

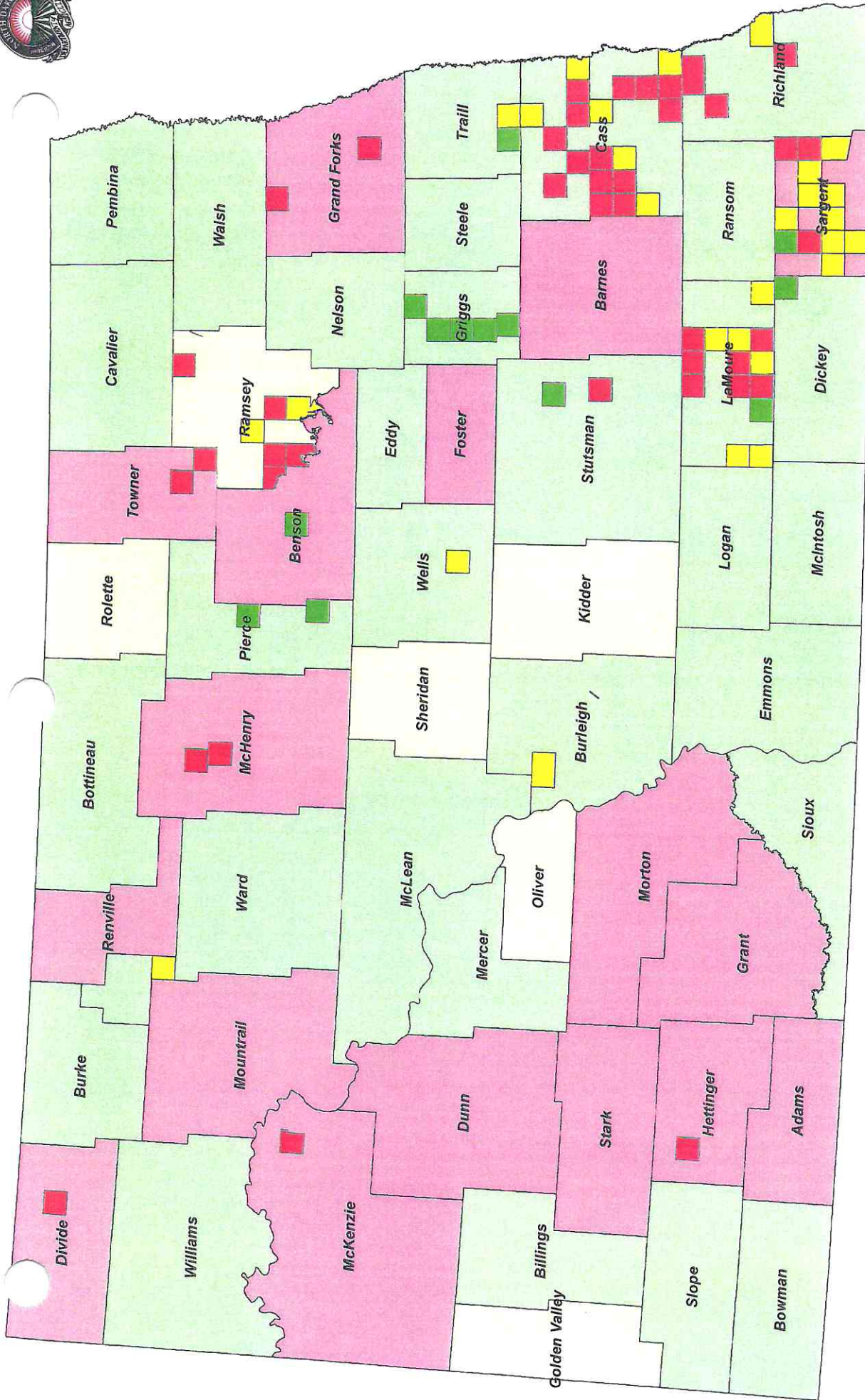
Setback Distances for Animal Feeding Operations		
Number of Animal Units	Hog Operations	Other Animal Operations
fewer than 300	none	none
300 - 1000	0.50 mi (0.805 km)	0.50 mi (0.805 km)
1001 or more	0.75 mi (1.207 km)	0.50 mi (0.805 km)
2001 or more	1.00 mi (1.609 km)	0.75 mi (1.207 km)
5001 or more	1.50 mi (2.414 km)	1.00 mi (1.609 km)

The operator of a new animal feeding operation shall locate the site of that operation from existing residences, businesses, churches, schools, public parks and areas of property that are zoned residential so as to exceed the corresponding listed setback from these places.

1.2 EQUIVALENT ANIMAL NUMBERS

An "animal unit equivalent" is a unitless number developed from the nutrient and volume characteristics of *manure* for a specific *livestock* type. The term "animal units" is used to normalize the number of animals (e.g., head) for each specific *livestock* type which produce comparable bulk quantities of *manure*. The animal unit equivalents for types of *livestock* and the numbers of *livestock* for facility size thresholds of 300 animal units (a.u.), and so forth, are listed in the following table.

Livestock Type	Animal Unit Equivalent	Equivalent Numbers of the Livestock (hd) for Four Sizes (a.u.) of Animal Feeding Operations			
		300 a.u.	1,000 a.u.	2,000 a.u.	5,000 a.u.
1 horse	2.0	150 hd	500 hd	1,000 hd	2,500 hd
1 dairy cow	1.33	225	750	1,500	3,750
1 mature beef	1.0	300	1,000	2,000	5,000
1 beef feeder - finishing	1.0	300	1,000	2,000	5,000
1 beef feeder - backgrounding	0.75	400	1,333	2,667	6,667
1 mature bison	1.0	300	1,000	2,000	5,000
1 bison feeder	1.0	300	1,000	2,000	5,000
1 swine, > 55 lbs	0.4	750	2,500	5,000	12,500
1 goose or duck	0.2	1,500	5,000	10,000	25,000
1 sheep	0.1	3,000	10,000	20,000	50,000
1 swine, nursery	0.1	3,000	10,000	20,000	50,000
1 turkey	0.0182	16,500	55,000	110,000	275,000
1 chicken	0.01	30,000	100,000	200,000	500,000



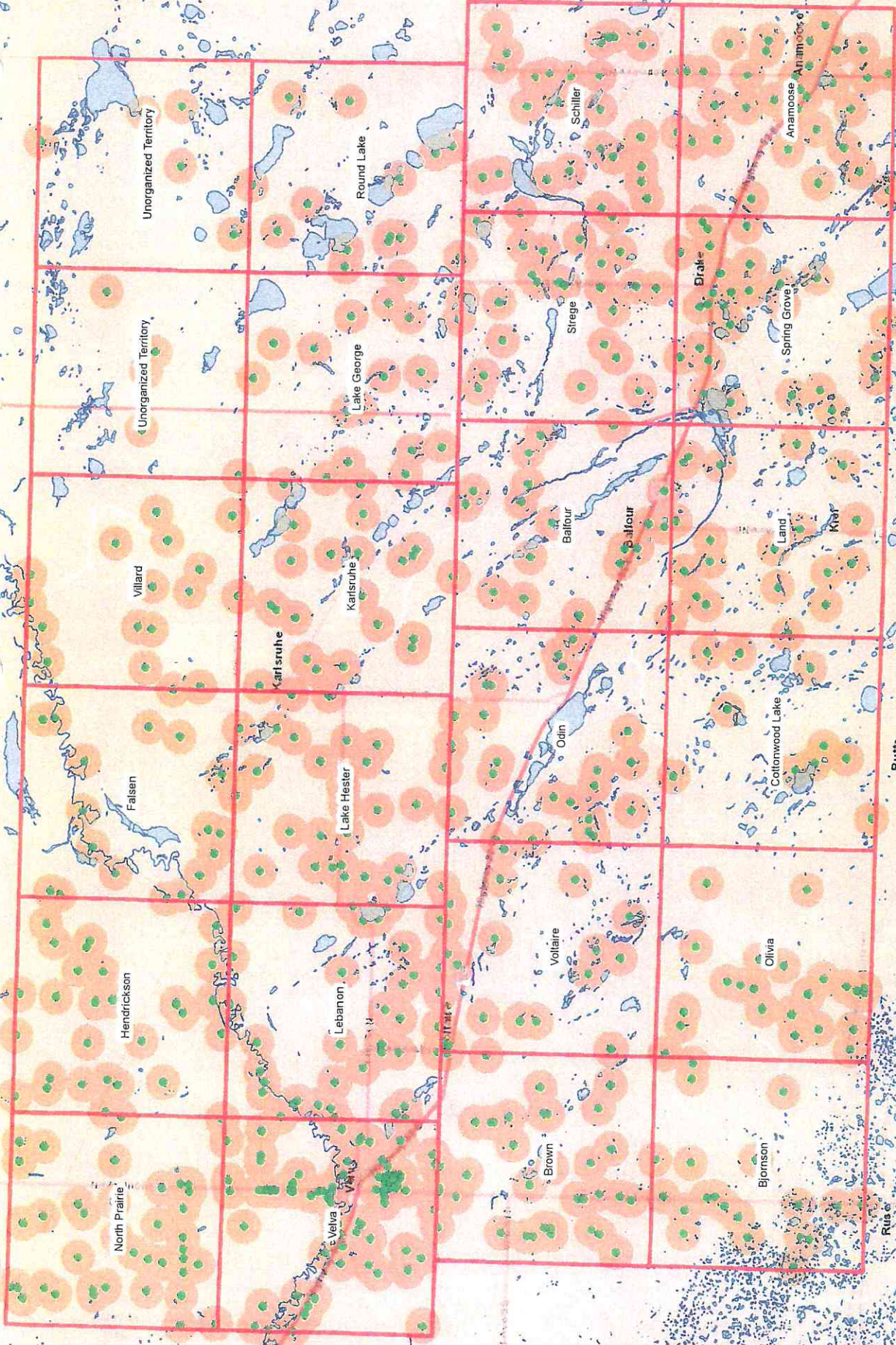
County Zoning Ordinance Comparison

- Meets Model Zoning
- Zoning Ordinance is unclear
- Exceeds Model Zoning Ordinance

Livestock Zoning Ordinances by Township Comparison

- Meets the Model Zoning Ordinance
- Townships with Un-clear Zoning Requirements
- Townships with setbacks exceeding ND Model Zoning Ordinance

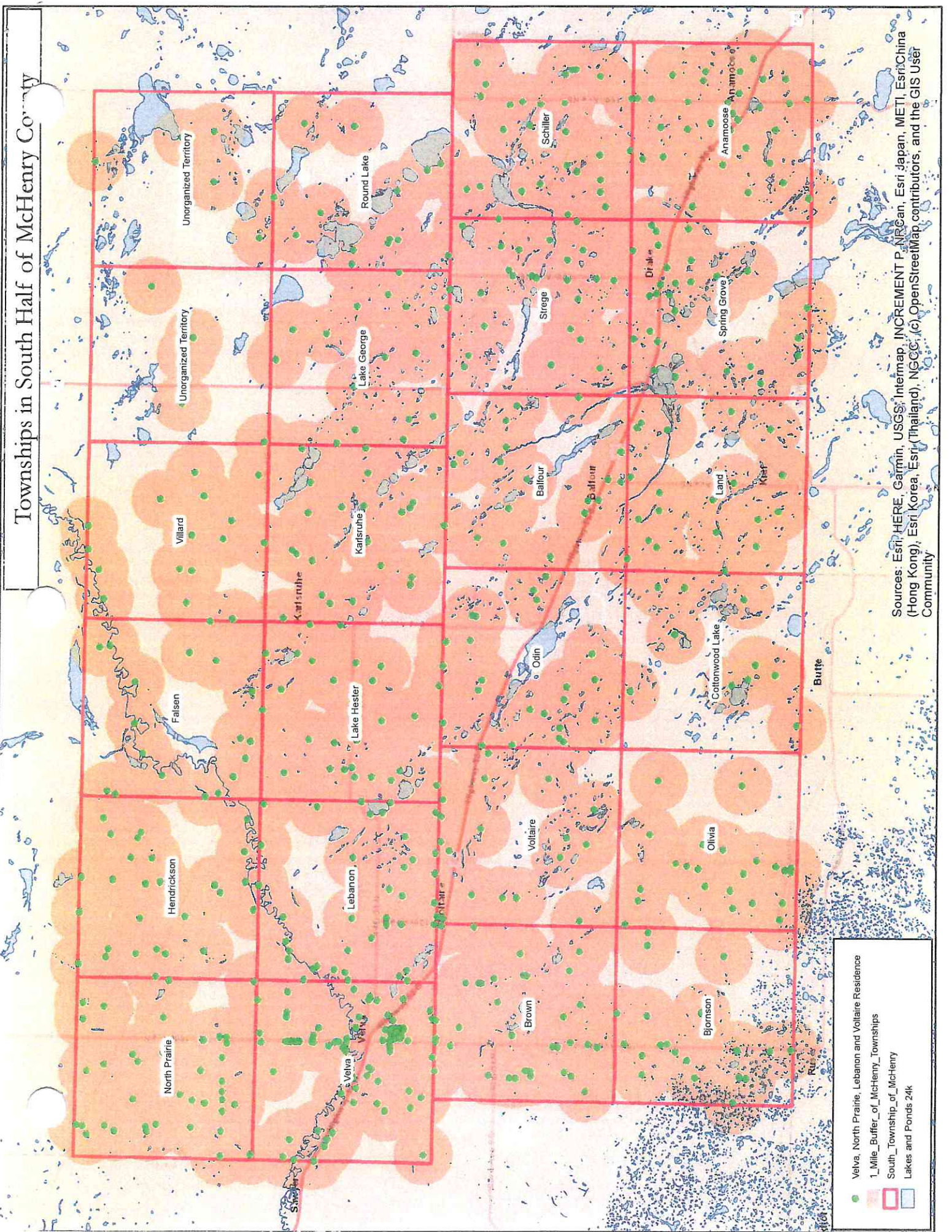
Townships in South Half of McHenry County



5 Mile Buffer of McHenry Townships
 South Township of McHenry
 Lakes and Ponds 24k
 Velva, North Prairie, Lebanon and Voltaire Residence

Sources: Esri; HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, Esri Korea, Esri/China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

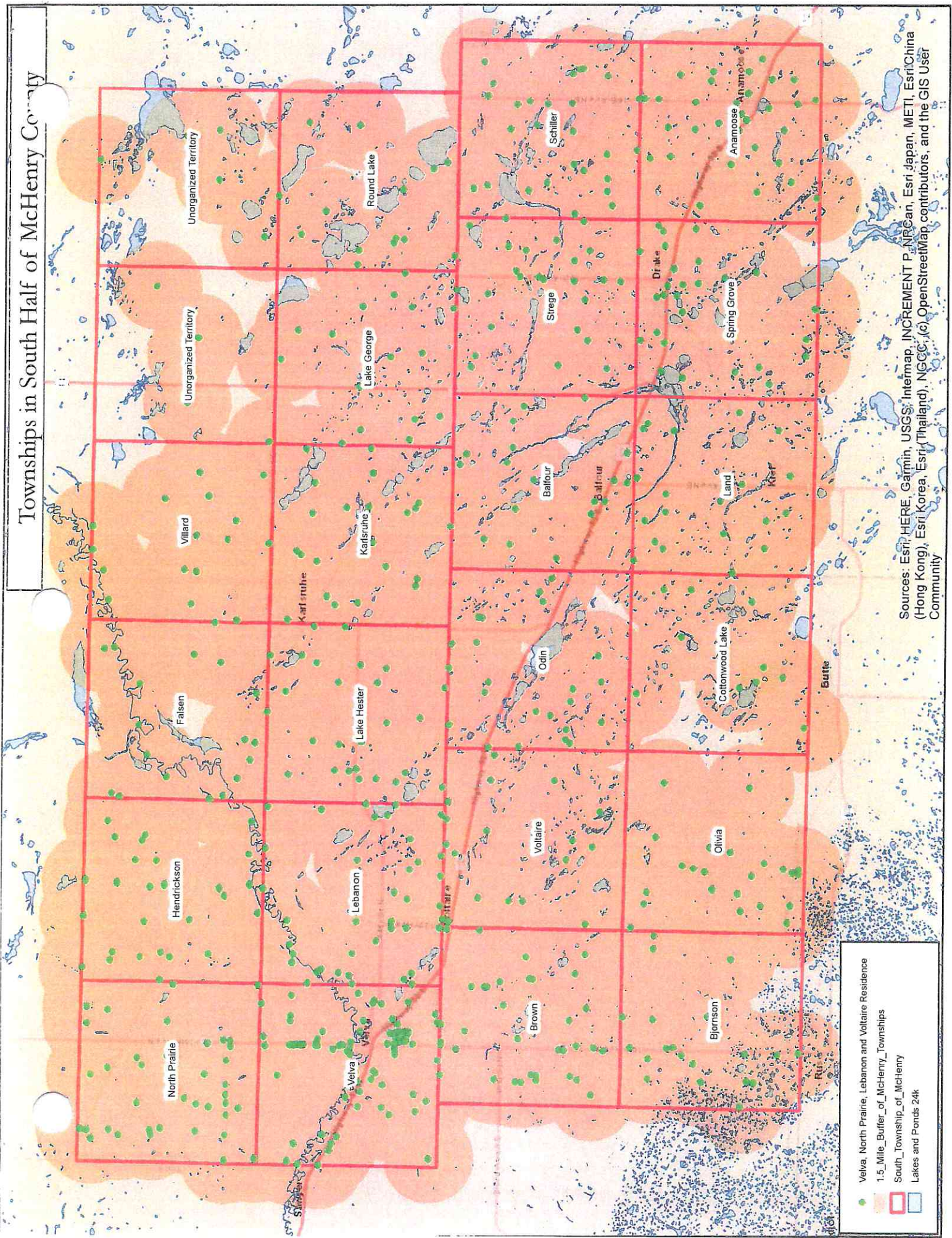
Townships in South Half of McHenry County



- Velva, North Prairie, Lebanon and Voltaire Residence
- 1_Mile_Buffer_of_McHenry_Townships
- South_Township_of_McHenry
- Lakes and Ponds 24k

Sources: Esri; HERE; Garmin, USGS; Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri/China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

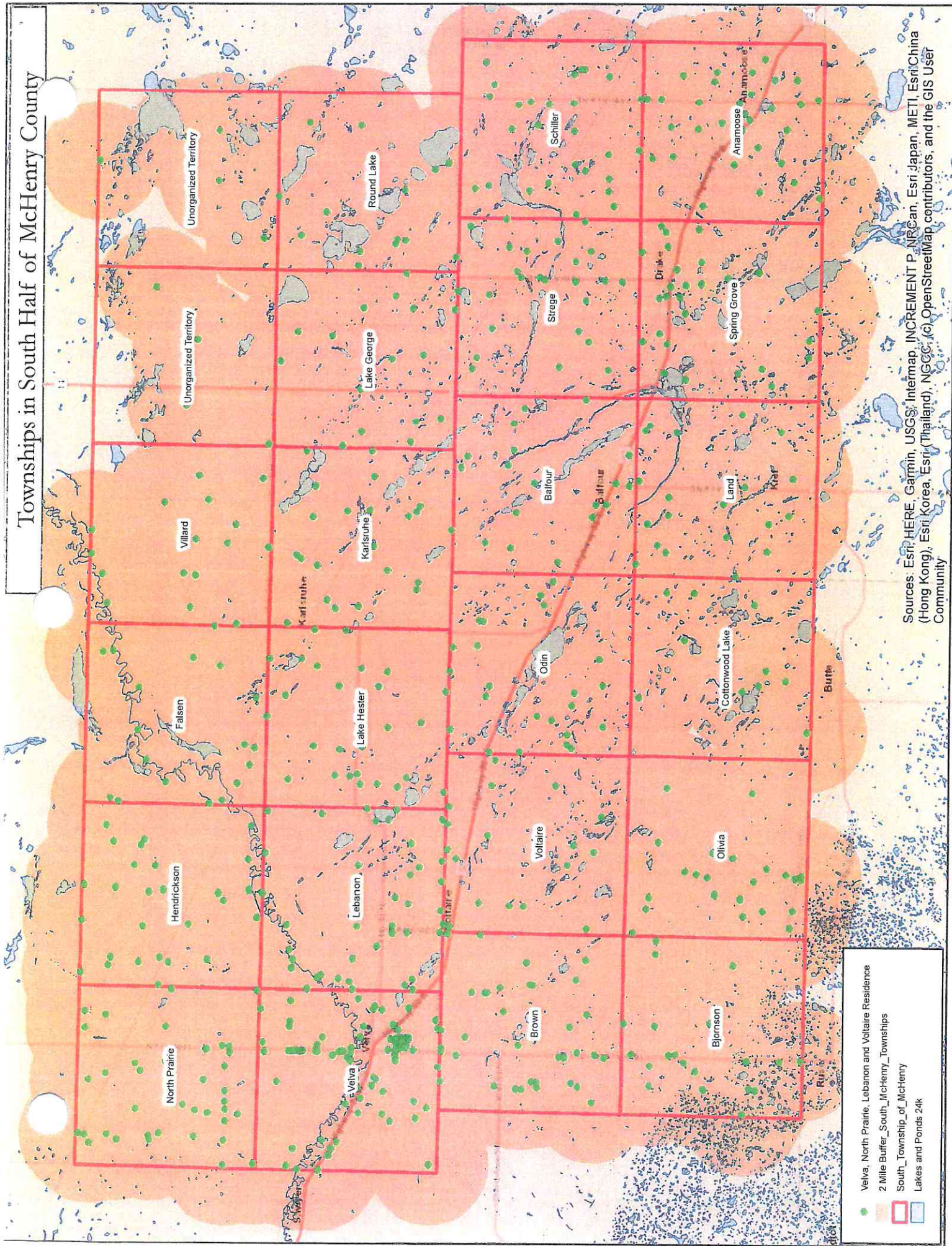
Townships in South Half of McHenry County



- Velva, North Prairie, Lebanon and Voltaire Residence
- 1.5 Mile Buffer of McHenry Townships
- South Township of McHenry
- Lakes and Ponds 24k

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Townships in South Half of McHenry County



- Velva, North Prairie, Lebanon and Voltaire Residence
- 2 Mile Buffer_South_McHenry_Townships
- South_Township_of_McHenry
- Lakes and Ponds 24k

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community