4

NATURAL FEATURES AND LANDSCAPE

4.1 NATURAL FEATURES AND LANDSCAPE

This section describes the managed natural areas in Indianapolis Parks and Greenways and the restorative management in relation to recreation, quality of life, and ecosystem services provided.

WHAT IS THE OFFICE OF LAND STEWARDSHIP IN INDIANAPOLIS?

The Office of Land Stewardship is housed under the Department of Public Works and maintains a partnership with the Department of Parks and Recreation. Funding for Land Stewardship comes from the City's annual operating budget as well as through fees assessed as part of the City's stormwater program. Land Stewardship also works with funds from grants and a variety of organizations. Land Stewardship's partners include Purdue University, Indiana University-Purdue University Indianapolis (IUPUI), Butler University, and the Indiana Native Plant and Wildflower Society. Across 37 properties, the Office of Land Stewardship manages 2,018 acres of park natural areas and green infrastructure installations that filter stormwater runoff. This work helps preserve critical wildlife habitat, provide passive recreation opportunities, protect air quality, and address stormwater issues related to water quality.

LAND STEWARDSHIP'S MISSION AND VISION

MISSION

Land Stewardship protects and manages natural habitats for people, wildlife, clean air, and clean water.

VISION

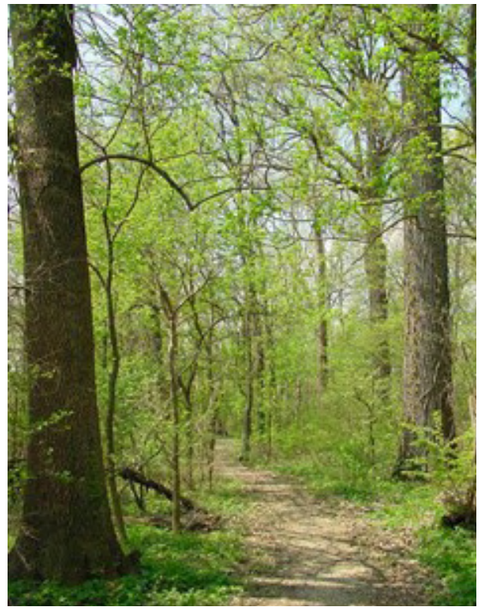
The Office of Land Stewardship will protect, manage, restore, and expand natural areas in Indianapolis in order to increase the ecological services they provide, improve the natural landscape for wildlife and passive recreation, and foster a conservation ethic to inspire current and future generations to value these special places.

LAND STEWARDSHIP
Protecting Indy's Natural Areas

STEWARDSHIP OF NATURAL AREAS

Parks departments around the world are looked upon to protect and manage natural areas. Natural areas help mitigate pollution generated by the developed landscape. These natural systems can improve the air and the water quality in our rivers and streams. The City of Indianapolis – Marion County has been actively managing natural areas in parks and greenways for thirty years, thus doing a great service to the local community and to furthering global initiatives in natural resource protection.

Indianapolis is fortunate to have many natural areas in the park system. Some of these areas have endangered, threatened or rare species of plants and animals and several ecosystem types are listed as state significant and globally rare. Proper planning and proactive management of these natural areas will help ensure the greatest ecosystem service benefits to the community.



Raymond Park

The natural areas in parks and greenways are categorized by three main land cover types, followed by subcategories:

Woodlands

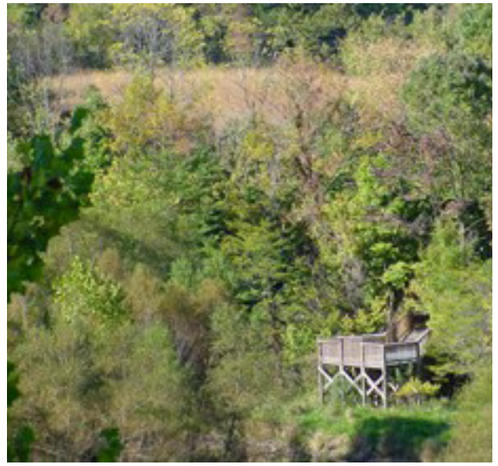
- Old second growth
- Disturbed woods
- Woody successional

Open Natural Area

- Herbaceous to early woody successional
- Prairie/Pollinator Meadows
- Reforestation
- Wetland – sedge meadow
- Native plant landscaping
- Green Infrastructure (rain gardens…)
- Former agriculture/fallow field

Water

- Open Wetlands (constructed/natural)
- Streams and Rivers
- Reservoirs and Ponds



View from Eagle's Crest Woods Nature Preserve

THE FUNCTION OF NATURAL AREAS - THE CRITICAL NATURE OF OUR WORK

ECOSYSTEM SERVICES

There is more to natural areas than picturesque landscapes or a place to picnic. Natural areas perform important functions for us. These ecosystem services include stormwater management and other water quality benefits, clean air to breathe, removal and storage of carbon dioxide, and providing spacewith aesthetic, healthful, and recreational value. When human activity eliminates natural areas, these ecosystem services are disrupted, often severely. It then becomes the job of engineers, planners, and designers to figure out how to simulate those services in the built landscape. Human-made solutions rarely perform as well as the natural systems in providing these services.

STORMWATER QUALITY

Stormwater, the volume of water in a rain event, is a serious problem for many communities. Before natural areas were settled and developed, about 50% of the rain that fell was absorbed by the soil and recharged the groundwater. Today that number is closer to 15% due to impervious surfaces such as buildings, pavement, and compacted soils. Rain that was once captured in forests and wetlands now falls on roofs, roads, and parking lots. All of that extra water has to be engineered off the landscape so every storm doesn't result in widespread flooding. These man-made solutions can result in pollution as rainwater often runs over contaminated surfaces and drains into waterways. Because much of our drinking water comes from surface sources like rivers and reservoirs, water treatment plants incur greater costs to make water clean for drinking. Surprisingly, sediment is the number one pollutant of rivers, lakes, and streams in Indiana. Native vegetation with deep root systems holds the soil in place, reducing erosion and keeping our streams cleaner. Land Stewardship uses native plants in their restoration work and rain gardens, which allows for greater infiltration of stormwater into the ground and helps protect water quality in our watershed.

AIR QUALITY

A mature tree can absorb 10 pounds of air pollution every year and more than a ton of carbon dioxide over its lifetime. Unfortunately, forest-clearing and increased vehicle use has resulted in more air pollution and greater carbon dioxide emissions - just one gallon of gas creates about 20 pounds of CO2! Communities where natural areas have been reduced or are absent are seeking ways to clean the air and sequester carbon dioxide. Indianapolis parks are part of the solution by providing 6,522 acres of tree canopy, which makes up 60% of the land cover in parks. These trees remove 410,139 pounds of air pollutants annually with a monetary benefit of $1,475,387. In addition, they sequester 53,299,942 pounds of carbon with a monetary benefit of $967,679. This is a combined value of $2,443,066 every year – all from the tree canopy in Indianapolis parks!

BIODIVERSITY

Natural areas are equally important for the survival of most of our native plants and animals. While some animals have adapted to the built environment, most wildlife need a different community; one that includes a diversity of trees, shrubs, wildflowers, insects, and other organisms. A single oak tree may support as many as 500 butterfly and moth species. Butterfly and moth larvae support bird populations, birds spread wildflower seeds, wildflowers support pollinators, and pollinators are necessary for ecosystem health and human food production. As human development removes this kind of native asset and replaces it with exotic species of trees such as Callery pear, there is an exponential loss of wildlife that native plants support. Everything is connected and interdependent! We are committed to protecting Indianapolis' natural areas in order to provide habitat and community for our native flora and fauna. Indianapolis is home to about 50 rare, threatened, or endangered animals and 9 rare, threatened, or endangered plants. Land Stewardship has protected over 2,000 acres of habitat for them to date.

PASSING ON A CONSERVATION ETHIC

Forest cover in Indiana has increased since the 1960s, but that isn't the case in Indianapolis. Development pressure continues to threaten the remaining natural areas, and it's hard to reverse the trend of lost woodlands in Marion County. The Office of Land Stewardship works to engage volunteers and educate the public about the inherent value of our local natural areas. Awareness of these treasured areas is their best defense.

LAND STEWARDSHIP – ECOLOGICAL RESTORATION MANAGEMENT

Today's natural plant communities are isolated fragments lacking the stability of larger ecosystems and thus very susceptible to degradation.

One negative impact of this fragmentation is biological pollution in the form of non-native plant and animal species, many of which invade and displace native plant communities. The healthiest natural areas are those that support a diverse population of native plants and animals. Much of the living environment, in natural areas that provide habitat for native animals, insects and other organisms, is reduced when exotic plants invade and take over their space. When this happens, the natural diversity, or biodiversity of an ecosystem is compromised.

Ecological restoration is the process of assisting the recovery of a natural area that has been degraded, damaged, or destroyed - the Office of Land Stewardship primary focus.

WETLAND RESTORATION – BEFORE AND AFTER

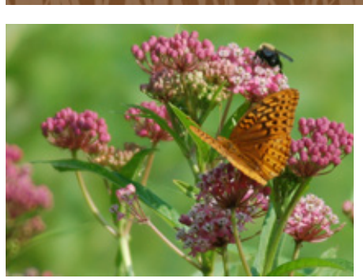
Raymond Park – Weedy Non-native Old Field

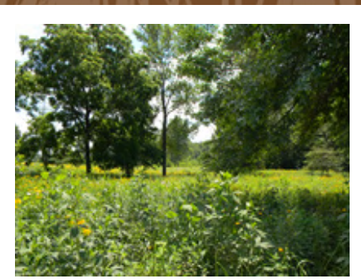
15 years later, Native Shrub Sedge Meadow

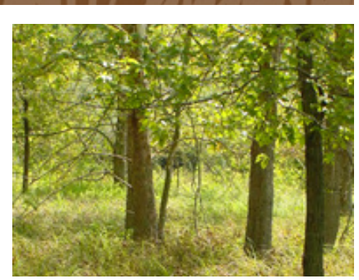
The restored open wetland was at one time wooded as shown in the background and photo to the right.

Eagle Creek Park – Weedy Non-native Old Field

20 years later, Fen Wetland – Sedge Meadow







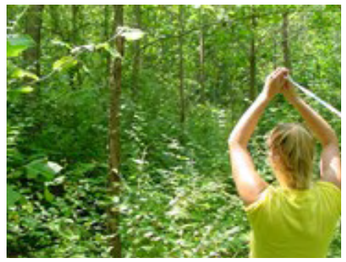
On a global basis the two great destroyers of biodiversity are, first, habitat destruction and, second, invasion by exotic species (E.O. Wilson). Managing invasive species is at the center of what Land Stewardship does, as invasives have a negative impact on species of special concern, pollinators, and water quality. Non-native, invasive species are plants or animals whose introduction to an ecosystem causes environmental or economic harm. They can enter the landscape as a result of development, poor land management, accidental release, or escape from cultivation. Unfortunately, once invasive species get established, they can cause an ecosystem to deteriorate and outcompete native species, reducing the diversity of plants and animals. Land Stewardship and its contractors manage over 70 different invasive species today. Management of invasive species creates better habitat for native flora and fauna. And healthy habitats allow for increased infiltration of stormwater, reducing runoff and erosion, which improves water quality. Invasive species management also gives us an opportunity to get volunteers involved in our work, and many Indianapolis residents want to help improve the environment. We use our restoration efforts to educate people about ecosystems and how all the components work together.

OVER 70 PLANTS ARE KNOWN TO BE INVASIVE IN MARION COUNTY. COMMON EXAMPLES ARE:

- Bush honeysuckle spp.
- Wintercreeper vine
- Oriental bittersweet vine
- Japanese stilt grass
- Burning bush
- Garlic mustard
- Tree-of-heaven
- Siberian elm
- Callery pear (Bradford pear)

Successful natural area management requires an active invasive plant control program. This is an integral part of the ecological restoration management.

Marott Woods Nature Preserve – Was partly invaded by bush honeysuckle and has over 15 years pf restoration using contractual labor (Eco Logic LLC) and volunteers - series of photos showing restoration.

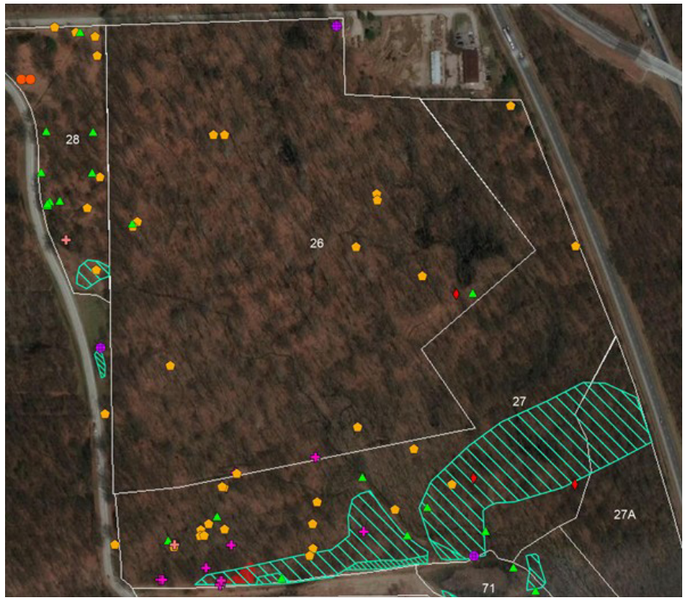





The Marott Woods Nature Preserve management continues with the older-second growth woodland being the priority.

The remnant forests are a primary management focus. These parcels are listed as globally rare and/or state significant. The adjoining buffer areas are also important restoration zones to expand habitat and bufer the core remnant forests from invasive plants which can dominate previously cleared sites with a history of farming or residential land use. Remnant forests support rare, endangered and threatened species of plants and animals. Nature enthusiasts take advantage of the opportunity to experience ephemeral wildflowers and stands of older trees in these areas.

Eagle Creek Park – Spring Pond Nature Preserve



The invasive species control efforts rely on professional broad cover mapping (Eco Logic LLC). To the left is just one example of several map layers showing woody invasives in the Spring Pond Nature Preserve.

Some of the largest ecological restoration sites are implemented on land formerly in agriculture. Reforestation and wetland restoration practices have converted hundreds of acres to native plant communities. Although not an original ecosystem in Marion County, prairie plantings can have an important role. Prairie offers insect pollinator and bird habitat in addition to providing air and water quality benefits and carbon sequestration. These transition areas are very active wildlife habitats where park visitors can enjoy an interesting mix of plants, birds and insects. Nature photography and birding are common activities.

NATURAL AREAS AND ECOSYSTEM SERVICES

The value of natural areas in Indianapolis parks has been demonstrated through recognition of the ecosystem services they provide. The benefits of natural areas are becoming better known today and Land Stewardship believes our parks deserve greater recognition and value for all they offer the Indianapolis community. Ongoing research and modeling practices are employed to calculate in dollars the benefits of these services provided by natural landcovers. The better an area is managed, the more of these natural service benefits they provide. Natural area and land management goals can influence the following ecosystem services:

Ability of the land cover to provide critical public service

- **Water related**
  - Stormwater capture and flood attenuation
  - Groundwater aquifer recharge
  - Non-point source pollution reduction
- **Conditioning of the air**
  - Reduction of ozone
  - Reduce heat island effect
  - Increase carbon sequestration
- **Natural heritage related**
  - Wildlife habitat
  - Biodiversity preservation
- **Other environmental**
  - Noise abatement,
  - Positive mental and physical health benefits of green space
  - Violent crime reduction

STORMWATER CAPTURE AND STORAGE – VALUING NATURAL AREAS AND GREEN INFRASTRUCTURE

The Office of Land Stewardship doesn't just manage large natural areas. Curbside bioswales, rain gardens, and other green infrastructure elements are also part of our work. Efforts to address the increasing problems caused by stormwater involve several different approaches. Agricultural fields and turf grass have been converted to native habitats like woodlands and wetlands, which manage a large volume of stormwater naturally. We also protect existing natural areas which are already performing this task. In our forests, big trees that make up the canopy intercept around 60,000 gallons of stormwater per acre every year. That's a $2.2 million value annually and doesn't include the understory trees, shrubs, vines, herbaceous layer, and soil, all of which have an enormous effect on rainwater interception. Soil alone holds about 27,000 gallons of stormwater per acre on an annual basis. Land Stewardship manages over 1500 acres of woodlands and manages 43 acres forested and open wetlands. Wetlands can be described as nature's kidneys, acting like sponges to hold and release water in order to prevent damaging flows. Our wetlands can store up to an estimated 64,500,000 gallons of stormwater annually, filtering up to 95% of sediments and treating environmental pollutants.

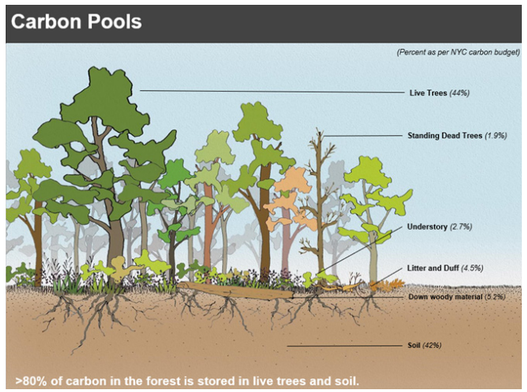
Grassy Creek Regional Park, 42 - acre Open Wetland

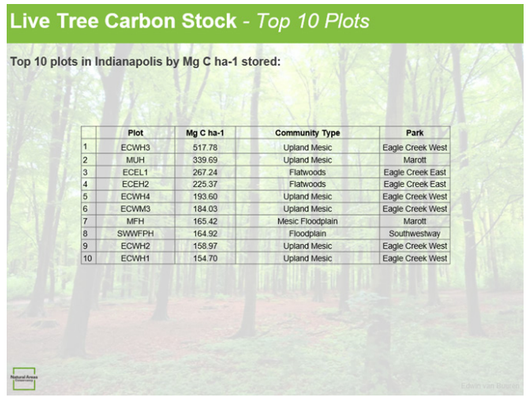
GREEN INFRASTRUCTURE

Green infrastructure elements such as rain gardens and bioswales also divert rainwater from storm sewers and waterways and put it back into the ground. Rain gardens can filter some 30,000 gallons of stormwater per year per acre. The DPW - Office of Land Stewardship maintains 58 rain gardens in Indianapolis totaling 90,469 square feet. Providing natural ways to reduce stormwater runoff has additional benefits for water quality in Indianapolis and communities downstream. Water running off roofs, yards, streets, and parking lots picks up large quantities of pollutants, even during small rain events. All these contaminants are quickly flushed into our surface waters, the drinking water source for 90% of Indianapolis. The more stormwater that soaks into the ground, the fewer pollutants enter our waterways, and that means cleaner water for drinking and recreation. This provides further protection to our watershed by reducing flooding and contributing to better water quality.

CLIMATE RESILIENCY

Natural areas have an impact on factors that contribute to the continued warming of our climate past historic norms. Trees not only exchange carbon for oxygen, but the very biological material that makes up a woodland, grassland, or wetland stores carbon indefinitely within its biomass. Some studies show that while turf grass may sequester 800 pounds of carbon per acre every year, native forests are storing at least twice that amount. An older forest may sequester nearly 5 times as much carbon, and wetlands and floodplains may be even more effective. Our properties also provide many benefits to air quality with forested areas alone absorbing around 5,292 tons of carbon dioxide every year and 420 tons of air pollutants. Forests, wetlands, and prairies also help clean the air and cool the environment. Trees have a big impact by lowering the ambient air temperature. Ongoing studies are being conducted in our forests. The study below was from a grant in coordination with the New York City – Natural Areas Conservancy. In 2022 a temperature study was conducted in our forests using sensors to determine the correlation between forest health and temperature reduction.





	Plot	Mg C ha-1	Community Type	Park
1	ECWH3	517.78	Upland Mesic	Eagle Creek West
2	MUH	339.69	Upland Mesic	Marott
3	ECEL1	267.24	Flatwoods	Eagle Creek East
4	ECEH2	225.37	Flatwoods	Eagle Creek East
5	ECWH4	193.60	Upland Mesic	Eagle Creek West
6	ECWM3	184.03	Upland Mesic	Eagle Creek West
7	MFH	165.42	Mesic Floodplain	Marott
8	SWWFPH	164.92	Floodplain	Southwestway
9	ECWH2	158.97	Upland Mesic	Eagle Creek West
10	ECWH1	154.70	Upland Mesic	Eagle Creek West

The Office of Land Stewardship currently manages about 2,000 acres of natural area which offset the effects of climate change in Indianapolis. Restoring land to native flora from turf, agriculture, or other uses has another big benefit for the climate. Turf is mowed many times throughout the growing season, and agricultural fields require the repeated use of gas-powered machinery. The link between fuel combustion and climate change is well established and the Office of Land Stewardship is converting as much land as possible to uses that require less gas for maintenance. To date, we have transitioned nearly 720 acres from turf or agriculture to native woodlands, prairies, and wetlands. That amounts to roughly 1.2-2.8 million pounds of carbon that is no longer entering the atmosphere every year.

Paul Ruster Park - Turf to Prairie Habitat

Holliday Park - Shady Turf to Woodland Habitat (Summer & Fall flowers)

Raymond Park – Turf to Sedge Meadow Prairie

POLLINATOR PROTECTION

There are many threats to pollinator species (think bees, butterflies, and moths), and the loss of habitat from development or invasive species ranks near the top. No organization is doing more to reverse this trend in Indianapolis than Land Stewardship. Not only do the areas we protect offer invaluable habitat for pollinators, but we are also converting fallow landscapes to species-rich pollinator plantings and enhancing edge habitat with native flora that supports pollinator populations. Visit one of our wetlands or prairies in the summer, and you will see an amazing array of butterflies, beetles, hummingbirds, and bees. Or journey deep into the woods and discover how our native oak trees support a diversity of beneficial insects!

Pollinators at work (clockwise from top left): tiger swallowtail butterfly, ruby-throated hummingbird, honeybee, and hummingbird clearwing moth.

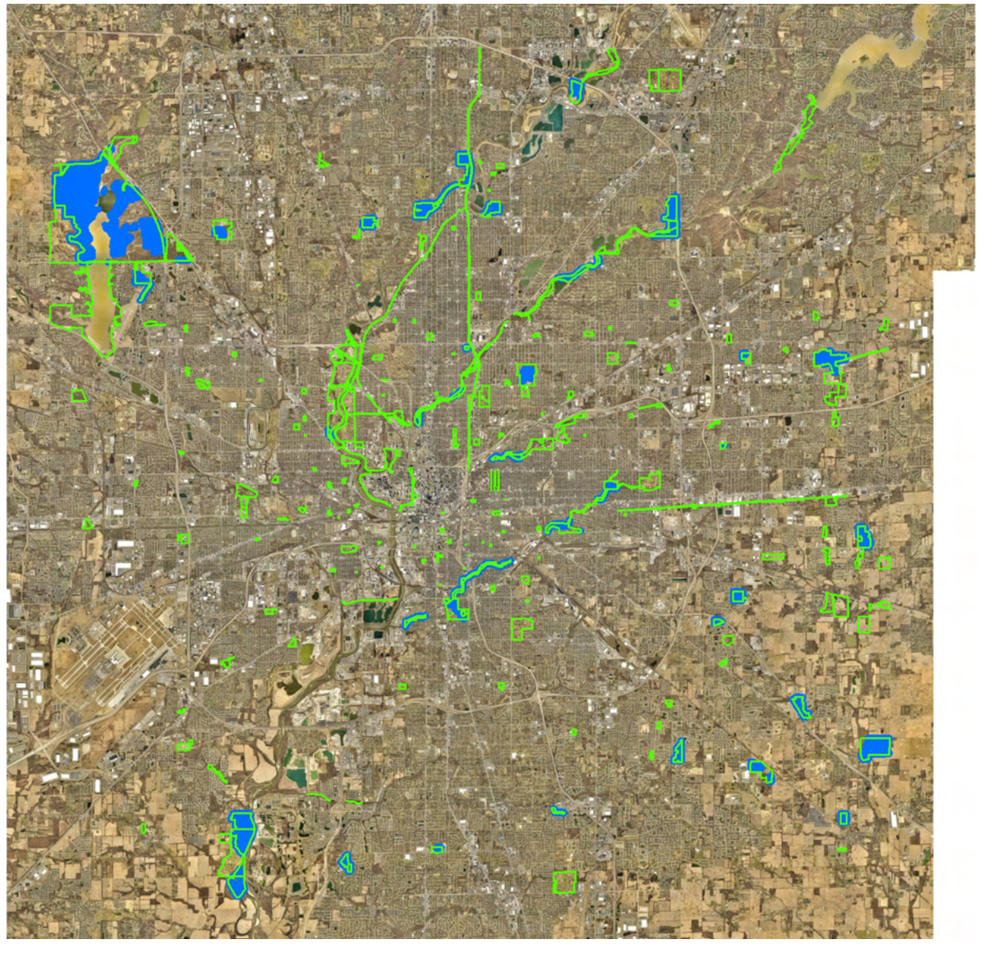
SPECIES OF SPECIAL CONCERN

Indianapolis is home to a number of species of plants and wildlife classified as rare, threatened, or endangered. These include the Kirtland's snake, Henslow's sparrow, Northern leopard frog, and American ginseng, all of which depend on higher quality natural areas with minimal disturbance. Much of what we do is converting landscapes to native flora and protecting our remaining natural areas is aimed at preserving the conditions these species need to survive. Consider, 43% of threatened or endangered plants and animals in the U.S. live in or depend on wetlands. We are working hard to restore these conditions, as well as those found in our native forests and grasslands, to preserve as many species as possible.

Species of special concern (clockwise from top left): Cerulean warbler, goldenseal, Northern leopard frog, and Kirtland's snake.

PROJECT TRACKING

A geographic information system (GIS) and global positioning system devices (GPS) are two types of tools used to monitor progress and develop management plans. Daily reporting is also essential as crews work in various natural areas nearly every day. The relative size and distribution of the park areas under Land Stewardship management are shown on the map below. The blue highlighted areas receive cyclical management every 1-3 years. The main emphasis is on invasive species control and natural area regeneration.



2022 Ecological Restoration: Active Management – 17% of the Parkland

Green – Indianapolis Parks and Greenways (11,608 acres)

Blue – Land Stewardship Service Areas (37 park locations, 2018 acres)

LAND STEWARDSHIP – PROGRESS OVER 30 YEARS

The first restoration in Indianapolis parks started in an old agricultural field at Eagle Creek Park in the spring of 1992. School students planted acorns in a 13-acre field in partnership with the US Fish and Wildlife Service. From this small start, Land Stewardship's management areas have grown to 2,018 acres in 37 parks today.

A closer look at the numbers shows that Land Stewardship:

- Increased wetlands from 2.5 acres to 44 acres
- Increased planted prairies from 12 acres to 300 acres
- Increased woodland restoration from 160 acres to 1526 acres
- Increased the number of invasive plant species managed from a few to 70
- Converted more than 735 acres from turf and agriculture to native plant communities

RECREATION IN NATURAL SETTINGS

It is essential that recreational use be planned for the varying types and conditions of natural areas. Planned recreational use per land type is also a necessity so there is compatibility among the different active and passive user groups.

The majority of surveyed respondents (within a group polled by the IDNR – Division of Outdoor Recreation) prefer self-directed, passive, recreational opportunities such as walking, hiking and jogging. In response to this need, Indianapolis places much emphasis on managing a proportional quantity of the park land for passive recreation. Natural areas are particularly suited for passive recreation.

Numerous studies show that passive recreation in natural areas has many health benefits such as reducing stress and blood pressure. Activities like hiking, birdwatching, and nature observation are increasingly popular ways to experience the natural environment and connect to the landscape. Indianapolis parks provide residents and visitors access to some of the highest-quality passive recreation in the region. Natural areas are essential for a healthy community.

Properly managed natural areas can provide many types of recreation opportunities to park users. Planned recreational use (individuals or groups) broadly fits into two categories relating to natural area land cover:

Passive
- Walking, hiking, jogging, running
- Relaxation, contemplation
- Nature observation and education
- Forest Bathing (spiritual renewal)

Active
- Sports related (mountain biking, marathons, disc golf, outdoor adventure events, cross country skiing)
- Other (challenge/teams initiative course, fitness course, canoeing – sailing, geocaching)

Natural areas in parks and greenways were classified by GIS analysis which is paired with the recommended recreational uses. These are general outlines. Variables in site size, topography and restoration management goals help determine the capacity for quality, sustainable, recreation opportunities.

Passive and active recreation activities for the various land cover categories (approved on a site-by-site basis only):

Woodland - Old-second growth
- Walking, hiking, jogging, running
- Relaxation and contemplation
- Nature observation and education

Woodland – Disturbed woods
- Walking, hiking, jogging, running
- Relaxation and contemplation
- Nature observation and education
- Sports related (mountain biking, marathons, disc golf, outdoor adventure events)
- Other – Geocaching, orienteering

Open Natural Area
- Walking, hiking, jogging or running
- Relaxation and contemplation
- Nature observation and education
- Sports related (mountain biking, marathons, disc golf, outdoor adventure events)
- Other – Geocaching, orienteering

Water
- Streams and Rivers
- Canoeing/Kayaking/Motorboat related
- Fishing
- Nature observation and education
- **Open Wetlands - constructed and natural**
  - Nature observation and education
- **Reservoir/Ponds**
  - Canoeing/Kayaking/Sailing
  - Fishing
  - Nature observation and education

The majority of uses recommended for natural areas are forms of passive and self-directed recreation. However, active recreation activities are also welcomed in natural areas. Careful planning is required so people can enjoy the varied recreation that occurs in natural surroundings. Quiet and uncrowded surroundings allow park visitors to move at their own pace and listen to birds and other sounds of nature. Natural areas that have an active recreation use are generally less well-suited for walking and nature observation since more attention has to be directed to being safe (e.g., stepping off the trail to let fast moving bikes past).

Conversely, if too many hikers were to use mountain bike trails in times of heavy use, this would interfere with the mountain bike recreational experience. Sports events are sometimes planned and held within natural areas and during that time activities like bird watching or a family walk with children, the elderly or their pets are not recommended.

Planning for adequate space and separation for the various forms of recreation is an ongoing challenge. The amount of available park land is lagging because of the growing population and increasing demand for outdoor activities.

PLANNED ECOLOGICAL RESTORATION 2022 – 2025

Expansion of the ecological restoration program for the next five years is priority based. It often comes down to what do we (citizens/park users) have to lose or what does the community has to gain. In the "lose" category are core habitats associated with remnant forest fragments large enough to support rare endangered, threatened or species of concern. These higher quality natural areas, once they become degraded due to lack of management, become very difficult to restore to past ecological integrity/function. Second, restorations on large agricultural areas that are managed as reforestation plots, wetland sites or prairie habitat are a medium priority. One such area is the 56-acre prairie/successional area at Eagle Creek Park converted from agriculture fields. This area now has the Henslow's sparrow, a state endangered bird, breeding on site. Lastly are the small "turf to native" plant conversions and linear greenway sites that incorporate riparian enhancements to provide pollinator habitat while also having a positive effect on ecosystem service delivery like clean air and water.

PRIORITIES FOR PARK NATURAL AREAS ECOLOGICALLY MANAGED

Since it's inception in 1993 Indy Land Stewardship initially started with a 6-acre reforestation project at Eagle Creek Park. Nearly 30 years later the area under ecological management has grown to 2018 acres, or 17% of the total area managed as public land by the city (11,608 acres). The priority has always been to protect the biological diversity of the highest quality natural areas. These irreplaceable forested tracts are relics of what was once the great Eastern Deciduous Forest expanse. These protected areas host naturally occurring wildflowers, shrubs and understory species that support endangered rare and threatened wildlife - those natural areas are ranked (DNR) globally rare and threatened. Other priorities are large areas formerly cleared for a variety of reasons including agriculture, but once restored to natural plant communities can also provide critical habitat and other ecosystem services like stormwater management and enhanced opportunity for passive recreation (birding, nature photography…). The land area under ecological management is directly proportional to the budget apportioned to Indy Land Stewardship from the storm utility fund. Even though grant opportunities have afforded many of the initial funding support, without the hardwired annual budget for invasive species control and other stressors the gains in biotic diversity will recede without cyclical maintenance. Below are the numbers for the types of land area managed, as tracked in the GIS.

PARK LAND AREA ECOLOGICALLY MANAGED – INDY LAND STEWARDSHIP

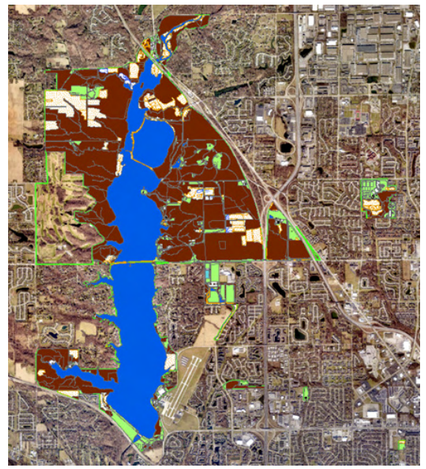
- **Woods:** 1526.0 Acres
- **Wetlands:** 44.0 Acres
- **Wildflower Meadows Habitat:** 321.0 Acres
- **Native Plant Landscaping:** 0.3 Acres
- **Reforestation:** 124.0 Acres
- **Green Infrastructure:** 2.7 Acres
- **GRAND TOTAL:** 2018 Acres

PARK LANDCOVER INVENTORY

The landcover tracking is done with a GIS by hand digitizing polygons over high-resolution aerial photography. Many different types of park features are included, some of which are trails, creeks/rivers/ponds/reservoirs, buildings/roads, woods and turf, playgrounds and even sand traps in golf courses and much more. The digitizing work is relatively accurate but there is a margin of error. Currently there are well over 6,000 individual shapes for the many categories/subcategories. There is a time lag when new aerials become available, then time is taken by a dedicated Indy Land Stewardship staff to update the changes in the GIS landcover layer. The future updates yet to compile the acreage are shown as "Other".

Below are the approximant land area numbers for the landcover types under traditional management; mowing of turf, rough or finish cut, but also many areas are not under direct cyclical management such as wooded tracts unless something is turned in as a problem – i.e., trees that are deemed hazardous next to trails, a road or building, or the report of rubbish illegally dumped. Citizens wanting to report problems on park land are instructed to report RequestIndy or the Mayor's Action Center, or the Park Manager.

Woods: 2166 Acres
Turf: 2023 Acres
Water: 1850 Acres
Golf Courses: 1782 Acres
Open Vegetative (non-turf): 1052 Acres
Impervious Surfaces: 474 Acres
Wetlands: 44 Acres
Athletic / Playgrounds…: 47 Acres
Gardens / Landscaping: 33 Acres
Other: 119 Acres
GRAND TOTAL: 9590 Acres



FUTURE EXPANSION OF NATURAL AREA MANAGEMENT

It is difficult to predict where grants and other funding will be successful but potential expansion of ecological restoration should be based on priority. Care must be taken to not relax the management of existing natural areas when taking on more locations in parks and greenways. The sustainability of efforts, as ecological restoration is extended beyond the 17% of parks and greenways currently managed, needs to consider the following:

- A long-term budget for to maintain/expand restorative management to maximize the benefit for people and wildlife
- Design parks to include the recreational space for the most popular use (where appropriate), passive recreation - ecological restoration enhances that use
- Extend traditional park maintenance operations to include invasive species control to previously unmanaged areas to increase public access and help protect core managed natural areas.
- Introduction of new revenue streams - carbon market program (in-progress), etc.
- Quality of life, biosphere sustainability and enhanced recreation are directly related to natural landcover, a keystone need for present and future funding investment.

CONCLUSION

The City of Indianapolis - Marion County, Department of Parks and Recreation and Department of Public Works continues to support natural area restoration across the county. While much work is left to be done, the Land Stewardship office, the City's many support staff, skilled ecological restoration contractors and planning consultants all work to improve the recreational experience in Indianapolis.

Protecting and managing natural areas increases the quality of life by providing an enriched passive and active recreational opportunity. Natural areas and the natural system are providing the only source of clean water and air. As this plan reaches maturity in 2027, more wildlife and habitats will be available for the growing generation of recreational users. Thank you to the City of Indianapolis, DPW - Division of Stormwater and all the partners and funding organizations that make ecological restoration work possible.

Office of Land Stewardship
Property Features
WWW.INDY.GOV/LANDSTEWARDSHIP

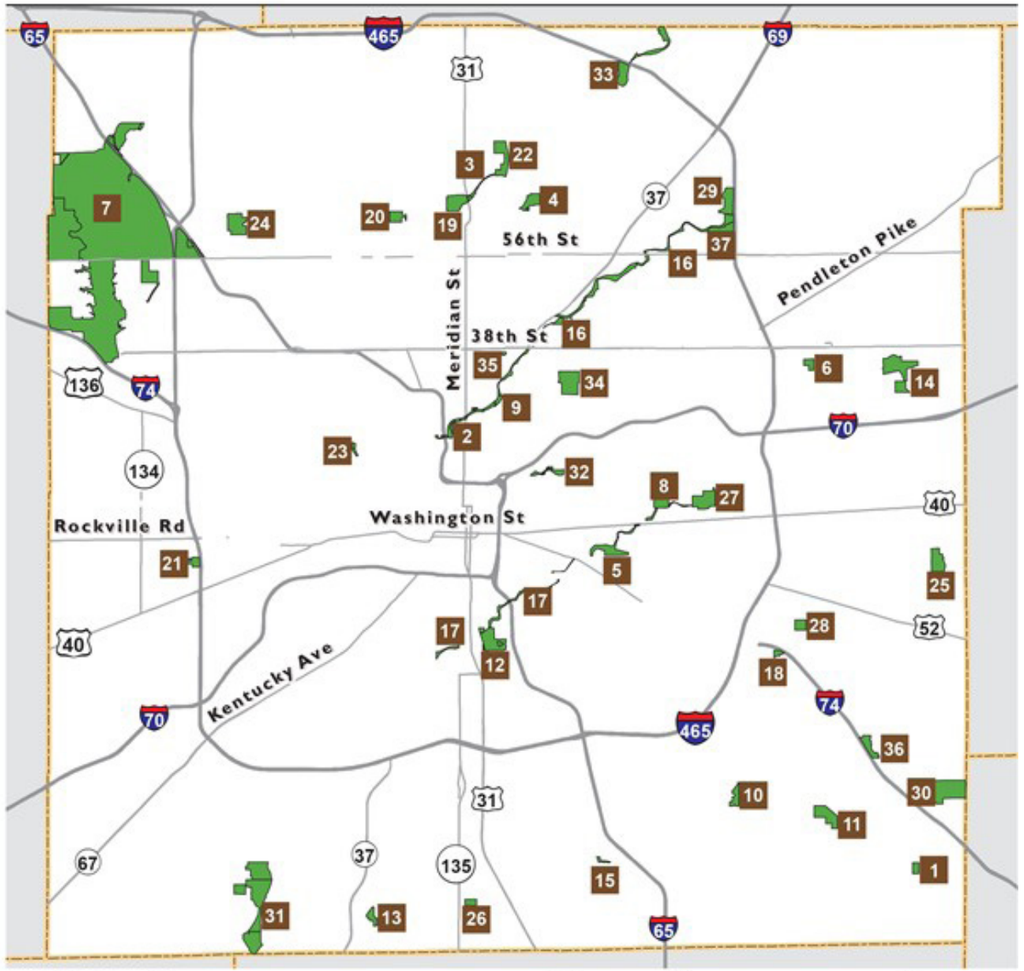
THE CITY OF INDIANAPOLIS

LAND STEWARDSHIP
Protecting Indy's Natural Areas

○ seasonal

Property Name (year acquired) and Location	Features				Ecotypes					
	Trails	Bathrooms	Parking	Handicap Accessible	Upland Forest	Forested Wetland	Open Wetland	Open Space (Turf)	Grassland (Prairie)	Water
Acton Park (2004), 7400 Acton Rd			●		●	●		●	●	●
Barton Park (1946), 2334 N Capital Ave			●			●		●		●
Blickman Educational Trail Park (2005), 6399 N Meridian St					●	●		●		●
Broad Ripple Park (1946), 1500 Broad Ripple Ave	●	●	●	●	●			●		●
Christian Park (1921), 4125 English Ave	●	●	●	●	●			●		●
Dubarry Park (1967), 3698 Dubarry Rd					●			●		●
Eagle Creek Park (1962), 7840 W 56th St	●	●	●	●	●	●	●	●	●	●
Ellenberger Park (1911), 5301 E St. Clair St	●	●	●	●				●	●	●
Fall Creek & 30th Park (1910), 2925 E Fall Creek Pkwy NDr	●		●	●		●		●		●
Five Points & Edgewood Park (2011), 5750 Five Points Rd	●			●		●			●	●
Franklin Township Community Park (1970), 8801 E Edgewood Ave	●		●	●		●		●	●	●
Garfield Park (1873), 2450 S Shelby St	●		●	●				●		●
Glenns Valley Nature Park (1991), 8015 Bluff Rd	●	○	●		●			●	●	
Grassy Creek Regional Park (1971), 10510 E 30th St	●		●	●			●	●	●	●
Gray Park (1999), Southport Rd & Sherman Dr	●		●				●	●	●	●
Greenway - Fall Creek (1909-2000)	●	○	●	●		●		●	●	●
Greenway - Pleasant Run	●			●		●		●		●
Hanover North Park (2006), 7731 Sebastian Pl	●		●	●				●	●	
Holliday Park (1916), 6349 Spring Mill Rd	●	●	●	●	●	●			●	●
Juan Solomon Park (1971), 6100 Grandview Dr	●	○	●		●	●		●		●
Krannert Park (1972), 605 S High School Rd			●						●	
Marott Park (1945), 7350 N College Ave	●		●		●	●		●		●
Municipal Gardens Memorial Grove (1908), 1831 N Lafayette Rd	●		●		●				●	●
Northwestway Park (1957), 5253 W 62nd St	●	●	●	●		●		●	●	●
Paul Ruster Park (1970), 11300 E Prospect St	●	○	●		●	●		●	●	●
Perry Park (1961), 451 E Stop 11	●	●	●		●			●		
Pleasant Run Golf Course (1922), 601 N Arlington Ave		●	●					●	●	●
Raymond Park (1971), 8300 Raymond St	●		●			●	●	●	●	●
Skiles Test Nature Park (1974), 6828 Fall Creek Rd	●		●	●	●	●			●	●
Southeastway Park (1961), 5624 S Carroll Rd	●	●	●	●	●	●	●	●	●	●
Southwestway Park (1961), 8400 S Mann Rd	●	○	●		●	●	●	●	●	●
Spades Park (1898), 1800 Nowland Ave	●					●		●	●	●
Town Run Trail Park South (2000), 5325 E 96th St	●				●	●	●	●	●	
Washington Park (1923), 3130 E 30th St	●	●	●	●	●					
Watson Road Bird Preserve (1925), 900 Watson Rd								●	●	
Wolf Run Park (2013), 10050 E Thompson Rd	●	○	●	●	●	●	●	●		●
Woollens Gardens (1909), 6800 E Fall Creek Pkwy N Dr					●	●				●

Land Stewardship Managed Areas



Legend

- Managed Parks
- 2 Property ID Number

Office of Land Stewardship

Property Location Key

1. Acton Park
7400 Acton Rd

2. Barton Park
2334 N Capital Ave

3. Blickman Educational Trail Park
6399 N Meridian St

4. Broad Ripple Park
1500 Broad Ripple Ave

5. Christian Park
4125 English Ave

6. Dubarry Park
3698 Dubarry Rd

7. Eagle Creek Park
7840 W 56th St

8. Ellenberger Park
5301 E St. Clair St

9. Fall Creek & 30th Park
2925 E Fall Creek Pkwy NDr

10. Five Points & Edgewood Park
5750 Five Points Rd

11. Franklin Township Community Park
8801 E Edgewood Ave

12. Garfield Park
2450 S Shelby St

13. Glenns Valley Nature Park
8015 Bluff Rd

14. Grassy Creek Regional Park
10510 E 30th St

15. Gray Park
Southport Rd & Sherman Dr

16. Greenway - Fall Creek

17. Greenway - Pleasant Run

18. Hanover North Park
7731 Sebastian Place

19. Holliday Park
6349 Spring Mill Rd

20. Juan Solomon Park
6100 Grandview Dr

21. Krannert Park
605 S High School Rd

22. Marott Park
7350 N College Ave

23. Municipal Gardens Memorial Grove
1831 N Lafayette Rd

24. Northwestway Park
5253 W 62nd St

25. Paul Ruster Park
11300 E Prospect St

26. Perry Park
451 E Stop 11

27. Pleasant Run Golf Course
601 N Arlington Ave

28. Raymond Park
8300 Raymond St

29. Skiles Test Nature Park
6828 Fall Creek Rd

30. Southeastway Park
5624 S Carroll Rd

31. Southwestway Park
8400 S Mann Rd

32. Spades Park
1800 Nowland Ave

33. Town Run Trail Park South
5325 E 96th St

34. Washington Park
3130 E 30th St

35. Watson Road Bird Preserve
900 Watson Rd

36. Wolf Run Park
10050 E Thompson Rd

37. Woollens Gardens
6800 E Fall Creek Pkwy N Dr

4.2 INDY LANDS CONSERVATION PLAN

FORWARD – INDY LANDS CONSERVATION PLAN

This plan is in use currently as a template for land acquisition for Indy Parks with tracts added by willing sellers to expand parks and greenways. Land parcels acquired in 2022 at Grassy Creek Regional Park were denoted in this plan as key to fulfill the needs of for the growing community before buildout anticipated before 2050 in the City of Indianapolis – Marion County.

The maps associated with this plan and its adoption, will be incorporated in The Comprehensive Plan for Indianapolis and Marion County, approved by the Metropolitan Development Commission. The plan is considered draft and subject to change as more information becomes available.

LAND STEWARDSHIP
Protecting Indy's Natural Areas

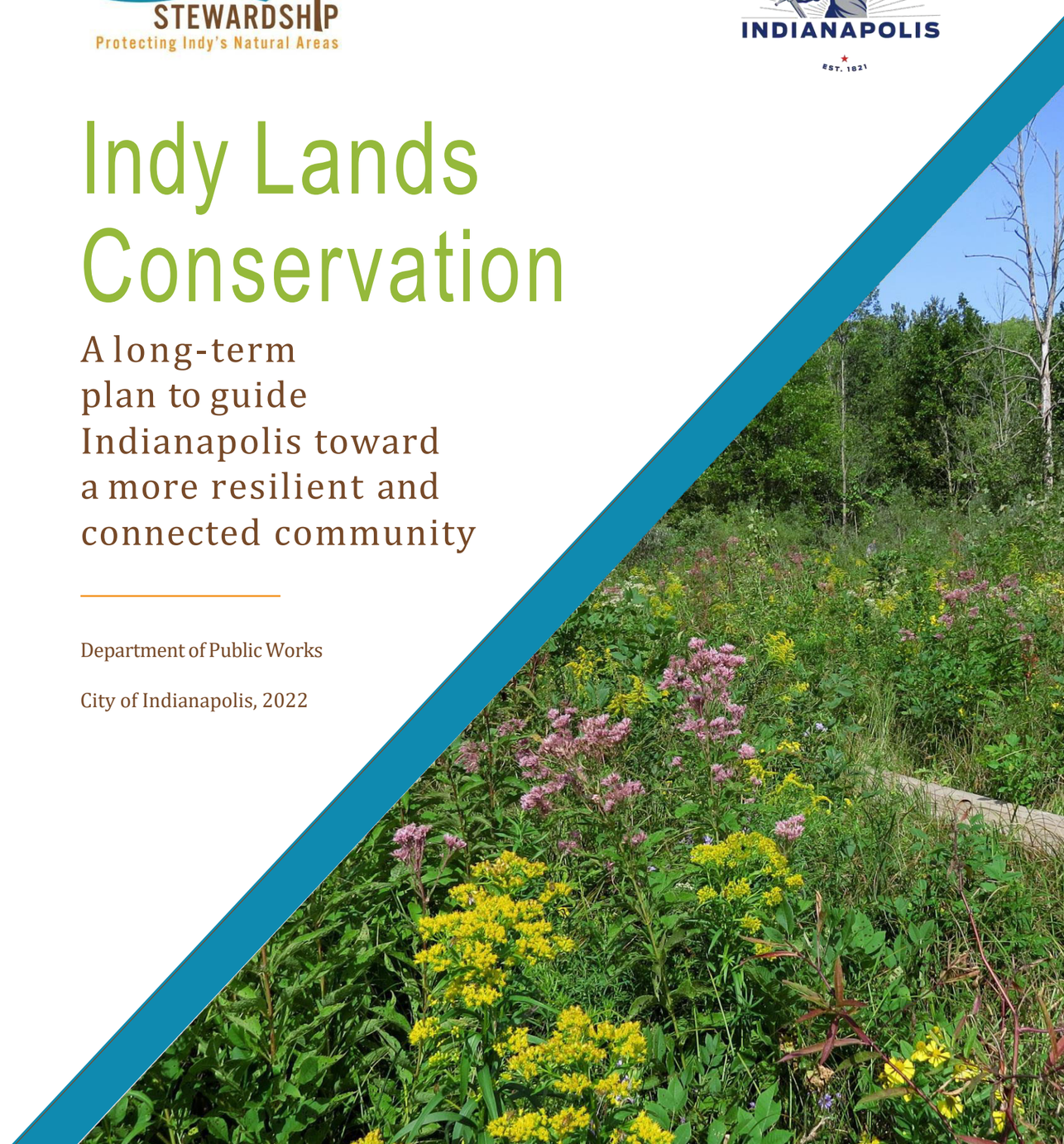
THE CITY OF INDIANAPOLIS EST. 1821

Indy Lands Conservation

A long-term plan to guide Indianapolis toward a more resilient and connected community

Department of Public Works

City of Indianapolis, 2022



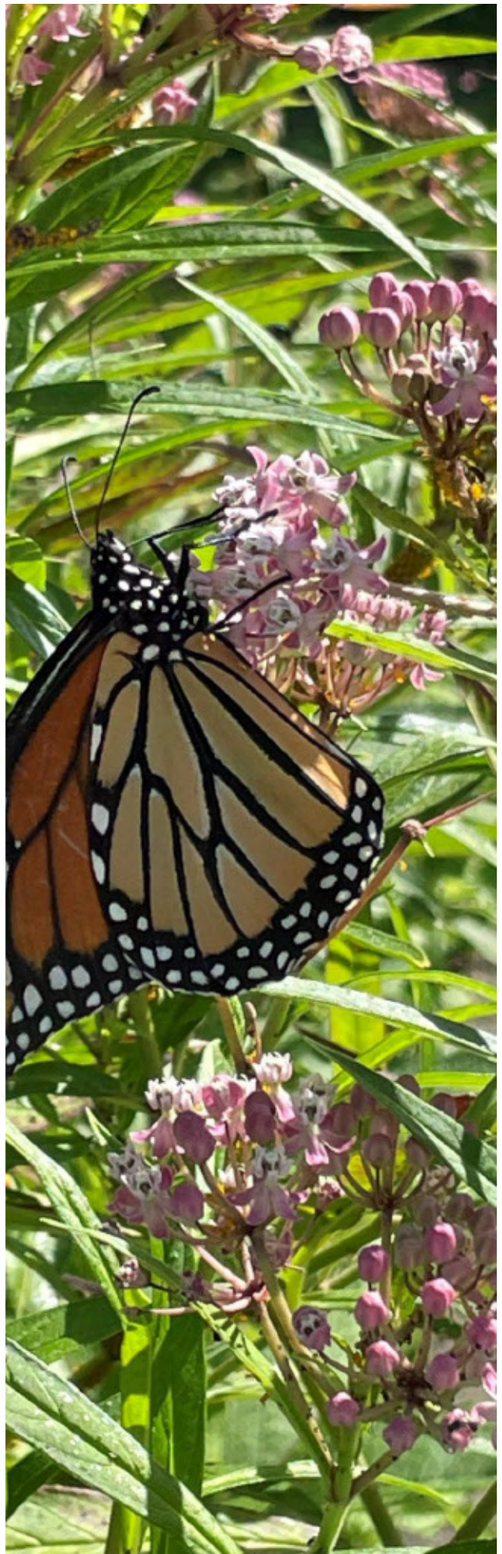
Purpose Statement

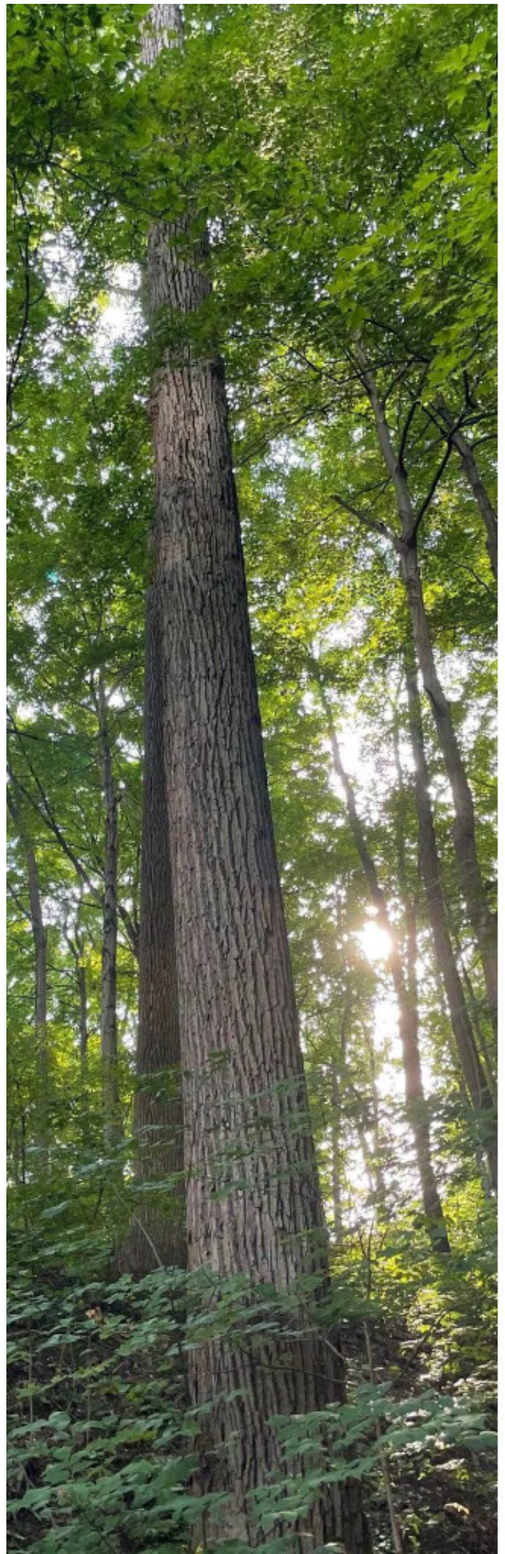
This plan represents an ambitious vision. The effort to provide the City of Indianapolis with park and natural areas proportional to its population will involve the conservation of more than 6000 acres. As such, its achievement is beyond the scope of the Office of Land Stewardship, and the plan's future necessarily involves the support of the city's larger, planning-oriented departments. This document can be used internally to guide the future development of property in Marion County in a manner that prioritizes the conservation of the most critical areas identified herein. This document is currently targeted for use by the Department of Parks and Recreation and the Department of Metropolitan Development.

Acknowledgements

The Office of Land Stewardship thanks Eco Logic Restoration and Empower Results for their work in assembling this plan and helping build support for it. Our sincere appreciation also goes to the Department of Parks and Recreation, Department of Metropolitan Development, and Department of Public Works for their assistance and contributions to its development.

www.indy.gov/landstewardship





Contents

1

Introduction

Purpose
Guiding Principles
Primary Goals

Introduction

Purpose

As the city of Indianapolis continues to grow in the coming decades, plans must be made to secure the lands necessary for recreation, preservation of greenspace and existing natural areas, tree mitigation, wetland restoration, and carbon sequestration. These features will determine the quality of life available to the city's future residents as well its ability to adapt to the conditions presented by a changing climate.

This plan, developed by the Indianapolis Office of Land Stewardship, is a first step in guiding the land conservation process necessary to secure a healthy future. It lays out a parcel-level conceptual plan designed to accomplish a critical set of goals. The goals grow out of a set of guiding principles that address the most pressing concerns for the city within the scope of the Office of Land Stewardship's work.

Guiding Principles

1. Respond to population pressures
2. Address lack of recreational properties
3. Improve bicycle and pedestrian infrastructure
4. Create communities where people want to live, and nature thrives
5. Improve climate change resiliency and stormwater management
6. Showcase a vision that inspires action

Primary Goals

1. Provide a strategic blueprint for expansion of the park system throughout Marion County
2. Connect and expand the existing greenways to facilitate increased bicycle and pedestrian commerce
3. Conserve remaining woodlands and other natural areas to preserve our natural heritage and support wildlife habitat and biodiversity corridors
4. Conserve large blocks of floodplain lands suitable for reforestation to improve air quality, reduce flooding, provide for tree mitigation and carbon sequestration, and increase the overall canopy cover in the county. Reforestation of these conservation areas will be a key component of an eventual plan to make Indianapolis a carbon-neutral city
5. Provide lands for suitable for wetland restoration, storm water management, and flood mitigation
6. Provide for additional opportunities for people to connect to nature including additional interpretive centers, naturalist services, and integrated nature-based curriculum with Indianapolis Public Schools in areas with lower green space density
7. Engage the development in community ecosystem service-oriented planning and design

The parcels included in this plan connect to each other and to existing infrastructure to provide a blueprint for bicycle and pedestrian connections throughout the county and to surrounding communities. Additional benefits of these conservation areas include the incorporation of the current and restored native plant communities into the city's green infrastructure plan to provide storm water infiltration, floodwater storage, and stormwater treatment.

Introduction

This plan will also be a major component of the city's efforts to address climate change. First, it will be focused along existing drainages to preserve the floodways that will carry the storm water from ever-increasing extreme rainfall events that will be exacerbated by continuing development and the resulting increases in runoff. Preservation of these floodways will prevent the construction of vulnerable development and infrastructure that will be under increasing threat in a changing climate. Secondly, reforestation and restoration of wetland hydrology will increase carbon storage in both living plant material, as well as soil carbon in the saturated environment of restored wetlands. Finally, the preserved and restored canopy cover will help address the urban heat island which will be exacerbated by both an enlarging metropolitan footprint and increasing temperatures resulting from climate change.

This plan will also provide a critical link to nature for the citizens of central Indiana and especially the school children of Indianapolis, helping create and bolster connections to the natural systems that make life possible. Further, learning about the biodiversity contained within these natural systems will foster respect and appreciation for the organisms that make up our natural communities. Several projects recommended in this plan carry the potential for new nature centers that could serve as classrooms to provide a custom nature-based curriculum developed for Indianapolis area students.

Many areas of the county have inadequate recreational properties to serve the growing population. By creating communities connected to nature and each other, this plan will address the need to provide the amenities that attract and maintain the vibrant workforce necessary to remain economically competitive. By showcasing the vision laid out by this plan, the city will both inspire the public support necessary to bring it to fruition and signal the business community that Indianapolis is committed to the 21st century economic development strategy of creating a community that is attractive to a talented workforce.

2

Plan

Overview

Highlights
Project Areas

Plan Overview

Map(s) and document pending internal review and public process

This ambitious plan utilizes individual parcels based on the degree to which they meet the goals outlined in the introduction. However, it is not intended to be viewed as a strict acquisition guide but, rather, as a framework for a conservation and resiliency vision. While some of these parcels represent irreplaceable remnant natural areas, there will be many alternative acquisition solutions to bring the longer corridors to fruition where exact parcels cannot be acquired, or easements cannot be secured. As a vision, it presents an opportunity to transform the city for the 21st Century, a Kessler-level legacy plan to create the needed **ACCESSIBILTY**, the desired **ENVIRONMENT**, and the critical **SYSTEMS** for the city to address the challenges of the future.

Plan Overview

Highlights

- **11 Project Areas** ranging from small additions to existing parks to long corridors of over 1,000 acres along streams
- These 11 projects total **around 6,670 acres** (67% of the 10,000 acre Open Space Plan goal)
- **Southwestway Park** becomes a large regional park on the order of magnitude of Eagle Creek Park
- **Connections are made to communities** inside and outside of Marion County such as Zionsville, Mooresville, Speedway, and Beech Grove
- Long corridors along Grassy Creek and Buck Creek will secure **parklands on the city's less developed east side** in anticipation of future growth.

The projects are ordered with the largest opportunities first. These projects may serve as priorities to jumpstart the overall effort with highly visible and impactful outcomes.

Map(s) and document pending internal review and public process

Southwestway Park Expansion

Overview

This expansion will turn Southwestway Park into a large regional park like Eagle Creek Park in scale. The expansion could include a new interpretive center focusing on the ecology of White River and the unique glacial and fluvial geomorphology of the park.

Project Goals

- Includes a large acreage of agricultural fields suitable for reforestation, tree mitigation, and carbon sequestration. Low floodplain fields are also suitable for wetland mitigation.
- Provides ample land for an expanded trail system including a connection along White River to other Greenway trails and other amenities including athletic fields near Mann Road
- Provides access for paddling along a significant frontage of White River
- Includes large gravel pit lakes adapted to provide additional fishing and boating opportunities
- Includes a northwestern appendage that contains a greenway connection to large residential areas
- Includes a southwestern appendage that connects to the county line near Mooresville
- Additional oxbows on the east side of the river provide an opportunity to make a loop trail for local residents on the east side of White River

Map(s) and document pending internal review and public process

Buck and Grassy Creek Greenway, Part 1

Overview

This system of properties will connect several parks in the Buck Creek Watershed and create a network of trails for the rapidly growing southeastern section of the county. Gravel pit lakes could eventually be incorporated into the park to provide paddling and fishing opportunities.

Map(s) and document pending internal review and public process

Project Goals

- Provides recreational opportunities and connectivity in a rapidly growing residential area of southeast Marion County by creating greenway connections between Wolf Run Park, Paul Ruster Park, Southeastway Park, and the town of Acton
- Acquisition of floodplain fields provides opportunities for tree mitigation, wetland restoration, stormwater management, and carbon sequestration
- Preserves remaining high-quality woodlands along Buck Creek and Wolf Run

Buck and Grassy Creek Greenway, Part 2

Map(s) and document pending internal review and public process

Overview

This greenway will connect the Grassy Creek area on the East Side, providing recreational opportunities and amenities to an underserved area. A greenway path that connects north to Pendleton Pike could be part of the plan. To the south, it will connect to the Buck Creek Greenway described above. An interpretive nature center, including a classroom geared toward elementary age children, could be developed at the site along with a curriculum developed in conjunction with Indianapolis Public Schools for introducing youth to different aspects of the natural world on a regular basis. Farmland in the project area could be preserved for community gardens and larger-scale community-supported agriculture.

Project Goals

- Provides a north-south greenway connection through the east side of Marion County
- Includes a potential nature center location to establish a focus on environmental education for K-12 students
- Provides acquisition of floodplain agricultural fields suitable for tree mitigation, wetland restoration, stormwater management, and carbon sequestration
- Provides upland agricultural fields for potential community-supported agriculture

Upper Eagle Creek Park and Greenway

Overview

These conservation areas will connect Eagle Creek Park north to the Boone County line where they will connect to the Zionsville trail system. This will further expand the recreational impact of Eagle Creek Park and improve the environmental quality of the corridor along Eagle Creek through reforestation.

Map(s) and document pending internal review and public process

Project Goals

- Includes floodplain agricultural fields suitable for tree mitigation, wetland restoration, and carbon sequestration
- Provides opportunities for agritourism (adjacent to Trader's Point Creamery)
- Includes URJ Goldman Union Camp Institute Lands if they become available
- Protects Eagle Creek Reservoir water quality (part of Indianapolis' drinking water supply)
- Expands greenway system

Eastside Flatwoods Park

Overview

This park incorporates the largest remaining unprotected flatwoods in Marion County. This high-quality woodland is an excellent representation of one of the dominant historic plant communities of Marion County. An interpretive trail and boardwalk could be routed through this seasonally wet woodland.

Map(s) and document pending internal review and public process

Project Goals

- Adjacent agricultural fields provide reforestation opportunities for tree mitigation and carbon credits and enhance the ecologic footprint of the existing flatwoods. They also provide opportunities for ball field or play areas
- Areas of wetland soils are suitable for forested wetland restoration and thus stormwater management

Davis Creek Park

Overview

This stream corridor starts near the intersection of I-465 and I-70 on the southwest side of Indianapolis. It will serve as much needed greenspace in this industrial area and will provide recreational opportunities for residents isolated by interstate highway corridors.

Map(s) and document pending internal review and public process

Project Goals

- Provides space for loop trail
- Provides land for reforestation
- Provides a connection to areas outside of the I-465 corridor through Southwestway Park

Lick Creek Greenway

Map(s) and document pending internal review and public process

Overview

This greenway will connect the southeast side with White River through easements and conservation of corridor properties. It will connect to Southwestway Park along White River on the southwest side of the city, following Lick Creek to the East Side where it will connect to the National Road Trail in the Irvington area.

Project Goals

- Provides multiple new greenway connections
- Includes existing community and athletic parks
- Connects the Beech Grove Community into the Indianapolis Greenways system
- Preserves urbans woodlands in the Beech Grove area

Little Eagle Creek Greenway

Overview

This suburban corridor will connect Northwestway Park along Little Eagle Creek to the Eagle Creek Greenway just south of Speedway. It will provide recreational opportunities for disadvantaged and underserved neighborhoods on the west side of Indianapolis while connecting the Town of Speedway to the Indianapolis Greenway System.

Map(s) and document pending internal review and public process

Project Goals

- Connects Northwestway Park to Eagle Creek Greenway along Little Eagle Creek
- Connects the town of Speedway to the Indy Greenways system
- Connects residential, commercial, and retail districts on the west side (Lafayette Square area)
- Provides access to the Indy Greenways system to communities on the west side
- Provides connections and recreational opportunities to disadvantaged communities on the west side of Indianapolis

Raymond Park Flatwoods Addition

Overview

Conservation of this high-quality flatwoods across the street from Raymond Park Middle School will add to the significance of the existing flatwoods in the park and protect critical natural infrastructure.

Map(s) and document pending internal review and public process

Project Goals

- Preserves a high-quality flatwoods and sustains its stormwater capacity
- Provides an opportunity to expand the existing loop trail across the street

Sodalis Connections

Overview

This area of woodland and agricultural fields could be connected through the airport mitigation grounds to Sodalis Nature Park to make a longer trail for walking and nature observation easily accessable to Mooresville and Plainfield residents and well as those who reside in the southwest corner of Marion County.

Map(s) and document pending internal review and public process

Project Goals

- Primitive park with a parking lot and trailhead for passive recreation such as hiking and birdwatching
- Agriculture fields could be reforested to expand the habitat and ecosystem service impacts of the airport mitigation grounds and Sodalis Nature Park

Krannert Addition

Overview

This partially wooded property across High School Road from Krannert Park will provide an opportunity for nature study and the placement of a fitness trail in this dense residential area.

Map(s) and document pending internal review and public process

Project Goals

- Expands the size of Krannert Park
- Provides an opportunity for passive recreation
- Preserves much needed canopy for climate change mitigation efforts

Overview

Many ..... expand the ecological impact of Fort Benjamin Harrison State Park and the Upper Fall Creek corridor which includes Woollen's Gardens Nature Preserve, Upper Fall Creek Park, and Skiles Test Park. Some of the facilities on site may be able to be repurposed to service outdoor education for the nearby Lawrence Township Schools.

Map(s) and document pending internal review and public process

Project Goals

- Increases the preserved land in the Fall Creek Corridor and provides connectivity between existing parks and preserves
- Provides additional recreational land on the growing northeast side
- May serve as an outdoor learning facility for local schools

3

Strategy & Alignment

Major Plan Alignments
Related General Initiatives
Priority Overlays

Strategy & Alignment

Major Plan Alignments

There are many existing City of Indianapolis plans and initiatives that align with the implementation of this land conservation plan. Indeed, it can serve as a tactical strategy for achieving and even exceeding both specific goals and general aims established in these related plans, initiatives, and standards. Additional alignments may be uncovered as this plan is incorporated into other planning processes.

THRIVE

Indy's Plan for Community Resilience + Sustainability (2019). Objectives met or exceeded under this plan:

- NR:1A: proactive removal of invasive species in parks along greenways (ongoing)
- NR:1B: increase green spaces to improve stormwater infiltration and ensure appropriate ongoing maintenance (ongoing)
- NR:1D: plant 30,000 additional native trees by 2025 to increase canopy, reduce runoff and mitigate against the urban heat (exceeded)

White River Vision Plan

The White River Vision Plan identified Southwestway Park as a key focus area for improving access to and education about the river and the systems that support it. This plan provides a number of considerable improvements and opportunities in addition to nearly 950 new acres.

- Large Areas of agricultural land are slated for reforestation with custom woody plant lists for each soil group
- Gravel pit lakes become recreational lakes for boating and fishing
- Outwash soils underlain by sand and gravel may be used for regional bioretention and groundwater recharge
- New public facility areas can include a nature center focused on the White River, picnic areas, athletic fields, pond fishing, playgrounds, and educational pollinator wildflower plantings
- Potential partnership with private enterprises and local utilities to expand existing solar generation

Commission on Environmental Sustainability

This conservation plan will address goals related to pollution reduction, open space protection, and green amenities for underserved communities as noted in the Commission's 2020 recommendations.

Greenways Master Plan

Rough estimates of the mileage for the six stream corridor parks are below. These estimates include the length of the stream corridor and the connectors. They do not include potential trail facilities noted in each of the property descriptions below.

- Grassy-Buck Creek: 19.4 miles
- Lick Creek: 13.6 miles
- Little Eagle Creek: 8.1 miles
- Upper Eagle Creek: 3.72 miles
- Southwestway: 10.21 miles
- Davis Creek: 3.51 miles

Open Space Plan

Indianapolis – Marion County Parks & Recreation

Strategy & Alignment

Related Initiatives

Stormwater

- Indianapolis Stormwater Program
- Work that complements City NPDES MS4 requirements
  - » Public Education & Involvement Metrics
  - » Pollution load reduction estimates
  - » Post-Construction BMP maintenance

Public Space

- Public Space Vision: "…increase the amount of park land/open space by 10,000 acres so that a minimum of the total acres of Marion County is 10% park land/open space by 2030."
- Supplement Parks & Recreation Department minimum standards (12 acres per 1000 residents)

Indy Moves Plan

Supports Greenways and Active Transportation capitol project categories

Circle City Forward (Trails and Greenways)

Supports efforts on Grassy Creek Trail as well as additional greenway connections

Climate Commitment

Restoration of floodplains and upland forests supports the city's many climate commitments, including:

- Climate Mayors
- Global Covenant of Mayors for Climate & Energy
- America Is All In
- U.S. Conference of Mayors: Climate Protection Agreement
- U.N. Race to Zero & Climate Ambition Alliance
- World Health Organization Health & Climate Change Urban Profile
- Thrive climate-related objectives noted above

CAPRA Standards, National Recreation and Park Association

- "…provides quality assurance and quality improvement of accredited park and recreation agencies by providing agencies with a management system of best practices."
- City first accredited in 2003; next review is underconsideration for 2023
- Natural areas and expanded bike and pedestrian facilities contribute to quality of life and best practices standards
- Supports CAPRA Three Pillars: Health and Wellness, Equity, and Conservation

Mayors Monarch Pledge

- The City's commitment to local initiatives that protect our pollinators
- Supported by habitat restoration and maintenance

Priority Overlays

As stated, this plan's purpose is to help the City of Indianapolis conserve open lands and restore areas that can help contribute to stormwater management, build climate resiliency, and provide a host of other benefits both environmental and social.

Using available data, the following map set show where overlaps occur for floodplains, existing and future greenway expansion, brownfields, vacant lots, and equity factors.

Social Vulnerability

The Thrive Indianapolis plan noted that, "(n)ational assessments of climate risk have repeatedly demonstrated that those who are the most vulnerable will be the ones most impacted by a changing climate" (Thrive Indianapolis, 2019, p. 18). In response, the City developed this Social Vulnerability data to illustrate which areas of the city are most in need of capital improvements to help mitigate the impacts of climate change. As discussed throughout, many of the measures that can assist in this process are carried forward by this conservation plan. The following map set helps explicate which of the proposed project areas address some of the factors that define social vulnerability, such as vulnerability to extreme temperatures and flooding, as well as support for no-vehicle households (i.e greenway connections).

Map(s) and document pending internal review and public process

Southwestway Park Expansion

As noted, an expanded Southwestway Park brings significant additions of floodplain acreage, which carries a variety of benefits: stormwater runoff storage, new tree canopy to aid in climate resiliency and habitat creation, and space for new new recreational opportunities. The park expansion also sits at the confluence of potential greenway extensions and can connect to the existing trail network within the current boundaries of Southwestway Park.

Map(s) and document pending internal review and public process

Buck and Grassy Creek Greenway, Part 1

Buck Creek (shown here) and Grassy Creek (below) are part of a common drainage system, and the preservation of the floodplain in this system offers a unique opportunity to build regional stormwater detention capacity, particularly on this less developed portion of the corridor (Grassy Creek to the north is more densely developed). Furthermore, the linear nature of this area can support considerable growth to the city's greenway system as well as connect several existing park spaces into a common and continuous amenity.

Map(s) and document pending internal review and public process

Buck and Grassy Creek Greenway, Part 2

As with Buck Creek, the Grassy Creek section of this project area can establish a more robust drainage field, host additional greenway mileage, and connect existing park spaces. This includes bicycle and pedestrian connections to Fort Benjamin Harrison State Park near the northernmost point of the proposed conservation area. Furthermore, as seen in the Social Vulnerability map above, this project provides access to natural areas and park facilities to underserved communities.

Map(s) and document pending internal review and public process

Upper Eagle Creek Park and Greenway

Conserving the area north of Eagle Creek Park protects significant floodplain and the riparian zone surrounding Eagle Creek before it reaches the reservoir. This helps safeguard a major source of the city's drinking water while improving stormwater capacity, expanding habitat, and supporting the city's greenway infrastructure.

Map(s) and document pending internal review and public process

Eastside Flatwoods Park

This park will preserve the largest unprotected high-quality flatwoods remaining in Marion County. This pristine natural area contains several wetland depressions that store storm water and provide amphibian breeding habitat.

Map(s) and document pending internal review and public process

Davis Creek Park

Davis Creek Park would help build riparian buffers around smaller streams in order to lessen the impact of stormwater runoff. The proximity of this project area to the proposed Southwestway Park Expansion presents an opportunity to further expand bicycle and pedestrian facilities. The western portion of this conservation area is also listed as an abandoned property.

Map(s) and document pending internal review and public process

Lick Creek Greenway

Map(s) and document pending internal review and public process

The Lick Creek Greenway already exists in the City's plans for expansion. This plan illustrates additional benefits of that expansion: floodplain acquisition and its associated stormwater benefits and some habitat restoration.

Little Eagle Creek Greenway

Like Grassy Creek, this linear area provides access to park facilities in an underserved community. While not part of current plans for greenway expansion, the additional benefits of conserving this area could provide the basis for its consideration.

Map(s) and document pending internal review and public process

Raymond Park Flatwoods Addition

This remnant flatwoods will complement the high-quality flatwoods contained within Raymond Park. The depressional wetlands in this woodlot will continue to provide storm water storage.

Map(s) and document pending internal review and public process

Sodalis Connections

The park will expand upon an ecologically significant restoration and natural area associated with the Indianapolis Airport Mitigation Area and Sodalis Nature Park in neighboring Hendricks County. A nature trail could connect these properties to provide recreation for the residents of southwestern Marion County as well as for Mooresville and Plainfield residents.

Map(s) and document pending internal review and public process

Krannert Addition

This small park is in an underserved area of west-central Marion County. This additional acreage would enlarge the park and provide space for a short fitness trail.

Map(s) and document pending internal review and public process

Scout Camp at Fall Creek

This project area is well-situated to make a major greenway connection to Fort Benjamin Harrison State Park as well as protect valuable riparian buffer and wildlife habitat.

Map(s) and document pending internal review and public process

4

Impacts & Vision

Impacts & Vision

Impacts

Calculating the impacts of natural areas is an inexact science, and there are few models that provide a clear picture of the ecosystem services provided by Midwestern woodlands, floodplains, wetlands, and prairies.

That said, simply looking at a few of the acquisitions proposed in this plan provides a glimpse of the potential environmental benefits provided by the reforestation possible at those sites.

- **Southwestway reforestation:** 947 acres
- **Lick Creek Corridor reforestation:** 859 acres
- **Eagle Creek Extension reforestation:** 85 acres

Altogether, this provides 822,585 new trees (435 trees per acres).

These numbers can be further refined into floodplain and upland acreage

- Southwestway - 477 floodplain, 470 upland
- Buck/Grassy Creek - 289 floodplain, 570 Upland
- Upper Eagle Creek - 84 floodplain, 1 upland

Impacts & Vision

Vision - Purdue University Student Work

This is an ambitious, legacy-oriented plan, similar in scale to the Kessler Plan or the Sheridan Plan before that. Its purpose is to create the needed ACCESSIBILTY, the desired ENVIRONMENT, and the critical SYSTEMS that can help Indianapolis become a more resilient, connected, and attractive place to call home.

The implementation of this plan presents of myriad of exciting possibilities, some of which were explored when Land Stewardship was given the opportunity to work with students in the Landscape Architecture program at Purdue University. The analysis and visioning documents these students produced can be accessed via a Dropbox maintained by the Office of Land Stewardship. Together they provide a compelling picture of the environment that can grow from this plan.

Map(s) and document pending internal review and public process

5

Leadership & Funding

Leadership & Funding

Leadership

This plan was initiated by the Office of Land Stewardship and its contractors with Eco Logic Restoration Services. As a long-term (30+ year horizon) plan with relevance to the ongoing work of several City offices, it is expected that this conservation plan will eventually find adoption into larger City planning efforts. Parcel prioritization, funding negotiations, and other high-level management issues would become the domain of the office into which the plan is eventually adopted. The Department of Metropolitan Development, Department of Parks and Recreation, and Department of Public Works are all potential options for taking over the leadership of this plan.

Funding

The lands outlined in this plan may be acquired through a variety of established land acquisition strategies, including donations, new development commitments, fair market purchase, bargain sales, life estates, conservation easements, and trail easements. In some cases, more than one of these strategies may be utilized on a single parcel of land, such as, first, the acquisition of a trail easement to facilitate connectivity followed by the eventual acquisition of the entire property for public usage or private, protected open space. Cooperation with the development community will be essential.

Additional funding may be available through a variety of programs, including but not limited to:

Map(s) and document pending internal review and public process

Conclusion

This plan is ambitious, will require incremental progress, and may take decades to complete. However, it is critical to the improvement of quality of life by providing the recreational land and non-motorized infrastructure that will make Indianapolis a more desirable community for all generations. This plan will be a crucial component of the 21st century economic development philosophy which seeks to create communities where people want to live and as a strategy for attracting and keeping employers that are seeking a vibrant workforce.

This plan is a necessary step to ensure Indianapolis has the resources to be a competitive and successful community in coming decades. It will exemplify the fact that environmental preservation is not only compatible with economic prosperity, it's an essential component of a successful economic strategy.

Finally, strategic land conservation is a cornerstone to maintaining a healthy and safe environmental future. The increasing urban sprawl, congestion, pollution, and risks associated with climate change need to be mitigated by protecting and restoring functional ecosystems for recreation and improved environmental quality. The parcels and areas identified in this plan were selected to ensure a safe and healthy future for Indianapolis, and the conservation goals of this plan should be pursed with urgency.

Department of Public Works
City of Indianapolis, 2022

5

LEVEL OF SERVICE AND EQUITY MAPPING

5.1 LEVEL OF SERVICE ANALYSIS

Level of Service (LOS) standards matrix is an update to the framework developed as a part of the 2017 Comprehensive Master Plan. It documents the current and anticipated inventory for the City of Indianapolis and other providers who own, maintain or operate parkland, greenways and amenities serving the community. These providers include the Indianapolis Department of Public Works, City of Lawrence, City of Beech Grove, City of Southport, Town of Speedway, Indiana Department of Transportation, Citizens Energy Group, State of Indiana, YMCA, Boys & Girls Club and others.

These recommendations are developed using National Recreation and Park Association (NRPA) guidelines, recreation activity participation rates reported by the Sports and Facility Industry Association data for activities that occur in the United States and the Indianapolis area, community and stakeholder input, findings from the surveys and staff and consulting team's input. This information allowed recommendations to be customized to the city's population.

These recommendations should be viewed as a guide to be coupled with conventional wisdom and judgment related to the situation and needs of the community. By applying these recommendations to the local population, gaps and surpluses in park and facility/amenity types are revealed and can support future capital investment decisions.

Based on this methodology, it is recommended that the City will need to add (in addition to what is currently under development) the following park acres, trail miles, and amenities in the next five years:

- 235 acres of Neighborhood Parks
- 122 acres of Community Parks
- 315 acres of Sports Complex Sites
- 599 acres of Natural Resource Areas
- 80 acres of Greenway / Boulevards
- 89 miles of Paved and Unpaved Trails
- 32 Picnic Shelters
- 23 Basketball Courts
- 29 Pickleball Courts
- 20 Rectangular Sports Fields
- 5 Sand Volleyball Courts
- 43 Playgrounds
- 7 Off Leash Dog Parks
- 6 Skate Parks
- 2 Spray Pads
- 3 Outdoor Pools
- 576,898 SF of Indoor Recreation / Aquatic Center Space

Indianapolis-Marion County Park and Recreation Level of Service Standards

	2023 Inventory			Recommended Service Levels			2023 Needs			2028 Needs		
	Total Inventory	Current Service Level based upon population		Revised for Local Service Area			Meet Standard/ Need Exists	Additional Facilities/ Amenities Needed		Meet Standard/ Need Exists	Additional Facilities/ Amenities Needed	
PARK TYPES:												
Mini Parks	22.82	0.02	acres per 1,000	0.02	acres per 1,000	4,500	Need Exists	25	Sites(s)	Need Exists	32	Sites(s)
Neighborhood Parks	1,419.05	1.55	acres per 1,000	1.75	acres per 1,000	4,500	Need Exists	13	Field(s)	Need Exists	20	Field(s)
Community Parks	823.42	0.90	acres per 1,000	1.00	acres per 1,000	6,500	Meets Standard	-	Field(s)	Meets Standard	-	Field(s)
Regional Parks	5,447.09	5.95	acres per 1,000	5.75	acres per 1,000	12,500	Need Exists	26	Field(s)	Need Exists	29	Field(s)
Special Use Sites	507.66	0.55	acres per 1,000	0.30	acres per 1,000	7,000	Need Exists	19	Court(s)	Need Exists	23	Court(s)
Sports Complex	157.96	0.17	acres per 1,000	0.50	acres per 1,000	10,000	Meets Standard	-	Court(s)	Meets Standard	-	Court(s)
Golf Courses	1,790.35	1.96	acres per 1,000	1.50	acres per 1,000	5,000	Need Exists	37	Site(s)	Need Exists	43	Site(s)
Natural Resource Area	818.51	0.89	acres per 1,000	1.50	acres per 1,000	50,000	Need Exists	4	Site(s)	Need Exists	5	Site(s)
Historical and Cultural Features	2,303.71	2.52	acres per 1,000	2.25	acres per 1,000	60,000	Need Exists	6	Site(s)	Need Exists	7	Site(s)
Greenway/Boulevard	393.03	0.43	acres per 1,000	0.50	acres per 1,000	100,000	Need Exists	6	Site(s)	Need Exists	6	Site(s)
Total Park Acres	**13,683.61**	**14.95**	**acres per 1,000**	**15.07**	**acres per 1,000**	1.000	Need Exists	77	Mile(s)	Need Exists	89	Mile(s)
OUTDOOR AMENITIES:												
Picnic Shelters	178.00	1.00	site per 5,142	1.00	site per 4,500	1.000	Need Exists	1	Site(s)	Need Exists	2	Site(s)
Rectangular Fields	190.40	1.00	field per 4,807	1.00	field per 4,500	35,000	Need Exists	2	Site(s)	Need Exists	3	Site(s)
Diamond Fields	150.00	1.00	field per 6,102	1.00	field per 6,500	40,000	Need Exists	3	Site(s)	Need Exists	3	Site(s)
Pickleball Courts	46.80	1.00	court per 19,558	1.00	court per 12,500							
Basketball Courts (Full and Half Courts)	112.00	1.00	court per 8,173	1.00	court per 7,000							
Tennis Courts	115.40	1.00	court per 7,932	1.00	court per 10,000							
Playgrounds	146.00	1.00	site per 6,269	1.00	site per 5,000							
Sand Volleyball	14.00	1.00	site per 65,381	1.00	site per 50,000							
Off Leash Dog Parks	9.00	1.00	site per 101,703	1.00	site per 60,000							
Skate Park	3.00	1.00	site per 305,110	1.00	site per 100,000							
Trails (Greenways and Soft Surfaces)	289.44	0.32	miles per 1,000	0.40	miles per 1,000							
Spraypads	25.00	1.00	site per 36,613	1.00	site per 35,000							
Outdoor Pools	21.00	1.00	site per 43,587	1.00	site per 40,000							
INDOOR AMENITIES:												
Recreation/Aquatic Centers (Square Feet)	1,313,752	1.44	SF per person	2.00	SF per person		Need Exists	516,910	Square Feet	Need Exists	576,898	Square Feet

5.2 EQUITY MAPPING

Equity maps provide a visual depiction of the service area by mapping the level of service recommendations for each park and amenity type. These can provide a range of benefits for parks and recreation master planning processes, including:

- **Identifying disparities:** Equity mapping can help to identify disparities in access to parks and recreation resources across different demographic groups and geographic areas. This information can be used to inform planning decisions and prioritize investments in underserved communities.

- **Supporting data-driven decision making:** By providing data and evidence on park access and other relevant factors, equity mapping can help to support data-driven decision making in the master planning process. This can help to ensure that planning decisions are based on objective evidence and are responsive to the community's needs.

- **Engaging with the community:** Equity mapping can help to engage with community members and organizations in the planning process and can help to ensure that planning decisions are informed by local concerns and priorities. This can help to build trust and support for the planning process and promote more equitable outcomes.

- **Supporting grant applications:** Equity mapping can be a valuable tool for supporting grant applications for parks and recreation projects. By providing data and evidence of disparities in access to parks and recreation resources, equity mapping can help to demonstrate the need for investment in underserved communities.

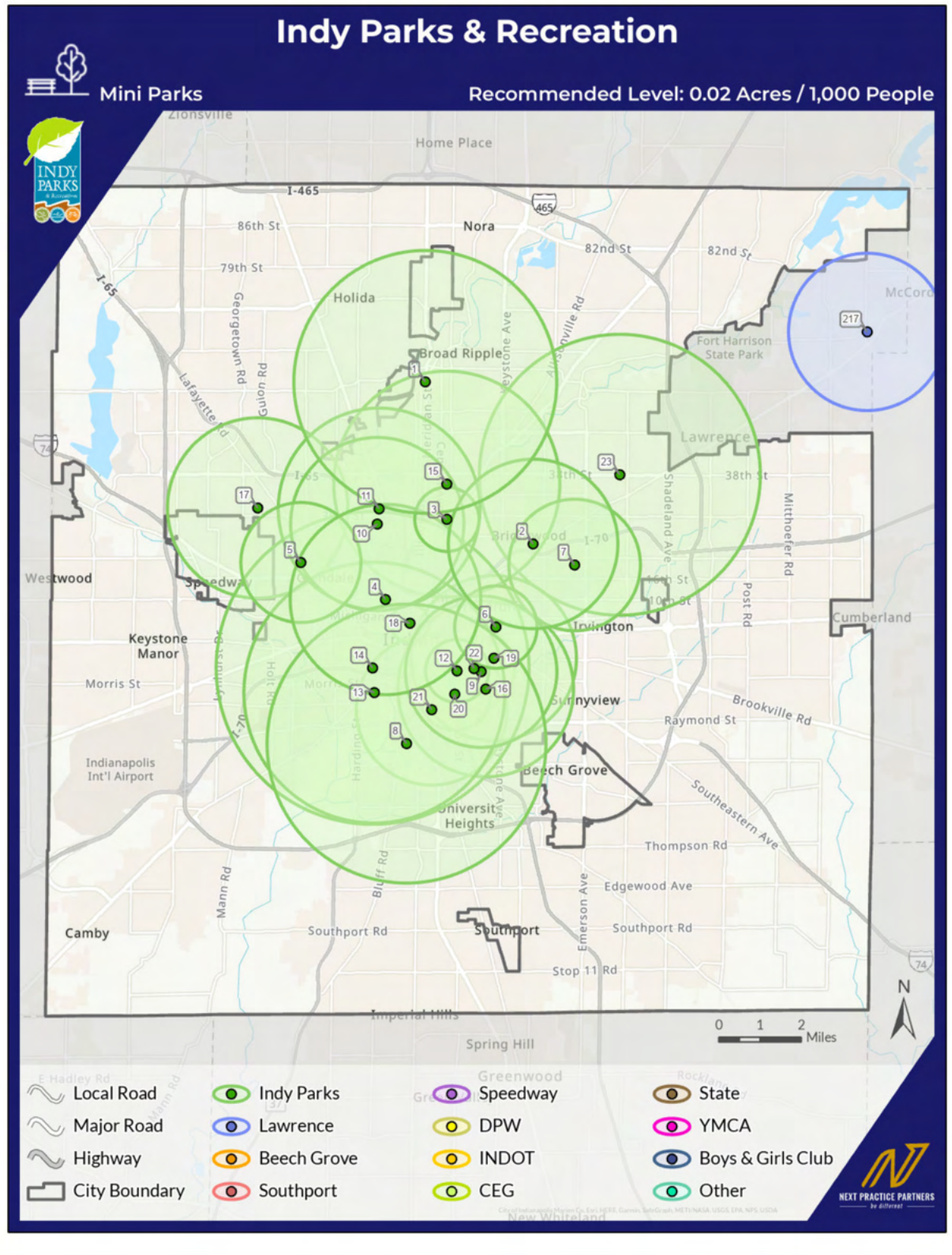
- **Promoting equity and social justice:** Ultimately, equity mapping can help to promote equity and social justice in the parks and recreation planning process. By identifying disparities in access to parks and recreation resources and prioritizing investments in underserved communities, equity mapping can help to ensure that all members of the Indianapolis community have equitable access to the benefits of parks and recreation.

For this process, Equity Maps were developed for each of the following major assets:

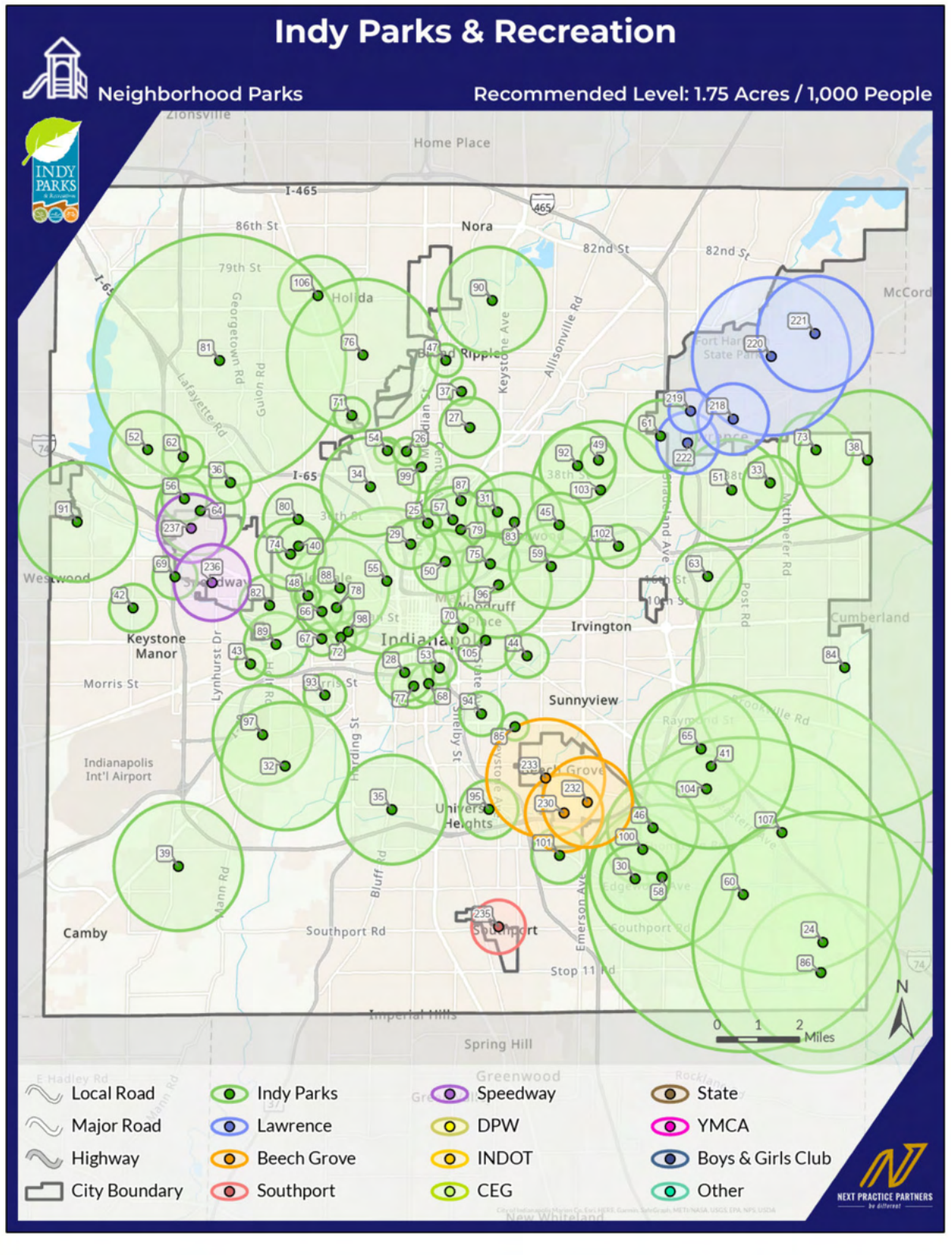
- Mini Parks
- Neighborhood Parks
- Community Parks
- Regional Parks
- Special Use Sites
- Sports Complex
- Golf Courses
- Natural Resource Area
- Historical and Cultural Features
- Greenway / Boulevard
- Trails (Greenways and Soft Surfaces)
- Picnic Shelters
- Playgrounds
- Basketball Courts
- Diamond Fields
- Rectangular Fields
- Pickleball Courts
- Sand Volleyball Courts
- Tennis Courts
- Off Leash Dog Parks
- Skate Parks
- Spray Pads
- Outdoor Pools
- Indoor Recreation / Aquatic Centers Space

The shaded rings in the Equity Maps indicate the service level (i.e. the population being served by a specific park type/facility/amenity) and the center of the ring indicates the site location. The ring extends out from the center based on the service reach of a particular park, facility, or amenity based on the population density thus showcasing the gaps or overlaps in access for each park or amenity type and enabling more data driven decision making.

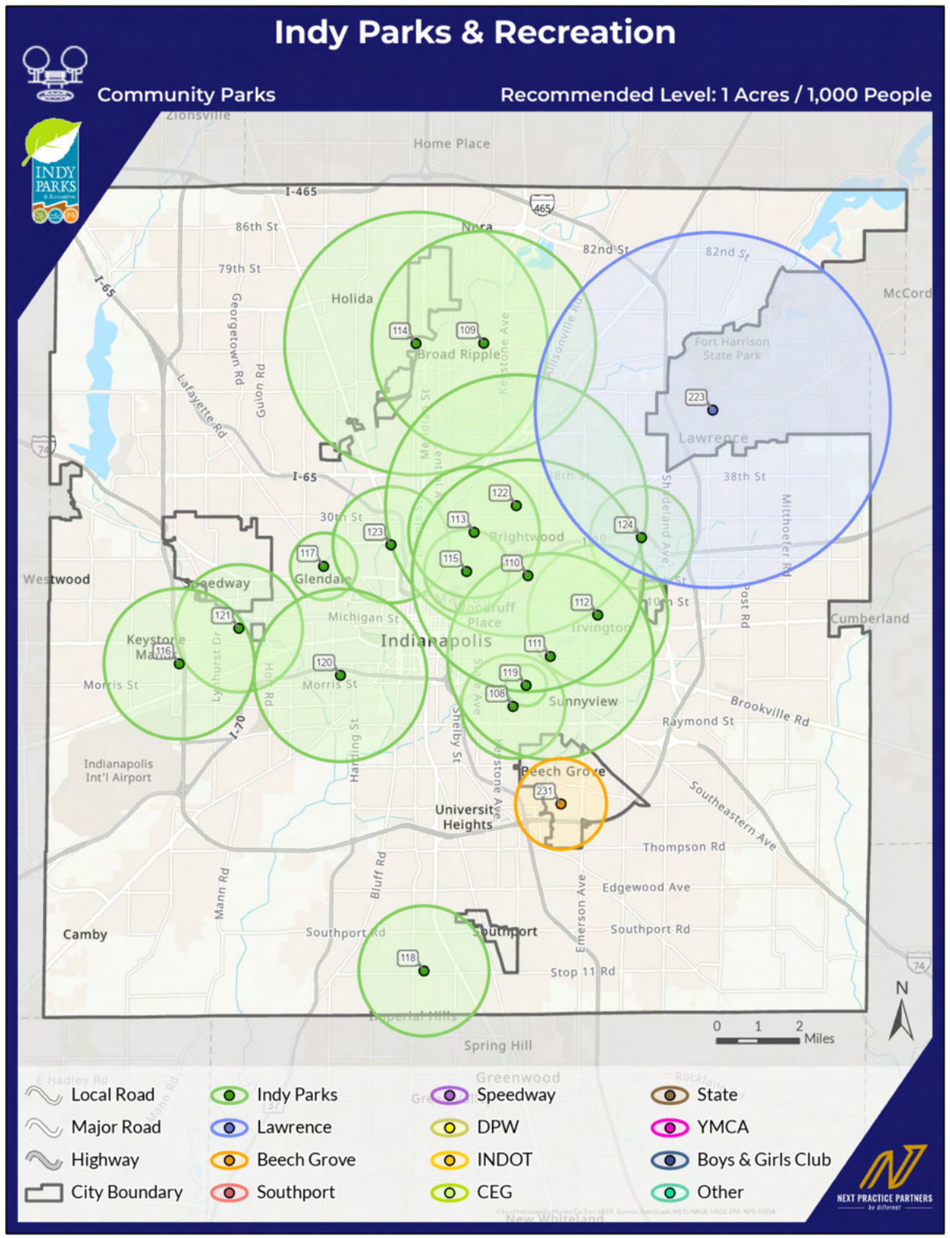
MINI PARKS



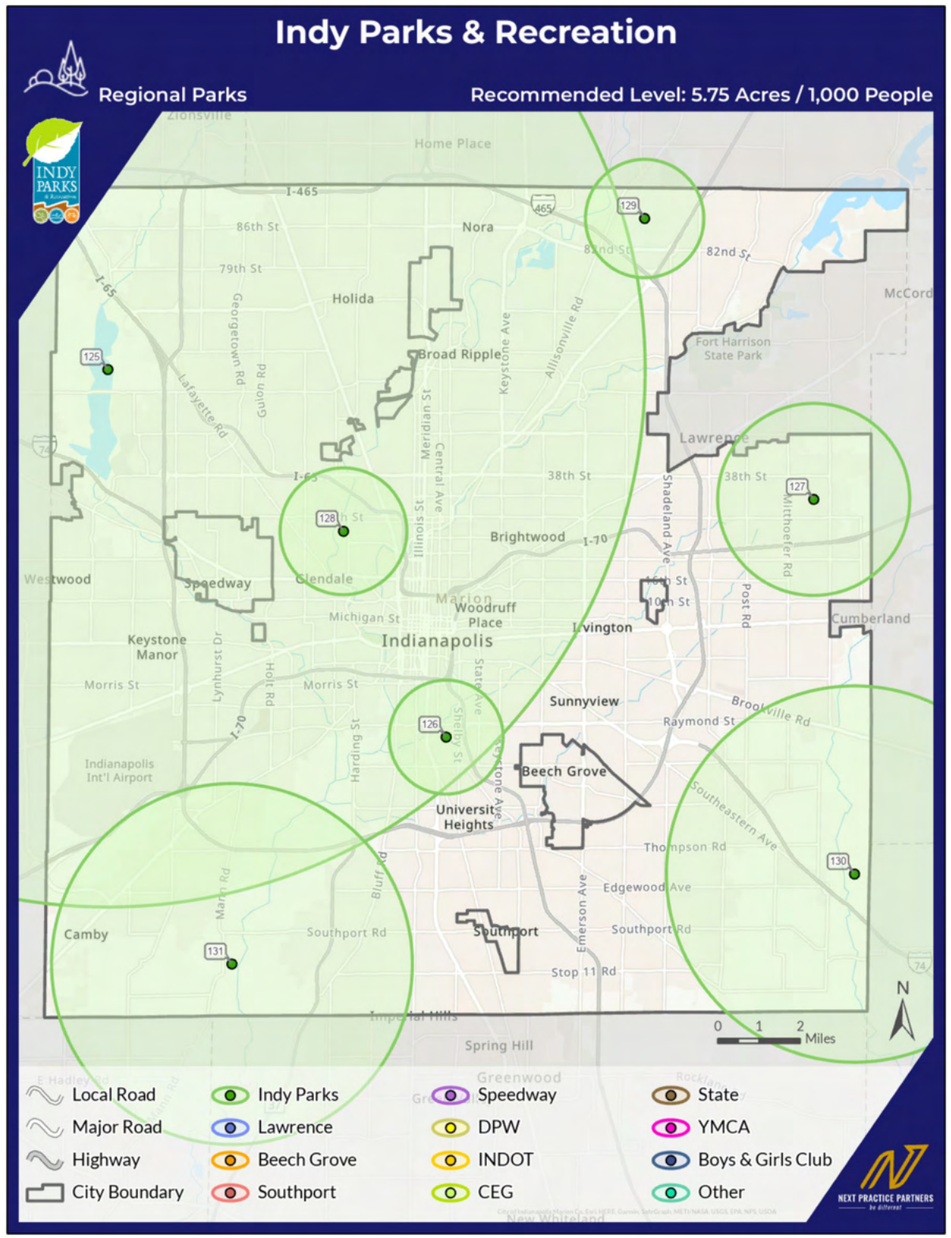
NEIGHBORHOOD PARKS



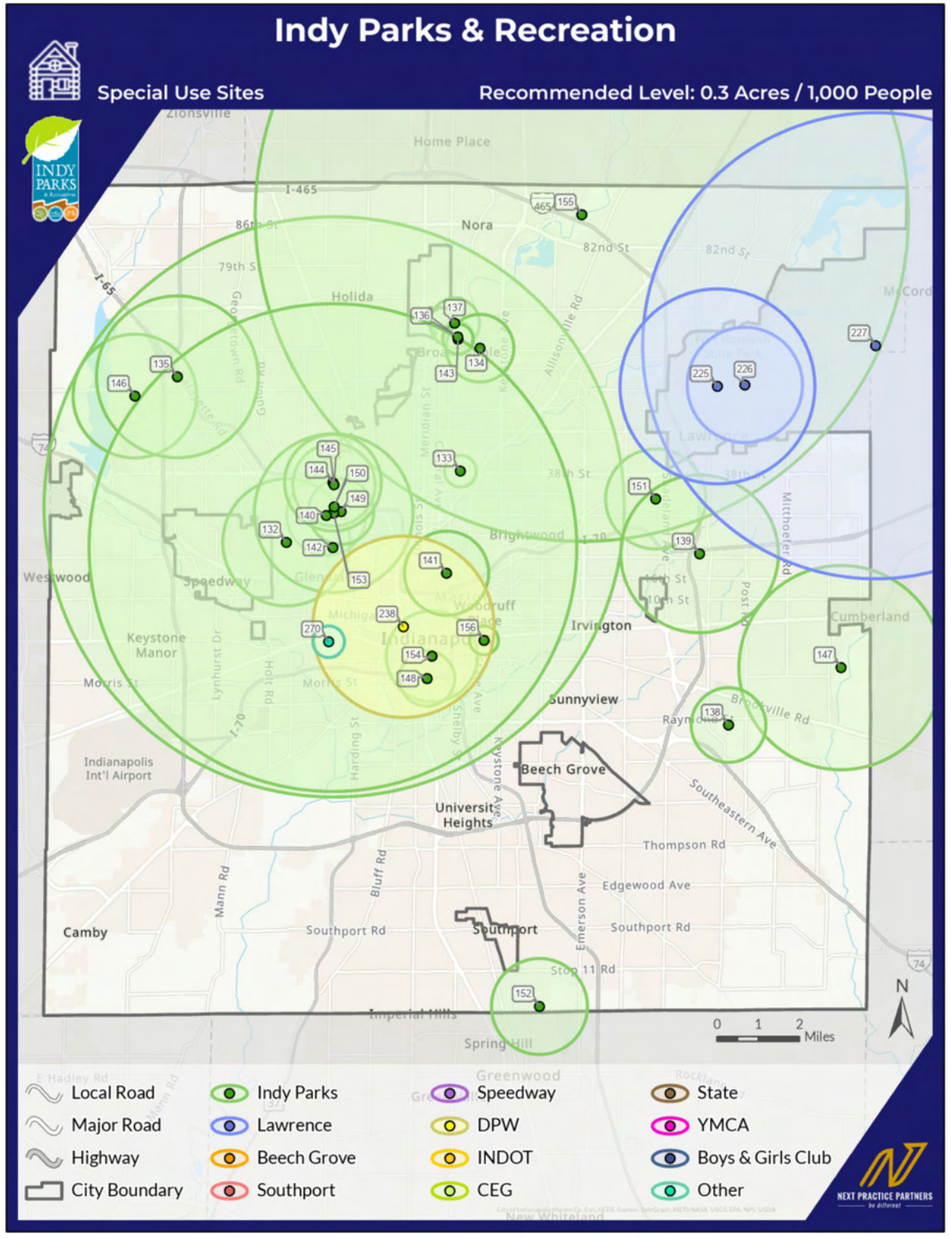
COMMUNITY PARKS



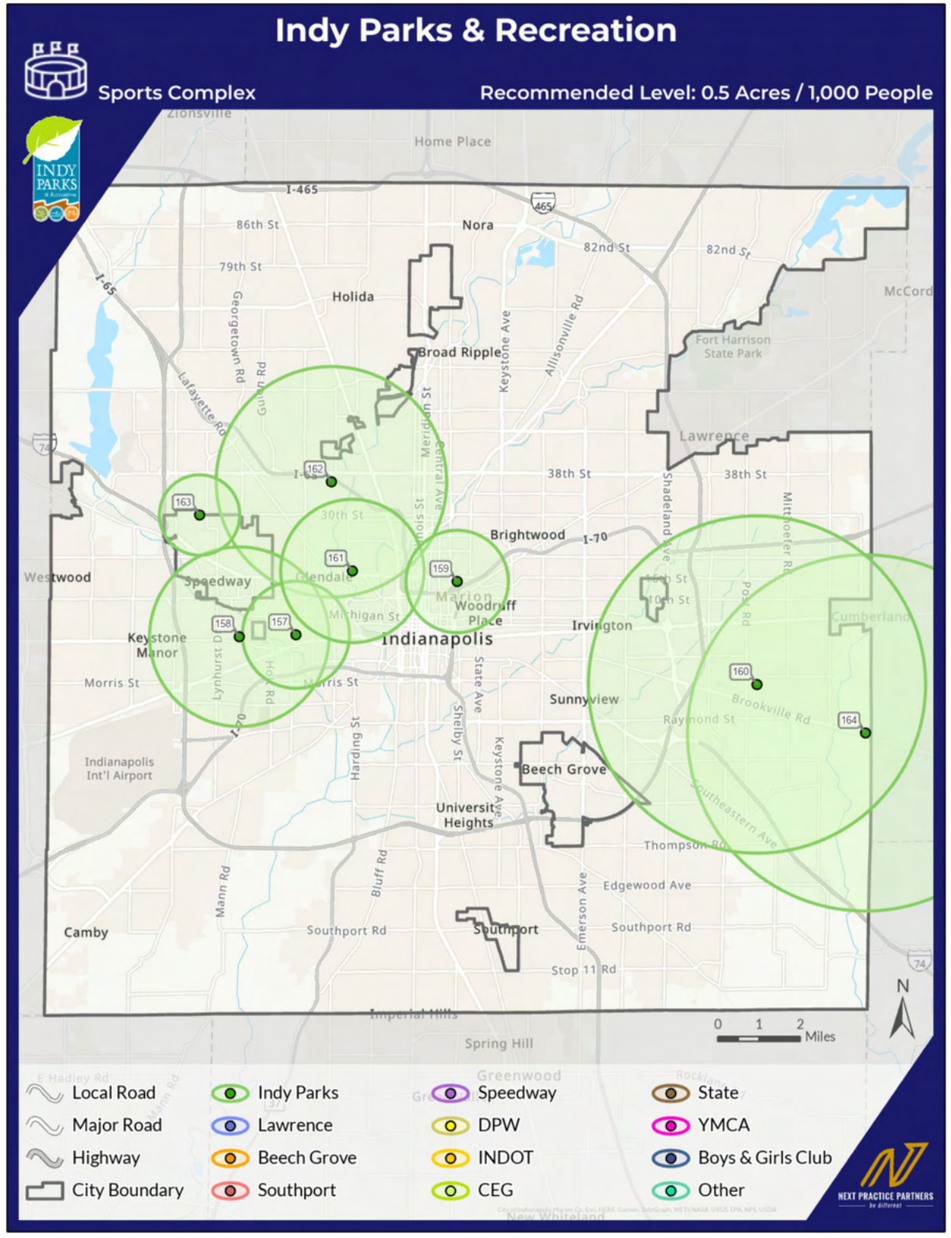
REGIONAL PARKS



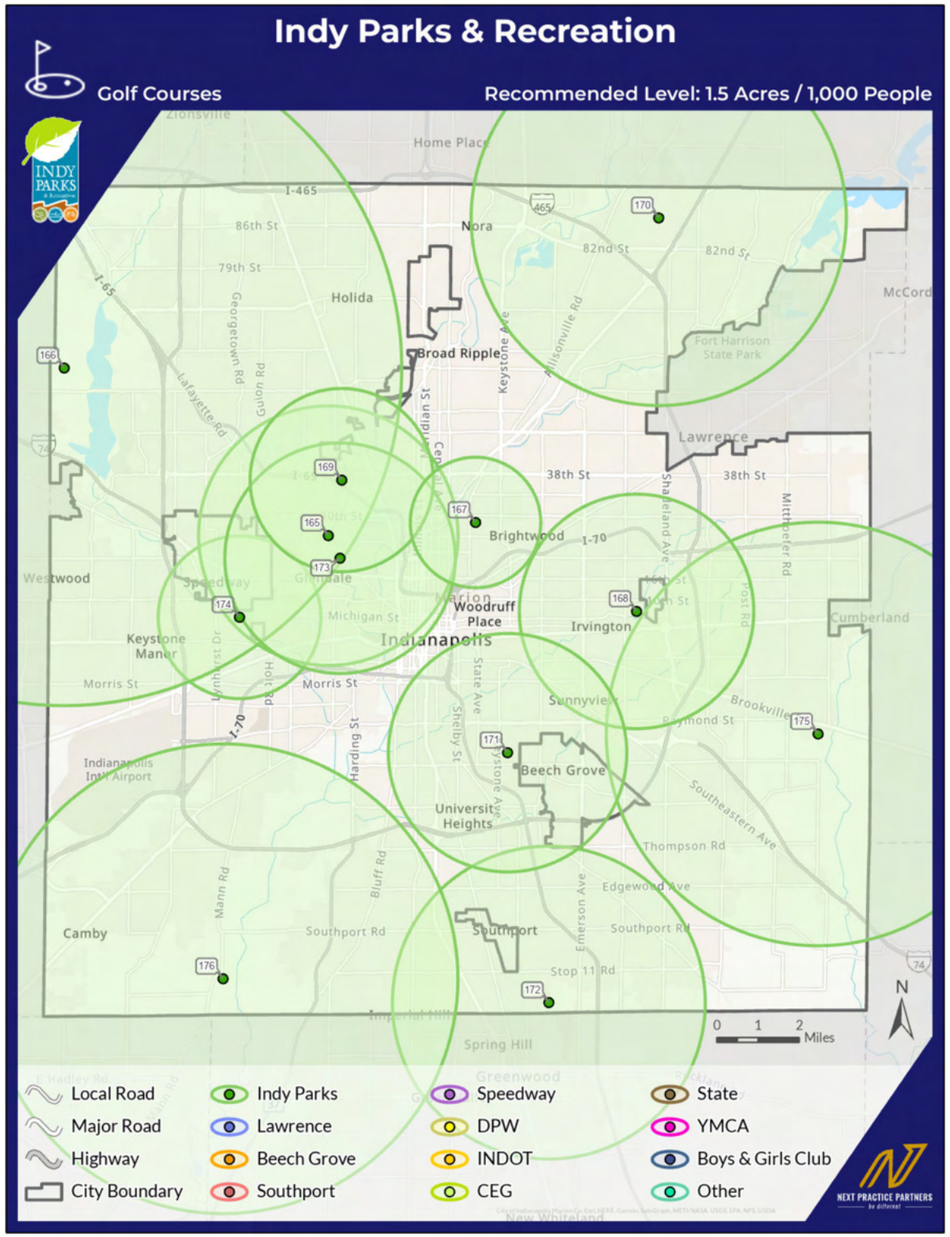
SPECIAL USE SITES



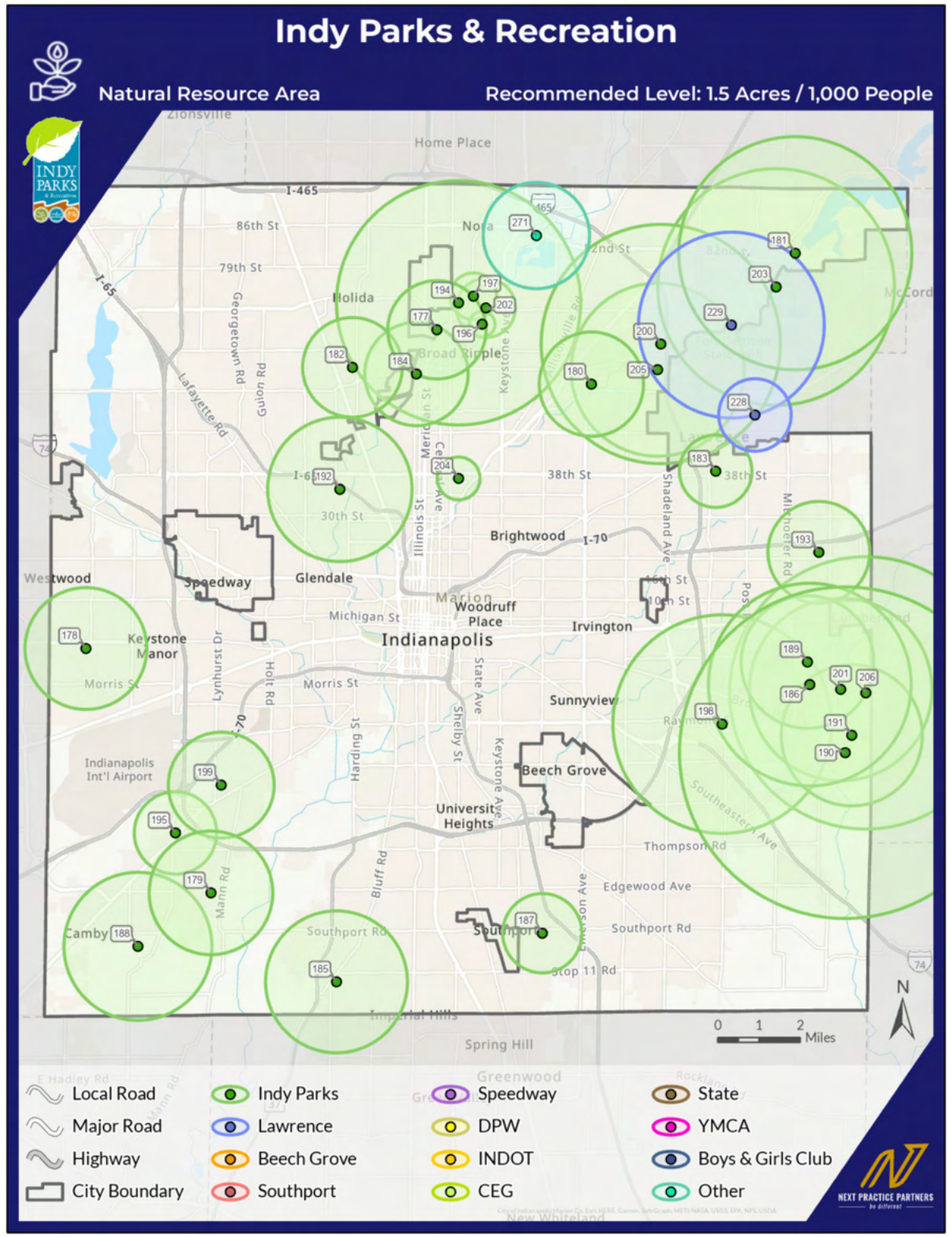
SPORTS COMPLEX



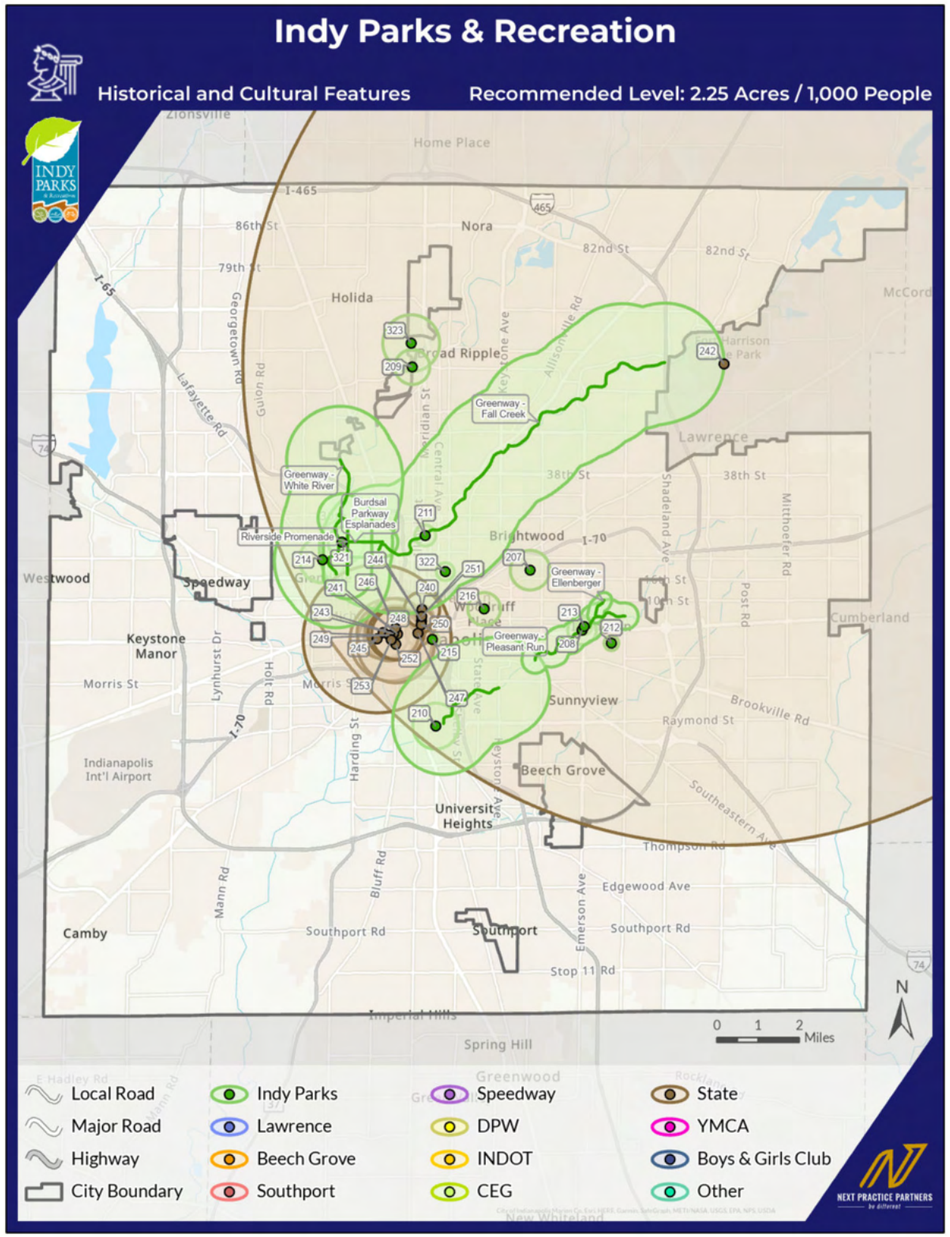
GOLF COURSES



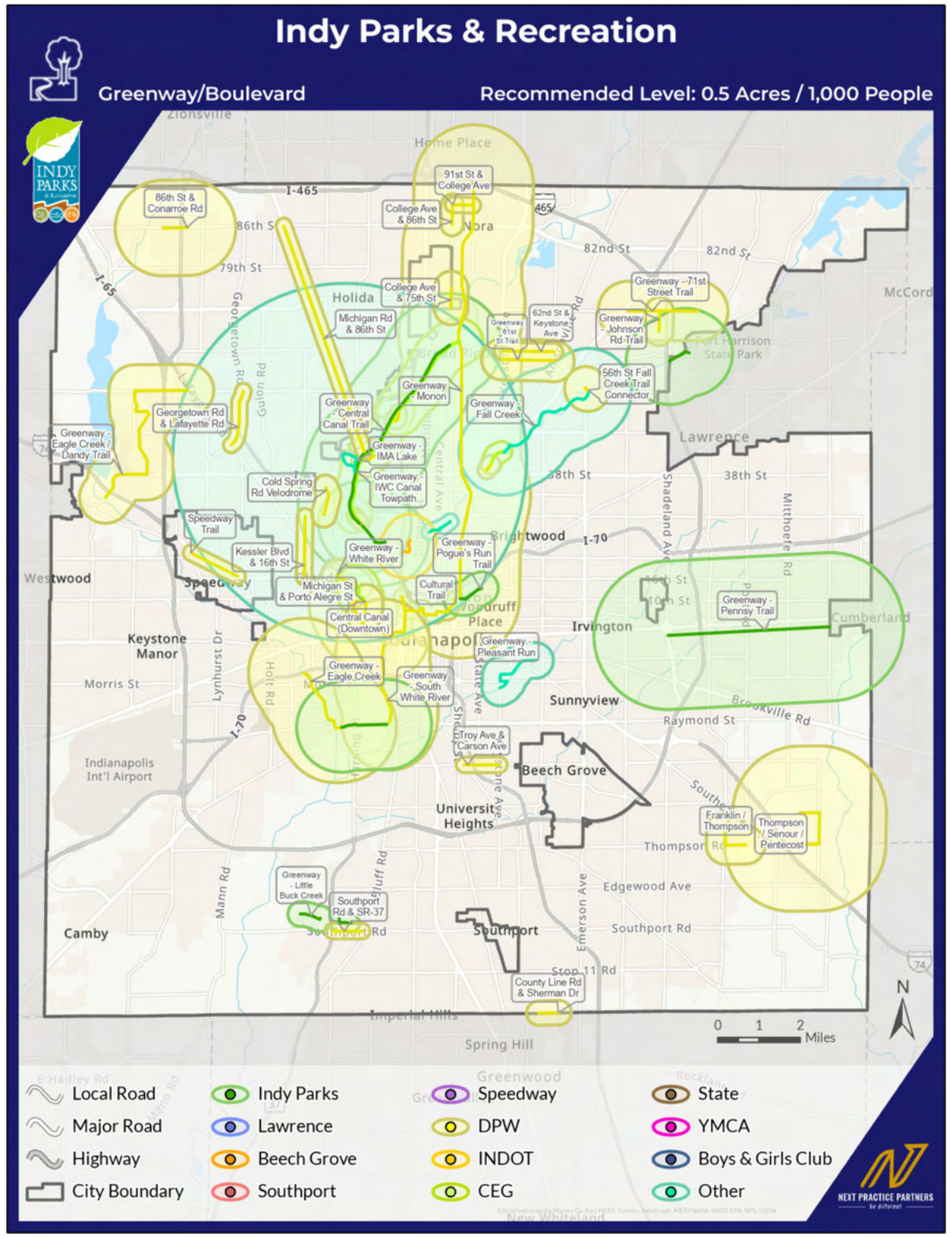
NATURAL RESOURCE AREA



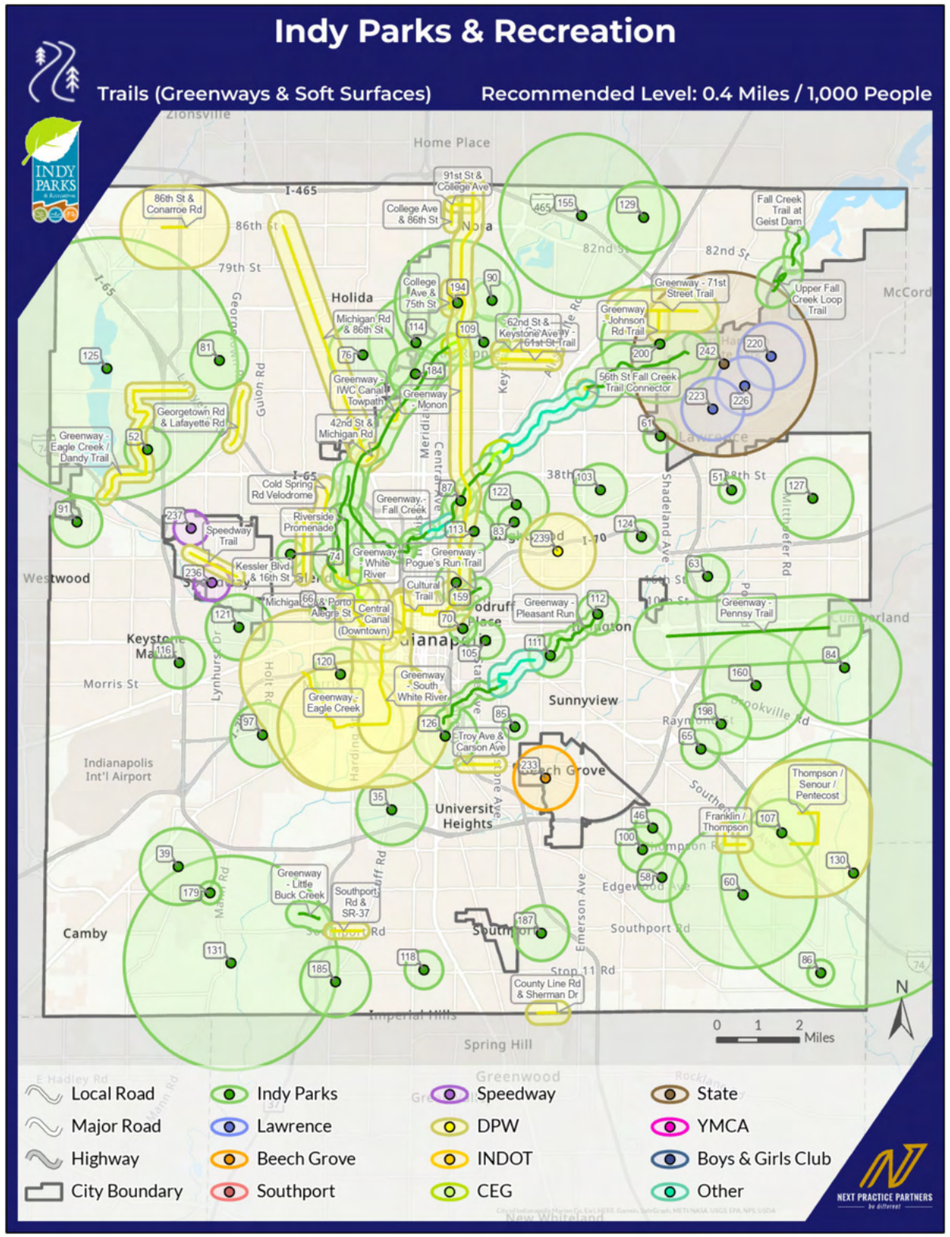
HISTORICAL AND CULTURAL FEATURES



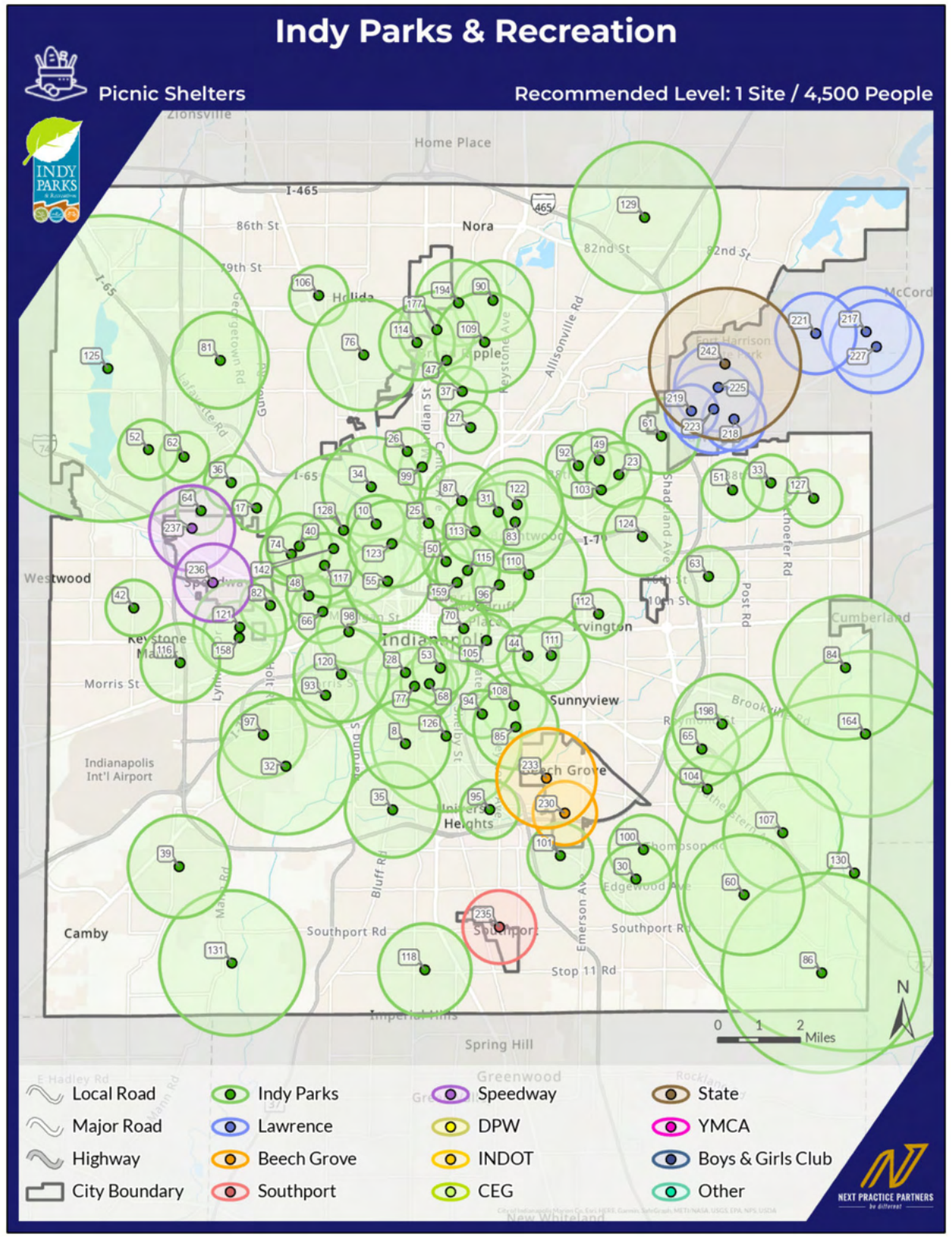
GREENWAY / BOULEVARD



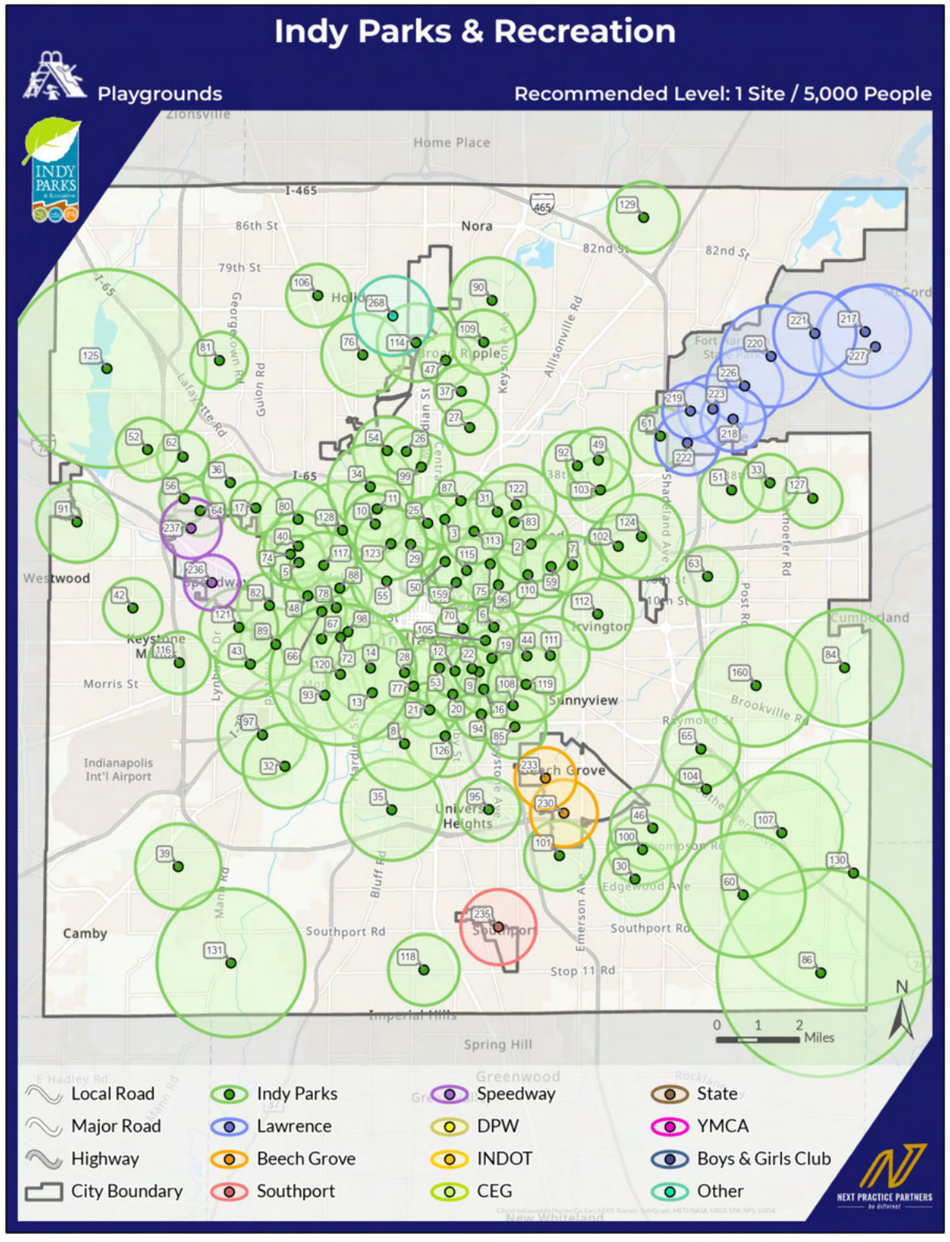
TRAILS (GREENWAYS AND SOFT SURFACES)



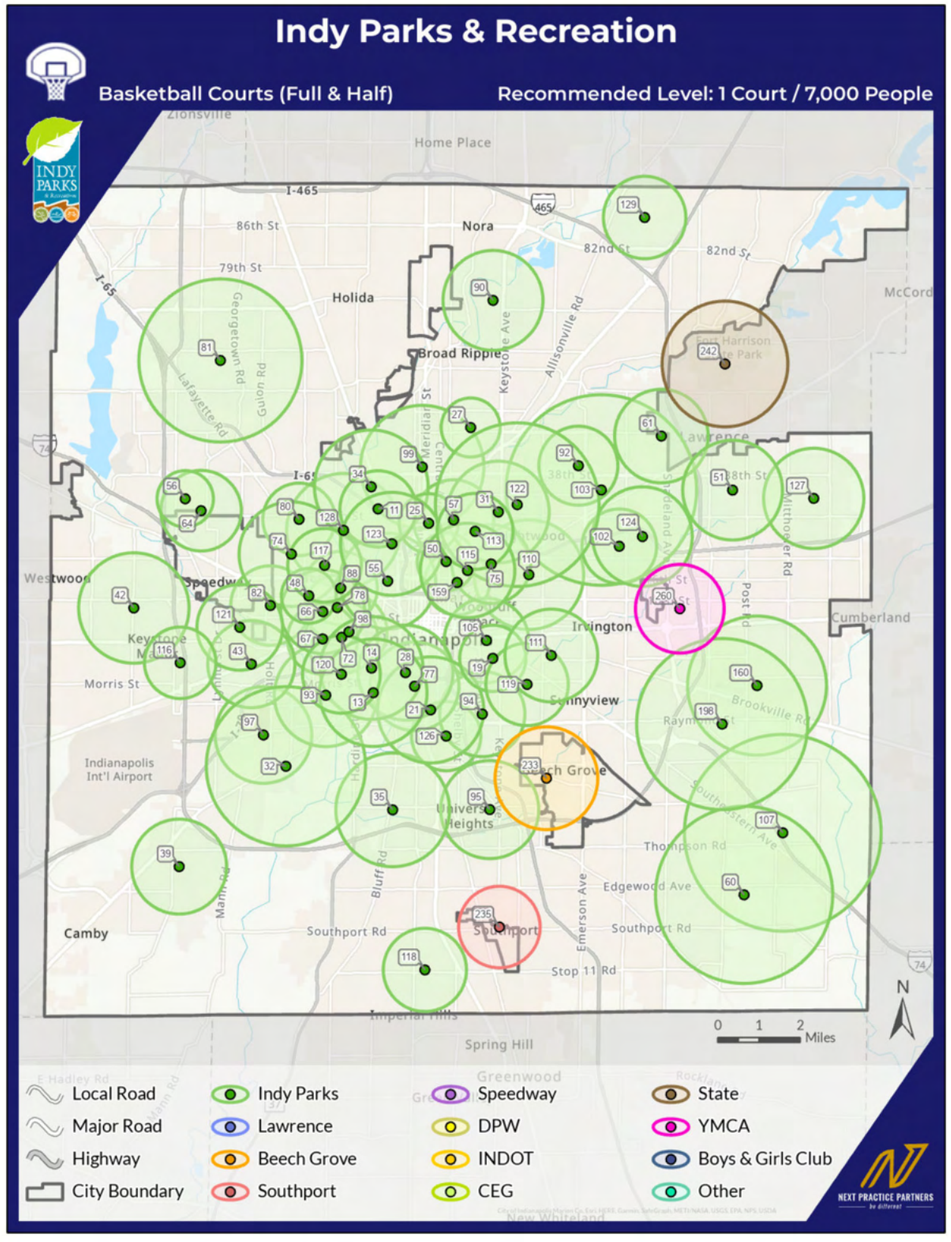
PICNIC SHELTERS



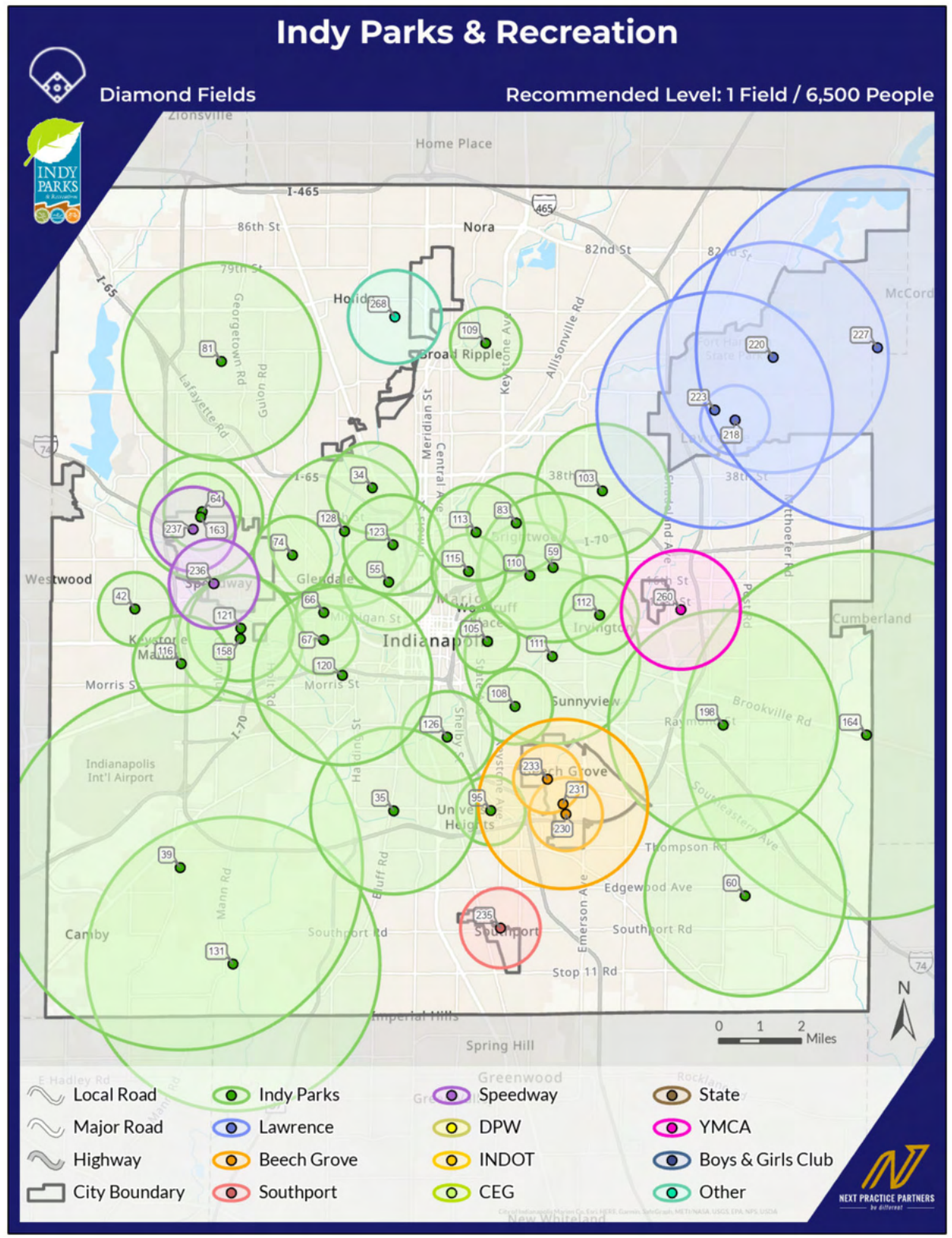
PLAYGROUNDS



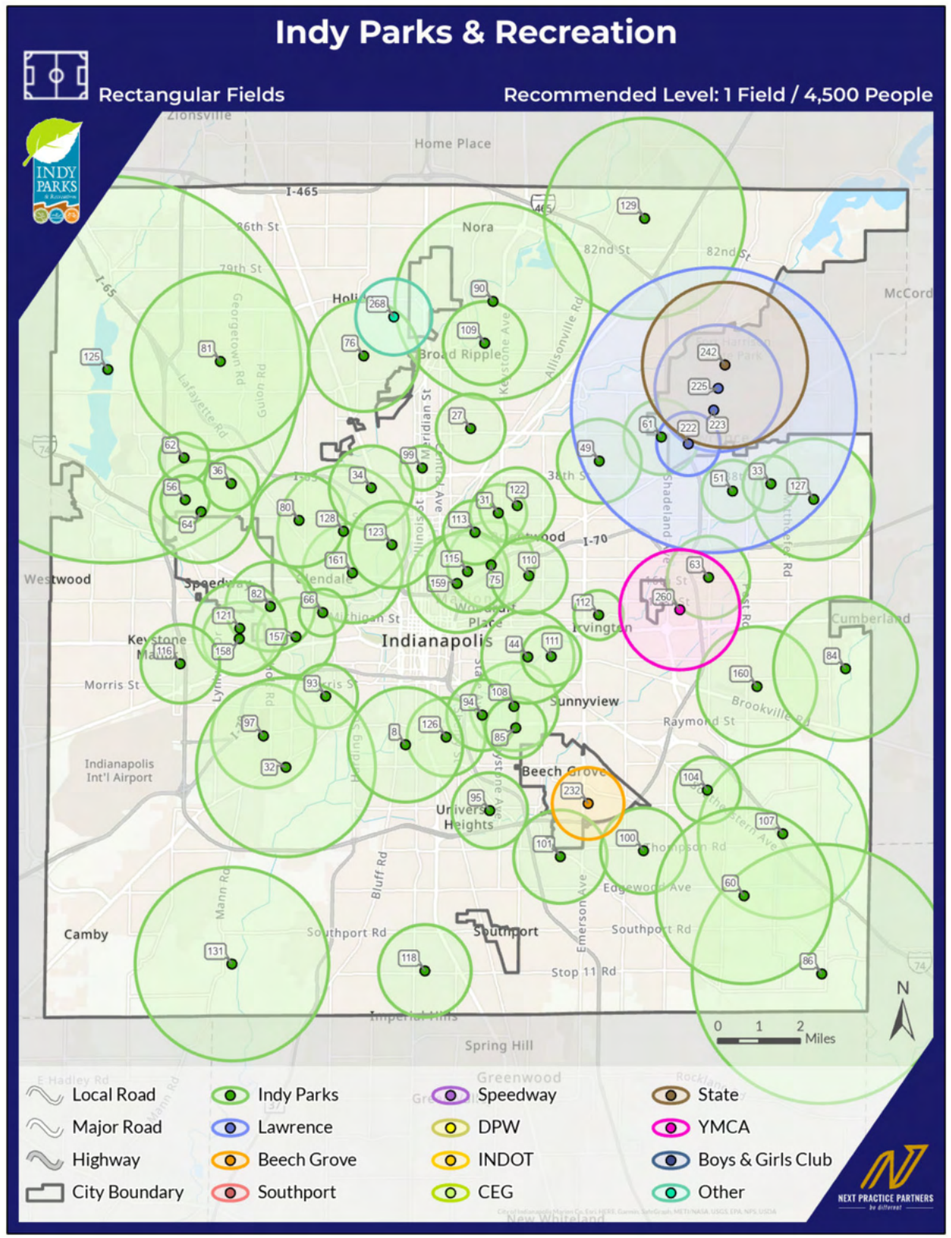
BASKETBALL COURTS



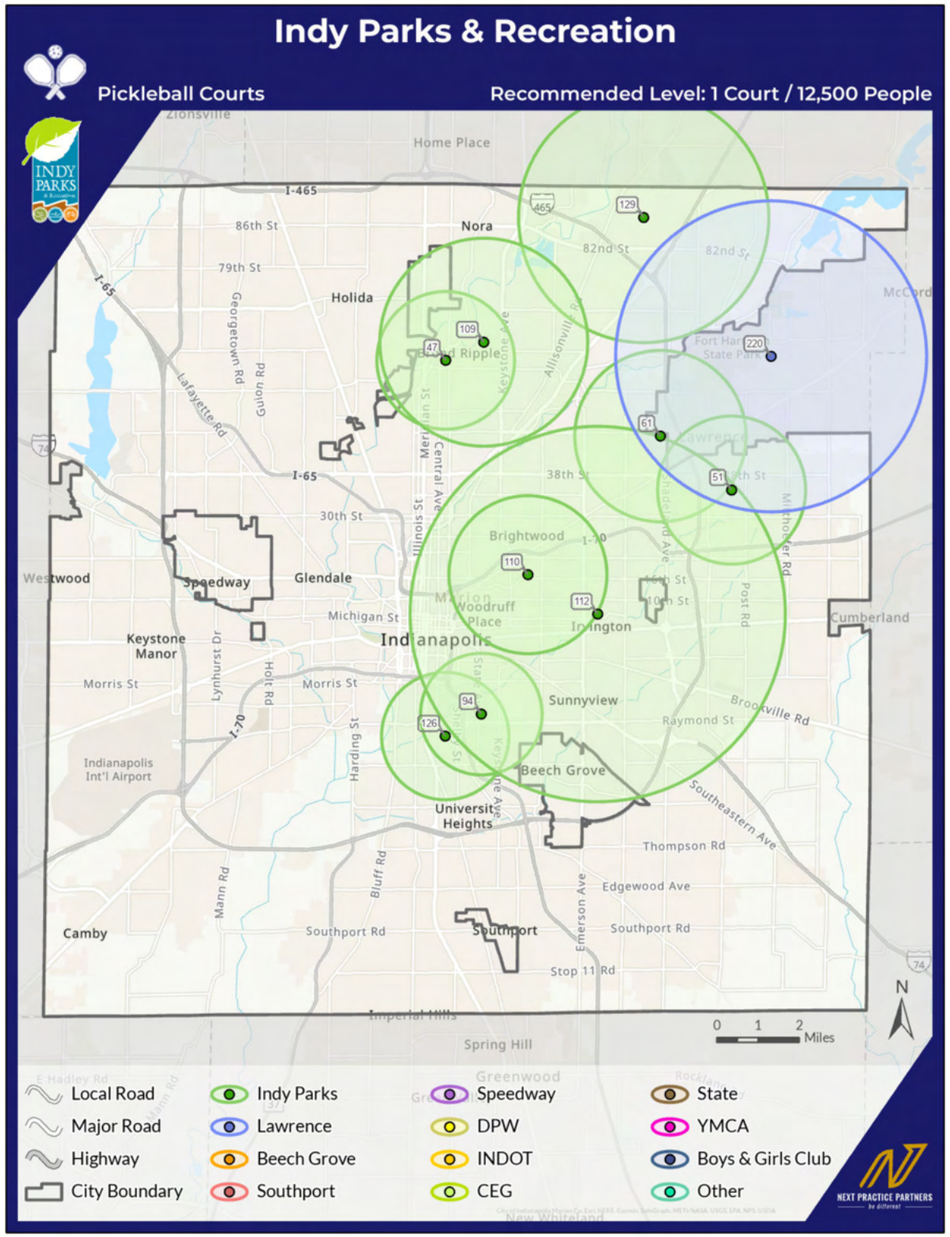
DIAMOND FIELDS



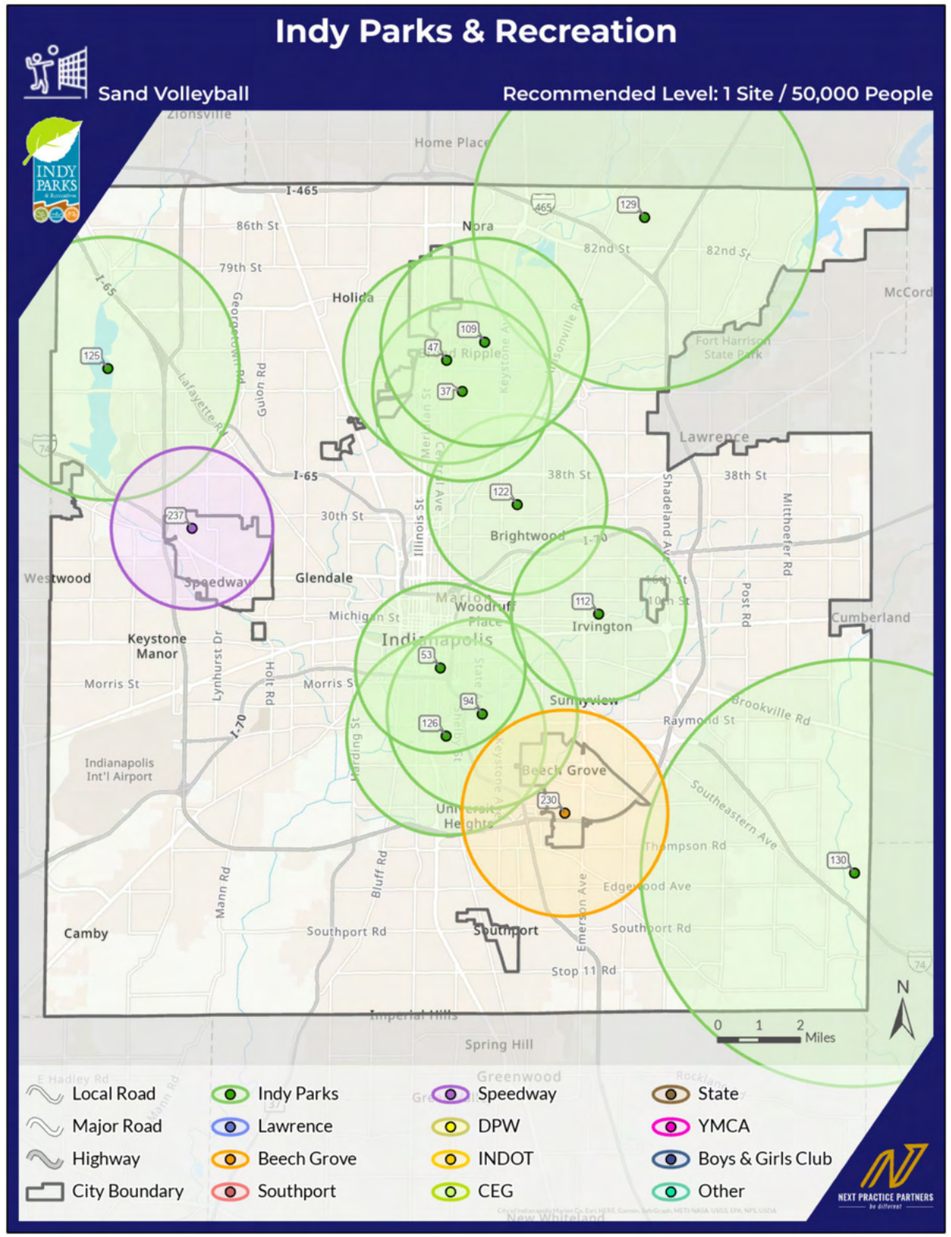
RECTANGULAR FIELDS



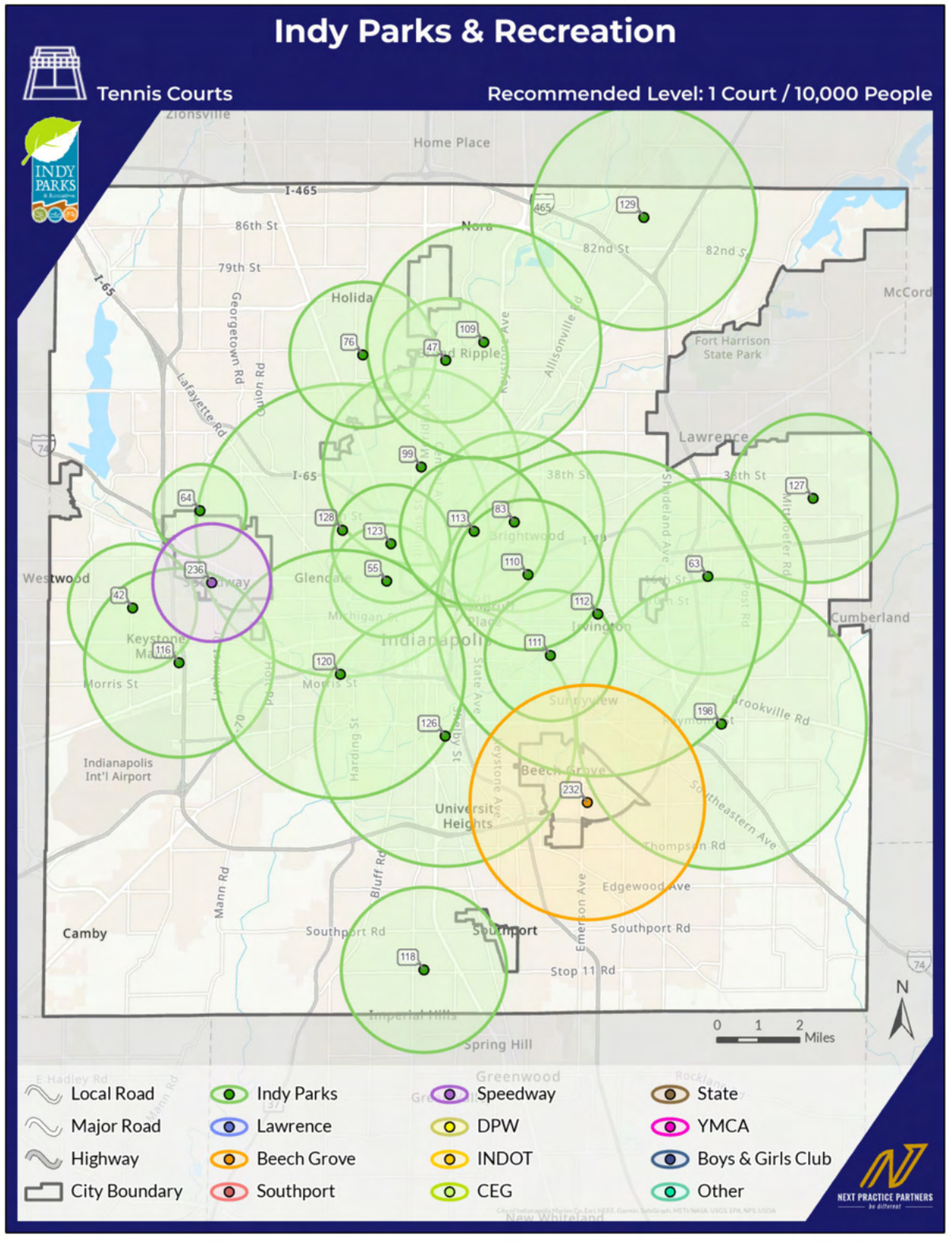
PICKLEBALL COURTS



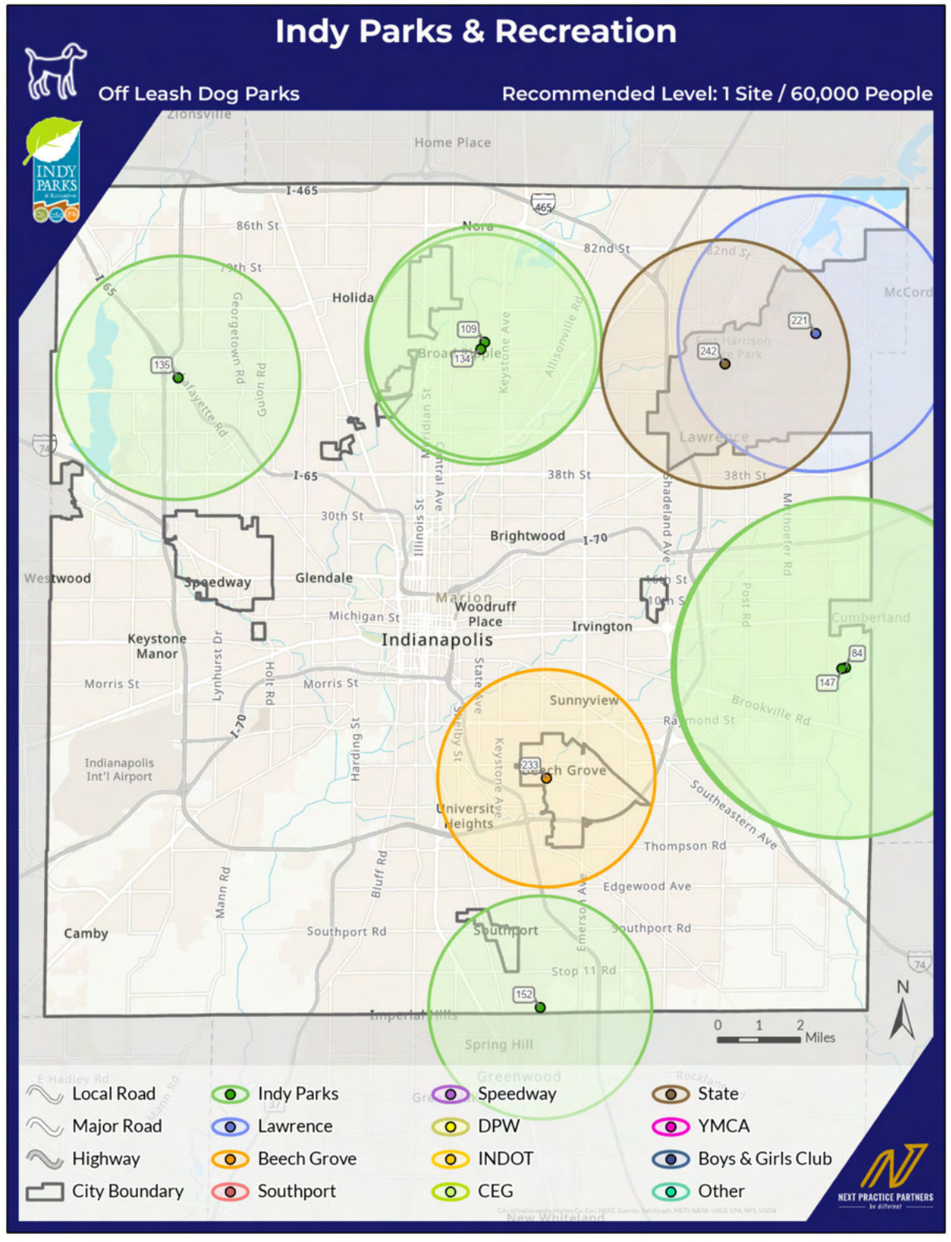
SAND VOLLEYBALL COURTS



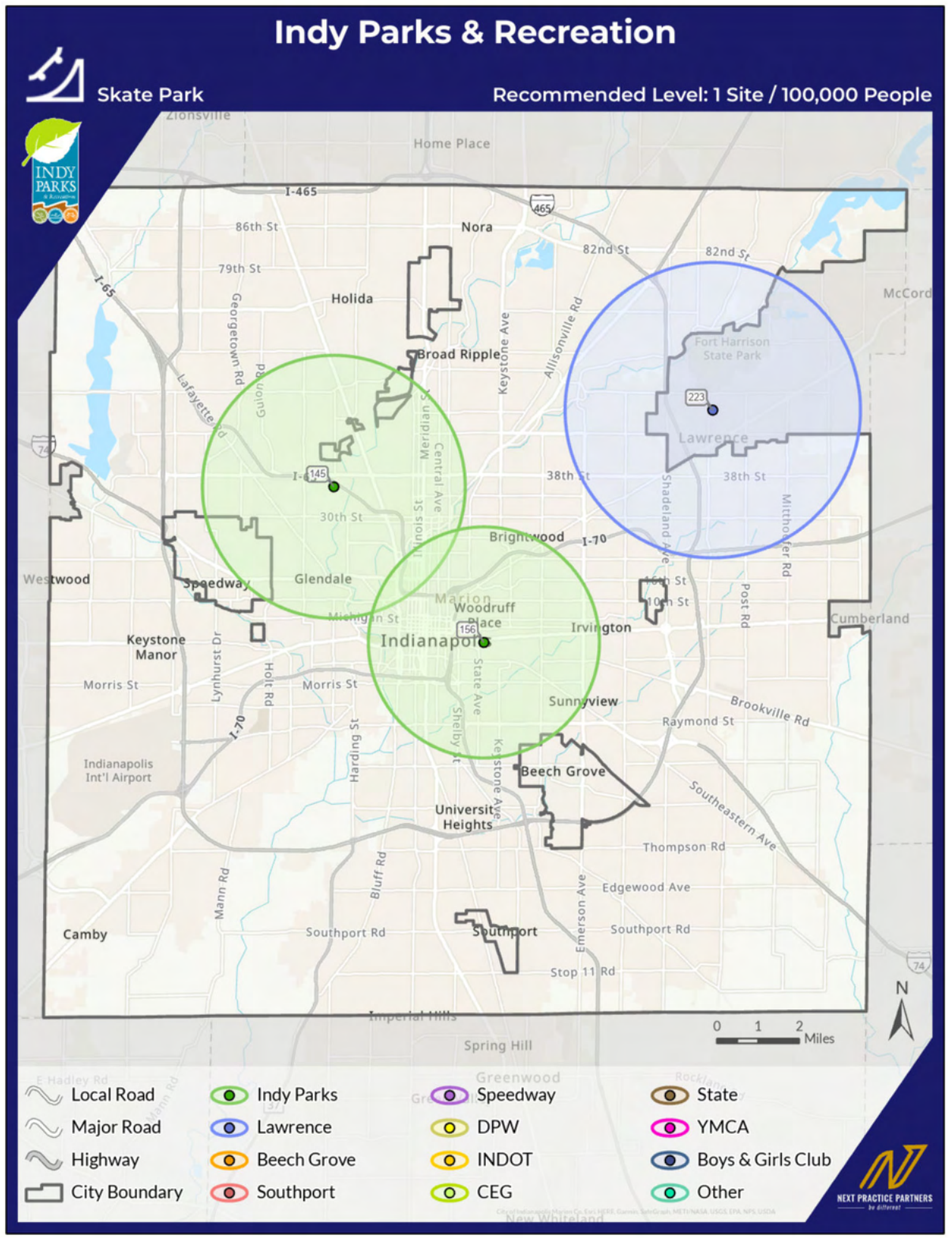
TENNIS COURTS



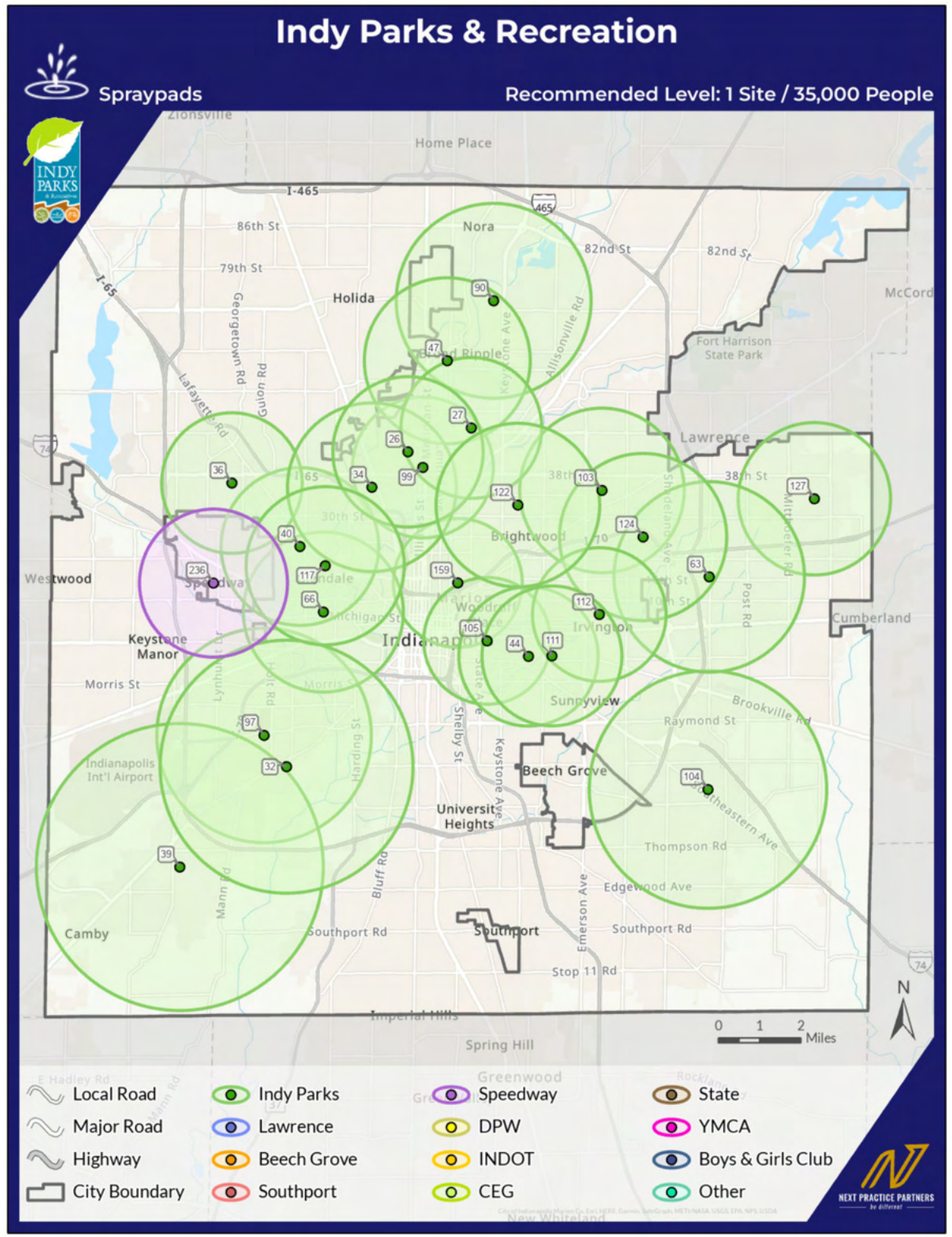
OFF LEASH DOG PARKS



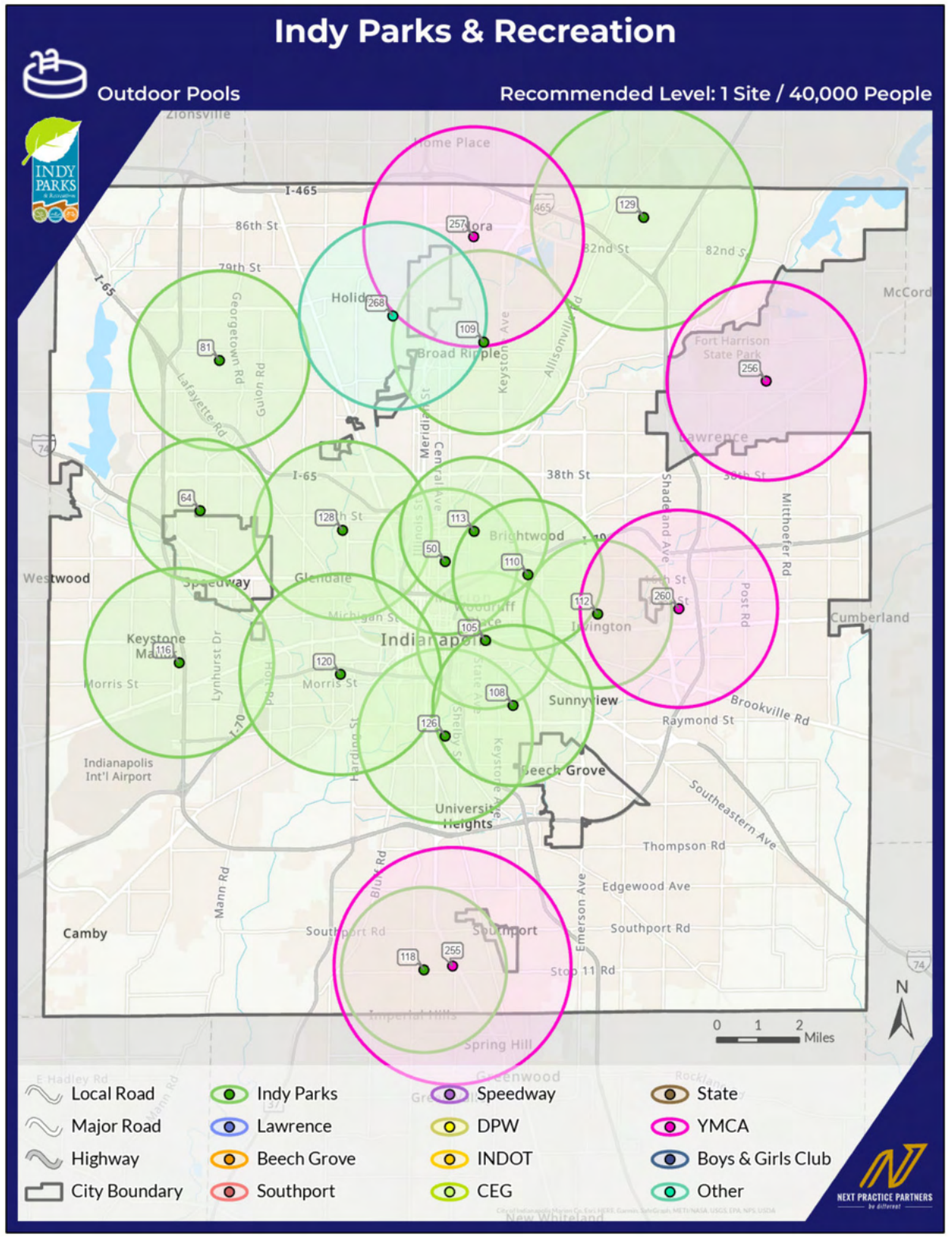
SKATE PARKS



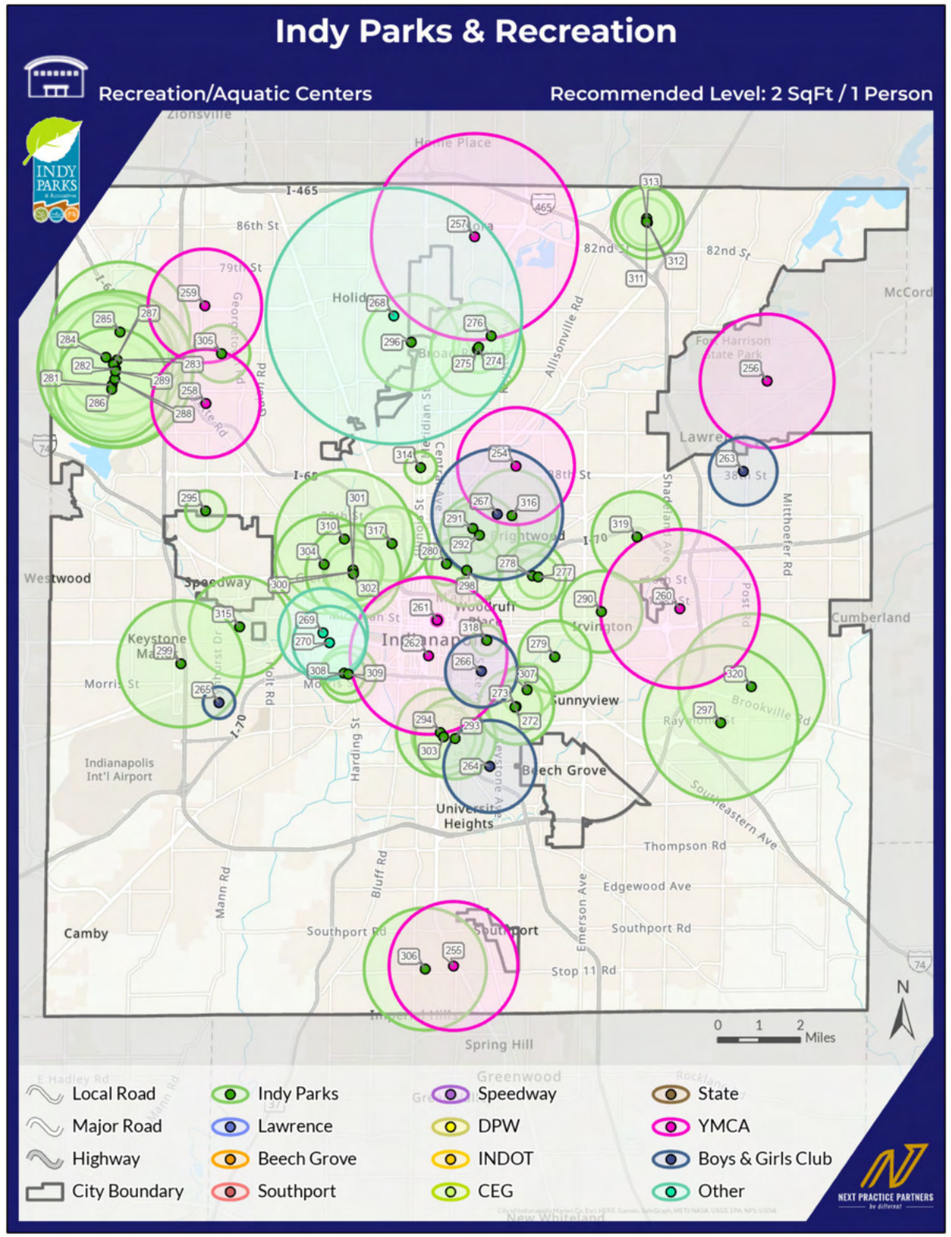
SPRAY PADS



OUTDOOR POOLS



INDOOR RECREATION / AQUATIC CENTERS



6

PROGRAMS AND SERVICES ASSESSMENT

6.1 PROGRAMS AND SERVICES ASSESSMENT OVERVIEW

INTRODUCTION

This assessment offers an in-depth perspective of the Department's offerings and helps to identify strengths, challenges, and opportunities in the department's programs and services. The assessment also assists in identifying core programs, program gaps within the community, key system-wide issues, staffing, volunteer and partnership opportunities, and future programs and services for residents and visitors.

The consulting team based these findings and comments on a review of information provided by the Department including program descriptions, financial data, website content, and staff discussions.

FRAMEWORK

The mission of the Department is "to provide enriching experiences for all". The Department works to achieve this mission through its commitment to equity and inclusion which focuses the Department's efforts on planning to ensure amenities and services reflect the community it serves.

Additionally, the Department oversees and operates various programs, facilities, and outdoor amenities including family centers, pools, trails, golf courses, day camps, after school programs, and a host of special events that are offered to all.

6.2 PROGRAM AREAS

The identification of core program areas helps to establish a focused approach to achieve the Department's mission. Core program areas assist Department staff, policy makers, and the public, focus on what is important to the community. Program areas are considered as Core if they meet most of the following criteria:

- The program area has been provided for a long period of time (over 4-5 years) and/or is expected by the community.
- The program area consumes a relatively large portion (5% or more) of the agency's overall budget.
- The program area is offered 3-4 seasons per year.
- The program area has wide demographic appeal.
- There is a tiered level of skill development available within the program area's offerings.
- There is full-time staff responsible for the program area.
- There are facilities designed specifically to support the program area.
- The department controls a significant percentage (20% or more) of the local market.

EXISTING CORE PROGRAM AREAS

The Department's staff identified 12 core program areas that are currently being offered.

Active Adults 55+	Adaptive & Inclusive	Adult Sports	Arts, Concerts & Movies
Aquatics	Day Camps	Enrichment	Environmental Education
Health & Wellness	Outdoor Adventure	Special Events	Youth Sports

CORE PROGRAM AREA DESCRIPTIONS AND GOALS

ACTIVE ADULTS 55+

Description: Fitness, wellness, enrichment, arts, and sports programs specifically targeted for active adults over the age of 55 years old.

Goals: Provide fitness, leisure, and social activities to senior adults to encourage an active lifestyle, promote physical and mental well-being, and discourage isolation. Provide low impact programs at low or no cost.

ADAPTIVE & INCLUSIVE

Description: Fitness, wellness, enrichment, arts, and sports programs adapted to ensure that individuals with different abilities have equal access to programs and recreational activities.

Goals: Provide proper staff training program support, and accomodations to maximize participation opprotunities for youth and adults with disabilities. Encourage independance and confiedence. Teach life skills.

ADULT SPORTS

Description: Competitive and recreational sports programs for adults 18 and older.

Goals: Encourage an active lifestyle by providing space for competitive and social playing opportunities for adults in a variety of sports. Provide both traditional and non-traditional sport opportunities.

ARTS, CONCERTS & MOVIES

Description: Art programs and classes in various mediums including performing arts, painting, sculpture, printmaking, drawing and photography.

Goals: Establish a sustainable concert series in a variety of genres. Offer arts for all ages in a range of mediums. Provide entertainment through movies, performing arts and outreach.

AQUATICS

Description: Fitness, recreation, competitive, and leisure activities taking place in a body of water.

Goals: Provide quality year-round aquatic programming including swim lessons, aerobics, swim team and other recreational activities. Promote and encourage swimming and water safety as a key life skill.

DAY CAMPS

Description: Structured activities for preschoolers, school aged kids, and teens providing a variety of organized recreation, art, environmental education, enrichment, and science activities.

Goals: Provide safe and fun summer experiences for youth. Provide a variety of activities to encourage participants to try new things. Encourage appreciation of the natural environment.

ENRICHMENT

Description: Programs, classes, and activities with an educational value-added component designed to support or enhance life skills and academic success.

Goals: Provide programs that teach and enhance life skills and academic success.

ENVIRONMENTAL EDUCATION

Description: Programs, classes, and activities with an educational value-added component designed to support or enhance life skills and academic success.

Goals: Provide a wide range of programs that inspire an appreciation of natural environments. Increase public awareness in environmental stewardship. Improve access to programs.

HEALTH & WELLNESS

Description: Classes and programs focusing on strengthening participants' physical, emotional, spiritual, and social health.

Goals: Provide a wide range of programs and activities to promote a healthier lifestyle. Work with health care partners to offer more programs with a focus on emotional and social well-being.

OUTDOOR ADVENTURE

Description: Outdoor activities, usually encouraging physical challenge. Outdoor activities may take place on land, in water, and in the air, some may be winter focused.

Goals: Promote health and wellness through outdoor physical activity. Identify partnership opportunities to increase offerings.

SPECIAL EVENTS

Description: One time or short-term recreation, leisure, social or cultural events celebrating a specific occasion.

Goals: Provide park space to host community organized special events. Increase cultureal events. Plan events to highlight parks' value. Use partnerships to offer more diverse events.

YOUTH SPORTS

Description: Competitive and recreational sports programs for youth ages 17 and under.

Goals: Encourage active lifestyles by providing competitive and social athletics opportunities. Provide traditional and non-traditional sports opportunities. Teach good sportsmanship, teamwork, and cooperation.

AGE SEGMENT ANALYSIS

The Age Segment analysis helps to identify where services are spread among age groups within each core program area.

The chart below shows each core program area and the most prominent age segments they serve. Recognizing that many core program areas serve multiple age segments, markets are identified using a "P" to notate Primary and an "S" to indicate Secondary.

AGES SERVED For each Core Program Area, please identify which age segments are served by placing a 'P' if it is a Primary Market or an 'S' if it is a Secondary Market.						
Core Program Area	Preschool (5 and Under)	Elementary (6-12)	Teens (13-17)	Adult (18+)	Senior (55+)	All Ages Programs
Active Adults 55+				S	P	
Adaptive & Inclusion	S	P	P	P	S	P
Adult Sports				P	S	
Arts, Concerts, & Movies	P	P	P	P	P	P
Aquatics	P	P	P	P	P	P
Day Camps	S	P	S	S		
Enrichment	P	P	P	S	S	
Environmental Education	P	P	P	P	P	P
Health & Wellness	P	P	P	P	P	P
Outdoor Adventure		S	P	P		
Special Events	P	P	P	P	P	P
Youth Sports	P	P	P			

The Age Segment Analysis shows an even distribution of core program areas that target each age demographic as the primary audience.

Staff should continue to monitor demographic shifts and program offerings to ensure that the needs of each age group are being met. It is recommended that staff perform an annual age segment alignment with ensure target audience reflect the community's demographics and also tailor future offerings to community needs.

When establishing a new program, it is essential to develop a plan the includes the target age segment, the messaging, identification of the marketing method(s), creation of the marketing campaign, and defining the indicators for measuring success prior to allocating resources towards a specific effort.

PROGRAM LIFECYCLE

A Program Lifecycle Analysis reviewed each program offered for the stage of growth or decline. This informs strategic decisions about the overall program mix managed by the agency to ensure that an appropriate number of programs are "fresh" and that relatively few programs if any, need to be discontinued. This analysis is based on both quantitative data and staff members' knowledge of their program areas. The following table shows the percentage distribution of the various lifecycle categories of the Department's programs. These percentages were obtained by comparing the number of programs in each individual stage with the total number of programs listed by staff members.

Lifecycle Stage	Description	Actual Program Distribution		Recommended Distribution
Introduction	New program; modest participation	11%	60%	50-60% total
Take-Off	Rapid participation growth	14%		
Growth	Moderate, but consistent population growth	35%		
Mature	Slow participation growth	26%	26%	40% total
Saturation	Minimal to no participation growth; extreme competition	5%	14%	0-10% total
Decline	Decline participation	8%		

The Lifecycle Analysis shows that 60% of programs fall within the beginning stages (Introduction, Take-Off, & Growth), 26% fall within the mature stage, and 14% of programs are within the Saturation (5%) and Decline (8%) stages. It is recommended to have at least 40% of programs in the mature stage as this stage provides stability in the program mix. Having 35% of programs in the Growth stage is promising, as these programs will eventually roll over into the Mature stage which will level out the foundation of the overall program mix.

Staff should complete a Program Lifecycle Analysis annually and ensure that the percentage distribution closely aligns with desired performance. The Department could also include annual performance measures for each core program area to track participation growth, customer retention, and percentage of new programs as an incentive for innovation and alignment with community trends.

The Department should explore ways to reposition or replace programs that are saturated or in decline due to lack of interest with new opportunities based on community needs and trends beginning with those indicated in the Online Community Surveys (General & Youth).

PROGRAM SERVICES CLASSIFICATION

Program services classification analysis informs how each program serves the overall organizational mission, the goals and objectives of each Core Program Area, and the balance of funding via tax dollars and user fees and charges. A program's classification can help determine the most appropriate management, funding, and marketing strategies.

Program classifications are based on the degree to which the program provides a public benefit versus a private benefit. **Public** benefit can be described as everyone receiving the same level of benefit with equal access, whereas **private** benefit can be described as the user receiving exclusive benefit above what a general taxpayer receives for their personal benefit.

For this exercise, the Department classified programs based on three categories: **Essential Services, Important Services, and Value-Added Services.** Where a program or service is classified depends upon alignment with the organizational mission, how the public perceives a program, legal mandates, financial sustainability, personal benefit, competition in the marketplace, and access by participants. The following graphic describes each of the three program classifications.

Essential Services

- **City Must Provide;** if it protects assets & infrastructure, is expected and supported, is a sound investment of public funds, is a broad public benefit, there is a negative impact if not provided, is part of the mission, and needs almost complete subsidy.

Important Services

- **City Should Provide;** if it expands & enhances core services, is broadly supported & used, has conditional public support, there is an economic / social / environmental outcome to the commuity, has community importance, and needs moderate subsidy.

Value-Added Services

- **City May Provide;** it adds value to commumity, it supports Core & Important Services, it is supported by community, it generates income, has an individual benefit, can be supported by user fees, it enhances the commuity, and requires little to no subsidy.

With assistance from staff, all recreation programs offered by the Department were classified into three categories. The results presented in the following table represent the current classification of recreation program services. Programs should be assigned ranges for cost recovery goals within those overall categories. A full program list organized by Core Program Areas can be found in APPENDIX A.

Program Classification			
Factors	Essential	Important	Value-Added
Public interest; Legal Mandate; Mission Alignment	High public expectation	High public expectation	High individual and interest group expectation
Financial Sustainability	Free, nominal or fee tailored to public needs, Requires public funding	Fees cover some direct costs, Requires a balance of public funding and a cost recovery target	Fees cover most direct and indirect costs, Some public funding as appropriate
Benefits (health, safety, protection of assets, etc.)	Substantial public benefit (negative consequence if not provided)	Public and individual benefit	Primarily individual benefit
Competition in the Market	Limited or no alternative providers	Alternative providers unable to meet demand or need	Alternative providers readily available
Access	Open access by all	Open access Limited access to specific users	Limited access to specific users
Best Practice Cost Recovery Goal*	*0 - 50%*	*50% - 75%*	*75% - 100%+*
Program Distribution	***32%***	***42%***	***26%***

COST-OF-SERVICE & COST RECOVERY

Cost recovery targets should at least be identified for each core program area, and for specific programs or events when realistic. The previously identified core program areas would serve as an effective breakdown for tracking cost recovery metrics including administrative costs. Theoretically, staff should review how programs are grouped for similar cost recovery and subsidy goals to determine if current practices still meet desired outcomes.

Determining cost recovery performance and using it to make informed pricing decisions involves a three-step process:

Classify all programs and services based on the individual or community benefit they provide (as completed in the previous section).

Conduct a Cost-of-Service Analysis to calculate the full cost of each program.

Establish a cost recovery percentage, through Department policy, for each program or program type based on the outcomes of the previous two steps and adjust program prices accordingly.

UNDERSTANDING THE FULL COST-OF-SERVICE

A Cost-of-Service Analysis should be conducted on each program, or program type, that accurately calculates direct (i.e., program-specific) and indirect (i.e., comprehensive, including administrative overhead) costs. Completing a Cost-of-Service Analysis not only helps determine the true and full cost of offering a program, but it also provides information that can be used to price programs based upon accurate delivery costs. The diagram below illustrates the common types of costs that must be accounted for in a Cost-of-Service Analysis.

The methodology for determining the total Cost-of-Service involves calculating the total cost for the activity, program, or service, then calculating the total revenue earned for that activity. Costs (and revenue) can also be derived on a per-unit basis. Program or activity units may include:

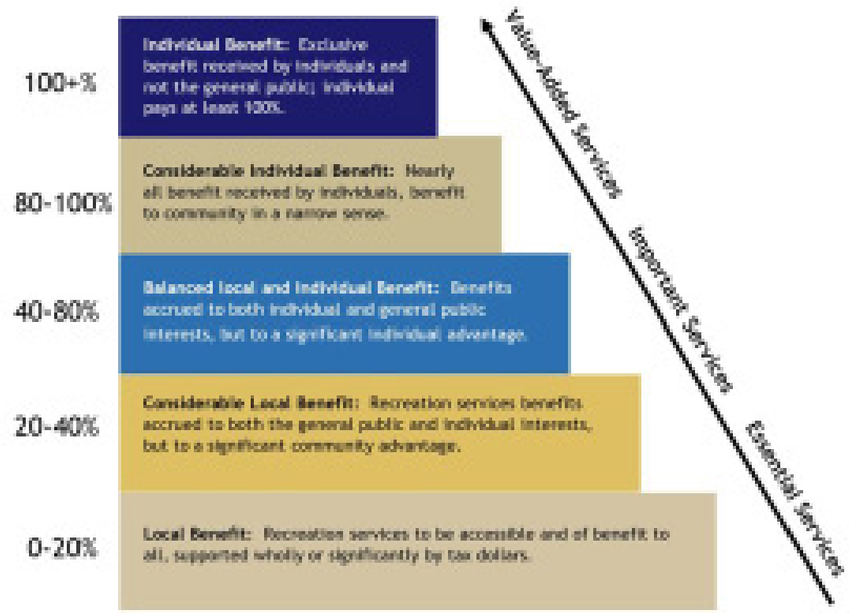
- Number of participants
- Number of tasks performed
- Number of consumable units
- Number of service calls
- Number of events
- Required time for offering program/service

Cost recovery goals are established once Cost-of-Service totals have been calculated. Program staff should be trained on the process of conducting a Cost-of-Service Analysis and the process should be undertaken on a regular basis.

CURRENT COST RECOVERY

Who benefits from a program or service is one of the key factors in determining pricing. As services become more individualized, higher levels of cost recovery are appropriate and expected. The pricing model, illustrated below, graphically depicts this concept. As the level of benefit to the individual increases, so does the level of anticipated cost recovery for that service.

Note: The Department does not currently track cost recovery.



Cost Recovery Model for Sustainable Services

PRICING

Pricing strategies are one mechanism agencies can use to influence cost recovery. Figure 9 below details pricing methods currently in place by each core program area and additional areas for strategies to implement over time.

PRICING STRATEGIES

Core Program Area	Age Segment	Family / Household Status	Residency	Weekday / Weekend	Prime / Non-Prime Time	Group Discounts	By Location	By Competition (Market Rate)	By Cost Recovery Goals	By Customer's Ability to Pay
Active Adults 55+	X									
Adapative & Inclusion	X							X	X	X
Adult Sports	X							X	X	
Arts, Concerts, & Movies	X						X	X	X	
Aquatics	X	X		X		X		X	X	X
Day Camps	X	X					X	X	X	X
Enrichment	X	X				X	X		X	
Environmental Education	X	X				X	X		X	X
Health & Wellness	X	X		X		X	X	X	X	X
Outdoor Adventure	X	X					X		X	X
Special Events	X	X	X	X						
Youth Sports	X					X	X		X	X

Staff should monitor the effectiveness of the various pricing strategies they employ and adjust as necessary. It is also important to continue monitoring yearly for competitors and similar service providers (i.e., similar providers) as found in Appendix B.

The Department is using a variety of strategies for pricing, with the most popular ones being 'by age segment' and 'by cost recovery goals'.

PROGRAM STRATEGY RECOMMENDATIONS

The Department staff should conduct an annual evaluation of individual programs and the overall program mix. Evaluations can be done seasonally in batches at key times throughout the year, or annually as a whole.

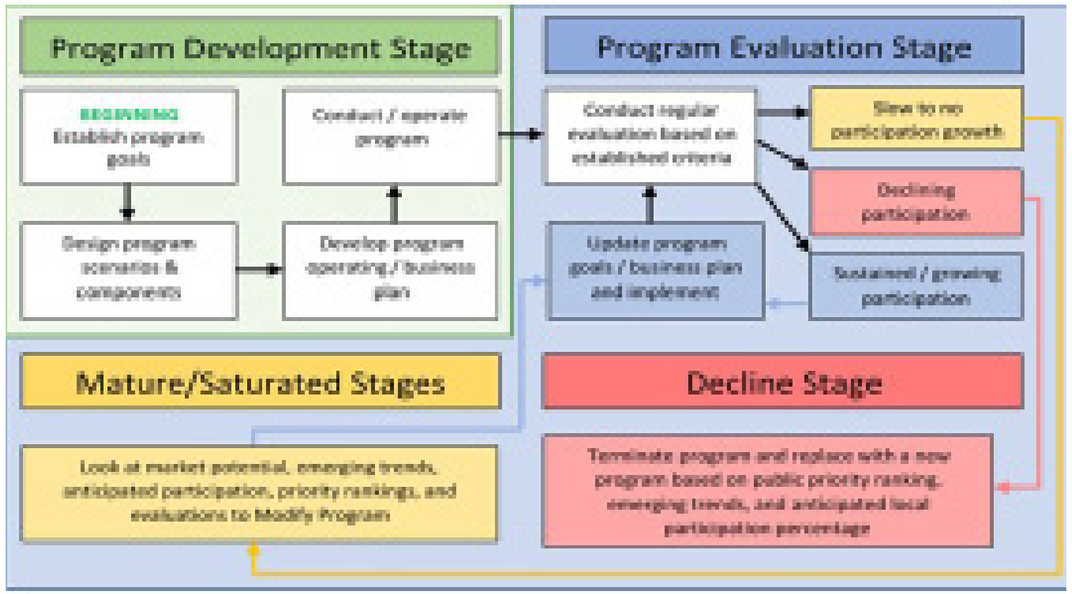
The primary goal is to evaluate all programs on at least a yearly basis. Mini Business Plans, Program Development & Decision-Making Matrix, and the Program Evaluation Cycle, are all examples of tools that can be used in the evaluation process.

MINI BUSINESS PLANS

The consulting team recommends creating Mini Business Plans (2-3 pages) for each core program area that is updated on a yearly basis. These plans should evaluate the core program areas based on meeting the outcomes desired for participants, cost recovery, percentage of the market and business controls, Cost- of-Service, pricing strategy for the next year, and marketing strategies that are to be implemented. If developed regularly and consistently, they can be effective tools for budget construction and justification processes in addition to marketing and communication tools. See Appendix D for a template.

PROGRAM EVALUATION CYCLE (WITH LIFECYCLE STAGES)

Using the Age Segment and Lifecycle Analysis and other established criteria, program staff should evaluate programs on an annual basis to determine the program mix. This can be incorporated into the Program Operating/Business Plan process. A diagram of the program evaluation cycle and program lifecycle is found in Figure 10 below. During the beginning stages, program staff should establish program goals, design program scenarios, and components, and develop the program operating/ business plan. Regular program evaluations will help determine the future of a program.



If participation levels are still growing, continue to provide the program. When participation growth is slowing (or non-existent) or competition increases, staff should look at modifying the program to maintain customer interest. When program participation is consistently declining, staff should terminate the program and replace it with a new program based on the public's priority ranking and/or in activity areas that are trending nationally/regionally/locally, while taking into consideration the anticipated local participation percentage.

6.3 CURRENT MARKETING & COMMUNICATIONS

OVERVIEW

The Department uses a variety of marketing strategies combining traditional (flyers and brochures) with modern (social media) strategies to advance its message when promoting activities. Below is a list of specific strategies currently used by the Department:

- Direct mail
- Email blasts and/or listserv
- Flyers/brochures
- In-facility signage
- Newsletters (print & online)
- Paid advertisements
- Program Guides (online and printed at some locations)
- Public service announcements (PSAs) – Local Channel 16
- QR Codes
- Radio (paid or free)
- Road sign marquees
- Smart/mobile phone enabled
- Social media (Facebook, Instagram, Twitter, YouTube)
- TV (paid or free)
- Website

Effective communication strategies require striking an appropriate balance between the content and the volume of messaging while utilizing the "right" methods of delivery. The Department has a broad distribution of delivery methods for promoting programs. It is imperative to continue updating the marketing plan annually to provide information based on community needs, demographics, and recreation trends.

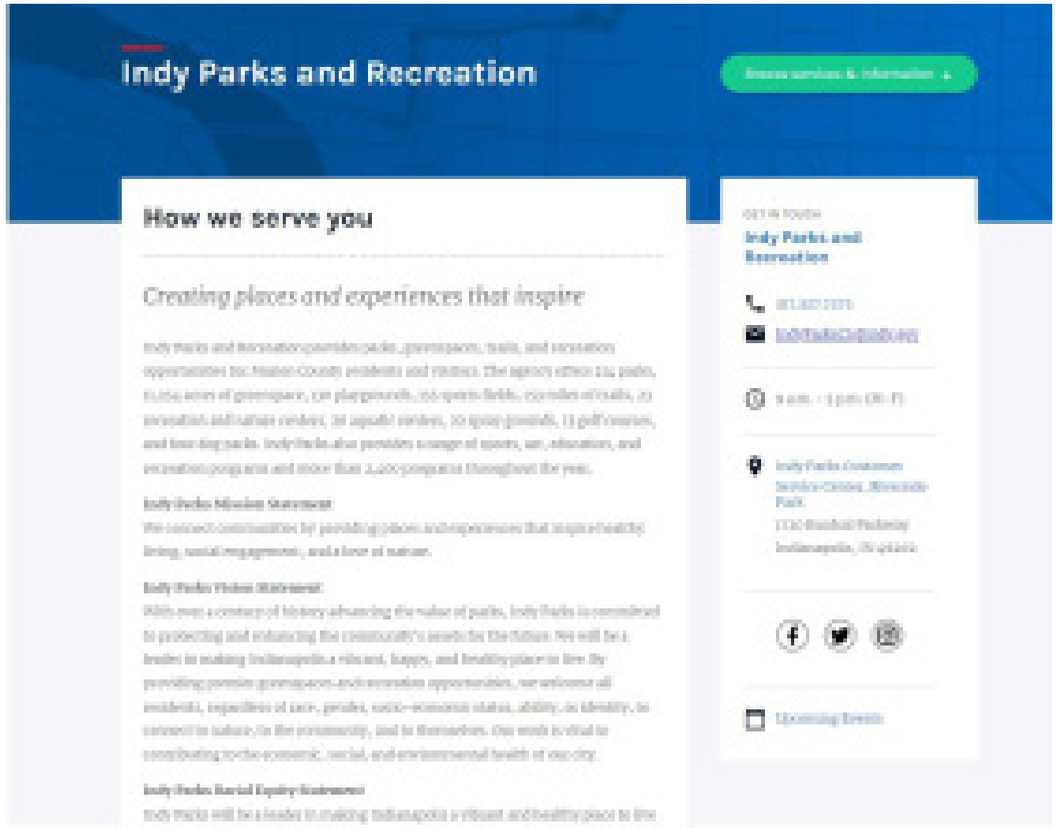
An effective marketing plan must build upon and integrate with supporting plans and directly coordinate with organization priorities. The plan should also provide specific guidance as to how the Department's identity and brand is to be consistently portrayed across the multiple methods and deliverables used for communication.

Communication should also be a two-way street between the Department and the community. The Department currently receives formal feedback from "Post-event" and "In-Facility, in park, or on-site" surveys. Other strategies that can be used include:

- Crowdsourcing tools (HappiFeet, Social Pinpoint, etc.)
- Focus groups
- Lost customer/user surveys
- Non-customer/non-user surveys
- Pre-program surveys
- Regular/recurring user surveys
- Statistically valid surveys

DEPARTMENT WEBSITE

The Department website https://www.indy.gov/agency/department-of-parks-and-recreation is assessed based on the current version and the consulting team recognizes that the site is undergoing a redesign process at the time of this assessment.



Overall, the website is plain, lacks visually appealing characteristics indicative of parks and recreation agency website and is not easy to navigate. Finding information requires visitors to scroll through various page components and make frequent use of the search bar to find information.

SOCIAL MEDIA OVERVIEW

The Department uses various social media platforms including Facebook, Instagram, Twitter, YouTube, and LinkedIn to connect with the community. Below is a quick analysis of the Department's engagement for each platform. The information below is based on information pulled in March 2023.

@IndyParksAndRec
38,000 followers
Avg. 20 posts per week

- Daily postings on average (multiple times per day on some days)
- Great mixture of informative photos and those highlighting community participation
- Minimal engagement from community – very few comments and shares

@IndyParks
16,900 followers
Avg. 20 posts per week

- Similar posts as on Facebook – mostly informative
- High engagement/views on reels
- Uses the "link in bio" feature that allows users to navigate to jobs page, website, and summer camps

@IndyParksAndRec
17,700 followers
Avg. 20 posts per week

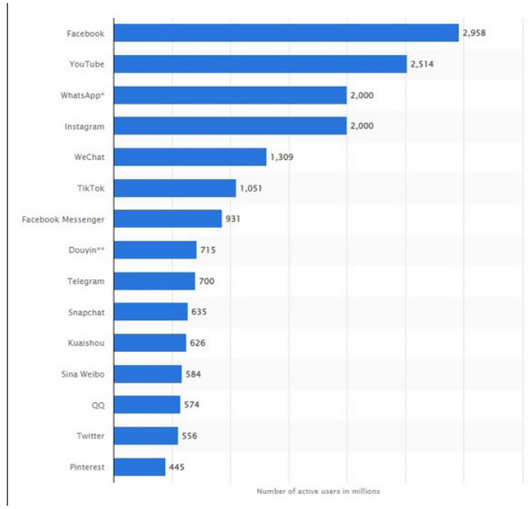
- Similar posts to Facebook and Instagram – informative in nature
- Low engagement from followers, but high visibility based on view counts available on each post

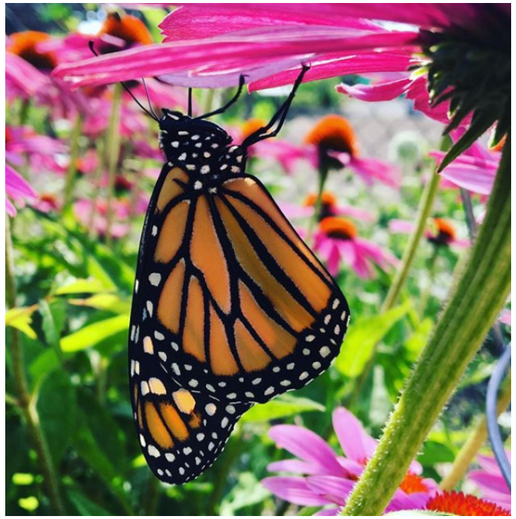
SOCIAL MEDIA AND INTERNET USERS

Over the last decade, social media has become one of the country's fastest growing trends. In 2008, only 10% percent of the U.S. population used social media. Today, we see an estimated 82% percent of the country using some form of social media. With such a large percentage of the population using online media platforms in their daily lives, it is essential for the Department to continue taking advantage of these marketing opportunities while staying on top of social trends and new applications. Social media can be a useful and affordable tool to reach current and potentially new system users.

SOCIAL MEDIA PLATFORMS

The graph below depicts the most frequently used social media platforms worldwide. As of January 2023, Facebook continued to dominate the market as the most highly trafficked social media platform, with an estimated 3 million visitors per month.





MEDIUMS USED TO ACCESS THE INTERNET

The below image, taken from Statista.com, depicts the number of internet users worldwide, the average time per day spent using the internet worldwide, and the age demographic with the largest segment of internet users.

SOCIAL MEDIA RECOMMENDATIONS

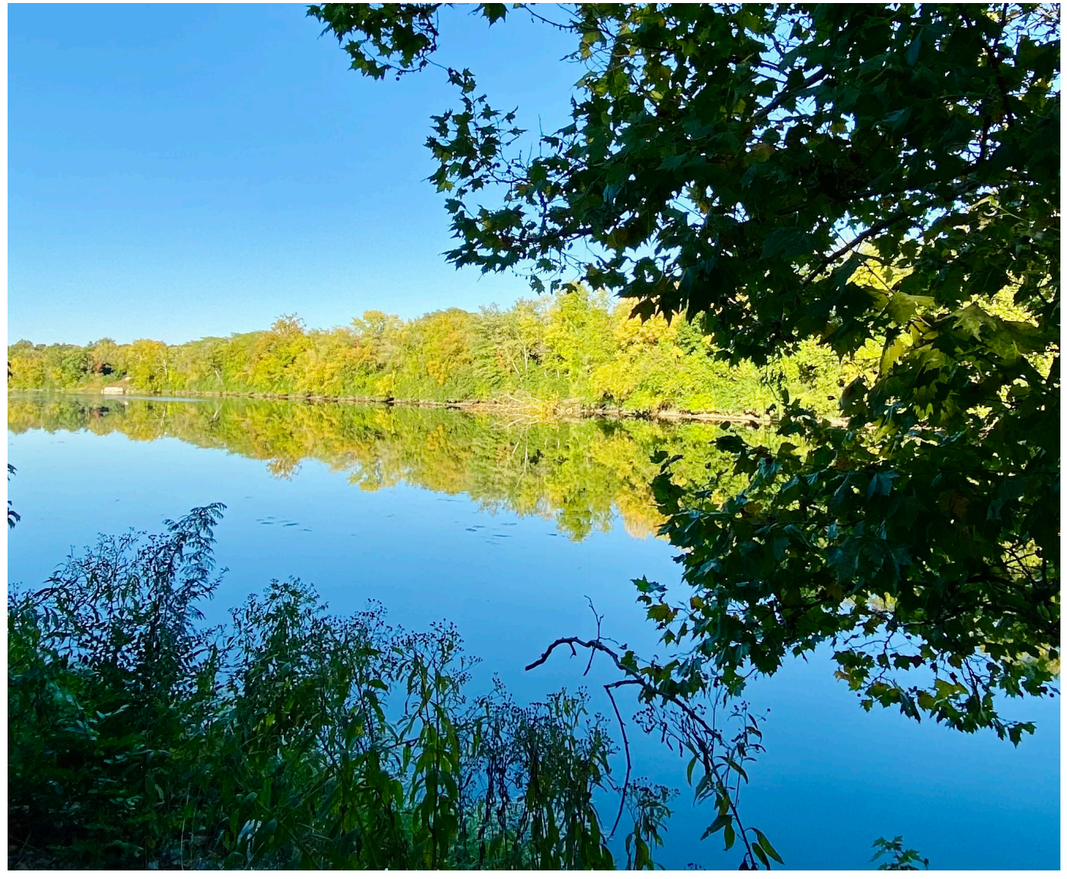
The Department has a large reach across its social media platforms indicating a strong foundation for disseminating information to various demographics if used properly. The key to using social media is to move followers from awareness to action providing opportunities for greater user engagement. This can be done by:

- Allowing controlled 'user generated content' by encouraging users to send in their pictures from special events or programs.
- Leveraging the website to obtain customer feedback for programs, parks & facilities, and customer service.
- Conducting an annual website strategy workshop with the staff to identify ways and means that the website can support the Department's Social Media Trends.
- Determine Social Media engagement trends through the inaugural Next Practice Partners' social media rankings report – www.benextpractice.com/npp-2022-social-media-engagement-rankings.html.
- Identifying popular social media platforms for different age segments and posting in alignment with the trends on that platform.
- Better engaging on LinkedIn to promote your organizational culture and employment opportunities.
- Using a Content Calendar to set posting schedules on all platforms that is unique to the trends on that site.

MARKETING AND COMMUNICATIONS RECOMMENDATIONS

The Department has a large reach across its social media platforms indicating a strong foundation for disseminating information to various demographics if used properly. The key to using social media is to move followers from awareness to action providing opportunities for greater user engagement. This can be done by:

- Regularly review and adjust the Department's marketing plan including the components and strategies identified in this report.
- Establish priority segments to target in terms of new program/service development and communication tactics.
- Establish and regularly review performance measures for marketing; performance measures can be tracked through customer surveys as well as some web-based metrics.
- Leverage relationships with partners to enhance marketing efforts through cross-promotion that include defined measurable outcomes.



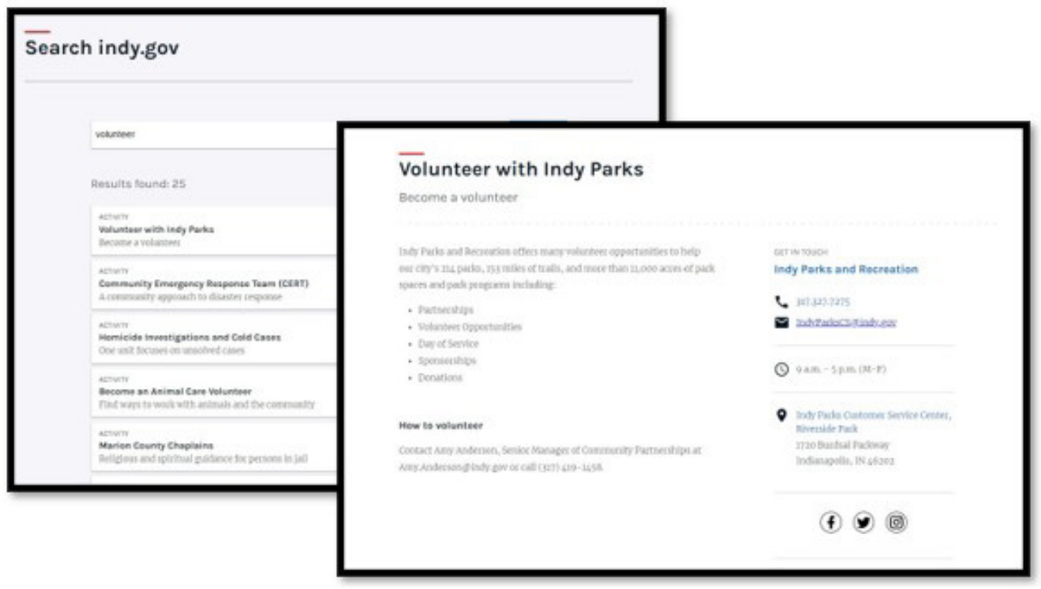
6.4 VOLUNTEER AND PARTNERSHIP MANAGEMENT

Public parks and recreation agencies' effectiveness rests on the ability to seek out and maintain productive and meaningful partnerships with both community organizations and individuals to deliver quality and seamless services to their residents. These relationships should be mutually beneficial to each party to better meet overall community needs and expand the positive impact of the agency's mission. Effective partnerships and meaningful volunteerism are key strategy areas for the Department to meet the needs of the community in the years to come.

CURRENT VOLUNTEER MANAGEMENT

When managed with respect and used strategically, volunteers can serve as the primary advocates for the Department and its offerings.

The Department's volunteer opportunities are listed about midway through the webpage via an info button. Visitors can also type "volunteer" into the search bar located in the top right-hand corner of the homepage to be redirected to a link that takes them to a volunteer information page.



Once on the page, visitors are provided a brief overview of the Department's amenities, a short list of ways volunteers can help, and contact information.

CURRENT PARTNERSHIPS

The Department leverages partnerships to enhance programs and activities. Some of the current partners are:

- Indy Arts Council
- Indy Urban Acres
- Indianapolis Greenways
- Marion County Public Health Department
- Nine13sports (summer camp)
- U.S. Department of Agriculture (free meals)

Partnerships support the facilitation of programs and sponsorships of community events. As with tracking of volunteer hours, tracking partnerships helps show organizational impact and how well staff can leverage resources.

The following recommended partnership principles will promote fairness and equity within the existing and future partnerships while helping staff to manage potential internal and external conflicts. Certain partnership principles must be adopted by the Department for existing and future partnerships to work effectively. These partnership principles are as follows:

- All partnerships require a working agreement with measurable outcomes and will be evaluated on a regular basis. This should include reports to the agency on the performance and outcomes of the partnership including an annual review to determine renewal potential.
- All partnerships should track costs associated with the partnership investment to demonstrate the shared level of equity.
- All partnerships should maintain a culture that focuses on collaborative planning on a regular basis, regular communications, and annual reporting on performance and outcomes to determine renewal potential and opportunities to strengthen the partnership.

Additional partnerships can be pursued and developed with other public, private, and non-profit entities and there are recommended standard practices that can be applied to these partnerships.

VOLUNTEER AND PARTNERSHIP RECOMMENDATIONS

The consulting team recommends that the Department do the following:

- Establish formal volunteer and partnership policies and agreements following the recommended practices in the previous section and in Appendix C.
- Track volunteer and partnership metrics (monetary support and hours) on a consistent basis.
- Establish and track measurable outcomes for each partnership.
- Create a volunteer handbook and make it along with a volunteer application available online.
- Outline the volunteer process online to minimize staff time answering frequently asked questions.

A complete list of volunteer recommendations and recommended practices can be found in Appendix C.

6.5 PROGRAM ANALYSIS CONCLUSION

The consultant team has highlighted a few important recommendations from this report. These recommendations may change with any shifts in demographics, Department structure, and community and Department priorities. Below are a few areas that stood out in this analysis.

- **Age Segment Analysis:** The Department has an even distribution of age segments serving as the primary audience for core program areas.

- **Program Lifecycle:** Programs in the Beginning stages are in line with the recommended distribution of programs at 60%. There are 35% of programs in the Growth stage which will eventually roll over into the Mature stage, which will help to stabilize the overall program mix and put these programs in the recommended 40% range. Programs in the Saturation and Decline stages are within the recommended range individually, but above the 0%-10% range collectively.

- **Cost Recovery:** The Department is not currently tracking cost recovery. Recommendations in this report can assist the Department with setting and meeting financial goals.

- Marketing & Communications: The Department is using a mix of communications and marketing strategies including the use of social media. The Department has an opportunity to solicit more community feedback through Statistically Valid surveys, focus groups, and more regular surveys.

- Volunteers: The Department has an opportunity to enhance its volunteer program by increasing visibility about opportunities on the webpage, creating a volunteer handbook, and streamlining the process in a way that allows potential volunteers to gather important information, apply to volunteer, and view the handbook by putting this information online while decreasing the amount of time staff dedicates to answering frequently asked questions.

- Partnerships: The Department works with several partners to enhance programs. It would be beneficial to develop a formal partnership program that includes measurable, mutually beneficial, outcomes for each partner, annual evaluation, and a database to track them.