



Kane County

KC Committee of the Whole

Agenda

Government Center
719 S. Batavia Ave., Bldg. A
Geneva, IL 60134

Tuesday, September 23, 2025

4:00 PM

County Board Room

- 1. Call To Order**
- 2. Roll Call**
- 3. Remote Attendance Requests**
- 4. Pledge of Allegiance**
- 5. Approval of Minutes: April 22, 2025 & June 24, 2025**
- 6. Public Comment**
- 7. Presentations/Discussion**
 - A. Kane County Shallow Groundwater Sustainability**
 - B. Kane County Climate Action Implementation Plan**
- 8. Executive Session (if needed)**
- 9. Adjournment**

STATE OF ILLINOIS)
COUNTY OF KANE) SS.

PRESENTATION/DISCUSSION NO. TMP-25-1165

KANE COUNTY SHALLOW GROUNDWATER SUSTAINABILITY

Kane County Shallow Groundwater Sustainability

September 23, 2025

Daniel R. Hadley
Cecilia Cullen
Daniel Abrams



Illinois State Water Survey
PRAIRIE RESEARCH INSTITUTE

One Study – Three Components

Assessment of Shallow Groundwater Water Quality– 2023-Dec. 2025

Repeat study of water quality at homeowner's wells

Shallow Groundwater Sustainability Modeling: 2023 – Dec. 2025

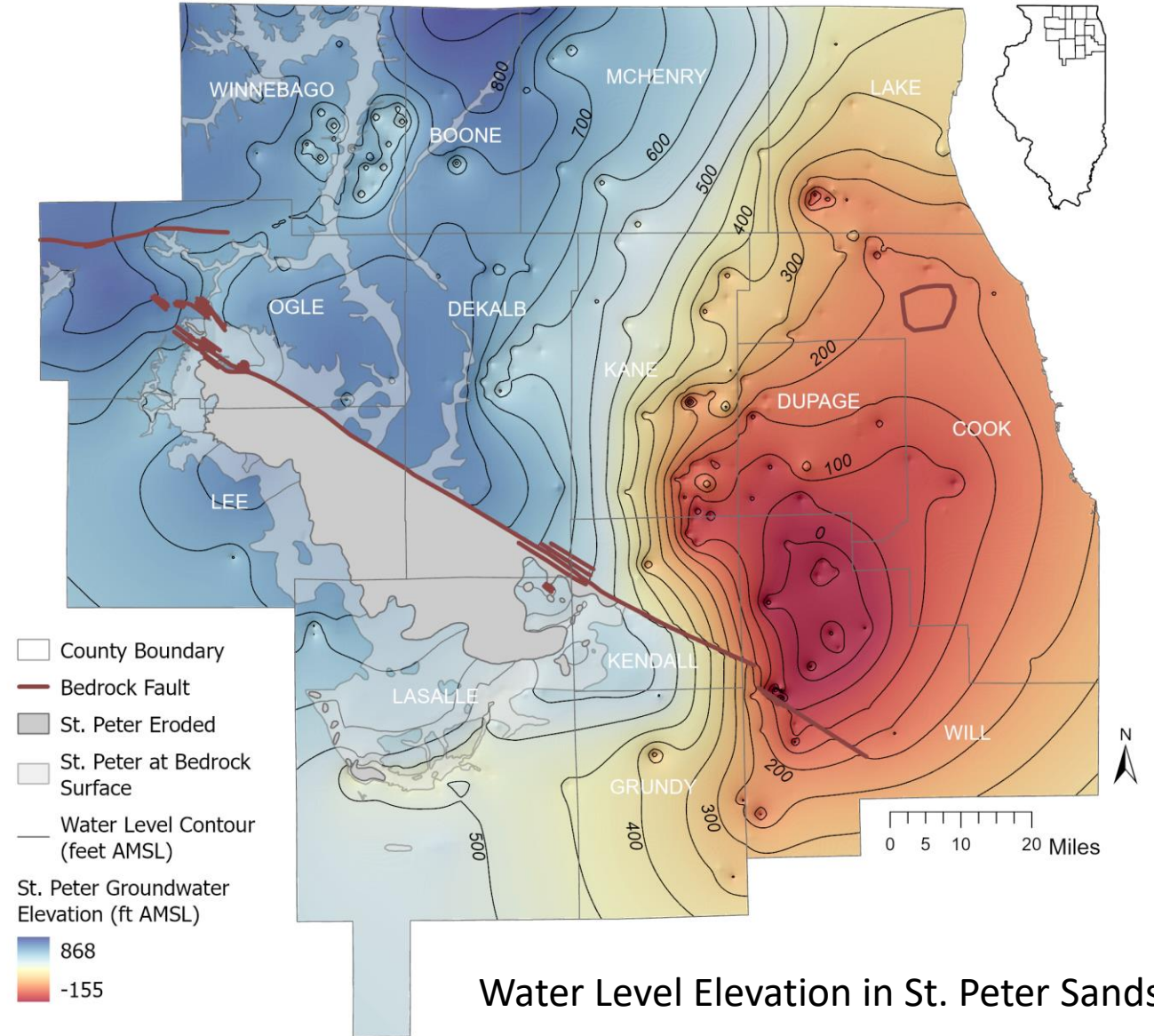
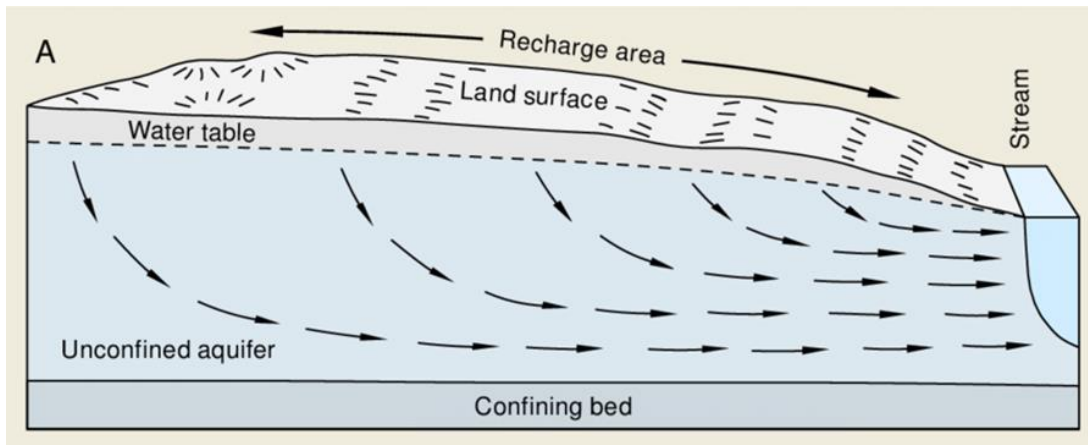
- Community discussions and modeling to determine sustainable supply versus demand in each watershed
- Simulate Chloride in the aquifer, project into future

Establish Real-Time Groundwater Monitoring Network: 2023 – Dec. 2026

Monitoring groundwater water levels throughout the county

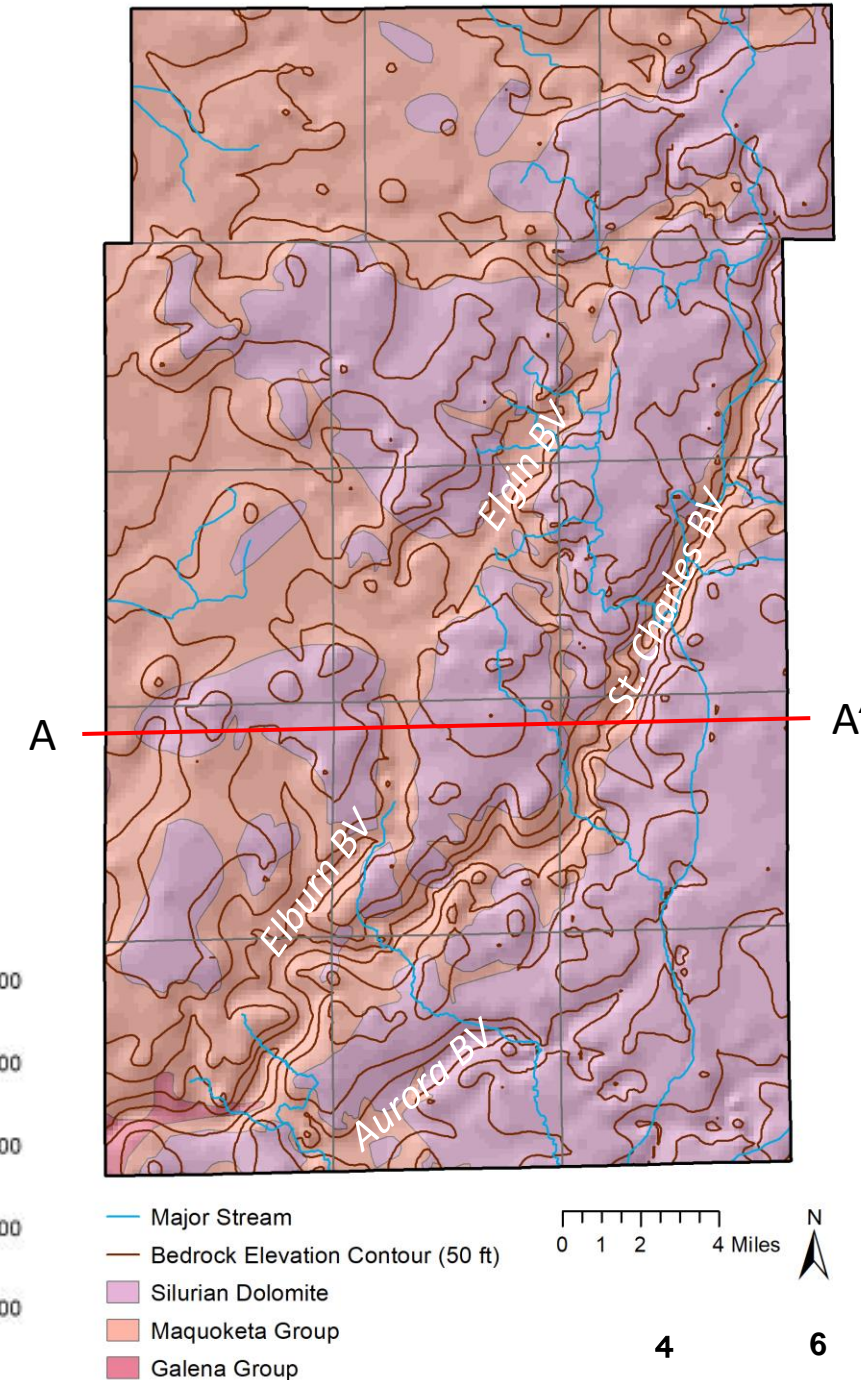
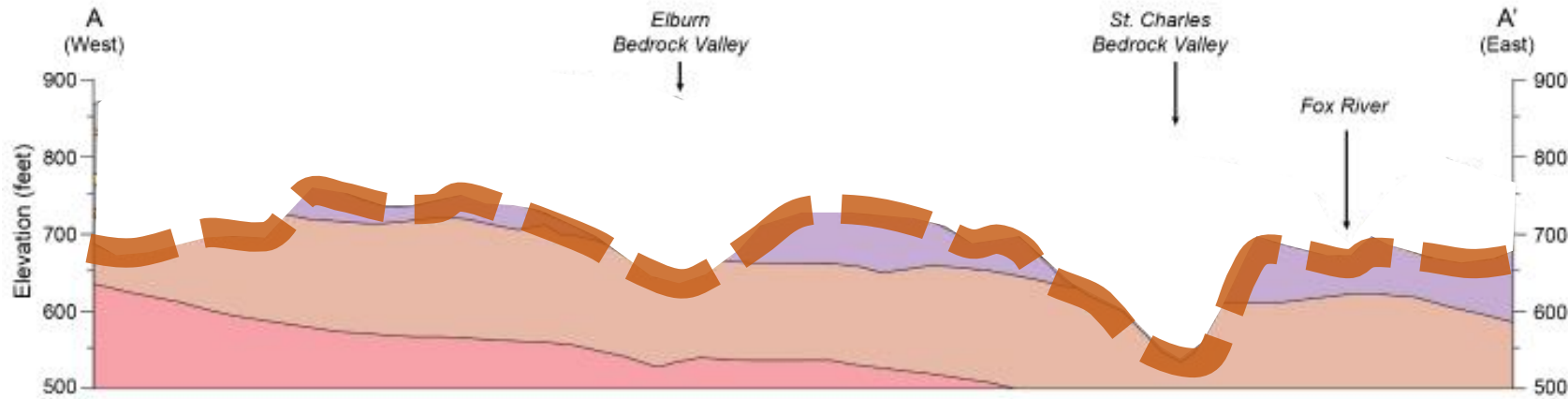
Why do we care about the shallow aquifers?

- Relied upon by thousands of homeowners
- Relied upon by municipalities
- Shallow aquifers provide baseflow to streams in Kane
- May be relied upon more if deep sandstone aquifers are depleted
- Water Quality issues
 - Chloride
 - Arsenic
 - PFAS



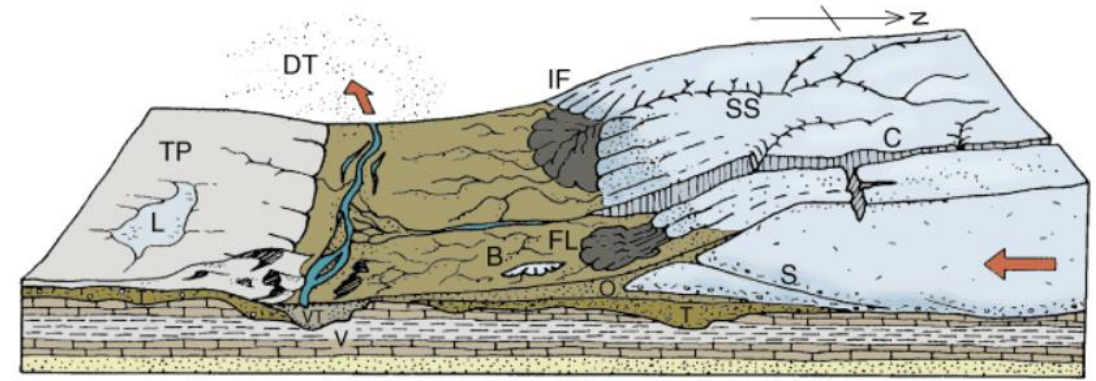
Kane Shallow Bedrock Aquifers

- Pretend the glaciers never arrived
 - Bedrock valleys (BV) form by incision of ancient streams
- Weathering of bedrock surface
 - Dissolution of dolomite, form fractures and increases porosity
 - Can be very productive but is highly localized
- Upper 25-125 feet of bedrock surface considered the “Shallow Bedrock Aquifer”
 - Used by thousands of homeowners
 - Used by Aurora, Montgomery, and Sugar Grove

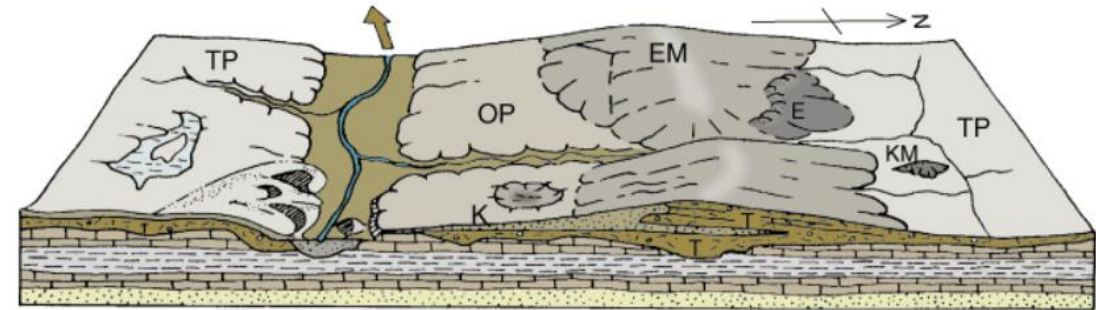


Kane Sand and Gravel Aquifers

- Three major glacial advances filled bedrock valleys
- Layered clays, silts, sands, gravels, with scattered interconnections
- Used by
 - South Elgin, St. Charles, Geneva, Batavia, Mill Creek Water Reclamation District, Montgomery, Aurora
 - Homeowners

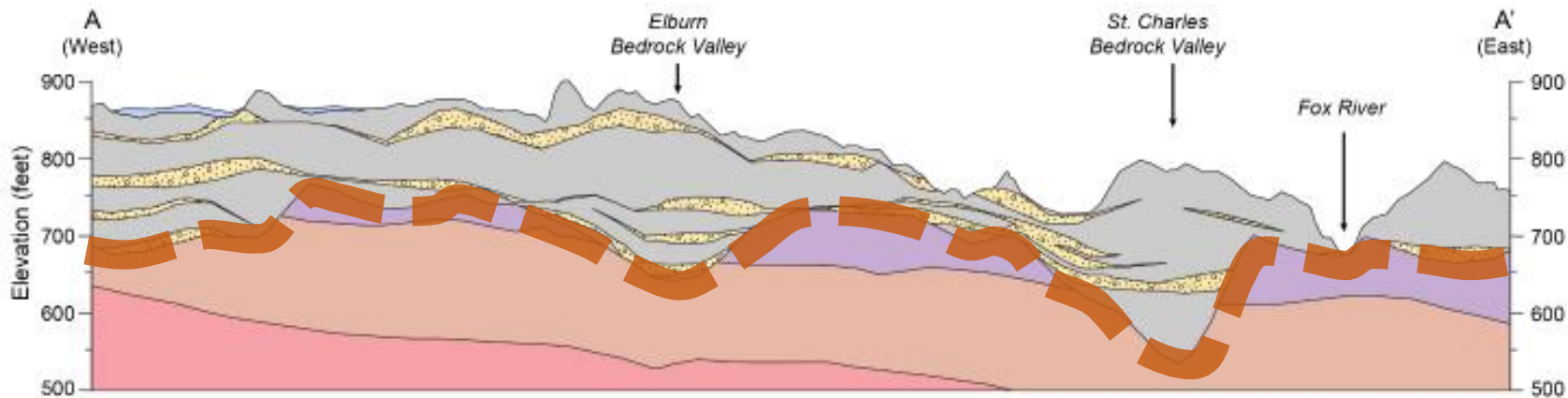


1. Glacial advance



2. Glacial retreat

<https://isgs.illinois.edu/outreach/geology-resources/quaternary-glaciations-illinois>



Shallow Groundwater Water Sustainability Modeling

Groundwater Flow Modeling and Stakeholder Engagement

Updating existing Kane Shallow Groundwater Flow model

Met with every shallow groundwater municipality

- Reviewed prior water use
- Projections of water use to 2050
- Shared water level and quality data

Major Goals

- Sustainable Supply vs Demand
- Have streams been depleted as much as predicted?
- Use model to simulate chloride accumulation from road salt application

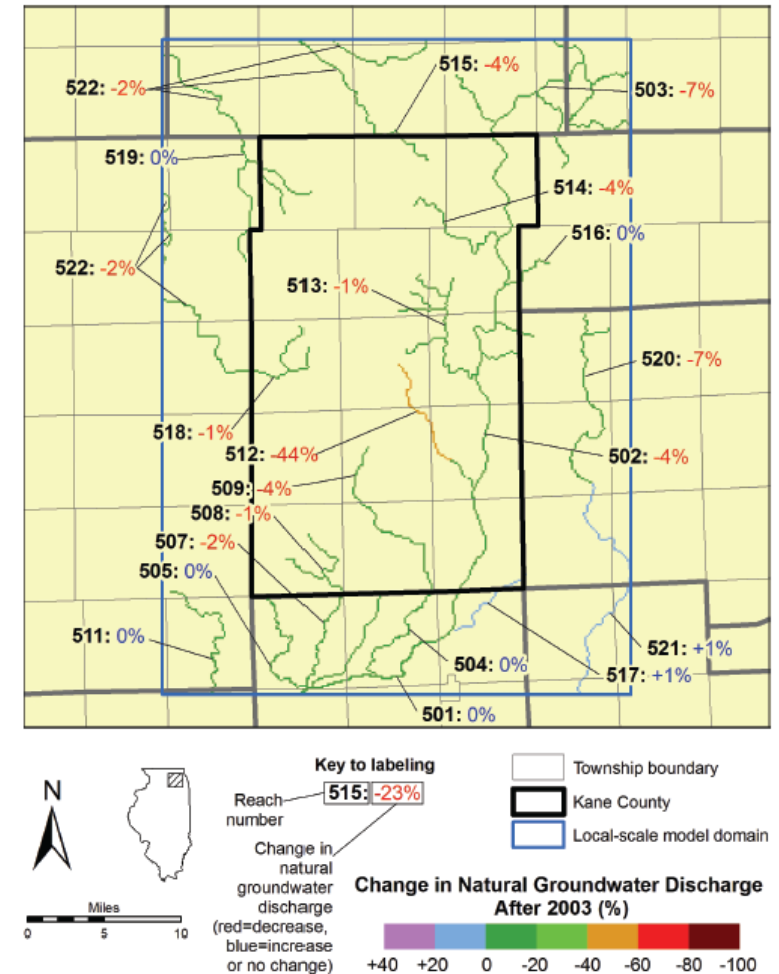
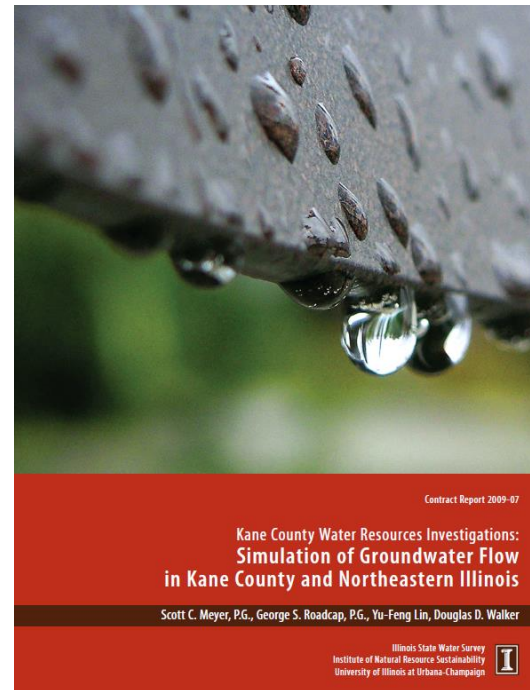
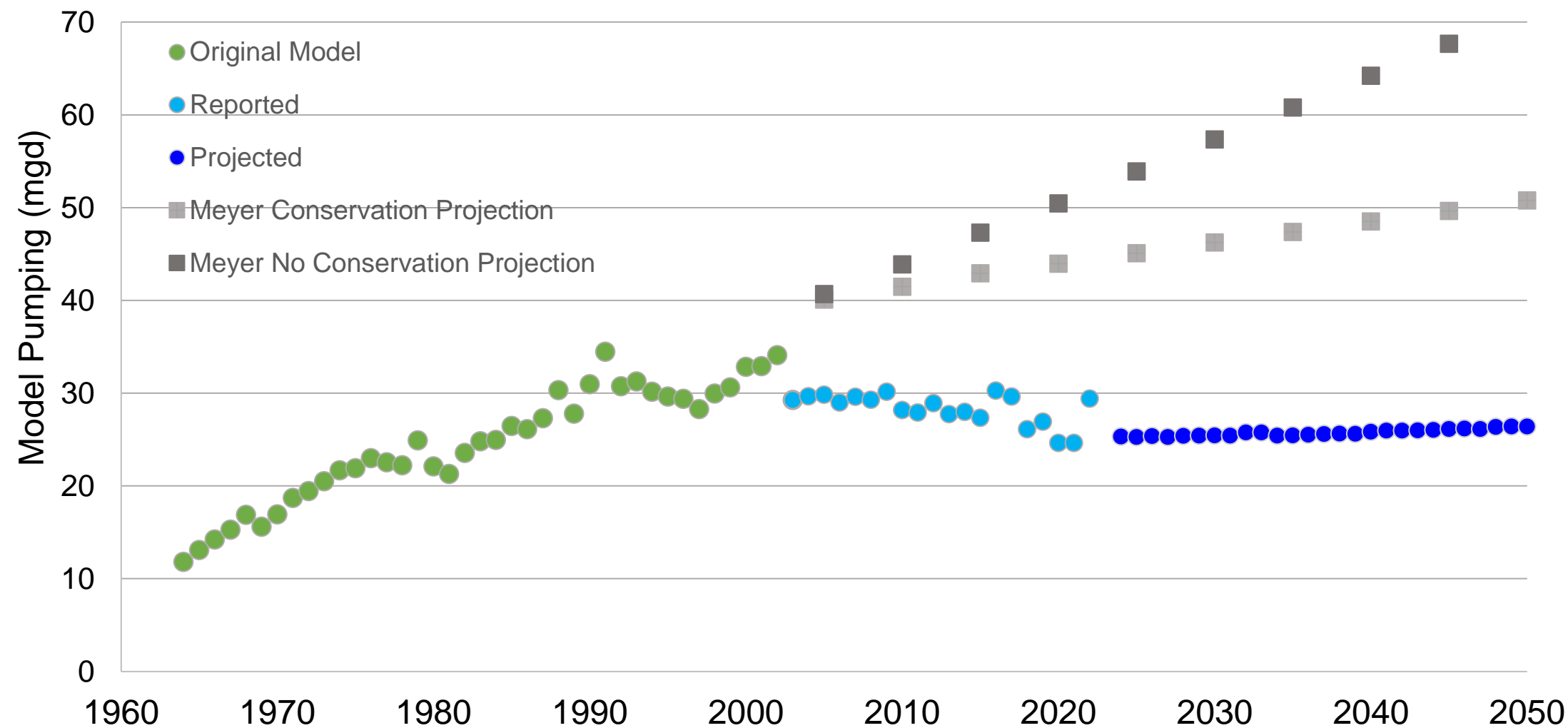


Figure 260. Estimated post-2003 change in natural groundwater discharge caused by pumping, by stream reach, at the end of 2024 under a scenario of low pumping and model-calibrated recharge rates.

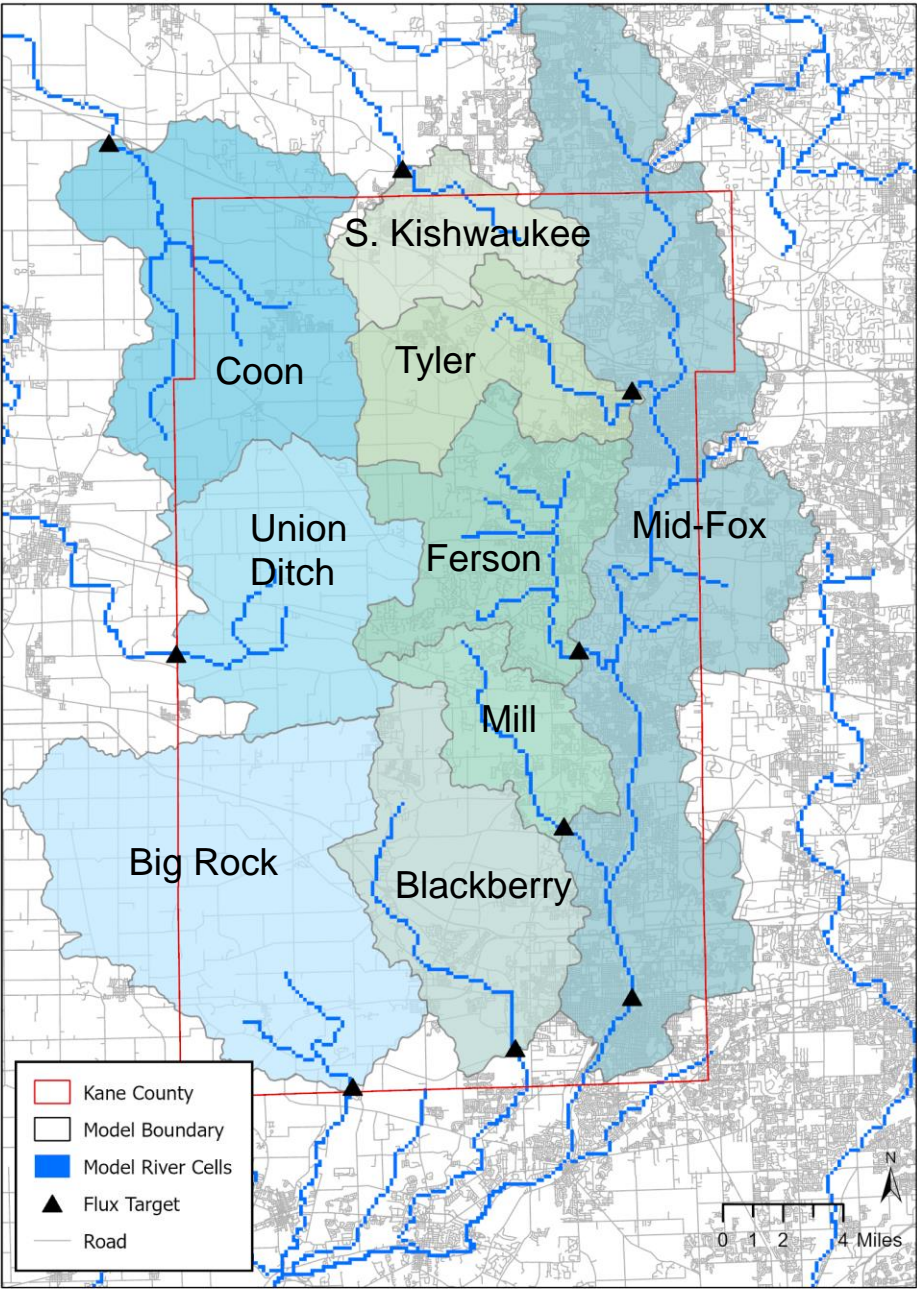
Future demands are much smaller than those simulated in the past Meyer study



Sustainable Supply Estimates (millions of gallons per day)

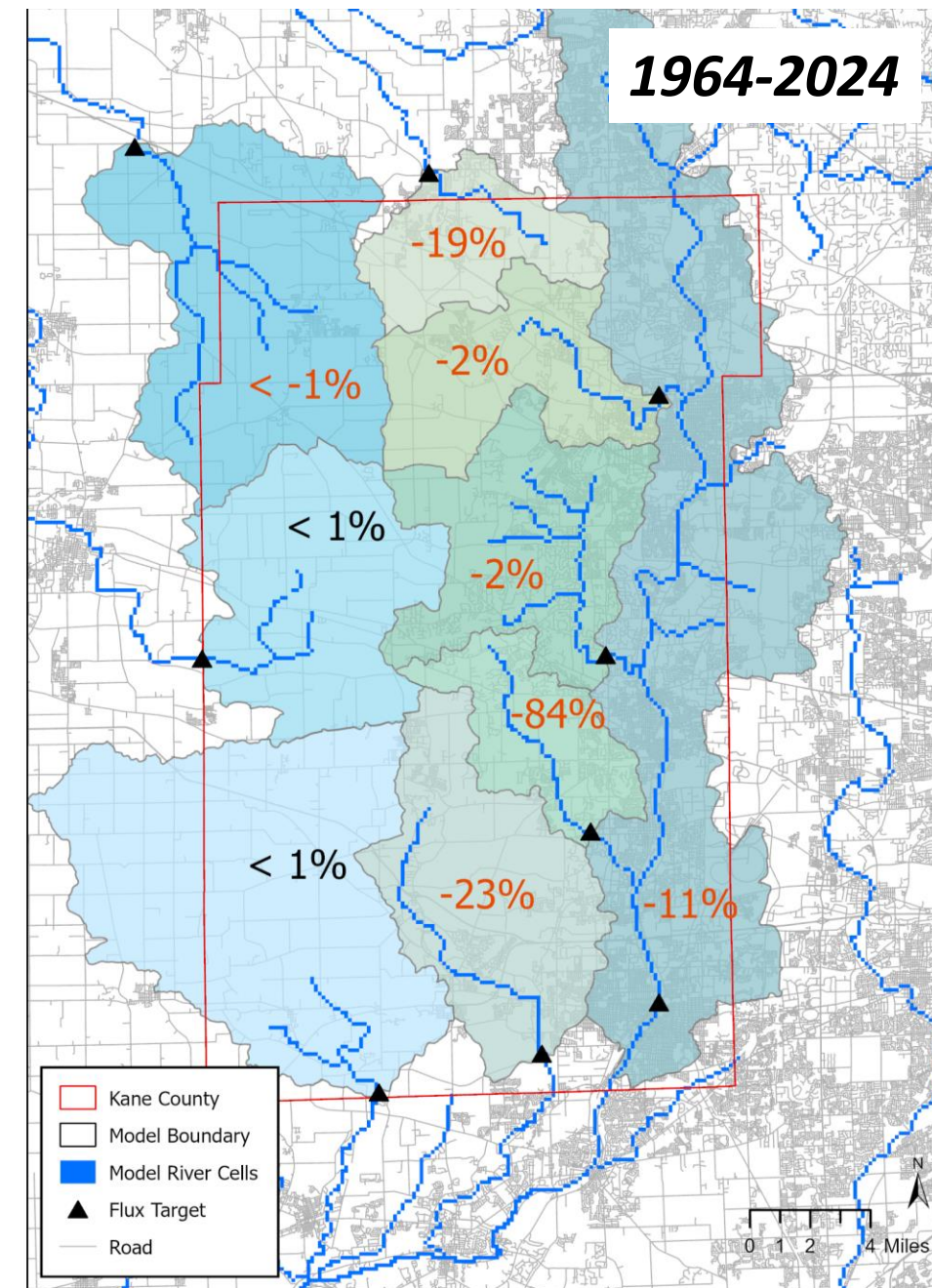
Sub-Watershed	Sustainable Supply
Big Rock Creek	1.45
Blackberry Creek	1.67
Coon Creek	1.87
Ferson Creek	1.32
Mid Fox River	6.32
Mill Creek	0.37
S Br. Kishwaukee River	0.48
Tyler Creek	0.66
Union Ditch	1.16
TOTAL	15.31

- Sub-watersheds defined by stream gauge locations and model domain size
- This is what you can take out of the sub-watershed without exceeding 15% loss of baseflow to creeks
- **PRELIMINARY RESULTS**



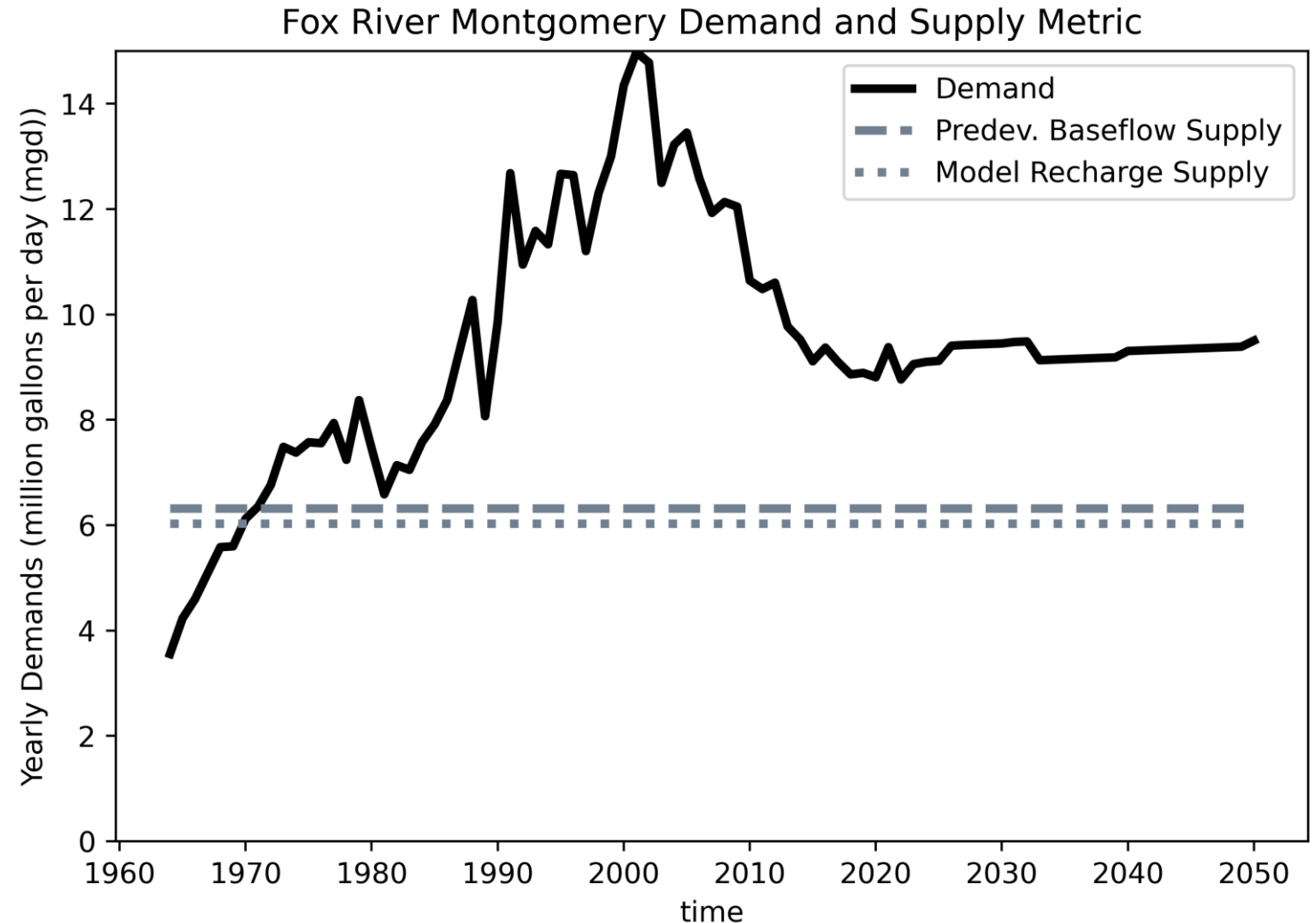
Modeling Results: Baseflow Reductions from Predevelopment

- What happens when demands exceed sustainable supply?
- “Streamflow capture”
- Mill Creek: 84% decline in baseflow
- Blackberry Creek: 23% decline in baseflow
- S. Branch Kishwaukee: 19% decline in baseflow
 - Even though minimal demands in watershed
 - Likely due to Algonquin wells just outside of watershed boundary
- Mid-Fox River: 11% decline in baseflow
- **PRELIMINARY RESULTS**



Supply versus Demand in sub-watersheds: Mid-Fox River (above Montgomery)

- Demand exceeds sustainable supply since 1970
- Large decline in demand starting in 2000 when communities switched to more sandstone use and Fox River
- Future projections exceed supply

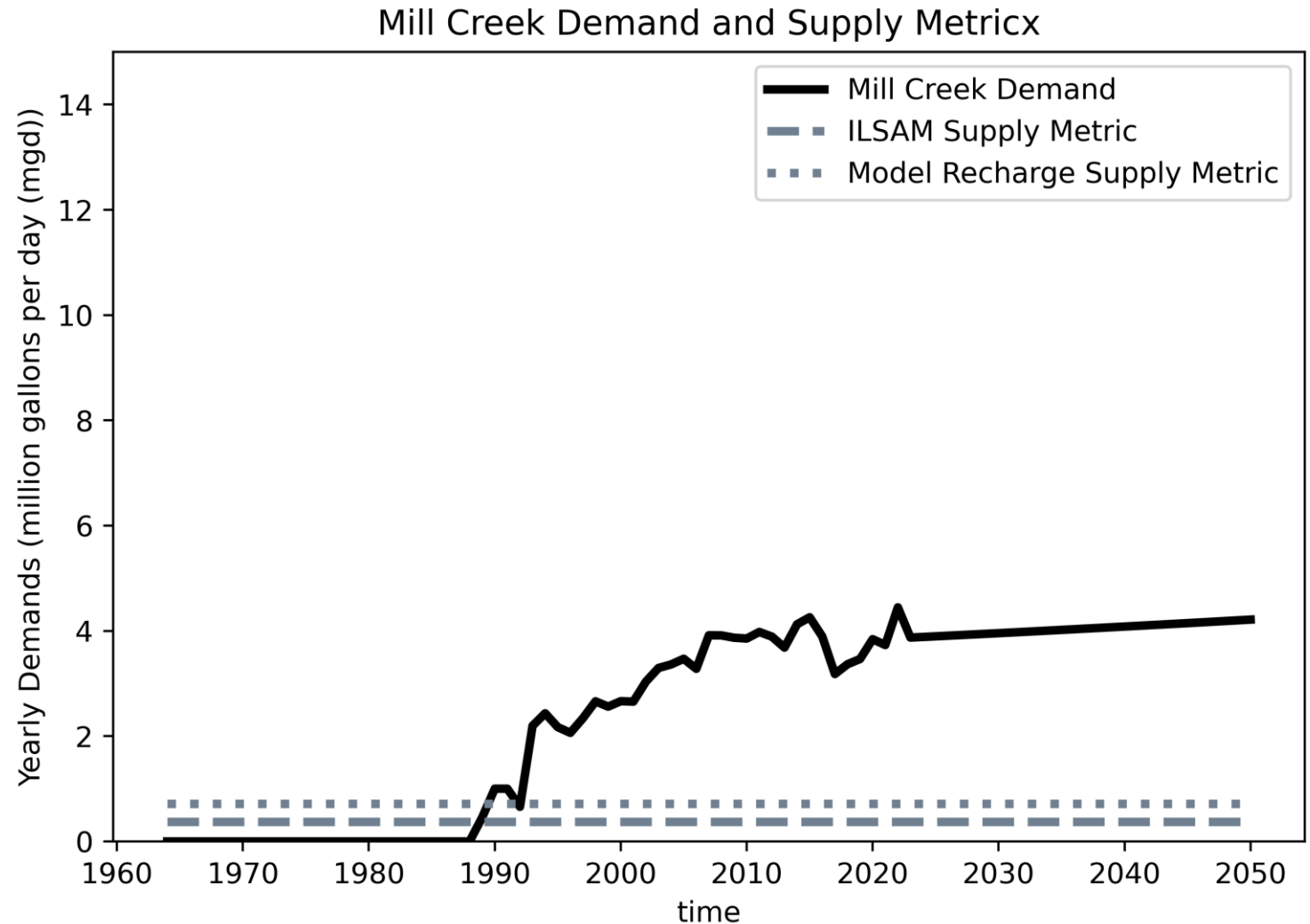


Supply versus Demand in sub-watersheds: Mill Creek

- Demand exceeds sustainable supply since 1990s
- Steady increase in demands to 2024
- Future projections far exceed supply

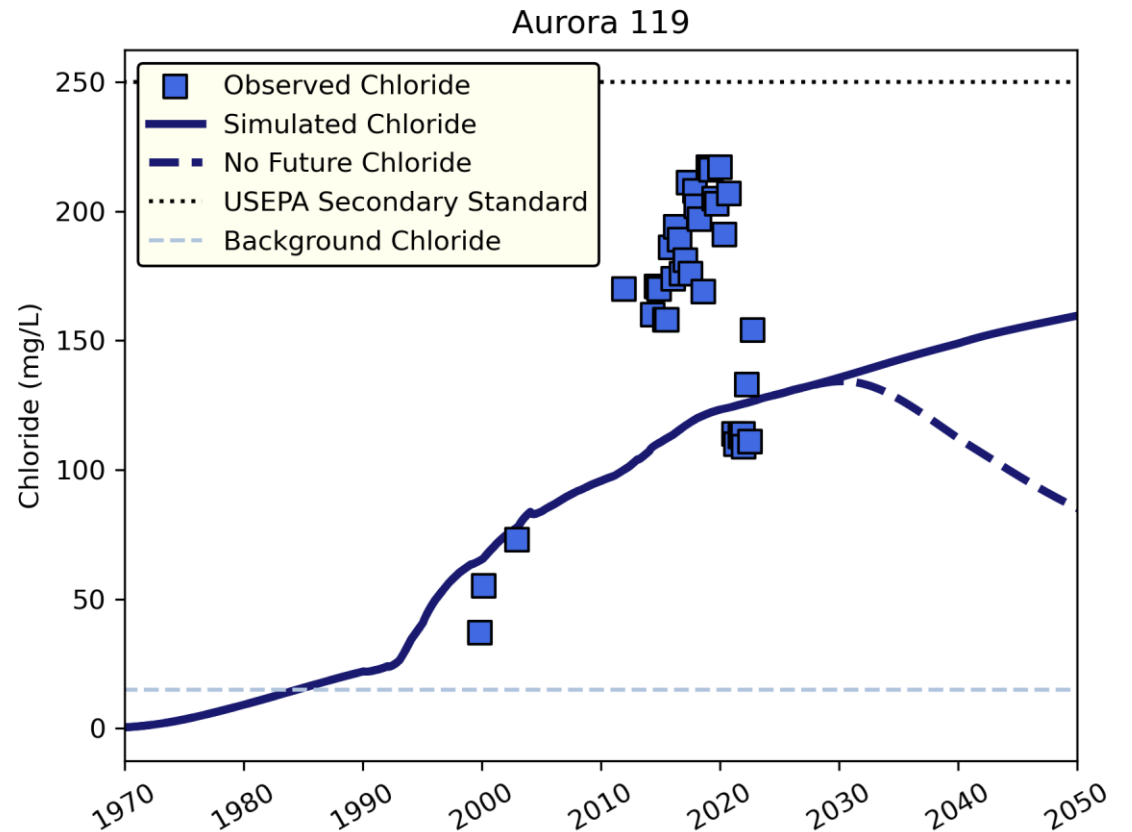
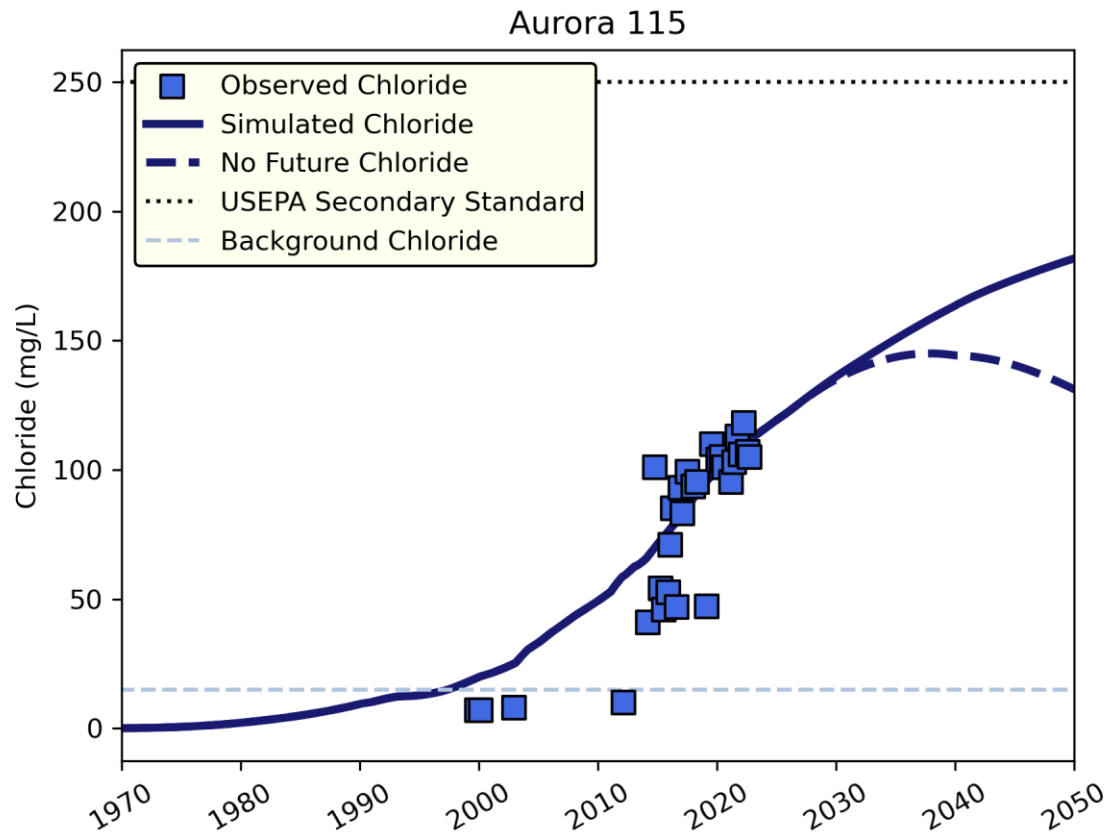
HOWEVER!!

- Mill Creek and Fox River receive lots of effluent!
- Baseflow declines are not as bad as modeled



Chloride Results- Aurora Sand and Gravel Wells

- Aurora 115
 - Measured concentrations at background levels in 2000
 - In 2050 they will be approaching 200 mg/L (simulated)
- Aurora 119 high points are not successfully captured, but overall trend of accumulation is

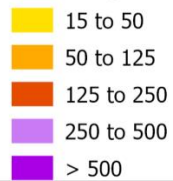


Simulated Chloride Maps

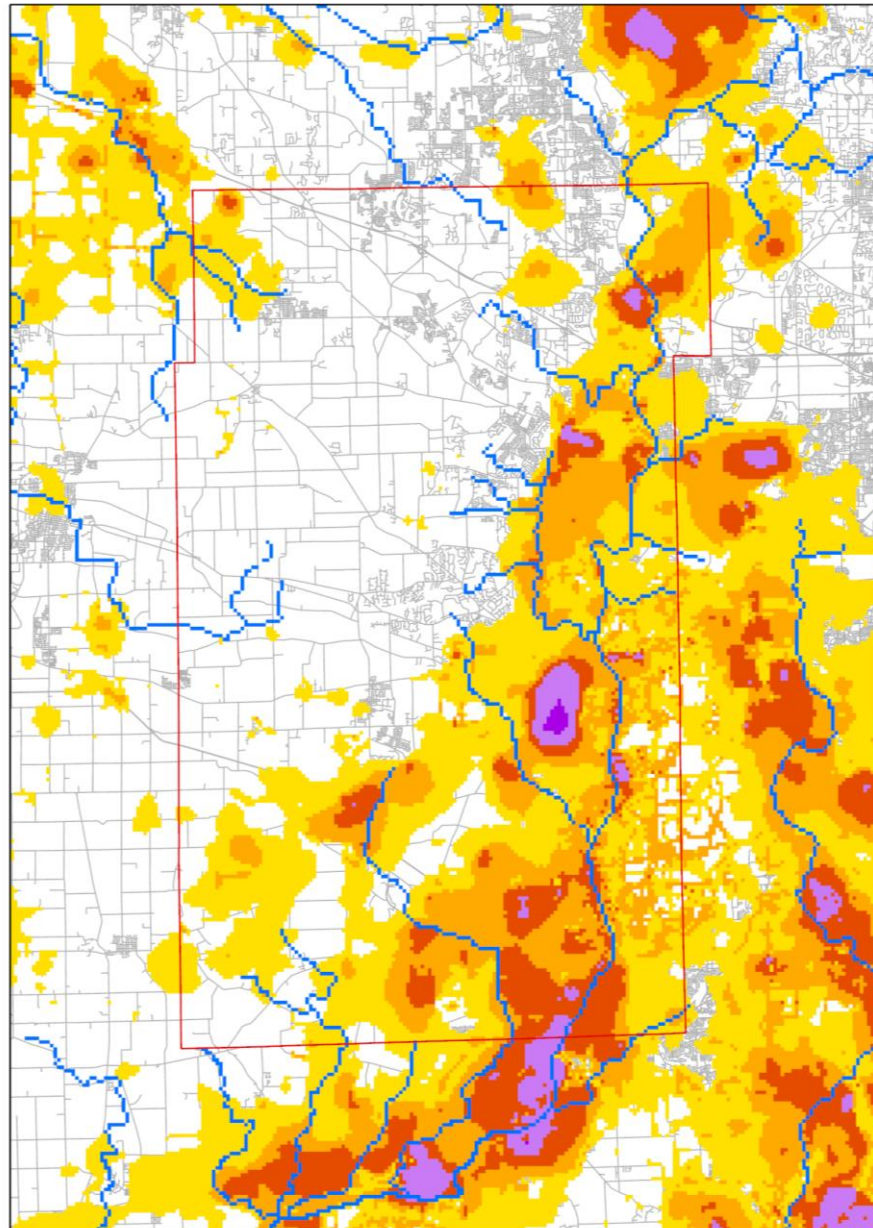
- Major sand unit of the SCBV
- Hotspots of chloride above 250 mg/L
- Very high in Montgomery/Yorkville

Chloride (mg/L)- Simulated

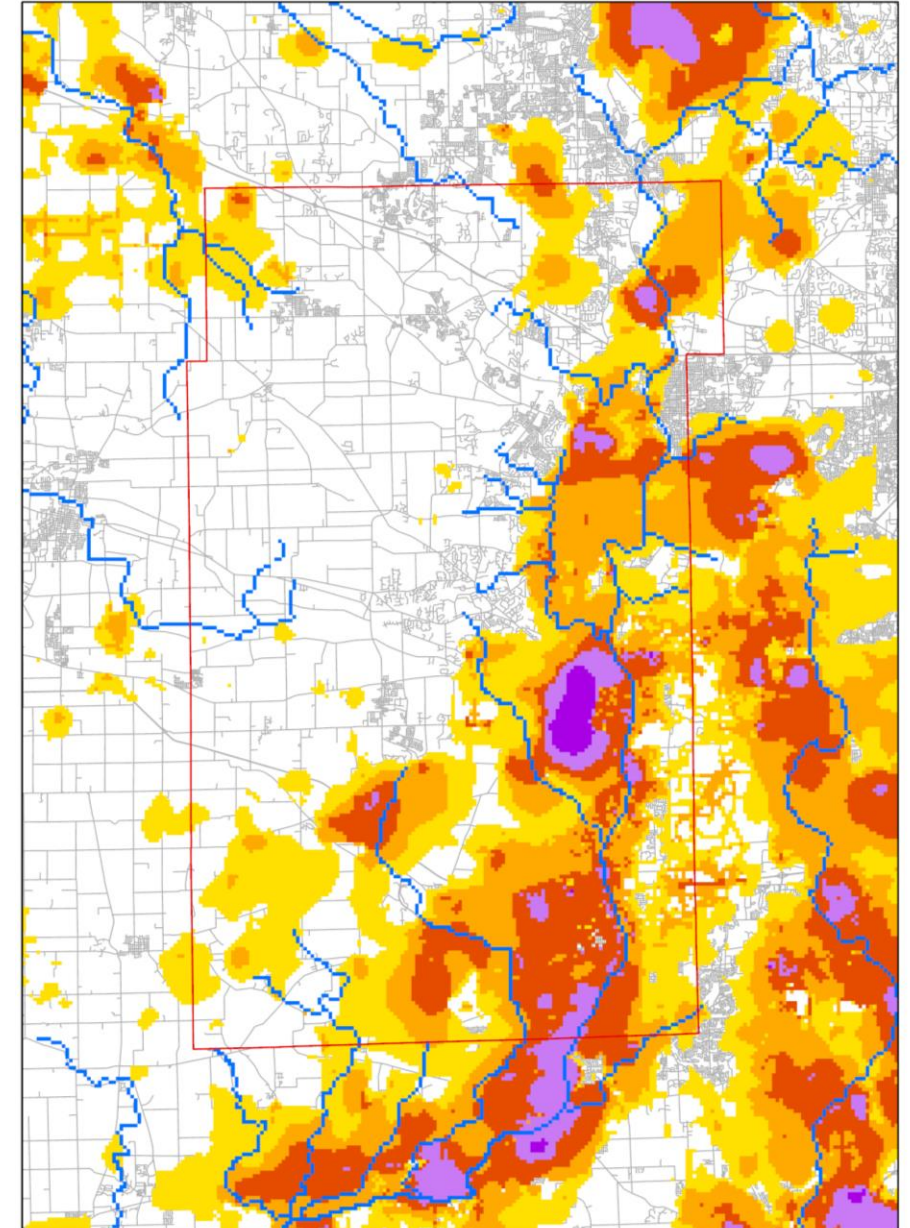
Background



Layer 13- 2025



Layer 13- 2050 – business as usual

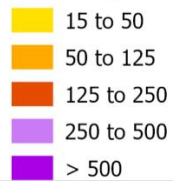


Simulated Chloride Maps

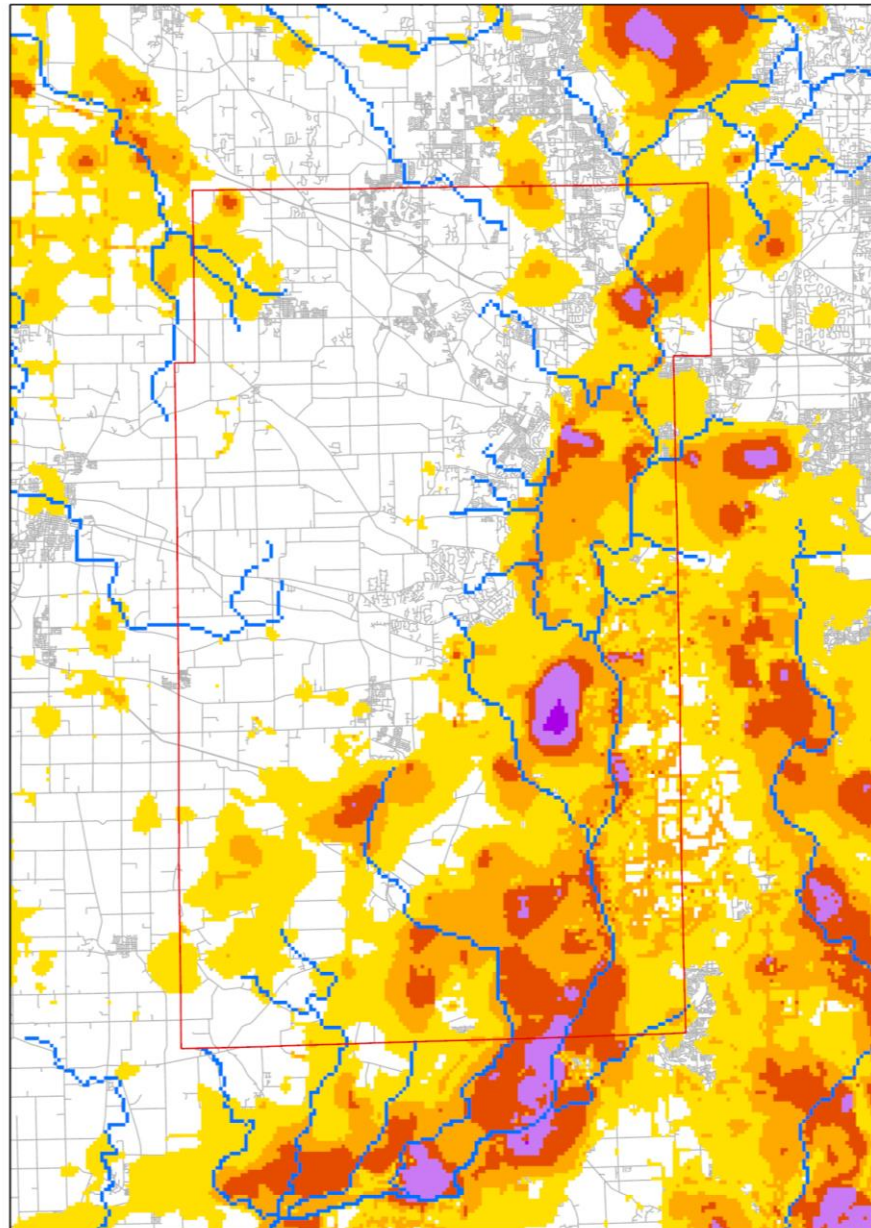
- Chlorides still present after 25 years
- More areas in 15-50 range
- Secondary MCL areas reduced

Chloride (mg/L)- Simulated

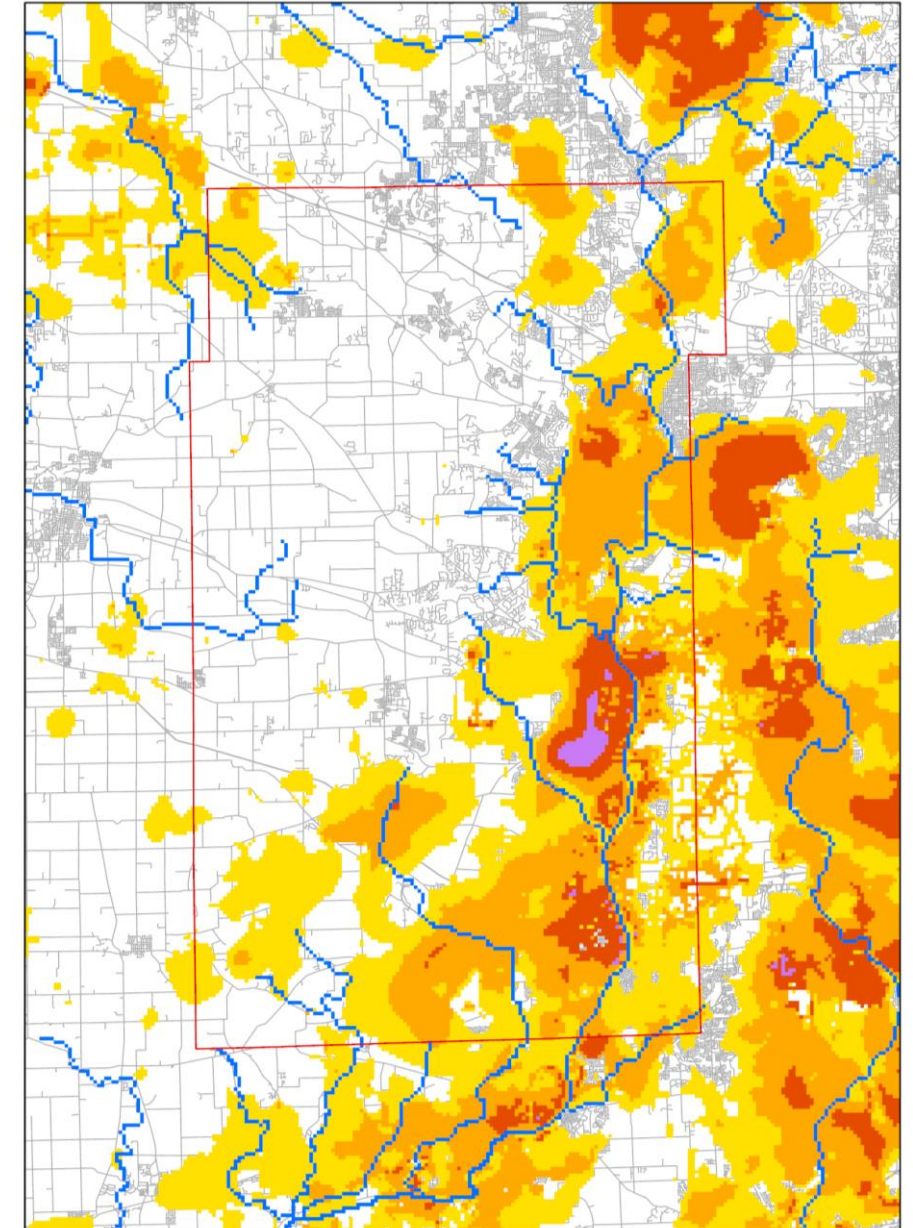
Background



Layer 13- 2025



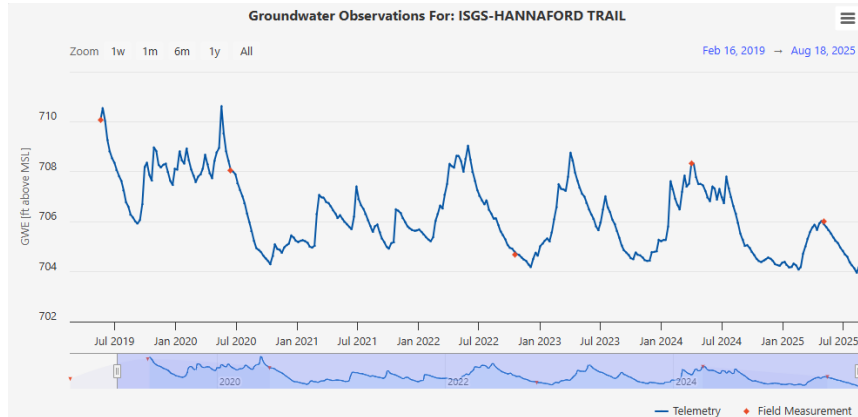
Layer 13- 2050 – No chloride applied after 2025



Real-Time Groundwater Monitoring Network

Kane Groundwater Monitoring Network

- Currently 11 wells
- Additional sandstone well paid by IDNR (Geneva 5)
- 2 more existing sites to utilize (Virgil and Long Grove)
- 2 wells being drilled in next several weeks
 - Kane Forest Preserve property



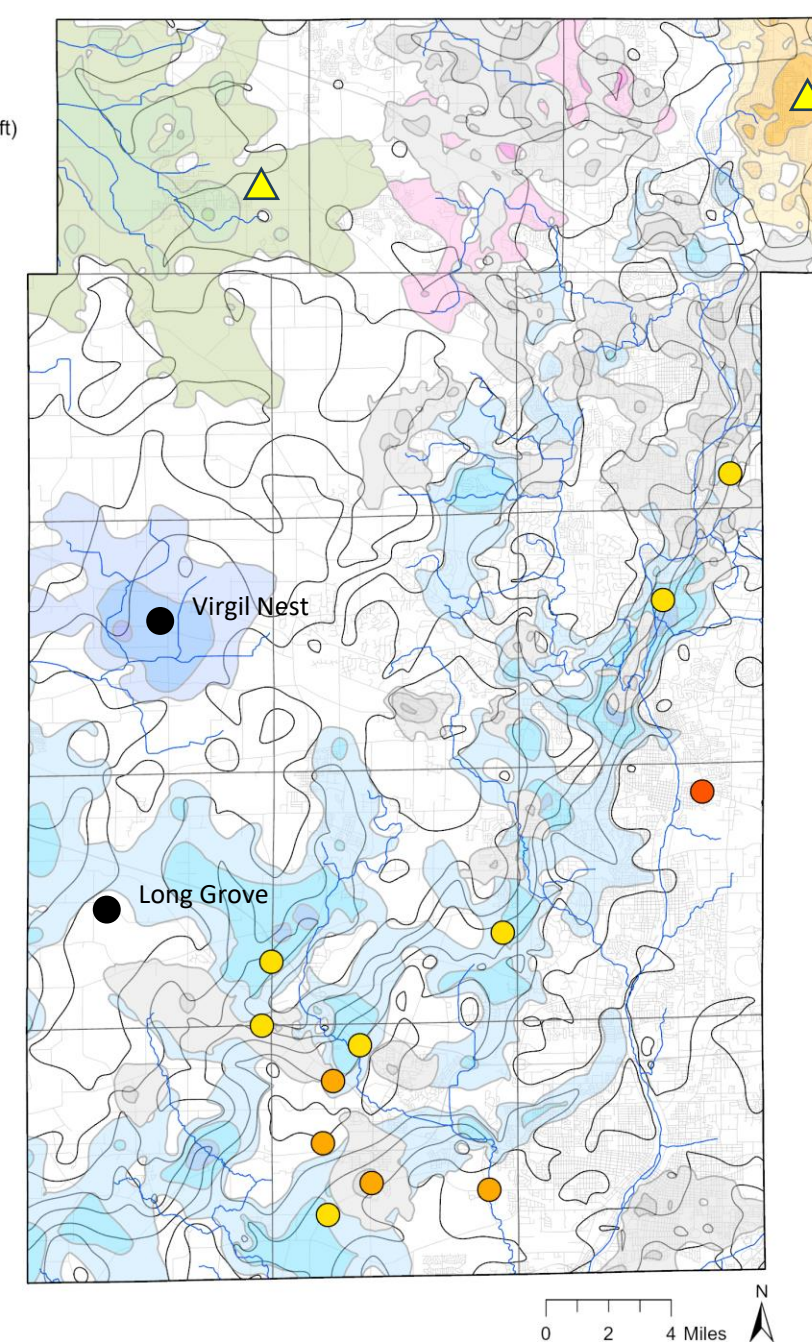
Fox River Bluff East

- County Boundary
- Township Boundary
- Stream/Creek
- Bedrock Contours (50 ft)
- SCBV Well
- Silurian Dolomite Well
- Sandstone Well

NEW

Aquifer, thickness

- Carpentersville, 20
- Carpentersville, 50
- Carpentersville, 100
- Gilberts, 20
- Gilberts, 50
- Hampshire, 20
- Hampshire, 50
- Hampshire, 100
- St. Charles, 20
- St. Charles, 50
- St. Charles, 100
- Unnamed, 20
- Unnamed, 50
- Unnamed, 100
- Virgil, 20
- Virgil, 50
- Virgil, 100

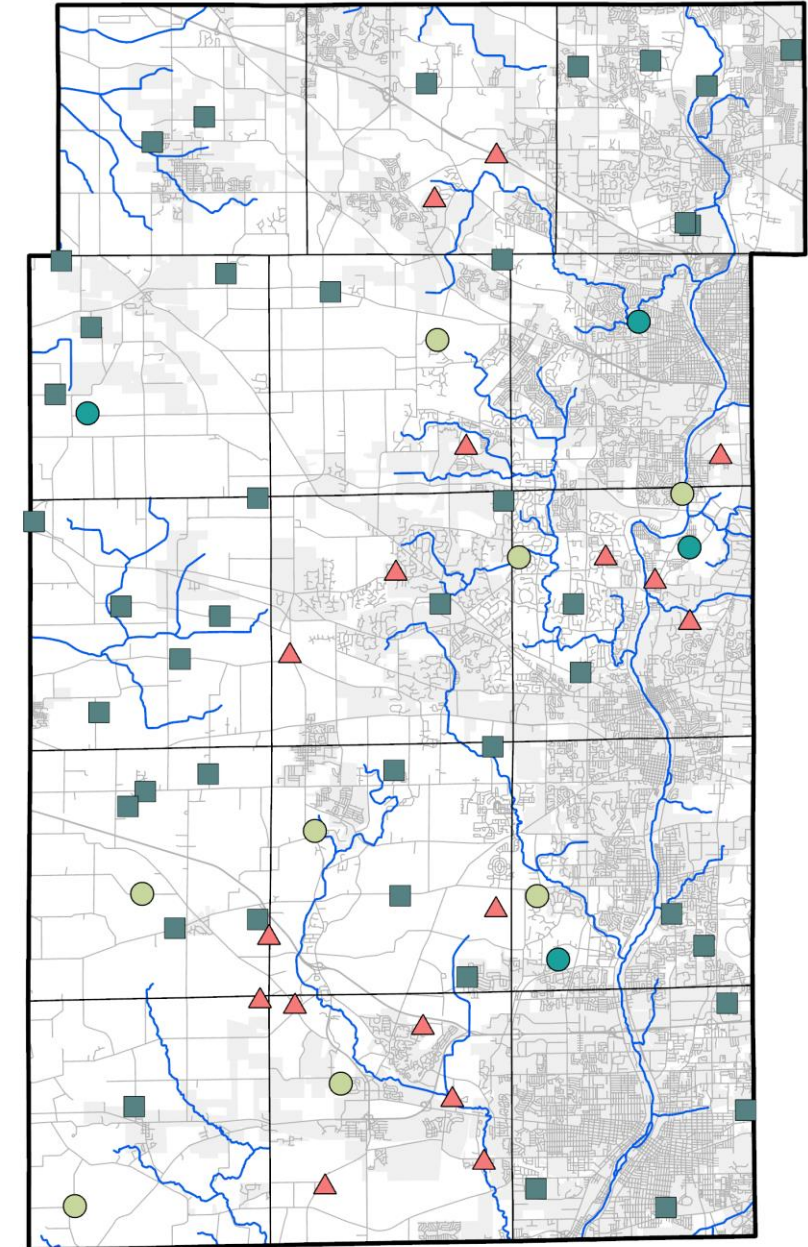
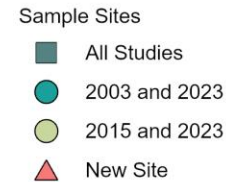
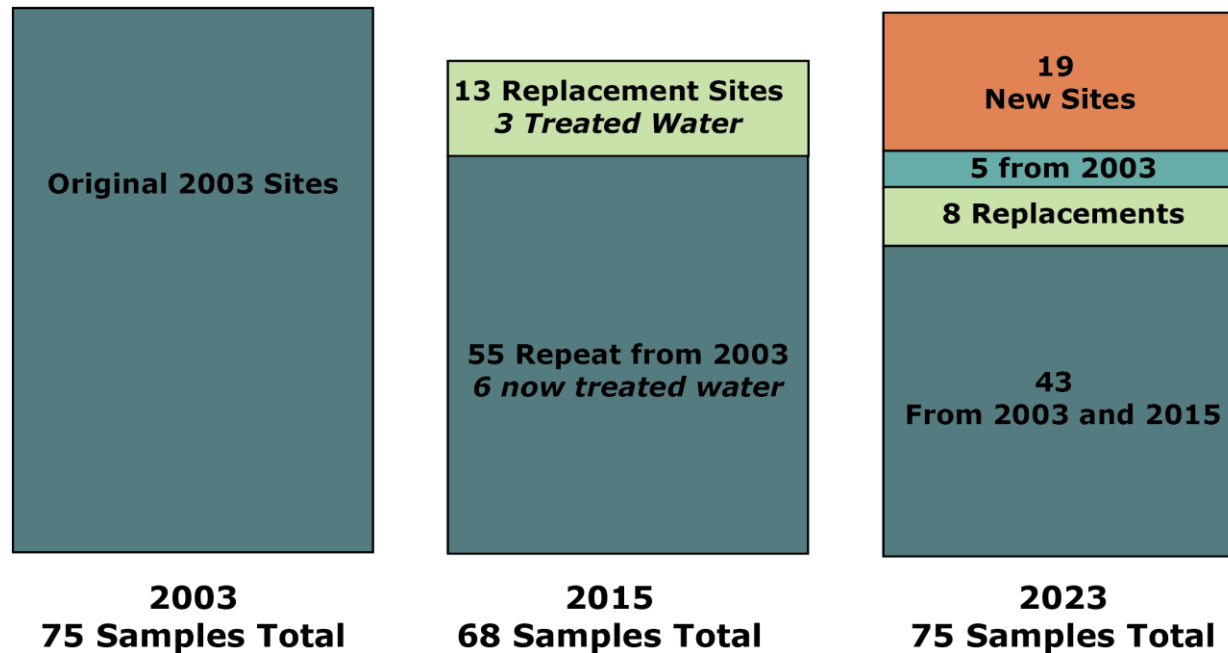


<https://www.isws.illinois.edu/groundwater-science/groundwater-monitoring-well-networks/kane-county>

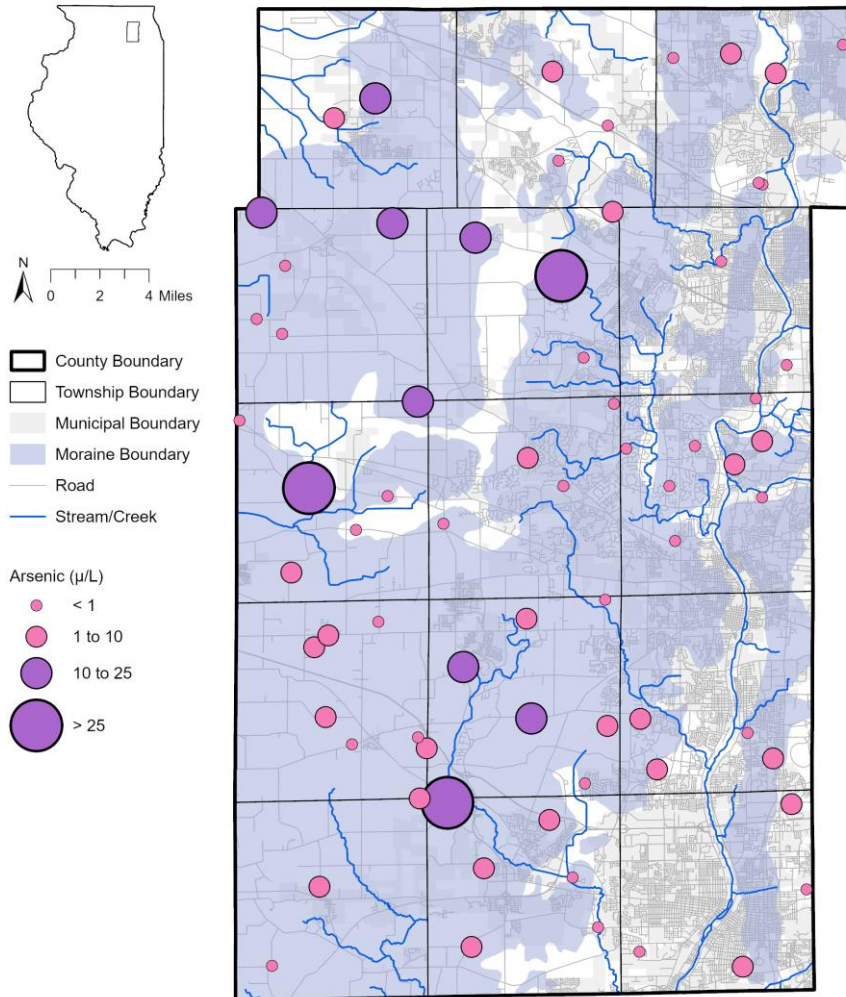
Assessment of Shallow Groundwater Water Quality in Kane County, IL

Sampling Map

- 75 samples collected, distributed for 25 in each third of the county: west, east, central
- Over half of sites were sampled in 2003 and 2015.
- 6 of the new sites sampled were monitoring wells, 2 in each third of the county

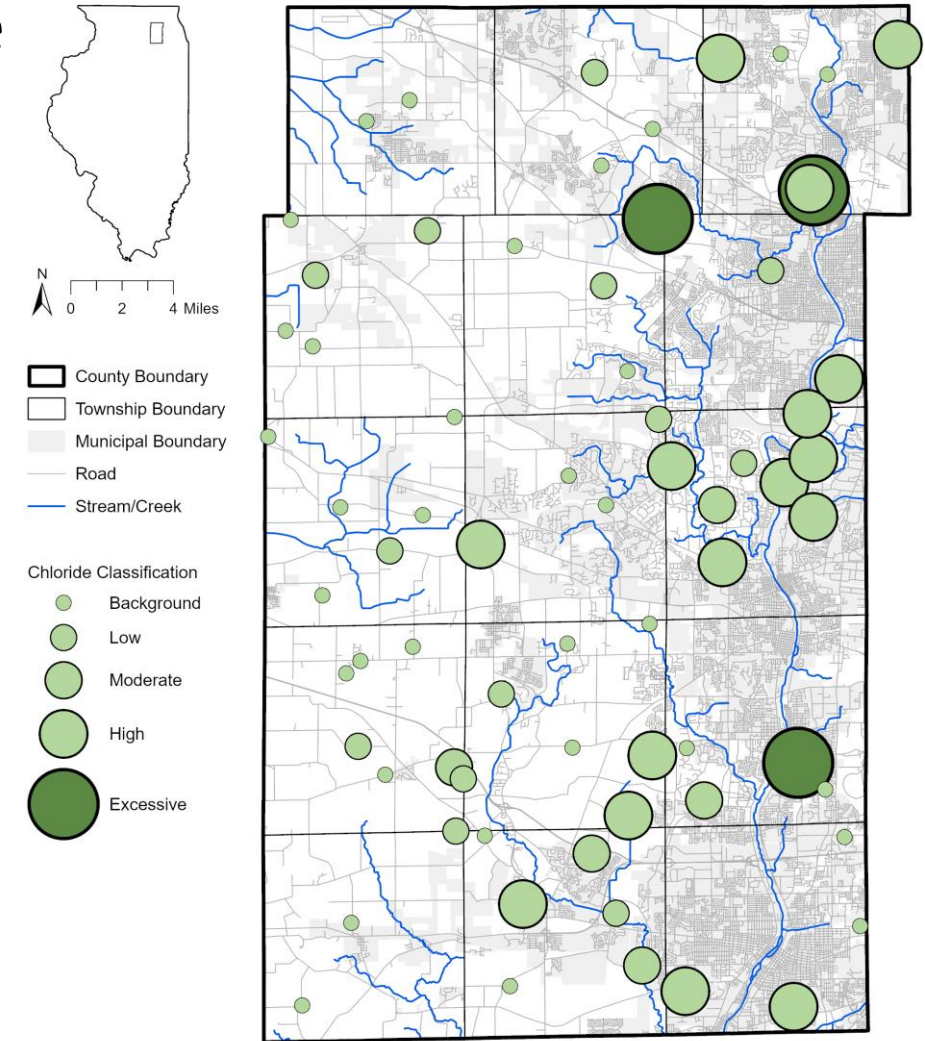


Arsenic



- Naturally occurring
- Most significant contaminant in this study to health
- High arsenic (purple) are observed at 10 wells in central and western Kane
- Generally coincide with moraines that limits recharge to aquifers

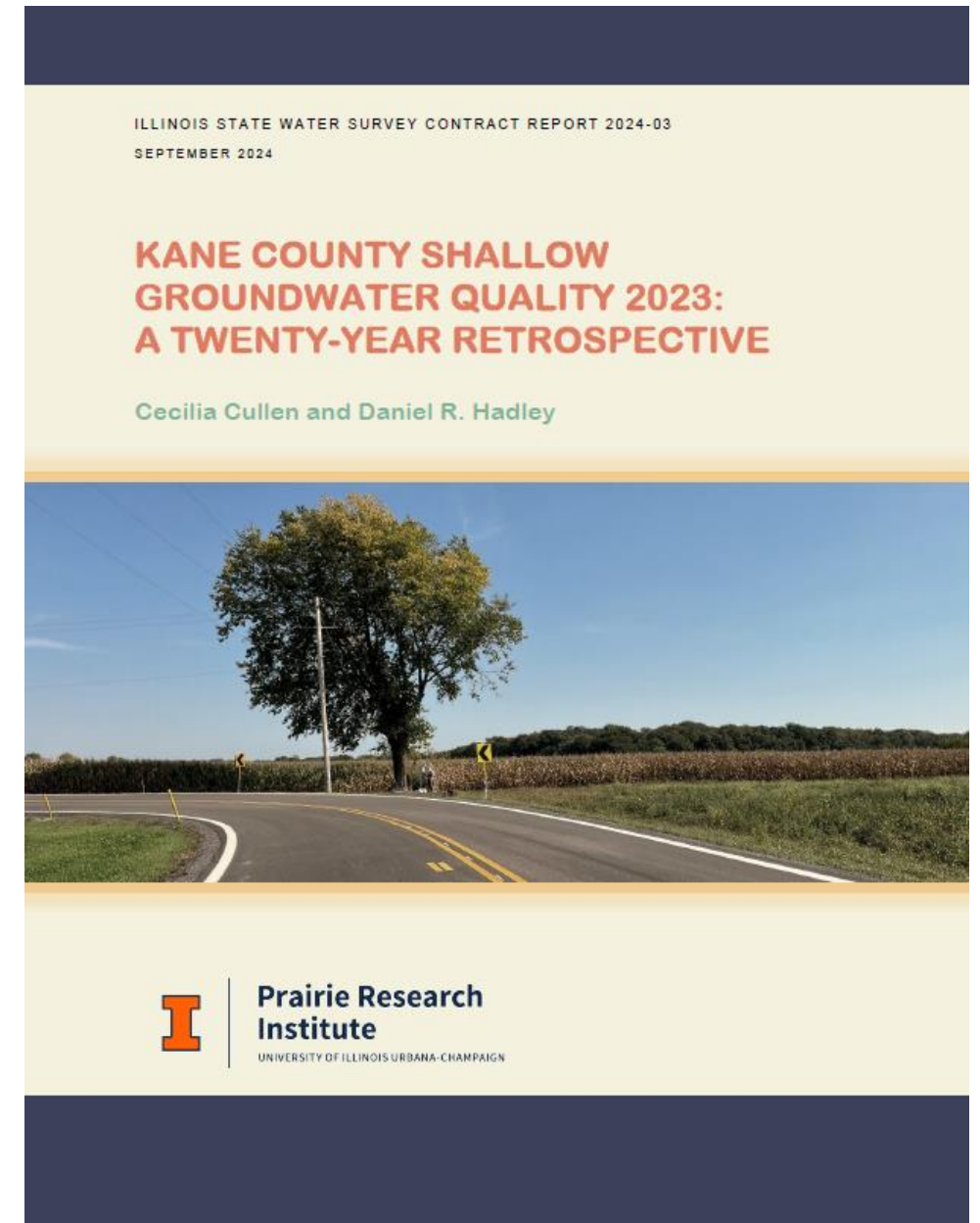
Chloride



- Accumulates from Road Salt
- Significantly higher in the east than in the west.
- Three wells exceed the EPA Secondary standard of 250 mg/L/ (Excessive).
- Still, many wells throughout the county are still at background concentrations.

Kane Water Quality Study

- Arsenic is the most significant groundwater contaminant for public health
- Chloride in groundwater is most abundant in the eastern county, but accumulating fastest in central county
- 20 years of chloride data used for modeling calibration
- Report accessible at
 - <https://hdl.handle.net/2142/125283>

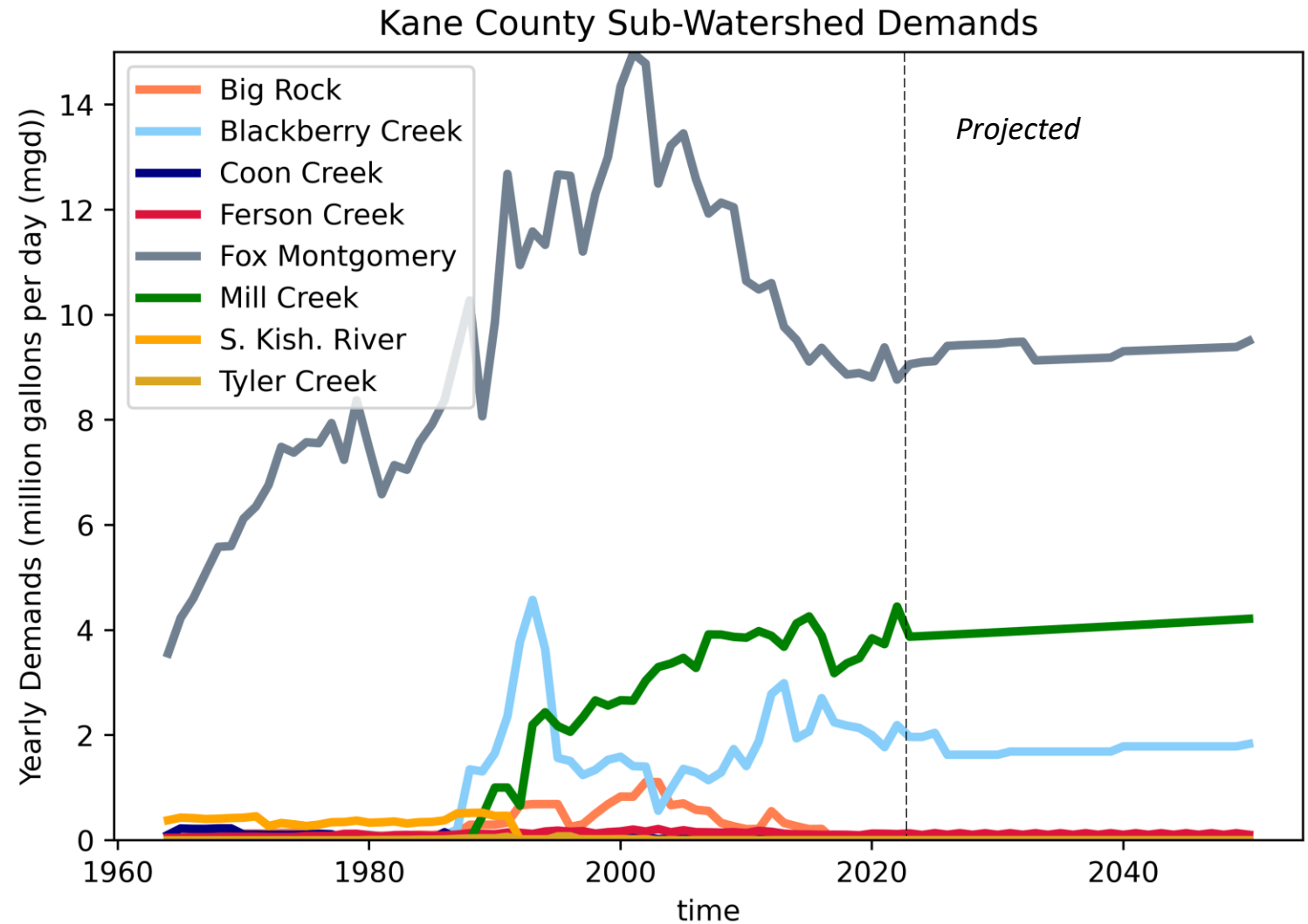


Questions?

EXTRA SLIDES

Kane County sub-watershed demands

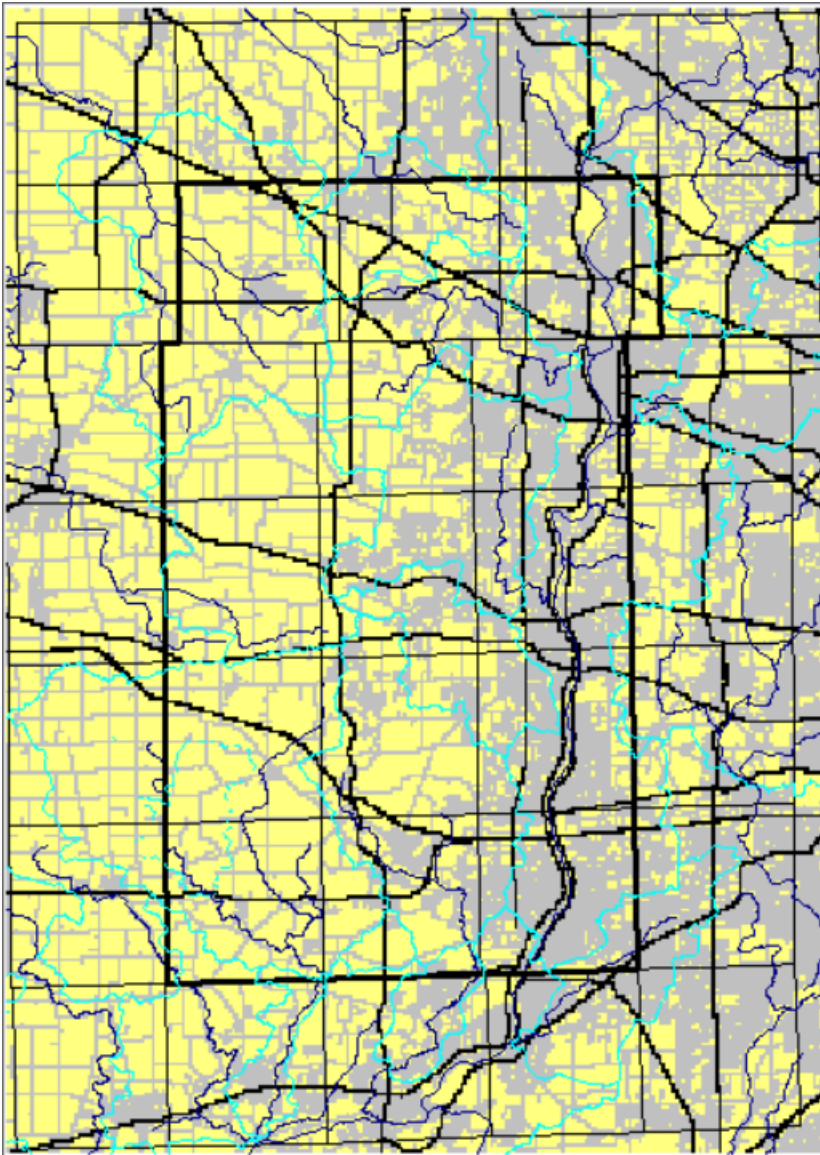
- Demands as reported to IWIP up to 2023.
- Demands projected out to 2050 based on community projections and CMAP data.



Chloride Modeling methods

- Static Road network (2023 NTD)
- 1964 to 1990
 - Anything not roads is open space
- 1990 to 2005
 - CMAP land use in 1990
- 2005 to 2020
 - CMAP land use in 2005
- 2020 to 2050
 - CMAP land use in 2020 carried forward

Land Use Category	Model Recharge Chloride (mg/L)	
Agriculture	2.5	Yellow
Open Space		
Railways/Utility Infra.		
Residential	2.5	Orange
Institutional		
Road	300	Gray
Highways/Interstate/Randall	500	Black
Commercial/Industrial	1000	Red

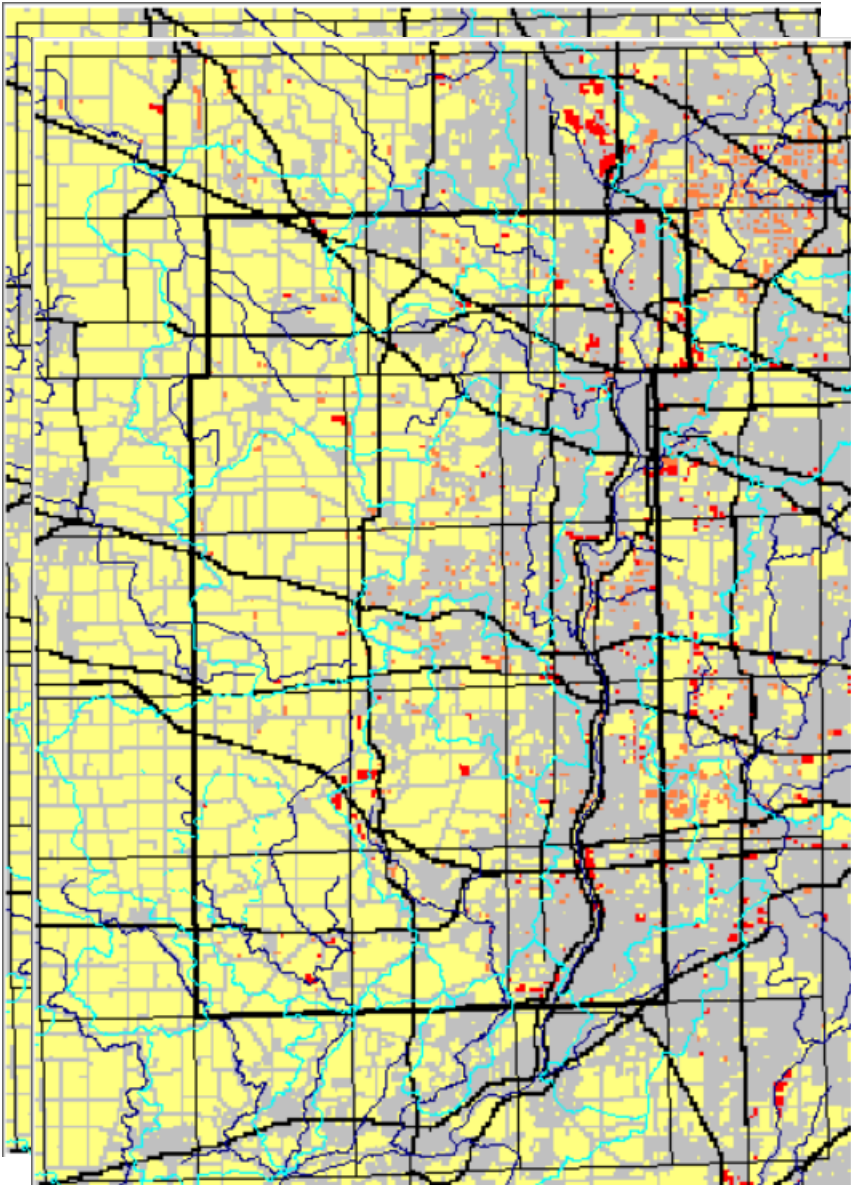


1964

Chloride Modeling methods

- Static Road network (2023 NTD)
- 1964 to 1990
 - Anything not roads is open space
- 1990 to 2005
 - CMAP land use in 1990
- 2005 to 2020
 - CMAP land use in 2005
- 2020 to 2050
 - CMAP land use in 2020 carried forward

Land Use Category	Model Recharge Chloride (mg/L)	
Agriculture		
Open Space		
Railways/Utility Infra.	2.5	Yellow
Residential		
Institutional	2.5	Orange
Road	300	Gray
Highways/Interstate/Randall	500	Black
Commercial/Industrial	1000	Red

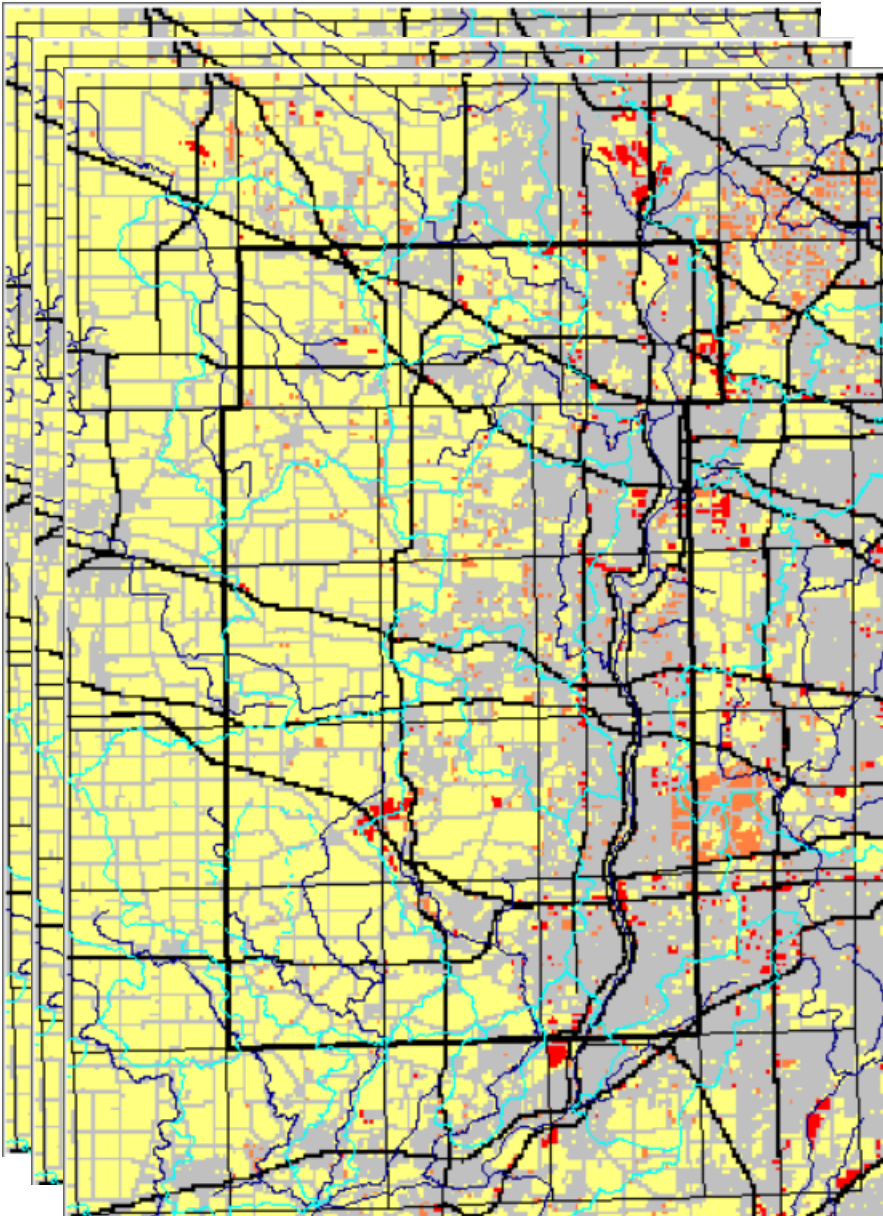


1990

Chloride Modeling methods

- Static Road network (2023 NTD)
- 1964 to 1990
 - Anything not roads is open space
- 1990 to 2005
 - CMAP land use in 1990
- 2005 to 2020
 - CMAP land use in 2005
- 2020 to 2050
 - CMAP land use in 2020 carried forward

Land Use Category	Model Recharge Chloride (mg/L)	
Agriculture	2.5	Yellow
Open Space		
Railways/Utility Infra.		
Residential	2.5	Orange
Institutional		
Road	300	Gray
Highways/Interstate/Randall	500	Black
Commercial/Industrial	1000	Red

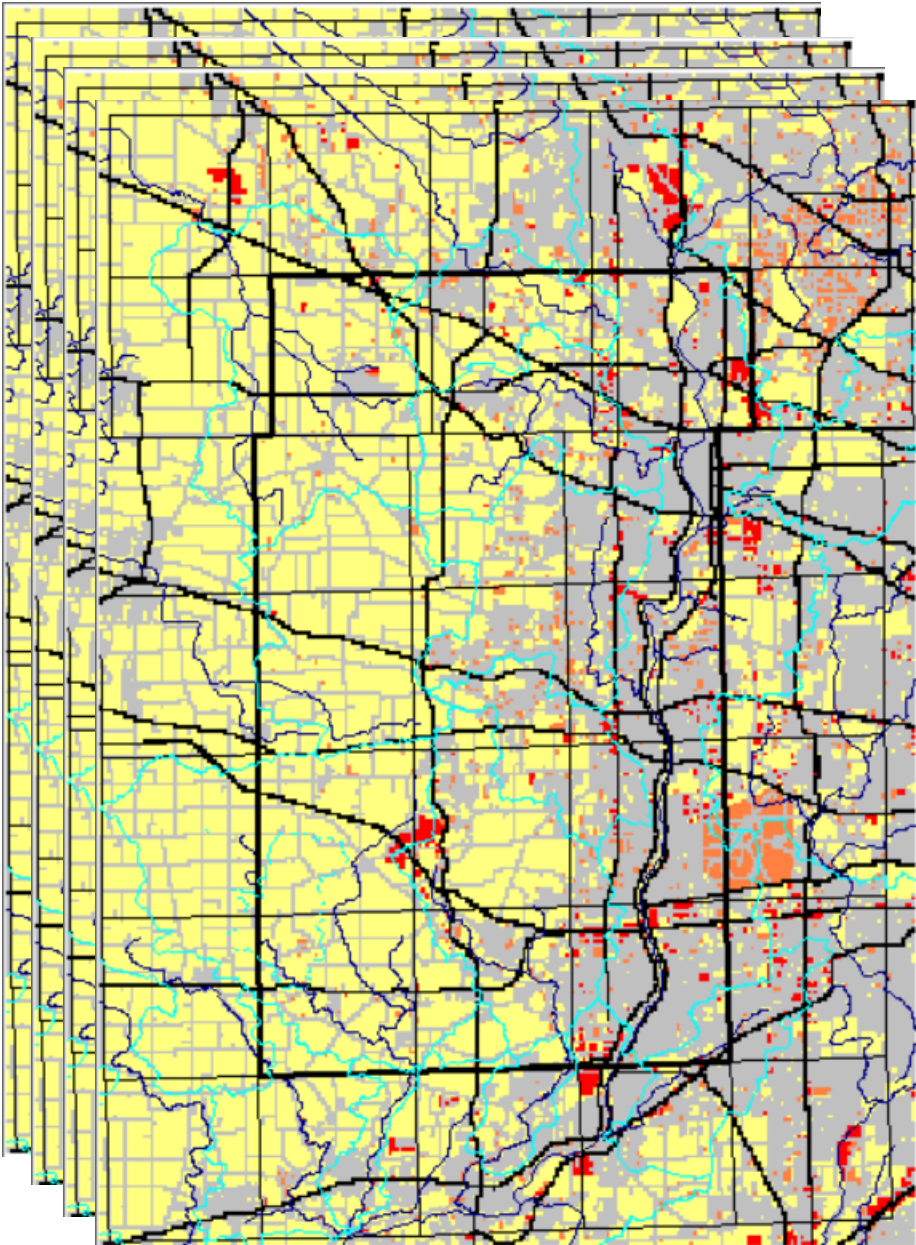


2005

Chloride Modeling methods

- Static Road network (2023 NTD)
- 1964 to 1990
 - Anything not roads is open space
- 1990 to 2005
 - CMAP land use in 1990
- 2005 to 2020
 - CMAP land use in 2005
- 2020 to 2050
 - CMAP land use in 2020 carried forward

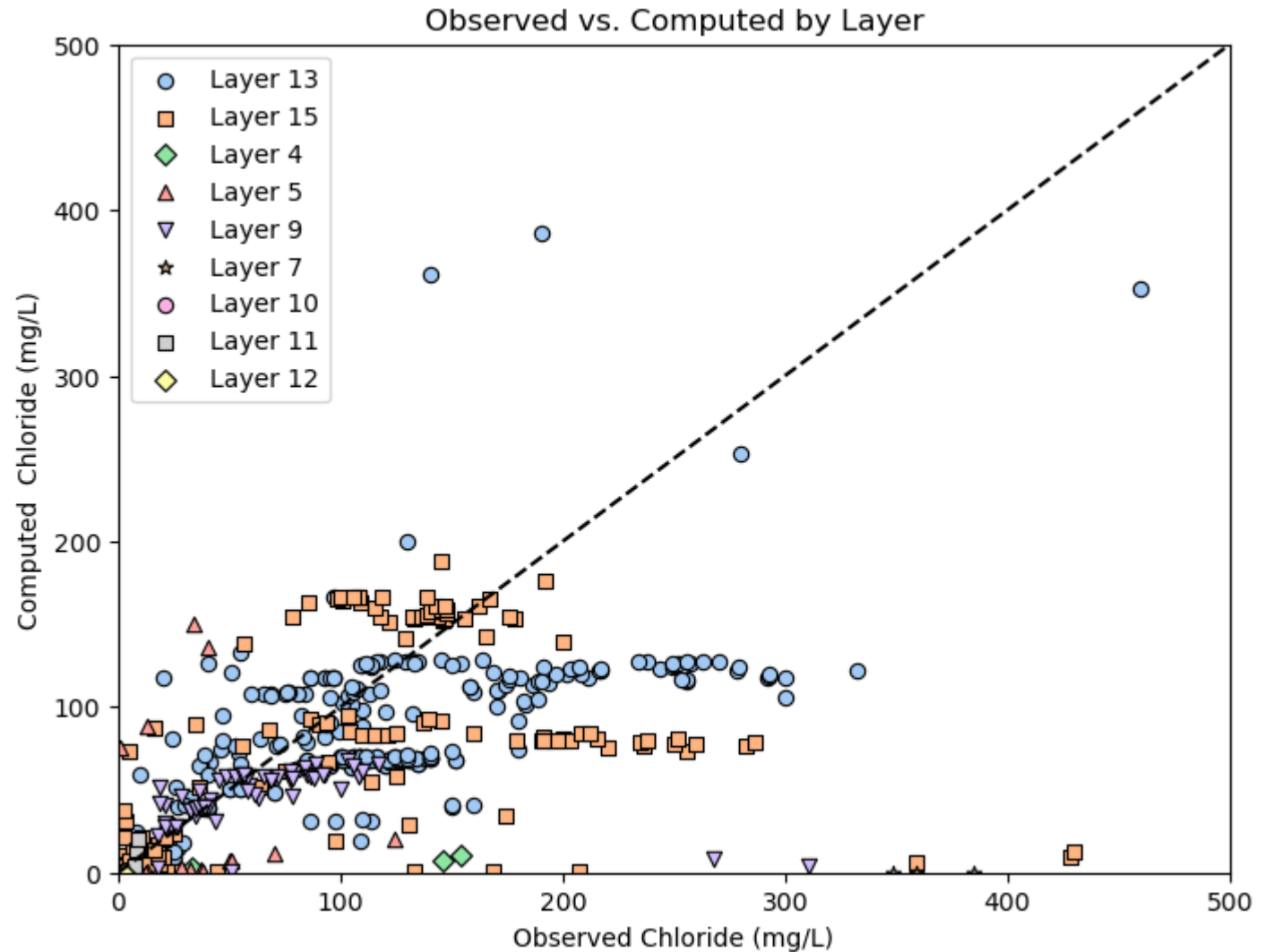
Land Use Category	Model Recharge Chloride (mg/L)	
Agriculture		
Open Space		
Railways/Utility Infra.	2.5	Yellow
Residential		
Institutional	2.5	Orange
Road	300	Gray
Highways/Interstate/Randall	500	Black
Commercial/Industrial	1000	Red



2020

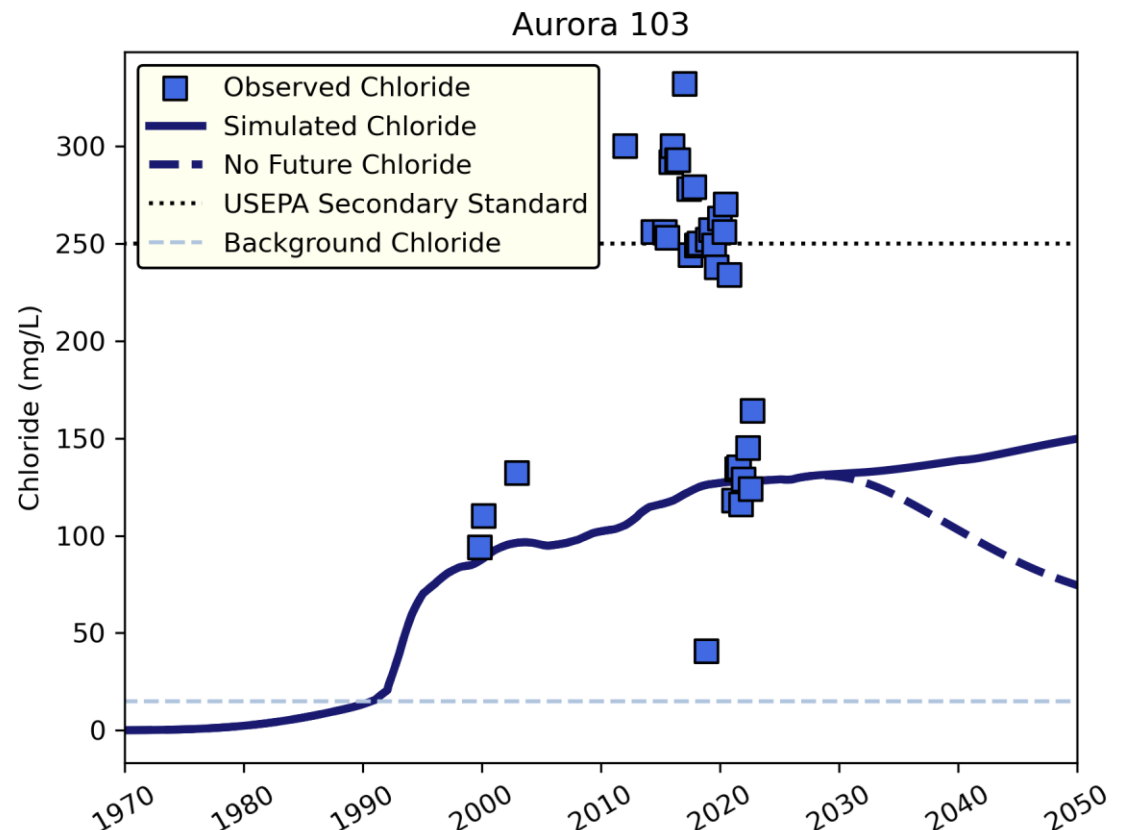
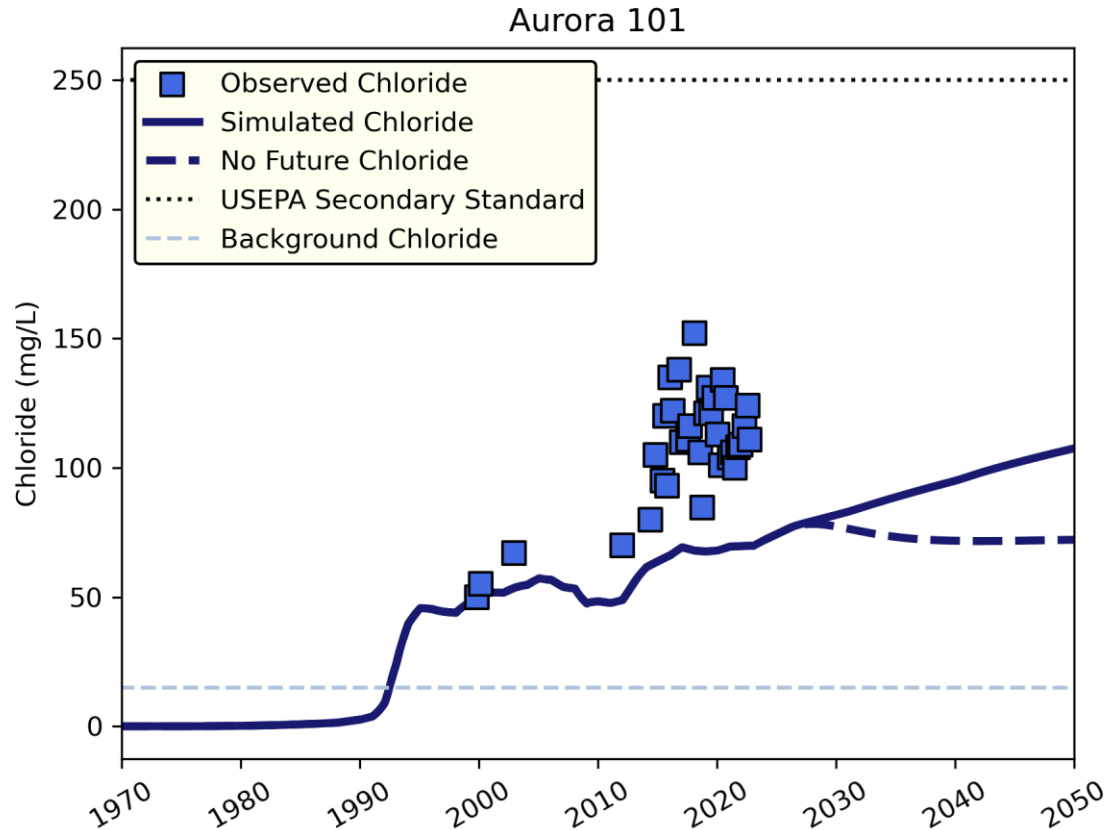
Overall Calibration for Chloride Modeling, So far!

- 1:1 plot observed vs. simulated measurements
- Model is improved from last month at capturing higher concentrations
- It bisects wells with variable chloride usually falling on the lower range of observations
- The geologic parameters are set and this model will be improved on a well by well basis
- Overall, an improvement from our last meeting!



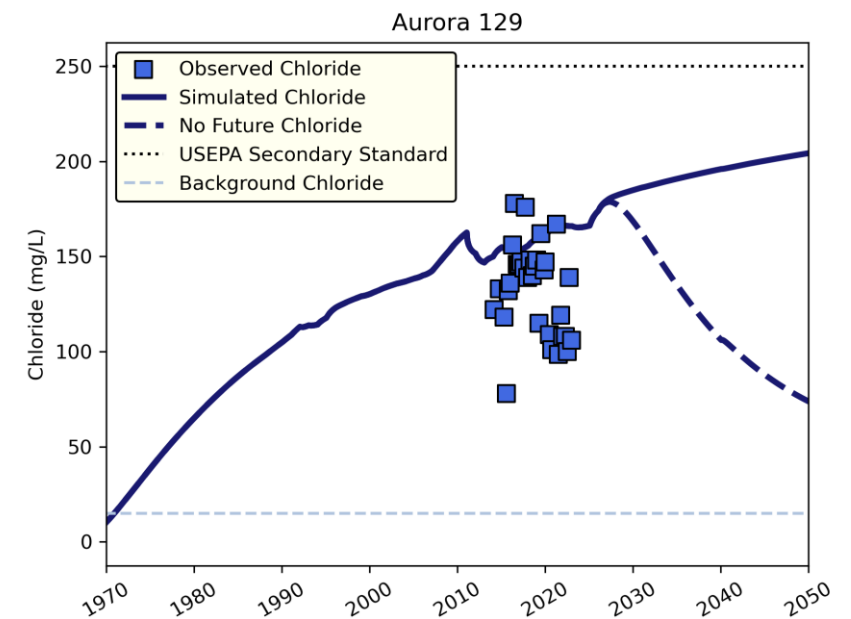
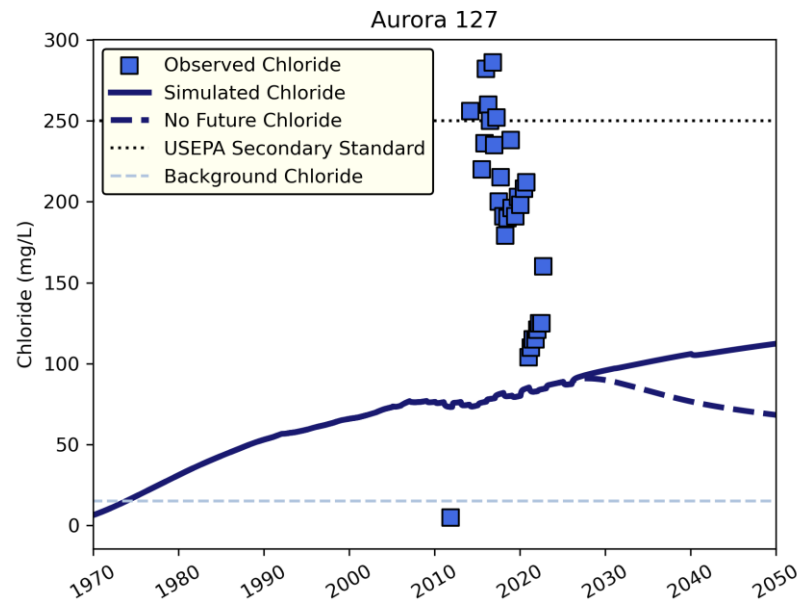
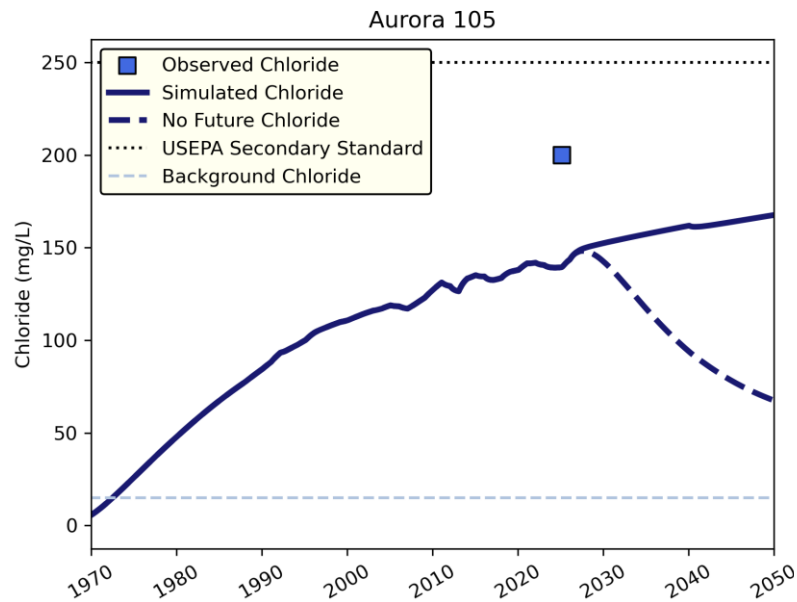
Chloride Results- Aurora Sand and Gravel Wells

- Aurora 103 high points are highly variable, this has been observed in other wells in contact with surface features (rivers, stormwater) that are affected by seasonal chloride
- **Aurora 103 high points are most of the observations that are not successfully calibrated in Layer 13**

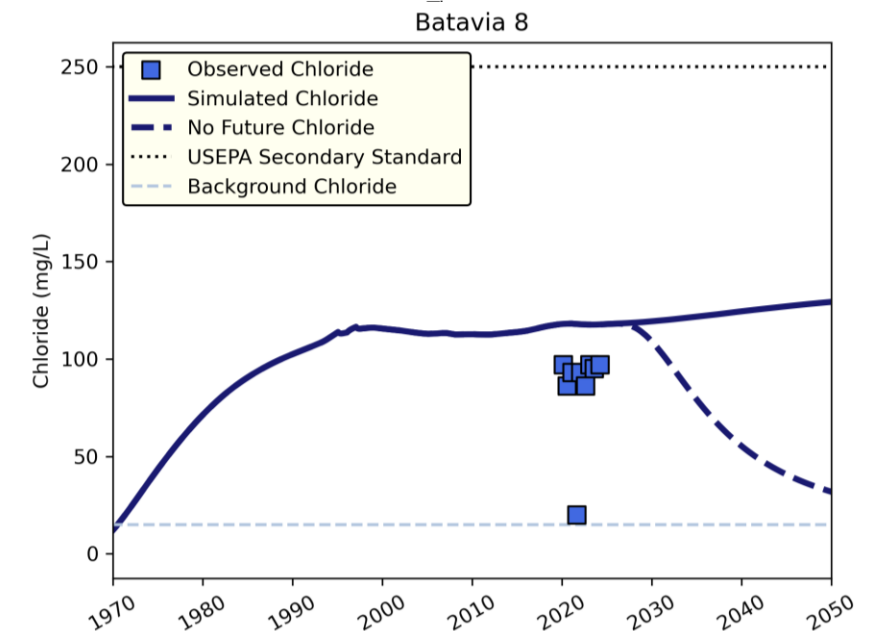
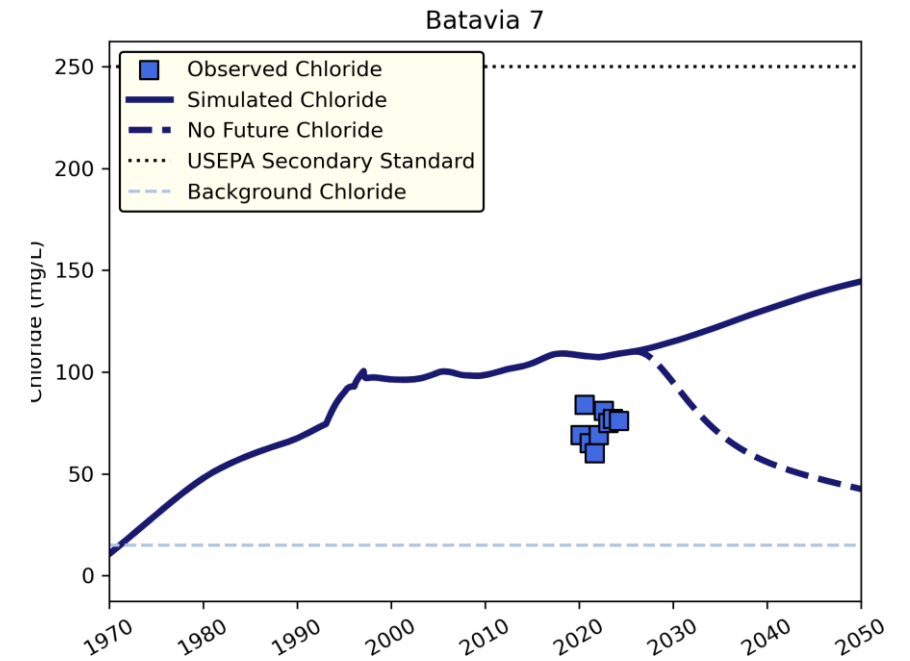
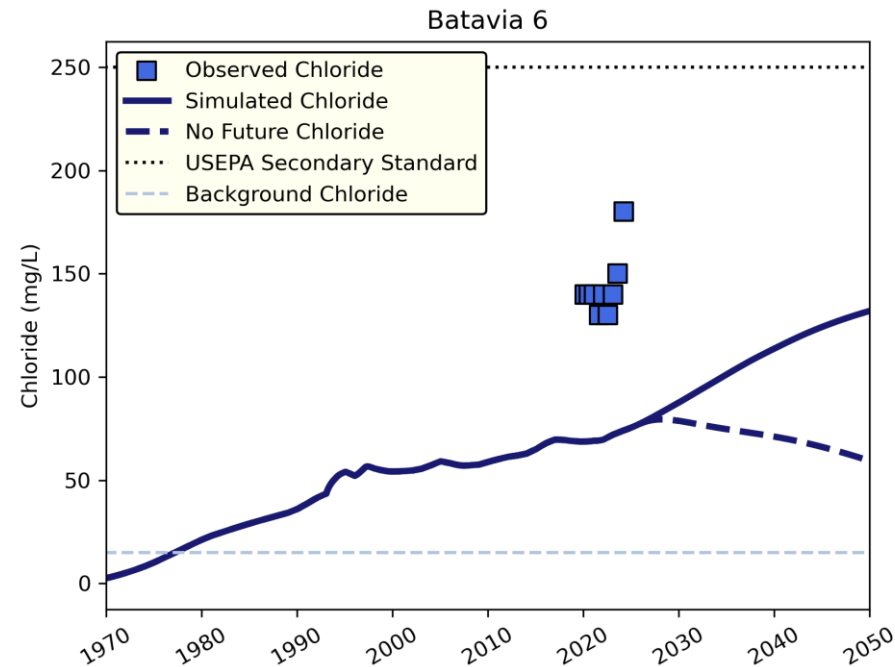


Chloride Results- Aurora Dolomite Wells

- Well 127
 - Measured concentrations are highly variable (some exceed USEPA secondary standard)
 - Model simulates chloride on lower end of observations
- Well 129
 - Model simulates chloride on lower end of observations



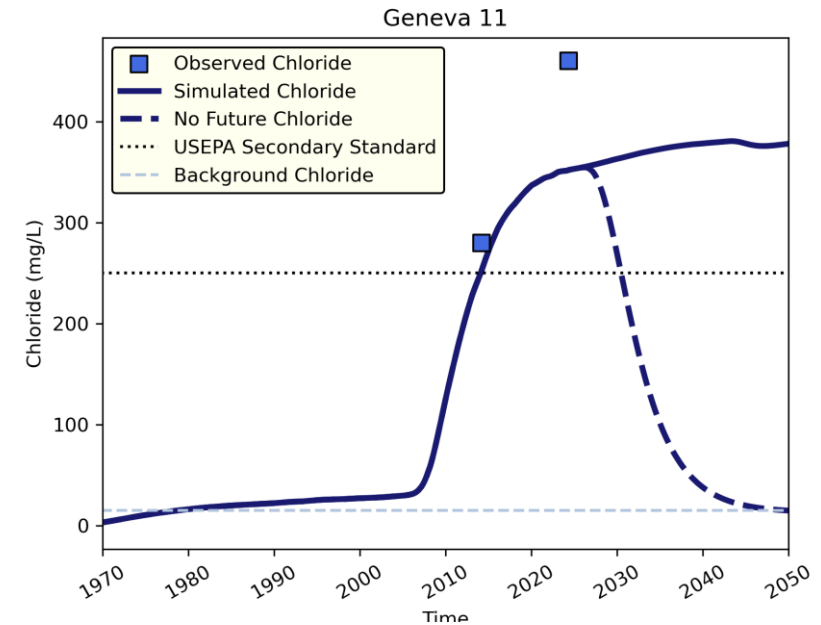
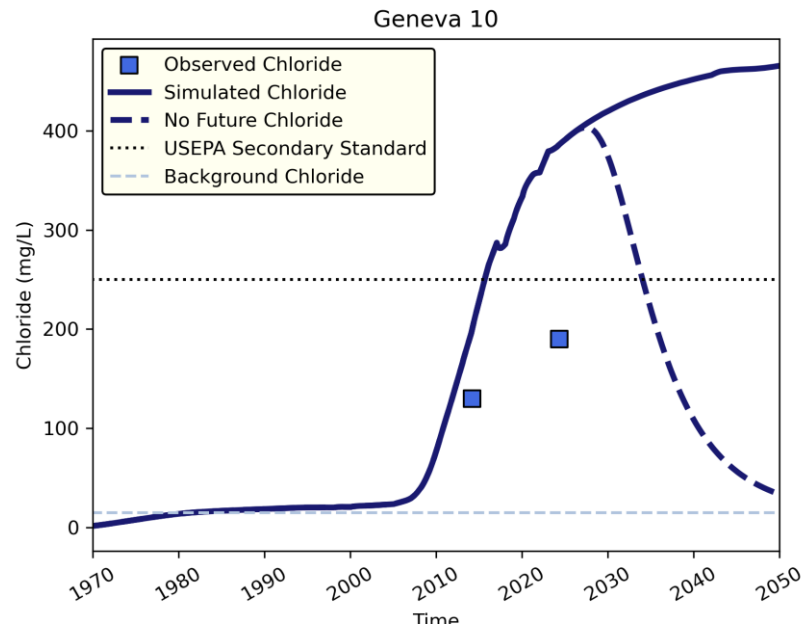
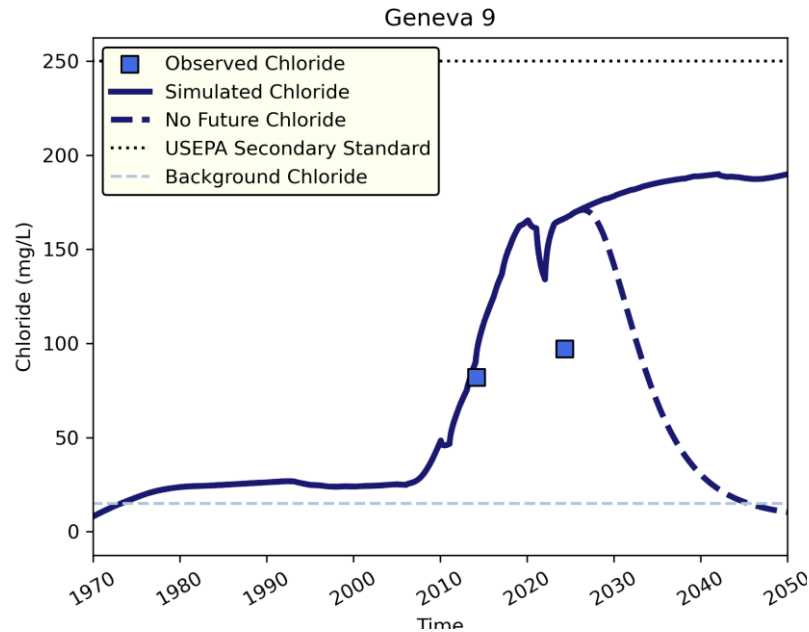
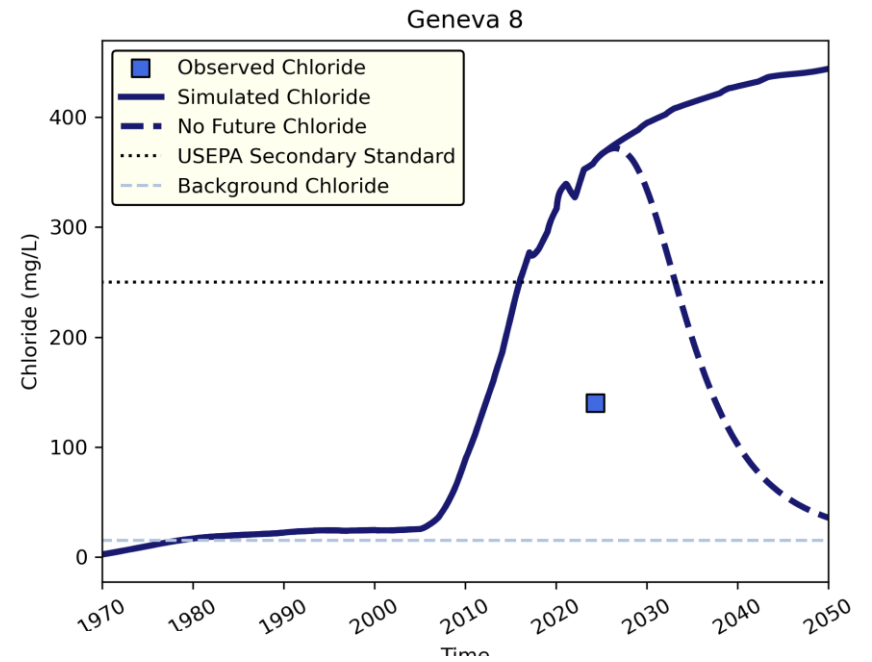
Chloride Results- Batavia Wells



- Surprising variability amongst Batavia wells
- Average measured Cl concentration = 100.4 mg/L
- Model calibration either too high or too low, but overall a decent average fit
- Fairly rapid decline if chloride is eliminated (close to Mill Creek)

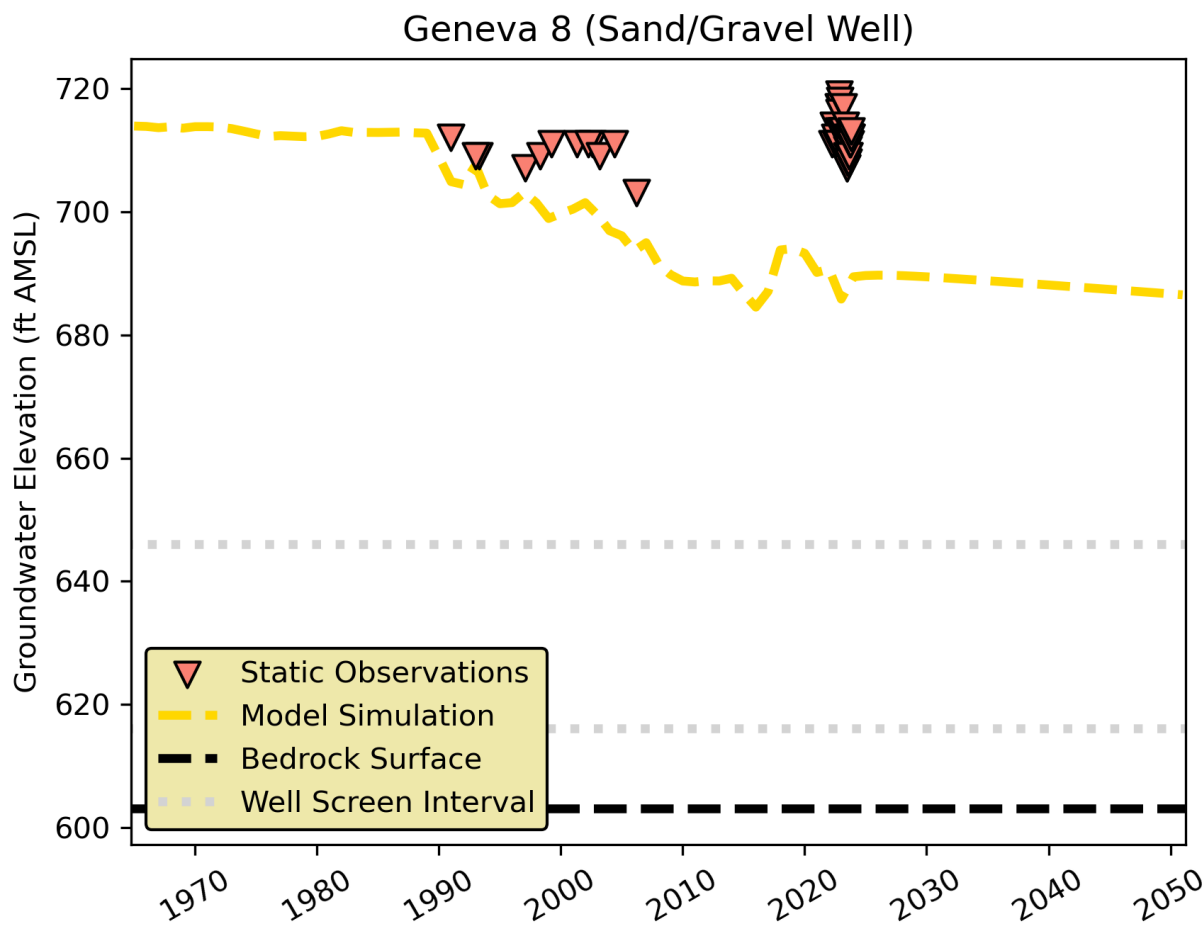
Chloride Results at Geneva

- From the ISWS Groundwater Quality database
- Last month undersimulated
- Now oversimulated (except 11)
- Will dial back application rate
- Short residence time here, rapid declines

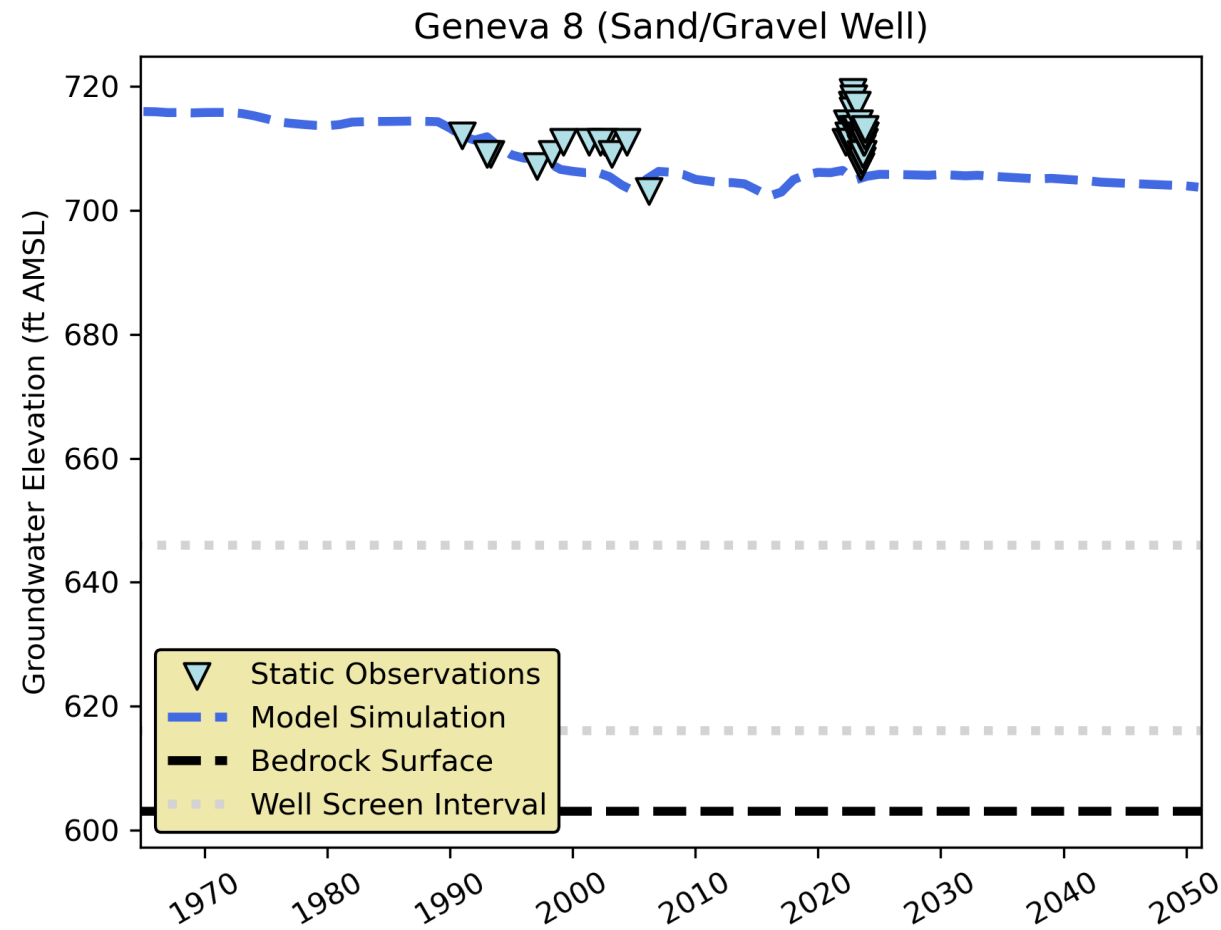


Refining geology helped chloride and head modeling at Geneva

Before improving transmissivity in model

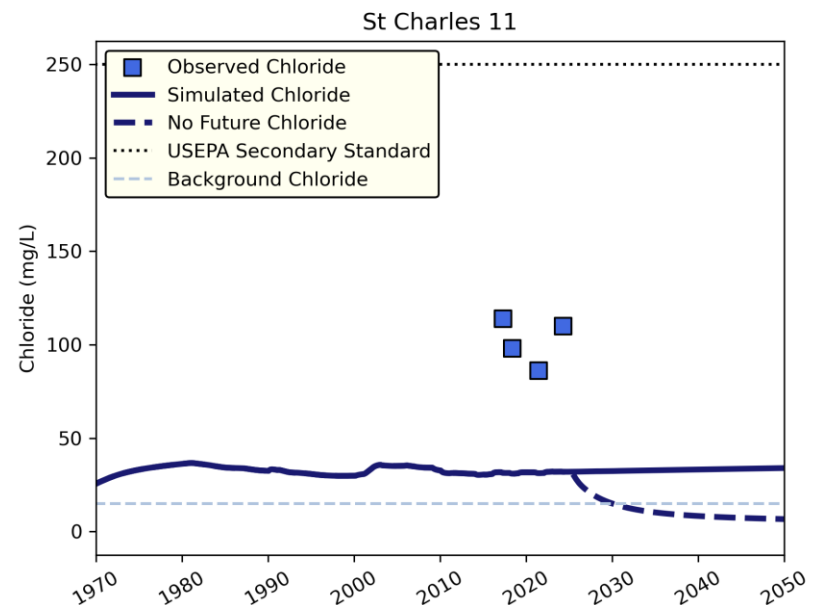
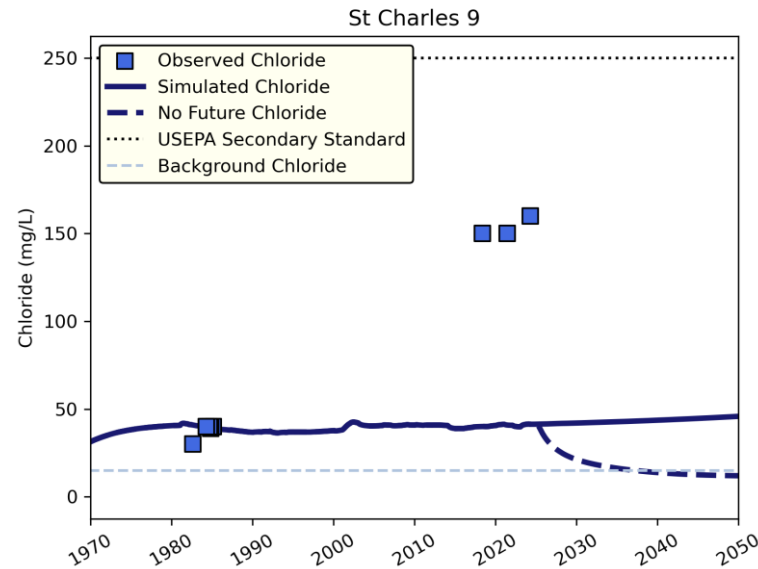
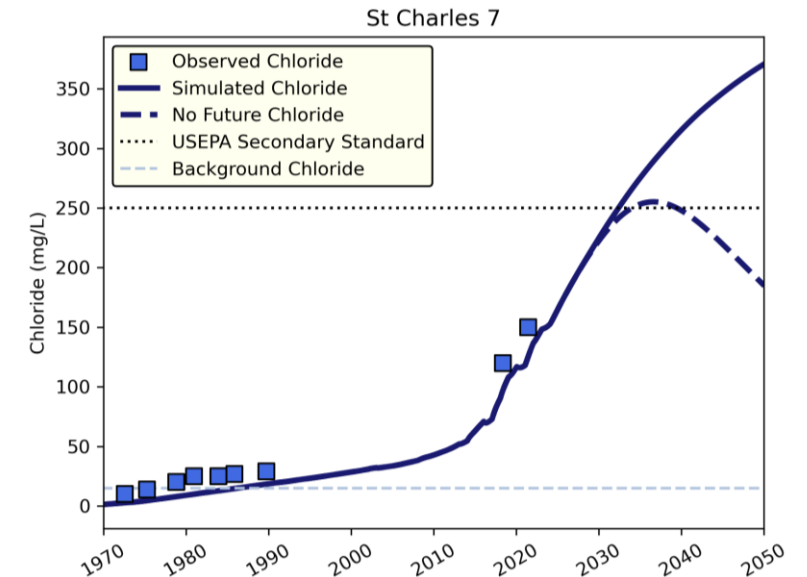
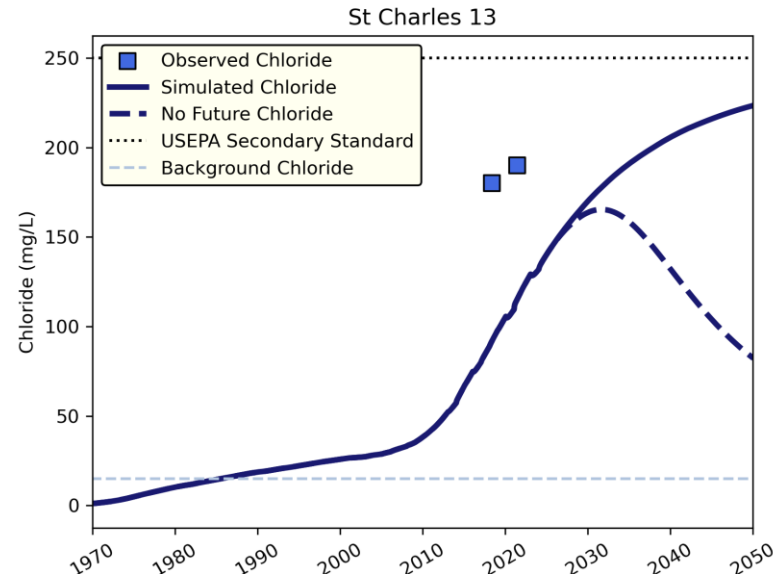


After improving transmissivity in model



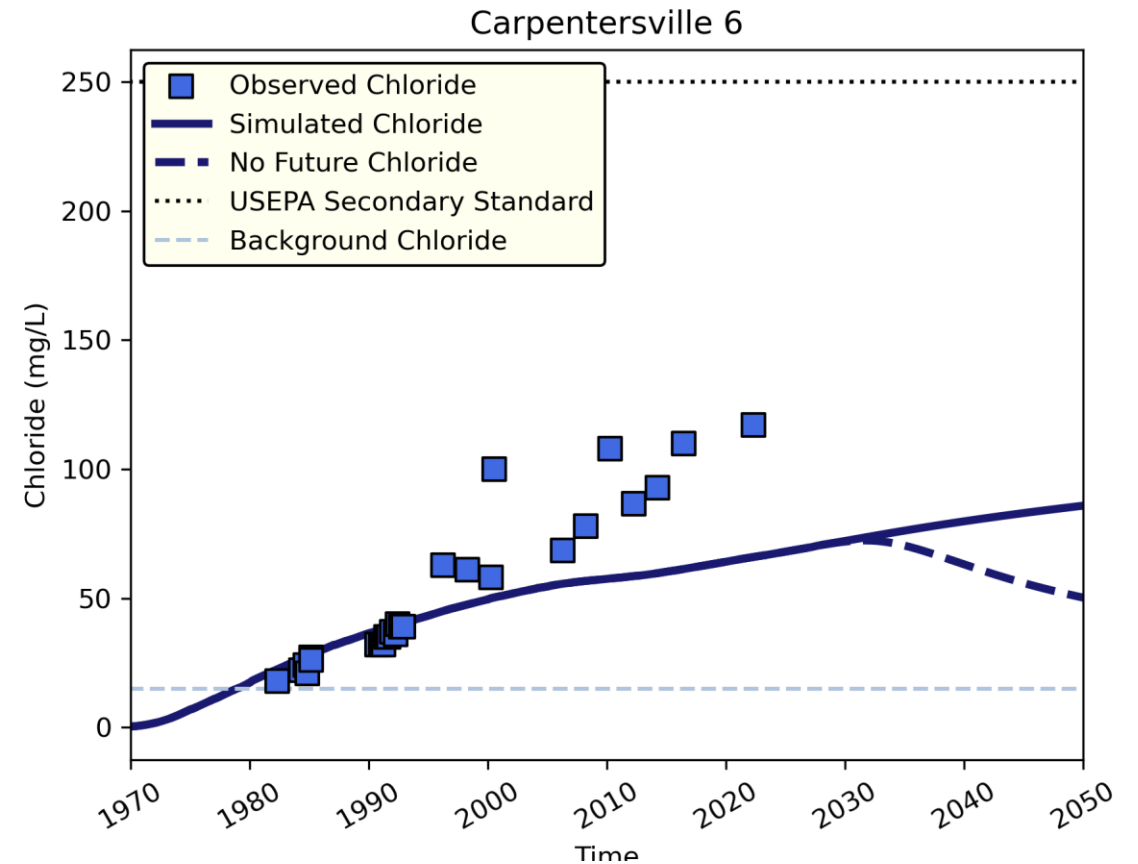
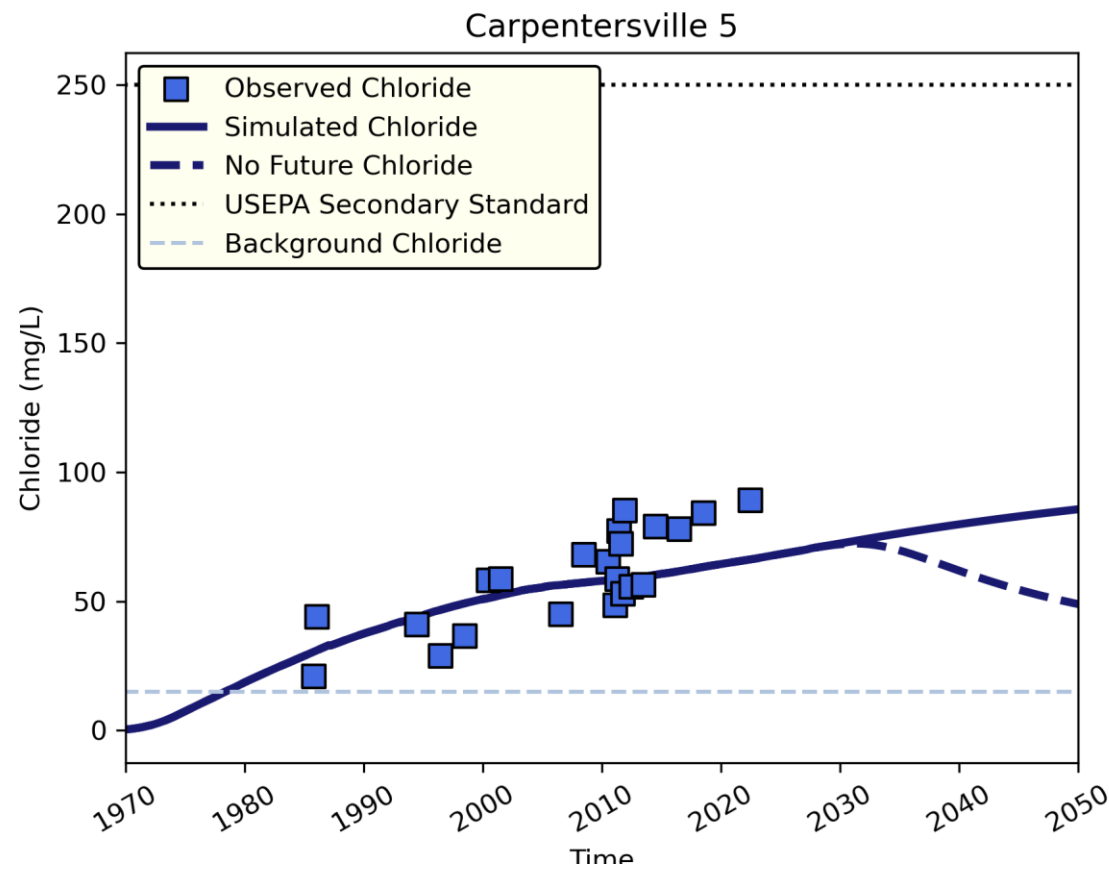
Chloride Results at St. Charles

- From the ISWS Groundwater Quality database
- Additional data from IEPA site
- Useful sites to test our model calibration in the 1970s, 1980s, and 1990s
- Wells 9 and 11 will need specific attention (more chloride input, not flow)



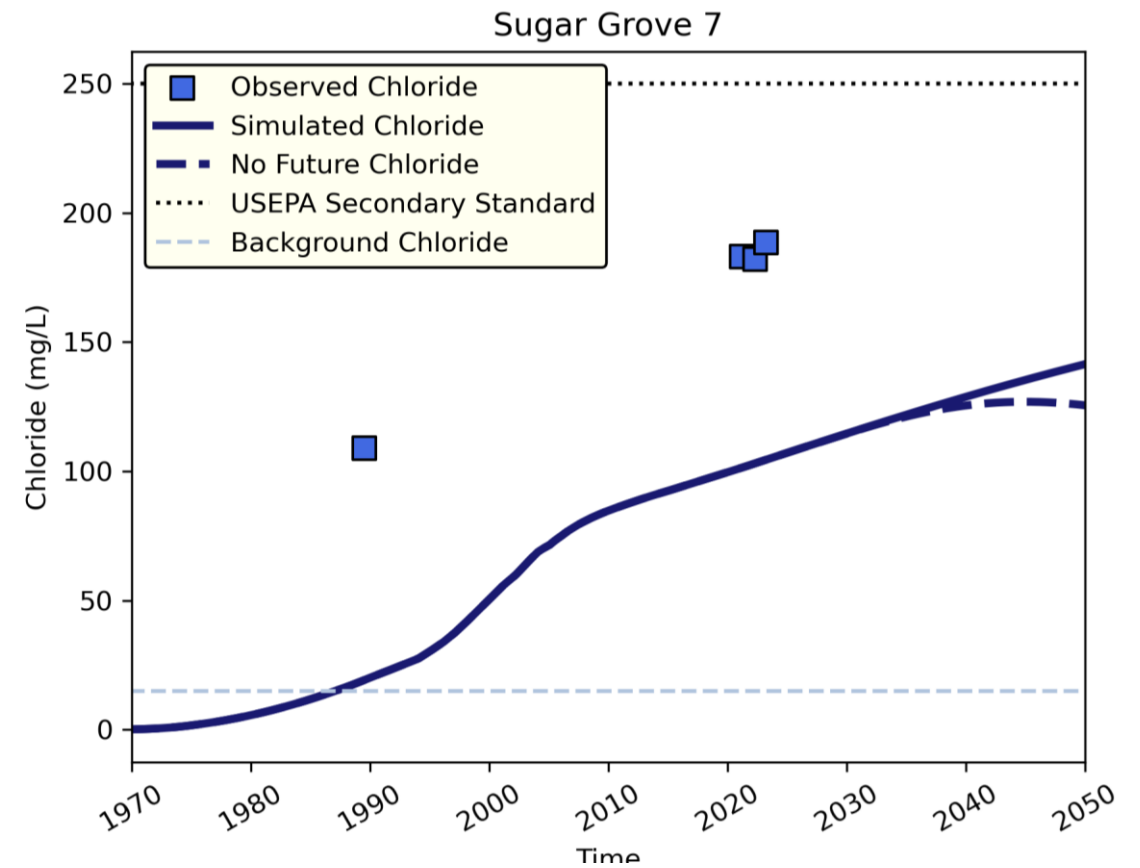
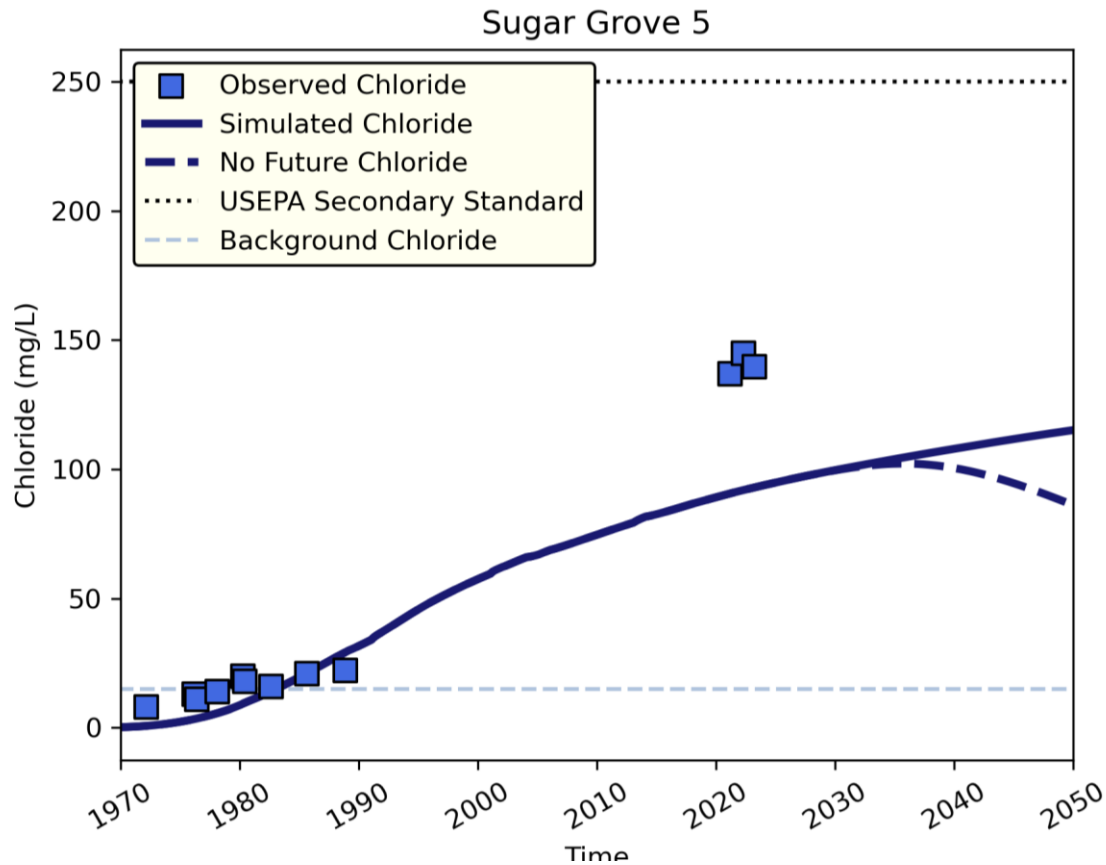
Chloride Results at Carpentersville Wells

- Two of the longest datasets in this study
- The chloride accumulation trend at Well 5 is well captured
- Slightly under-simulated at Well 6



Chloride Results at Sugar Grove Wells

- Well 5
 - Dolomite bedrock well (Layer 15), good calibration
- Well 7
 - Sand and gravel well (Layer 13), simulation not high enough

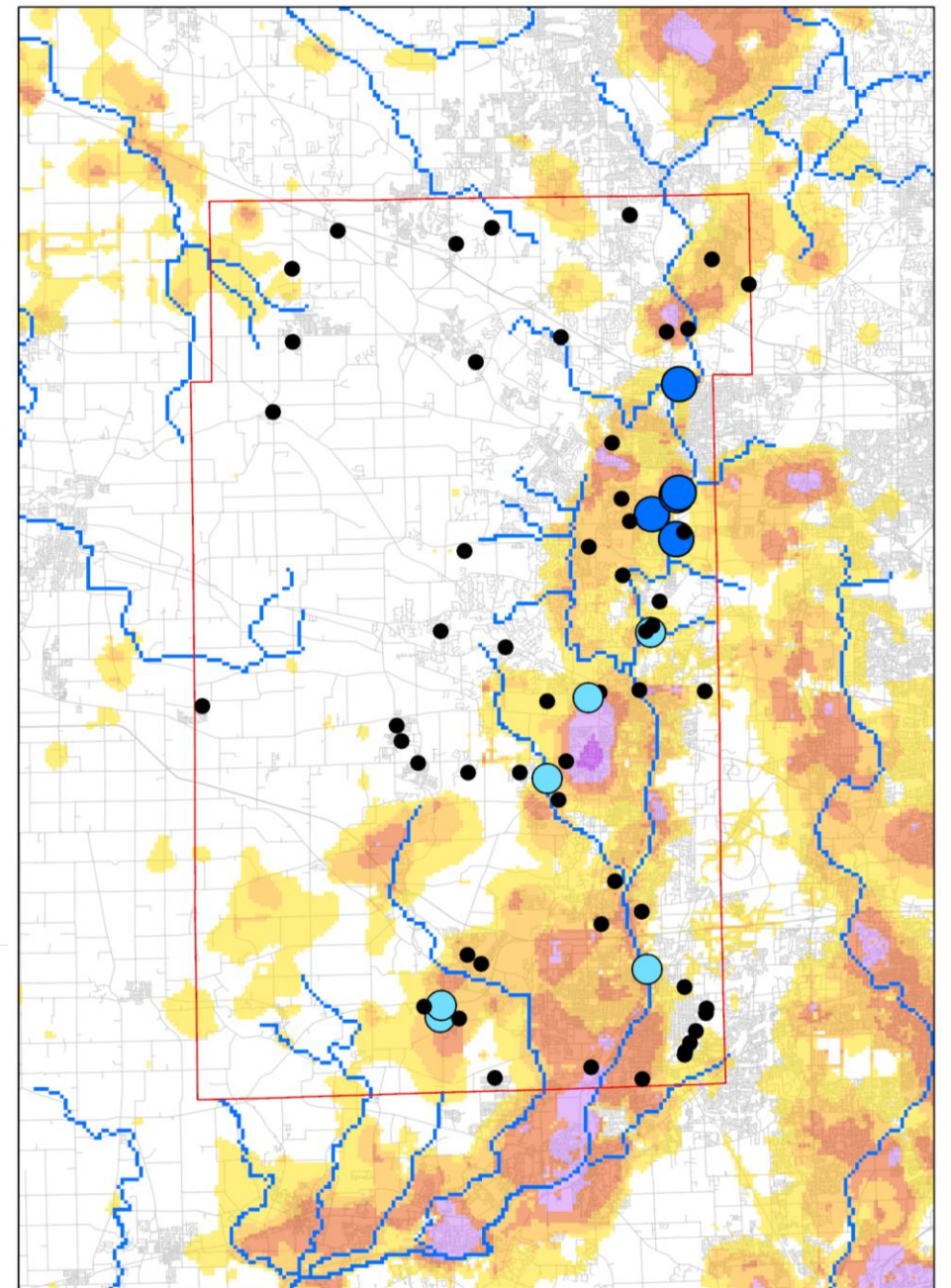
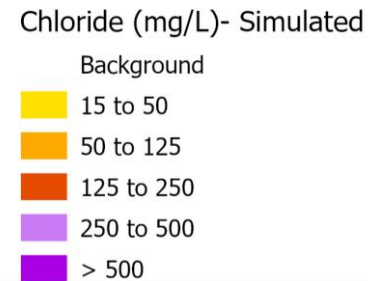


PFAS and Chloride

- PFAS limited to Elgin / South Elgin
- Lower detections near Geneva, Aurora, and Sugar Grove
- Fairly good correlation with where chlorides are present
- But chloride not necessarily a predictor of where PFAS may be

IEAP PFAS Sampling (Municipal Wells)

- Confirmed, Greater Than or Equal to IEPA HBGL
- Confirmed, Less Than IEPA HBGL
- No Detections
- Unconfirmed Detections



Summary of chloride modeling

Calibration process well underway

- The geologic parameters of the model are almost finalized
- At this point to calibrate to a well's concentrations we are experimenting with surficial land use
- Calibration at St. Charles 7 and Geneva exemplify this

What future scenarios are useful to run?

- We have estimates in how sensible salting efforts would reduce concentration at state and local highways and roads
- Probably concentrations on industrial/commercial lands will stay high
- Completed the model scenario of no future chloride, the aquifer takes decades to reflect significant reductions, but chloride does exit the aquifer eventually

It's not too late to send us chloride data to use in the model! Thank you to the communities that have.

Sustainability Analysis- Goals: Two more meetings in September and December

PHASE 2 August 2024 - July 2025

Estimate sustainable supply at a watershed level:

- Based on acceptable reductions of natural groundwater discharge to streams and other metrics
- Compare estimates of sustainable withdrawal rates (supply) to current and future demands

Evaluate chloride contamination and aquifer vulnerability

- Simulate chloride in the shallow aquifers by adding chloride along roadways and in developed areas through time
- Calibrate to any chloride data available from municipalities
- Create maps where there is high potential for chloride to enter the sand and gravel aquifer

PHASE 3 August 2025 – Dec 2025

- Contract report writing
- Publish series of web applications/story maps

Kane Sand and Gravel Aquifers

St. Charles Aquifer

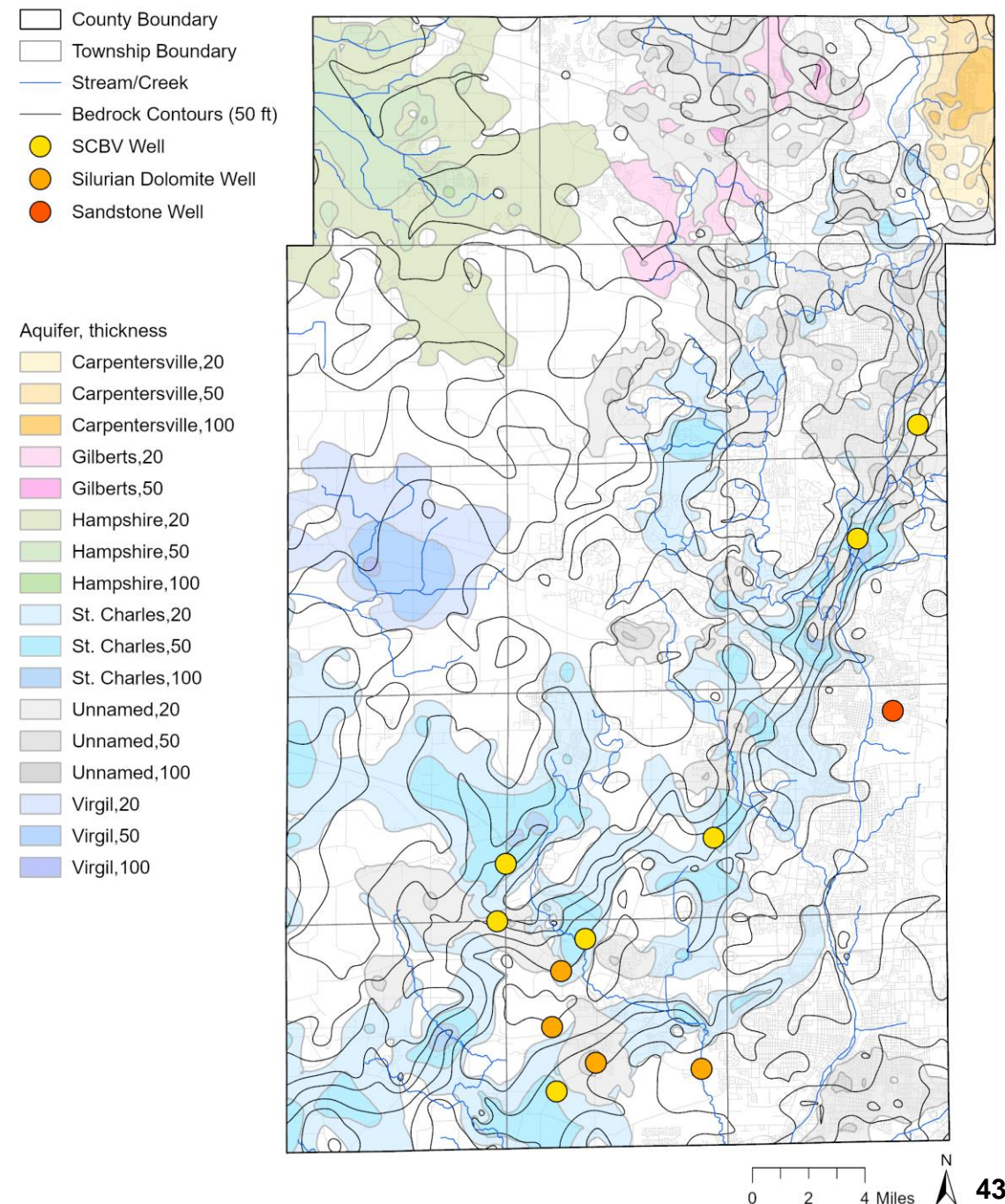
- Fills the bottom of the major bedrock valleys
- Very productive
- Utilized by:
 - South Elgin
 - St. Charles
 - Geneva
 - Batavia
 - Mill Creek Water Reclamation District
 - Montgomery
 - Aurora
 - Sugar Grove (formerly)

Carpentersville Aquifer

- HIGHLY productive gravel aquifer
- Used Carpentersville and East Dundee

Hampshire Aquifer

- Domestic use, not used by Hampshire or Huntley,

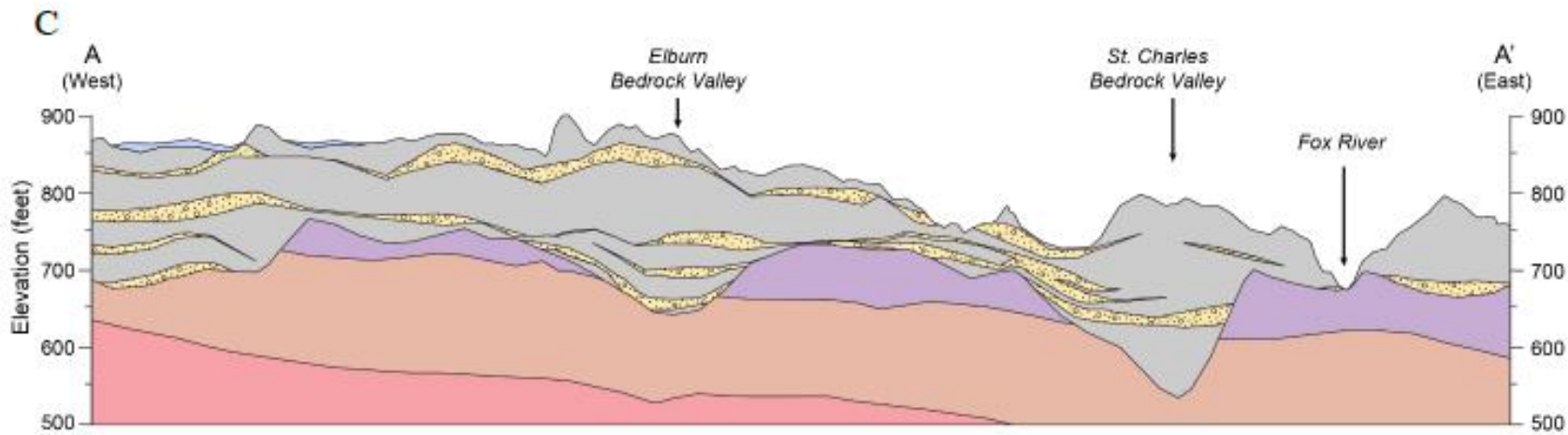


Kane Quaternary Geology

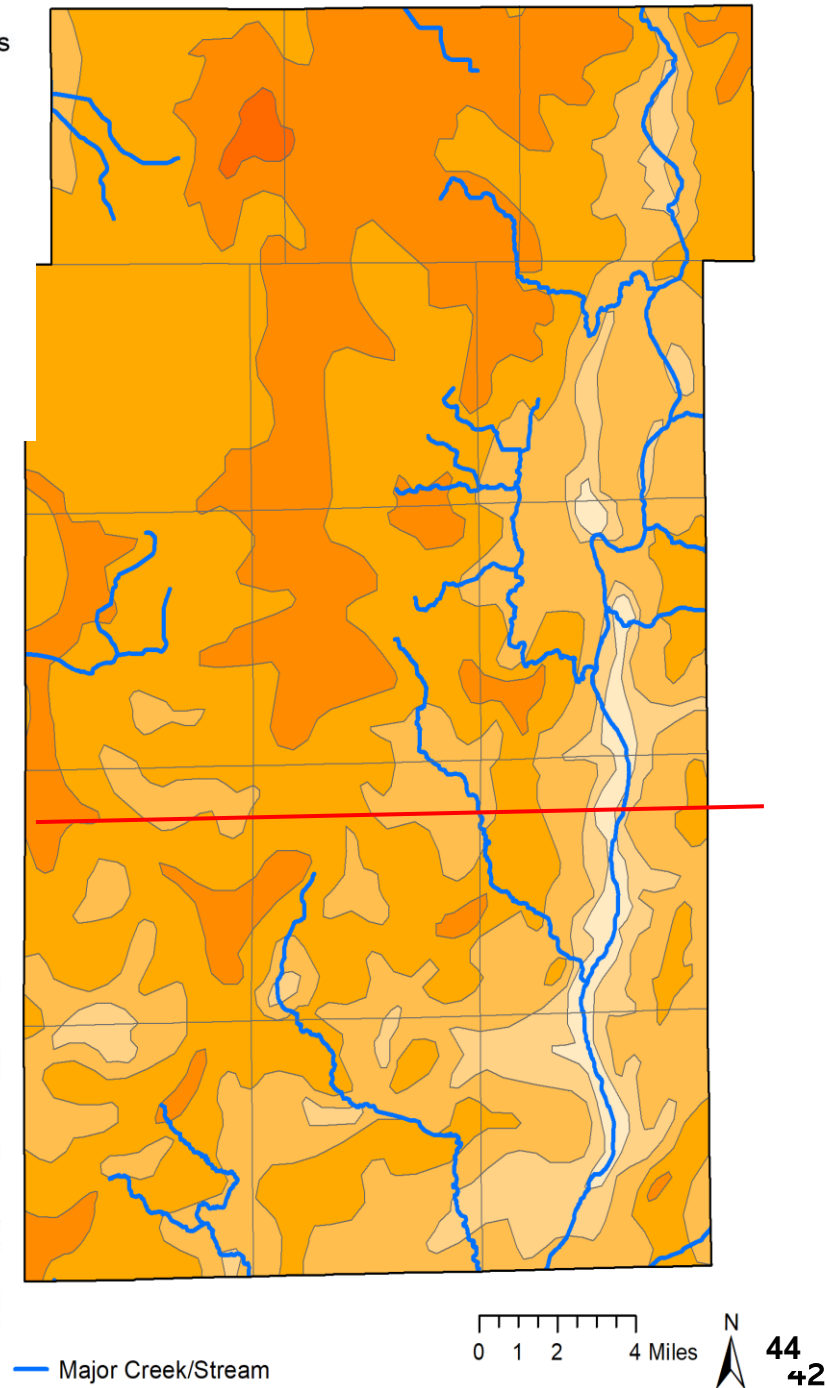
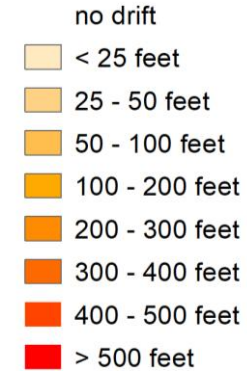
- Complex mix of clays, silts, sands, and gravels
- As Hydrogeologists, we just care about....
 - Where are the sand and gravels?
 - How productive are they?

Two major quaternary formations that contains sands

- Henry Formation (younger, shallower)
- Glasford Formation (older, deeper, and thicker)



Glacial Drift Thickness



STATE OF ILLINOIS)
COUNTY OF KANE) SS.

PRESENTATION/DISCUSSION NO. TMP-25-1166

KANE COUNTY CLIMATE ACTION IMPLEMENTATION PLAN

Kane County Climate Action Implementation Plan

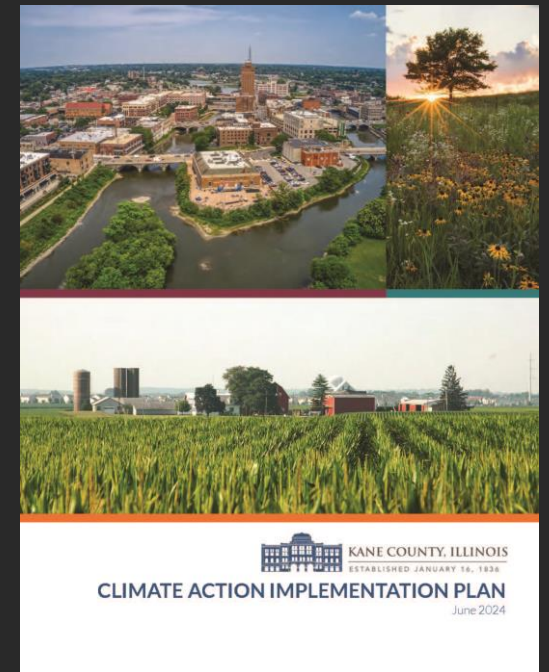


September 23rd, 2025 – Committee of the Whole

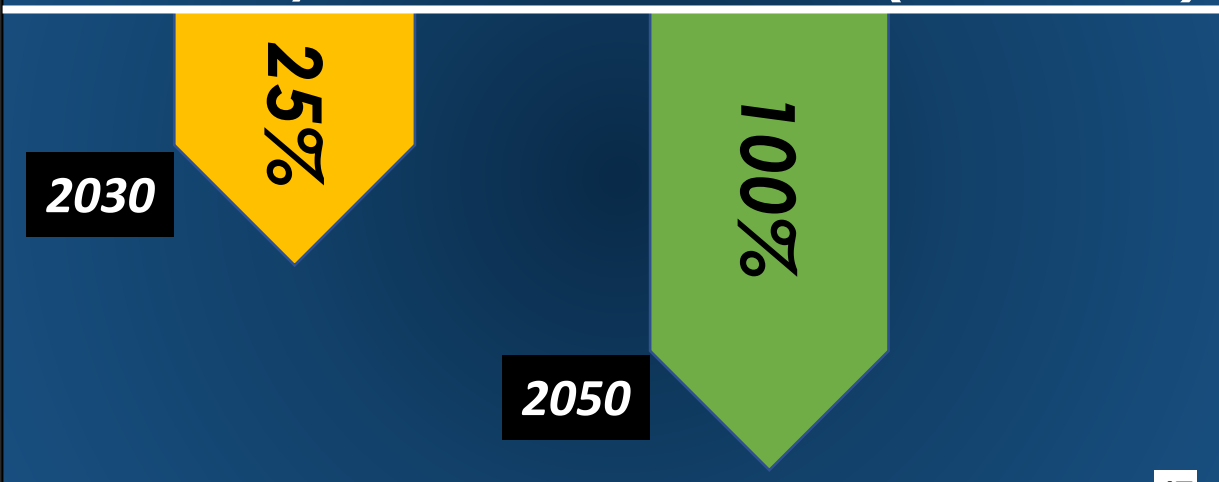
Background

- Kane County Board approved the Climate Action Implementation Plan in June 2024.
- **250+** actions recommended across 8 sectors:
 - ▮ Buildings and Energy
 - ▮ Climate Economy
 - ▮ Greenspace and Trees
 - ▮ Health and Safety
 - ▮ Local Food and Agriculture
 - ▮ Transportation and Land Use
 - ▮ Waste Management
 - ▮ Water and Wastewater

- **82** person planning team
- **1200** community members provided input



Goal: Community-Wide GHG Emissions (2019 levels)



Planning for Implementation

- Since August 2024, Kane County staff and local residents have worked together to prioritize and research actions listed in the CAIP (Climate Implementation Teams)
- 42 participants across two research cycles
- 30 CAIP actions researched (thus far)
- Third research cycle scheduled for late Fall/early Winter



Climate Action Implementation Plan – Research Form

Name: Craig Schneider, Susan Russo, and Austin Powell

Action Code 1: BE1-1

Action 1: Promote existing incentives for improving energy efficiency and renewable energy (e.g., insulation, energy-efficient windows, electric heat pumps, solar panels) in new construction and retrofit residential and commercial properties. Establish an Energy Efficiency (and Fuel Switching) Concierge service to assist building owners in identifying energy efficiency resources, rebates, tax credits, and programs appropriate for their home or business. Coordinate with Inflation Reduction Act, State programs CEJA, Utility incentives and PACE financing information.

Goal: 3,500 households annually achieving a 15% efficiency increase per household.

Goal: 200 commercial properties annually achieving a 15% efficiency increase per property.

Action Code 2: BE3-4

Action 2: Collaborate with partners to educate contractors, installers, and homeowners about benefits of electrification and other on-site fossil fuel combustion reduction strategies, currently available technology such as heat pumps, and manufacturer resources for installation training and support.

Relevant Research:

Action Code 1: BE1-1

Article Name: History and Impact of Major Tax Credits

Source Link/Citation: North Carolina State University

https://ncsolarcen-prod.s3.amazonaws.com/wp-content/uploads/2024/09/WINDEExchange_Lips_2024.pdf

Summary: Two Takeaways

- 1.) Complexity of just renewable tax credits is daunting;
- 2.) Historically they are underfunded and expire early. Subjectively, they are primarily utilized early and with immediate awareness.

Article Name: SOI Tax Stats - Clean Energy Tax Credit Statistics (Table 3)

Source Link/Citation: <https://www.irs.gov/statistics/soi-tax-stats-clean-energy-tax-credit-statistics>

Summary:

- A few stats can be pulled from reviewing Form 5695 Residential Energy Credits, by State, Tax Year 2023:
 - Residential Clean Energy Credit (25D)
 - IL Stats:
 - Total # of Returns: 32,530
 - Total Amount: \$178,846,000
 - Average Amount per Return: \$5,498
 - Energy Efficient Home Improvement Credit (25C)
 - IL Stats:
 - Total # of Returns: 111,690
 - Total Amount: \$85,960,000
 - Average Amount per Return: \$770
 - Only 2.07% of IL Citizens who returned a Form 1040 claimed the Energy Efficiency Home Improvement Credit.

Implementation Process:

1. Define the Role of the Energy Efficiency Concierge Specialist (EECS):

- a. The EECS spearheads Kane County's messaging on available tax credits that benefit residents, homeowners, and builders. The EECS will conduct county-wide messaging in three distinct ways:
 - i. Attend events put on by local governments, businesses, and builders to promote available tax credits and rebates;
 - ii. Assist interested parties in understanding and/or navigating how to claim the tax credits;
 - iii. Creates a web-based tool on Kane County's website that helps people access available incentives, information on what qualifies for a tax credit, and covers any frequently asked questions.
- b. What Financial Incentives will the EECS Cover?
 - i. Originally, the idea was to cover federal tax credits under the Inflation Reduction Act (25C, 25D, 45L, & 179D) as well as Utility-based incentives (Nicor & ComEd). However, since all relevant federal tax credits will be phased out by the beginning of 2026 or June 2026, the EECS role will need to adapt to other financial incentives.
 - ii. Proposed Financial Incentives: ComEd, Nicor Energy Efficiency Program, Illinois Weatherization Assistance Program, IL Shines, IEPA Home Energy Rebate Program
- c. Cost of the EECS:
 - i. Including benefits, the overall cost for the EECS per year would be \$97,000 to \$112,000

2. Securing Funding Through Partnership:

- a. To adequately fund the EECS role for 2-3 years, Kane County staff must reach out to local governments across the county to help fund the staff role. The five local governments include: Aurora, Batavia, Elgin, Geneva, and St. Charles.
 - i. Funding the role will be sold either by a 40/60 or 50/50 split, with Kane County spending approximately \$38.8k to \$56k a year for the EECS. The split for the five local governments would come out to \$9.7k to \$13.44k per year.

3. Hiring the EECS

Estimated Timeline to Completion:

Estimated Time: **4-6 months**

- First Two Months: Reaching out to local governments, pitching the idea of the EECS, how it would save money on a staff person for that local gov't, getting formal approval from staff to proceed.
- Next Two to Three Months: Getting all the proper documentation (resolutions, intergovernmental agreements, etc), reviewed, approved by the State's Attorney Office, and approved through all relevant committees.
- Final Month: Finalizing all efforts and beginning the process of hiring an EECS for the agreed upon timeframe.

Estimated Budget:

Overall Estimated Cost for Kane County (2-3 years): \$77.6k to \$168k

Yearly Cost: \$38.8k to \$56k

CAIP Sector: Waste Management

\$396,109
via USDA Grant

WM2-5: Establish a pilot organics diversion and composting program. Explore the potential for compost pickup as well as on-site composting programs.



- Funds a pilot program for food waste separation and collection at four large institutions:
 - ▮ Kane County Adult Justice Center
 - ▮ Northern Illinois Food Bank
 - ▮ Kane County Cougars (NW Medicine Field)
 - ▮ Sherman Hospital (Advocate Health)



- Prevents **2.12 million lbs.** or **1,060 tons** of food from entering a landfill.
 - Keeps **1,010 MTCO₂e** of GHG emissions from entering the atmosphere.
 - Equivalent to the annual energy usage of 132 homes.

CAIP Sector: Transportation and Land-Use

\$286,090 via Energy Efficiency Community Block Grant

TL4-3: Collaborate with partners to incentivize electric vehicle infrastructure by identifying appropriate locations that are convenient to residents, businesses, and visitors to community.

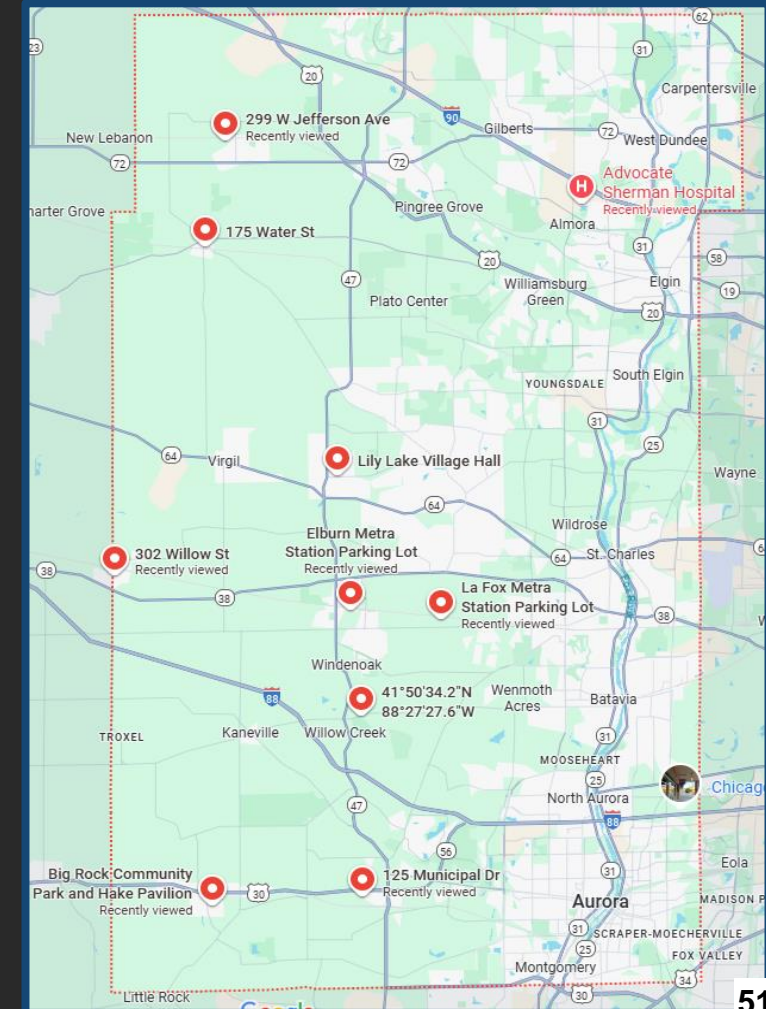
In partnership with the National Renewable Energy Laboratory (NREL), Kane County staff have identified nine locations to place EV charging stations.

(Funding available pending DOE approval)

How Rural Communities Would Benefit:

1. How Many People Live within 2 Miles of an EV Charger?
(Rural)

- Current: **14%**
- Projected: **44%**



CAIP Sector: Health and Safety

\$10,000 via ComEd

HS2-4: Collaborate with partners to increase outreach about climate change and health, natural hazards, and emergency preparedness via broadcast, print, bus ads, social media, and other forms of communication in multiple languages and accessible to individuals with disabilities to ensure that emergency preparedness planning reaches all residents.

Received a \$10,000 grant from the Powering Safe Communities Grant to place flood warning signs in vulnerable areas. The signs are connected to a rain sensor that triggers solar flashing lights when the water reaches 1 inch.



Flood Warning Signs - Continued

The benefits of placing flood warning signs in high risk areas include:

- ▮ **Public Safety:**

Reducing accidents, damage, and drownings;

- ▮ **Emergency Response Support:**

Better allocation of emergency resources;

- ▮ **Cost Savings:**

Reducing infrastructure repair by preventing misuse of flooded roads;

- ▮ **Education:**

Increases public recognition of flood-prone areas and flood safety.



CAIP Sector: Buildings and Energy

\$307,263 yearly savings from Solar Site (25/26)

BE8-2: Install solar on all publicly owned buildings and sites, where feasible based on the findings and recommendations of the Facility Solar Feasibility and Master Plan study by 2027.

Evaluation of expanded solar opportunities underway for Elgin Health, Fabyan, and Judicial Campus



CAIP Sector: Transportation and Land-Use

\$59,948 in savings via Federal Tax Credits/COMED

TL6: Local governments can lead the transition to electric vehicles, showcasing the benefits and feasibility of sustainable transportation.

To date savings – Gas vs Electric: **\$2351**

Item	Cost	Tax Credit	ComEd
Cargo Van 1	\$49,365	\$7,009	\$5,000
Cargo Van 2	\$49,265	\$6,956	\$5,000
Hybrid 1	\$46,733	\$7,500	
Hybrid 2	\$46,377	\$7,500	
Infrastructure	\$21,179	\$6,353	
Charger	\$14,214	\$4,264	\$10,366
	\$227,133	\$39,582	\$20,366
Total Cost savings			\$59,948
Percent returned			26.4%



County Internal Collaboration

1. Building Management

- ▮ Nicor assessment of County buildings - **(BE6)**

2. Development & Community Services

- ▮ Provided technical assistance on case studies related to the Community-Wide Renewable Energy Potentials Study – **(CE1-2)**

3. Health Department

- ▮ Developing a toolkit for emergency response - **(HS1-5)**
- ▮ Attaching online resources on social media posts when the air quality index (AQI) exceeds 100 – **(HS2-1)**

4. Information Technologies (IT)

- ▮ Developing and publishing web pages for new CAIP Programs - **(BE1-1)**



5. Office of Emergency Management (OEM)

- ▮ Cross-referenced CAIP actions and priorities from the Natural Hazard Mitigation Plan – **(HS4)**

6. Transportation (KDOT)

- ▮ Installed EV charging station at KDOT offices – **(TL6)**

External Partnerships and Outreach

Offering rebates for low-flow toilets. **(W1-1)**



Partnership to give away native trees to new homeowners. **(GE6-1)**



Soil Health Symposium w/ KDSWCD **(FA1-6)**

CAIP Accomplishments to Date

Kane County - Climate Action Implementation Plan Funding for Projects				
Internal Funding				
Project Name	Sector	CAIP Actions Supported	Funding Source	Funding Amount
Farmer Weatherization Rebate Program	<i>Buildings and Energy</i>	<i>BE1-1</i>	Electric Aggregation (421)	\$20,000
Supporting City of Batavia GREEN Program	<i>Buildings and Energy</i>	<i>BE1-1, BE3-2, HS1-7</i>	Electric Aggregation (421)	\$20,000
Low-Income Weatherization Program	<i>Buildings and Energy</i>	<i>BE1-1, BE3-2, HS1-7</i>	Electric Aggregation (421)	\$100,000
External / Grant Funding				
Consumer Recycling Education and Outreach (REO)	<i>Waste Management</i>	<i>WM1-1 & WM3-1</i>	US EPA	\$83,333
USDA Composting and Food Waste Reduction Cooperative Agreement	<i>Waste Management</i>	<i>WM2-5</i>	USDA	\$396,109
Energy Efficiency and Conservation Block Grant (EECBG) Technical Assistance	<i>Transportation and Land-Use</i>	<i>TL4-3</i>	DOE	\$286,090
Charging and Fueling Infrastructure Grant (CFI)	<i>Transportation and Land-Use</i>	<i>TL4</i>	US DOT, Metropolitan Mayors Caucus	\$392,952
Powering Safe Communities Grant	<i>Health and Safety</i>	<i>HS2-4</i>	ComEd, Metropolitan Mayors Caucus	\$10,000
Nicor Gas Pillar Grant	<i>Greenspace and Trees</i>	<i>GE1-8</i>	Nicor	\$5,000
Accrued Savings				
Tax Credits for County Electric Vehicles & Infrastructure	<i>Transportation and Land-Use</i>	<i>TL6</i>	IRS	\$59,948
Building Incentives from Nicor Energy Efficiency Program	<i>Buildings and Energy</i>	<i>BE6</i>	Nicor	\$3,658
Judicial Center Solar Field	<i>Buildings and Energy</i>	<i>BE8-2</i>	Nelnet Energy	\$ 377,818
			Total Savings	\$441,424
			Total Funding	\$1,313,484

Shaded in Red = Pending County Board approval

Next Steps

1. Continue to work on updating the County website to reflect the progress made on the CAIP.
2. Continue to pursue external sources of funding that support implementing the CAIP.
3. Continue to collaborate with staff members across departments and local citizens who assist with the research and planning needed to implement the CAIP.