street.

Motorized

There are a number of planned projects within motorized streets and thoroughfares which will enhance connectivity within Hamilton County. These initiatives are listed in the subsequent paragraphs.

Pleasant Street Extension in Noblesville, Indiana: Located between Washington and Walnut Streets, Pleasant Street is scheduled to be enhanced and widened to allow for a combination of separated and contiguous bicycle and pedestrian trails, medians, wayfinding, lighting, landscape, and miscellaneous amenities. The Pleasant Street improvements will occur between Highway 37 west toward southern downtown Noblesville, across the White River and connect to Hague Road. Pedestrian access to the river at the bridge crossing will be included.

126th Street Improvements: These improvements include a connector between the east and west legs of the corridor over the White River currently scheduled for late 2019.

146th Street and Allisonville Road Improvements: Improvements include a grade-separated interchange and widening, as well as a pedestrian walkway. The project is currently in the preliminary design phase, so design parameters may change.

Improvements to Allisonville Road between 126th Street and 131st Street: These improvements are in the design phase, with construction commencing in 2018. The project includes the widening of Allisonville Road and signalized intersections, with multiple lane approaches at 126th and 131st Streets. New pedestrian walkways, lighting, and landscaping will also be included.

Nickel Plate Multi-use Trail in Fishers, Indiana: Currently in the early planning phase, this trail will be paved and constructed on the former Nickel Plate railroad corridor. The trail will extend between downtown Fishers and 146th Street north approximately four miles, where it will connect with the Noblesville segment. The proposed trail is in proximity to and parallels the White River.

Marion Gounty

Non-motorized

There are a number of planned projects within non-motorized pedestrian and park spaces which will enhance connectivity within Marion County. These initiatives are listed in the subsequent paragraphs.

Pathways Over Pogue's Run: Pogue's Run Greenway is a 5.3-mile trail corridor planned on the near northeast side of Indianapolis. The trail extends between 10th Street at the Monon Trail and the Indianapolis Cultural Trail, to the Pogue's Run Art and Nature Park.

Keystone Avenue and the Monon Trail Facility: This is a separated trail facility being planned between Keystone Avenue and the Monon Trail Pedestrian Bridge at College Avenue. This trail facility will utilize the section of roadway that is currently a bicycle lane to become the separation between the street and the trail. It will be located along the north edge of 62nd Street and Broad Ripple Avenue.

The Monon Trail: Indianapolis' major multi-use trail is a critical and highly utilized pedestrian and bicycle connection between downtown Indianapolis and the northern edge of Westfield twenty-six miles north.

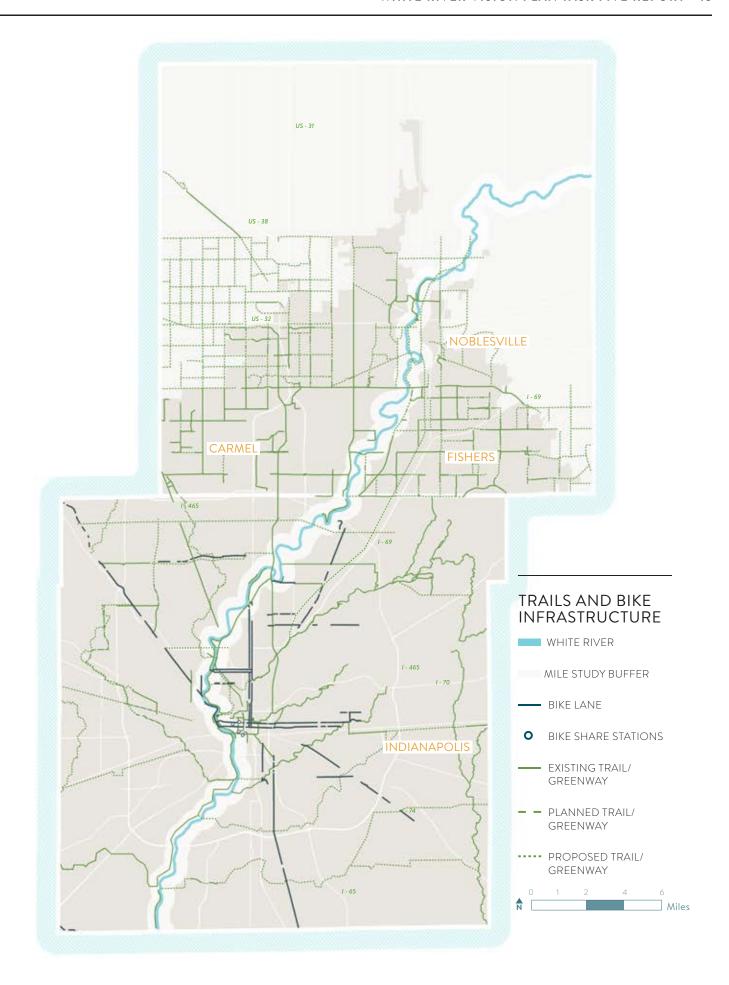
Broad Ripple Park: Located along 62nd Street and adjacent to Broad Ripple Village, the Broad Ripple Park Master Plan was completed in spring of 2018, and incorporated the following guiding principles and planning and design elements. The plan emphasized a connection to the White River, Broad Ripple Village, and adjacent neighborhoods and communities. The master plan also set forth areas for active and passive forms of recreation as well as environmental education.

Riverside Park: Neighborhood connectivity is planned as part of the Riverside Park implementation along with improvements to the existing White River Greenway Trail.

Newfields Connector Trail: 38th Street is an active six lane road that poses safety risks to pedestrians and bicyclists on the route or attempting to cross the route, getting the fairgrounds, Newfields or to continue along the Monon Trail. Planned trail investments along 38th will create multimodal connections along 38th Street between the International Marketplace and Newfields.

Baltimore & Ohio Trail: Planned pedestrian and bicycle trail connections are funded for a stretch of the former B&O Rail between the Town of Speedway and downtown Indianapolis. The Town of Speedway currently has a trail in place, and another planned for a segment of the B&O Rail Trail. Their connection to the White River and downtown Indianapolis is a key link that will encourage east west connections to and across the river.

10th Street White River Greenway Trail Connector: This short trail segment will provide a new connection between the current at-grade trail, under the 10th Street Bridge at



White River in downtown Indianapolis, and connect to the street level across from the Veterans Administration Medical Center. The project is planned for completion in 2022.

Riverside Marina Project: This project is located along the west bank of the White River just north of 29th Street, and is the proposed new home for the Indianapolis Parks Foundation offices. The project is anticipated for completion in 2019.

Fall Creek Trail Extension Phase I: This trail extends the existing Fall Creek Trail at Meridian Street to Burdsal Parkway. Phase II also planned for 2020, and will connect at Burdsal Parkway to the White River Trail at 10th Street/Indiana Avenue. These two phases will be a key link in the Indianapolis Greenway Master Plan.

White River Trail extension: A segment connecting downtown Indianapolis south to Southwestway Park is planned, as indicated in the Indy Greenways Full Circle Plan. Schedule for completion and details regarding this project are unknown at this time.

Motorized

There are a number of planned projects within motorized streets and thoroughfares which will enhance connectivity within Marion County. These initiatives are listed in the subsequent paragraphs.

A new roundabout is currently under construction on 96th Street at Keystone Avenue. Two new roundabouts are planned: the first is along 96th Street at Priority Way and the second is just west of Allisonville Road at Hazel Dell Parkway.

Rehabilitation and widening of the lanes of the bridge over the White River at Oliver Avenue and McCarty Street is planned for completion in 2019.

A comprehensive list of long-term roadway and bridge projects are identified in the 2016 update for The Indy Moves Transportation Integration Plan as part of the Comprehensive Plan, and have been considered.

Southport Road is currently planned for widening and will include a trail within its existing right-of-way to offer connectivity to Southwestway Park from the east and west. Vehicular access is adequate, but needs to be addressed as the park is improved and programming is expanded.

PHYSICAL







EXISTING INFRASTRUCTURE - RAIL, LEVEES, DAMS

ACCESS - ROADWAYS, TRAILS

ADJACENT ZONING - EXISTING NON-RECREATIONAL

OWNERSHIP - PRIVATE PROPERT

VISUAL









EXISTING INFRASTRUCTURE- BRIDGES, LEVEES, DAMS

EXISTING DEVELOPMENT

DENSE VEGETATION

GRADE - STEEP SLOPES

Issues

There are a number of issues which influence current and future connectivity patterns. Such observed issues include:

- Flood zones
- Environmental constraints
- Existing private and industrial uses
- Existing visual character
- Inaccessibility
- Limited or no pedestrian/vehicular access
- Poor visibility

Opportunities

The study area is ripe for enhanced connectivity, with seemingly endless program opportunities that could bring a focus to river ecology, environment, education, and future conservation. Within the study area, there are a few potential undeveloped sites along the river that provide direct river connection and public-private partnership opportunities.

Many opportunities could be used to provide or leverage better connectivity. These include: planning to tie connectivity investments to population density; implementing recent Master Plan efforts; offering a broad variety of recreational uses, and establishing a series of major destinations along the river. Issues that prohibit connectivity include: narrow rights-of-way, traffic, visibility of the White River, crime rates, and limited access to programs on

or near the river, especially during the colder months.

The major vehicular connection to Broad Ripple from the east is 62nd Street which extends from Binford Boulevard and becomes Broad Ripple Avenue at Keystone Avenue. Due to limited right-of-way width, there is only a small section of separated multi-use trail between Allisonville Road and Glendale Shopping Center and sections of on-street bikeways. From that location west is a combination of separated walks and on-street bikeways leading into Broad Ripple. Connectivity from the areas to the west is a significant issue. East-west corridors tying directly to Broad Ripple from the west are very limited. The closest two are Kessler Boulevard approximately one mile south, and 71st Street approximately one and a half miles north. Both are too narrow to accommodate separated pedestrian and or bicycle trails.

The primary vehicular network surrounding Riverside Park consists of 29th Street to the north and 16th Street on the south. Both are east/west corridors and primary arterials. Cold Spring Road to the west and East Riverside Drive are the major north/south collector streets. This area is proposed as a primary catalyst site, due to the improvements planned for the park and its significance to the existing surrounding neighborhoods. Currently this area is significantly underserved and the parks that exist are in need of improvements and program offerings. A master plan for the park

was completed in 2017.

The primary arterial in the vicinity of Riverside north of 29th Street is the 38th Street corridor which serves as a major vehicular connection between the far west and east side of Indianapolis, second only to Washington Street, US 40 to the south. 38th Street is home to Newfields and the Indiana State Fairgrounds and feeds into the East and West White River Parkway.

Serving as the southern "bookend" to the study area, Southwestway Park is defined as a catalyst site the plan. It is currently accessible via Southport Road corridor, and offers direct connection to the White River. An older and established park, it serves a wide area of residents and visitors. Limited programming and recreational opportunities exist given the size of the park, but access to the river is critical.

Connectivity Gaps & Opportunities

Connecting surrounding neighborhoods to and along the White River means partnering with state and local organizations and governments to create a 'network' of connections. This section of the White River includes both public and private landowners - the plan respects the diverse needs of those landowners and users by focusing efforts to create connectivity that is multimodal and focuses investments on recent transportation and trail planning, planned investments to roadways, and public properties and easements.

There are a number of opportunities to address connectivity gaps along the White River to create a connected, cohesive identity for the river throughout both counties. This chapter outlines these opportunities, as well as guidelines and considerations for future implementation.

Easement on private land PRIVATE LANDOWNERSHIP WITH NO EASEMENTS PRIVATE LANDOWNERSHIP WITH RIVER EASEMENT Partnerships with missionaligned entity PUBLICLY-OWNED LAND PRIVATE **Bypass** LANDOWNERSHIP WITH NO EASEMENTS

CONNECTIVITY AND RIVER ACCESS ALTERNATIVES

Trails

Hamilton County

Layfayette Trace Park to Strawtown-Koteewi Park: Characterized by farm industries and private homes, this section of the White River study area was identified in community forums as a place to 'preserve existing uses'. The majority of connectivity recommendations in this section seek to enhance the primary arterial, 234th Street (or Strawtown Avenue). 234th Street is already slated to have a separated pedestrian and bikeway trail between Strawtown-Koteewi Park and the Town of Cicero. The plan proposes extending the proposed trail east of Strawtown-Koteewi Park along Strawtown Avenue to Layfayette Trace Park. These investments can occur within the public right-of-way and take advantage of already planned road improvements. Projects such as these are low cost and have high positive impacts. The addition of a trail along this straight stretch of road can reduce vehicle speeds by up to 20 miles an hour, creating a safer environment for neighbors and wildlife.

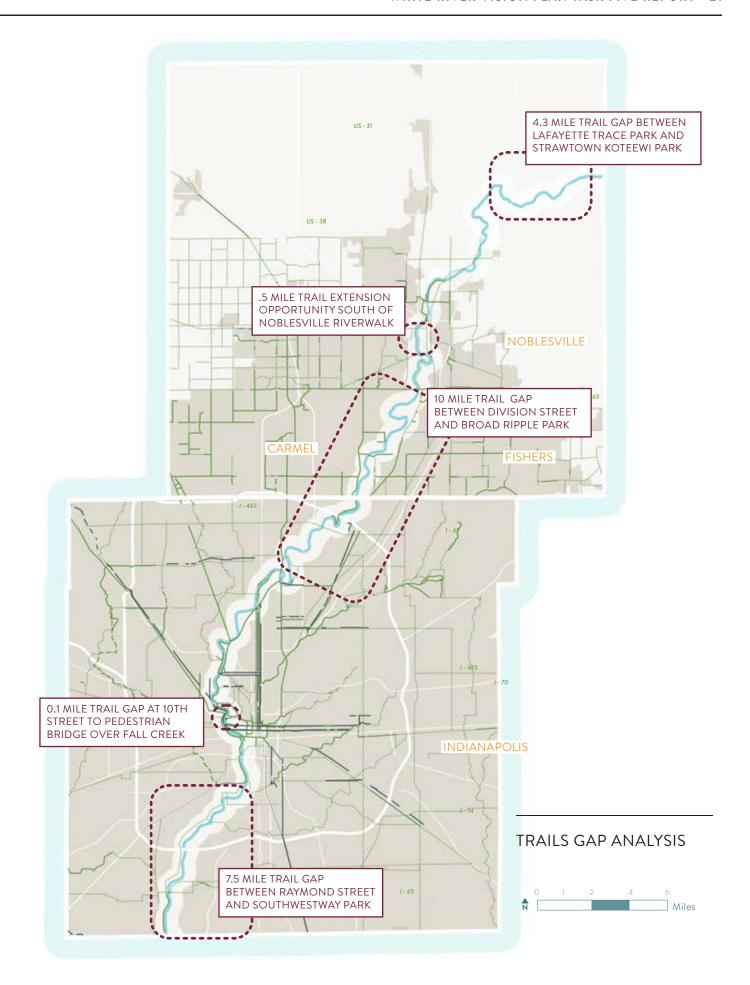
Strawtown-Koteewi Park to Potters Bridge Park: The Vision Plan proposes creating a separate community path along Riverwood Avenue within the right-of-way from the White River Campground down to Potters Bridge Park. The goal is to accommodate a multi-use trail with overlooks and provides

river views for the neighborhoods west of the White River with limited park and trail access.

Noblesville Riverwalk: South of the existing Noblesville Riverwalk, the city is completing plans for an extension that connects into the Pleasant Street Bridge extension project and connecting the Riverwalk into the west banks of the White River. As land directly south of the extension becomes available for purchase, the City and County should consider either a fee-simple purchase of large riverfront properties or an easement to continue the Riverwalk along the White River. The proposed Pleasant Street will also include improvements including adaptive reuse of the railroad truss bridge, signage, lighting, increased vehicle river bridge connections, and improvements to the riverfront at the crossing.

Nickel Plate Trail: The Pleasant Street extension project will also connect into the proposed Nickel Plate Trail, a regional trail system that will provide a pedestrian and bike path from Noblesville's downtown to downtown Indianapolis. Indianapolis and Fishers are moving forward with funding requests for southern portions of the trail.

146th Street: This roadway is a major arterial east/west connection with existing multiuse trails along both sides. Widening and enhancing these trails and highlighting the river at key intersections will improve visibility and access to the river, while creating better connections to adjoining neighborhoods,



commercial areas, parks, and recreational facilities. 146th Street trails could serve as a main connection to the Monon Trail in Carmel, expanding regional connectivity.

Marion County

The 71st Street Trail was highlighted in Indy's Full Circle Plan as a potential viable alternative to 62nd Street and Kessler Boulevard east/ west connections. Long term, the corridor will provide connections between the river and the neighborhoods west and east.

The planned 86th Street pedestrian way connects the Monon Trail with the Keystone Crossing area. The river north of 86th is completely obscured from view and relatively unknown, with the exception of the mountain bike trails at Town Run Park.

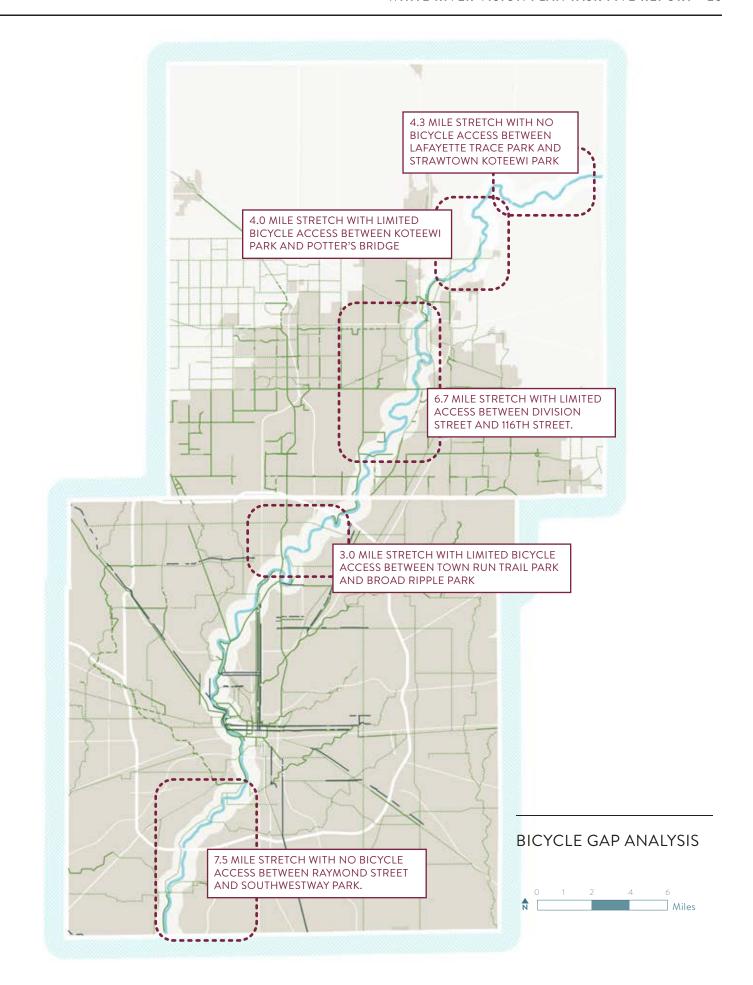
In this vicinity, Castleton is fraught with dated building stock, aging infrastructure, and traffic issues. These issues are being addressed as part of a revitilization plan currently underway by the City of Indianapolis. Connectivity to the White River is also under consideration as part of the planning recommendations.

The Monon Trail is in proximity to a number of connection opportunities, with the closest occurring at 86th Street just east of Westfield Boulevard, which is approximately one and a half miles from Keystone at the Crossing. Currently some sidewalks exist along 86th Street, but need to be extended and widened.

Envisioned as a connected trail network between Holliday Park, Broad Ripple Village and Broad Ripple Park, improved connections are desired. Concept plans are in place and funding pursuits are underway. The North Midtown River Walk Vision Plan outlines a phased approach to connecting east west along and across the White River and will be transformative for the Village. The RiverWalk Task Force has engaged SKA to develop a Village connectivity plan and the detailed design and construction documents of Phase 1A, the key connection between Broad Ripple Park and the Monon Trail. The plan received a DPW Neighborhood Infrastructure Grant, and the Task Force currently raising the funds to match the grant.

The reconstruction of the Emerichsville Dam could be significant for connectivity goals if funding for its repair can also allow for reenvisioning its purpose as a neighborhood park and/or recreation area. Public perceptions of the river's water quality in this area may be an important impediment to overcome.

16th Street is an important connector from downtown west to the Town of Speedway. Speedway was a recent recipient of a grant to begin the planning and design of a multi-use pedestrian and bicycle trail that will connect to downtown Indianapolis. The White River Vision Plan recommends that similar multimodal enhancements be made along 16th Street to the River from the Speedway. At a minium, sidewalks should be lit with pedestrian scaled lighting, sidewalks should maintained and kept to a width of no less than five feet and street trees planted to slow traffic along this active route.



The 10th Street Trail Connector, currently in a preliminary planning phase, will connect the lower River Trail with the upper trail under the 10th Street Bridge.

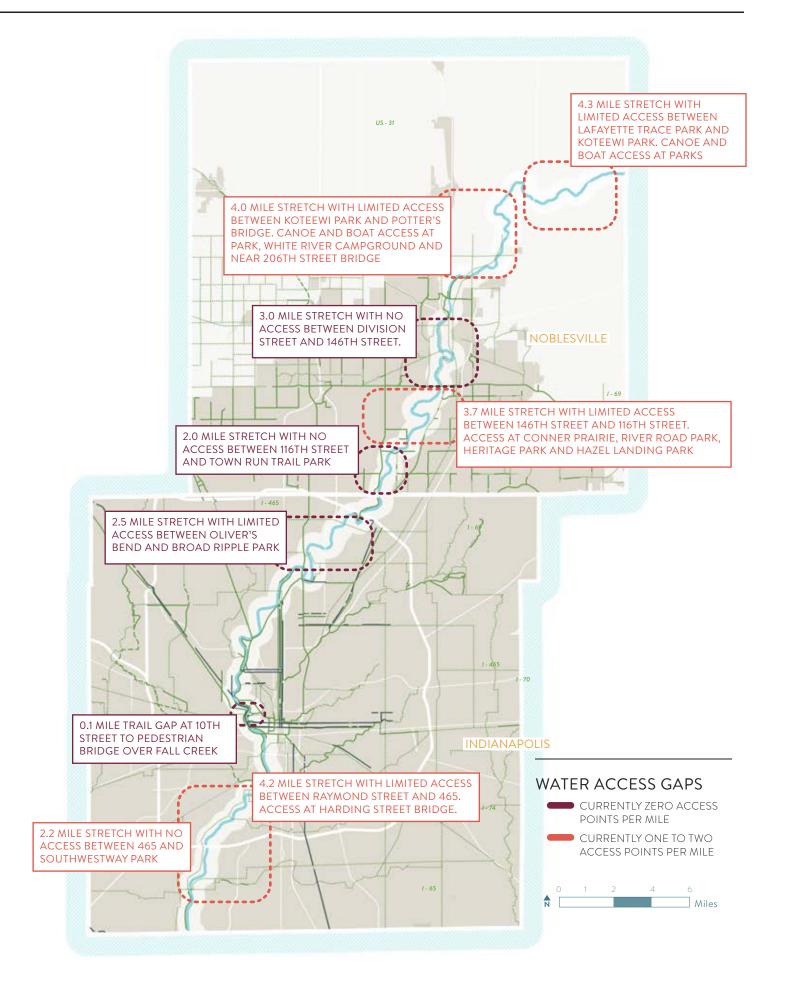
The area along the river between South Street and I-465 requires detailed study. While ecological and hydrological issues are addressed as part of this study, there are considerable complications brought on by constraints of the existing industrial land owners. One approach would be to develop a recreational trail through this section of the reach. Consideration would need to be given to the long-term solution of changing the overall land use in the area, within the context of currrent uses and ownership patterns.

Southwestway Park serves as the southern terminus of the study area, which is also the southern Marion County boundary. It is a gateway to Johnson County and the river heading south. The ecology of the area is unparalleled and the river stretch experiences one of the longest areas of free-flowing water, which both open other doors into a host of potential programming opportunities. Old growth woodlands and an existing trail system combine with open sports fields, unprogrammed open space, parking, and picnic shelters.

By virtue of its significant size, untapped potential exists to create a counterpart to Strawtown-Koteewi Park that could be enlivened by elevated walkways, public art, interpretive education possibilities, modern buildings, an improved trail network, and creative ways to access and experience the White River.

Southport Road, contiguous to the park, extends along the north edge and serves as the main connector and source of vehicular traffic from the north and east. North Mann Road is the main connection from the south and West Ralston Road from the west. These areas present varying opportunities for incorporating multi-use trails.

Other planned trails in the Southwestway vicinity include the Southwestway Trail, which extends north and west from the park and Little Buck Creek Trail to the east.



Cadence of Amenities

The purpose of this chapter is to outline the types of amenities that should be incorporated into any new or enhanced trail or park project on the White River, and combine into a series of project assemblies, detailed on page 26 of Task Report Seven: Implementation and Governance.

The following amenities provide general descriptions and planning criteria for river side trails and other public multiuse trails within public right of ways or on public property. Each amenity and location, relative to the White River should be addressed based on further detailed needs evaluation and study. All should be ADA compliant with a focus on sustainability, low-maintenance, durability and brand based. All should be in keeping with the study's established 'Guiding Principles'. All should support and avoid damage to the rivers riparian habitats and vegetation and limit damage caused by environmental impacts over time. All should keep safety and security in mind.

Amenities

Kayak / Canoe Launches

- Non-motorized boat launches should be between a half mile to two miles apart.
 Any closer will impact native wildlife populations.
- Provide parking opportunities close to launch sites and restrooms (either temporary or permanent).

Restrooms

- Place restroom close to major trailheads, net to parking lots and at public boat launches.
- Areas surrounding restrooms should be clear of vegetation to allow for visibility.
- Permanent restrooms should be designed to reinforce the brand/identity of the rest of the trail system or park.
- Restrooms should be accessible for persons with disabilities.
- Consider planned level of maintenance when choosing restroom types.

Parking

- Quantity dependent on existing availability, but should be at every launch location.
 Provisions should be made for larger vehicles, trailers, and direct and safe access to river.
- Consider permeable surfaces, especially in areas prone to flooding.
- Make sure parking lots are well-lit.

Paved trails

- All paved trails need to meet nationally recognized design and accessibility standards creates consistency and allows for all users to use the trails.
- The preferred pavement area should be a minimum of 8 feet wide and be either concrete or asphalt.

Natural trails

- The width of a natural surface trail can vary, though when pairing soft surface trails and accessible trails, these areas should be a minimum of 6 feet wide and a maximum of 20 feet wide.
- Soft surface materials can include, crushed stone, mulch, stabilized soil, or other acceptable forms of soft trail surfaces.
- Edges of the soft surface path or trail should be clearly identified and trail segments should be at least 300 feet in length to reduce confusion among users.

- Soft surface trails should be mostly flat and have sublte slopes to provide safe routes for walking.
- Care should be taken with trails within flood plains or zones that flood regularly as many of these material types have a tendency to wash away.

Viewing terraces

- Locate viewing platforms or terraces to take advantage of long river views, and within a half mile of a trailhead.
- Incorporate places for sitting, viewing and other activities like fishing.

Lighting

If lighting is desired, whether in the parking lot, at the launch or along trails and paths, ensure lighting is pedestrian scaled and of similar or consistent design to previous lighting on the river.

Signage and Wayfinding

- This plan recommends a signage and wayfinding plan to create a family of signs, consistent language and cadence of signs within parks, trails and other riverfront amenities.
- Include interpretive, directional, informational signage as part of any signage and wayfinding design development.

Public art

Incorporate public art close to paved trails.

Landscaping

- Limit additional landscape or vegetation, unless need for restoration or riparian corridor repair.
- Remove invasive species along the paths, site furnishings and

Site Furnishings

- Provide regular places to sit along paths and trails for rest. Make sure the seating options are consistent in style or manufacturer (to contribute to trail identity).
- Avoid placing benches and picnic areas in locations that impede circulation - three feet of space from the trail should reduce conflicts.
- Site furnishings should include options that are ADA compliant and are situated on ADA compliant surfaces.

- Site trash receptacles between 8 to 20 feet from benches and picnic areas.
- Place seating options at least every half mile along a trail.
- Bike racks should accommodate access by multiple users at the same time and be in well trafficked locations, such as major boat launches, trailheads, parking lots or important neighborhood access points.

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