

# SANGAMON COUNTY 2040 COMPREHENSIVE PLAN

## Utilities



*September 4, 2018*

*Authored by: Joe Zeibert & Ethan Hendricks*

## Wastewater Management

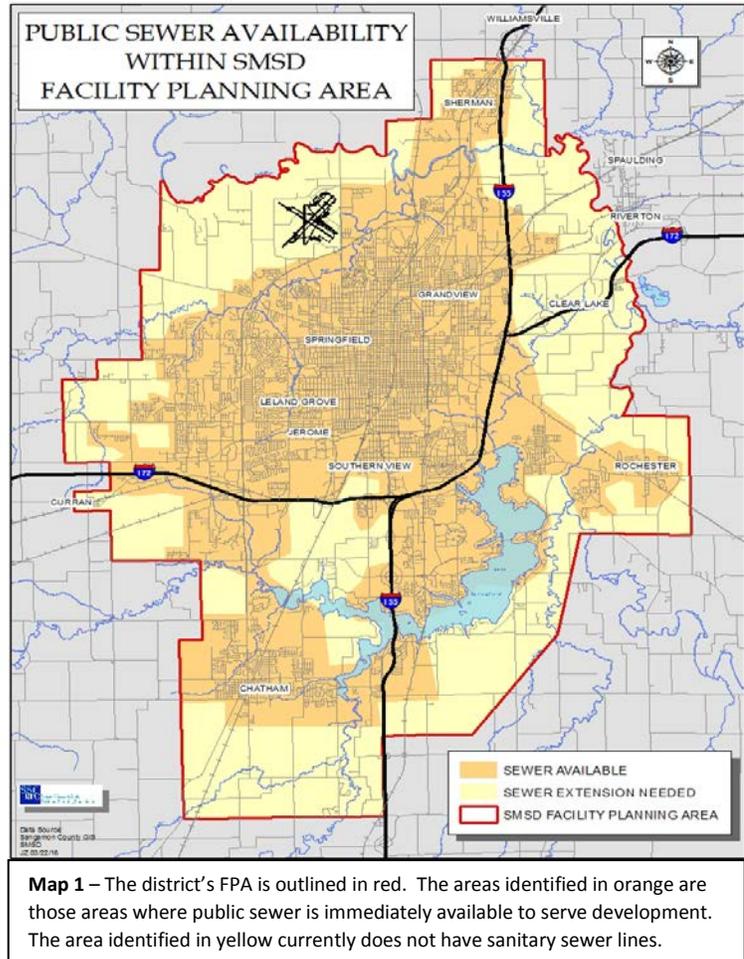
The Sangamon County Water Reclamation District (SCWRD) treats the majority of sewage throughout Sangamon County. The SCWRD is responsible for the treatment of all wastewater for those areas located within their Facility Planning Area (FPA), as shown in Map 1. The FPA is an area approved by the Illinois Environmental Protection Agency that the district is allowed to serve. The district serves as the treatment facility for Springfield, Jerome, Chatham, Rochester, Sherman, Southern View, Leland Grove, Grandview, and many areas in unincorporated Sangamon County. The SCWRD serves approximately 152,000 residents within Sangamon County.

SCWRD completed various projects to upgrade and expand their two treatment facilities. The Spring Creek plant, which is located on Veterans

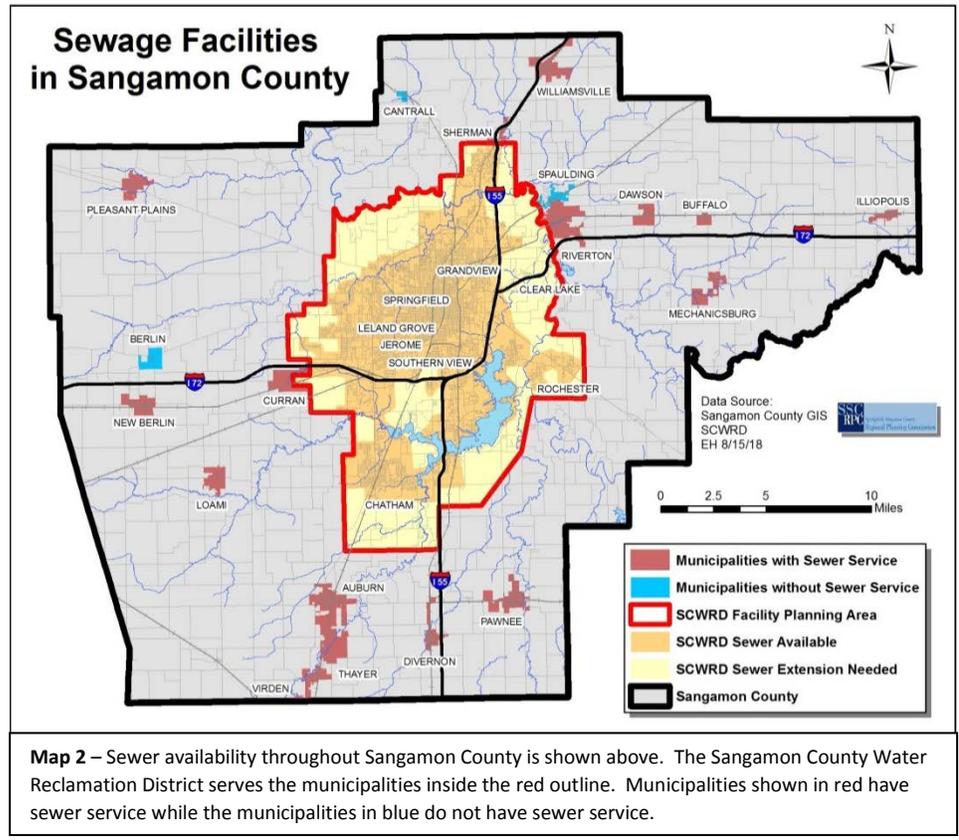
Parkway on the north side of Springfield, serves roughly two-thirds of the City of Springfield and several surrounding communities. The district recently completed \$125 million in upgrades in 2012 to the Spring Creek plant, increasing its treatment capacity to 80 million gallons per day. (Landis) The Sugar Creek plant, located near the junction of I-55 and I-72, serves the remaining one-third of the City of Springfield, and other surrounding communities as well. \$54 million in upgrades were completed at this plant in 2018. The treatment capacity of the plant after the completed upgrades is 37.5 million gallons per day. (Landis)

While the district is capable of serving any property within their FPA, there is still a residential density restriction. The collection and treatment systems are designed to support a maximum density of 15 Population Equivalents (PE) per acre. As a gauge for development, a single-family home is measured at 3.5 PE, which equals roughly four single-family homes per acre. (Humphrey) This helps to limit the density of development as it occurs.

Throughout Sangamon County, other facilities collect and treat sewage and wastewater. Some of these facilities are owned and operated by individual cities and villages. These include facilities located in Williamsville, Riverton, Auburn, Pawnee, Loami, Divernon, New Berlin, Pleasant Plains, Thayer, Illiopolis and Virden. Additionally, the BDM Sewer Commission provides sewage collection and treatment to Buffalo, Dawson and Mechanicsburg. (Regional)



In addition to sewage treatment facilities, individual septic systems are used as well. While these are more common in unincorporated Sangamon County, they are also used in several of the villages and towns throughout the county, such as Spaulding, Cantrall and Berlin. (Regional) While Cantrall primarily uses septic systems, the grade school has sewer service, which is provided by the City of Athens.



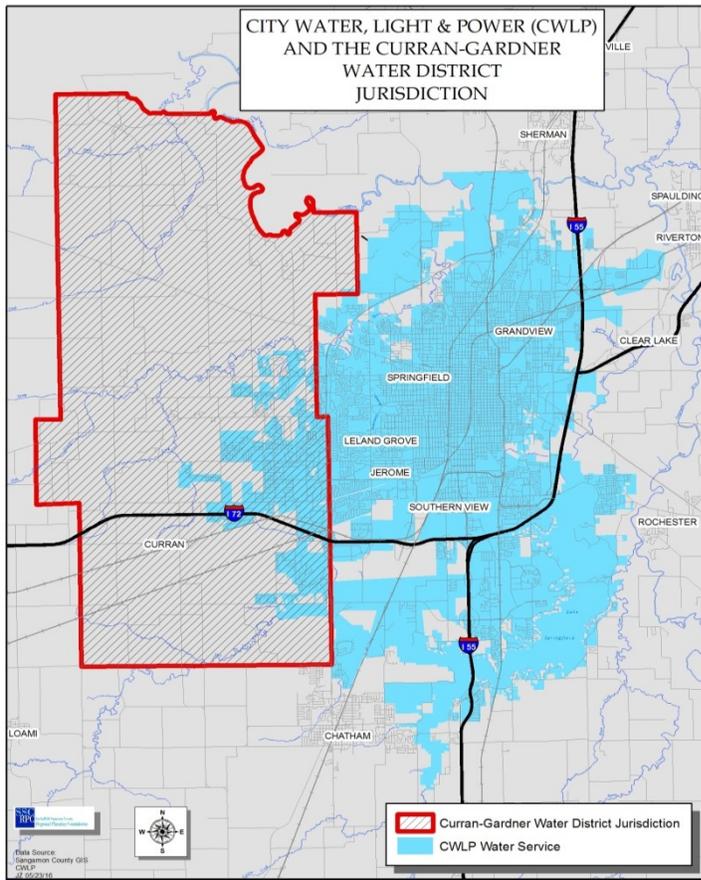
**Map 2 –** Sewer availability throughout Sangamon County is shown above. The Sangamon County Water Reclamation District serves the municipalities inside the red outline. Municipalities shown in red have sewer service while the municipalities in blue do not have sewer service.

The usage of septic systems can be restricted based on soil types. This is especially true in the southern part of Sangamon County, and to the east towards Illiopolis.

## Water Facilities

City Water, Light, and Power (CWLP) is the water provider for Springfield, Leland Grove, Jerome, Southern View and other unincorporated areas around Springfield. The population of CWLP’s total service territory is more than 155,000. In addition to serving customers directly, CWLP also sells water wholesale to other communities and providers throughout the county. These include Grandview, Loami, Rochester, the Williamsville-Sherman Water Commission, Sugar Creek Public Water District and the Round Prairie Co-op. In 2015, CWLP distributed an average of 21 million gallons of potable water per day. This usage represents slightly less than half of the 47 million gallons per day capacity CWLP is capable of distributing.

The Round Prairie Co-op water system is primarily set up to accommodate rural residential development with non fire-grade lines. Rural fire services can use the water to fill a tanker, but cannot connect to a fire hydrant. The co-op is located east of the City of Springfield and they have recently explored the option of expanding to the north from Mechanicsburg Road on the east side of Sherman. The expansion will be determined by the number of households in the area that would be interested in hooking into the system. (Round)



**Map 3** - The map above shows CWLP water service and the Curran-Gardner Water District Jurisdiction. There is an agreement in place that states properties annexed to the City of Springfield after 2009 are served by Curran-Gardner where the two overlap.

The Curran-Gardner Water District (CGWD) also serves a large portion of Sangamon County west of Springfield. This area includes Curran, and runs north towards the county boundary. Because Springfield has grown into their service area, all properties on the west side of Springfield annexed to the city after 2009 are considered customers of the CGWD. Currently, CGWD is able to produce 700 gallons of water per minute and serves nearly 2,500 customers. The plant anticipates upgrades, to be completed by the end of 2018, which would increase the water production to 1,000 gallons of water per minute. CGWD also plans to improve infrastructure near Lenhart Road and Bunker Hill Road to support commercial development. (Nelson)

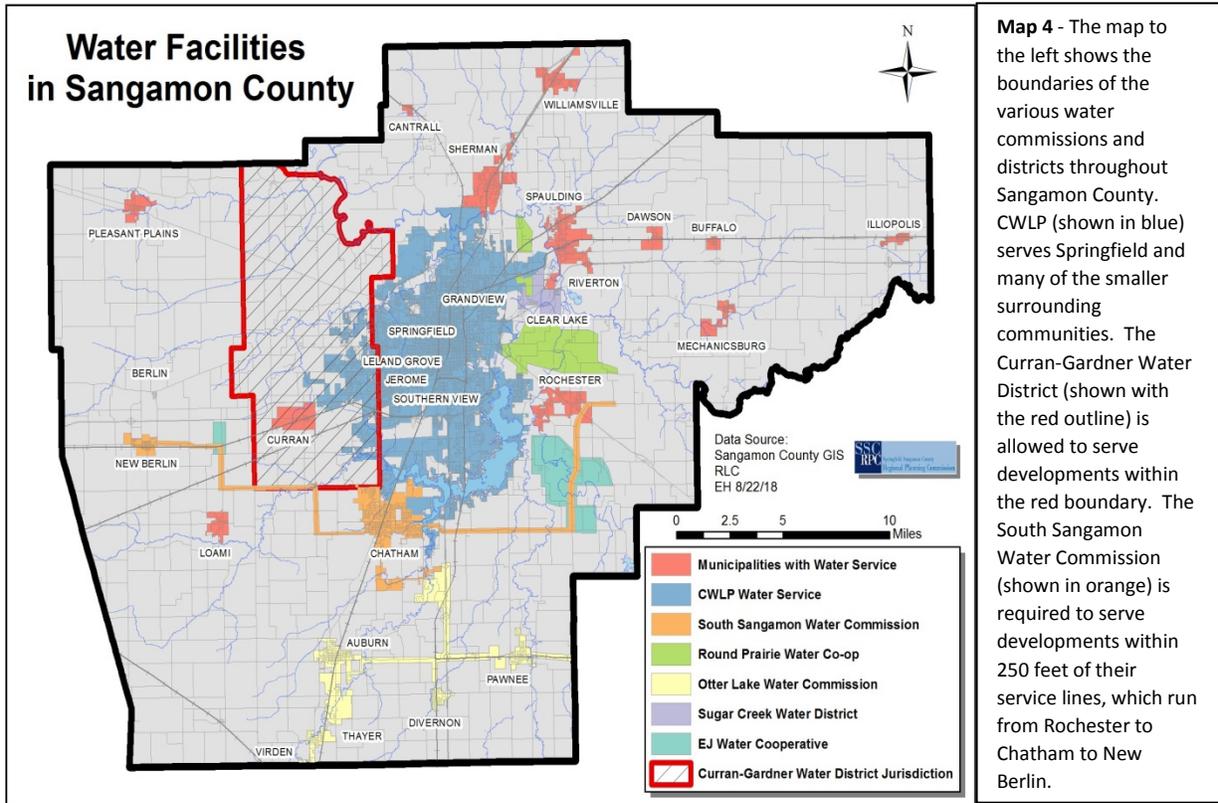
The South Sangamon Water Commission (SSWC), which was established in 2009, is a joint venture between the villages of Chatham and New Berlin. The plant is able to produce 1.8 million gallons of water per day under current conditions and is statutorily obligated to provide water to those properties located within

250' of the water line. (South) The SSWC has the ability to expand with the construction of an additional train, which would double the production of the plant. This improvement will need to be addressed as additional growth occurs.

The EJ Water Cooperative is located in Dieterich, Illinois and provides water to residents in an area located east of Lake Springfield. The water co-op owns the lines in the area, but the water is provided by the South Sangamon Water Commission. The EJ water system is set up to provide water to rural residential customers with limited fire suppression capabilities. (Carr)

The Otter Lake Water Commission, which is located in Virden, Illinois, is a wholesale water provider that serves many communities in southern Sangamon County. These include Auburn, Divernon, Virden, Pawnee and Thayer. (Otter) The Commission's water plant is located at Otter Lake west of Girard. The surface water treatment plant is able to produce 3.5 million gallons of water per day, but on average, the Commission pumps 1.7 million gallons of water per day. As the system proceeds east through the Village of Pawnee, water is wheeled through the village to the Christian County line along Route 104 serving Tovey. (Ross)

In addition to these water providers, several of the communities throughout the county have their own municipal water systems. Riverton, for example, has a water department that treats, stores and distributes water to Riverton, Spaulding and several outlying areas. Illiopolis also has a water department that supplies their residents with water. Additionally, Mechanicsburg and Buffalo work together to provide water to their residents through the Mechanicsburg Buffalo Water Commission. (Regional)



## Electric Facilities

There are multiple agencies that provide electricity throughout Sangamon County. These include City Water, Light, and Power (CWLP), Ameren of Illinois, Menard Electric Cooperative Inc., Rural Electric Convenience Cooperative (RECC) and the Shelby Electric Cooperative.

CWLP provides electricity to homes and businesses in Springfield and the municipalities surrounded by the city, such as Leland Grove, Jerome, Southern View and Grandview. (Regional) In addition to providing direct electrical services, CWLP also provides power to some surrounding communities at a wholesale cost.

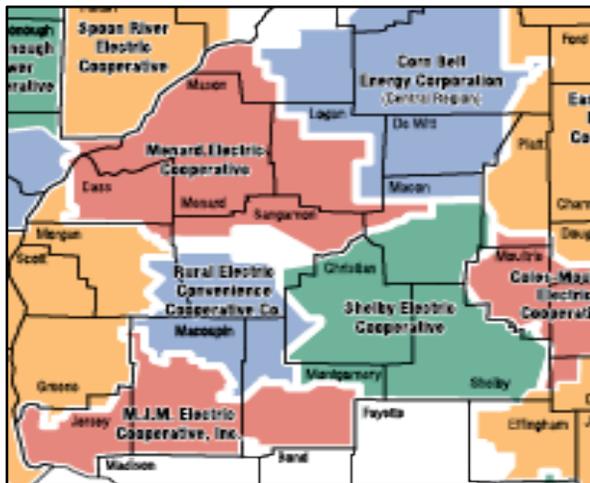
While CWLP serves the City of Springfield, Ameren serves many of the smaller communities and villages throughout Sangamon County, including Buffalo, Virden, New Berlin, Pleasant Plains, Curran, Illiopolis, Spaulding and several other communities. (Regional)

Menard Electric Cooperative, which is located in Petersburg, Illinois, operates over 2,500 miles of lines, and serves over 10,000 members across eight counties, including Sangamon County. (Menard) Menard Electric Cooperative generally serves in the northern parts of Sangamon County.

Rural Electric Convenience Cooperative provides electric service to parts of Chatham and southern parts of Sangamon County. They currently serve about 5,700 customers in five different counties. (Rural)

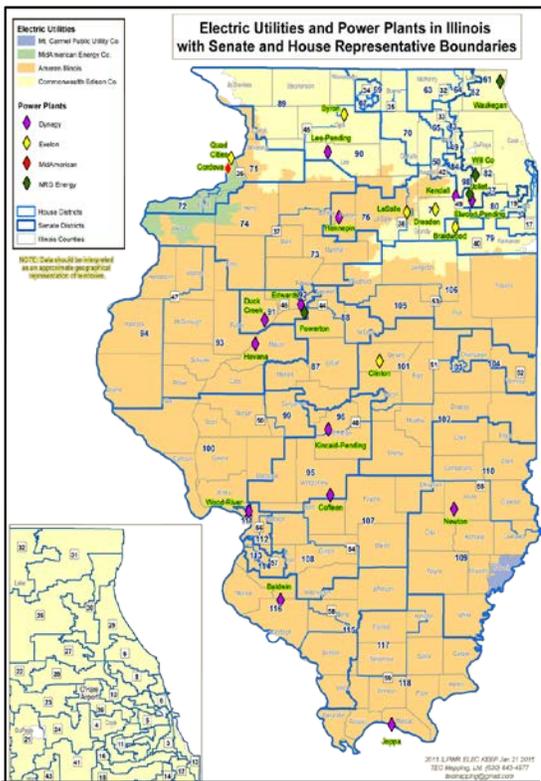
Shelby Electric Cooperative, located in Shelbyville, Illinois, serves more than 10,000 customers across nine counties. (Shelby) Shelby Electric serves a small portion of Sangamon County that borders Christian County.

In addition to these cooperatives, the Illinois Municipal Electric Agency (IMEA) provides wholesale electricity to member municipalities. In Sangamon County, Chatham and Riverton are both members of IMEA. (Regional) While they purchase electricity from this agency, the transmission lines and infrastructure is owned and maintained by these municipalities.



**Map 5** - This map shows the general location of services provided by Electric Cooperatives throughout the state of Illinois. Sangamon County receives services from three different cooperatives: Menard Electric Cooperative, Rural Electric Convenience Cooperative, and Shelby Electric Cooperative. The boundaries shown in this map are approximate, and may not be accurate.

Map from the Association of Illinois Electric Cooperatives website.



**Map 6** - This map shows the location of services provided by various electric companies. The area shaded in orange represents Ameren Illinois, which provides service in Sangamon County.

Map from the Illinois Energy Association website.

## Gas

Throughout most of Sangamon County, Ameren Illinois serves as the natural gas provider. Ameren Illinois was formed in 2010 when AmerenCILCO, AmerenIP and AmerenCIPS were consolidated into one company. Each of these companies provided electric and natural gas services throughout the state prior to this consolidation. Ameren Illinois currently serves more than 816,000 natural gas customers throughout the state, and the majority of Sangamon County. (Ameren)

While Ameren Illinois is the most used natural gas provider in Sangamon County, there are several municipalities that receive natural gas services from other companies. For example, the villages of Virden and Thayer are served natural gas by Liberty Utilities. Serving 290,000 natural gas customers across various states, Liberty Utilities primarily provides utilities to small and mid-sized communities across the country. (Liberty) Additionally, the villages of Riverton and Divernon are members of the Interstate Municipal Gas Agency (IMGA). The IMGA is made up of member communities that own and operate their own natural gas distribution system. The natural gas is purchased wholesale from IMGA and distributed by the villages. (Interstate)

In addition to natural gas service, individual propane systems are also used in Sangamon County. While mostly found in unincorporated areas where natural gas service is not available, they can also be found in several small villages in the county, such as in Virden. (Regional)

## SUMMARY

### Wastewater Management

- The Sangamon County Water Reclamation District serves as the treatment facility for Springfield, the surrounding communities, and portions of unincorporated Sangamon County.
- Many of the villages in Sangamon County have their own treatment facilities.
- Septic systems are primarily used in unincorporated areas. There can be limitations based on soil types.

### Electric

- CWLP provides electricity to the majority of Springfield and surrounding areas.
- Ameren Illinois provides electric service many of the smaller villages throughout the county, and a large majority of unincorporated Sangamon County.
- Menard Electric Cooperative, Rural Electric Convenience Cooperative and Shelby Electric Cooperative serve portions of unincorporated Sangamon County in addition to Ameren Illinois.

### Water

- CWLP serves the majority of the incorporated areas of Sangamon County, which includes Springfield and the surrounding communities. CWLP also provides wholesale water to other communities in the county.

- Smaller water commissions serve many of the smaller villages in Sangamon County.
- Wells are primarily used in unincorporated Sangamon County.

#### Natural Gas

- Ameren Illinois is the most widely used provider of natural gas in Sangamon County, but others are available.
- Propane systems are used, but mostly in unincorporated areas.

### SOURCES

Ameren Illinois. "Facts about Ameren Illinois." Accessed August 2, 2018.

<https://www.ameren.com/illinois/media/facts>

Association of Illinois Electric Cooperatives. "Our Electric Cooperative Members." Map. Accessed July 23, 2018. <https://aiec.coop/our-members/>

Carr, Bill. Personal Communication. August 22, 2018.

Humphrey, Gregg. Interview by SSCRPC. Springfield, IL, March 17, 2016.

Illinois Energy Association. "Electric Utilities in Illinois Map." Map. Accessed July 23, 2018.

<http://www.ilenergyassn.org/electric-utilities-illinois-map/>

Interstate Municipal Gas Agency. "Home." Accessed August 7, 2018. <http://www.imga.org/home.html>

Landis, Tim. "Multi-year, sewer plant upgrades near completion." *State Journal Register*. June 7, 2017.

Liberty Utilities. "What We Do." Accessed July 12, 2018. <https://libertyutilities.com/what-we-do/natural-gas.html#navbar-splash-page>

Menard Electric Cooperative. "Service Area." Accessed August 1, 2018.

<https://www.menard.com/content/service-area>

Nelson, Wayne. Interview by SSCRPC. Curran, IL, April 21, 2016.

Otter Lake Water Commission. "About Us." Accessed August 10, 2018.

<https://otterlakewater.net/about-us>

Regional Leadership Council. "Sangamon County 2040 Comprehensive Plan." Questionnaire. Sent July 6, 2018.

Ross, Dennis. Personal Communication. August, 23, 2018.

Round Prairie Water Cooperative. "Phase 3 Public Information Meeting." Presentation. Accessed August 10, 2018. <http://www.roundprairiewatercoop.com/wp-content/uploads/2018/03/2018.02.28-Phase-3-Public-Info-Meeting-RPWC.pdf>

Rural Electric Convenience Cooperative. "Our Story." Accessed August 1, 2018.

<https://www.recc.coop/about-us/history/>

Shelby Electric Cooperative. "About Us." Accessed August 1, 2018.

<https://www.shelbyelectric.coop/content/about-shelby-electric-cooperative>

South Sangamon Water Commssion. "New Customer Application." Accessed August 10, 2018.

<http://www.sswc.us/pages/new-customer-application.php>