Chicago Wilderness

We are a regional alliance leading strategy to preserve, improve, and expand nature and quality of life.

ONE REGION. ONE VISION. ONE VOICE.
WHAT WE’RE ABOUT

nature + people

aligning across sectors for mutual benefit

driving regional solutions [ relevant, viable & scalable ]
OUR ROLE

drive key regional goals & activities for impact
connect members & partners
align for measurable, actionable priorities & goals
leverage resources for greatest impact
influence via regional action and policy for conservation resilience

CONSERVATION LEADER: ONE REGION, ONE VISION, ONE VOICE
WHY CHICAGO WILDERNESS

GLOBALLY SIGNIFICANT BIODIVERSITY
THE CHICAGO WILDERNESS REGION

- Members: 200+
- States: 4
- Counties: 38
- Municipalities: 500+
- People: 10 million+
- Lake Michigan Shoreline: 200+ miles
- Protected Acres: 545,000+
- Gross Regional Product: $575 billion+

2013 U.S. Department of Commerce: Bureau of Economic Analysis
SIX FOCUS AREAS
For regional impact

- oak ecosystems
- landowners
- priority species
- public engagement
- water as a resource
- data & member tools
**FOCUS AREAS: ENGAGEMENT AND LEADERSHIP OF CW MEMBER ORGANIZATIONS & PARTNERS**

165 individuals  
Alliance for the Great Lakes

87 organizations  
Chicago Metropolitan Agency for Planning (CMAP)

- Audubon Great Lakes
- Ball Horticultural Company
- Bartlett Tree Experts
- Butler Fairman & Seufert
- CH2M
- Chemical Industry Council of Illinois
- Chicago Botanic Garden
- Foresight Design Initiative
- Chicago Park District
- Chicago Zoological Society/Brookfield Zoo
- Chikaming Open Lands
- Christopher B. Burke Engineering, Ltd.
- Clarke - Aquatic Services
- Delta Institute
- DuPage County, IL: Stormwater Management Division
FOCUS AREAS: ENGAGEMENT AND LEADERSHIP OF CW MEMBER ORGANIZATIONS & PARTNERS

165 individuals   87 organizations

Forest Preserve District of DuPage County   Illinois Dept. of Natural Resources
Forest Preserve District of Kane County   Illinois Environmental Protection Agency
Forest Preserve District of Will County   Illinois Farm Bureau
Forest Preserves of Cook County   Illinois Institute of Technology
Friends of Kankakee   Illinois Natural History Survey
Geosyntec Consultants   Indiana Dept. of Natural Resources
Hey and Associates, Inc.   Indiana Farm Bureau
Huff & Huff, Inc.   Indiana Lake Michigan Coastal Program
Illinois Audubon Society   Indiana University Northwest
FOCUS AREAS: ENGAGEMENT AND LEADERSHIP OF CW MEMBER ORGANIZATIONS & PARTNERS

165 individuals  87 organizations

Kane County Development & Community Services Department  National Great Rivers Research and Education Center (NGRREC)
Kettle Moraine Land Trust  Natural Land Institute
Lake County Forest Preserves  NW Indiana Regional Planning Commission
Lake County, IL: Health Department, Population Health Services  Northwestern University Environmental Policy & Culture Program
Lincoln Park Zoo  Openlands
Living Habitats  Orbis Consulting
McHenry County Conservation District  Shedd Aquarium
Metropolitan Planning Council  Sierra Club Illinois
Metropolitan Water Reclamation District of Greater Chicago (MWRD)  South Suburban Land Bank and Development Authority
National Audubon Society  South Suburban Mayors & Managers Association (SSMMA)
FOCUS AREAS: ENGAGEMENT AND LEADERSHIP OF CW MEMBER ORGANIZATIONS & PARTNERS

165 individuals  87 organizations

SE Wisconsin Regional Planning Commission  University of Chicago, Urban Labs
Southwest Michigan Planning Commission  U.S. Forest Service
Stantec Consulting Services, Inc.  UIC School of Public Health
Sweet Water  University of Notre Dame
Tallgrass Restoration, LLC  USDA Forest Service
Peggy Notebaert Nature Museum  USDA Forest Service, Midewin
The Conservation Foundation  USDI National Park Service, Indiana Dunes National Lakeshore
The Field Museum  US Fish & Wildlife Service
The Morton Arboretum  USGS
The Nature Conservancy, IL & IN  WI Dept. of Natural Resources
The Wetlands Initiative  V3 Companies
2 Point 0 Studio
OAK ECOSYSTEMS

missing link
mapping oak ecosystems in remaining areas of our region (parts of Wisconsin, Indiana, and Michigan) is a high priority

17%
of our original oak ecosystems remain

LEGEND
CHICAGO WILDERNESS REGION MAP
This shows parts of Wisconsin, Illinois, Indiana, and Michigan, including 225 miles of Lake Michigan shoreline. Oaks are currently mapped in the Illinois portion only.

- 1830s - original oak ecosystems
- 2010 - remaining oak ecosystems

we need more and larger parcels of land for oak ecosystems

70%
of remaining oak ecosystems exist on privately owned lands
This underscores the importance of engaging diverse landowners

oaks are vital contributors to our connected landscapes
12 PRIORITY ANIMAL SPECIES OF CHICAGO WILDERNESS

Bobolink
Dolichonyx oryzivorus
Photo: US Fish & Wildlife
RUSTY PATCHED BUMBLEBEE

- Once common/widespread in 28 states.
- Decline (at least 87%) in numbers of extant populations in past 20 years.
- Significant contraction of range.
- Multiple threats, but especially:
  - Pesticides
  - Disease (fungus), esp. transmitted by introduced bumblebees.

FWS Chronology
- Petitioned (by Xerces Society) January 2013
- Finding listing may be warranted September 2015
- Proposed as Endangered September 2016
- Final rule, listed Endangered January 11, 2017
- Listing takes effect February 10, 2017
REGIONAL APPROACH, WATERSHED BASIS
PRIMARY WATER ISSUES
Three prioritized issues for strategic actions

- **groundwater protection and recharge**
- **nutrient and contaminant management**
- **stormwater management**

**ecosystem quality** is the primary indicator of watershed health
**Framework**

### Watershed Alterations
- CSO areas
- MS4 communities
- Developing areas
- Rural areas

### Water Challenges
- Stormwater infiltration
- Ground and surface water flow
- Groundwater storage
- Water quality
- Others

### Conservation Actions
- Improving permeability
- Removing dams
- Managing drain tile
- Moving soil
- Removing invasive species
- Planting
- Others

### Conservation Sites
- Aquatic and terrestrial habitat
- Underutilized land
- Aquifers
- Others
CONCEPTUAL REGIONAL ISSUE IDENTIFICATION

CONCEPTUAL MAP OF DRIVERS FOR WATER ISSUES IN THE REGION:
Preliminary Draft for Discussion

Chicago Wilderness | Healthy Waters | February 21, 2017
The number of communities using Lake Michigan supply has grown over the decades.
PUBLIC WATER SUPPLY SOURCES BY COMMUNITY

Locations of deepening cones depression prior to 1980
PUBLIC WATER SUPPLY SOURCES BY COMMUNITY
Shallow groundwater sources, sensitive aquifer areas and important lands and waters.
## Top Fifteen 303(d) Impairments for Des Plaines River Watershed

<table>
<thead>
<tr>
<th></th>
<th>Number of waterways with impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphorus, Total</td>
<td>97</td>
</tr>
<tr>
<td>Total Suspended Solids (TSS)</td>
<td>54</td>
</tr>
<tr>
<td>Nitrogen, Total</td>
<td>42</td>
</tr>
<tr>
<td>Dissolved Oxygen</td>
<td>34</td>
</tr>
<tr>
<td>Polychlorinated Biphenyls (PCBs)</td>
<td>33</td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>31</td>
</tr>
<tr>
<td>Sedimentation/Siltation</td>
<td>27</td>
</tr>
<tr>
<td>Mercury</td>
<td>25</td>
</tr>
<tr>
<td>Cause Unknown</td>
<td>21</td>
</tr>
<tr>
<td>Total Dissolved Solids (TDS)</td>
<td>19</td>
</tr>
<tr>
<td>Chlorides</td>
<td>13</td>
</tr>
<tr>
<td>DDT</td>
<td>13</td>
</tr>
<tr>
<td>Silver</td>
<td>12</td>
</tr>
<tr>
<td>Hexachlorobenzene</td>
<td>11</td>
</tr>
<tr>
<td>pH</td>
<td>9</td>
</tr>
</tbody>
</table>
FLOODING

• Increased stormwater runoff increases the risk of flooding downstream

• Greater volumes of stormwater is pushed into streams rather than keeping it closer to where it falls
Impairments Caused by Chemicals

Map Key
- HUC 10 Watersheds
- CW Boundary
- Lake Michigan
- Watersheds Outside the CW Region

Impairment Category
- Chemical Impairments
Impairments Caused by Nutrients

Map Key
- HUC 10 Watersheds
- CW Boundary
- Lake Michigan
- Watersheds Outside the CW Region
- HUC 12 Scale Water Impairment

Nutrients

Nutrient Contaminants in the CW Region

Lake Michigan

0 15 30 60 Miles
MS4 and CSO Communities within the Chicago Wilderness Region
Upcoming NPDES Permit Renewal & Water Quality Assessment

Map Key
- NPDES Major Dischargers
- NPDES Minor Dischargers
- HUC 12 Watersheds with Good & Impaired Streams
- HUC 12 Watersheds with 'Impaired' Streams
- HUC 12 Watersheds with 'Good' Streams
- Not Assessed
- HUC 10 Watershed Boundaries
- Lake Michigan

Sources:
US EPA 305(b) Waters as Assessed Indexed Dataset
US EPA 305(b) Assessed Water Sources of Impairments
REGIONAL DATA FRAMEWORK
Proposed Conceptual Model

CW Collaborative Regional Data Management System

Data Hosted by CW
- CW's Server
  - Articles Resources Etc.
  - Data Layers (e.g. shapefiles, .xsl, KML, etc.)
  - Dynamic Online Maps

Data CW Links to
- Data Originator's Server
  - Articles Resources Etc.
  - Data Layers (e.g. shapefiles, .xsl, KML, etc.)
  - Dynamic Online Maps
CW Landowners: Opportunities for Partnership

Legend
- Interstates
- Railroads
- Highways
- Ecological Networks, Protected Lands, and Streams
- CW Region
- Watersheds Outside the CW Region

Lake Michigan
Beyond the Choir
Regional Demographic Trends

increasing **aging population**
Increasing **diversity**
**population shift** to the collar counties / Indiana suburbs
significantly **lower income** and **higher unemployment** rates for blacks and Hispanics
Beyond the Choir

Next Steps

- conservation goals
- public health
- demographics

UCHICAGO URBAN LABS
Wilderness Chicago and Urban Labs C4P program have a shared interest in reaching out to urban communities to engage them in their community and environmental resources.

C4P

Urban communities

wilderness access

wilderness use

social + community connections

lower stress

health engagement

well-being quality of life

strong wilderness use/advocacy constituency

data supporting critical role for green space in health

physical activity
FOCUS AREAS: ENGAGEMENT AND LEADERSHIP OF CW MEMBER ORGANIZATIONS & PARTNERS

165 individuals  87 organizations

Kane County Development & Community Services Department
Kettle Moraine Land Trust
Lake County Forest Preserves
Lake County, IL: Health Department, Population Health Services
Lincoln Park Zoo
Living Habitats
McHenry County Conservation District
Metropolitan Planning Council
Metropolitan Water Reclamation District of Greater Chicago (MWRD)
National Audubon Society

National Great Rivers Research and Education Center (NGRREC)
Natural Land Institute
NW Indiana Regional Planning Commission
Northwestern University Environmental Policy & Culture Program
Openlands
Orbis Consulting
Shedd Aquarium
Sierra Club Illinois
South Suburban Land Bank and Development Authority
South Suburban Mayors & Managers Association (SSMMA)
Chicago Wilderness

ONE REGION. ONE VISION. ONE VOICE.