

Phase I: Determining the Mahomet Aquifer's Eligibility for Sole Source Designation

Allen Wehrmann

Susan Licher

Jack Wittman



LAYNE CHRISTENSEN COMPANY

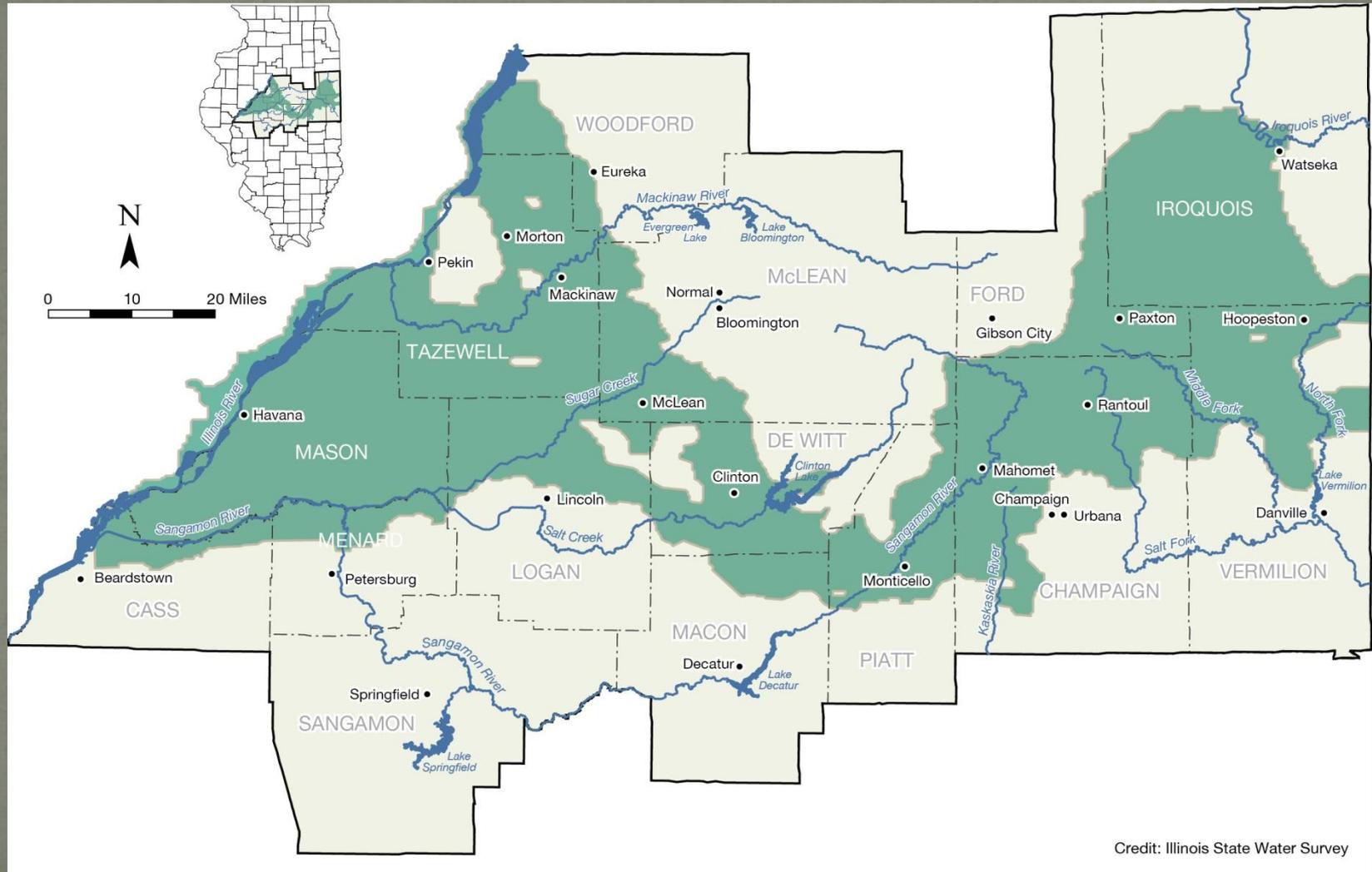
Sole Source Aquifer Definition

- SSA program was established under the Safe Drinking Water Act of 1974
- To be designated as a Sole Source Aquifer
 - The aquifer must supply at least 50% of the drinking water within the aquifer's service area AND
 - The volume of water from alternative sources is insufficient to replace the petitioned aquifer should it become contaminated (as defined by adequacy, economic, *or* legal constraints)

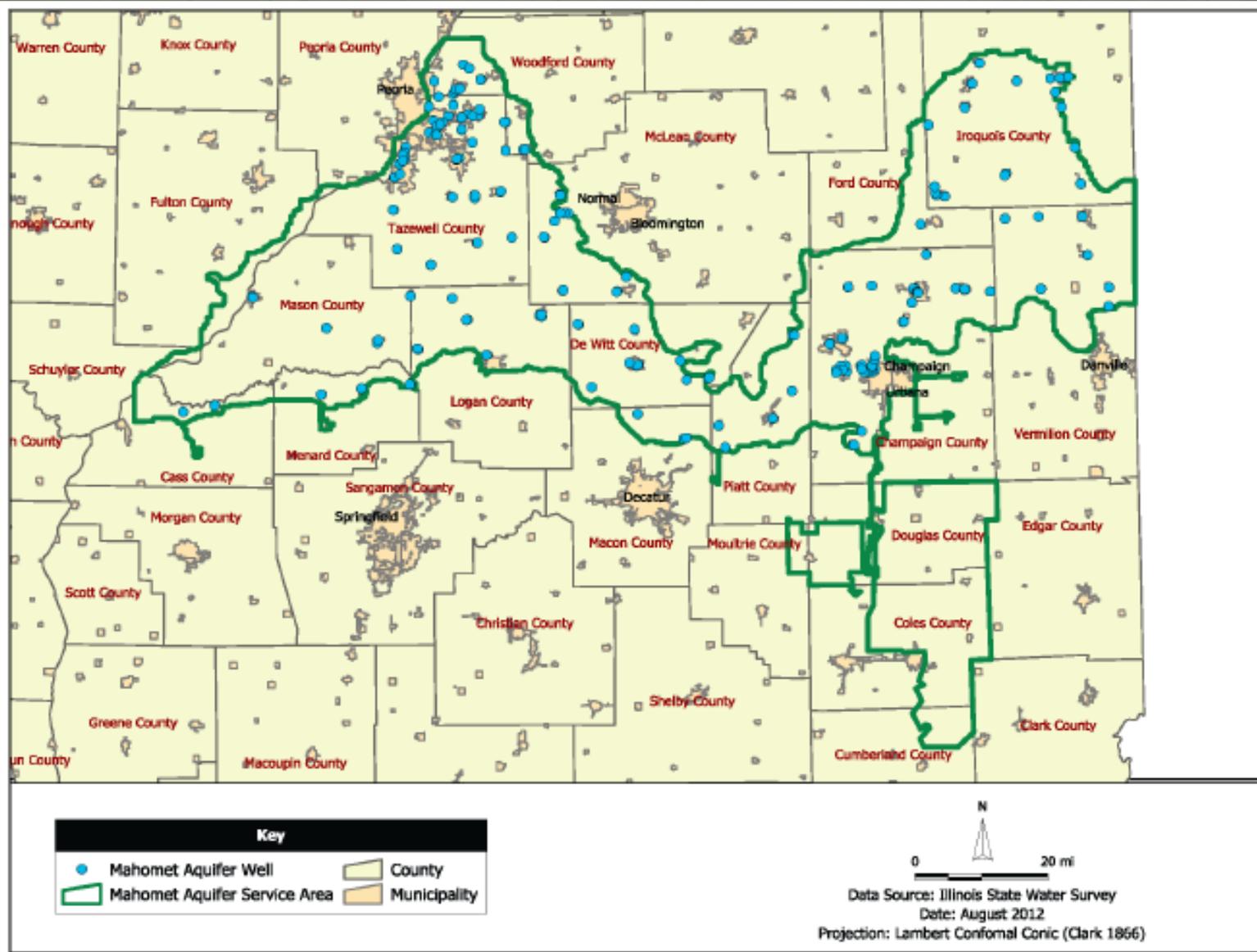
Basic SSA Eligibility Requirements

- Definition of aquifer boundaries
- Description of the area served by the aquifer
- Determination of whether the aquifer is sole or primary source of drinking water (based on adequacy, economic, or legal constraints)

Mahomet Aquifer Boundary



Mahomet Aquifer Service Area



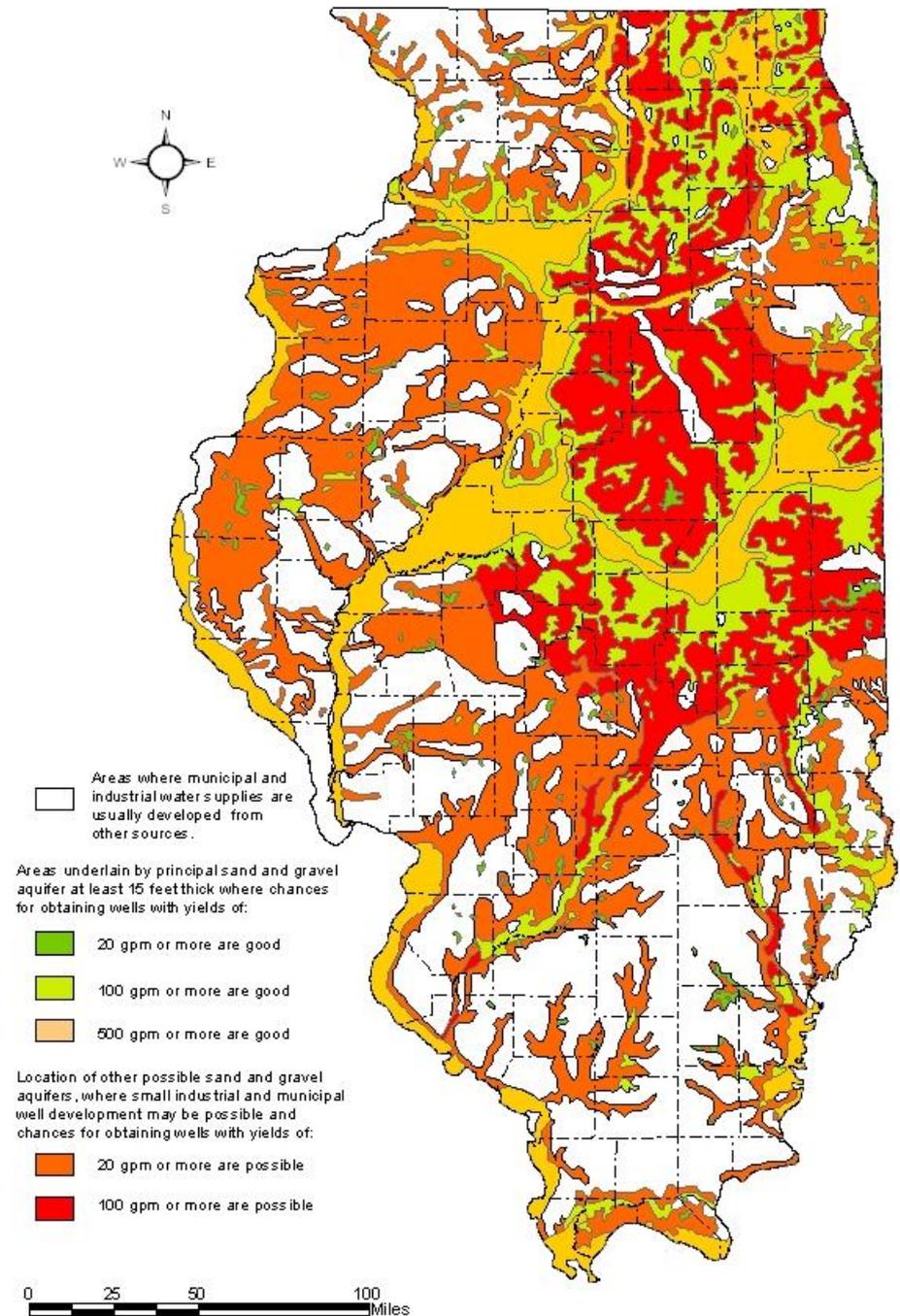
Current Drinking Water Sources for the Mahomet Aquifer Service Area (in gpd)

Source/Use	Public Water Supply (community and non-community)	Private and Other	Total
Petitioned Aquifer	53,148,762	4,311,408*	57,460,170
Other Aquifers	0	0	0
Surface Water	0	0	0
Imported	0	0	0
Total	53,148,762	4,311,408*	57,460,170

All data from ISWS Illinois Water Inventory Program for 2010,

**except private use data from Kenny et al., 2009 (USGS) with data for 2005*

Yields of sand and gravel wells in Illinois



Surface waters near the Mahomet Aquifer (with sufficient flow to be a potential CWS)



● Legal Constraints?

- Rule of Reasonable Use (not a constraint)
- Water Authorities (possible constraint)
- Low Flow Protection (constraint for certain surface waters)

● Economic Constraints?

- Construction of treatment plant alone examined for each community and deemed economically infeasible

Continuing the process of petitioning the USEPA for SSA designation is recommended.

We also recommend:

Including overlying aquifers as part of the petition because of hydraulic connections to the Mahomet,

Excluding areas previously mapped to the west of the Illinois River because of a lack of hydraulic connection, and

Not extending the petitioned aquifer boundary beyond published (and modeled) boundaries, as current hydrogeologic information does not support doing so.



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