

# Southern Lake Michigan Coastal ecological landscape



Typical beech, sugar maple, basswood forest

## Attributes and Characteristics

This ecological landscape consists of a lake plain along Lake Michigan that formerly harbored a mix of low woodlands, savanna and prairies. A series of low ridges, formed by advances in the Lake Michigan lobe of the last glacier, cause the few mid-sized rivers in the area to follow a course generally parallel to Lake Michigan. Today this area provides the setting for the Milwaukee—Chicago metropolitan corridor and is heavily urbanized.

Some blocks of open space and natural settings occur, but are mostly fragmented, small, and often degraded by numerous invasive exotic species. The larger blocks of open space are primarily restricted to wet areas, two examples being the Germantown Swamp and the wetlands along the Des Plaines River. The Lake Michigan shoreline, although heavily developed, remains an important bird migration route and wintering area.

Small remnants of the extensive maple-beech forest that formerly covered portions of this ecological landscape persist in scattered locations. The vast prairies and oak savannas that historically were abundant here are now confined to small, typically wet, areas.

## Conservation Needs and Opportunities

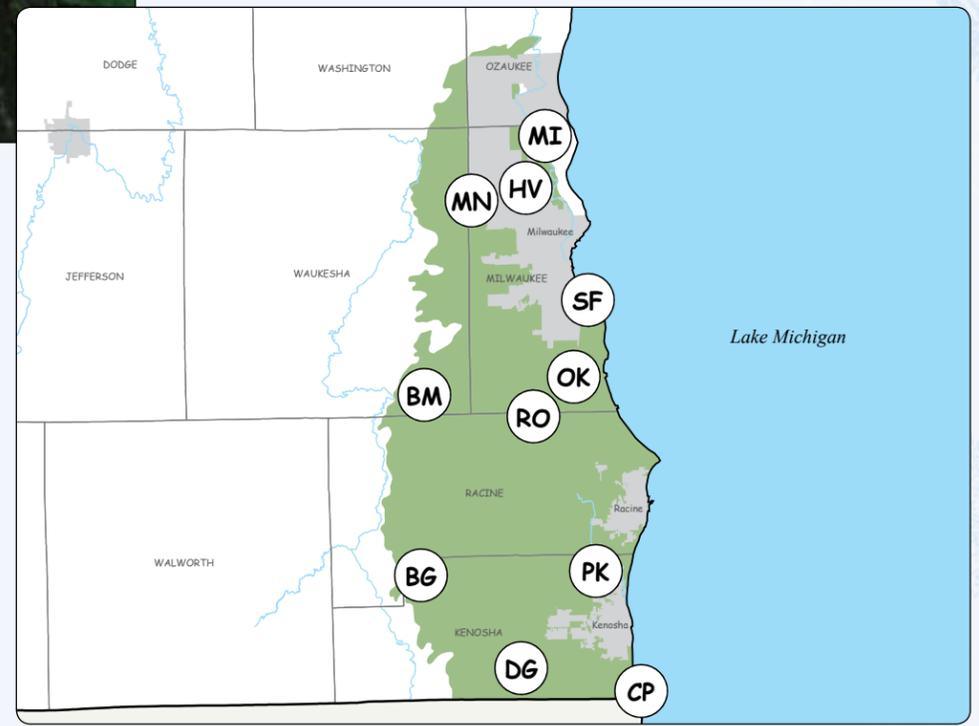
Conservation opportunities are limited given the density of urban development over much of the area. Efforts to protect some Lake Michigan shoreline are underway, most notably at Chiwaukee Prairie and Carol Beach. The large ridge and swale complex at Chiwaukee harbors many rare species and, with over 400 plant species found here,



Dutchman's-breeches (*Dicentra cucullaria*)

## Legacy Places

- BM Big Muskego Lake
  - BG Bong Grassland
  - DG Des Plaines River Floodplain and Lake George Wetland
  - HV Havenwoods State Forest Preserve
  - MN Menomonee and Little Menomonee Rivers
  - MI Milwaukee River
  - OK Oak Creek
  - PK Pike (Kenosha) River
  - RO Root River
- Along the Lake Michigan shoreline*
- CP Chiwaukee Prairie
  - SF Seminary Woods-St. Francis Lakeshore



JIM McEVoy

Figure 116: Legacy Places and public conservation lands of the Southern Lake Michigan Coastal

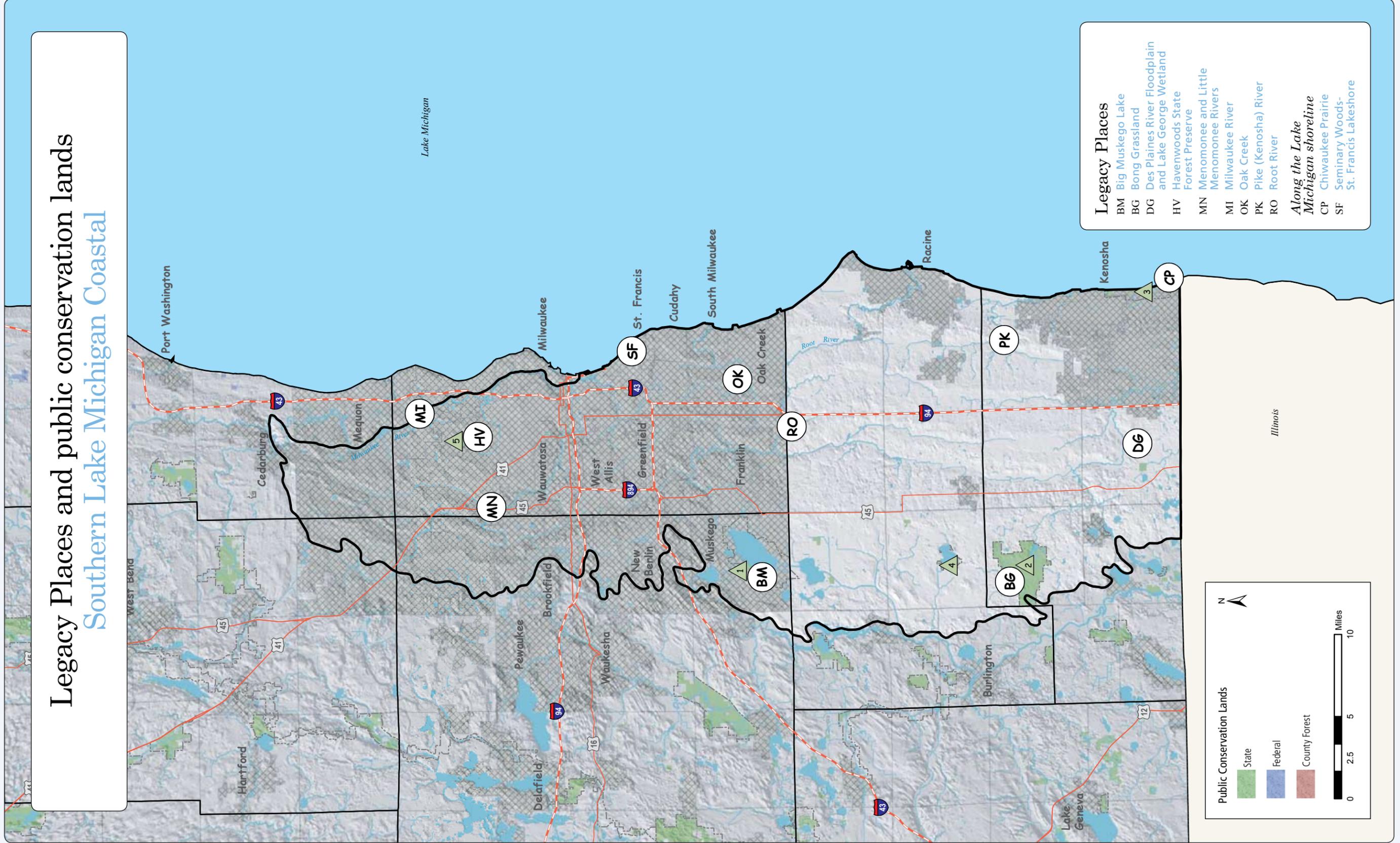
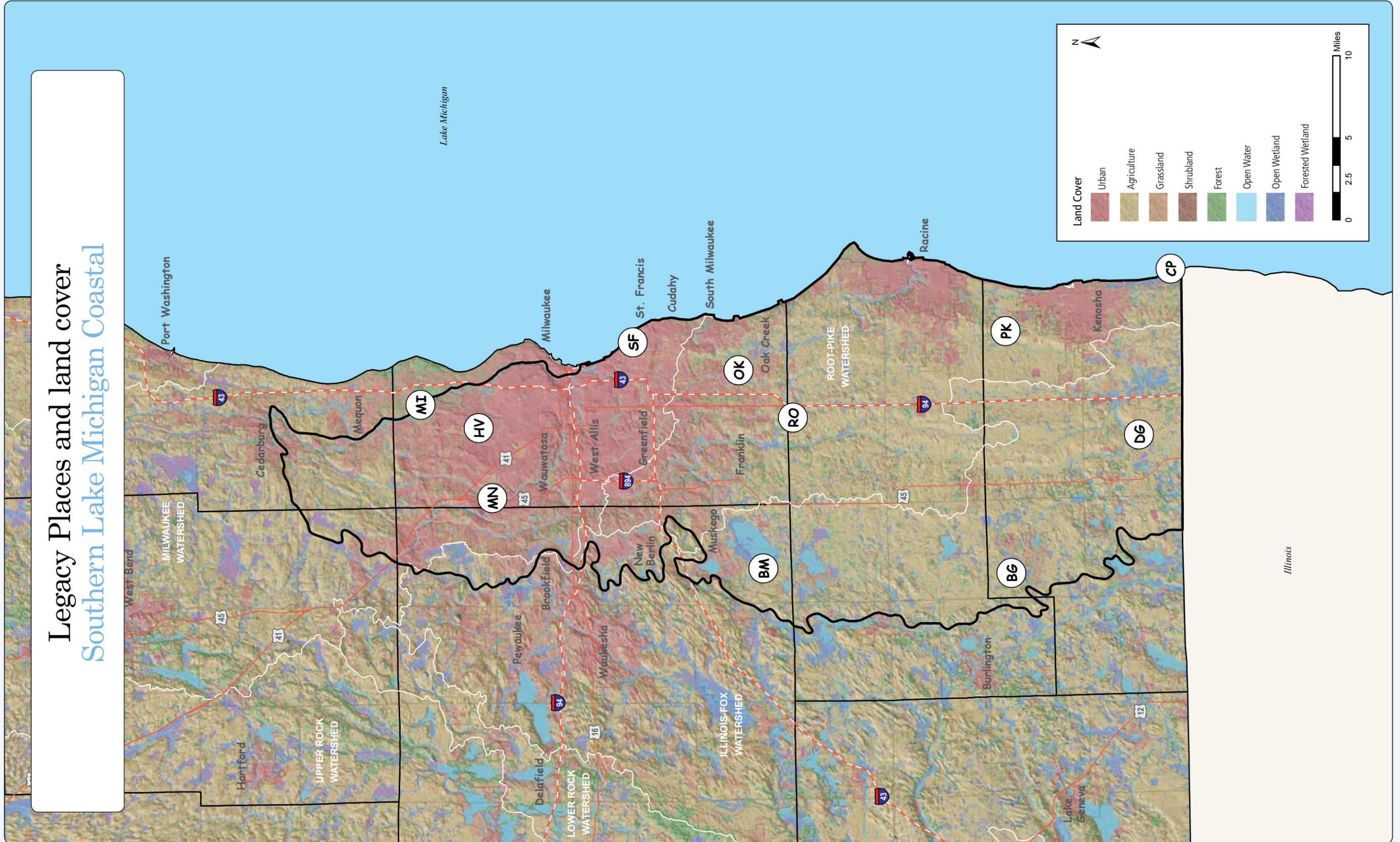


Figure 117: Legacy Places and land cover of the Southern Lake Michigan Coastal



## Southern Lake Michigan Coastal ecological landscape

### Key characteristics

- » Highly urbanized and fragmented landscape
- » Riparian parklands
- » Lake Michigan shoreline
- » Regionally significant coastal prairie

### Size

- » 835 square miles
- » 535,400 acres (1.5% of Wisconsin)

### Population

- » 1,158,000 (21.7% of Wisconsin's population)

### Notable species

- » Peregrine falcon
- » Coho salmon
- » Pirate perch
- » Butler's garter snake
- » Prairie white-fringed orchid
- » Blue ash
- » Forked aster

### Natural communities

(See Appendix B for descriptions)

- » Southern hardwood swamp
- » Southern tamarack swamp
- » Wet-mesic prairie

## Public Conservation Lands

Map#	Property Name	Size (acres) <sup>1</sup>
<b>State</b>		
1	Big Muskego Lake State Wildlife Area	270
2	Bong (Richard) State Recreation Area <sup>2</sup>	4,370
3	Chiwaukee Prairie-Carol Beach State Natural Area	380
4	Eagle Lake State Fishery Area	100
5	Havenwoods State Forest Preserve	215
	Miscellaneous Lands <sup>3</sup>	530
<b>Federal</b>		
	None	
<b>County Forest<sup>4</sup></b>		
	Milwaukee County Park System	14,000
<b>TOTAL</b>		<b>19,865<sup>1</sup></b>

<sup>1</sup> Actual acres owned in this Ecological Landscape.

<sup>2</sup> This property also falls within adjacent Ecological Landscape(s).

<sup>3</sup> Includes public access sites, fish hatcheries, fire towers, streambank and non-point easements, lands acquired under statewide wildlife, fishery, forestry, and natural area programs, small properties under 100 acres, and properties with fewer than 100 acres within this Ecological Landscape.

<sup>4</sup> Locations and sizes of county owned parcels enrolled in the Forest Crop Law are presented here. Information on locations and sizes of other county and local parks in this Ecological Landscape is not readily available and is not included here, except for some very large properties.

is the most diverse prairie in Wisconsin. Even amidst a heavily developed corridor, it is a biological gem by any standard. Other small pockets of shoreline are also worthy of consideration for protection, including dunes, wet prairies, fens, and oak savannas.

The other major conservation opportunity is the set of rivers flowing across this landscape. The Milwaukee, Menomonee, Root, Pike, and Des Plaines rivers could serve as ecological corridors, albeit relatively narrow, to connect several scattered open areas. Some good quality habitats occur along stretches of these rivers and their tributaries, and although urban runoff will continue to be a challenge, reasonable opportunities exist to restore these corridors. Establishing natural, open space corridors along streams would also improve water quality and aid in flood control. The extensive restored grasslands that exist at the Richard Bong State Recreation Area support significant populations of grassland birds, including some species that are quite rare. Efforts to expand and buffer this area would benefit these species.

## Recreation Uses and Opportunities

Lake Michigan is a major recreational resource for this region. It provides opportunities for fishing, swimming, wind-surfing, sailing and all types

of boating. Most of the larger parks in the area are located along Lake Michigan. On the western edge of this landscape is the Richard Bong State Recreation Area, which offers the widest variety of recreation activities of any state property (including swimming, fishing, picnicking, camping, horseback riding, hiking, cross-country skiing, snowmobiling, motorcycling and hunting). Being a former military airbase, it is also an excellent example of how high quality recreation areas can be more a function of location, size, and soils that can accommodate a variety of activities, than "wild" settings.

Several rivers that empty into the lake, such as the Milwaukee, Root and Pike, also provide surprisingly good fishing that includes spring and fall runs of salmon and steelhead from Lake Michigan. Some urban recreational trails for walking, bicycling, and roller blading exist, such as the Root River and Oak Creek Parkways and the Hank Aaron State Trail. As would be expected in an urbanized area, there is very little land available for open space recreation, such as camping and hunting, and it is unrealistic to expect that the demand for such recreation could be fully met in this ecological landscape. However, there are still many small patches of natural landscape left that could support activities such as bird watching and nature observation.

Figure 118: Land cover of the Southern Lake Michigan Coastal

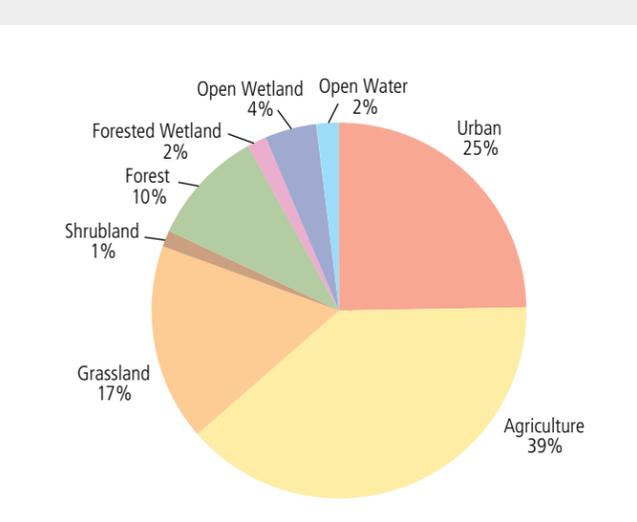


Figure 119: Public conservation and other land ownership in the Southern Lake Michigan Coastal

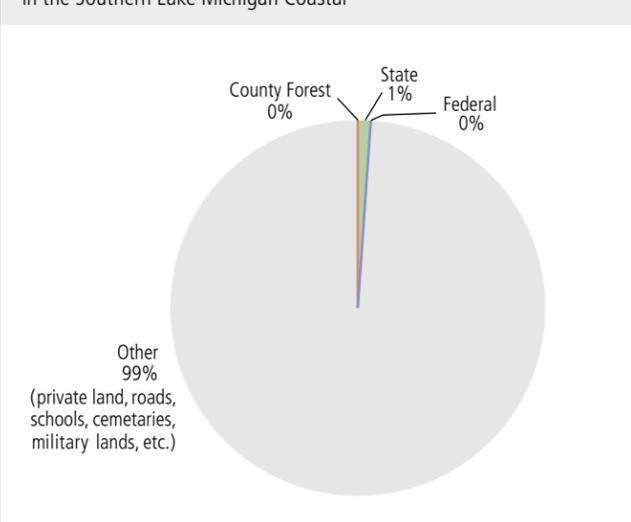
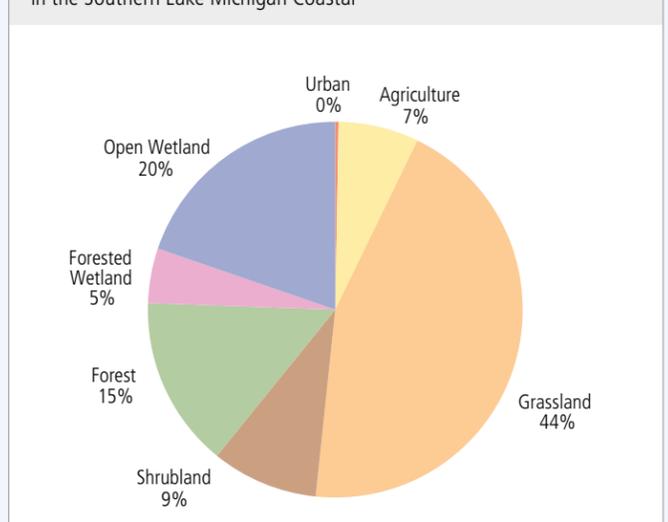


Figure 120: Land cover of public conservation lands in the Southern Lake Michigan Coastal



# Legacy Places

## BM Big Muskego Lake

Size ..... Small  
Protection Initiated ..... Substantial  
Protection Remaining ..... Moderate  
Conservation Significance ..... ★★  
Recreation Potential ..... ★★

Located in the southeastern corner of Waukesha County, Big Muskego is the largest lake in the Southern Lake Michigan Coastal ecological landscape. This shallow, marshy lake—for the most part not exceeding four feet in depth—is almost totally surrounded by extensive wetlands and attracts large numbers of waterfowl during the spring and fall migrations. The lake has suffered from large winter kills of fish in the past and aerators have been installed in an attempt to maintain fish populations. The lake is presently being re-stocked and should provide a very good warmwater fishery in the future. Located within a rapidly developing urban area on the fringe of Milwaukee, Big Muskego provides hunting, fishing and trapping opportunities to a large number of people in an area where these opportunities are very scarce.

A state wildlife area project was recently initiated adjacent to the lake. At present, the size of the protected area only amounts to about 270 acres, but the goal of the project is to protect almost 3,800 acres. In addition to the wetlands, protecting the relatively small amount of undeveloped upland (particularly open grassland) around the lake would be critical in maintaining nesting cover for waterfowl and other birds.

## BG Bong Grassland

Size ..... Medium  
Protection Initiated ..... Substantial  
Protection Remaining ..... Moderate  
Conservation Significance ..... ★★★  
Recreation Potential ..... ★★★★★

The existing Richard Bong State Recreation Area is a 4,500-acre property which provides a wide variety of recreational activities for all seasons, including camping, picnicking, swimming, biking, ATV riding, motorbike riding, cross-country skiing, snowmobiling, hunting and wildlife watching. The area lies very close to Milwaukee, Chicago, Racine and Kenosha and provides a significant amount of recreation to residents of these urban areas.

The Recreation Area is one of the largest contiguous grassland areas in southeast Wisconsin and provides critical habitat to several threatened and endangered species of birds. Much of the landscape surrounding the existing project is still in agriculture, with some residential development occurring. Expanding the area that is currently protected, possibly through purchase of development rights on active farms, combined with some fee and easement acquisition might prove successful in preserving an agricultural landscape interspersed with blocks of grassland and wetlands that are critical to wildlife.

The Illinois-Fox River lies a few miles to the west and protecting a connecting corridor between these important areas would provide multiple conservation benefits. Expanding protection efforts and maintaining farmland around the Recreation Area would also buffer the core property from incompatible land uses.



Hooked for life

## DG Des Plaines River Floodplain and Lake George Wetland

Size ..... Medium  
Protection Initiated ..... Substantial  
Protection Remaining ..... Moderate  
Conservation Significance ..... ★★  
Recreation Potential ..... ★★

The Des Plaines River has a broad floodplain that largely consists of cropland and some substantial wetland areas that remain within the Village of Pleasant Prairie. The river displays large fluctuations in flow and contributes to flooding problems in northeastern Illinois. It does not support a significant fishery. The associated Lake George wetland is not directly connected to the river floodplain but lies only about one mile away.

This area presents a very good opportunity to restore wetlands, in collaboration with several private conservation organizations, local governments, and possibly the US Army Corps of Engineers, with many ecological, flood control, and recreation benefits. Re-establishment of some of the natural communities along the river would greatly improve habitat for waterfowl and grassland birds and also would help to reduce the present drastic fluctuations in water levels. Besides providing some recreation opportunity, the Des Plaines River could also serve as an environmental education area, providing an example of how a somewhat degraded resource can be restored. The river lies almost midway between Milwaukee and Chicago and within 30 minutes or less driving time of several million people.

Southern Lake Michigan Coastal ecological landscape



Prairie White-fringed Orchid (*Platanthera leucophaea*)

**HV Havenwoods State Forest Preserve**

Size ..... Small  
 Protection Initiated ..... Substantial  
 Protection Remaining ..... Limited  
 Conservation Significance ..... ★  
 Recreation Potential ..... ★★

The Havenwoods State Forest Preserve is located within the City of Milwaukee. It is established on a site once occupied by an army missile base and a county institution. Today the property consists mostly of old fields, scattered woodlots and some ponds, with a building containing meeting rooms and classrooms. Havenwoods serves primarily as an environmental education center and an estimated 30,000 people visit the property annually, either as part of organized groups or as individuals.

**MN Menomonee and Little Menomonee Rivers**

Size ..... Large  
 Protection Initiated ..... Moderate  
 Protection Remaining ..... Substantial  
 Conservation Significance ..... ★★  
 Recreation Potential ..... ★★★★★

Originating northwest of Milwaukee in the vicinity of Germantown and Menomonee Falls, the Menomonee River and its major tributary, the Little Menomonee, flow southward along the west side of Milwaukee where they unite and eventually turn eastward to flow through the center of the city into Lake Michigan. Portions of both streams are incorporated into the Menomonee River Parkway, but additional protection efforts could help this area meet its recreation and conservation potential.

The headwater area contains a number of wetlands that are important to water quality. The largest wetland area is the Germantown Swamp, which contains a fairly undisturbed stand of lowland forest containing black ash and white cedar, which are rare in this part of the state. Further downstream, the county-owned parkway contains a number of good quality upland and lowland wooded areas. The lower river flows through the

industrial heart of Milwaukee, commonly known as the “Menomonee Valley.” Runs of salmon and steelhead occur on this portion of the river. Although there is little natural land left here, some vacated industrial properties have been converted to park land and there is additional opportunity for reclamation of degraded lands. The Hank Aaron State Trail, which is proposed to be about eight miles long, runs through the valley and provides access to the river at several points. The trail could provide an excellent connector for any open space recreational areas that might be created.

The Menomonee and Little Menomonee Rivers drain into Lake Michigan near the drinking water intakes for the cities of Cudahy, Milwaukee and North Shore municipal water systems and may affect the raw water quality of these systems. These systems supply drinking water to over 700,000 customers.

**MI Milwaukee River**

*See the Southeast Glacial Plains ecological landscape.*

**OK Oak Creek**

Size ..... Small  
 Protection Initiated ..... Moderate  
 Protection Remaining ..... Moderate  
 Conservation Significance ..... ★  
 Recreation Potential ..... ★★★★★

Located in the cities of Oak Creek and South Milwaukee, this stream corridor provides some natural values and recreational activities, including fishing, in a rapidly growing urban area. Largely encompassed by the existing Oak Creek Parkway (a county park), there are opportunities for expansion of protection.

The Oak Creek River drains into Lake Michigan near the South Milwaukee municipal water system intakes and is believed to affect the raw water quality of that system. The South Milwaukee system provides drinking water to approximately 21,300 customers.

**PK Pike (Kenosha) River**

Size ..... Medium  
 Protection Initiated ..... Moderate  
 Protection Remaining ..... Moderate  
 Conservation Significance ..... ★  
 Recreation Potential ..... ★★★★★

Flowing through Racine and Kenosha Counties, the Pike River winds amid good quality wetlands, ponds and woodlands. Of particular note is the Petrifying Springs Woods, which is partially protected by county and university ownership. The woods contain a diverse assortment of spring wild flowers. There are also fishing opportunities on this river, including runs of salmon and steelhead.

The Pike River drains into Lake Michigan near the Kenosha municipal water system intakes and may affect the raw water quality of that system. The Kenosha system provides drinking water to approximately 81,800 customers.

**RO Root River**

Size ..... Medium  
 Protection Initiated ..... Moderate  
 Protection Remaining ..... Moderate  
 Conservation Significance ..... ★★  
 Recreation Potential ..... ★★★★★

The Root River begins near West Allis, flows through suburban southern Milwaukee County and rural portions of Racine County, and eventually empties into Lake Michigan in downtown Racine. Although channeled in some portions, and flowing through heavily-urbanized areas for much of its length, the river corridor still contains some attractive and natural settings and provides a limited warmwater fishery. There are also salmon and steelhead runs from Lake Michigan about six miles upstream to the Horlick dam in Racine. Hiking and bicycle trails run along many sections of the parkway. Protection of additional lands within the river corridor would offer substantial benefits.

The Root River drains into Lake Michigan near the Racine municipal water system intakes and is believed to affect the raw water quality of that system. The Racine system provides drinking water to approximately 99,100 customers.

# Legacy Places

along the Lake Michigan Shoreline



Chiwaukee Prairie

*This segment of the Lake Michigan shore extends from about the mouth of the Milwaukee River to the Wisconsin-Illinois state line. It is heavily urbanized, but still contains some significant natural resources and is a very important recreational resource for the large number of people who live in this area. The sections of shoreline that still retain their natural characteristics feature both clay bluffs and sandy beaches with dunes in some places. Numerous county and city parks along the lakeshore provide a great amount of recreation opportunities and, in some cases, also preserve important natural features. Some of the parks have swimming beaches and also provide shore fishing opportunities. Nearly all of the streams that empty into this section of Lake Michigan have runs of steelhead and salmon.*

*Within Milwaukee County, two places that still retain important natural features are Warnimont Park and Grant Park. Warnimont Park contains clay bluffs with spring seeps that support calcareous fens and a collection of unusual plants. Grant Park contains remnants of the beech-maple forest that was once common*

*along this stretch of Lake Michigan. The forest contains some deep ravines and rich ground flora in places.*

*Cliffside Park in northern Racine County has steep clay bluffs and a wooded ravine that contains a very diverse plant community. A short distance north of Cliffside Park is another deep, wooded ravine cut into the bluffs. Known as "Power Plant Ravine" it also contains a rich and diverse flora. Kenosha County has a couple of very significant natural areas along its lakeshore. Just south of the City of Kenosha is a sand dune and low prairie complex with one-half mile of Lake Michigan frontage. It is partially protected by The Nature Conservancy. Although the shoreline itself has been ripped, there is a set of dunes that grade into low prairie, harboring several uncommon plant species. Slightly further to the south is the Carol Beach-Chiwaukee Prairie State Natural Area. This tract consists of over 1500 feet of lakeshore and a very high quality sand dune ecosystem, which supports a number of rare plant species.*

Southern Lake Michigan Coastal  
ecological landscape



Painted Lady Butterfly (*Vanessa cardui*)

SCOTT NIELSEN

**CP Chiwaukee Prairie**

Size ..... Small  
 Protection Initiated ..... Substantial  
 Protection Remaining ..... Limited  
 Conservation Significance ..... ★★★★★  
 Recreation Potential ..... ★★

Chiwaukee Prairie (and the adjacent Carol Beach area) is a lakeplain prairie, the only prairie of this type in the state. Formed on an ancient beach, the retreating lake waters left a gently undulating “swell and swale” topography that results in varying moisture conditions and an extraordinarily rich diversity of species. The prairie is home to over 400 plant species, some of which are found in few other places in the Midwest. Bird life is also abundant and 76 species have been recorded here. Chiwaukee Prairie is a State Natural Area and has also been designated a National Natural Landmark. Both the Department of Natural Resources and The Nature Conservancy own land here. Although a popular destination for bird and wildlife watchers, students, nature photographers, and those seeking a more tranquil setting amid a rapidly urbanizing area, Chiwaukee Prairie cannot support high levels of use. Its small size, wet soils, and fragile ecosystem will require managers to carefully balance recreation demands and conservation needs.

**SF Seminary Woods-  
St. Francis Lakeshore**

Size ..... Small  
 Protection Initiated ..... Limited  
 Protection Remaining ..... Substantial  
 Conservation Significance ..... ★★  
 Recreation Potential ..... ★★★★★

Within the city of St. Francis, this vacant land harbors a mix of old fields, wooded areas, ephemeral ponds, two small creeks, and almost one mile of frontage on Lake Michigan. A large stand of mature beech trees is present along with maple, basswood, red oak and paper birch. Blue-stemmed goldenrod, a state-Endangered plant, occurs here along with many other native woodland flowers. A utility and St. Francis Seminary own much of the area. Along with parks along the lake to the south, this area helps meet the enormous demand for low impact outdoor recreation in the Milwaukee area. Bird watching and walking are particularly popular here.

**Other Areas of Interest**

**Fitzsimmons Woods**  
(Milwaukee County)

This area contains about 40 acres of dry-mesic woods in the City of Franklin. Some mature trees, rich ground flora, spring seeps and ephemeral ponds are present and provide habitat for a reasonably wide diversity of wildlife. Few invasive exotics are present.

**Menomonee Falls Swamp**  
(Waukesha County)

Located just south of the Village of Menomonee Falls, this large tamarack swamp is one of only a few of this once-common community that remain in the southeast. Tree cover presently consists mostly of swamp hardwoods, shrub carr, alder thicket, sedge meadow and shallow marsh.

**Milwaukee County Grounds**  
(Milwaukee County)

This is one of the largest wooded tracts remaining in Milwaukee County. Currently owned by the county, the area has been proposed as the site for a Forestry Awareness Center. The area is suitable for trails and many types of nature-based recreation.

**Ryan Creek**  
(Milwaukee County)

Ryan Creek, in the city of Franklin, is a tributary of the Root River. Protecting this corridor would connect two parcels of county park land (Franklin Park and Root River Parkway), improve water quality in the Root River, and protect a good quality tract of dry-mesic woods.

**Tabor Woods**  
(Racine County)

This area contains about 100 acres of mesic, dry-mesic and wet-mesic woods that have suffered various degrees of disturbance. Portions are dominated by American beech.

**Whitnall Park Woods**  
(Milwaukee County)

Within the Whitnall Park in the city of Franklin and the village of Hales Corners are several tracts of mature dry-mesic and lowland hardwoods totaling over 200 acres. While Milwaukee County owns most of the woodland, important portions remain unprotected.