

# CRYSTAL CREEK WATERSHED OVERVIEW

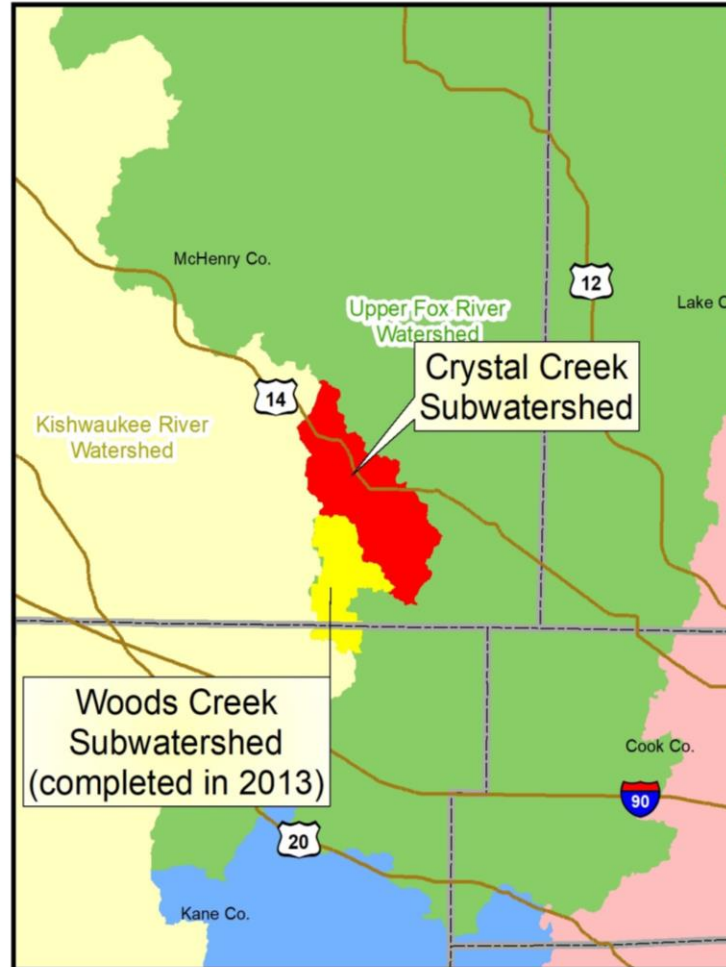
PREPARED FOR FREP/CC WATERSHED COMMITTEE MEETING

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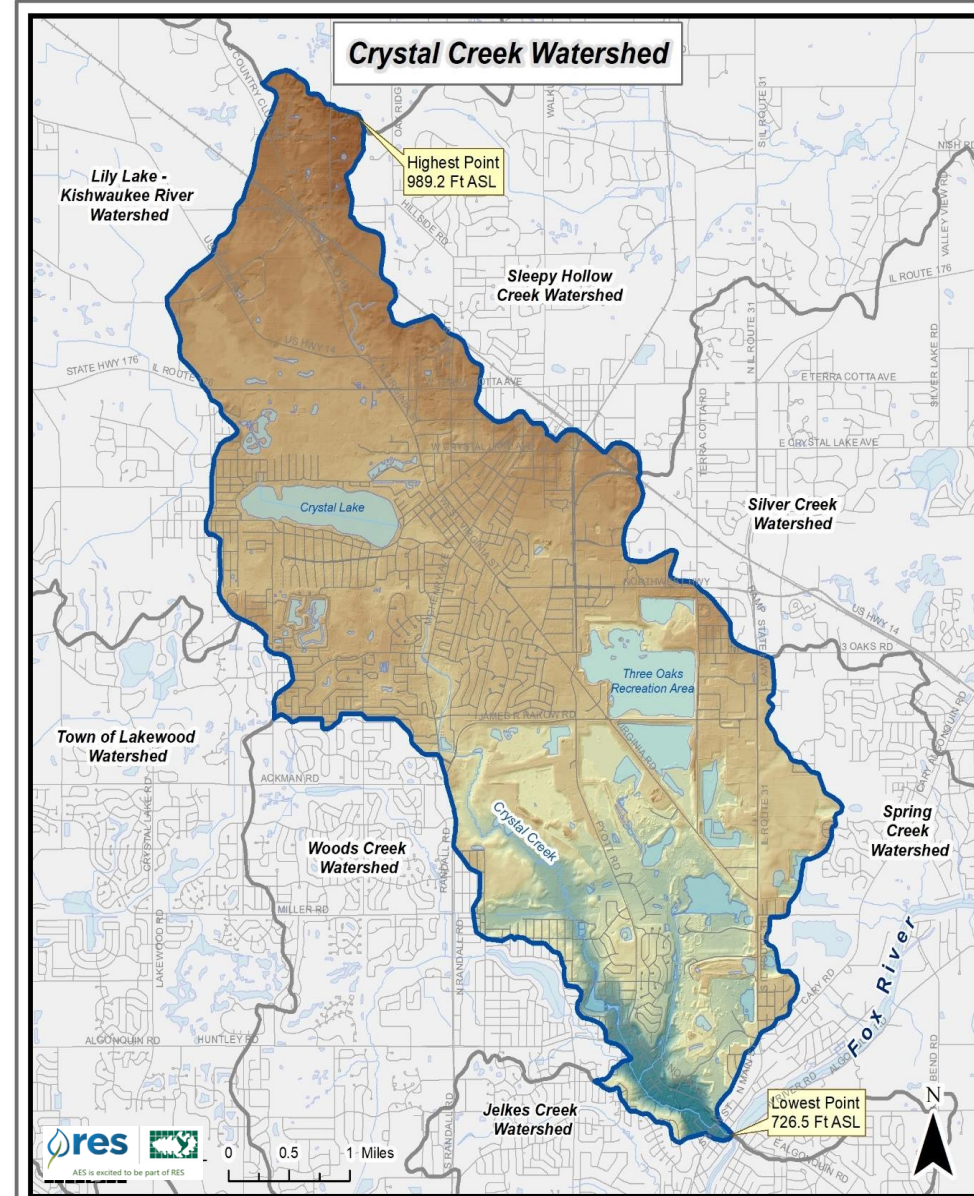
Steve Zimmerman M.S.  
Principal Restoration Ecologist



# CRYSTAL CREEK WATERSHED

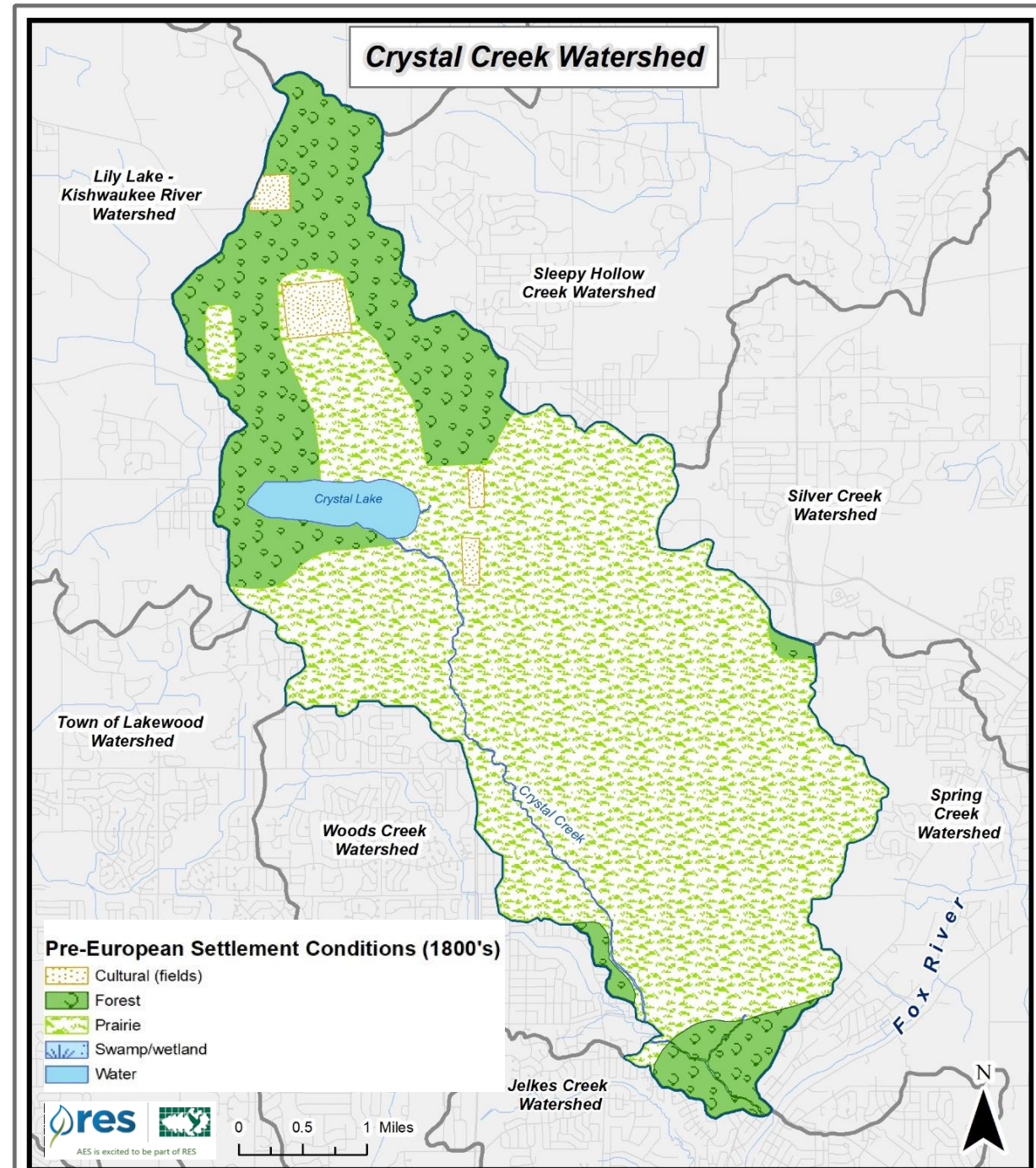


**Crystal Creek Subwatershed  
McHenry County**



# PRE-SETTLEMENT LANDSCAPE

Early 1800s Pre-Settlement Landcover	Acreage	Percent
Prairie	8,591.1	71.4%
Forest	2,905.3	24.1%
Water	308.4	2.6%
Cultural	232.3	1.9%
<b>Total</b>	<b>12,037.1</b>	<b>100%</b>



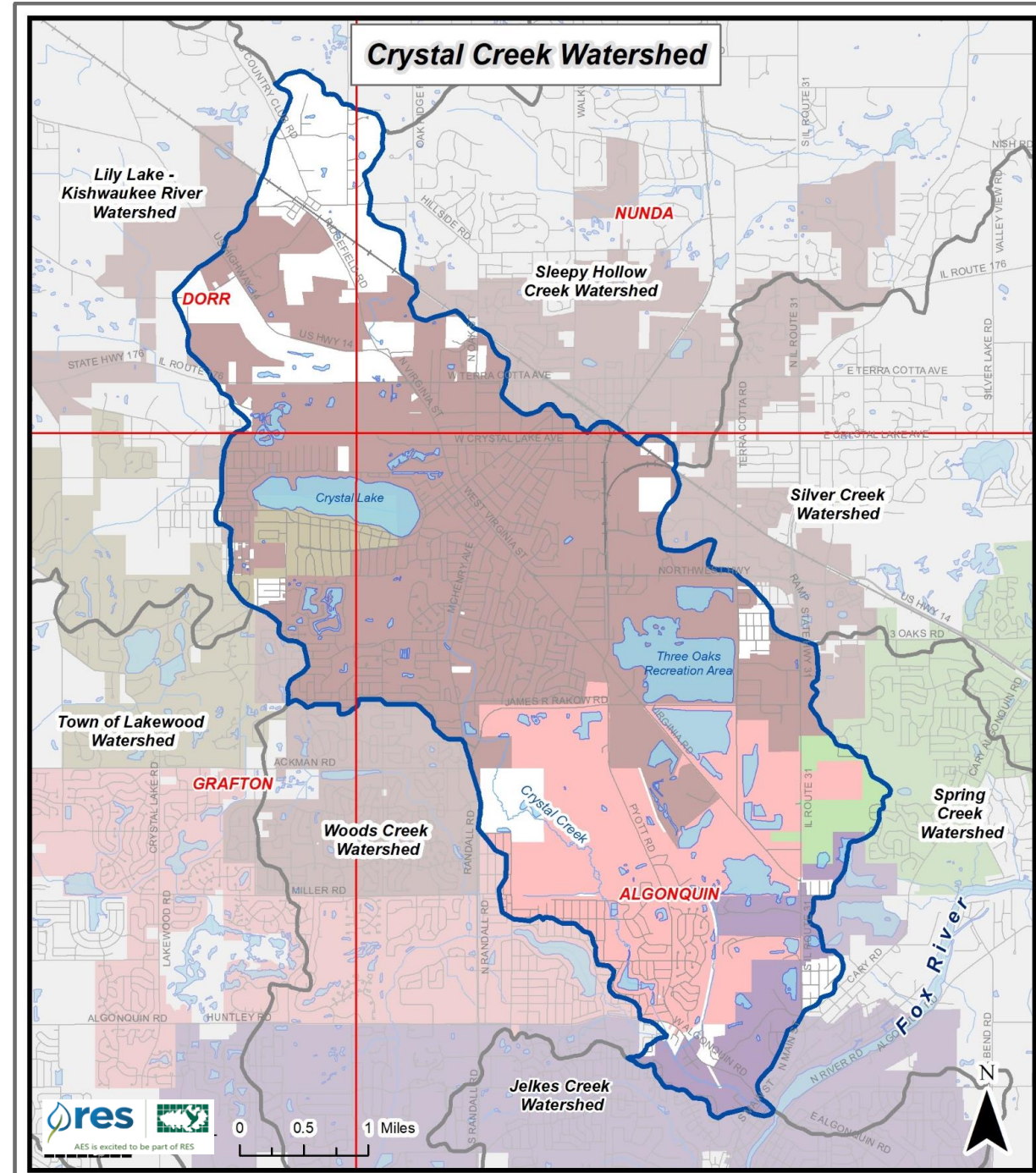
# JURISDICTIONS

Watershed Jurisdiction		
County	Area (Acres)	% of Watershed
McHenry County	12,037.1	100.0%
Municipalities		
Municipalities	Area (Acres)	% of Watershed
City of Crystal Lake	6,365.6	52.9%
Village of Lake in the Hills	2,628.5	21.8%
Village of Algonquin	682.1	5.7%
Village of Lakewood	388.8	3.2%
Village of Cary	224.0	1.9%
<b>Total</b>	<b>9,606.9</b>	<b>79.8%</b>

Entirely within  
McHenry  
County

## Watershed Jurisdictions

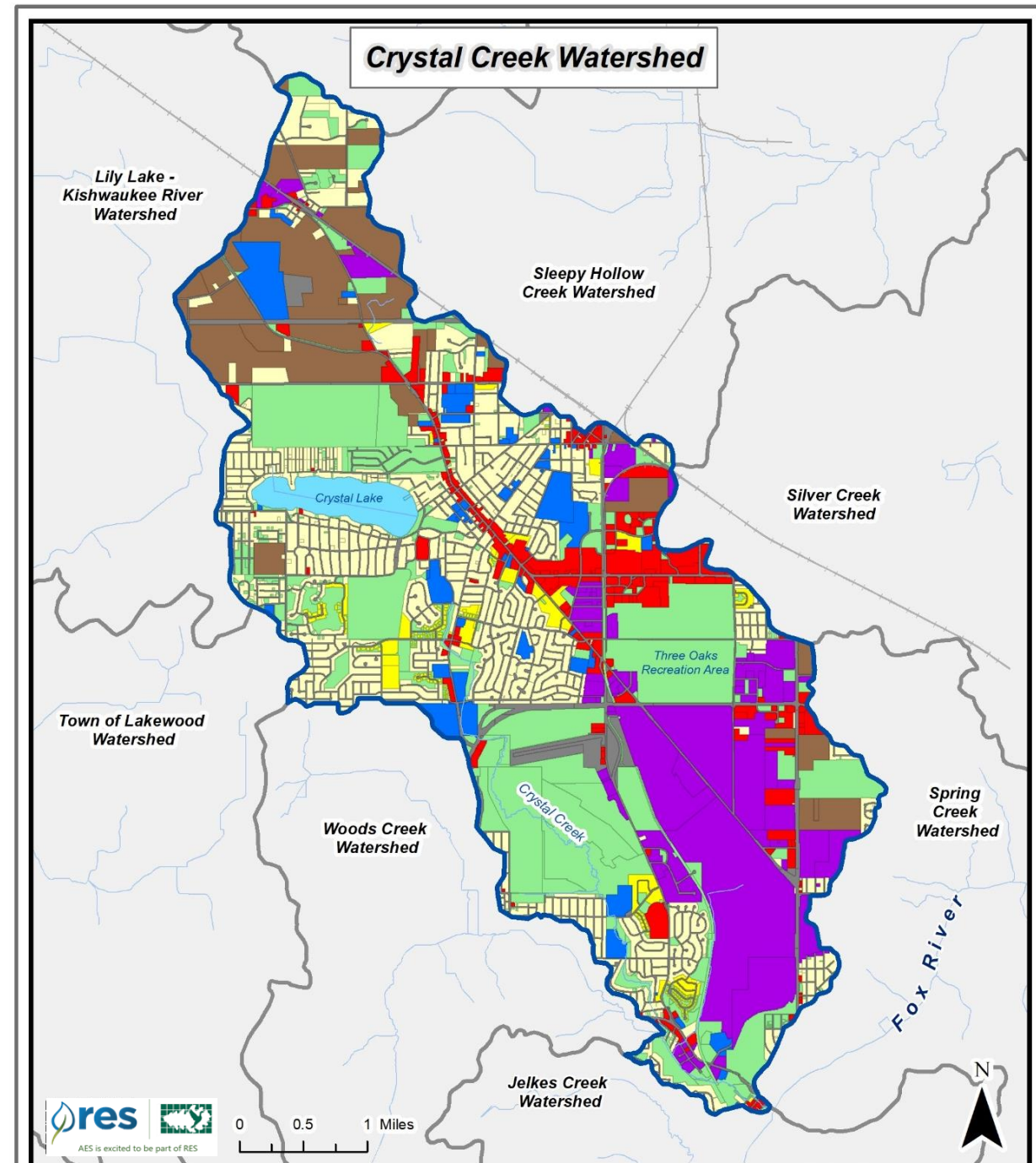
- Village of Algonquin
- City of Crystal Lake
- Village of Cary
- Village of Lake in the Hills
- Village of Lakewood



# EXISTING LAND USE

- 26% Open Space
- 21% Single-Family Residential
- 16% Industrial
- 12% Transportation
- 11% Agricultural
- 6% Commercial/Retail
- 4% Institutional

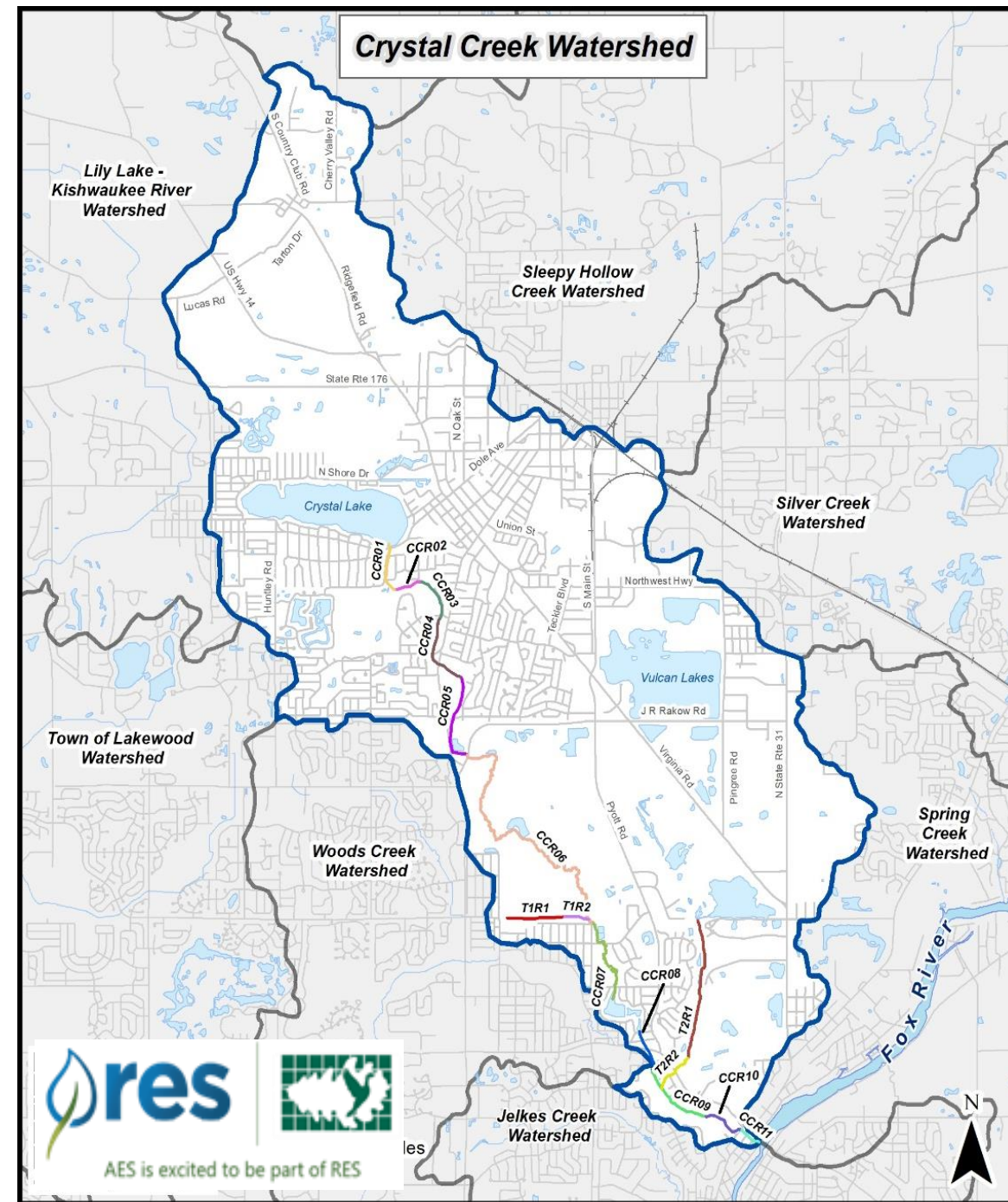
Current Land Use 2013			
	Agriculture		Industrial
	Single Family Residential		Municipal/Institutional
	Multi-Family Residential		Open Space
	Res/Commercial Mixed		Wetlands
	Commercial/Retail		Transportation/Utility
	Industrial/Business Pk		Water



# STREAM REACHES

## Crystal Creek

- 11 Reaches
- 37,404 lf (7.1 mi) Tributaries
- 2 Tributary Streams
- 10,794 lf (2.0 mi)

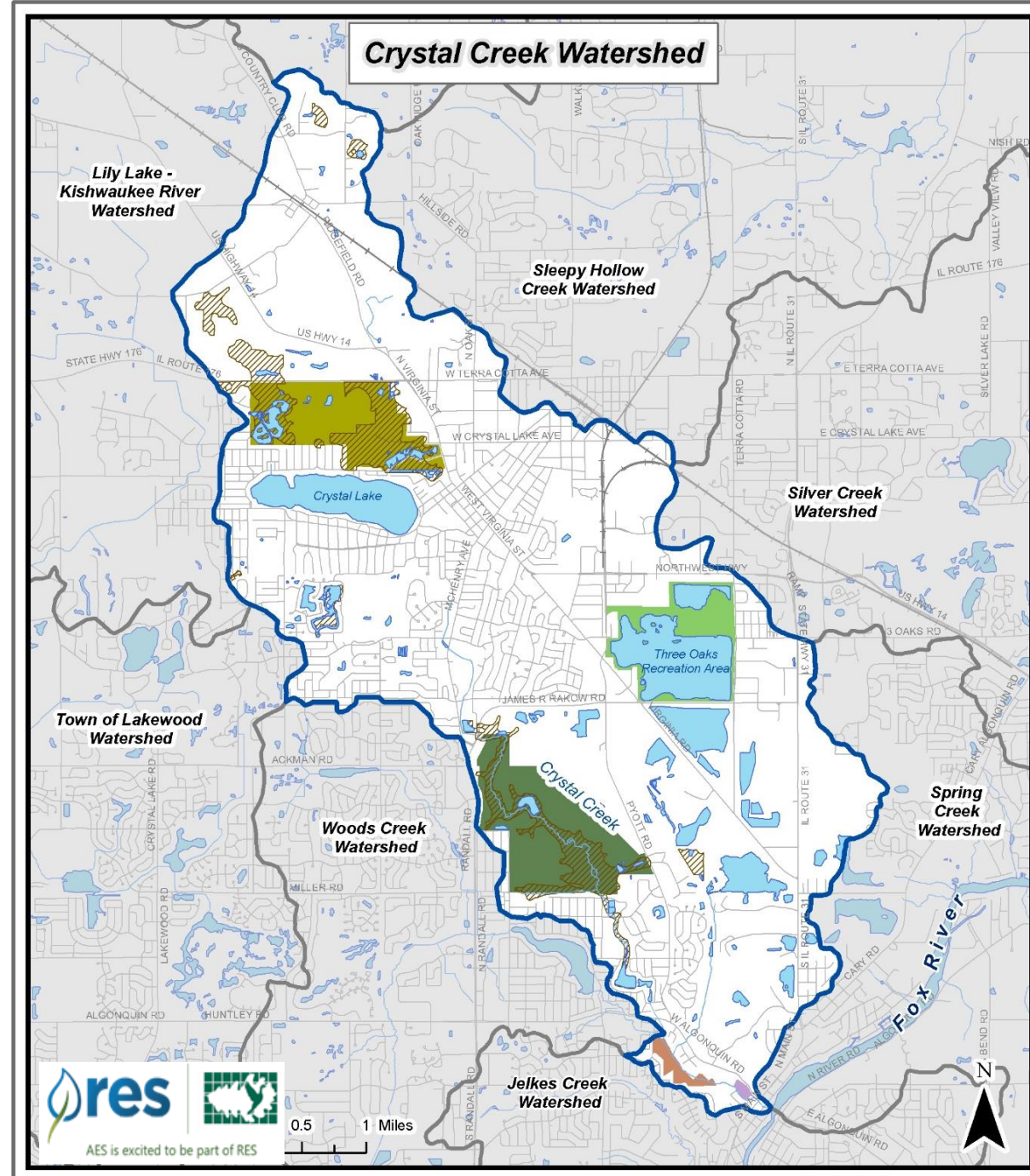


# NATURAL AREAS

- Lake in the Hills Fen
- Lippold Park
- Mesic Woodland
- Three Oaks Recreation Area
- Towne Park
- McHenry County ADID Wetlands

## Ecologically Significant Natural Areas

-  LITH Fen
-  Lippold Park
-  Mesic Woodland Owned by Algonquin
-  Three Oaks Recreation Area
-  Towne Park
-  ADID Wetlands



# LAKE IN THE HILLS FEN





# LIPPOLD PARK



# THREE OAKS RECREATIONAL AREA









# TOWNE PARK

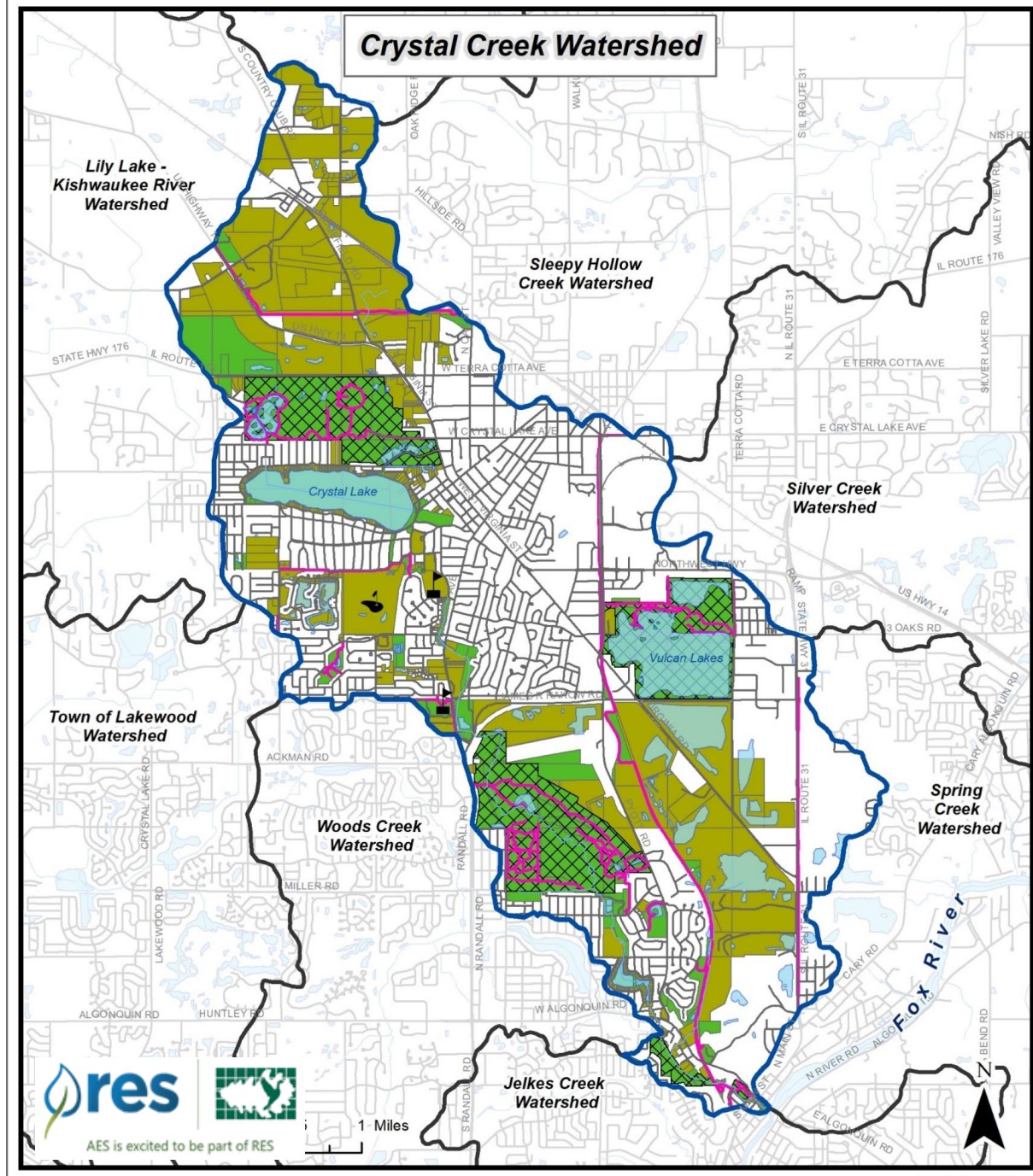


# GREEN INFRASTRUCTURE NETWORK

GIN includes 765 parcels, totaling 5,622 acres, 2,408 acres (43%) of which are protected

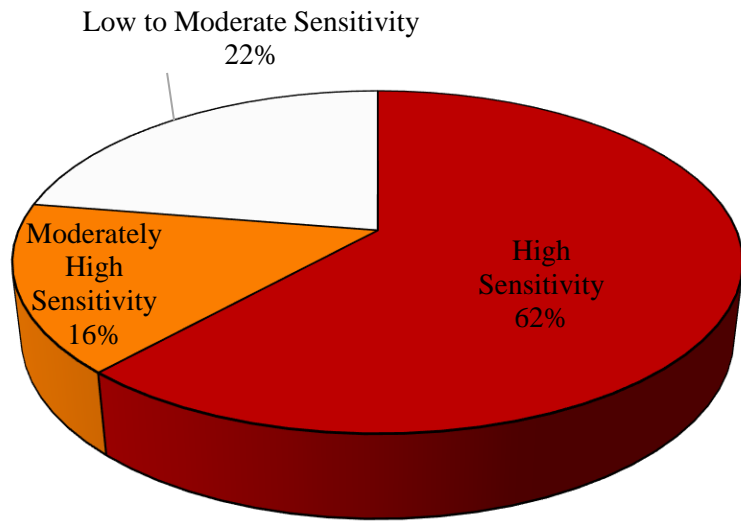
Identifies areas that need special consideration or protection in the future

-  Ecologically Significant Natural Areas
-  Protected Green Infrastructure
-  Unprotected Green Infrastructure
-  Trails
-  Golf Course
-  School

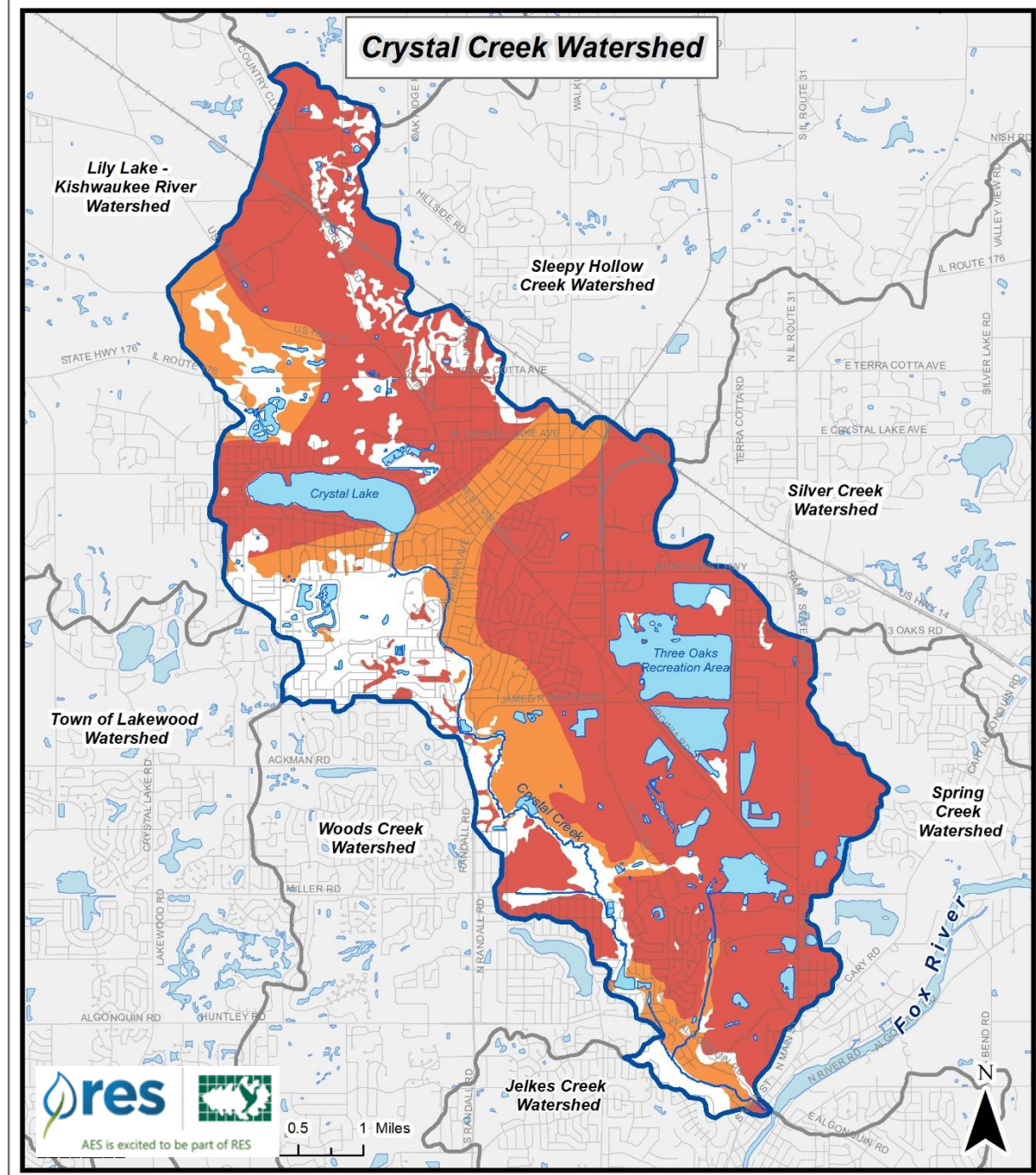
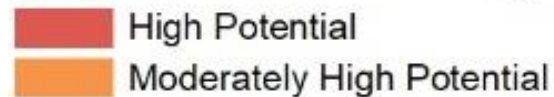


# GROUNDWATER

Almost 80% of the watershed is comprised of Sensitive Aquifer Recharge Areas



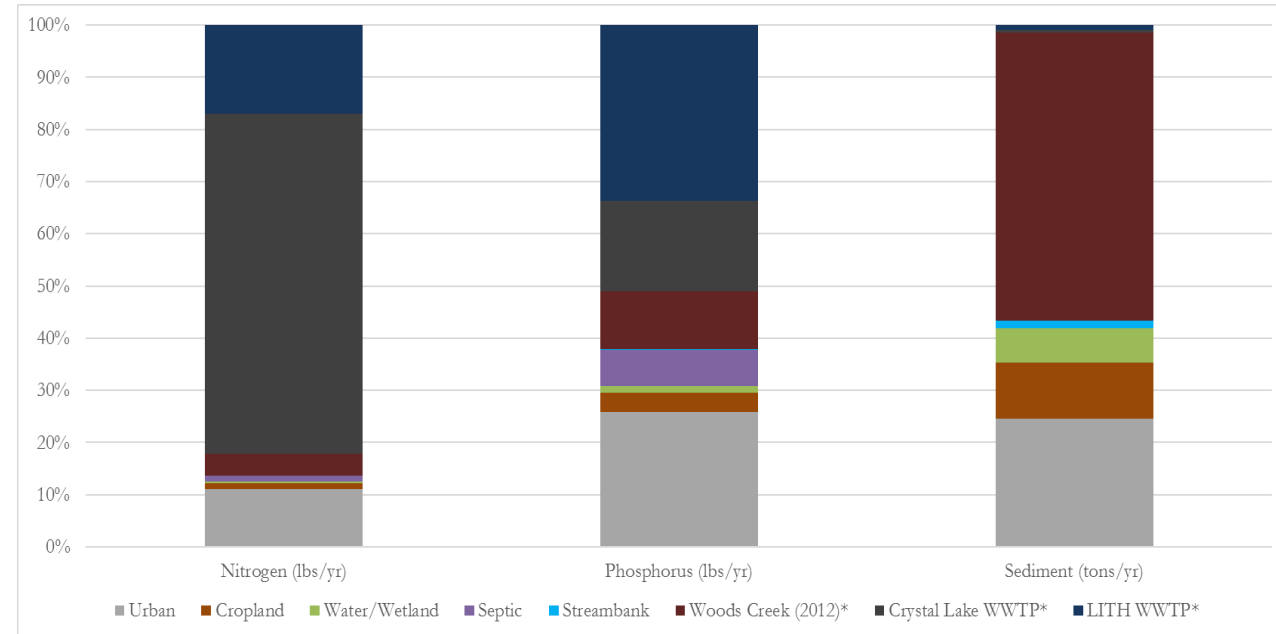
## Potential for Aquifer Contamination/Recharge



# POLLUTANT LOADING MODEL

Excluding WWTPs & Woods Creek:

- 81% of nitrogen, 68% of phosphorus & 57% of TSS from urban.
- 8% and 10% of TN and TP and 25% of TSS from croplands.



# WATERSHED PLANNING GOALS

**Policy**  
(score: 72)

**Surface Water  
Quality**  
(score: 65)

**Groundwater**  
(score: 60)

**Green  
Infrastructure  
Network &  
Habitat**  
(score: 58)

**Flooding**  
(score: 26)

**Education &  
Stewardship**  
(score: 20)

# CRITICAL AREA PROJECTS

## Legend

- |   |                        |   |  |
|---|------------------------|---|--|
|  | Waterbody              |  | Detention Basin Retrofit                 |
|  | Roads                  |  | Existing Natural Area Management         |
|  | Streams                |  | Fencing                                  |
| <b>Jurisdictions</b>  |                        |  | Invasives Management                     |
|  | Crystal Lake           |  | Natural Area Restoration                 |
|  | Algonquin              |  | Shoreline Education Program              |
|  | Cary                   |  | Priority Green Infrastructure Protection |
|  | Lake in the Hills      |   |  |
|  | Lakewood               |   |  |
| <b>Critical Areas by Type</b>   |                        |   |  |
|  | Stream & Riparian Area |   |  |

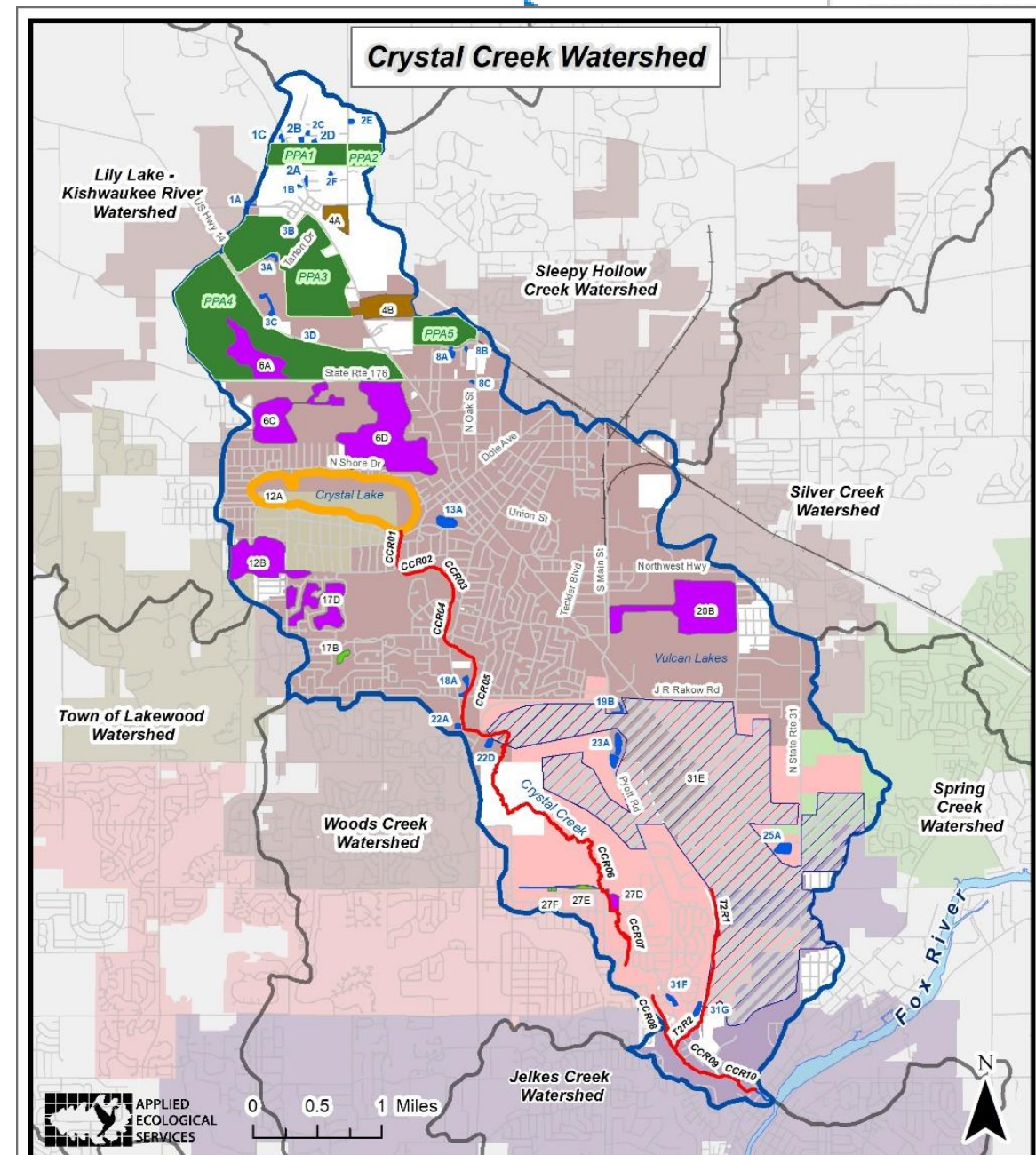
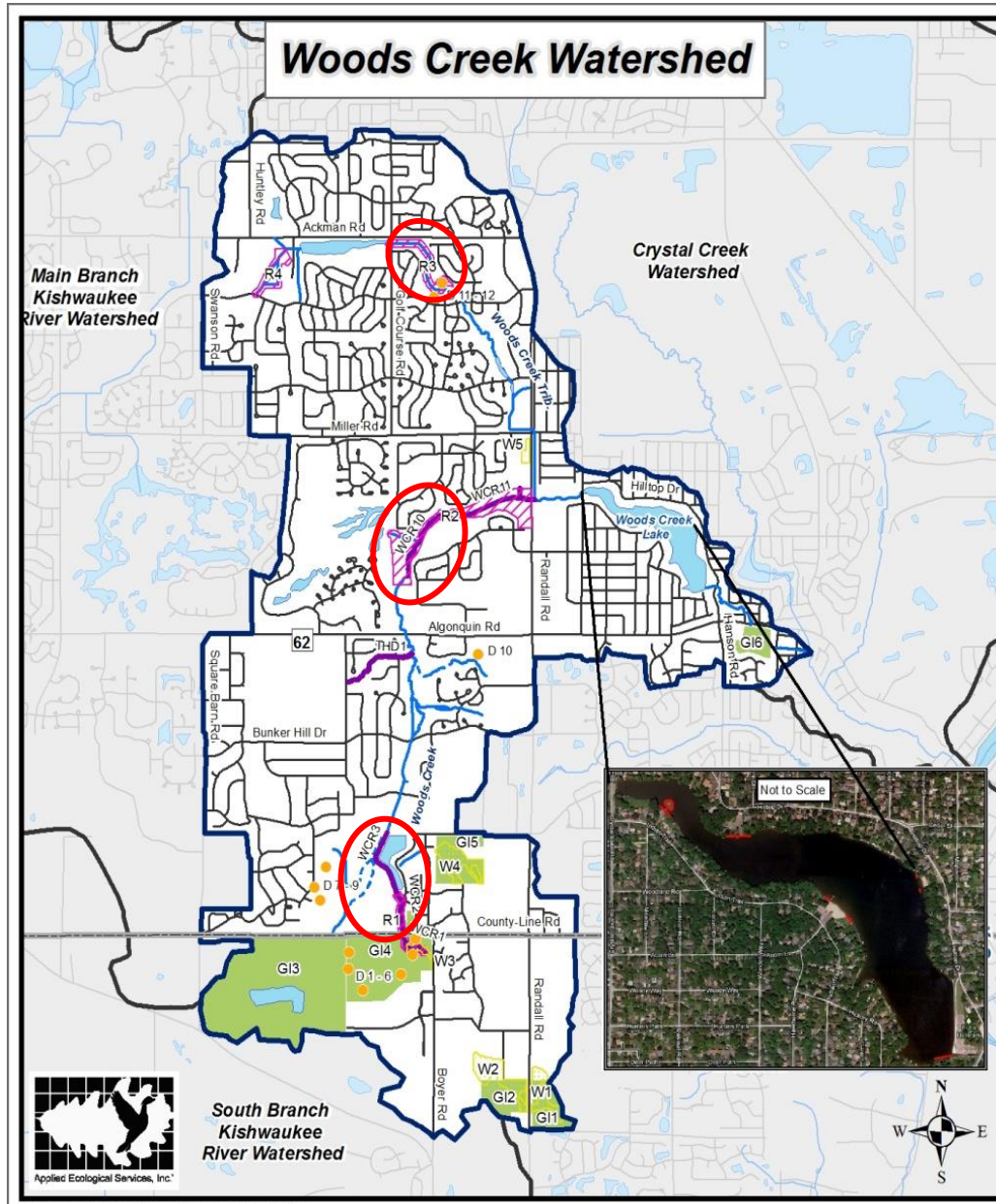


Fig. 50: Critical Areas

DATA SOURCES City of Crystal Lake  
McHenry County  
U.S. Census Bureau  
U.S. Geological Survey

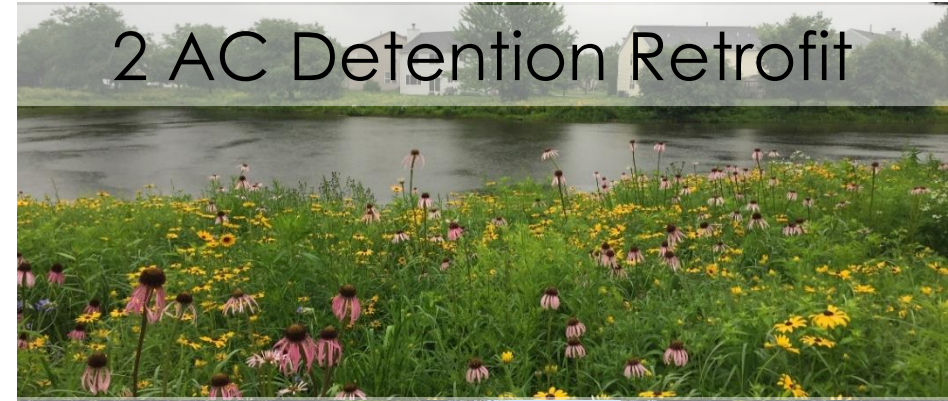
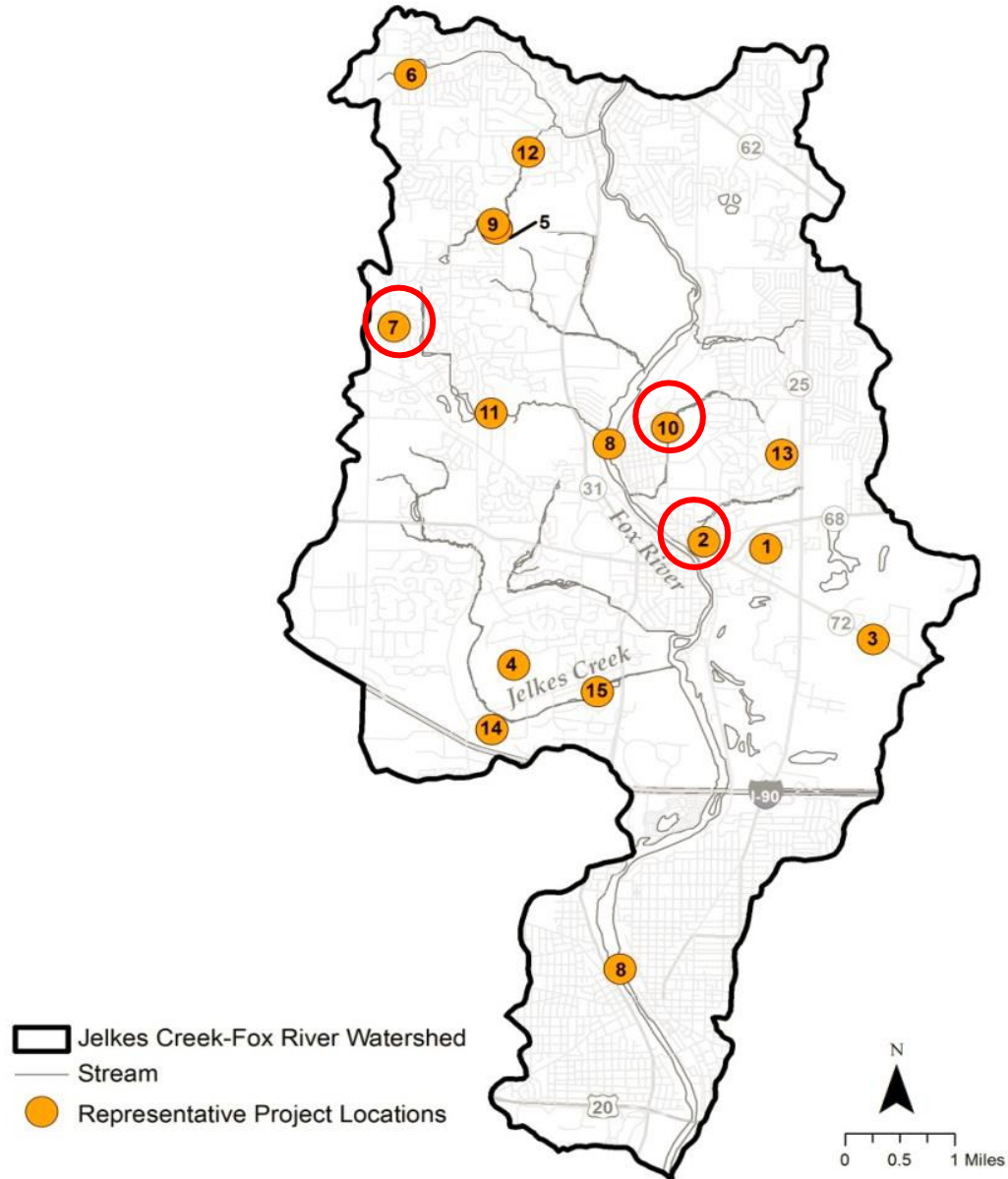


# WATERSHED PLANNING = 319 GRANT PROJECTS



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Representative Project Locations



2 AC Detention Retrofit



4,000 LF Stream Restoration



1,000 LF Stream Restoration