

RECREATION

The role of recreational activities within greenways corridors are significant. Indeed, planning for the enjoyment of our natural areas is a major component at nearly every governmental level, including private land-trusts. Either through parks, conservation areas or linear trail facilities, outlets for recreation represent the foundation of a region's quality of life.

As a disclaimer, the matter of recreational access in and of itself is vast, and this plan will not attempt to cover all of these aspects. Thus there will be no focus herein on active recreation (soccer, baseball, etc.) or park programs. Of prime focus are those recreation activities that contribute to the expansion of our greenways network – land and water trails.

Land Trails

A source of immense regional pride remains our ever-expanding off-road trail network. From meager beginnings in the early 1990's with only 13 miles of known trail, the Northwest Indiana region has exploded with nearly 160 miles of interregional trails connecting many communities. This truly is a success story on a landmark scale.

A number of factors have contributed to the success of trail-building in NW Indiana, but the seeds were laid many years ago. Due to the proximity of both Chicago and Lake Michigan, railroads literally crisscrossed Lake, Porter and LaPorte Counties in the late 1800's. By the turn of the 20th Century, roughly 1000 miles of track were in operation – a staggering amount for the size of the region.

However, the number of railroad miles decreased with our declining manufacturing base, and by the early 1990's, about 700 miles of active line were left. This left about 300 miles for potential trail conversion, and thanks to new federal financing, a golden age of trail development commenced, and has yet to slow down.

Other factors contributed as well, including utility companies allowing trails within their corridors for no fee, and simply a general appreciation of their quality of life power. This latter factor has seen many new miles of trail developed without federal assistance.

Benefits

Trails offer a tremendous number of benefits – both individually and collectively. These include:

- *Alternative Transportation:* Trails provide options for those looking to commute to work, shop, or just visit others. The cost savings alone by walking and bicycling more often can add up quickly since, as we all know, automobiles are not cheap to operate.
- *Improving Health:* Being active remains a problem in the United States. Obesity rates continue to climb, and much of this is due to physical inactivity. Where trails are present, people use them more often. This in turn increases one's physical fitness and pocketbook since better health may well mean fewer ailments and thus less medical bills.

- *Community Connections:* The vast majority of trail miles in NW Indiana were once railroad corridors, and many of our current communities came about due to these placements along these corridors. Trails carry forward this legacy by providing connections to our neighbors, all along giving users a reason to enjoy where they live.
- *Increased Property Values:* A strong indicator of the popularity of trails are shown with home sales near existing corridors. Studies have demonstrated that the presence of a trail increases property value and ease of sale slightly, or has no effect¹. Trails remain a solid quality of life indicator, and always score high on community surveys on desired amenities.

More information on these and additional benefits from trails can be found at www.americantrails.org.

Trails in 2016

Today there are 11 major trail facilities either fully or partially open in the three county NIRPC region. Another facility, the Veterans Memorial Trail from Crown Point to Hebron, has received funding and land is being acquired. Table R-2 summaries these facilities on the next page.

Regarding all trail facilities in the NIRPC region, including local systems and park loops, Table R-1 summaries these per municipality they are located (not management authority).

Municipality	In Miles		
	Trail	Funded	Future
Burns Harbor	0.0	1.0	1.1
Chesterton	7.3	0.8	3.1
Crown Point	3.3	0.0	3.3
Dyer	1.3	0.0	0.0
East Chicago	2.3	0.7	1.0
Gary	12.2	1.5	8.6
Griffith	3.3	1.9	0.0
Hammond	25.1	4.7	3.2
Hebron	0.0	0.0	2.1
Highland	9.2	0.0	0.0
Hobart	7.6	0.0	0.0
Lake County	0.0	0.0	5.8
Lake Station	3.5	0.0	0.0
LaPorte County	2.9	1.0	30.1
LaPorte, City	0.0	2.8	0.0
Merrillville	10.8	2.0	4.6
Michigan City	0.8	2.9	5.6
Munster	15.9	2.0	0.0
Ogden Dunes	0.0	0.0	3.7
Portage	10.7	6.0	1.1
Porter, Town	6.4	0.0	0.0
Porter County	9.2	4.8	27.1
Schererville	6.8	4.5	0.0
St. John	3.4	0.0	0.0
Valparaiso	14.1	8.5	0.0
Whiting	2.1	0.0	0.0
Totals	158.4	45.0	100.5

Table R-1: Total off-road multi-use trail miles in NIRPC Region

¹ "Property Value/Desirability Effects of Bike Paths Adjacent to Residential Areas," David P. Racca and Amardeep Dhanju, Center for Applied Demography & Survey Research, University of Delaware, November 2006.

NIRPC Regional Trails	Facility Logo	Location	Alignment	Surface(s)	Miles Open	Miles Remaining	Total
Calumet Trail		Northern Porter County along US 12 and South Shore Line	E-W	Limestone	9.1	Complete	9.0
C&O Greenway		Merrillville, from Oak-Ridge Prairie in Griffith to Lake/Porter County Line	NW-SE	Asphalt	2.8	8.7	11.5
Dunes-Kankakee Trail		Indiana Dunes State Park to Kankakee River	N-S	Asphalt	10.1	23.0	33.1
Erie-Lackawanna Trail		Hammond to Crown Point	NNW-SSE	Asphalt	17.0	Complete	17.0
Lincoln Memorial Trail		Michigan City to Kankakee River	N-S	Asphalt	2.9	31.0	33.9
Little Calumet Levee Trail		Munster to Gary along Little Calumet River Levee system	E-W	Asphalt and Limestone	12.5	2.2	14.7
Monon Trail		Hammond to Munster	N-S	Asphalt	4.4	Complete	4.4
Oak-Savannah Trail		Griffith to Hobart	E-W	Asphalt	10.3	1.9	12.2
Penny Greenway		Munster at State Line to Crown Point	NW-SE	Asphalt	4.0	7.3	11.3
Prairie-Duneland Trail		Portage to Chesterton	WSW-ESE	Asphalt	8.9	Complete	8.9
Veterans Memorial Trail		Crown Point to Hebron	WNW-ESE	Asphalt and Limestone	0.0	10.1	10.1
Totals					82.0	84.2	166.1
Multi-State Trails							
Marquette Greenway		Chicago Calumet Park to New Buffalo, Michigan	E-W	Asphalt (with shared roads)	21.4	34.1	55.5
American Discovery Trail		Munster to LaPorter County	NW-SE	Asphalt (with shared roads)	5.8	38.4	44.2
Totals					27.2	72.5	99.7

Table R-2: Regional & Multi-State Trail Details

Priority Trail Corridors

At the very core of planning the NW Indiana regional trail network remains the Priority Trails Corridor Map. A rudimentary designation of potential trail routes first emerged with the 1994 plan, and has since been expanded upon to involve 30 priority corridors spanning over 500 miles of potential trail development.

Figure R-1 details the current map. A variety of colors are used to indicate the priority rank (high, medium or low), and state of development. Concerning the latter point, the color blue was added to indicate those corridors which have either been built, or are fully funded for imminent development.

A deep red color was added to two corridors which were identified in the 2006 Indiana State Trails Plan as “Visionary Corridors.” These include the three-state Marquette Greenway, and the national American Discovery Trail route.

Over the years, these corridors have been adjusted, revised and reordered according to local initiative. Case-in-point involves the Chessie Corridor in LaPorte, which was added ahead of a funded trail development in the city. A vast majority of adjustments involve a change in priority of an existing corridor.

Each of these corridors are described on the map with approximate locations. The width of these proposed corridors is roughly two miles, which accounts for any necessary variation of the route due to land or legal obstructions. The idea is to keep the final route in general alignment, making certain off-road regional connections are retained in the most direct fashion possible.

Figure R-1 and Table R-3 provides a detailed account of the 26 corridors currently identified for potential development in the NIRPC region.

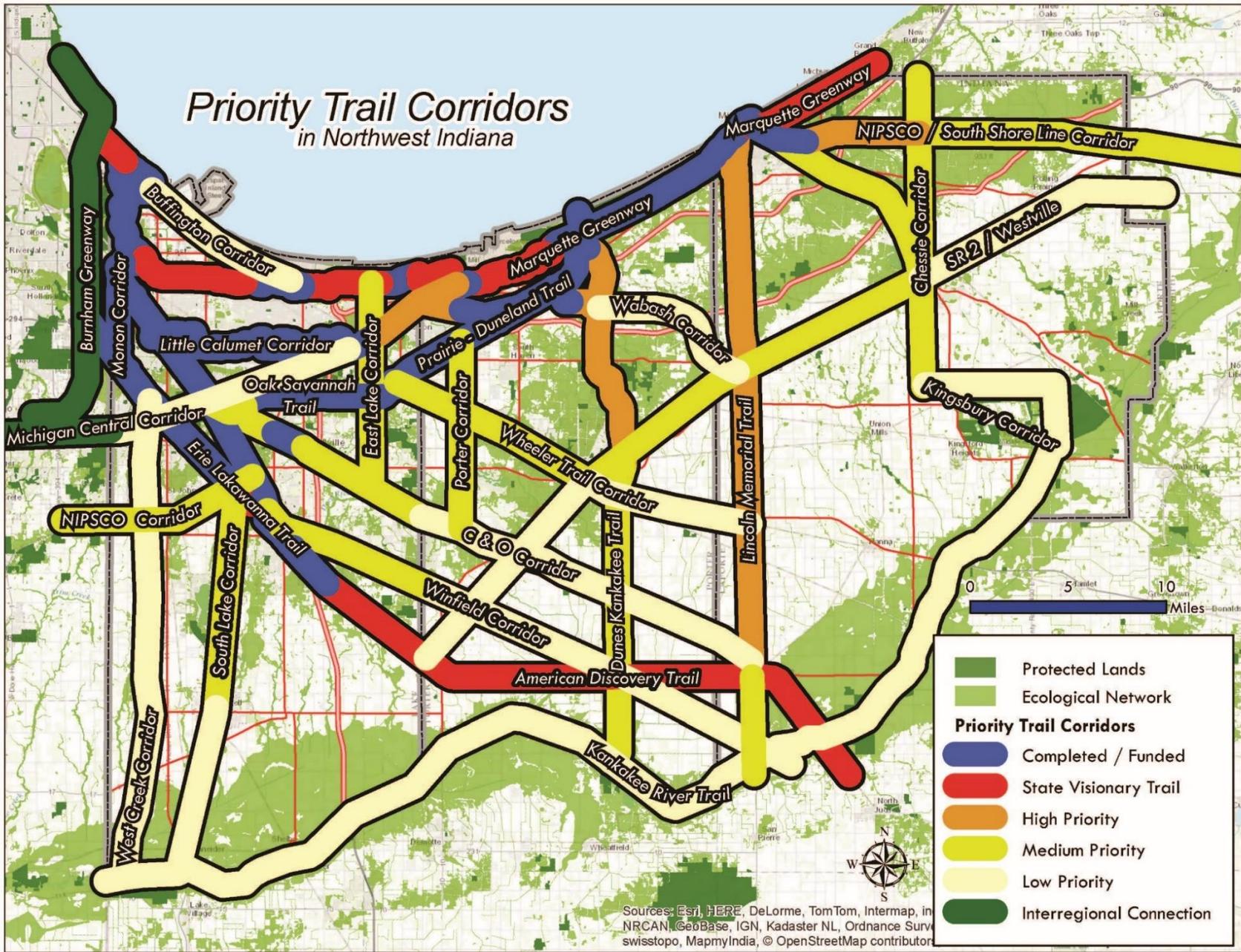


Figure R-1: Priority Regional Trails and Corridors Map

	Corridor Name	Municipalities	Corridor Description	Built/Funded	Visionary	High	Medium	Low
1	 American Discovery Trail  	Munster, Schererville, Crown Point, Lake County, Hebron, Porter County, Kouts, LaCrosse, LaPorte County	Part of national trail system. Region-wide route linking a number of trails including the Penny Greenway and Veterans Memorial Trail in Lake County. Route becomes primarily rural east of Crown Point, through Hebron, Kouts and LaCrosse.	Munster, Schererville (As part of Penny Greenway)	All			
2	Buffington Harbor	Gary, East Chicago, Whiting	Primarily located within heavy industrial areas near the lake.					All
3	 C&O Greenway	Griffith, Merrillville, Hobart, Winfield	Along abandoned Chesapeake & Ohio Railroad corridor. Most of the the corridor is owned by NIPSCO.	Merrillville (Taft to Mississippi)			Griffith to Merrillville, Merrillville to Winfield	Winfield to Lacrosse
4	Chessie	Michigan, LaPorte County, City of LaPorte	Along abandoned Chessie Railroad in north-central LaPorte County. Possible connections to New Buffalo, MI.	City of LaPorte			City of LaPorte to Michigan State Line	
5	 Dunes-Kankakee Trail	Porter, Chesterton, Porter County, Valparaiso, Kouts	North-south trail corridor through central Porter County from the Indiana Dunes to the Kankakee River. Trail will follow along State Route 49, with some diversions.	Porter - Indiana Dunes State Park to US 20, Calumet Trail and former Brickyard Trail, Valparaiso		Porter to Valparaiso	Valparaiso to Kankakee River	
6	East Lake	Hobart, Lake Station, Gary	Along NIPSCO-owned property.				All	
7	 Erie-Lackawanna	Hammond, Highland, Griffith, Schererville, Lake County, Merrillville, Crown Point	Completed trail system from downtown Hammond to Crown Point.	All				
8	Iron Horse Heritage	Portage	Partially completed corridor in Portage. Future segments will take route to county line.	Prarie-Duneland Trail to Crisman Ave		Crisman Ave to Woodland Park		
9	Kankakee River	Lake, Porter and LaPorte Counties	Trail along the river. Long-term project.					All

Table R-3: Priority Corridor Details

10	Kingsbury	Kingsbury, LaPorte County	Route connecting the City of LaPorte to the Kankakee River.				All
11	Lincoln Memorial 	Michigan City, LaPorte County, Westville, Wanatah, LaCrosse	North-south trail corridor along the western edge of LaPorte County, following US 421.	New Durham Estates to Westville		Michigan City to LaCrosse	LaCrosse to Kanakee River
12	Little Calumet River Corridor 	Munster, Hammond, Highland, Gary, Lake Station, Portage	Winding path on a river levee - primarily limestone. Two significant gaps exist. Most will be re-paved as asphalt in 2016.	Munster to Gary		Lake Station to Portage	
13	Marquette Greenway   	Hammond, Whiting, East Chicago, Gary, Indiana Dunes National Lakeshore, Ogden Dunes, Portage, Burns Harbor, Porter, Beverly Shores, Porter County, Michigan City, LaPorte County	Three-state trail initiative from Chicago to New Buffalo, linking together a number of trail facilities. Route will allow several points of access to Lake Michigan.	Hammond to East Chicago, Gary (Downtown (as Gary Green Link), Miller), Portage, Burns Harbor, Porter (as Dunes-Kankakee Trail), Porter County (as Calumet Trail), Beverly Shores (as Calumet Trail), Michigan City (as Singing Sand Trail), LaPorte County	All		
14	Michigan Central	Dyer, Griffith, Lake County, Gary	Following abandoned Michigan Central Railroad. Most of corridor still intact, with small gaps.				All
15	Monon 	Munster, Hammond	Completed trail system from downtown Hammond to Munster.	All			
16	NIPSCO/South Shore Line	Michigan City, LaPorte County	Proposed route from Michigan City to South Bend along the South Shore Line rail corridor.			Michigan City to Chessie Corridor	Chessie Corridor to St. Joseph County Line
17	NIPSCO/St. John Corridor	St. John, Lake County	Route utilizing NIPSCO corridor to connect St. John to Pennsy Greenway.	St. John - partial			All
18	Oak-Savannah 	Griffith, Gary, Hobart	Completed trail system from Griffith to Hobart.	All			

Table R-3: Priority Corridor Details

19	Porter Corridor	Portage, Porter County	Corridor situated along Willowcreek Avenue, primarily in Portage.				All	
20	Prairie-Duneland 	Portage, Porter, Chesterton	Completed trail system from Portage to Chesterton.	All				
21	State Route 2/Westville	Hebron, Porter County, Valparaiso, Westville, LaPorte County, City of LaPorte	Route alongside SR 2 from Hebron to the City of LaPorte. Facility to be built within road ROW.				Valparaiso to City of LaPorte	City of LaPorte to St. Joseph County Line
22	South Lake Corridor	Crown Point, Cedar Lake, Lowell, Lake County	Corridor linking south-central Lake County communities. Primarily in-country and some rail-with-trail development.				Crown Point to Lowell	Lowell to the Kankakee River
23	Wabash	Chesterton, Porter County, Westville	Along abandoned Wabash Rail road from Chesterton to Westville.	Chesterton (part of Westchester-Liberty Trail)				
24	West Creek	St. John, Lake County	Route along West Creek from St. John to the Kankakee River. Nearly all rural in nature.					All
25	Wheeler Trail	Hobart, Lake County, Porter County, Valparaiso, LaPorte County	Route to be developed within SR 130 ROW from Hobart to Valparaiso. Will connect Valpo Pathways system via Vale Park Road.				Hobart to Valparaiso	Valparaiso to Lincoln Memorial Trail Corridor
26	Winfield	Crown Point, Winfield, Porter County, LaPorte County	Proposed route along abandoned Erie-Lackawanna Rail corridor from Crown Point east. Corridor becomes nearly unbuildable east of Lake/Porter County line.				Crown Point to Winfield	Winfield to Kankakee River

Table R-3: Priority Corridor Details

Design & Best Management Practices

At the front end of all planning processes regarding trail development are two key factors – design and maintenance. In fact, the very success of a trail relies heavily on these. This section provides a cursory overview of the major elements behind both sound trail design and ongoing management strategies. Many other resources are readily available for further research and are noted.

Design

Upon planning for a future trail, the following are key considerations:

- *Physical space:* Upon initial analysis, the very first factor should be the physical room to route a trail. This represents more than half the battle, and currently several obvious opportunities exist.

Throughout the NIRPC region, approximately 300 miles of railroad corridors were abandoned over the last 50 years. Well over 100 miles have been converted to trail use, but plenty remain. These corridors, often wide and heavily wooded, offer unparalleled opportunities for trail conversions.

Apart from the abandoned corridors are those that are currently active. “Rails With Trails” are becoming a popular option for trail development, and have been proven safe through a report issued by the U.S. Department of Transportation². Since rails with trails are rare in the Midwest (more common on the coasts), proposing routes on these active corridors will be challenging with railroad companies.

Another linear corridor that also affords opportunities are utility-based, usually with overhead powerlines or underground pipelines. The Northern Indiana Public Service Corporation, or NIPSCO, is the primary landowner of these utilities, and over the years many miles of trail have been built on their properties for zero cost to the municipality. NIPSCO has been an excellent partner in the creation of the regional trail network.

A final corridor option are those riparian, or waterways which meander through the region. Many of these rivers, creeks or ditches are county regulated drains, and in turn must be kept clear of physical impediments within 75 feet of the waterway’s center line. This enables county crews to maintain the waterways, but also could afford trail development opportunities. However, building within these drainage zones does require a permit, and most importantly, they are privately owned by the adjacent landowner.

Beyond linear corridors, other options can be mapped out including right-of-way space, and “in-country” routes along open fields. A clear example of utilizing rights-of-way exist in Valparaiso with their Pathways network. This system has been developed by widening existing sidewalks

² “Rails-with-Trails: Lessons Learned,” U.S. Department of Transportation, August 2002.

along streets. As of 2016, over 15 miles of these sidepaths have been created, with many more scheduled for construction.

“In-country” routes are far more challenging due to land ownership issues and costs. Sometimes few linear opportunities exist to connect areas, so new ones have to be planned carefully with landowner concerns addressed.

- *Land Ownership:* By far the most complex and time-consuming part of trail development is assembling the land for the route. Sometimes this process can be as simple as a donation, but more likely will involve title searches, appraisals and compensation to the owner. When dealing with abandoned railroads, the complexity factor can skyrocket due to the age of the corridor, and the ownership rights of the adjacent property owners.
- *Connections & Access:* Planning a route that creates connections to major community destinations is key. With established linear corridors, the issue centers upon access points to the adjacent neighborhoods or commercial areas. With sidepaths, a prime consideration is linking up parks, schools and other areas of interest – all the while creating safe crossings at all street intersections.
- *Street Interactions:* No matter what type of trail is constructed, it most likely will encounter a roadway. Making sure trail users can safely cross these thoroughfares remains a critical element of successful designs. Where trails meet intersections, clearly painted zebra crosswalks should be evident, as well as push-button walk signals. Ped-countdown signals are the preferred choice.

As for those crossings that are “mid-block,” or too far from a stop sign or traffic light to be utilized, two design options should always be considered. One option are refuge islands, which refer to the installation of a curbed island in the middle of the roadway, providing trail users the ability to cross the road one lane at a time, while at the same time affording drivers the ability to clearly see these users as they approach.

The second option is High-Intensity Activated crossWalk, or HAWK beacons, which actually stop vehicular traffic with an activated red-light signal at the crossing. A HAWK beacon is a popular option for crossing very congested roadways. Combining these with refuge islands at mid-block crossings would certainly provide the safest option possible for trail users.



HAWK beacon. Photo by IIHS

- **Wayfinding:** Trail signage, or wayfinding, is a critical element of any successful trail project. Those on the trail appreciate knowing what streets they are crossing, communities they are entering, and nearby attractions such as parks and business districts. Equally important are the identification of nearby water fountains and restrooms.

Even so, the NW Indiana regional trail network is largely devoid of these signs, leaving trail users with no sense of what community they are in, or even what streets they are crossing. As a solution to this glaring problem, NIRPC released the *Unified Trail Wayfinding Guide* in 2016 which mandates a standardized wayfinding design for all federally-funded trails. The family of options are shown in Fig R-2.

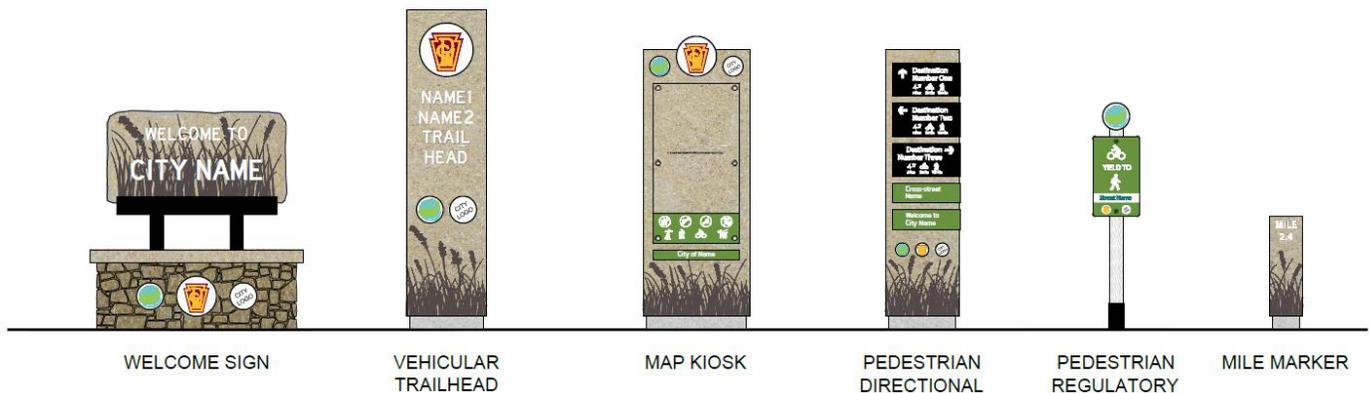


Figure R-2: Wayfinding Signage Samples

- **Surface Type:** Trails identified in the *G&B 2020 Plan* are specifically tailored for multi-use functions for all types of non-motorized activity. This not only includes walkers, joggers, bicyclers, but also individuals in wheelchairs, using rollerblades and baby strollers. Hence, NIRPC encourages these systems to build trails with asphalt surfaces for optimum results. Concrete is another option too, but care must be afforded to make certain the joints are saw cut and not troweled. This ensures a smooth ride for those using wheels.

The width of a trail is also an important element. The minimum amount for a trail should never be less than eight feet wide, with ten feet being the most preferred. Consideration for the trail's location will determine how wide a trail should be. In some heavily populated areas 12 to 14 foot wide facilities are not uncommon.

- **Trailheads:** Providing a place where people can safely access the trail is always important, and usually a major design feature of a facility. Trailheads can provide both identity and functionality for users. At these sites ample vehicle parking should be available, as well as trail map kiosks at the bare minimum. From here, other amenities can be incorporated such as shelters, benches, water fountains and even restrooms.

- *Landscaping:* Along most linear corridors, landscaping remains basic with random tree installations, and foundation plants at trailheads. However, many trail corridors are opting to become “naturalized” by establishing native prairie plants, and only mowing a few feet beyond the pavement. This not only saves on mowing expenses, but also serves as prime habitat and transportation for wildlife.

Operations & Maintenance

Successful trails always come back to how well they are maintained. Great effort is expended in building a trail, only to have it fail due to unsound management practices. There are number of factors to consider:

- *Vegetation:* A primary consideration for a well-maintained trail centers around how often vegetation is attended to. Basic elements such as mowing are a given, but more attention should be afforded to pruning back tree branches and large shrubs that impede the trail users. Common complaints remain shrubs growing into the trail paths.
- *Surface Upkeep:* Differences exist between maintaining certain trail surfaces. An example involves paved versus stone, where the latter, although cheaper to install, does involve more attention. Paved surfaces will crack over time, and care must be afforded to seal these before they become a hazard to wheeled users. Broken glass and graffiti are other issues that need continuous attention. Other considerations are snow plowing and leaf removal.
- *Corridor Upkeep:* Apart from the trail surface, issues will arise on the corridor itself involving litter, sign damage, lighting and drainage. Each of these need to be incorporated into a comprehensive maintenance plan that addresses these matters, and assigns the proper department to lead this effort.

Equestrian & Mountain Bike Trails

Northwest Indiana does host a small number of facilities for equestrian and mountain bike enjoyment. These systems are designed for a specialized user pool, and are usually not widely available as common trail routes. Even so, equestrian and mountain bike users are very passionate and their accommodation should be considered where feasible. This section examines these uses in the region.

Mountain Bike Trails

Currently there are three mountain bike locations of note in the three-county NIRPC region. These include sites at Imagination Glen in Portage, Bluhm County Park in LaPorte County, and a rudimentary course in the City of LaPorte at Soldiers Park.

Of these three, the site at Imagination Glen, called the Outback Trail, is by far the most widely used and highly developed. The trail is readily accessible either by car or bike via the Iron Horse Heritage trail. It encompasses 10 miles of route broken into two sections. Of note is that the Outback Trail is maintained by an independent 501 (c)3 not-for-profit entity, and not the City of Portage.

Just across the state line in south Chicago the city has recently opened up Phase I of their Big Marsh Bike Park. This site aims to be the premiere location for mountain bike enthusiasts in the Chicago area, offering courses for all age ranges and abilities.

Communities that are interested in establishing a mountain bike course are encouraged to get in touch with the International Mountain Bicycling Association (IMBA) at www.imba.com.

Equestrian Trails

Of all trail facilities, the most specialized are those dealing with horse riders. The simple fact of the matter is that owning a horse is expensive, especially when most of them are kept at private stables. However, for individuals who do own horses, and many do in NW Indiana, the options for riding trails are few, and not very long.

Currently Glenwood Dunes at the National Lakeshore, Stoney Run County Park in eastern Lake County, the Grand Kankakee Marsh in southern Lake County and Bluhm County Park in LaPorte County are the only sites to offer official horseback riding trails. There are plans to incorporate a parallel equestrian path along the Veterans Memorial Trail in eastern Lake County. Beyond that, no other plans are on the books for additional horse trails.

A common complaint of equestrian users is the lack of long, continuous trails for enjoyment. To this end, county park managers should be aware of these uses when planning trails in rural areas, incorporating a parallel equestrian path alongside.

Blueways

The 2007 *Greenways & Blueways Plan* launched a revolution in water trail development and participation in NW Indiana. The plan was the first document of its kind to categorize all existing and potential water trails, or blueway routes in the three-county NIRPC region. In all 15 of these routes were identified, and since then several new launches have opened up on these waters, most notably Lake Michigan and the Kankakee River.

Spearheading blueways interest and development is the Northwest Indiana Paddling Association, or NWIPA. This group of hearty paddling enthusiasts began as an idea of Dan Plath in January of 2009, and has since grown to a community of over 500 members. NWIPA, a non-profit organization, is dedicated to promoting the region's paddling resources and opportunities, providing environmental stewardship of the region's waterways, education, and providing a voice for the region's paddlers.

Since their founding, NWIPA has been the prime mover on a number of initiatives promoting and expanding paddling opportunities. These include:

- The designation of the Lake Michigan Water Trail as a National Recreation Trail
- Opening up a camping site for canoe access only on the Kankakee River in LaPorte County
- Collaboration with the National Park Service on opening up the east branch of the Little Calumet River to paddlers
- Opening up the first ADA-launch ramp in Michigan City on Trail Creek, and subsequent access points in Marquette Park in Gary and Lake George in Hobart

- The designation of the Kankakee River as a National Water Trail
- Numerous public paddling events on Lake Michigan and the Kankakee River
- Aiding communities in establishing launches and helping to clear waterways for travel

Clearly NWIPA has been chiefly responsible for the success of water trail development in NW Indiana, and they deserve all credit for our region becoming a top destination for paddlers. NWIPA has demonstrated what a passionate, focused group of advocates can accomplish, and they should be commended for their outstanding contributions to blueways health and enjoyment.

Benefits

Blueways provide multiple benefits to communities which embrace them. Chief amongst these are an appreciation of our water ways, and providing users with a strong connection to the natural systems involved. When blueways are opened up for public use, they in turn become visible, and thus attention is afforded to their health. For many years our water ways have been “hidden,” with no access available, and thus become polluted with all types of waste and populated with log jams.

While paddling down a blueway, the breadth of the surrounding ecosystem becomes apparent and thus appreciated. Since many water ways are “incised,” or cut deeply below the existing grade, blueways thus act as an escape from the urbane environment directly adjacent. In fact, due to tree cover and other bank vegetation, it is most likely no buildings, fences or built features are visible.

As one paddles down a blueway, an abundance of vegetation and wildlife exists along the banks. These can include deer, herons, beavers, or butterflies and multi-colored dragonflies. Blooming shrubs and changing foliage during the fall also provide interest along the routes.

Developing blueways remains basic in concept, since the routes are already present – the challenge remains in providing safe access to the water. Thus launches with parking, log-jam removal and signage stand as the principle elements behind a successful blueway.

Design & Management

Opening up a water route for recreation use does involve several basic considerations that include sound design principles that include the following:

- *Access Spacing:* At the very core of waterway design are establishing at least two points of access. The size of the water body is also of consideration. For most paddlers, a leisurely half-day trip could be over six to eight miles. For larger water bodies, a minimal spacing of access points of three to four miles is advisable. For local neighborhood creeks, one mile or less is preferred since children would be utilizing these routes.
- *Portages:* There are some waterway obstacles that can’t be removed, and thus a paddler will need to remove their boat from the water. This is called a portage, and there should be safe accesses above and below the obstruction to facilitate ease of movement. The portage should be located on public land. There are treefalls that occur that may not allow for a portage, and deep water pockets exist that are hazardous to inexperienced paddlers.

- *Access Design:* Sites where paddlers can access the water need to be designed to allow for a relatively short walking distance on a slight to moderate slope to the water's edge. Preferred locations are on a sun-lit grassy slope for lightly accessed areas, with erosion control matting for higher-used areas. Stone ramps should be avoided.
- *Signage:* This represents a key component for water trails, helping to alert paddlers to hazards ahead, distances to the next access site, special seasonal river conditions and emergency contacts. Signage can also be incorporated to highlight the history of the waterbody and wildlife present. Bridges should also be signed to help orientate the paddler.

For long-term enjoyment of routes, there are a number of maintenance strategies that should be employed. These primarily involve the removal of obstructions, which include treefalls, beaver dams, rock and rubble, and seasonal low flow conditions. Each of these common occurrences should be planned for carefully when executing a maintenance plan for a water trail.

Blueway Routes

The 2007 *Greenways & Blueways Plan* identified 15 potential water trail routes in the NIRPC three-county region. Since the release of this plan, a number of these routes have been analyzed for potential use by NWIPA. Some have been removed as potential routes due to factors such as low water levels and difficulty of access. There are also some newer routes that have been "discovered" as well. A map detailing the location of these routes is shown in Figure R-3.

In reviewing these routes, NWIPA considered the following:

- River width (Allows side-by-side paddling? Room to turn a 17-foot boat around?)
- Water levels throughout the year
- Existing (convenient) access and parking
- Potential for paddling

The route descriptions below have been compiled by NWIPA, and involve the following recommendations (in order of their original descriptions in the 2007 *Greenways & Blueways Plan*):

Little Calumet River West of Route 249 (Lake County)

- Mid priority
- Appropriate as a water trail from Kennedy Avenue to Broadway, and from junction with Deep River to junction with East Branch – enough water to paddle most of the year
- Presence of levee and associated red tape an obstacle to developing access site in Highland, though promotion via Little Cal River Fest events ongoing
- Reasonable access at Chase Street, Grant Street and Harrison Street
- West of Kennedy Avenue, too shallow to paddle except following rainfall (until in Illinois near junction with Thorn Creek)
- Interstate culverts and sewer pipe just east of Broadway are safety issues

Little Calumet River, East of Route 249 (Porter County)

- Identified as high priority
- National Park Service Environmental Assessment due soon
- Access points in Shirley Heinze holdings to be developed
- Town of Porter combined sewer overflow (CSO) has been eliminated through long term control plan
- Indiana Bicentennial Nature Trust has made the East Branch a Conservation Corridor by awarding \$1 million in funding

Coffee Creek (Chesterton)

- Removed as potential water trail

Turkey Creek (Merrillville & Hobart)

- Removed as potential water trail

West Creek (SW Lake County)

- Further exploration needed – may not be wide enough for consideration as water trail

Kankakee River

- High Priority – designated National Water Trail in 2016
- LaPorte County camping area has been a success – more camping sites are welcome (Sumava Resorts, Grand Kankakee Marsh, location in Porter County)
- Better development of Baum’s Bridge as access point

Beaver Dam Creek (Crown Point)

- Further exploration needed – may not be wide enough for consideration as water trail

Cedar Creek (South central Lake County)

- Mid to high priority
- Local partners interested in developing for water trail in Lowell area
- Too low to paddle in dry periods – some effort needed in clearing log jams

Grand Calumet River (Gary, East Chicago, Hammond)

- High priority
- Needs access points and planning
- Bridge Street, Ambridge Mann Park or US Steel Visitors Center possible upstream access sites
- Good river access under Cline Avenue, but low bridge just west of Cline almost entirely blocked with log jams
- Doesn’t freeze – always enough water to float
- Roxanna Marsh potential access and outdoor education/wilderness inquiry

Lake Michigan

- Already established National Recreational Trail with numerous points of access

Cady Marsh Ditch (Highland & Griffith)

- Removed as potential water trail

Plum Creek/Hart Ditch (Dyer & Munster)

- Mid-level opportunity
- Not appropriate for novices – fast water under bridges
- Highest gradient of local waterways, but too low to paddle much of the year and fast water danger at high flows
- Wicker Park Dam needs warning sign

Salt Creek (Portage, South Haven & Valparaiso)

- Mid-level priority
- Dangerous rapids under I-94 and Route 20 bridge
- Two to three mile trail
- I-94 to north navigate for one mile
- Needs further exploration
- Some log jams still in place past I-94
- Canoe rental nearby

Deep River (Merrillville & Hobart)

- High priority
- Two ADA access sites installed in Hobart – on Lake George and on river adjacent to rugby field
- Good access/parking at Liverpool Road
- Opportunity/Problem – Liverpool Road outdoor learning center hazardous dam which needs to be addressed
- Log jams an issue closer to Lake George
- Low potential upstream of Lake George due to numerous log jams
- Lake George a good paddling option
- Rental livery at Hobart scuba shop

Indiana Harbor Canal (East Chicago)

- Low priority until remediation takes place

Trail Creek (Michigan City)

- Already developed as a water trail
- First ADA launch developed

The Lakes of LaPorte

- Currently a functional paddling destination – signage would help
- South reconnect Lilly Lake to Hennessey Pond which has been cut off by a culvert

In addition to the routes previously mentioned, NWIPA has also analyzed a number of other routes, either within, or just outside the NIRPC region. These include the following:

Inside region:

Cedar Lake

- Interest expressed by local authorities
- Power boat travel excessive in summer – makes it challenging to paddle

Lakes of Valparaiso

- Needs further exploration
- Several public access points already established
- Should be included as a paddling destination

Little Kankakee River (East LaPorte County)

- Exploration needed
- Potential new water trail

Marquette Park Lagoons (Gary)

- Should be included as paddling destination
- Installation of an ADA canoe and kayak launch complete
- Used by National Park Service for introduction to kayaking events

Mill Creek (East to South LaPorte County)

- Exploration needed near Union Mills

Robinson Lake (Hobart)

- Should be included as paddling destination
- NWIPA uses for training
- Great beginner paddling area

Wolf Lake (Hammond)

- An excellent paddling destination in NW Lake County
- Summertime boat rentals available
- May be issues with Illinois-mandated “Water Use Stamp” requirement

Outside Region:

Iroquois River (Jasper County)

- Excellent paddling potential
- George Ade access point
- Fairgrounds access point
- Lairds Landing access point
- Saint Joseph’s College access point

Murphy Lake at Willow Slough Fish and Wildlife (Newton County)

- Mid priority
- Easy water trail to develop

Tippecanoe River (North Central Indiana)

- Fully functional trail already in use by paddlers and liveries

Data Analysis

NIRPC staff has undertaken the most significant collection of trail data to date for the *2020 Greenways & Blueways Plan*. These findings represent a critical data set which in turn can be used by local officials and advocates alike to help maintain existing trails, and plan for new routes.

This section details the major findings from these undertakings which occurred through surveys and trail counts. The first part offers a general overview of the data collected, with findings of how the data fits with national trends to follow.

General Overview

Public Surveys

Throughout 2015, NIRPC conducted two types of surveys gauging public interest on both land and water trails. There were conducted online and in the field through intercepts (direct contact with trail users). The online survey also included a number of questions regarding conservation interest and park use, which will be detailed in the Conservation chapter of this plan.

Both NIRPC staff and members of South Shore Trails conducted the intercept surveys, and did so on a majority of existing routes. Obviously the more populated trails yielded results biased towards that route over lower-volume facilities. Even so there are number of consistent factors which emerged from the answers.

In all, approximately 730 individuals responded to the surveys, with 190 of these as intercepts. The online surveys were available to the public from February to October of 2015, and the intercepts were conducted from June to September of 2015. This section will break down key findings from both land and water trail questions.

For both surveys, Figures R-4 through R-8 represent the basic demographics of those who responded.

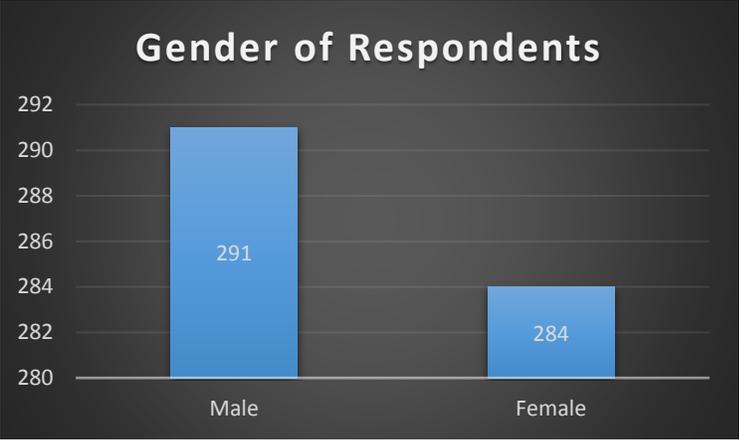


Figure R-4: Gender of Survey Respondents

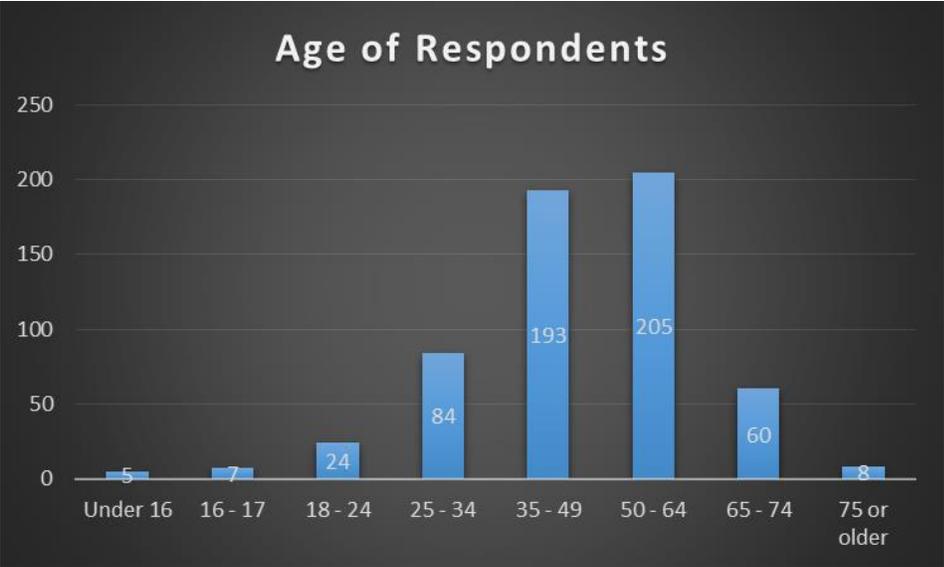


Figure R-5: Age of Survey Respondents

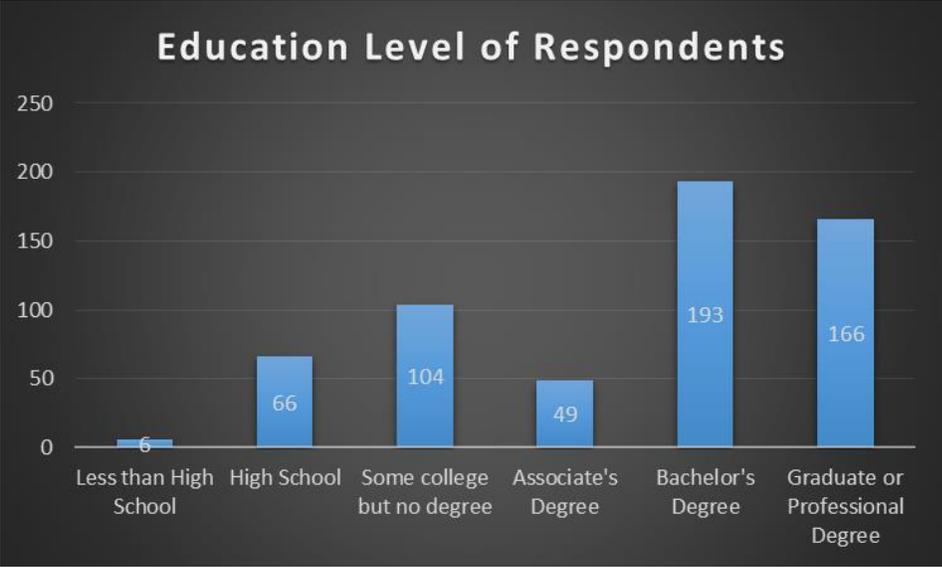


Figure R-6: Education Level of Survey Respondents

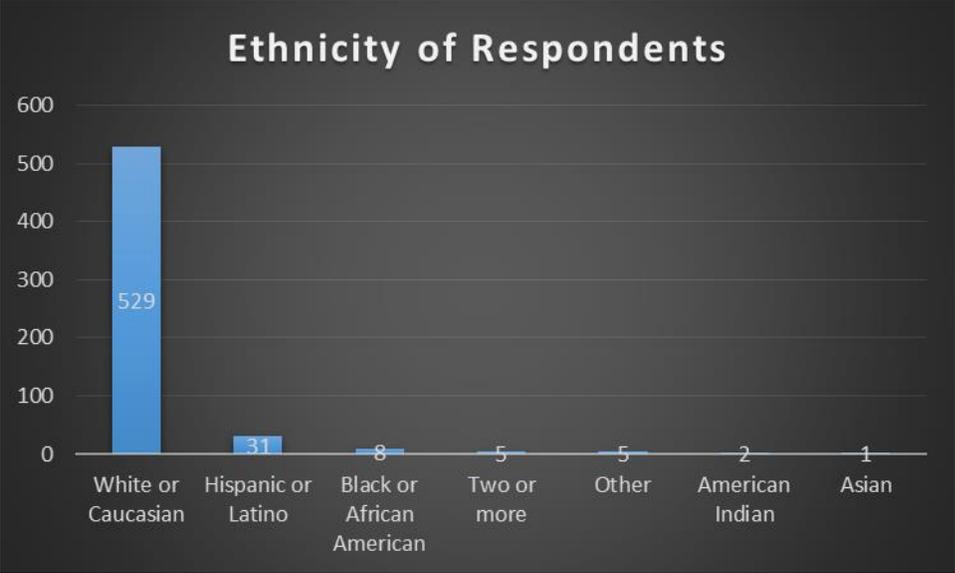


Figure R-7: Ethnicity of Survey Respondents

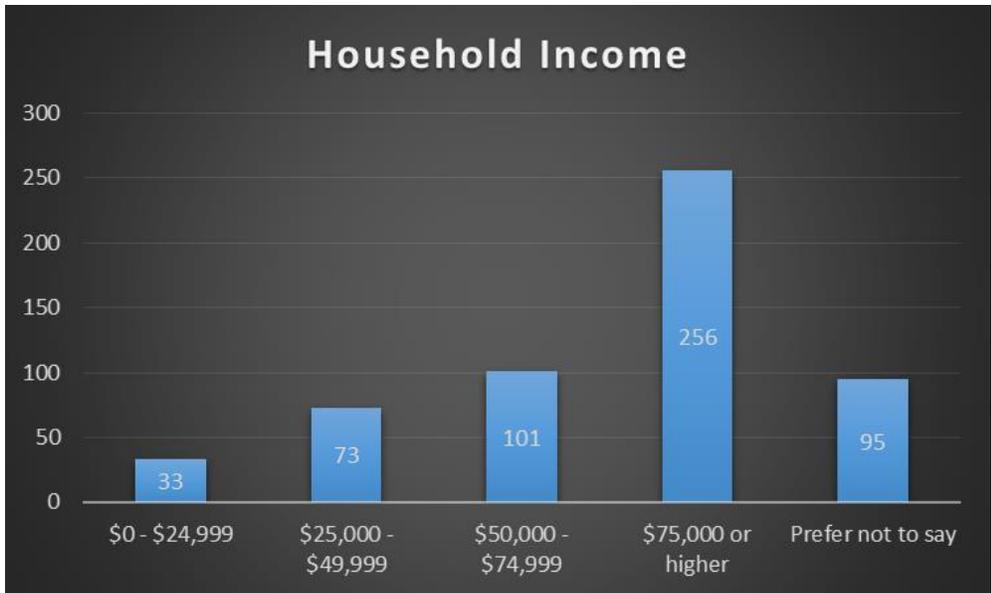


Figure R-8: Household Income of Survey Respondents

From these charts above, the majority of respondents were middle aged (35-64), educated, white, and with a household income of \$75,000 or more.

Land Trails

Land trails in the NW Indiana region enjoy a wide variety of uses which include either running, walking, biking or rollerblading as shown in Figure R-9.

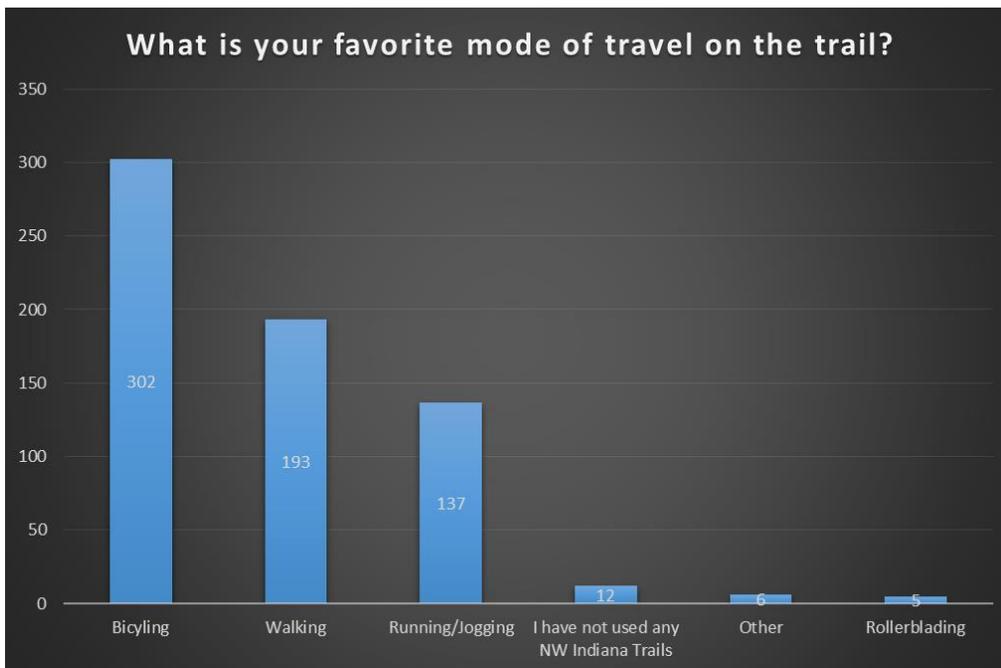


Figure R-9: Favorite Mode of Travel on Trail

Figure R-10 shows a majority of users using the trails for exercise purposes, with recreation being a distant second.

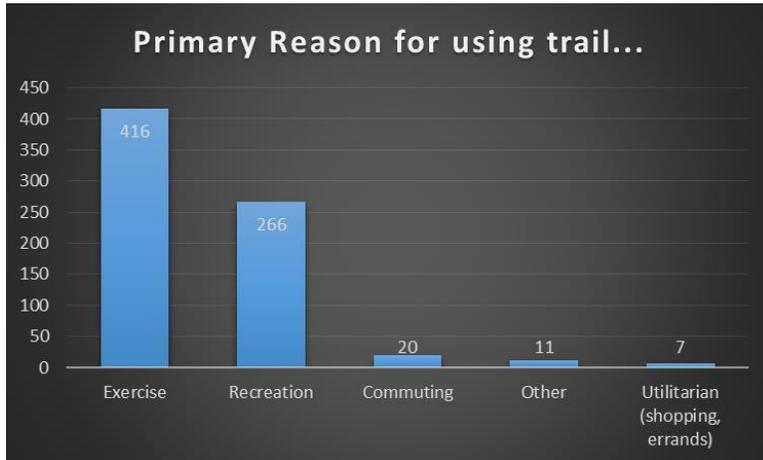


Figure R-10: Primary Reason for Using Trail

When on a trail, a majority of users prefer trips of over five miles in distance as shown in Figure R-11.

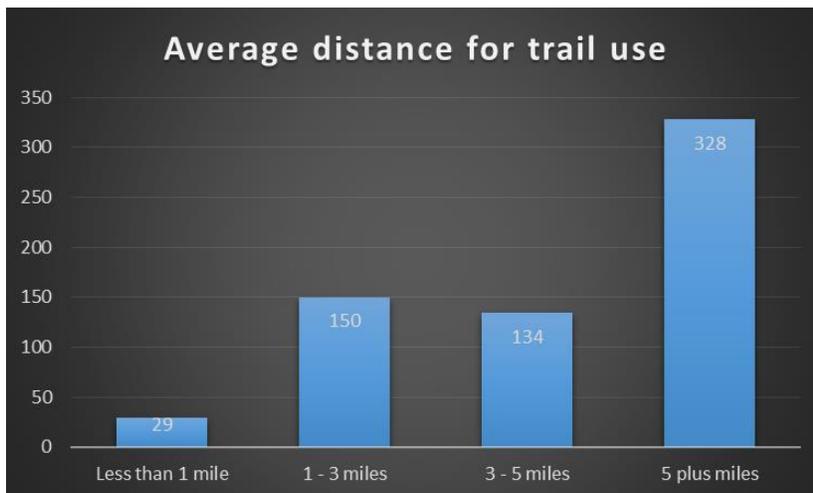


Figure R-11: Average Distance on Trail

In many cases trails also serve as social gathering locations, and are often enjoyed with friends, family or other groups. Figure R-12 details this dynamic where a majority of trail users prefer to use the facility with other people, with a smaller number walking their dogs.



Figure R-12: Walking Partners

The following three charts relate to trails being economic generators. Figure R-13 points to those who make purchases while on the trail, with a majority doing so. Figure R-14 details what these purchases are, with a vast majority constituting beverages, with some opting to visit a nearby fast food or sit-down restaurant. Figure R-15 further breaks down how many have actually made significant trail-related purchases during calendar year 2015.

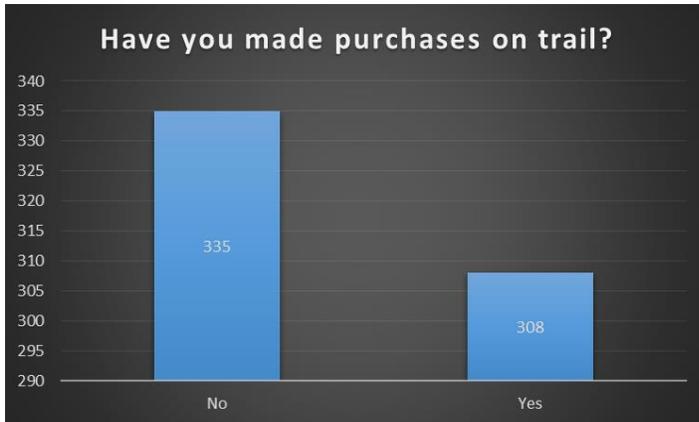


Figure R-13: Purchases Made While on Trail

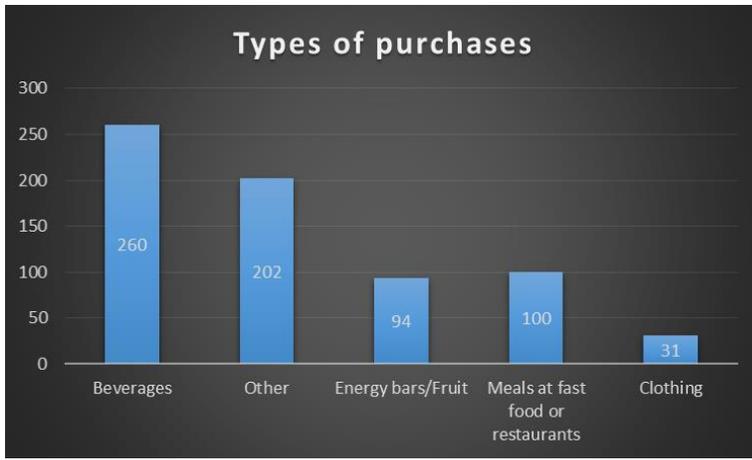


Figure R-14: Types of Trail Purchases



Figure R-15: Trail-related Purchases during 2015

Figure R-16 profiles an individual’s trail usage the week prior to their survey response. Of those who responded, a vast majority – 546 out of 640 – have used a trail in the NIRPC region at least once.



Figure R-16: Use of Trails Over One Week

Figure R-17 below zeros in on the popularity of each regional trail network in NW Indiana. From this graph, the Erie-Lackawanna Trail (EL) from Hammond to Crown Point is the clear favorite, which is not a surprise since it is the longest facility in the three-county NIRPC region (17 miles), and traverses through the largest population base. Beyond the EL Trail, the balance of the other systems remains relatively equal, save for the C&O Greenway in Merrillville due to its isolated nature and length (1.3 miles).

An interesting fact from this chart is the usage on the Calumet Trail along the Indiana Dunes National Lakeshore. This facility has been substandard for years and nearly impassible in parts. Even so, and most likely due to its proximity to the Dunes, the route remains a popular destination.

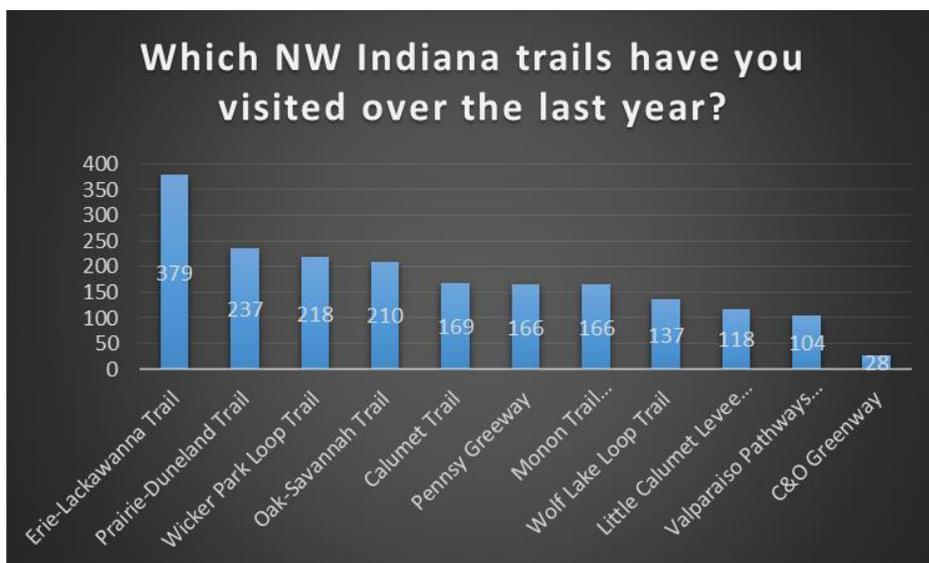


Figure R-17: Trails Visited Over Last Year

Another predictor of popularity is the distance of the facility to one’s place of residence. Figure R-18 shows a majority of respondents live within walking distance of a trail, and even more if biking is considered.



Figure R-18: Proximity to Nearest Trail

Water Trails

Data collected on water trail use was exclusively obtained through the online survey. A smaller number of respondents from the overall sample filled out the questions relating to water trails, signaling their reduced usage numbers compared to land trails. The following charts outline several data sets.

In Figure R-19, a basic question was posed regarding what boat is preferred when using a water trail. An overwhelming number responded with kayaks, followed by canoes. This makes sense since kayaks can be used by one person far easier than a canoe. A much smaller number identified using stand-up paddle boards.

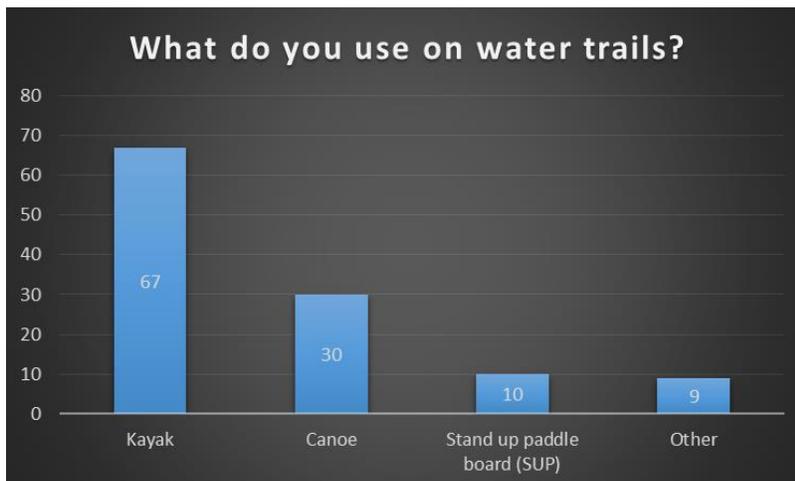


Figure R-19: Use on Water Trails

Since the release of the 2007 Greenways & Blueways Plan, there has been an exponential interest in paddling throughout NW Indiana. This is shown in Figure R-20 where a majority of uses have only been paddling regularly for the last five years. The success of NWIPA and the opening of additional routes have most likely led to this new interest in water trail enjoyment.

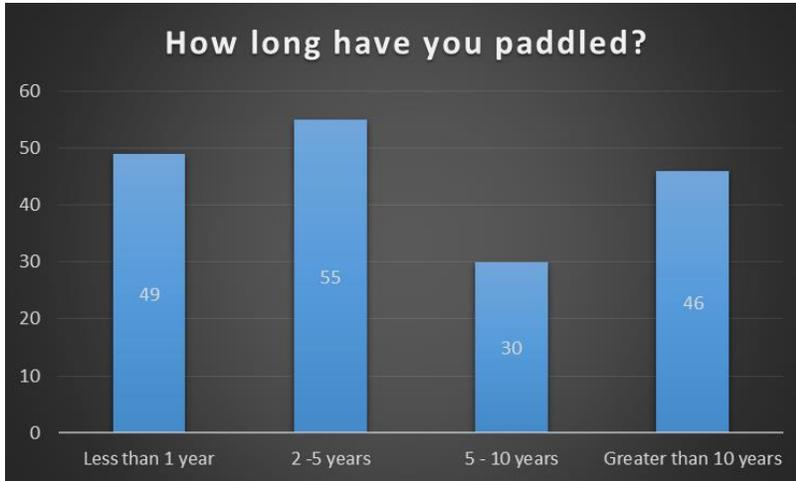


Figure R-20: How Long has User Paddled

The reason to paddle in general remains recreational in nature as shown in Figure R-21. There are some who paddle for exercise and fishing as well.

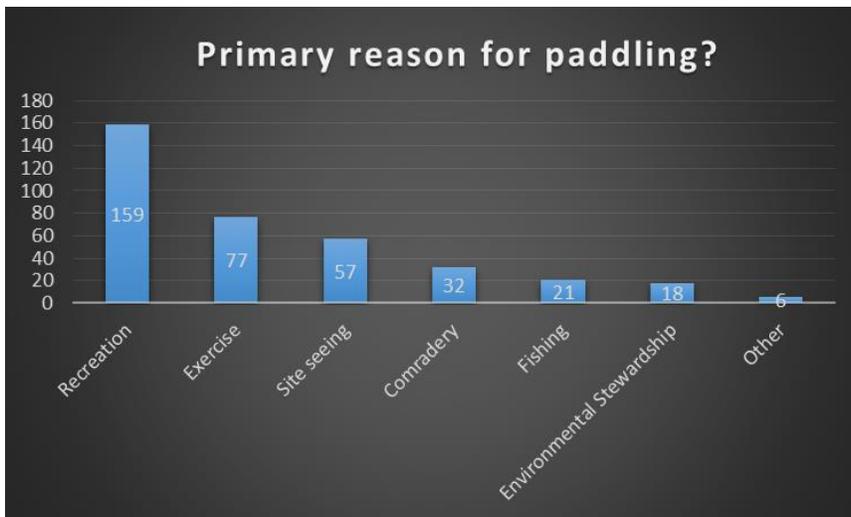


Figure R-21: Primary Reason for Paddling

Like land trails, those who use water trails also tend to participate in groups rather than individually. Since a majority of those who paddle do so for recreation, it stands to reason that they also enjoy the activity with others as well as shown in Figure R-22.

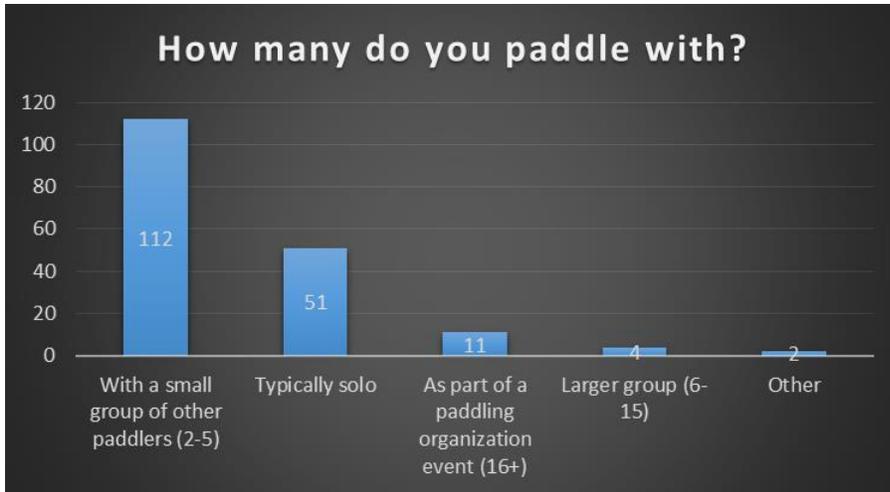


Figure R-22: How Many Join on Paddle

A number of prime locations exist in NW Indiana to paddle today, and as indicated by survey respondents many have been taken advantage of. In Figure R-23, the most popular route is Lake Michigan, followed by the Kankakee River – the two main water bodies in the NIRPC region, and most developed for access. Following these are a number of other routes, which are close to popularity with the top two destinations.

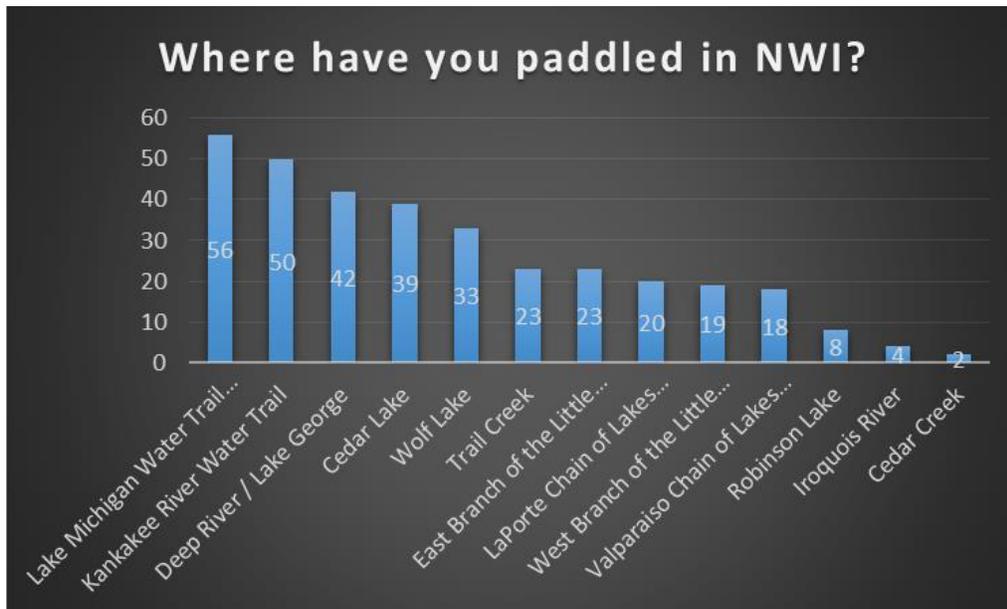


Figure R-23: Where Do People Paddle

Municipal Surveys

In 2015, NIRPC released a specific survey to all local and county municipalities. One of the questions dealt with their maintenance strategy for trails. The results in Table R-4 summarize their responses.

Trail Maintenance Survey	
Number of total respondents	31 (out of 44 local & county governments)
Mow weekly	23
Snow Plow	13
No Trails to Maintain	6

Table R-4: Municipal Trail Maintenance in NW Indiana

As shown the results are minimal, with the vast majority mowing their trails on a weekly basis. Just over half of those who mow also take the time to plow in the winter. More municipalities should take the time to schedule regular plowing of their trails since walking and bicycling can take place in winter, and routes should be ice and snow free for access and safety.

Trail Counts

In NW Indiana, our trails are growing in mileage and popularity. Just how popular has remained an unknown until earlier this year when NIRPC purchased 12 electronic counters with the help of the South Shore Convention & Visitors Authority and Indiana Dunes Tourism.

These 12 counters were installed at discrete locations on six major trail facilities, six on the Erie-Lackawanna Trail from Hammond to Crown Point, two each on both the Oak-Savannah Trail (Griffith and Hobart) and the Prairie-Duneland Trail (Portage and Chesterton), and one counter each on the Monon Trail in Munster and the Pennsy Greenway segment in Schererville.

Each counter has an infra-red beam that counts any movement in front of the box, with a two-second delay between (this prevents overcounting). Although some groups will be counted once if lined up in a row, several will be counted twice as they double back to their origin. In short, the numbers balance out.

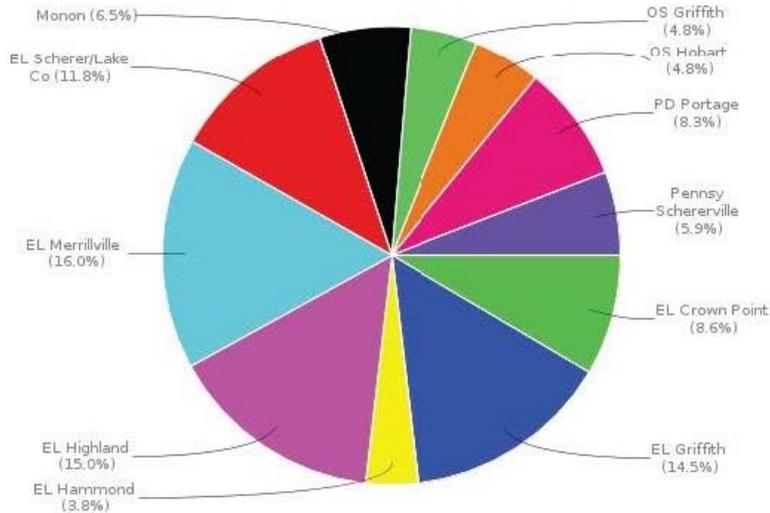
NIRPC staff attends to each of these boxes on a regular basis and extracts the resulting data. This data in turn gets downloaded online and then mapped over a specific time frame. The data can be presented as raw numbers, or as line or pie charts either separately, or compared with other counter locations.

Figure R-24 below presents preliminary data from the counter locations, excluding the one on the Prairie-Duneland Trail in Chesterton due to an equipment malfunction. These counts were compiled between May 22nd and October 8th of 2016, or the height of usage on trails. From these numbers it is clear the Erie-Lackawanna Trail is the most utilized in NW Indiana, with a daily average use of 307 persons.

The balance of daily counts from the other trails hold relatively equal with an average of approximately 200 users per day.

Compare sites

Data from 2016-05-20 to 2016-10-08
 Report generated on 2016-10-20 by mbarloga@nirpc.org
www.trafx.net



Site Name	Daily Average
EL Crown Point	227.1 (8.6%)
EL Griffith	382.3 (14.5%)
EL Hammond	101.3 (3.8%)
EL Highland	396.2 (15.0%)
EL Merrillville	423.9 (16.0%)
EL Scherer/Lake Co	311.5 (11.8%)
Monon	171.4 (6.5%)
OS Griffith	127.0 (4.8%)
OS Hobart	126.7 (4.8%)
PD Portage	220.0 (8.3%)
Penny Schererville	155.5 (5.9%)

A = adjustment applied, D = divide by 2 applied, F = filtering applied

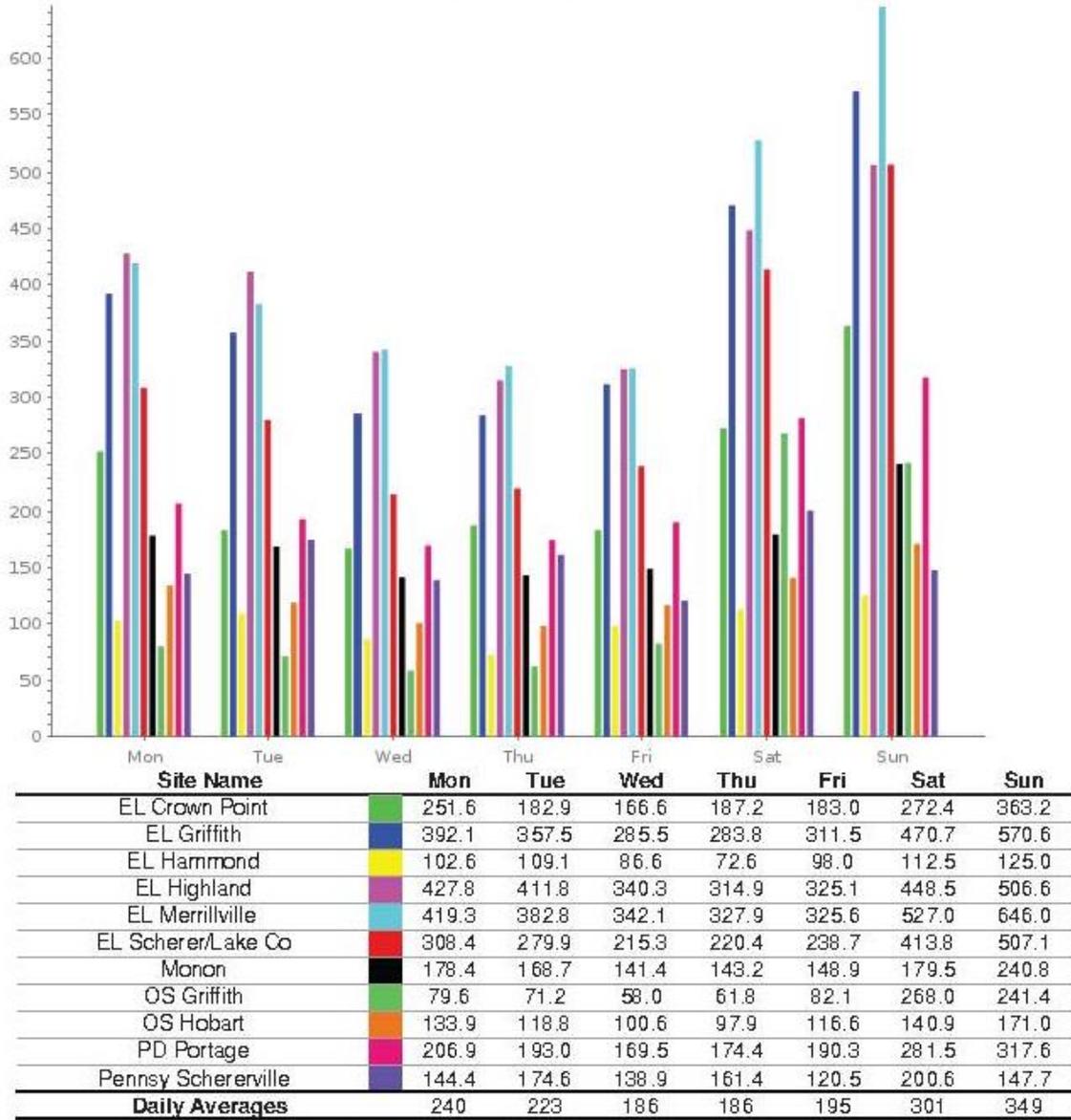
Figure R-24: User Data on Trails from May to August 2016

As for what day of the week is more popular for trail use in NW Indiana, Table R-5 highlights this data. It should be no surprise that both Saturday and Sunday rank as the most popular days for trail use, with Sunday topping all days. The work week remains steady for all days, with Monday being the preferred day for use.

Days of the week

From 2016-05-20 to 2016-10-08
 Report generated on 2016-10-20 by mbarloga@nirpc.org
www.trafx.net

Daily averages



A = adjustment applied, D = divide by 2 applied, F = filtering applied

Table R-5: Trail Use for Days of Week

Comparisons with National Trends

The survey data collected demonstrate a number of correlations with national trends regarding trail use. These key parallels include the following:

- *Mode of travel:* When land trails are discussed, the most common term for these is “bike trails.” Figure R-9 shows this is not a true description since a majority of people using trails do so for either walking, running or rollerblading combined. These varied uses clearly demonstrate how trails cater to a wide variety of non-motorized uses.

To emphasize this point, compare Figure R-9 to Figure R-25 which is taken from the Indiana Trails Study, conducted in 2001. You will notice the distribution of uses along the lines of what our regional trails report.

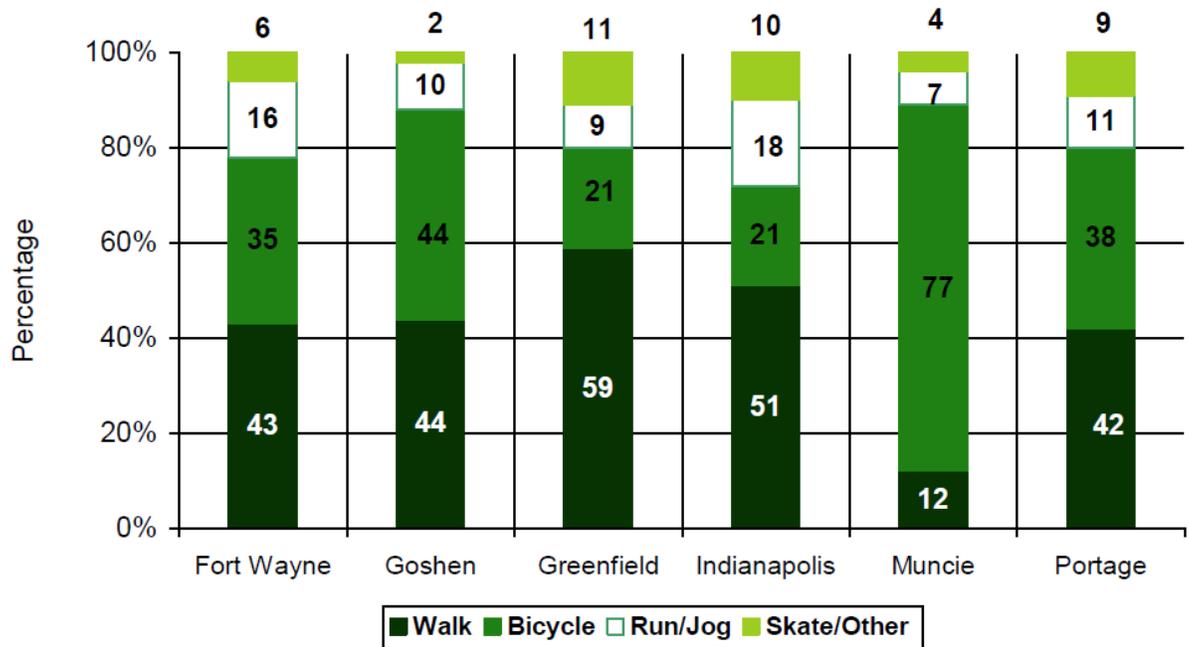


Figure R-25: Distribution of Trail User Activities (Indiana Trails Study, Eppley Institute, Indiana University, 2001)

- *Reason for using trail:* In Figure R-10, a majority of respondents cite exercise as their primary reason for using a trail. The Indiana Trails Study also backs this finding as well as shown in Figure R-26. Further supporting this finding are a number of user surveys taken nationwide including one for the Pinellas Trail in Florida which found 57% of their respondents using a trail for exercise purposes³. Clearly trails are critical elements in advancing the health and welfare of a community.

³ Pinellas Trail Users Survey, Metropolitan Planning Organization of Pinellas County, Florida, 2014

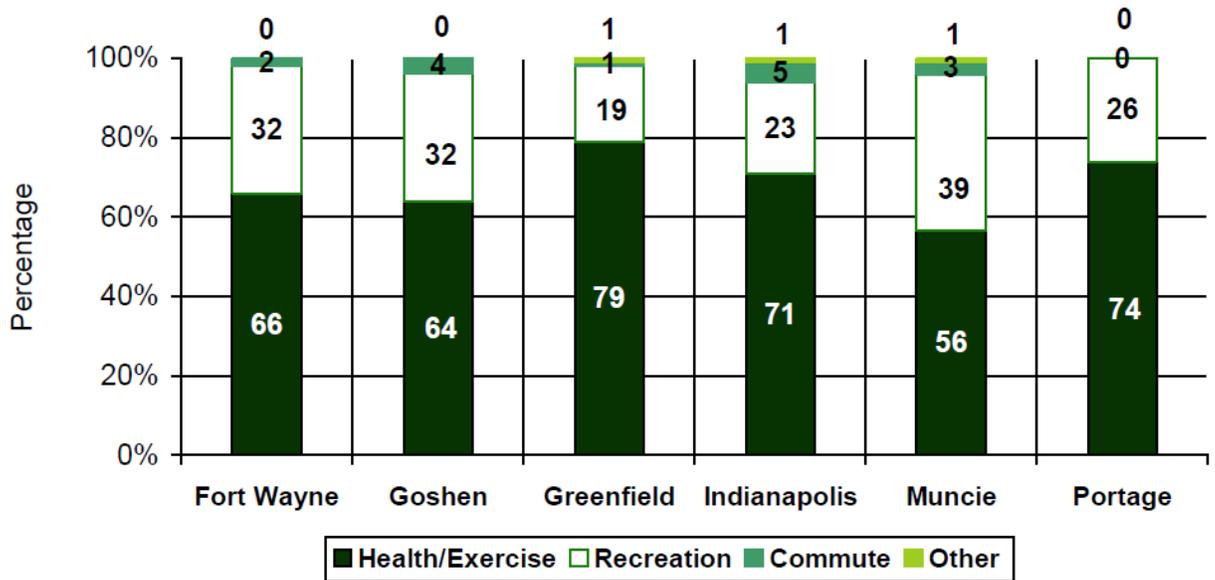


Figure R-26: Trail User Primary Reason for Visiting (Indiana Trails Study, Eppley Institute, 2001)

- Distance while using trail:** Figure R-11 shows that a vast majority of users travel longer than five miles per visit. This is a significant finding since it has been reported that half of all trips are under three miles in distance⁴. This distance is comfortably made by bicycle, and quite accessible for many walkers. In short, trails can be used for trips in lieu of the automobile – saving money on fuel and improving one’s wellness.
- Economic Impact:** Figures R-13 to R-15 demonstrates how trail users contribute to the local economy through purchases either while using the trail, or with new equipment. While NIRPC’s surveys didn’t detail the dollars spent on purchases, there are a number of studies that have undertaken such exhaustive research. One such study comes from the State of Minnesota which calculated over \$3.2 million in trail-related purchases during 2008 alone⁵
- Proximity to trail:** A logical connection involves how frequently one uses a trail they live in close proximity to. Figure R-18 demonstrates that a vast majority of trail users live within a half-mile of a facility. The saying, “build it and they will come” has never been more profound. One study in Massachusetts found that among 363 adults the likelihood of using a suburban rail-trail decreased by 42 percent for every quarter-mile increase in distance from home to the trail. A Minneapolis study also found sharp declines in trail use among bicyclists who had to travel 1.5 miles or further to access the trail⁶.

⁴ National Household Travel Survey, U.S. Department of Transportation, Federal Highway Administration, 2009

⁵ Economic Impact of Recreational Trail Use, Ernesto C. Venegas, Ph.D., Minnesota Department of Employment, November 2009

⁶ The Power of Trails for Promoting Physical Activity in Communities, Active Living Research, January 2011