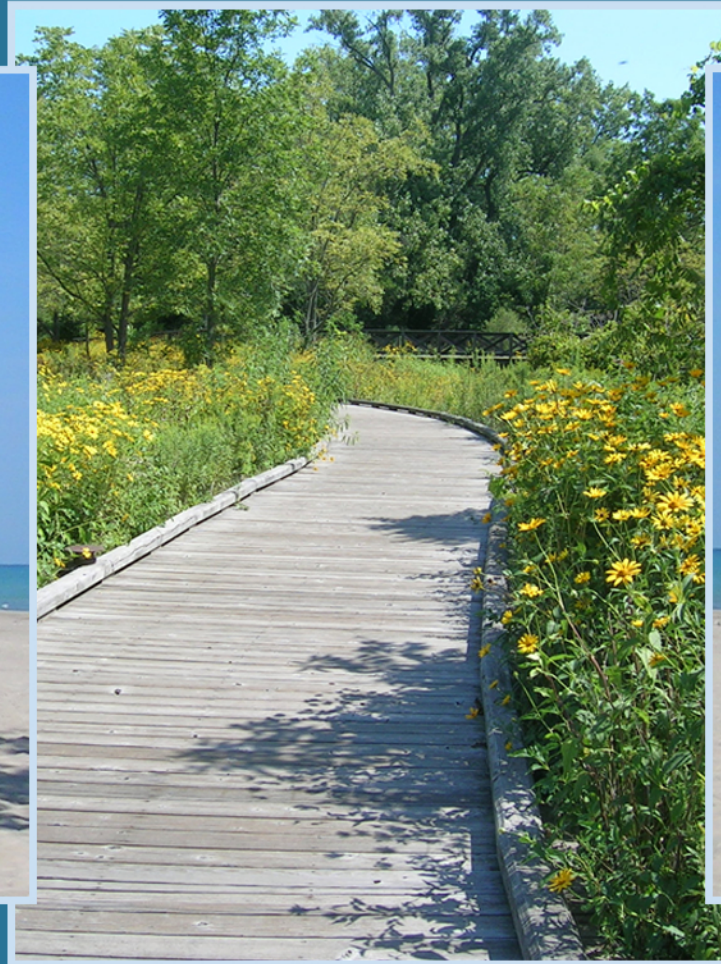


Indiana Department of Natural Resources

Inventory of Public Access Recreation Sites within the Indiana Coastal Area

Summary Report



Eppley Institute for Parks and Public Lands
501 N. Morton Street, Suite 101
Bloomington, IN 47404

Indiana Department of Natural Resources

Lake Michigan Coastal Area Public Recreation

Access Inventory



October 1, 2008

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Acknowledgements

The Eppley Institute and the Indiana Department of Natural Resources would like to thank all of the organizations, facilities and department managers who contributed to the completion of this data collection process by providing access to their recreation site inventory information. Special thanks go to contributing Park Departments, Agencies, School Corporations and Land Trust Organizations for which the directors, facility managers and other responsible persons were most cooperative and accommodating allowing our team to conduct interviews for data collection and discussion of possible future recreation sites.

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Daniel Goldfarb, Wildlife Habitat Council
Susan Abraham, The Field Museum
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BACKGROUND

Funding for this project and publication was made available through the Lake Michigan Coastal Program and a federal grant from the National Oceanic and Atmospheric Administration's Coastal Zone Management Program. Within the framework of the development of a Coastal Public Access Management Plan, a comprehensive inventory of existing public access sites and trails within the Indiana coastal area was conducted. The new information was incorporated into the Statewide Comprehensive Outdoor Recreation Plan (SCORP) database. The overall goal of this project was to compile an accurate inventory of public recreation access sites and trails in the coastal area of Lake Michigan, within the State of Indiana as a first step in the overall planning and management of recreational resources in the Indiana Coastal area.



INTRODUCTION

In order to fulfill this goal the Eppley Institute met with 45 agency and organization directors and managers, reviewed all existing data sources for Public Access sites, including trail plans, park master plans and GIS data, and conducted over 140 site visits. From this information, data was compiled into the Facilities Inventory Database and associated GIS layers.

A data protocol and QA/QC plan was developed in order to:

- Define data fields, determine data sources and data collection methods, define data management , and
- Define GIS data sources, GIS data management, GIS data collection procedures and GIS projection.



OBJECTIVES

The IDNR Coastal Area Inventory Project was a complex multi-phased project that had multiple objectives as well as stakeholders. The measure of success was based on successfully and comprehensively updating the information the Indiana Department of Natural Resources (IDNR) has in its existing databases. Specific successful outcomes and measures for the project include:

- A complete inventory of public access recreation sites and trails in the Lake Michigan coastal area ,
- An updated GIS layer of the coastal area Facilities Inventory Database,
- A complete list of owner/manager agencies,
- Updated trails information in PDF form, and
- Completion of the project by October 1, 2008.



PROJECT DELIVERABLES

The aforementioned measures of success are detailed below as project deliverables:

1. An updated point file containing the locations of public access recreation sites within the Lake Michigan coastal area of Indiana.
2. A polygon file containing parcel data of the public access recreation facilities in the Lake Michigan coastal area, where such information is available.
3. The updated IDNR Facilities Inventory database with updated Water and Owner/Manager tables.
4. A separate table including coastal area public access recreation sites.
5. An Excel spreadsheet including the facilities data for the coastal area. This spreadsheet includes an extra column indicating the information sources for each site.
6. Trails PDFs: Trail and trail segment worksheets for newly identified trails as well as trail notes to consider for existing trails and trail segments.



METHODOLOGY

The data protocol provided an outline of the elements necessary to conduct an inventory of existing public access sites within the Indiana Lake Michigan coastal area. These elements included the identification and prioritization of data sources, the steps of data collection, and standards for data management.

Data Sources

Before the Eppley Institute team was able to update the facilities and trails databases, it was necessary to get a complete picture of what data already existed in the original SCORP database, which was provided by the Indiana Department of Natural Resources (IDNR). The original data was converted from the Microsoft Access database to an Excel spreadsheet format for ease of use. This spreadsheet was sorted by owner/manager, which made it possible to identify the agencies and organizations that owned or managed five or more sites. This provided a spring board to begin the data collection process in an efficient, timely, and accurate method.



Specific Data Sources

From the beginning it was assumed that the original IDNR data was incomplete or out-of-date. Therefore, various sources were used to add to the Excel spreadsheets including:

1. IDNR existing databases,
2. Federal and state agency, park and recreation department, school corporation and land conservation organization key official interviews (park and organization directors, superintendants, facility managers, maintenance directors),
3. Township, town, city, county, state, and federal owner/manager agencies' inventories, including park and recreation master plans and other city planning documents,
4. Web searches,
5. Other existing studies, projects and plans, and related data sources, including the Marquette Plan, Ped and Peddle Plan, Greenways and Blueways Plan, etc.,
6. 2005 orthographic aerial photos,
7. Publicly available GIS data,
8. GIS data layers, and
9. Site visits.

The most valued sources contained data from governmental sources including federal, state, county, city, town, and township. Data from web searches was only used if it came with metadata or other corroborating information. Data from governmental sources took precedence with local or state sources taking precedence over federal. Orthographic information was used to obtain additional information and/or confirm or deny information that was gathered from the aforementioned sources. Lastly, the Eppley staff visited the sites that were still missing data. Site visits were used only when the Eppley Institute team was unable to reach or identify the owners/managers, the database information indicated illogical discrepancies, and all other data collection methods were exhausted.



Data Collection

Data collection was accomplished in a series of steps. First, the owners/managers of more than five sites were identified or verified. This included about 45 owner/managers. (The list of owners/managers can be found in Appendix A.). Of these owners/managers, the Eppley Institute team contacted and scheduled appointments with Directors, Superintendents, Facility Managers, Maintenance Directors or other knowledgeable persons. The contact person was informed of the project goal, and the necessity of accurate information from their agency. Once the appointment was scheduled, an email or fax was sent to confirm the appointment, reiterate the goal of the visit, and suggest sources of information that may be helpful in the review of data, such as master plans, inventories, and brochures.

These agency visits were scheduled by county, and an interview guide was used for owner/manager visits to ensure consistency among teams (The interview guide can be found in the Protocol document in Appendix B.). Some agencies owning or managing less than five sites were chosen for visits based on the number of sites and importance in terms of acreage and the number of attributes. Information from owners/managers of less than five sites that were not selected for interviews were gathered through web searches, phone calls, and site visits. The Eppley Institute team considered the Directors, Superintendents and other knowledgeable persons as experts for their local communities; therefore many additional sites were identified during these appointments. This snowball effect allowed the Eppley Institute team to contact the newly identified owner/managers—and collect data from the various sources—to obtain complete site information. The following section describes how this data was managed.

Site Visits

Site visits were determined by criteria outlined in the Protocol. In sum, site visits were recommended because of incomplete information or illogical discrepancies in data. Over 140 site visits were conducted to complete the data collection process. Most public access recreation sites within one mile of the Lake Michigan shoreline (except school sites) were visited. Site visits are documented in Appendix C as well as in the Facilities Inventory Excel spreadsheet in the “Data Source” column. The map in Appendix D shows sites within one mile of the Lake Michigan shoreline.



Data Management

Since the IDNR provided the copy of an original Facilities Inventory database, it was necessary to manage the data in a way that allowed a clear, running account of progress to be tracked. Thus, the original copies of the Facilities and Trails databases were preserved.

Two separate spreadsheets were created:

- Version 1, a copy of the database, and
- Version 2, a new master list.

Data from owner/manager visits and other data collection methods were reviewed and entered into Version 2 or the new master spreadsheet by one person. At the same time, data was progressively eliminated from Version 1. This method ensured that all sites in the original Facilities Inventory database were checked and updated. Any data discrepancies throughout the process were noted in the site record and on a separate task list document. Site visits and orthographic photo verification were conducted according to discrepancies and incomplete data.



GIS

Scope

The scope of the project as defined with the IDNR required three GIS files to be produced and/or updated.

1. An updated version of the point file containing the locations of all public access recreation sites within the Lake Michigan coastal area of Indiana.
2. A polygon file containing parcel data of the public access recreation facilities in the Lake Michigan coastal area, where such information is available.
3. An updated line file of the trails within the Lake Michigan coastal area. At the request of the IDNR, this file has not been updated to reflect current information.

Groundwork

The IDNR provided some initial files, including a point file with all the locations of public recreation facilities within the Lake Michigan coastal area and a line file containing all the trails within the Lake Michigan coastal area. This was based on the original database of public recreation facilities. The database containing all public recreation facilities in Indiana was also provided.

Existing GIS data was located to create base maps for the project. Data for the region was found through the GIS Atlas, the Indiana Geological Survey, US Census Bureau, Lake Rim GIS, and the Indiana Spatial Data Portal. These data included roads, hydrology, county boundaries, city limits, zip codes, census data, nature preserves, managed lands, national parks, and the 2005 orthographic aerial photography.

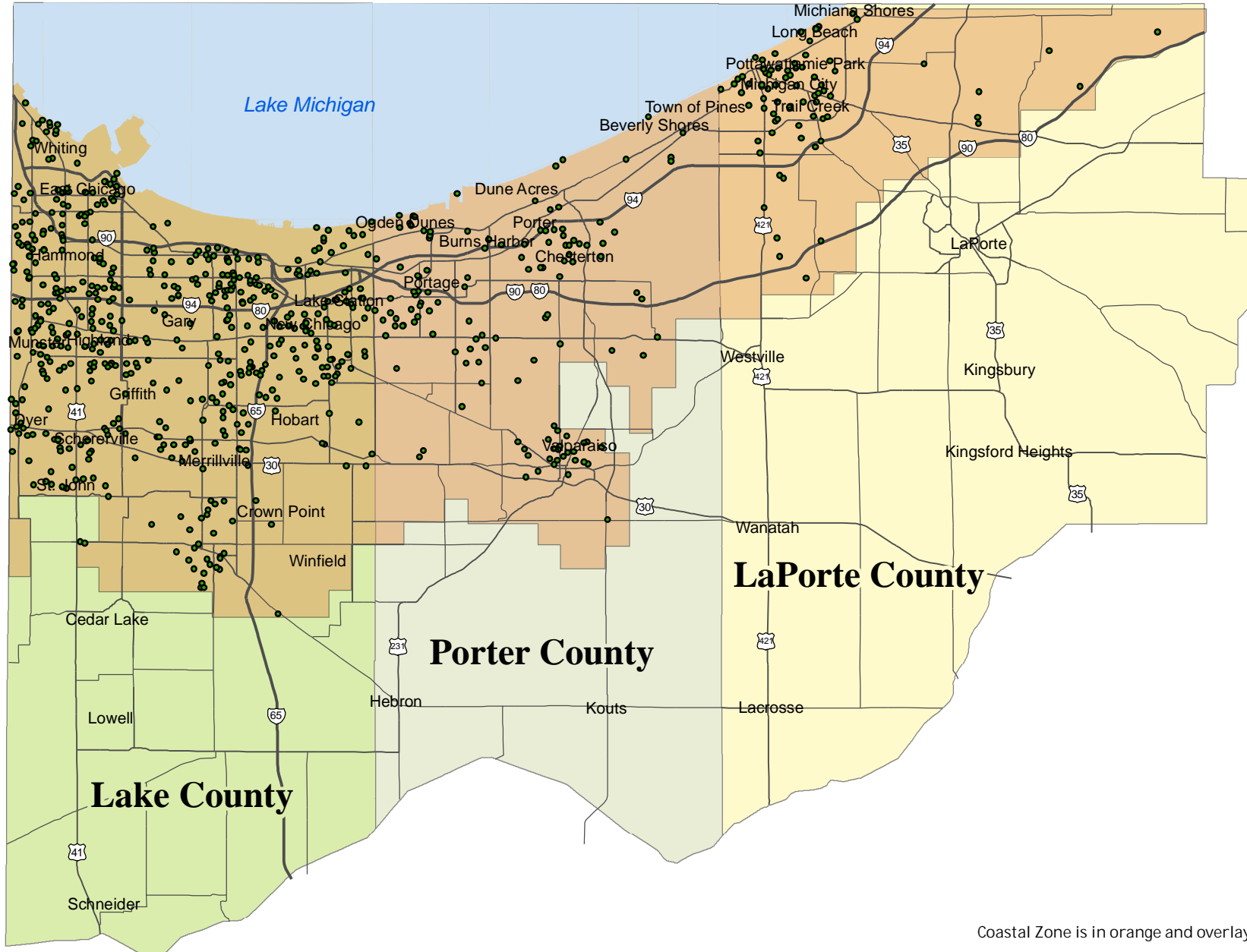


**Lake Michigan Coastal Area Public
Recreation Access Inventory**



Two base maps were created showing zip codes and cities that were located within the Lake Michigan coastal area and were used to eliminate those public recreation facilities in the main database that were obviously not in the Lake Michigan coastal area. Because the coastal boundary does not match up precisely with zip codes, area codes, or city boundaries; site locations in the SCORP database were checked with a precise map. Sites not in the coastal area were marked for removal from the master database. A large, 36" x 62" map showing the location of all the public access recreation facilities in the Lake Michigan coastal area was also created for project team reference.

Coastal Zone Facilities: Old Locations



Coastal Zone is in orange and overlays counties.

Figure 1: Map with site points from original IDNR data (May 2008)



Parcel Data

The next step was to obtain any data on recreation facilities from the cities and counties in the Lake Michigan coastal area. None of the cities or counties had GIS data available on-line. However Lake County, Crown Point, and Dyer all had park maps available in PDF format that were derived from GIS data. Crown Pont, Dyer, Highland, Valparaiso, Munster and Griffith all had zoning maps available in PDF format. Parcel data for facilities in these areas were then reconstructed using these maps and the 2005 aerial photos. The maps were also used to locate new parks and facilities.

Lake Rim GIS had a shapefile for nature preserves found in Indiana. However, this file lacked any metadata, including when the file was last updated, when it was made, and where the information to create the file originated. Contact was made with the IDNR Nature Preserves Division and the latest version of the Nature Preserves file with this information was obtained. Parcel data and locations for nature preserves were derived from the more recent file.

The Shirley Heinze Land Trust, the Nature Conservancy, Save the Dunes Council, and the Northwest Indiana Regional Planning Commission (NIRPC) were all contacted for information on their properties. The Shirley Heinze Land Trust provided GPS coordinates for all of their properties in the Lake Michigan coastal area. The Nature Conservancy provided both GPS locations and a GIS file with parcel data for their properties in the Lake Michigan coastal area. The Save the Dunes Council provided locations of all their properties. In the framework of the Greenways and Blueways Plan, NIRPC worked in conjunction with Openlands to compile GIS data from a variety of sources, including city planning maps and the 2005 orthographic aerial photos. Data provided by Openlands were used to create the parcel map.

Point File

In addition to the parcel data, the IDNR point file was updated. Sites already in the point file were compared to sites on the master list. Discrepancies between the two were investigated. Points were added, moved, and corrected. Per request, an additional field was added to the file called "Eppley_com," which contains details of any changes made by the Eppley Institute to the point file.



The coastal boundary file provided by the IDNR was converted to a format that could be displayed in Google Maps. This was then used by the Eppley team to aid the parks departments and other agencies in determining which of their properties were within the Lake Michigan coastal area.

Site visits were conducted at over 140 sites. While on the properties, GPS points were taken showing the location of both the properties and any trail heads of trails longer than 0.5 miles. The GPS points for the properties were used to update the point file. Those for the trails were used to update the forms for the trails.

GIS Results

The final files include 681 sites and 277 parcels. The 277 parcels cover over forty-one square miles and represent data collected from eleven different sources.

The number of sites in the point file is less than the number represented in the Facilities Inventory database. In some cases site visits were not possible and the locations of facilities were found using the street address given by the parks departments. This was done using geocoding, Google Maps, and zoning/planning maps. Twenty-seven properties, around 4% of the total sites, could not be located and are not included in the final point file despite being in the Facilities Inventory database. The most common reasons these sites could not be located were that the street address was incomplete or that the location was on a street that was recently constructed and therefore not yet included on any maps. For this reason, the majority of sites that could not be located are split between small, new subdivision parks and large parcels of land with no structures on them.



Coastal Zone Facilities: Final

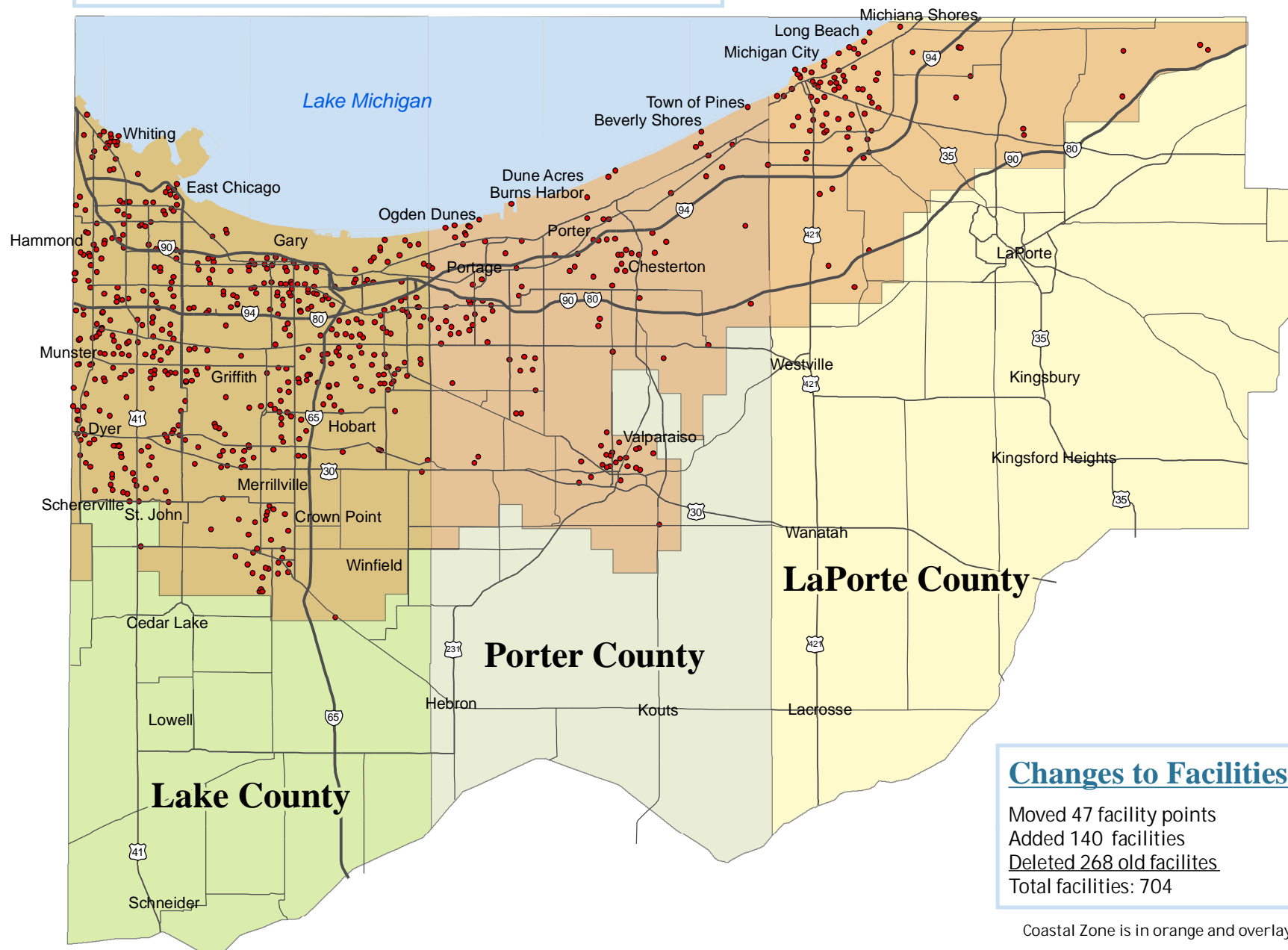


Figure 2: Map of updated point data

Coastal Zone Facilities: Parcels

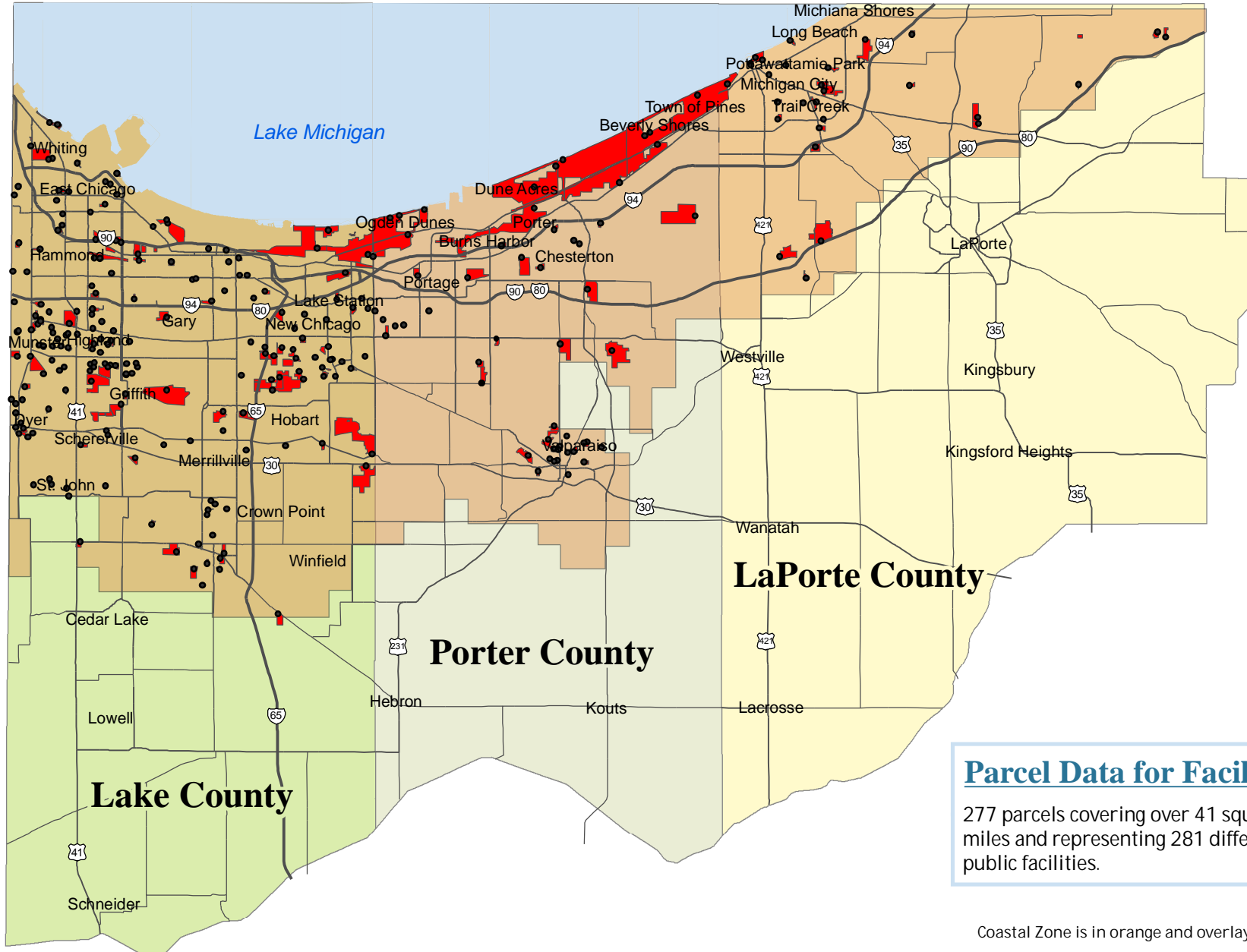
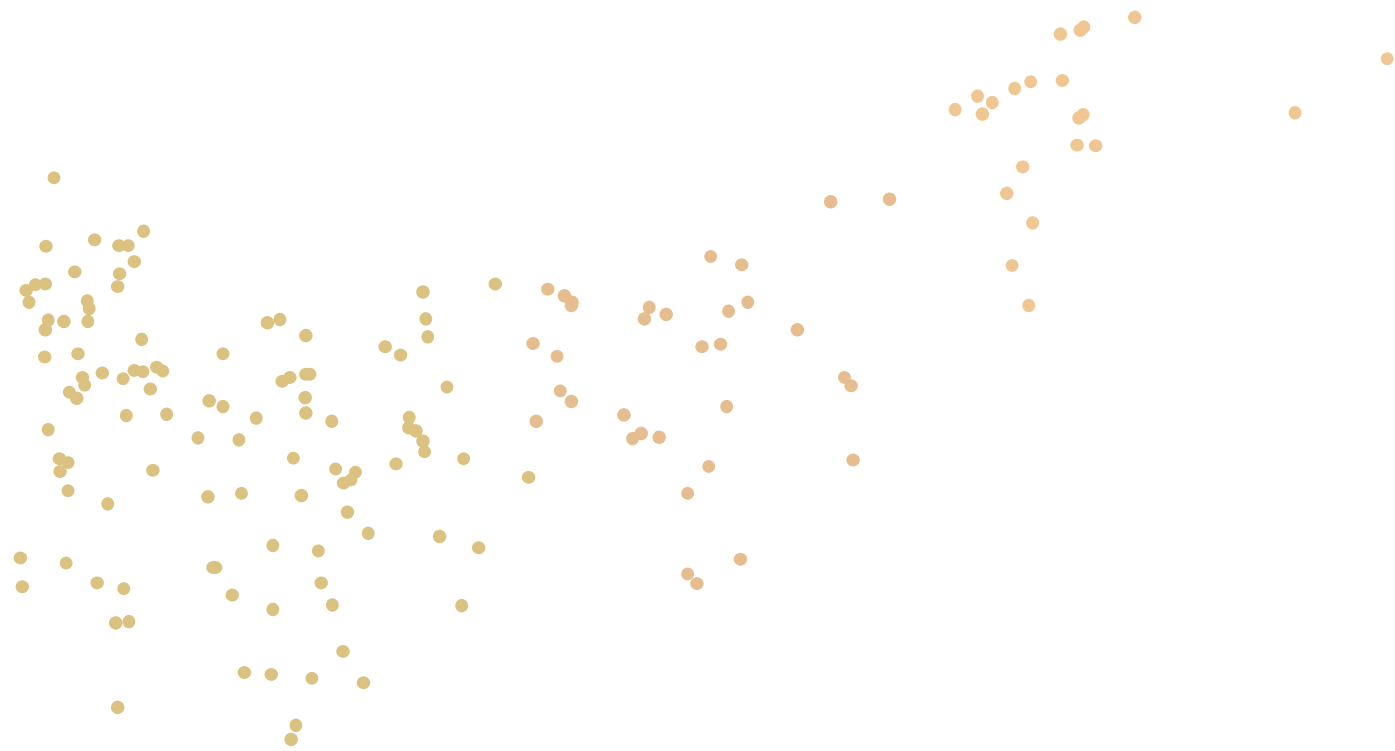


Figure 3: Map of updated parcel data

Lake Michigan Coastal Area Public
Recreation Access Inventory





Coastal Zone Facilities: Old Locations

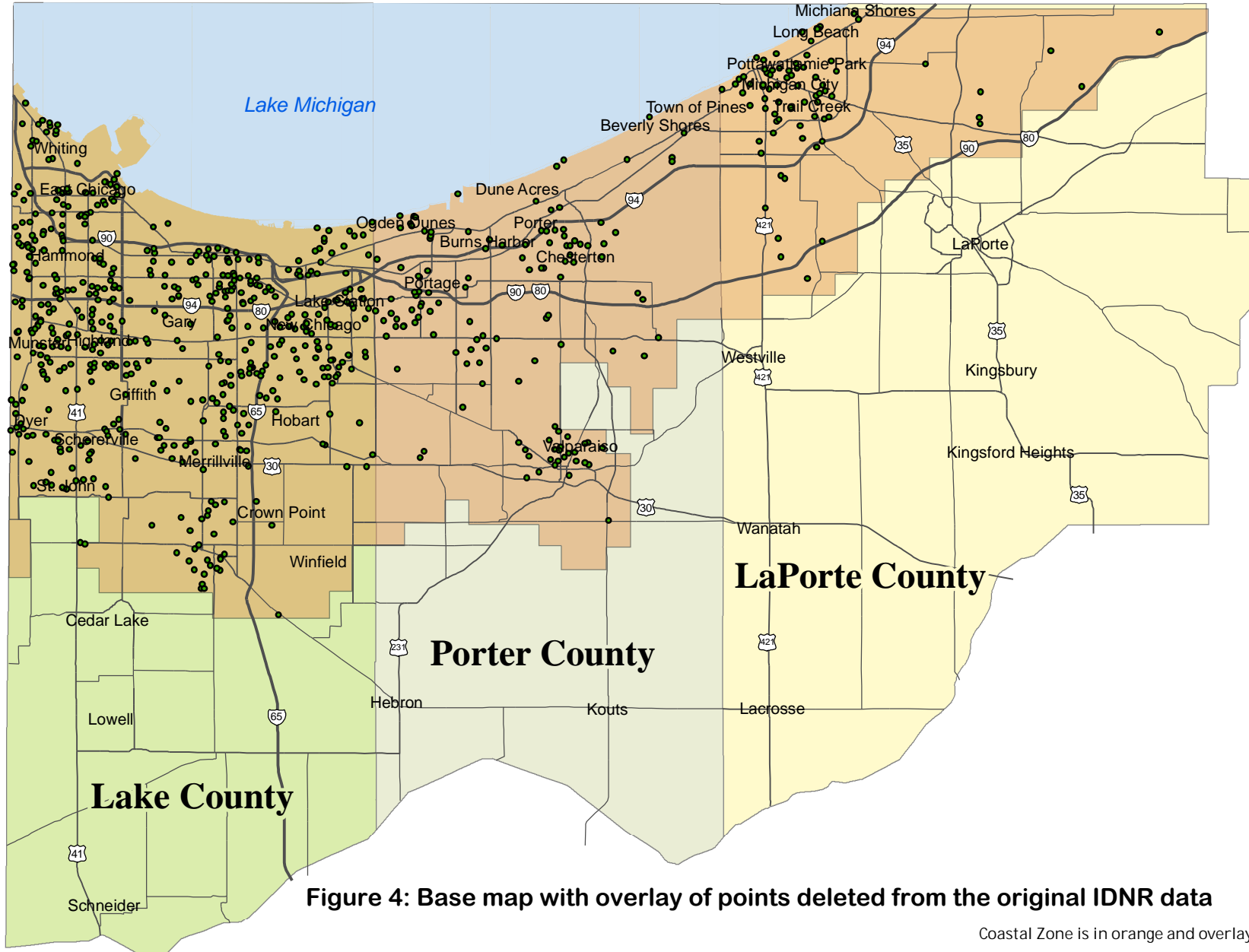


Figure 4: Base map with overlay of points deleted from the original IDNR data

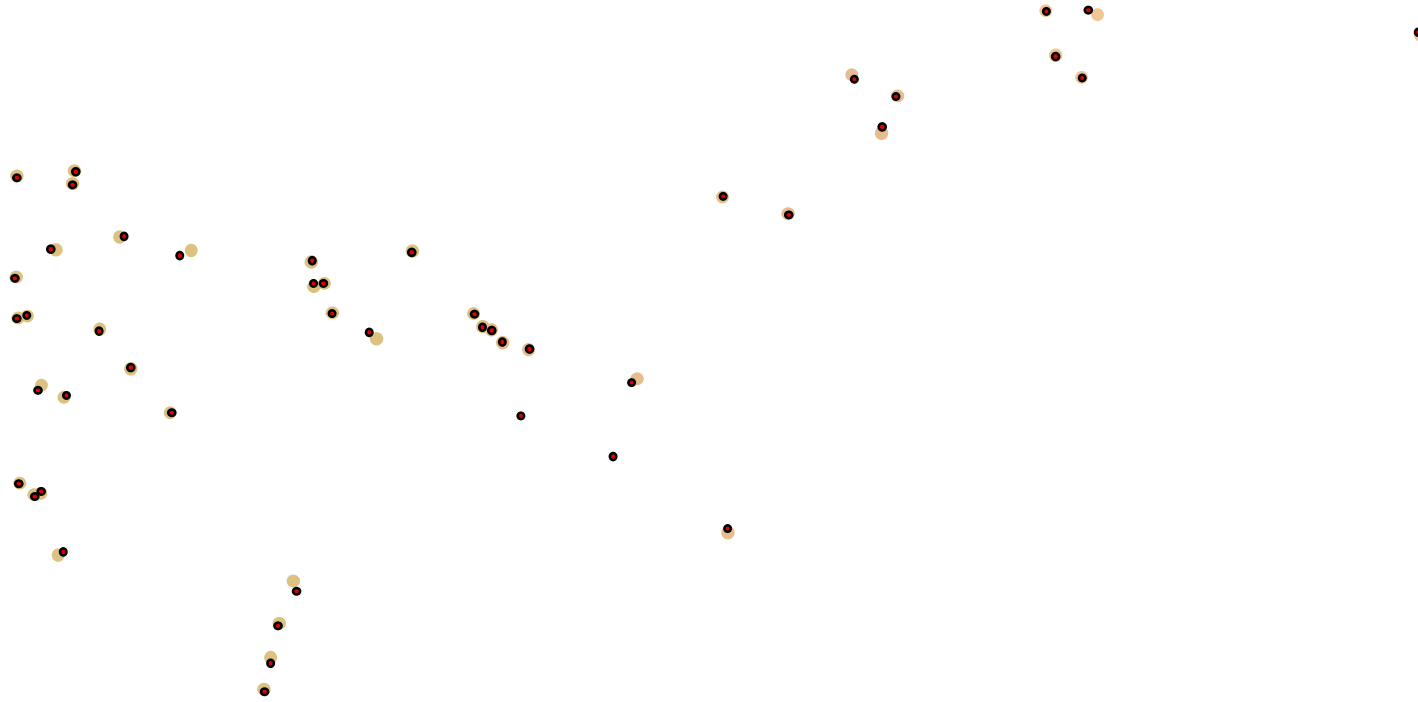
Coastal Zone is in orange and overlays counties.

Note: This map includes sites that no longer exist as well as private and commercial recreation sites.

Private and commercial sites were not deleted from the updated IDNR Facilities Database.

Lake Michigan Coastal Area Public
Recreation Access Inventory





Coastal Zone Facilities: Old Locations

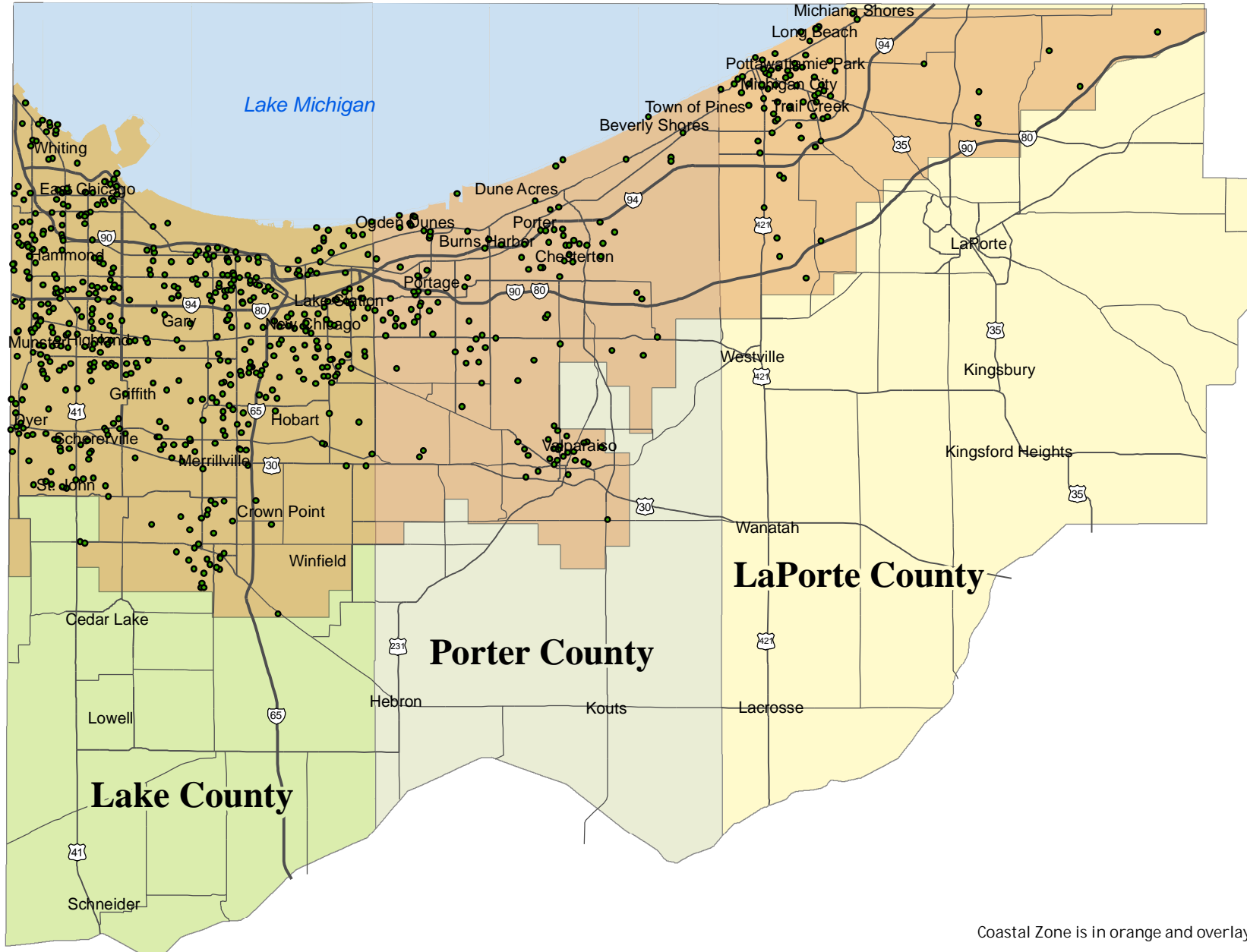
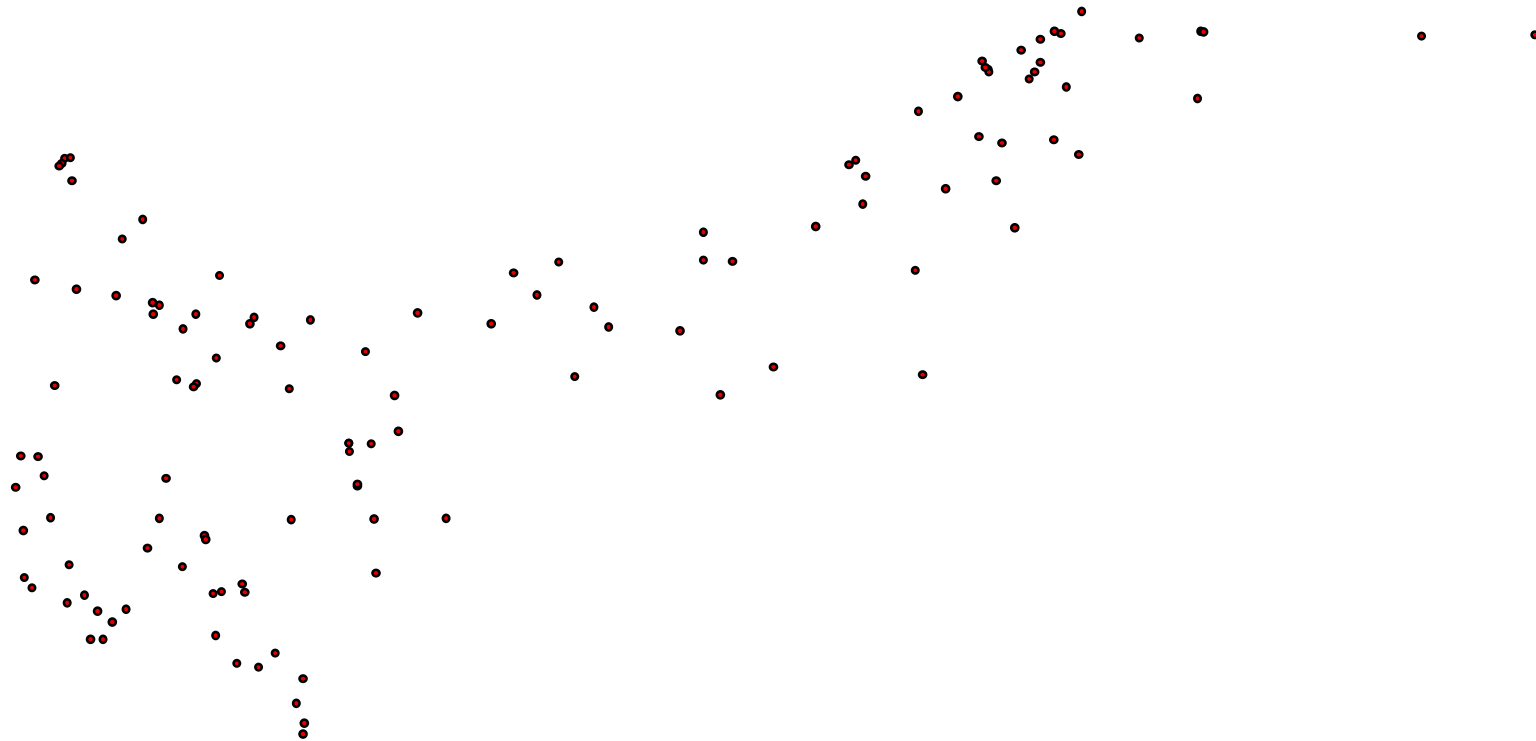


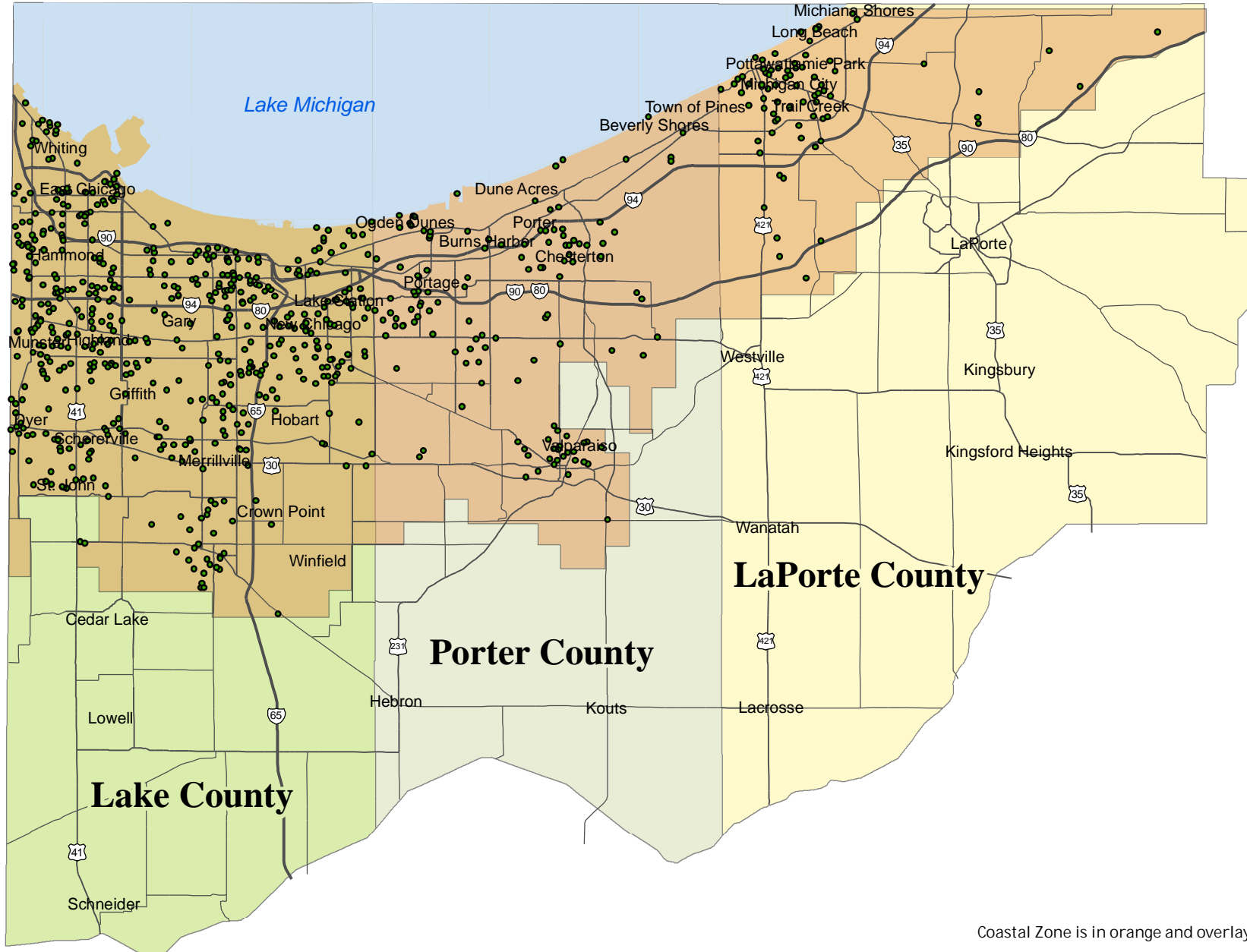
Figure 5: Base map with overlay of points moved from original IDNR data

Lake Michigan Coastal Area Public
Recreation Access Inventory





Coastal Zone Facilities: Old Locations



Coastal Zone is in orange and overlays counties.

Figure 6: Base map with overlay of points added to original IDNR data



EXCEL TO ACCESS IMPORT PROCESS

The Water table and Owner/Manager tables were updated first in a copy of the IDNR original Facilities database. A separate database of all coastal area public access recreation sites was created by importing the data from the Master Excel spreadsheet into the Access database. The IDNR Facilities database content was then imported into a copy of the coastal area public access recreation sites database. This allowed for the updating of sites that were listed in the original IDNR Facilities database.

A list of all sites removed from the IDNR original Facilities database (sites no longer operating, closed to the public, etc.) was kept to ensure that these sites were deleted from the updated version of the IDNR Facilities database.

This process allowed for the creation of the following project deliverables:

1. The updated IDNR Facilities Access database with updated Water and Owner/Manager tables
2. A separate table including coastal area public access recreation sites



QUALITY CONTROL

To complete the quality control process, several checks were used. Once all data was entered and imported into the Access database, the quality control process consisted of evaluating 5% of randomly selected sites in the Facilities and Trails inventories. Data was checked against notes and documents generated during agency visits or the best data source for the site.

Over 40 sites and trails were evaluated by this method. Site and trail data were validated through this method. Data were found to be correct compared to source documents. Remarks consisted of incomplete addresses, discrepancies between zero being entered or not for a site having zero of a particular attribute.

Secondly, data from 10% of randomly selected sites, or approximately 71 sites, were verified for accuracy using Orthographic photos.



PRELIMINARY DATA ANALYSIS

The Coastal Area Facilities table in the Access database is comprised of 712 public access recreation sites. The IDNR Facilities database has been updated to include these 712 sites (either as new sites or updated sites present in the original database).

New sites

New sites were found through agency and organization interviews, through orthographic photos, documentation sources such as brochures (eg. Porter County EcoGuide) and web searches. These methods resulted in recording 141 new “on the ground” and newly identified sites in the database.

Ownership

Ownership of the 712 sites listed in the coastal area database is as follows:

- Over 500 sites are publicly owned, mainly by federal, state, city, town and township agencies
- Approximately 170 are school sites owned by school corporations
- Approximately 30 are privately owned

Facility Type

- Approximately 60% of the sites listed in the coastal area database are parks or recreation facilities, totaling more than 400 sites and 18,700 acres
- School sites account for approximately 24% of the sites with close to 17 acres per site, or 2790 total acres
- Golf courses account for 12 sites, or less than 2%, of the facility site types with almost 100 acres per site, or 1197 acres
- Nature preserves account for 39 sites (including state dedicated nature preserves and land conservation organization sites) or over 5% of all sites and range in size from 7 to 950 acres
- The remaining 8% of sites are forests and marinas



ADA

Approximately 55% of all sites are at least partially compliant with the Americans with Disabilities Act (ADA).

Trails

32 new trails were identified totaling almost 50 miles of trail. A GPS point was taken for the majority of the new trailheads.



RESULTS ANALYSIS

The map in Figure 7 shows the updated public access recreation sites and the population densities for the area. This map is provided as a general overview. It is recommended in the next stages of planning to further break down this map according to facility type and then to analyze the level of service standards outlined by the NRPA, as well as taking into account IDNR expertise as well as projected population growth, user trends and travel patterns among others.

The maps in Figures 8 and 9 show the public access recreation sites within one mile and one half mile buffer zones. The Indiana SCORP indicates the desire of Indiana residents to have recreational opportunities close to home as well as the lack of free time for recreation. Findings from the SCORP survey 2007 indicate that all types of recreation are continuing to grow.

Strong consideration should also be given to the proximity of large metropolitan centers such as Chicago and Gary in the evaluation of facility levels of service. These populations should be evaluated according to different user groups such as day trip and weekend users of coastal area facilities, secondary residence users of coastal area facilities, etc.

Coastal Zone Facilities: Population Density

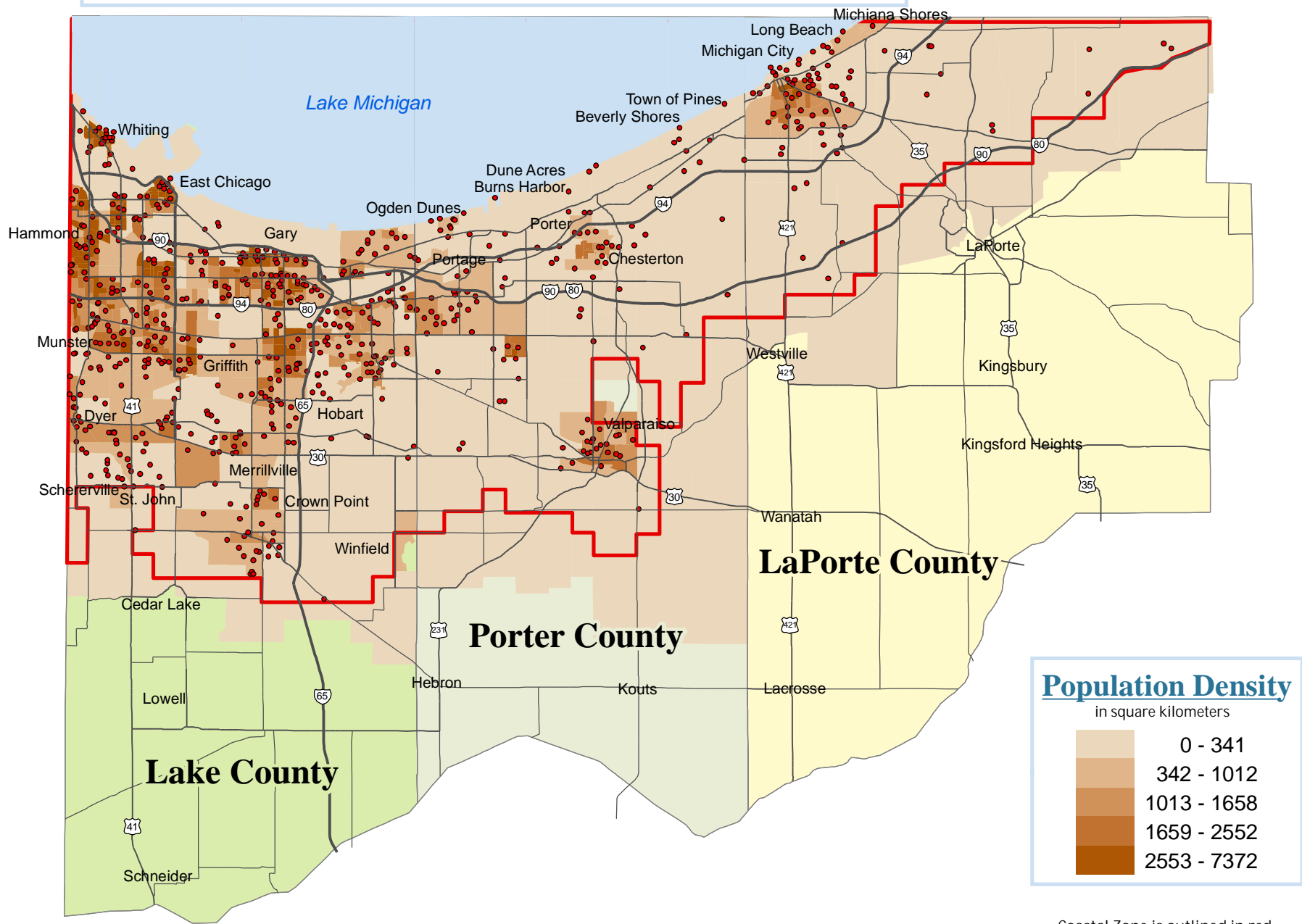


Figure 7: Map of facility points and population density in the Coastal Area

Coastal Zone Facilities: Mile Buffers

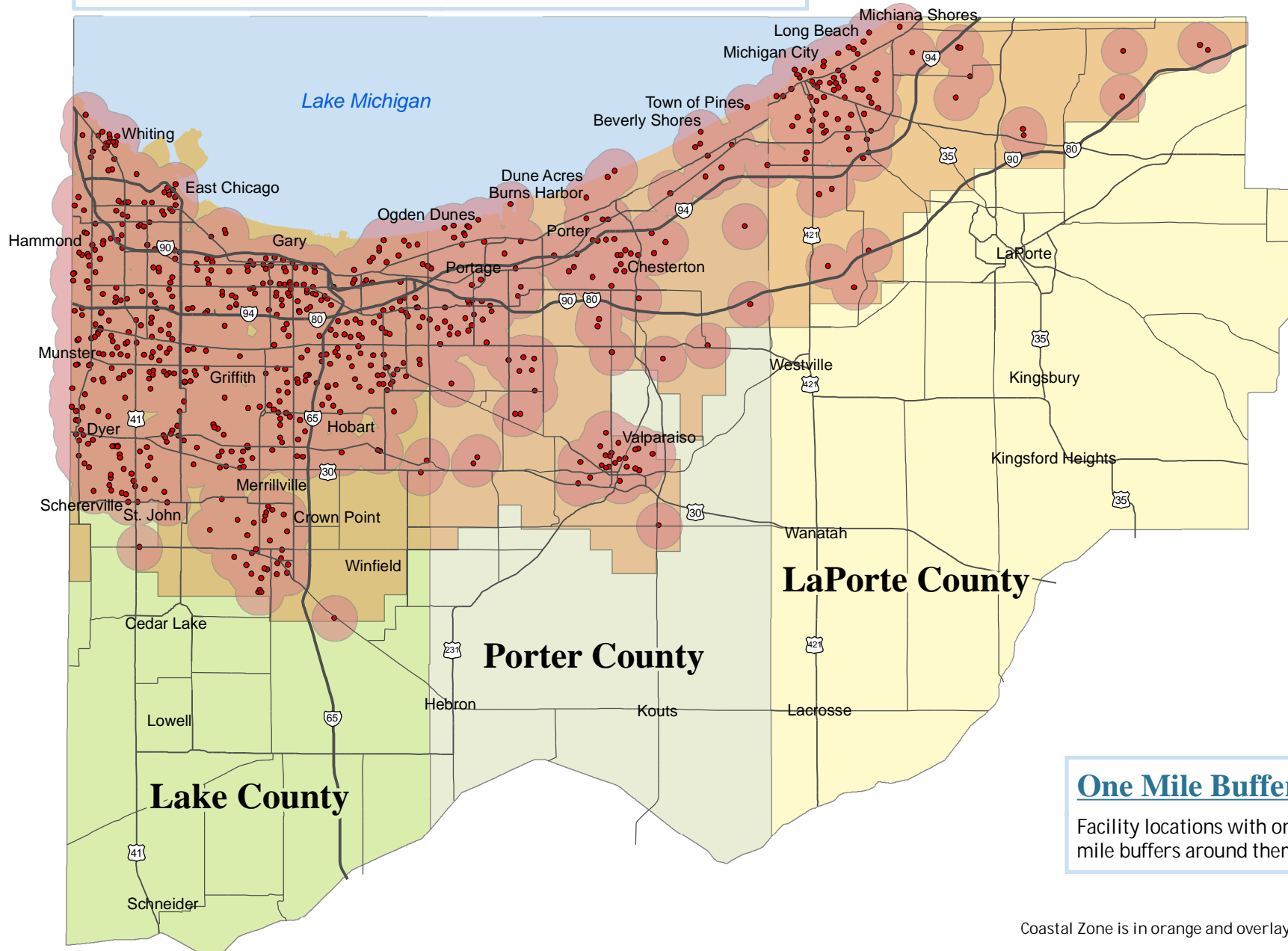


Figure 8: Map of facility points and a one mile buffer zones

Coastal Zone Facilities: Half Mile Buffers

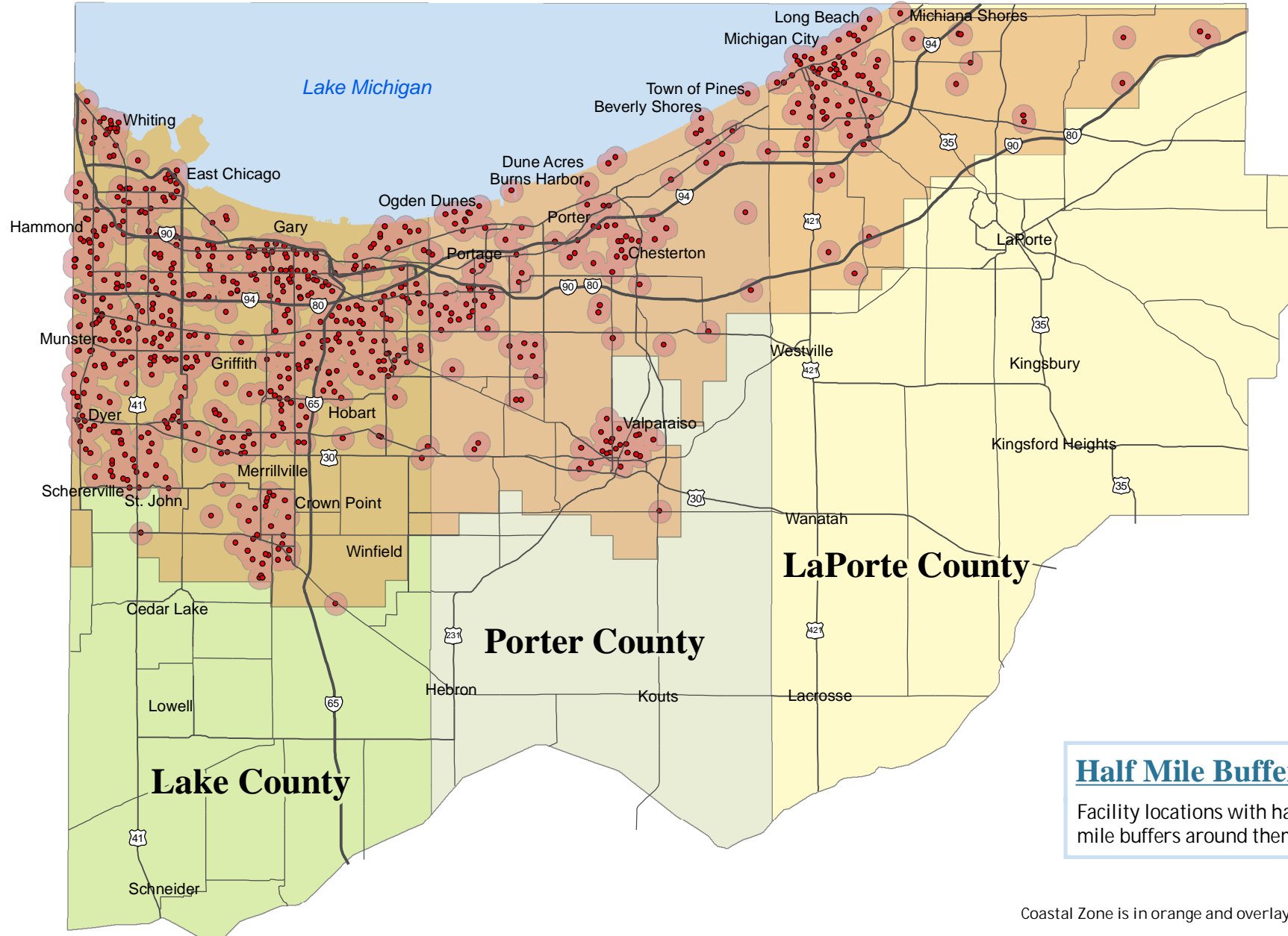


Figure 9: Map of facility points and a one half mile buffer zone



CONCLUSION

The coastal area public access recreation site inventory is a snapshot of the facilities and trails present in the Lake Michigan Coastal Area as of September 30, 2008. The data presented in the accompanying CD will provide solid support for future planning projects. The final data includes:

- 681 sites and 277 parcels present in the GIS files
- 712 sites in the Coastal Area Facilities database
- 144 new sites identified
- 32 new trails identified
- 45 agency/organization interviews
- Over 140 site visits conducted
- Over 70 sites reviewed through orthographic photos and over 40 sites evaluated through data sources in the quality control process



APPENDICES

APPENDIX A: LIST OF OWNER/MANAGER AGENCY OR ORGANIZATION VISITS

APPENDIX B: DATA COLLECTION QUALITY ASSURANCE/QUALITY CONTROL PROTOCOLS

Purpose/Background

Definitions

Facilities Inventory and Trails Inventory Databases

GIS Data

Quality Assurance/Quality Control Protocol

IDNR Data Collection Document

APPENDIX C: LIST OF SITE VISITS CONDUCTED

APPENDIX D: MAP OF SITES WITHIN ONE MILE OF THE LAKE MICHIGAN SHORELINE

APPENDIX A: LIST OF OWNER/MANAGER AGENCY OR ORGANIZATION VISITS

Park and Recreation Departments	Contact Name	Position Held	Visitation
Lake County			
Gary City Parks Department	Ezra Alexander		6/25/2008
Dyer Parks and Recreation Department	Mark Heintz	Director	6/24/2008
Crown Point Parks Department	Julie Johnson, Jennie Burgess	Parks Administrator	6/23/2008
Whiting Parks and Recreation Department	Marty Jakubowski	Director	6/24/2008
Lake County Parks and Recreation Department	Bob Nickovich, Craig	Director	6/23/2008
East Chicago Parks Department	Kenneth Monroe	Director	7/15/2008
Hammond Parks and Recreation Department	Patrick Moore, Sr.	Director	7/26/2008
Hobart Parks Department	Jay Derr	Director	6/24/2008
Munster Parks and Recreation Department	Bob O'Shaughnessy	Director	7/16/2008
St. John Parks Board	Chip Sobek	Director	6/24/2008
Lake Station Parks Department	Duey Lindley	Superintendent	6/24/2008
Merrillville Parks and Recreation Department	Terri Weems	Director	7/14/2008
School Corporations			
Lake Central School Corporation	Larry Wood		6/24/2008
Lake Station Community Schools	Mark Brant		7/22/2008
Lake Ridge Schools	Mike Monic	Maintenance Director	7/16/2008
City of Hobart Schools			6/24/2008
City of East Chicago Schools	Brian Dolan	Director	6/25/2008
Munster School District	Sue Vauter		6/25/2008
Highland Schools			6/25/2008
Merrillville Community Schools	Greg Pierson	Maintenance Director	7/15/2008

Park and Recreation Departments	Contact Name	Position Held	Visitation
Lake County			
Gary School Corporation	Mr. Lincoln		7/16/2008
Hammond City Schools	Larry Hair		7/24/2008
State Agencies	Contact Name	Position Held	Visitation
DNR Nature Preserves	Derek Nimetz		7/4/2008
Other	Contact Name	Position Held	Visitation
City of Hammond Fire Department	Drop-in	Volunteers	8/23/2008
The Nature Conservancy			
Porter and LaPorte Counties			
Park and Recreation Departments	Contact Name	Position Held	Visitation
Valparaiso Schools	Bob Steffel		7/15/2008
Chesterton Parks Department	Bruce Mathias	Superintendent	7/15/2008
Porter County Parks	Ed Melendez, Paula Ramos	Director	7/15/2008
Portage Parks and Recreation Department	Don Glen	Director of Maintance	7/15/2008
LaPorte County Parks	Tim Morgan	Superintendent	7/16/2008
Porter Parks and Recreation Board	James Miller	Director	7/25/2008
Schererville Parks and Recreation Department	John Novacich	Director	7/21/2008
Burns Harbor Parks and Recreation Department	Kim Burton	Director	7/22/2008
Michigan City Parks and Recreation Department	Darrell Garbacik	Superintendent	7/23/2008
School Corporations			
Porter Township Schools		Maintenance Supervisor	7/14/2008
Michigan City Schools	Dave Williamson	Director of Plant Planning	7/18/2008

Park and Recreation Departments	Contact Name	Position Held	Visitation
Porter and LaPorte Counties			
Duneland School Corporation	Mark McKibben	Director of Special Services	7/17/2008
Highland Schools	Scott McWilliams		7/17/2008
State Agencies			
Indiana Dunes State Park	Doug Stukey	Assistant Property Manager	6/27/2008
DNR Nature Preserves	John Ervin		7/4/2008
Indiana Department of Fish and Wildlife	Brian Breidert		7/5/2008
Other			
Shirley Heinze Land Trust	Kris Krouse	Director	7/18/2008
Indiana Dunes National Lakeshore	Eric Ehn	Division Chief	7/18/2008

APPENDIX B: DATA COLLECTION QUALITY ASSURANCE/QUALITY CONTROL PROTOCOLS

Indiana Department of Natural Resources:

Inventory of Existing Public Access Sites within the Indiana Coastal Area

July 21, 2008

Purpose / Background

This protocol provides an outline of the elements necessary to conduct an inventory of existing public access sites within the Indiana coastal area. The goal is to provide a process to ensure efficient, timely, and accurate data-collection to complete the tasks outlined in the project Scope of Work with project completion scheduled for October 15, 2008.

Definitions

Coastal Resources – Natural, cultural, and historic resources in the Indiana Lake Michigan Coastal Area.

Indiana Lake Michigan Coastal Area – roughly the Northern half of Lake and Porter County, and the Northern third of LaPorte County (see [Coastal Program Area \(pdf\)](#) for a detailed map)

Public Access Sites – all sites that provide public access to coastal resources. Can comprise of Federal, State, Local, or NGO-owned properties, or properties with a public interest.

Public Interest – properties that are either: 1) owned fee simple by Federal, State, or local government entities; or 2) properties of other ownership where a conservation easement or other agreement allows for public access to a property.

Trail--Trails are those that are greater than ½ mile in length and are not concrete sidewalks. Paved trails are acceptable. Sidewalks may be included if acting as a connector between main trail segments.

Facilities Inventory and Trails Inventory Databases

Data collected by the Eppley Institute will be entered into MS Excel workbooks. A separate workbook will be used to capture all necessary data fields for both the Facilities Inventory Database and the Trails Inventory Database. The workbooks will be stored on the Eppley Institute server at Y:\60-Technical Assistance_Consulting\IDNR Coastal Inventory\Inventory Data, which is backed up nightly. An updated version of the workbooks will also be posted monthly on the EPPIC site for this project.

The workbooks will include a spreadsheet for each of the relevant data tables in the IDNR databases including:

- Facilities Inventory from the Faclnv database (tblFacilities)
- Trails Inventory from the Trllnv database (tblTrailInfo)
- Owner/Manager table from the Faclnv database (tblOwnMgr)

Data fields in the workbooks will include:

Table of Data Fields from Facilities Inventory Database

Data Field Name	Description
SiteCode	Generated by Eppley Institute staff as new sites are entered. Lake County sites begin with 450589; LaPorte County sites begin with 460166; Porter County sites begin with 640162
CountyLU	County where site is located, code generated from tblCounty
Site	Name of site
Address	Address of site
City	City where site is located
Zip	Zip code where site is located
Phone	Contact phone number of site managing agency
OwnerID	Owner of the site. Generated from Owner ID table. Eppley Institute will add new Owner ID numbers if new Owners are identified.
ManagerID	Manager of the site = O if same as Owner. Generated from

Data Field Name	Description
	Manager ID table Eppley Institute will add new Manager ID numbers if new Managers are identified.
Grants	True = Capital Investment Funded by State or Federal Grant; False = Capital investment not funded by State or Federal Grant
FacTypeID	Type of Facility generated from tblFacilityType , see table page 46
SchGrades	e = Elementary; m = middle school; h = high school
AreaType	= School Corporation, Public, Municipal, Township, County, State, Federal, Private, or Commercial
OpenPublic	True = Open to Public; False = Not open to public
YearRound	True = Open year round; False = not open year round
OpenSeason	Season when site is open (eg. April-August)
ADA	True = contains ADA accessible features; False = does not contain ADA accessible features
Fees	True = Entrance Fee required; False = no entrance fee
Current Fees	Name of features that require fees (eg. Pool)
Pets	True = pets permitted; False = no pets permitted
NoFacilDev	True = No developed facilities on site; False = developed facilities on site
AcresTotal	Total acreage of site
AcresWater	Total acres of water on site
AcresEst	True = acreage is an estimate; False = acreage is not an estimate
NoRestroom	True = no restrooms on site; False = restrooms on site
PitToilet	True = pit toilet on site; False = no pit toilet on site
FlshToilet	True = flush toilet on site; False = no flush toilet on site
PortToilet	True = portable toilet on site; False = no portable toilet on site
Showers	True = showers on site; False = no showers on site
NoPicnic	True = no picnic area on site; False = picnic area on site

Data Field Name	Description
ShelterNU	Number of picnic shelters on site
PicAreaNU	Number of picnic areas on site
PicTables	True = picnic tables on site
PlaygrndNU	Number of playgrounds on site
Playfields	True = open playfields on site; False = no open play fields on site
Openspace	True = open space on site; False = no open space on site
NoFields	True = no sports fields on site; False = sports fields on site
SoftballNu	Number of softball fields on site
SoftballLt	Number of lighted softball fields on site
BaseballNu	Number of baseball fields on site
BaseballLt	Number of lighted baseball fields on site
SoccerNu	Number of soccer fields on site
SoccerLit	Number of lighted soccer fields on site
FootballNu	Number of football fields on site
FootballLt	Number of lighted football fields on site
TrackNu	Number of tracks on site
TrackLit	Number of lighted tracks on site
NoCourts	True = no courts on site; False = courts on site
BballNu	Number of basketball courts on site
BballLit	Number of lighted basketball courts on site
TennisNu	Number of tennis courts on site
TennisLit	Number of lighted tennis courts on site
VolleyNu	Number of volleyball courts on site
VolleyLit	Number of lighted volleyball courts on site
HrsShoeNu	Number of Horseshoe pits on site
HrsShoeLt	Number of Lighted horseshoe pits on site
WallCrtsNu	Number of wall courts on site

Data Field Name	Description
WallCrtsLt	Number of lighted wall courts on site
NoGolf	True = No Golf; False = Golf
GolfCrnsNu	Number of Golf Courses on site
GolfHoles	Number of Golf holes on site
RangeNu	Number of driving ranges on site
MiniGolf	Number of miniature golf courses on site
RifleIn	Indoor range: 0=none; 1=site has facility of this type
RifleOut	Outdoor range: 0=none; 1=site has facility of this type
SkeetIn	Indoor range: 0=none; 1=site has facility of this type
SkeetOut	Outdoor range: 0=none; 1=site has facility of this type
ArcheryIn	Indoor range: 0=none; 1=site has facility of this type
ArcheryOut	Outdoor range: 0=none; 1=site has facility of this type
BMX	True = BMX bike feature on site; False = no BMX bike feature on site
BatCage	True = batting cage on site; False = no batting cage on site
Skateboard	True = skateboard feature on site; False = no skateboard feature on site
FoodConc	True = Food concessions on site; False = no food concessions on site
NoOvernght	True = Closes at dark; False = open all night
Camping	True = camping facilities on site; False= no camping facilities on site
ClassAA	True = Class AA camping on site; False = no class AA camping on site, Class AA= full hook-up
AANu	Number of Class AA camp sites
ClassA	True = Class A camping on site; False = no class A camping on site, Class A= electric and water
ANu	Number of Class A camp sites

Data Field Name	Description
ClassB	True = Class B camping on site; False = no class B camping on site, Class B= electric
BNu	Number of Class B camp sites
ClassC	True = Class C camping on site; False = no class C camping on site, Class C= primitive
CNu	Number of Class C camp sites
BackCamp	True = backcountry camping on site; False = no backcountry camping on site
CampSiteHA	Accessible campsites: True = accessible camping on site; False = no accessible camping on site
GroupCamps	True = group camp on site; False = no group camp on site
GrpCampCap	Capacity of group camp in number of people
HorseCamp	True = horse camp on site; False = no horse camp on site
HrsCampCap	Capacity of horse camp in number of people
DmpStation	True = dump station on site; False = no dump station on site
Lodging	True = lodging on site; False = no lodging on site
Inn	True = Inn on site; False = no Inn on site
Cabin	True = cabins on site; False = no cabins on site
CabinNu	Number of cabins on site
NoGroup	True = No group facilities on site; False = group facilities on site
Bandshell	True= bandshell/amphitheatre on site; False= no bandshell/amphitheatre on site
CommCtr	True = Community Center on site; False = no community center on site
VisitorCtr	True = visitor center on site; False = no visitor center on site
ConfCtr	True = conference center on site; False = no conference center on site

Data Field Name	Description
NatureCtr	True = nature center on site; False = no nature center on site
Museum	True = Museum on site; False = no museum on site
SeniorCtr	True = Senior center on site; False = no senior center on site
OtherLarge	True = Other large facilities on site; False = no other large facilities on site
NoWinter	True = No winter facilities on site; False = winter facilities on site
IceSkate	True = Ice skating on site; False = no ice skating on site
Toboggan	True = Toboggan run on site; False = no Toboggan run on site
SledTube	True = sledding or tubing hill on site; False = no sledding or tubing hill on site
SnowBoard	True = snowboarding permitted on site; False = no snowboarding permitted on site
Snowmobile	True = snowmobiling permitted on site; False = no snowmobiling permitted on site
NordicSki	True = Nordic skiing feature on site; False = no Nordic skiing feature on site
AlpineSki	True = Alpine skiing feature on site; False = no Alpine skiing feature on site
PublicHunt	True = public hunting permitted on site; False = no public hunting permitted on site
Longitude	Longitude of site main entrance
Latitude	Latitude of site main entrance
Concessions	Concessions available: Yes/No
Location	Location of parcel – directions to site – comment field
DateInsp	Date of last grant inspection onsite
ADAEval	True = ADA Evaluation completed; False = no ADA evaluation completed

Data Field Name	Description
ShowersHA	True = ADA showers on site; False = no ADA showers on site
OperateHrs	Operating hours (eg. Dawn to dusk); (eg. 11:00 A – 6:00 P)
AcresLand	Number Land Acres onsite
RestroomHA	True = ADA Restroom on site; False = no ADA restroom on site
PicArea	True = picnic area on site; False = no picnic area on site
PicTbIsHA	True = ADA picnic tables on site; False = no ADA picnic tables on site
SheltersHA	True = ADA picnic shelter on site; False = no ADA picnic shelter on site
PlaygrdHaN	Number of ADA Playgrounds onsite
FeeHunting	True = Hunting for fee on site; False = no Hunting for fee on site
StockGame	True = Stocked hunting game on site; False = no stocked hunting game on site
WtrBlind	True = water blind on site; False = no water blind on site
Restaurant	True = restaurant on site; False = no restaurant on site
Shuffle	True = shuffleboard on site; False = no shuffleboard on site
Shufflit	True = lighted shuffleboard on site; False = no lighted shuffleboard on site
DriveRange	True = Golf driving range on site; False = no driving range on site
ArchNu	Number of Archery target lanes
RifleNu	Number of Rifle target lanes
SkeetNu	Number of skeet firing platforms
InterpPro	True = Interpretive program on site; False = no interpretive program on site
InterpType	Type of interpretive program on site (eg. Historical, Environmental)
HaplyGrd	Accessible playground; give detail of access
SiteUrl	Website URL as link

Data Field Name	Description
SiteUrlText	Website URL as text
Notes	Notes about site
Source	Main source of information: V= owner/manager visit, SV=site visit, WS=website, P=phone call, DC=other data collection sources such as brochures, master plans, etc., OP=orthographic photos

Table of Data Fields from tblOwnMgr

Data Field Name	Description
Mstr Pln ID#	Agency Master Plan Number—Available from INDR Outdoor Rec
AddressID	Ignore; linked from another IDNR DB
Entity	Name of agency, organization or entity
EntAddress	Address of agency, organization or entity
EntCity	City of agency, organization, or entity
EntState	State of agency, organization or entity
EntZip	Zip code of agency, organization or entity
EntPhone	Contact phone number for agency, organization or entity
SiteCodeOwner	site code cross reference for at least one site owned by this owner
SiteCodeManager	site code cross reference for at least one site managed by this manager
Site	Ignore – Cannot access this field using the Database
WebAddress	Website address for agency, organization, or entity

Table of Data Fields from Trails Inventory Database

Data Field Name	Description
TrailName	Name of Trail
TrailCode	Generated by Eppley Institute staff as new sites are entered. Lake County sites begin with 4529; LaPorte County sites begin with 4622; Porter County sites begin with 6428
IngEntityID	Contact name at owner/manager entity, generated from ORMail database
InvDistance	Distance of the inventory segment of this trail. Miles
TotalDst	Distance of total trail if it includes more than one segment. Miles
Counties	Counties trail is located within
Town	Towns trail is located within
Surface	Type of Surface, Code generated from surface table (tblSurface)
TrailTypeLU	Type of trail, Code generated from trail type table (tblTrailType)
Rail	1 = Rail Trail, 0 = other
txtProperty	Name of Property where trail is located (eg. Shades SP)
Notes	Text notes about trail
TriHike	1 = Hiking permitted; 0 = Hiking not permitted
TriRdBk	1 = Road Bike permitted; 0 = Road Bike not permitted
TriMtBk	1 = Mountain Bike permitted; 0 = Mountain Bike not permitted
TriWhCh	1 = Wheel Chair Accessible; 0 = Not Wheel Chair Accessible
TriCanoe	1 = Canoe Trail; 0 = not canoe trail
TriHorse	1 = Horses permitted; 0 = Horses not permitted
TriSnoMob	1 = Snowmobile permitted; 0 = Snowmobile not permitted
TriSki	1 = skiing permitted; 0 = skiing not permitted
TriMulti	1 = Multiple uses permitted; 0 = Single Use trail
TriOther	Other uses (eg. Bird watching)
TriSkate	1 = roller skating permitted; 0 = roller skating not permitted
FacInvLookup	Ignore this; it's from a linked relationship with another IDNR database
Source	Source of data—if Owner/Manager, then reference to tblOwnMgr
Notes	Notes regarding data source

Table of Facility Type Keys from Facilities Inventory

FacTypeID	TypeDescription
1	Park/Recreation Area
2	Forest
3	Fish and Wildlife Area
4	Dedicated Nature Preserve
5	Reservoir
6	Historic/Cultural Site
7	Fishing/Boating Access Site
8	Camping or Trailer Park
9	Trail
10	Marina
11	Commercial/Private Fishing Lake
12	Beach
13	Pool
14	Elementary/Secondary School Grounds
15	Fairground
16	Zoo
17	Commercial For Profit Recreation Facility
18	Non-Profit Recreation Facility
19	Sports Complex
20	Other
21	Golf Course
22	Conservation Club
23	Residential/Apartment
24	University/College
25	Canoe Livery

Excel to Access Protocol

Excel has been chosen as the preferred data entry and data storage database software for several reasons. First, it is the most familiar to the Eppley Institute staff and requires no learning time to begin data entry. Second, it is more versatile than Access in that it allows for easier sorting, editing, and data manipulation. Third, data in excel is easily converted to formats that fit other database requirements, such as Access.

The protocol for transferring data from the Eppley Institute to IDNR in the needed format will start with IDNR making a back-up copy of their existing databases to be stored on the IDNR server. Copies of the Facilities Inventory and Trails Inventory databases were provided as Access files to the Eppley Institute on April 20, 2008, and are being stored on the Eppley Institute server. Using those databases, the Eppley Institute has transferred data to Excel, sorted and filtered the data records to eliminate those that are not in the Lake Michigan Coastal area.

The following procedure will be used to transfer data from Excel to Access:

1. Once inventory data is complete, data for each data table will be imported into the Access databases which are stored on the Eppley Institute server, allowing the updated data to overwrite the existing data.
2. The Eppley Institute version of the Access databases will be sent by email or ftp to IDNR, at which time, IDNR will have the opportunity to check the new data before copying it to their main databases.
3. When IDNR is satisfied with the data, it can be copied to the main IDNR databases.

Documentation of Multiple Data Sources

To keep an accurate record of the source of data, an additional data field has been added to the Eppley Institute workbooks. This data field will be denoted as Source. Data sources that are also property owners or managers will be updated and/or added to the tblOwnMgr spreadsheet in the Facilities Inventory workbook.

Data Sources

The following sources will be used to collect data:

- 1) IDNR existing databases
- 2) Township, town, city, county, state, and federal owner/manager agencies' inventories and interviews
- 3) Web Searches
- 4) Other existing studies, projects, and related data sources
- 5) 2005 Orthographic aerial photos
- 6) GIS data layers
- 7) Site Visits

Data Source Decision Protocol

Step 1: Data will be obtained from the various sources listed above. These sources will be recorded and added to the Excel workbooks.

Data from governmental sources (federal, state, county, city, town and township) are preferred. Data from web searches and existing studies or projects will be used if it comes with metadata or other corroborating information/sources. If there is a conflict between data, the most recent source will be used if the source date can be determined. Otherwise, data from governmental sources will take precedence with local or state sources taking precedence over federal.

If after all other data sources have been reviewed, there is conflicting information and/or insufficient information to complete all fields in a record with a reasonable amount of accuracy, step two below will be implemented. Sites will be marked during data entry to indicate there is reason to move to step two with a particular record.

Step 2: Orthographic aerial photos will be used to obtain additional information and/or confirm or deny information that has been gathered through the other sources. If all discrepancies in a record cannot be resolved using Ortho photos, then the record will be marked and step three will be implemented.

Step 3: Up to 275 sites may be visited to gather missing data. Determination of necessary sites to be visited will be defined at this step based on the level of missing information after the previous two steps are complete. If data are incomplete for more

than 275 sites, then sites will be selected according to the amount of missing data, importance by means of size, and importance by number and diversity of features.

When conducting site visits, sites within one mile of the Lake Michigan shoreline will be visited first.

Site visits will be used as primary data collection:

- when owner/managers cannot be identified,
- when owner/managers cannot be reached,
- when information in databases is incomplete and other data collection methods have been exhausted.

Sites will be visited to clarify data according to but not limited to the following criteria:

- Database information is incomplete.
- Database information indicates an illogical discrepancy.
- Owner/manager not available for visit.
- Owner/manager was not able to supply precise information.

Data Collection Method

1. Data will be collected primarily through agency (owner/manager) visits. All agencies owning or managing over five sites will be visited.
2. Three waves of visits will be carried out; one wave per county, through pre-arranged visits with owners/managers of five or more sites.
3. Agencies owning or managing less than five sites will be chosen for visits based on the number of sites and importance of sites in terms of acreage and number of attributes. Logistical convenience will also play a role in choosing to visit these agencies. Information from owners/managers of less than five sites that were not selected for site visits will be gathered through Web searches, phone calls, and site visits.

4. Three Eppley Institute teams will travel and meet with a minimum of four owner/managers per day for a total of 12 days. Approximately 45 owner/managers of more than five sites will be scheduled. Approximately 20 owners/managers of less than five sites will be scheduled.
5. Sites included in the current inventory but not indicating an owner/manager will be discussed during the nearby agency visits to obtain owner/manager information as well as other site attributes.
6. Any newly identified owner/managers will be contacted to obtain further site information through a visit or phone call.

Owner manager contact and scheduling

1. Owners/managers of more than five sites will be identified. Directors, Superintendents or other knowledgeable person will be contacted by phone to schedule an appointment to review data.
2. The contact will be informed of the project goal and the necessity of accurate information from their agency.
3. Once the appointment is scheduled, an email or fax will be sent to confirm the appointment and reiterate the goal of the appointment so that the contact may have any informational materials or other source persons readily available. This confirmation will list sources of information that may be helpful in the review of data: master plans, inventories, brochures, etc.

Data Management

Eppley Institute workbooks will be manipulated as follows:

Two copies of the Facilities Inventory workbook will be managed.

- Version 1 of the Facilities Inventory will be considered the original.
- Version 2 of the Facilities Inventory will be considered the updated master.

Two copies of the Trails Inventory workbook will be managed.

- Version 1 of the Trails Inventory will be considered the original.
- Version 2 of the Trails Inventory will be considered the updated master.

Version 2 of each of the workbooks will be updated as follows:

1. As owner/manager visits occur, sites and trails specific to owner/managers will be sorted, cut, and pasted into a new spreadsheet to review with owner/managers.
2. Site information and site additions will be updated in the individual owner/manager documents. Trail information will be updated using a fillable pdf form provided by IDNR.
3. Version 2, the updated master, will originally be an empty document except for field labels. After each week-long trip the updated individual owner/manager spreadsheets will be uploaded to populate the Version 2 workbook or the updated master.

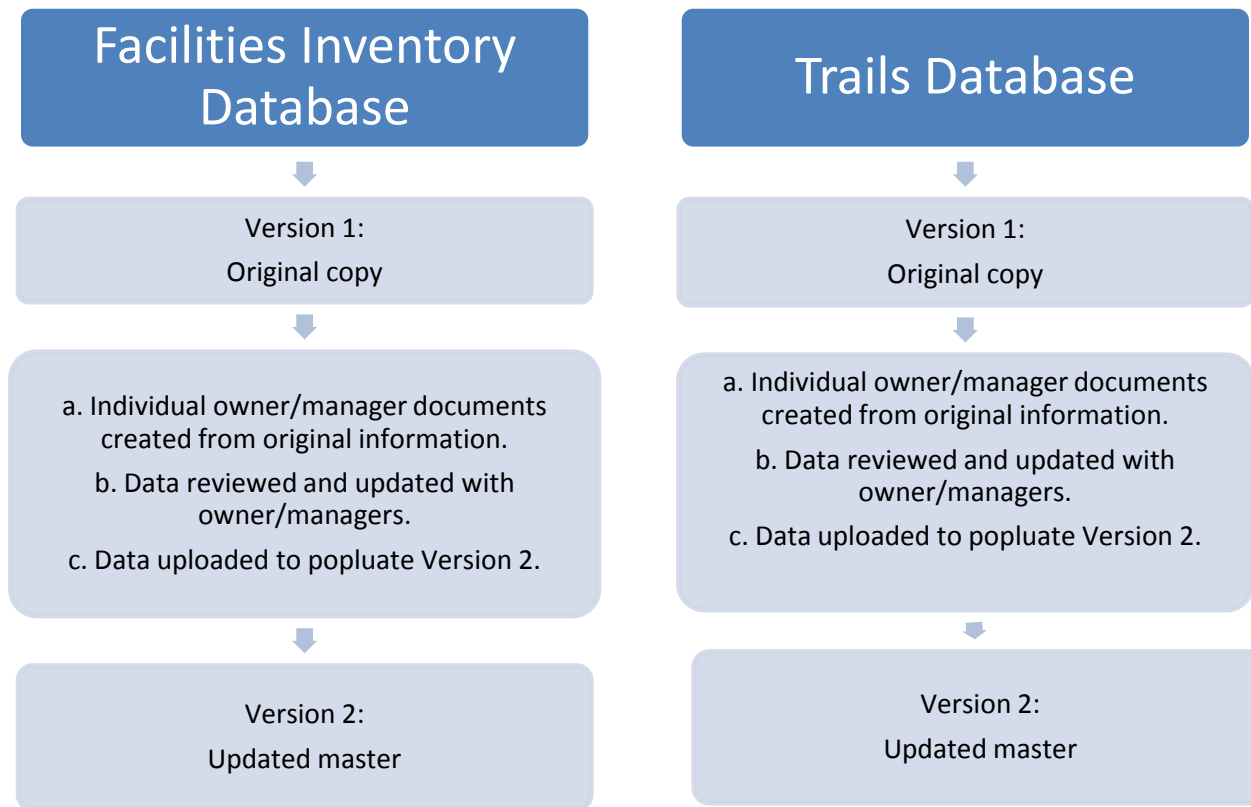


Figure 1: Database Flowchart

The advantages of this method are two-fold. This method ensures that all data entered into the Version 2 databases has been reviewed. By also progressively eliminating data from Version 1 of the copied databases, a clear, running account of progress can be tracked.

Duplicate entries will also be prevented through this method. Sorting database information by owner/manager and by city makes present duplicate entries apparent, allowing for deletion.

Interview Guide

An interview guide will be used for owner/manager visits to ensure consistency among teams.

The guide will include instructional steps to reviewing and updating data for the Facilities Inventory and Trails Inventory databases with owner/managers.

Review and discussion of sites will be held according to the following topics. Original data will be viewed by the owner/managers using a projector or a computer screen.

Q1: Review of site and trail names and locations owned or managed.

Are all properties owned/managed listed? Yes No

(All properties shall include proposed and recently acquired properties. All trails will only include trails on the ground.)

If No: add site or trail name, location, attributes to individual owner/manager document.

If Yes: go to Q2.

Q2: Begin review of individual site or trail information.

A. Review and update of individual site information/ attributes by topic and subtopic for Facilities Inventory.

Administrative Management

- Owner and Site identification
- Contact Information
- Funding Status
- Development Status
- Evaluations and Inspections Status
- Size of Site
- Inventory Maintenance (internal use only)

Asset Management / Visitor Experience

- Availability
- Accessibility (ADA)
- Amenities and Lodging
- Recreation Features
- Recreation Features – Winter
- Recreation Programs
- Recreation Centers

B. Review and update of individual trail information/ attributes for Trails Inventory database according to the fillable pdf form.

Q3: Identification of GIS data.

The Epley Institute GIS specialist will indicate what GIS data are available for this agency and its sites if any have been located. Additional GIS information will be sought.

Q4: Review of sites in the area that are listed in original database but are not associated with an owner/manager.

Are agencies aware of specific identified sites from the current inventory in their area for which the owner/manager is not listed?

Q5: Review of sites in area that are not listed in original database.

Is agency aware of any new sites in area? What information is available about these sites?

GIS Data

GIS Definitions:

Feature – A representation of a real-world object on a map.

Shapefile – A format for storing the location, shape, and attributes of a feature. In GIS, the shapefile is what is displayed by the GIS program and is connected to a GIS database.

Different types of shapefiles include:

Point (point file) – Where features in the shapefile are displayed as having neither width nor area on the map.

Line (line file) – Where features in the shapefile are displayed as having length, but not width or area on the map.

Polygon (polygon file) – Where features in the shapefile are displayed as a closed shape with area on the map.

Database – A structured collection of records or data. In GIS, a database would include information about the attributes, spatial location, and shapes of geographic features but would not display those features when opened by the GIS program.

GIS Data—includes point files, line files, and polygon files as well as any metadata associated with those files.

Facilities Inventory Database—a point file related to the Facilities Inventory Database through the Site Code field.

Trails Inventory Database—a line file related to the Trails Inventory Database through the Trail Code field.

Managed Lands Database— a polygon file of natural and recreation areas which are owned or managed by the IDNR, federal agencies, local agencies and non-profit organizations. Used as a source.

Matching GIS Data with Access Databases

The Eppley Institute received the shape files associated with the Facilities Inventory database (309CZM04282008.shp) and the Trails Inventory database (TI_Latest.shp) from IDNR on May 12, 2008. The Managed Areas shape file was downloaded from the Indiana Map Project (http://129.79.145.7/arcims/statewide_mxd/dload_page/environment.html) and was downloaded on May 15, 2008. It was also confirmed by phone on June 12, 2008 with Mike Martin that this is the most recent version.

The primary identifier for the Facilities Inventory and Trails Inventory will be the site code and trail code respectively. If there is no site code identifier, street addresses will be used to match the features with their site data. The primary identifier for the Managed Areas database will be the site name.

For any sites that are found through GIS searches and not listed in the existing Facilities Inventory, the following procedure will be used:

1. If the GIS database contains parcel data, a point at the entrance of the facility will be selected to be added to the point file.
2. If no official “entrance” exists for the facility, a point from which the area is easily accessible will be chosen.
3. Otherwise, the south-eastern most corner of the parcel will be recorded.
4. A new record will be created in the Facilities Inventory database with a new site code.

The Segment Code in GIS is the link to the MS Access Table.

1. A “dummy” segment code will be used when digitizing new segments.
2. The same “dummy” segment code will be used on the paper data sheet for the respective segment.
3. If two trails have a common segment, it will be mapped once.
4. If a trail has progressed from “planned” to actual, a new GIS segment and data sheet will be created.

GIS Data Sources

The following sources will be used to collect GIS data:

- 1) Township, town, city, county, state, and federal owner/manager agencies' GIS Data files
- 2) Web Searches
- 3) Other existing studies, projects, and related data sources
- 4) 2005 Orthographic aerial photos
- 5) Site Visits

Data from governmental sources (federal, state, county, city, town and township) are preferred. Data from web searches and existing studies or projects will be used if it comes with metadata or other corroborating information/sources. If there is a conflict between data, the most recent source will be used if the source date can be determined. Otherwise, data from governmental sources will take precedence with local or state sources taking precedence over federal.

GIS Data Management

The GIS data will consist of shapefiles with attached databases and any accompanying metadata in a .txt file format. Data will be hosted on the Eppley Institute server and updated files will be posted monthly on the EPPIC project site.

Projection

The projection used in this project will be NAD83 UTM Zone16N. Any data layers that are not at this projection will need to be reprojected.

GIS Data Collection Procedure

1. Research data available on the internet and use data provided in order to construct reference maps for the project.

Data immediately available included:

- County boundaries
- Major roads
- Incorporated areas
- Other cities not incorporated
- Hydrology (both polygon features such as lakes and line features such as rivers/streams)
- Zip codes

Data obtained from the public domain

- Public Lands (Indiana Dunes)
- Nature Preserves (IDNR)

Data provided by the DNR:

- Coastal area
- Trails
- Recreational Facilities

2. Search for GIS data at the city and county level.

3. Reconstruct parcels from park maps, zoning maps, and 2005 Ortho photos from the cities and counties.

4. When data is not found through any of the above methods and there is a site or trail without any corresponding GIS data, these data will be obtained by site visit.

Quality Assurance/Quality Control Protocol

General Data Collection Process

Responsible	Action
All	Inventory data is as a general rule being recorded by county, beginning with Lake County.
Andrea	Parks and Recreation departments, school corporations, state agency sources, and other sources are compiled in a county source document using the IDNR Owner/Manager table as the primary information source.
Amy	Data provided by the sources are checked against existing IDNR data. Data is updated, then moved to the appropriate Version 2 spreadsheet as described in the Data Management section above. Any data discrepancies are noted in the site record and on a separate task list document. A suggestion to visit a facility is made according to illogical discrepancies between source and IDNR data.
Amy, Susan, Andrea	New sites as discovered from sources are entered into database without a site code so that they may be verified with GIS data. If a new site is not in the Coastal Area, this will be noted, and sent to Andrea to delete from the inventory.
Andrea, Susan	If a new site is confirmed to be located in the coastal area, additional information on the new sites will be sought using all methods described above.

Responsible	Action
Amy, Susan	A task list will be used to verify data discrepancies between source data and IDNR data. Susan will verify discrepancies with GIS information.
Andrea, Susan	Sites noted by Susan as “problem sites” will be verified by Andrea on a weekly basis by county.

Quality control

The data management process described in the above Data Management section is designed to eliminate the possibility of duplicate entries and to ensure the accuracy of updated data being entered into the inventory spreadsheets.

In addition for 5% (randomly selected) of the combined sites in the Facilities Inventory database and the Trails Inventory database, data will be randomly checked against notes and documents generated during agency visits; or against the information source previously deemed to be the best data source for the site.

Finally, for 10% (randomly selected) of the combined sites in the Facilities Inventory and Trails Inventory database data will be checked for accuracy using Ortho photos.

Field Data collection protocols

Site visits will begin in August, 2008. Site visits will be conducted for up to 275 sites with priority being given to sites within one mile of the lakeshore. Throughout the data collection process, notes will be taken and an ongoing list kept of suggested site visits. Site visits will be determined according to the criteria noted on page 12 of the present protocol.

Eppley teams visiting sites to gather information will be specifically trained as to the information needed, format of information and field documents to be used. Paper data collection sheets detailing all site fields will be used to record information during site visits. Current data will be supplied if available. Included hereafter is the data collection document provided by IDNR to be used for site visits. This document will contain all data fields for each site.

Data will be updated and compiled at the end of every day of site visits by the team lead.

GPS points will be taken for sites or trailheads that do not have points and cannot be located by other means.

IDNR Data Collection Document

Facility General Information

Site Name _____ Site Code _____

Address _____

City _____ Zip _____

Primary Phone _____ Primary E-mail _____

Site URL _____

Owner _____ Manager _____

- | | | | |
|----------------|---|-------------|--------------------------------------|
| Facility Type: | <input type="checkbox"/> 1) Park/Recreation Area | Area Type: | <input type="checkbox"/> Commercial |
| (check one) | <input type="checkbox"/> 2) Forest | (check one) | <input type="checkbox"/> County |
| | <input type="checkbox"/> 3) Fish & Wildlife Area | | <input type="checkbox"/> Federal |
| | <input type="checkbox"/> 4) Dedicated Nature Preserve | | <input type="checkbox"/> Municipal |
| | <input type="checkbox"/> 5) Reservoir | | <input type="checkbox"/> Private |
| | <input type="checkbox"/> 6) Historic/Cultural Site | | <input type="checkbox"/> Public |
| | <input type="checkbox"/> 7) Fishing/Boating Access Site | | <input type="checkbox"/> State |
| | <input type="checkbox"/> 8) Camping/Trailer Park | | <input type="checkbox"/> School |
| | <input type="checkbox"/> 9) Trail | | <input type="checkbox"/> Corporation |
| | <input type="checkbox"/> 10) Marina | | <input type="checkbox"/> Township |

- 11) Commercial/Private Fishing Lake
- 12) Beach
- 13) Pool
- 14) Elementary/Secondary School Grounds
- 15) Fairground
- 16) Zoo
- 17) Commercial for Profit Recreation Facility
- 18) Non-profit Recreation Facility
- 19) Sports Complex
- 20) Other _____
- 21) Golf Course
- 22) Conservation Club
- 23) Residential/Apartment
- 24) University/College
- 25) Canoe Livery

Public Access: None Limited Full

ADA Accessible: Limited Completely

Time Open: Seasonal Year-round

Fees: None Sometimes Always

Pets Allowed: Yes No

Total Acres:_____ Land acres:_____ Water acres:_____ Wetlands acres: _____

Check all that apply

___ Flush Toilets ___ Pit Toilets ___ Portable Toilets ___ Accessible Restrooms (number)

___ Showers ___ Accessible Showers (number) ___ Primitive/No Amenities

___ Food Concessions ___ Restaurant

Picnic and Playground Areas

Site Code _____

Amenity	Yes	No	Number	Capacity	Accessible (number)
Picnic Area					
Picnic Tables					
Grills					
Shelters					
Playgrounds					
Open Space			acres		

Notes:

Athletic Areas

Site Code _____

Please record "Number of" each of the following:

Amenity	Regular (no lighting)	Lit	Multi-use <i>(check, if applicable)</i>
Disc Golf			
Dog Park			
<i>Fields</i>			
Baseball fields			
Softball fields			
Batting Cages			
Soccer fields			
Football fields			
Track			
<i>Wheeled sports</i>			
BMX			
Skating ring			
Skateboard			

Amenity	Regular (no lighting)	Lit	Multi-use <i>(check, if applicable)</i>
General Use			
Multi-use fields			
Courts			
Basketball			
Tennis			
Wall Courts			
Volleyball			
Horseshoes			
Shuffleboard			

Notes:

Camping or Lodging Facilities

Site code _____

Amenity	Yes	No	Capacity	Accessible (number)
<i>Buildings</i>				
Inn				
Cabins				
<i>Campgrounds</i>				
Back Country				
Group				
Youth				
Horsemen's				
Class AA (full hook-up)				
Class A (electric & water)				
Class B (electric)				
Class C (primitive)				

Dump Station: ___ Yes, ___ No

Camp Store: ___ Yes, ___ No

Notes:

Educational or Community Facilities

Site Code _____

Check all that apply

___ Amphitheater/Bandshell ___ Natural ___ Built ___ Combo

___ Bird/Nature Observation Venues (number)

___ Community Center

___ Conference Center

___ Educational Kiosks (number)

___ Group Outdoor Education Venues

___ Historical / Cultural Site Marker

___ Museum

___ No Group Facilities

___ Nature Center

___ Public Gardens (number)

___ Senior Center

___ Visitor Center

___ Zoo

___ Other Large Group Facilities _____

Interpretive programming: ___ Yes ___ No

If Yes describe:

Additional Notes:

Golf Facilities

Site Code _____

___ Number of Courses

Type of Course: ___ 18 hole ___ 9 hole ___ Par 3

___ Total number of holes

___ Driving range (number)

___ Number of stations

___ Miniature Golf/Putt-putt

___ Total number of holes

___ Pro Shop / Clubhouse

Shooting or Archery Facilities

Site Code _____

Amenity	Yes	No	Outdoor (number)	Indoor (number)
Rifle				
Pistol				
Skeet				
Archery				
Paintball				

Open for Public Hunting: Yes No Limited Special hunts only

Fees: Yes No

Stocked Game: Yes No

Winter Blinds: Yes No

Notes:

Winter Activities

Check all that apply

Ice Skating

Skiing Nordic Alpine

Sledding / Tubing

Snowboarding

Snowmobile, Length of trail, if applicable _____

Toboggan

Notes:

Trails

Site Code _____

_____ Number of Trails

(Can enter trail totals rather than individual trails or use one sheet per trail)

Trail Name _____ ADA compliant _____ Yes _____ No

_____ Loop _____ Out & Back _____ Connector _____ Multi-use

Use	Miles	Surface*	Comments
Foot Path			
Fitness			
Hiking			
Walking			
Skating			
Skiing			
Horseback			
Biking			
Mountain Bike			
Trail Bike			

Use	Miles	Surface*	Comments
Touring			
Motorized			
ATV/UTV			
Motocross/ Single track			
Snowmobile			
Educational/Interpretive			
Nature			
Cultural			

*D = dirt; G = grass; S = stone; P = paved

Notes:

APPENDIX C: LIST OF SITE VISITS CONDUCTED

- Deer Trail Park
- Woodland Park
- Imagination Glen Park
- Imagination Glen- The Front Side Trail
- Imagination Glen- The Dark Side Trail
- Arthur Olson Memorial Park
- Deep River Waterpark
- Deep River County Park
- Valparaiso High School
- Sunset Hill Farm Park
- Three Rivers County Park
- Lakeland Park
- Ruby Woods
- Striebel Pond
- Sebert Property
- Wintergreen Woods Nature Preserve
- Lake Etta County Park
- Gibson Woods
- Community Park
- Centennial Park
- Plum Creek Park
- Oak Ridge Prairie County Park
- Stephen Park
- Sauerman Woods
- Paul C. Zona Sr. Wildlife Sanctuary
- Ambler Flatwoods
- Autumn Creek
- Eleven Acre Prairie
- Indian Springs
- Meer Road Woods North
- Meer Road Woods South
- Pruzin Park

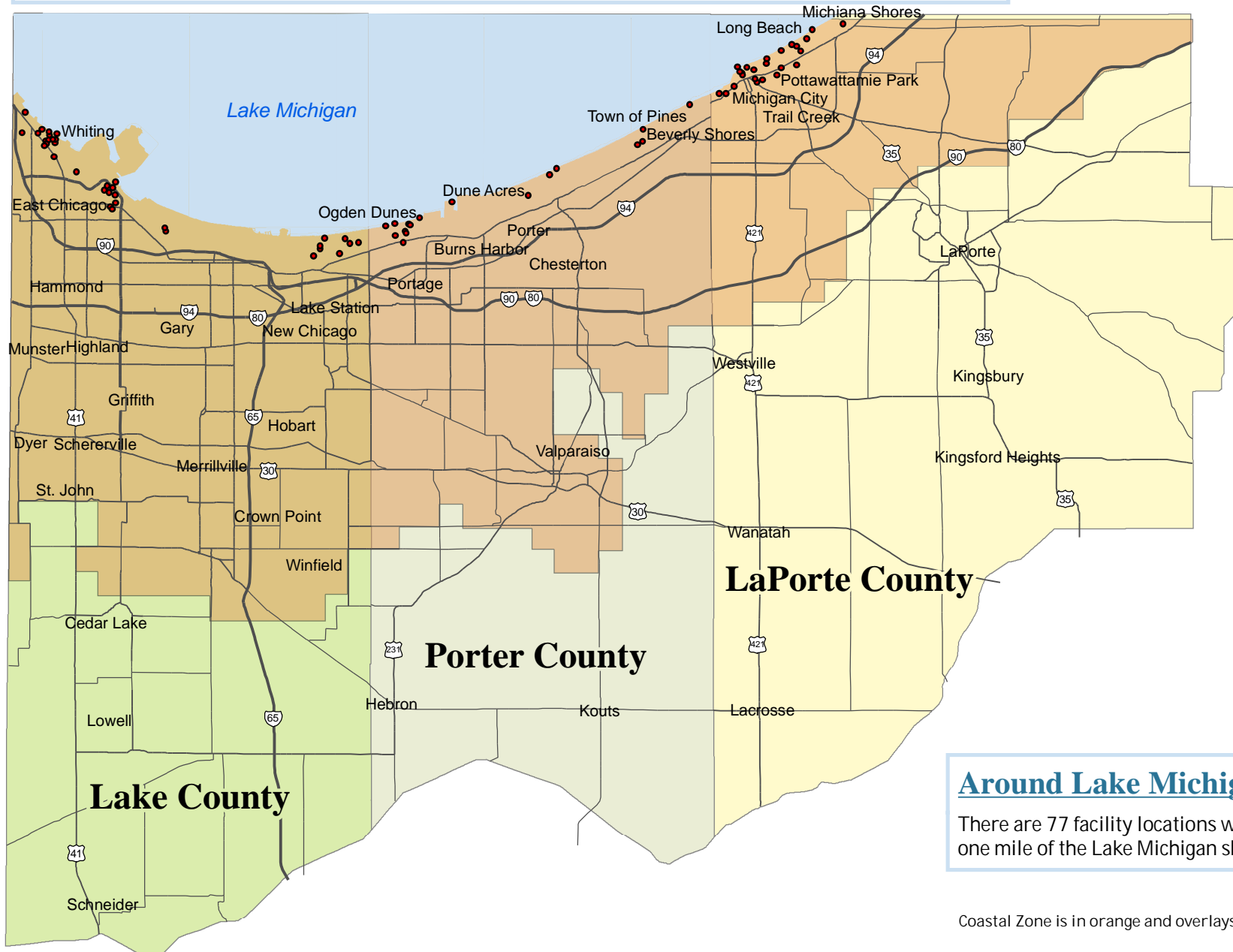
- Forsythe Park
- Wolf Lake Memorial Park
- Pulaski Park
- Whiting Park
- Whihala Beach County Park
- Hammond Marina Lake Front Park
- Amoco Park
- Jeorse Park Beach - Lakefront
- Port of Indiana State Fishing Area
- Kratz Field
- Long Lake Playground & Edward T. Krusa Tennis Courts
- Nelson Reck Park
- Waterworks Triangle
- Trail Creek Marina
- Hansen Park
- Washington Park and Zoo
- Pine Elementary School
- Portage Little League Field
- Portage Yacht Club
- South Haven Little League
- Portage Public Marina
- Haven Hollow Park
- Junior-Miss Softball, Portage City Ballfield
- Portage Township YMCA
- International Friendship Gardens
- South Haven Field of Dreams Park
- Creekside Golf Course
- American Legion Park Post 20
- Glen Park Walton League
- St. Sava Serbian Hall & Picnic Grounds
- Goss Softball Complex
- Lake Station Little League Field
- Rosser Park
- River Forest Sr High, Middle & Elementary Schools

- Henry S Evans Elementary School
- Twin Oaks Park
- Duneland YMCA
- Coffe Creek Watershed Preserve
- John Robinson Park
- Little Turtle Park
- Northwood Park
- Hawthorne Park
- Indiana Dunes State Park
- Mount Baldy
- Cobblestones Park
- West Lakes Park
- Indian Boundary Park
- Dwight D. Eisenhower Elementary School
- Lake Street Elementary School
- Taft Middle School
- Solon Robinson Elementary School
- Timothy Ball Elementary School
- Crown Point High School and Col. John Wheeler Middle School
- Sportsplex
- Jerry Ross Park
- Long Beach Park
- Charles Congdon Park
- Pine Island North
- Pine Island South
- Rohrman Park
- Barker Woods Nature Preserve
- Thomas Centennial Park
- DNR building
- Chustak State Fishing Area
- Salt Creek Public Fishing Area
- Founders Square Park
- Festival Park & Lakefront Park
- Riverview Park

- Wicker Memorial Park
- Pulaski Playground
- Maryland Street Playground
- Marquette Park
- Industrial Blvd. Park
- Gateway Park
- Edison Park
- Brunswick Park
- Borman Park
- Ambridge-Mann Center
- Markley Memorial Park
- Grand Park
- Kid's Cove Park
- Jackson Township Elementary School
- East Beaches
- Porter Beach
- Bailly Chellberg Unit
- West Beach
- Miller Woods
- Beverly Shores
- Chesterton's Prairie Duneland Trail
- Prairie Duneland Trail
- Iron Horse Heritage Trail
- Little Calumet River Levee Trail
- Hobart Trails Wisconsin Street
- Wolf Lake Trails
- Lake George Trail
- Whihala Beach County Park's Trail
- Ogden Dunes "Planet" Trail (Trail End)
- Erie Lackawana Trail: Hammond segment
- Erie Lackawana Trail: Highland segment
- Erie Lackawana Trail: Griffith segment
- Erie Lackawana Trail: Lake County segment
- Erie Lackawana Trail: Merrillville segment

- Erie Lackawana Trail: Schererville segment
- Oak Savannah Trail
- Calumet Trail
- Miller Woods Trail
- Marquette Trail
- Dune Succession Trail
- West Beach Trail

Coastal Zone Facilities: Around Lake Michigan



Around Lake Michigan
There are 77 facility locations within one mile of the Lake Michigan shoreline.

Coastal Zone is in orange and overlays counties.

APPENDIX D: MAP OF SITES WITHIN ONE MILE OF THE LAKE MICHIGAN SHORELINE