



State of Illinois
Illinois State Police

Statewide 9-1-1 Advisory Board



Annual Report to the Illinois General Assembly

March 1, 2019

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TO THE HONORABLE MEMBERS OF THE 101ST GENERAL ASSEMBLY

To the Honorable Members of the 101st General Assembly

March 1, 2019

The members of the Statewide 9-1-1 Advisory Board (Advisory Board) respectfully submit this annual report pursuant to Section 19(e) of the Emergency Telephone System Act (Act) (50 ILCS 750/19(e)). This report is due to the General Assembly by March 1st of every year and includes an update on the transition to a statewide 9-1-1 system. A listing of Advisory Board members is contained in Appendix 1.

There have been several noteworthy milestones reached since the Advisory Board's 2018 Annual Report to the General Assembly. The Emergency Telephone System Act was renewed on July 1, 2017 with a December 31, 2020 sunset date. Significant progress has been made in bringing Enhanced 9-1-1 (E9-1-1) to previously unserved counties; numerous consolidation, modification and waiver applications have been reviewed, presented for hearing, and ruled upon by the Illinois State Police (Department), Advisory Board and Statewide 9-1-1 Administrator (Administrator); consolidation grants in the amount of \$4.7 million and Next Generation 9-1-1 (NG9-1-1) expenses grants in the amount of \$3.8 million were awarded in Fiscal Year 18 to assist the previously unserved counties with coming into compliance with the Act, assist with consolidation costs and to assist 9-1-1 Authorities with expenses to be prepared for NG9-1-1 by July 1, 2020; the Advisory Board has authorized up to \$5 million in grants for Fiscal Year 19 to assist with additional unserved county needs, as well as system consolidations; NG9-1-1 expenses grant funds not awarded in Fiscal Year 18 along with \$6.5 million legislatively defined will allow for \$8.8 million in grants to assist with NG9-1-1 System readiness expenses; and the Department's Request for Proposal (RFP) for the Next Generation 9-1-1 system was posted. In addition, the Department, through the Administrator, has applied for a federal grant to help offset the cost of moving to NG9-1-1; federal grant awards have not been announced.

Although significant progress has been made, much work remains to be done. Of particular concern to the Advisory Board members, and the 9-1-1 community throughout the State, is the implementation of the NG9-1-1 System by July 1, 2020, as well as sustainable funding concerns.

The Advisory Board appreciates the opportunity to present this report to the General Assembly and welcomes any questions that General Assembly members may have regarding 9-1-1 in the State.

Respectfully submitted,



Chair,
Statewide 9-1-1 Advisory Board

Executive Summary

In the past year, the Department, Administrator, and the Advisory Board working collaboratively with the 9-1-1 community under the Act, have made great progress in our efforts to deliver Enhanced 9-1-1 (E9-1-1) to unserved counties, to complete legislatively mandated Public Safety Answering Point (PSAP) consolidations, to administer consolidation and NG9-1-1 expenses grant programs and to prepare for the migration to NG9-1-1 by July 2020.

Unserved Counties

At the beginning of this reporting period, 6 of the original 13 unserved counties remained unserved. Two of those counties, Calhoun and Greene, began to provide E9-1-1 service in July 2018. Two additional counties, Hardin and Pope, filed a consolidation plan in December 2018 to consolidate with Johnson County. In 2016, 13 counties were unserved; once Hardin and Pope provide E9-1-1 service through consolidation with Johnson County, only 2 counties will be unserved. Significant progress has been made to date, with additional work continuing to finalize plans for the two remaining counties in 2019.

PSAP Consolidations

During 2018, 8 consolidation plans were submitted and processed, with 4 plans remaining to be processed. Since 2016 the 9-1-1 Program has processed 131 consolidation, modification or waiver applications, resulting in a reduction of Emergency Telephone System Boards (ETSBs) from 201 to 138, and a reduction in PSAPs from 253 to 181.


Grants

Beginning in January 2016, the Administrator has administered a consolidation grant program on a yearly basis, adding a Next Generation 9-1-1 expenses grant program in 2017. During that time, 46 consolidation grant applications were submitted by 9-1-1 Authorities across the State resulting in awards of \$13,811,210 in grant funding to those 9-1-1 Authorities. In addition, 20 NG9-1-1 expenses grant applications were submitted, with \$3,823,925 awarded to 9-1-1 Authorities in grant funding.

The National Telecommunications and Information Administration (NTIA) and the National Highway Traffic Safety Administration (NHTSA, and the Department of Transportation (DOT) have implemented regulations for a 9-1-1 Grant Program, as a result of the enactment of the Next Generation (NG9-1-1) Advancement Act of 2012. The 9-1-1 Grant Program provides grants to improve 9-1-1 Services, E9-1-1 services, and NG9-1-1 services and applications. The State's Federal Share Award Amount is \$4,924,689. A 40% Non-Federal Matching Funds is a grant requirements. Grant Applications are due April 2nd.

NG9-1-1

NG9-1-1 is legislatively mandated for the State, with all 9-1-1 Authorities required to be ready to transition to NG9-1-1 by July 1, 2020. The Department published a Request for Proposal for a NG9-1-1 System Provider in December 2018, with responses due April 2, 2019. The Department, through the Administrator has begun the process of applying for a federal grant to assist with the funding for one-time costs to deploy the NG9-1-1 System. The Department pays network costs for all 9-1-1 Systems in the State with the exception of the City of Chicago from the \$1.50 surcharge that is collected across all devices. Recurring costs for the NG9-1-1 System will be determined when a vendor is selected.



NG9-1-1 network recurring costs may impact the amount of surcharge required to support the network and distribution to the 9-1-1 Authorities. A new surcharge may need to be considered when the ETSA sunsets on December 31, 2020.

As always, we recognize this work would not be possible without the strong relationship we enjoy with the 9-1-1 Authorities, 9-1-1 systems, telecommunication service providers, and legislators, whose input and feedback help to shape the path towards providing the best 9-1-1 service to the State's citizens and visitors. The Department, Administrator, Advisory Board members and the 9-1-1 community thank the General Assembly for its support as we work together to serve the great State of Illinois.

Enhanced 9-1-1 for Previously Unserved Counties

LEGISLATIVE REQUIREMENT

One of the main legislative initiatives for the Act is to foster implementation of Enhanced 9-1-1 (E9-1-1) in those counties that do not offer E9-1-1 services to county residents. When the Act was signed into law on June 29, 2015, there were 13 counties without E9-1-1 service. Those counties included Brown, Calhoun, Fayette, Greene, Hamilton, Hardin, Henderson, Lawrence, Moultrie, Pope, Schuyler, Shelby and Stark. Under the new Act, any county without E9-1-1 service as of January 1, 2016 when the new law took effect, is required to provide E9-1-1 service by entering into an Intergovernmental Agreement with either an existing Emergency Telephone System Board (ETSB) to create a Joint ETSB, or with a corporate authority with an ETSB. To date, 9 of the 13 unserved counties are providing Enhanced 9-1-1 service to their citizens.

Calhoun and Greene Counties consolidated with Morgan County. They tested and implemented the consolidated E9-1-1 System (West Central Joint ETSB) in July 2018. Two counties (Pope and Hardin) are working with Johnson County and a Consolidation Plan was submitted to the Department on December 17, 2018. Henderson and Stark Counties continue to explore their consolidation options; however, Henderson and Stark Counties pose unique challenges which the Counties, Administrator and neighboring 9-1-1 authorities are working to address. An outline of the original 13 counties, and their status, is indicated below.

PROVIDING E9-1-1 SERVICE

Lawrence County – Live February 2016

Hamilton County – Live June 2016

Schuyler County – Live April 2017 (Consolidated with McDonough County)

Moultrie County – Live May 2017 (Consolidated with Coles County)

Brown County – Live May 2017

Shelby County – Live June 2017 (Consolidated with Christian County)

Fayette County – Live October 2017

Calhoun County – Live July 2018 (Consolidated with Morgan County)

Greene County – Live July 2018 (Consolidated with Morgan County)



CONSOLIDATION PLANS FORTHCOMING FOR UNSERVED COUNTIES

Hardin County – Consolidating with Johnson County – Consolidation Plan filed December 17, 2018.

Pope County - Consolidating with Johnson County – Consolidation Plan filed December 17, 2018.

Henderson County – Working with the Administrator exploring consolidation options.

Stark County – Working with the Administrator exploring consolidation options.

By July 1, 2019, it is anticipated that 11 of the 13 unserved counties will be providing Enhanced 9-1-1 service to their citizens.

Consolidations/Waivers/Modifications

CONSOLIDATIONS

At the time of the Act's implementation, the State of Illinois had approximately 253 PSAPs and approximately 24 ETSBs or Joint ETSBs without a PSAP or PSAPs (See Appendix 2). In anticipation of moving the State towards a statewide Next Generation 9-1-1 system, the Act required consolidation of PSAPs and ETSBs/Joint ETSBs. The Act requires any 9-1-1 Authority that does not have a PSAP within its jurisdiction (a Paper Emergency Telephone System Board) to be consolidated. Additional consolidation requirements are based on population and the number of ETSBs/Joint ETSBs and PSAPs within an area. (See Appendices 3 and 4). The Administrator has been working with the remaining ETSBs and Counties and has granted extensions on the time frame for filing those consolidation plans. Currently, there are only four plans left to be submitted and three plans to go through the technical review, Administrative Law Judge and Advisory Board hearing process.

The Act allows for a 9-1-1 authority to request a waiver of the consolidation requirements which may be granted if the Administrator finds that the consolidation will result in a substantial threat to public safety, is economically unreasonable, or is technically infeasible. Certain information is required to be contained in the waiver request including grounds on why the waiver is sought, a detailed explanation of how the entity attempted to comply with the Act, the duration of the waiver request, a five-year strategic plan that includes financial information, and any additional information to justify the waiver request. Currently, there are two ETSBs whose Waiver Request Decisions were challenged in court and are pending court decisions.

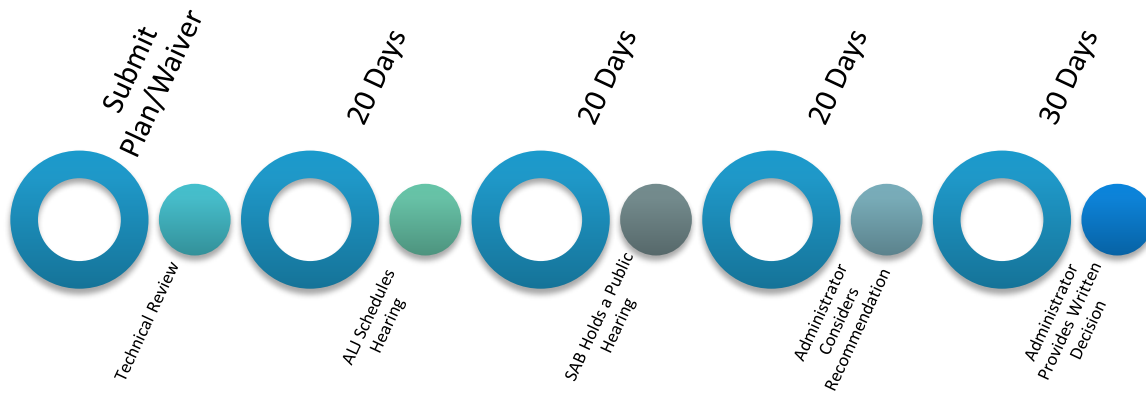
THE CONSOLIDATION APPLICATION/WAIVER REQUEST PROCESS

Consolidation applications and waiver requests are submitted to the Department. For a consolidation application, the Department has 20 days to provide a technical review of the plan to determine if it meets the technical requirements of the Act. During this 20-day window, the ICC also provides a technical review to ensure the consolidation plans meets requirements under the Public Utilities Act. For a waiver request, the Department has 20 days to review the application to ensure it meets the requirements for filing a waiver under the Act. Once the reviews are completed, the Department schedules a hearing in front of an Administrative Law Judge, who makes recommendations to the Advisory Board regarding whether a proposed consolidation application or waiver request should be granted.

Upon receipt of a recommendation from the Administrative Law Judge, the Advisory Board holds a public hearing on the consolidation application/waiver request and makes a recommendation to the Administrator to either approve the consolidation application/waiver request, approve as modified by the Advisory Board, or reject that consolidation application/waiver request. The Advisory Board has 60 days from the date that the Department received the consolidation application or waiver request to make its recommendation to the Administrator.

The Administrator has 30 days from the time of the Advisory Board's recommendation to review the file, consider the Advisory Board's recommendation, and make a final determination as to the consolidation application/waiver request.

THE CONSOLIDATION APPLICATION/WAIVER REQUEST TIMELINE



CONSOLIDATION APPLICATION FILINGS

During this past year, eight consolidation applications were filed with the Department, and seven entities were granted extensions of time to file a consolidation plan. The Act gives the Administrator the ability to extend the timelines in the Act upon agreement by the parties. In some cases where a 9-1-1 authority was asking for an extension of time to file a consolidation application, the 9-1-1 authority had experienced difficulties in acquiring all of the required documentation needed to file a consolidation application or needed additional time to explore options to determine which neighboring 9-1-1 authority best fit its consolidation needs. As of the date of this report, the Administrator has issued orders approving consolidation for all consolidation applications which have proceeded before the Advisory Board. (See Appendices 3, 4 and 5).

WAIVER REQUEST FILINGS

No waiver requests were filed with the Department during the course of the past year.

THE MODIFICATION PLAN PROCESS

In addition to consolidation applications and waiver requests, 9-1-1 authorities may make some system changes which do not require a formal process. Plan modifications can include changing boundaries that require an intergovernmental agreement between local governmental entities to exclude or include residents within the 9-1-1 jurisdiction; changing or adding a 9-1-1 system provider; changes in network configuration; and changing a backup arrangement. Modifications to a 9-1-1 Authority's existing 9-1-1 plan that require written notification 10 business days prior to making the following changes include; permanent relocation of a PSAP or backup PSAP facility, any reduction in 9-1-1 trunks from the selective router to the PSAP and further reduction within a 9-1-1 Authority of PSAPs beyond consolidation as required by the Act. Ten modification plans have been filed and approved by the Administrator.

Grants

The Act allows for the Advisory Board to set aside money from surcharges received to fund grants to assist in offsetting nonrecurring costs associated with 9-1-1 system consolidation. A new provision in the revised Act states that until June 30, 2020, the distribution of \$0.05 from surcharge collected is to be used by the Department for grants for NG9-1-1 expenses, with priority given to 9-1-1 Authorities that provide 9-1-1 service within the territory of a Large Electing Provider as defined in Section 13-406.1 of the Public Utilities Act. Approximately \$6.5 million is projected to be available for Next Generation 9-1-1 expenses grants. The Administrator administers the grant programs for the Department by establishing a Notice of Funding Opportunity, reviewing grant applications and ultimately determining grant awards. Two grant offerings were issued for FY19 – one for consolidations and one for NG9-1-1 expenses.

CONSOLIDATION GRANTS

Consolidation grants are awarded on a priority basis based on enumerated criteria as outlined below:

CONSOLIDATION GRANT PRIORITIES

- Unserved Counties
- Consolidations
- NG9-1-1
- Reimbursement for Consolidation Costs Incurred from 2010 to 2015

CONSOLIDATION GRANT CRITERIA

Grants are awarded based on criteria that include, but are not limited to:

- Reducing the number of transfers of a 9-1-1 call;
- Reducing the infrastructure required to adequately provide 9-1-1 network services;
- Promoting cost savings from resource sharing among 9-1-1 systems;
- Facilitating interoperability and resiliency for the receipt of 9-1-1 calls;
- Reducing the number of 9-1-1 systems or reducing the number of PSAPs within a 9-1-1 system;
- Cost saving resulting from 9-1-1 system consolidation; and
- Expanding E9-1-1 service coverage as a result of 9-1-1 system consolidation including to areas without E9-1-1 service.

FY2019 CONSOLIDATION GRANTS

The Advisory Board approved funding up to \$7.5 million for grants. A Notice of Funding Opportunity was posted, with grant applications due to the Department by February 9, 2018. Eleven grant applications requesting approximately \$6.0 million were submitted. Applicants requested funding for and received approval for 9-1-1 telephone positions, GIS services to assist with addressing and mapping, logging recorders, console positions, public safety voice communications and microwave connectivity. Grants in the amount of \$4.4 million were awarded. The balance of the grant allocation, \$3.1 million, was re-distributed to the 9-1-1 Authorities across the State.

FY2020 CONSOLIDATION GRANTS

The Advisory Board approved up to \$5 million for consolidation grants for Fiscal Year 2020. Funding for the FY2020 grant allocation will be generated from collected surcharge, the balance of FY2019 grant funds not awarded, and the July 2018 wireless carrier reimbursement fund distribution of \$1,784,974.

A Notice of Funding Opportunity was posted December 14, 2018, with grant applications due to the Department by February 4, 2019.

CONSOLIDATION GRANT HISTORY

CONSOLIDATION GRANTS				
Column 1	FY17	FY18	FY19	FY20
Grant Funding ¹	\$5,000,000	\$12,500,000	\$7,500,000	\$5,000,000
Applications Received	20	16	10	
Amount Requested	\$19,002,561	\$9,509,316	\$5,816,442	
Amount Awarded	\$2,294,390	\$7,031,465	\$4,485,354	
Amount Re-Distributed to 911 Authorities	\$2,705,610	\$5,468,535	\$3,014,646	
FY17 Grant Applications submitted for all categories (Unserved, Consolidation, NG911 Expenses, Reimbursement) only Unserved Application received awards				
FY18-FY20 Only Unserved and Consolidation Grant Applications Accepted				

NG9-1-1 EXPENSES GRANTS

NG9-1-1 expenses grants are awarded on a priority basis based on enumerated criteria as outlined below:

NG9-1-1 GRANT PRIORITIES

- To defray costs associated with the replacement or upgrade of 9-1-1 call handling positions to a hosted solution that is Next Generation 9-1-1 i3 capable. [The National Emergency Number Association (NENA) i3 introduces the concept of an Emergency Services IP network (ESInet), which is designed as an IP-based inter-network (network of networks) shared by all agencies which may be involved in any emergency.] (FY2019 and FY2020)
- To defray costs associated with the replacement or upgrade of NG9-1-1 i3 capable standards-based multimedia recorder system. (FY2020).
- To defray costs associated with GIS Projects that support creation, quality control and updates of required GIS data layers in preparation for NG9-1-1 readiness by July 1, 2020. (FY2020)
- With priority given to 9-1-1 Authorities that provide 9-1-1 service within the territory of a Large Electing Provider as defined in Section 13-406.1 of the Public Utilities Act for NG9-1-1 expenses.

NG9-1-1 GRANT CRITERIA

Grants are awarded based on criteria that include, but are not limited to:

- Regional implementation of hosted NG9-1-1 i3 capable Call Handling Equipment (CPE); and
- Hosted i3 capable Call Handling Equipment (CPE);

FY2019 NG9-1-1 EXPENSES GRANTS

Approximately \$6.5 million is projected to be available for Next Generation 9-1-1 expenses grants. A Notice of Funding Opportunity was posted, with grant applications due to the Department by February 15, 2018. Twenty grant applications requesting approximately \$6.5 million were submitted. Applicants requested funding for and received approval for hosted 9-1-1 call taking position and related Telecommunicator training. Grants in the amount of \$3.8 million were awarded. The balance of the grant allocation will be rolled over to the FY2020 grant opportunity.

FY2020 NG9-1-1 GRANTS

Approximately \$8.8 million is projected to be available for Next Generation 9-1-1 expenses grants. A Notice of Funding Opportunity (NOFO) was posted on December 14, 2018, with grant applications due to the Department by February 4, 2019.

NG9-1-1 EXPENSES GRANT HISTORY

NG9-1-1 EXPENSES GRANTS		
Column 1	FY19	FY20
Grant Funding ¹	\$6,200,000	\$8,880,000
Applications Received	20	
Amount Requested	\$7,271,319	
Amount Awarded	\$3,823,925	
Amount Rolled Over to Next FY	\$2,376,075	
FY19 - Hosted Solution i3 capable Call Handling Equipment		
FY20 - Hosted Solution i3 capable Call Handling Equipment, Multimedia Recording Systems, GIS Projects		

FEDERAL 9-1-1 GRANT OPPORTUNITY

The National Telecommunications and Information Administration (NTIA) and the National Highway Traffic Safety Administration (NHTSA, and the Department of Transportation (DOT) have implemented regulations for a 9-1-1 Grant Program, as a result of the enactment of the Next Generation (NG9-1-1) Advancement Act of 2012. The 9-1-1 Grant Program provides grants to improve 9-1-1 Services, E9-1-1 services, and NG9-1-1 services and applications.

GRANT HISTORY

In 2009, NTIA and NHTSA issued regulations implementing the E9-1-1 Grant Program enacted in the Ensuring Needed Help Arrives Near Callers Employing 9-1-1 (ENHANCE 911) Act of 2004 (Pub. L. 108-494, codified at 47 U.S.C. 942) (74 FR 26965, June 5, 2009). Accordingly, in 2009, NTIA and NHTSA made more than \$40 million in grants available to 30 States and Territories to help 9-1-1 call centers nationwide upgrade equipment and operations through the E9-1-1 Grant Program.

In 2012, the NG9-1-1 Advancement Act of 2012 (Middle Class Tax Relief and Job Creation Act of 2012, Public Law 112-96, Title VI, Subtitle E (codified at 47 U.S.C. 942)) enacted changes to the program. The NG9-1-1

Advancement Act provides new funding for grants to be used for the implementation and operation of 9-1-1 services, E9-1-1 services, migration to an IP-enabled emergency network, and adoption and operation of NG9-1-1 services and applications; the implementation of IP-enabled emergency services and applications enabled by Next Generation 9-1-1 services, including the establishment of IP backbone networks and the application layer software infrastructure needed to interconnect the multitude of emergency response organizations; and training public safety personnel, including call-takers, first responders, and other individuals and organizations who are part of the emergency response chain in 9-1-1 services. In 2016, approximately \$115 million from spectrum auction proceeds were deposited into the Public Safety Trust Fund and made available to NTIA and NHTSA for the 9-1-1 Grant Program. On September 21, 2017, the Agencies published a Notice of Proposed Rulemaking (NPRM) seeking public comment on proposed regulations for the 9-1-1 Grant Program. Those rules have been completed.

WHO CAN APPLY?

All States, the District of Columbia, U.S. Territories and Tribal Organizations are eligible for a grant. However, any States or other taxing jurisdictions that have diverted fees collected for 9-1-1 services remain ineligible for grants under the program and a State or jurisdiction that diverts fees during the term of the grant must repay all grant funds awarded. The NG9-1-1 Advancement Act further clarifies that prohibited diversion of 9-1-1 fees includes elimination of fees as well as re-designation of fees for purposes other than implementation or operation of 9-1-1 services, E9-1-1 services, or NG9-1-1 services during the term of the grant. Fortunately, Illinois has not diverted 9-1-1 funds within the last 180 days which makes Illinois eligible to apply for the grant.

PROGRAM DESCRIPTION


The 9-1-1 Grant Program provides federal funding to help 9-1-1 call centers nationwide upgrade equipment and operations so that citizens, first responders, and 9-1-1 call-takers can use digital, IP-based, broadband-enabled technologies to coordinate emergency responses.

COST SHARING REQUIREMENT

The 9-1-1 Grant Program requires a cost sharing requirement. The federal share of the total cost of any activity carried out under the Grant Program may not exceed 60 percent of the eligible cost of carrying out grant activities.

TWO STEP APPLICATION PROCESS

Those who intend to apply for a grant must submit their initial application package, including identification of a designated 9-1-1 Coordinator and the required certification, via nhtsa.national911@dot.gov by September 10, 2018. Once applicants have submitted their initial applications, NHTSA and NTIA will publish preliminary funding allocations for each of the States or Tribal Organizations meeting the certification requirements. The NHTSA and the NTIA issued a revised Notice of Funding Opportunity on February 1, 2019. The State's Federal Share Award Amount is \$4,924,689. A 40% Non-Federal Matching Funds is a grant requirements. Grant Applications are due April 2nd.



Eligible applicants will submit a complete application packet as described in the NOFO. In addition to specified standard grant forms, the complete application packet includes a State/Tribal Organization 9-1-1 Plan, a project budget, and an optional supplemental project budget. NHTSA and NTIA will review all complete application packets and will then make awards.

Next Generation 9-1-1 (NG9-1-1)

The Act requires the Administrator, with the advice and recommendation of the Advisory Board, to develop and implement a plan for an Internet Protocol-based (IP) platform for a statewide Next Generation 9-1-1 network. The network should provide improved 9-1-1 call delivery, enhanced interoperability, increased ease of communication between 9-1-1 service providers, allow immediate transfer of 9-1-1 calls, caller information, photos, and other data statewide, a hosted solution with redundancy built in, and be compliant with NENA NG9-1-1 requirements and standards now available, or as they become available in the future. The legislative requirement is to implement the Next Generation 9-1-1 network by July 1, 2020.

A Request for Proposal (RFP) was posted on December 6, 2018 to secure a vendor to implement a statewide NG9-1-1 network. The NG9-1-1 network must be an Internet protocol (IP)-based platform.

BRIEF DESCRIPTION

Illinois' Emergency Telephone System Act at Section 3(b) (50 ILCS 750/3(b)) requires that by July 1, 2020, every 9-1-1 system in Illinois must provide Next Generation 9-1-1 (NG9-1-1) service.

The Department's vision for the NG9-1-1 network is to have a ubiquitous NG9-1-1 service and to provide each 9-1-1 caller with the same level of service for all residents and visitors in the state, regardless of location or device.

Implementing a network is only half of the equation; it must be maintained and supported beyond turn-up. Network Operations Centers (NOCs), security, and operations must be factored into the RFP.

TECHNICAL VISION

The transition from legacy E9-1-1 services to IP-based NG9-1-1 offers options to resolve challenges to bringing new and emerging technologies to citizens of Illinois. Of paramount importance is the delivery of ubiquitous, robust, and reliable 9-1-1 service to the citizens. NG9-1-1 offers great promise in accomplishing each of these goals; while providing a platform to grow and expand as the environmental factors change over time.

To accomplish the vision of NG9-1-1 in Illinois, which will include both the ESInet and Next Generation Core Services (NGCS), standards-based system solutions are required. The use of a standards-based [NENA i3 architecture](#) will ensure that vendor-agnostic solutions are deployed to meet the needs of the system, thus allowing for flexibility in procurement options when considering both the ESInet and NGCS.

Ensuring compliance with standards while allowing flexibility for growth and emergence of new technologies is key to keeping pace with the evolving patchwork of NG9-1-1 implementations occurring nationwide.

EMERGENCY SERVICE INTERNET PROTOCOL NETWORK (ESInet)

The Emergency Services Internet Protocol Network (ESInet) is the foundation upon which the statewide NG9-1-1 solution is built, and must be highly available, diverse, and deliver consistent high-quality, public

safety-grade service. Because NG9-1-1 will be a statewide solution, each Public Safety Answering Point (PSAP) must be able to obtain access to the statewide ESInet. Therefore, the ESInet must be capable of scaling to meet the needs of the smallest PSAPs operating in the state, as well as those of the largest PSAPs operating in the state.

NEXT GENERATION CORE SERVICES (NGCS)

NGCS are transported over an ESInet and enable the proper location, routing and delivery of emergency calls to PSAPs in a NG9-1-1 environment.

Leveraging the solid ESInet foundation, the State will implement i3 standards-based NGCS. These NG9 1 1 functional elements will provide significant benefits to the Illinois PSAP community, through the enhancement of call routing features and inclusion of new technologies offering more robust and accurate location information and supplemental data.

Hosted core services have become a popular option in recent deployments due to flexibility and scalability. Furthermore, hosted solutions support economies of scale, allowing vendors to reduce cost of hardware infrastructure and data center leasing/own fees through platform sharing. At the onset of NG9-1-1, core services vendors marketed these solutions to smaller regional system agencies to lower the cost of entry to the market. However, hosted solutions have proven to have a wider market interest, as evidenced by the recent shift by national providers to offering large-scale hosted solutions for NGCS.

Hosted solutions can be located within the state borders in privately owned or leased facilities; however, the reach of IP networks combined with the ability to configure virtual routing and forwarding (VRF) allows providers to support more than one customer solution on the same network yet retain security and segmentation of services from remote data centers. Hosted NGCS rely on managed services for provisioning and maintenance; licensing and associated fees are incorporated into the overall cost of the solution.

Standards-based solutions are predicated on the basis that all vendors develop solutions to the same minimum guidelines. Two options for the procurement of NGCS exist when operating under the premise that all standards-based solutions should be interoperable: single-source and multi-vendor. These options allow support for the existing regional systems, as well as create flexibility to support both legacy and NG 9-1-1 PSAP call handling equipment.

To achieve the legislative intent of NG9-1-1 by 2020, using existing infrastructure will help to speed the process and provide cost savings.

NETWORK OPERATIONS CENTER/SECURITY OPERATIONS CENTER (NOC/SOC)

There will need to be a clear visibility into all systems within the NG9-1-1 network. Both network and security operations must be provided on 24 hours a day, seven calendar days a week (24 x 7) basis. The NOC/SOC must be able to gather data from other contractors and assess and respond to issues. The NOC also shall be a service center for the PSAPs to report issues and relay them to the appropriate contractors.

PSAP CALL HANDLING EQUIPMENT

As outlined in the assessment of the current PSAP call handling environment, a significant percentage, 59 percent, of the call handling equipment in use today does not support i3 standards, either requiring upgrades to existing equipment or new complete systems to comply. Therefore, an effort to increase the speed at which investment in i3-capable call handling solutions is recommended moving forward. Estimated at \$36,000 per position would equate to a rough order of magnitude investment of \$21.6 million over the next two to three years to bring call handling equipment in alignment with NG9-1-1 needs. The Administrator is in the process of preparing an Invitation to Bid for i3Capable Call Handling Equipment which will offer a master contract for 9-1-1 Authorities to purchase from.

TECHNOLOGY ASSESSMENT

NG9-1-1 is based upon i3 standards and, as such, i3 capabilities are an important consideration with each technology component recommended in preparing for a successful implementation of a statewide NG9-1-1 network. Numerous standards have been documented to support the transition to i3, and these standards have been considered when developing the RFP requirements in support of procuring new equipment and building an ESInet and NGCS solutions.

Establishment of a statewide geographic information system (GIS) initiative to provide definitive guidance on the requirements, frequency for updates, and quality standards for GIS data for public safety use in NG9-1-1 is critical.

STATUTORY, REGULATORY, AND POLITICAL ASSESSMENT AND CONSIDERATIONS

Department administrative rules and Illinois Commerce Commission (ICC) rules have been reviewed and evaluated after Public Act 99-0006 was introduced, and are currently being revisited for Public Act 100-0020. The Department will continue to conduct a thorough and extensive review of existing statutes and supporting ICC rules along with the Department administrative rules to ensure consistency in language and references and that no language exists that could hinder the adoption of NG9-1-1 technology statewide.

The primary objective of the Department is to improve 9-1-1 service in Illinois. With this, there are many steps that need to be achieved to support this objective and funding is integral to successfully completing the steps. As such, the Department will be establishing program priorities to help ensure funds and milestones are set to meet the objectives of successfully implementing NG9-1-1 in Illinois?

STAKEHOLDERS

In an NG9-1-1 environment there is a need for greater stakeholder engagement. Operational, political, technical, fiscal, and community stakeholders will all need to remain abreast of changes with the transition to NG9-1-1 and ensure proper training, procedures, policies, and communication efforts are developed and maintained throughout implementation efforts and beyond project completion.



OPERATIONAL ASSESSMENT AND CONSIDERATIONS

Each ETSB is in the best position to determine the operational needs of their respective PSAPs. Each ETSB should develop plans for their PSAPs to address the minimum level of service determined by the State. This would include alternate media, routing, and call processing.

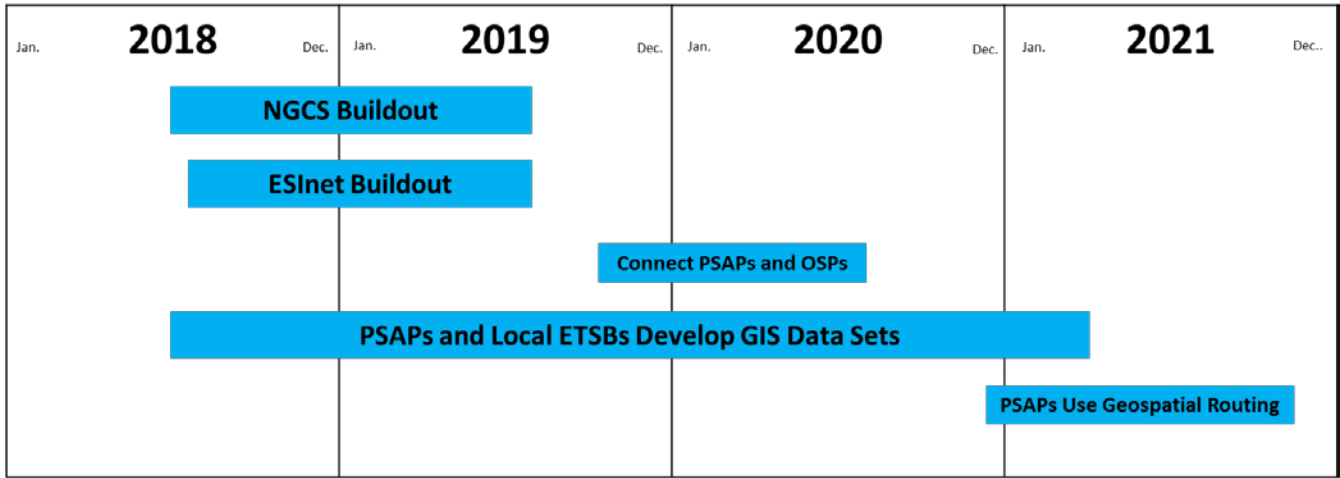
ECONOMIC/FUNDING ASSESSMENT AND CONSIDERATIONS

There are grants and potential funding sources that support the planning and implementation of a statewide NG9-1-1 plan. As such, the Department may consider several different sources to help support the efforts being planned.

Fund diversion has become a significant topic and a point of contention among state and local authorities. Every effort should be made to ensure that funds collected for 9-1-1 purposes are not used for non-9-1-1 related activities or programs to allow the Department to apply for any federal grants.

The State of Illinois is in a position to successfully plan, transition, and implement a statewide NG9-1-1 network. This will not be an easy task and requires detailed planning, prioritization, and collaboration across multiple groups and organizations. The Department will undertake strategic planning activities with stakeholders that will help guide all aspects of 9-1-1 and NG9-1-1 implementation, management, administration, and funding. The Department, in collaboration with its partners will be developing a NG9-1-1 strategic plan to tie goals, desired outcomes, and financial structures into a comprehensive path forward for the State.

NG9-1-1 Timeline



Surcharge Distribution

The Act was renewed on July 1, 2017, and established a flat \$1.50 surcharge on all landline, wireless and VoIP lines outside the City of Chicago effective January 1, 2018; this was an increase from the previous \$0.87 per line. Prepaid surcharge remained unchanged at a rate of 3% at the point of sale. Both are paid into the Statewide 9-1-1 Fund to be disbursed by the Department. The Act sunsets on December 31, 2020.

The amended law requires payments from each surcharge amount to be made in the following priority order:

- \$0.013 to counties under 100,000 which provide 9-1-1 service;
- \$0.026 to the Wireless Carrier Reimbursement Fund which decreased to 0.02 on July 1, 2018;
- \$0.017 to the ISP to cover administrative expenses;
- \$0.12 until July 1, 2020 for disbursements to 9-1-1 authorities based upon the zip codes of wireless subscribers. On July 1, 2020 that rate changes to \$0.04.
- Until June 30, 2020 \$0.05 shall be used for NG9-1-1 grants, with ETSB's within the territory of a Large Electing Provider having preference. \$ 3,823,925.20 was awarded for NG911 Grants in FY18.
- After July 1, 2020 \$0.13 shall be used for the implementation of and continuing expenses for the Statewide NG9-1-1 system.

"Hold Harmless" Amounts:

- 9-1-1 authorities who imposed a surcharge prior to PA 99-6 get a "hold harmless" amount equal to what was reported on their October 2014 financial report;
- Counties and qualified governmental entities that did not impose a surcharge but who provided 9-1-1 prior to June 30, 2015 and December 31, 2015 respectively get an amount equal to their population multiplied by .37 multiplied by the rate of \$0.69;
- Counties without 9-1-1 who had established a surcharge through referendum receive an amount equal to their population multiplied by .37 multiplied by their approved surcharge rate set by referendum;
- 9-1-1 network costs for systems outside the City of Chicago are paid by the ISP directly to the carriers;
- Expenses incurred by the Administrator and by the 9-1-1 Advisory Board including the NG9-1-1 procurement;
- Grant monies, up to \$20.9 million in FY19 and up to \$15.3 million in FY20 are available. For FY19 the Board has allocated \$5.0 million for Consolidation Grants;
- All remaining money will be distributed via monthly proportional grants to the 9-1-1 authority currently taking wireless calls based upon the US Postal Code of the wireless carrier subscriber's billing address.

During FY18, a total of \$152 million of 9-1-1 surcharge was collected by the State (including Prepaid Wireless collected by the Department of Revenue).


It is projected for the first full fiscal year of the new \$1.50 surcharge; the State will collect \$205 million in surcharge including prepaid revenue.

One of the expectations for the increased surcharge on January 1, 2018 was to improve the distribution cycle of surcharge from the State to 9-1-1 authorities. During the month of May 2018, the Department managed to make two distributions to 9-1-1 authorities; this improved cycle will result in 13 distributions in calendar year 2018 and help assist local 9-1-1 authorities in meeting their financial and operational requirements. The chart below shows the Fiscal Year 2019 projected income anticipated with the increase of the surcharge to \$1.50 on all connections, as well as the actual disbursements made for Fiscal Year 2017 and 2018.

Emergency Telephone System Act: Impact of 9-1-1 Surcharge Increase to \$1.50			
	State Fiscal Year 2017 (\$0.87 Rate)	State Fiscal Year 2018 (4 Months at \$1.50)	Est. State Fiscal Year 2019 (Full Year at \$1.50)
Revenues Collected:			
Wireline (Includes Carrier's 3% Withholding)	\$ 15,450,259	\$ 14,777,345	\$ 19,155,825
VOIP (Includes Carrier's 3% Withholding)	\$ 19,349,556	\$ 25,176,439	\$ 35,370,453
Post Paid Wireless Revenue	\$ 79,262,093	\$ 100,245,168	\$ 139,697,264
Total From Surcharge Under Emergency Telephone System Act	\$ 114,061,908	\$ 140,198,952	\$ 194,223,542
PrePaid Revenue	\$ 13,992,072	\$ 10,301,985	\$ 8,483,959
Transfer In From Wireless Carrier Reimbursement Fund	\$ 2,758,068	\$ 1,894,724	\$ 1,784,974
Penalties Collected	\$ 209,457	\$ 61,763	\$ 23,505
Total State Collected 9-1-1 Revenue	\$ 131,021,504	\$ 152,457,424	\$ 204,515,981
Distribution of Surcharge:			
Withholding under Section 20 (a) (2) (d)			
3% Carrier Cost Recovery for Accounting and Collection of Surcharge	\$ 1,003,977	\$ 1,194,614	\$ 1,626,029
Disbursements under Section 30 (b) (1)			
(A) Portion for Counties Under 100k	\$ 1,705,545	\$ 1,692,446	\$ 1,683,271
(B) To Wireless Carrier Reimbursement Fund	\$ 4,329,825	\$ 3,431,235	\$ 2,517,403
(C) Department Administration	\$ 918,392	\$ 1,338,601	\$ 2,201,201
(D) Wireless Fixed (12 cents Through 7/1/2020)	\$ -	\$ 5,156,288	\$ 15,537,883
(E) Grants for NG9-1-1 Expenses (5 Cents Through 6/30/2020)	\$ -	\$ 6,204,268	\$ 6,474,112
(F) NG9-1-1 Expenses (13 cents after 7/1/2020)	\$ -	\$ -	\$ -
Disbursements under Section 30 (b) (2)			
(A) Wireline/ VoIP; Hold Harmless Level	\$ 40,010,142	\$ 40,092,902	\$ 40,129,980
(B) 9-1-1 Network Costs (Accounts 4111 and 4112 on AR 9-1-1)	\$ 11,408,454	\$ 11,772,498	\$ 11,971,539
(C) ISP for RFI / RFP / Administrator / Advisory Board Costs	\$ 583,487	\$ 602,395	\$ 12,281,625
(D) Portion Set Aside for 9-1-1 Grants / NG9-1-1	\$ 7,031,465	\$ 4,929,395	\$ 5,000,000
(E) Remaining Surcharge to All 9-1-1 Systems	\$ 64,030,218	\$ 76,042,781	\$ 105,092,938
Grand Total Distributed	\$ 131,021,504	\$ 152,457,424	\$ 204,515,981

The Advisory Board is committed to the consolidation requirements found in the Act, as well as the requirements to fund grants for unserved counties and consolidations, and to move the State towards NG9-1-1.

Several issues are frequently brought to the Advisory Board's attention by members of the 9-1-1 community at the monthly Board meetings. One issue is continuing appropriation. Advisory Board members and the 9-1-1 community appreciate the Legislature and the Governor's acknowledgement of public safety by



appropriating a full year of funding from the Statewide 9-1-1 Fund to the Department to meet the obligations under the Act. This funding has allowed the 9-1-1 community to maintain stability. In order to ensure continuity of operations, the Advisory Board is requesting legislation that would allow for a continuing appropriation to the Department from the Statewide 9-1-1 Fund.

A second issue that is frequently discussed is the impact of sweeps from the Statewide 9-1-1 Fund that could preclude the State from applying for federal grants. Federal funding was announced in 2018 for states which are transitioning to NG9-1-1. Current federal grants require that a State fund not be swept for the 180 days preceding a grant application, and for the duration of such grant. A sweep of the Statewide 9-1-1 Fund would result in Illinois losing eligibility to apply for federal grant funds. The ability to access federal grant funding would allow additional money to be directed from the Statewide 9-1-1 Fund to consolidation grants and/or the 9-1-1 authorities. Language eliminating diversion of funds away from the Statewide 9-1-1 Fund would be beneficial.

The \$1.50 surcharge increase and changes to the formula defined in the Act for this fiscal year has addressed some of the sustainability and consistency in monthly disbursements from the State to the 9-1-1 authorities. However, significant concerns remain among the 9-1-1 community with regards to future sustainability with the one-time and recurring cost of implementation and maintenance of NG9-1-1 throughout the State. As additional cost information becomes available through the response to the RFPs for the NG9-1-1 system, continuing discussions will need to be had to ensure adequate funding for all areas of statewide 9-1-1. The State and the Advisory Board continues to review its processes to stabilize surcharge disbursement.

The Advisory Board appreciates the opportunity to provide an update on the transition to a statewide 9-1-1 system and welcomes the opportunity to provide additional information to members of the 101st General Assembly upon request.

Appendices

APPENDIX 1 – STATEWIDE ADVISORY BOARD MEMBERS

Illinois Association of Public Safety Communications Officials

Ralph Caldwell

Illinois Association of Chiefs of Police

Appointment Pending

Illinois Commerce Commission

Sam McClerren

Illinois Fire Chief’s Association

Appointment Pending

Illinois Sheriff’s Association

David Clague

Illinois State Police

Colonel Kelly Walter, Chair

Illinois National Emergency Number Association

David Tuttle

Illinois Telecommunications Association

Randy Nehrt

Representing Counties with a Population Less Than 50,000

Juanita Kramer – Richland County

Representing Counties with a Population between 50,000 and 250,000

Glenna Johnson – DeKalb County

Representing Counties with a Population of 250,000 or More

Linda Zerwin – DuPage County

Representing an Incumbent Local Exchange 9-1-1 System provider

Deno Perdiou – AT&T

Incumbent local Exchange Carrier

Karen Boswell - Frontier



Representing a Large Wireless Carrier

Patrick Fucik - Sprint

Representing a Municipality with a Population Less Than 500,000 within a County with a Population in Excess of 2,000,000

Larry Deetjen – City of Oak Lawn

Representing a Non-Incumbent Local Exchange 9-1-1 Service Provider

Deb Prather – INdigital, Inc.

Representing the Cable Television and Communication Association

Appointment Pending

Representing the Illinois State Ambulance Association

Appointment Pending

Representing the General Assembly

Appointment Pending

Representing the General Assembly

Appointment Pending

Representing the General Assembly

Appointment Pending

Representing the General Assembly

Appointment Pending

Statewide 9-1-1 Administrator

Cindy Barbera-Brelle

APPENDIX 2 – 9-1-1 AUTHORITIES WITHOUT A PSAP REQUIRED TO CONSOLIDATE

9-1-1 AUTHORITIES	COUNTY	STATUS
ALEXANDER COUNTY	ALEXANDER	IN PROCESS
BARRINGTON	COOK/LAKE	COMPLETED
BELLWOOD	COOK	COMPLETED
BRIDGEVIEW	COOK	COMPLETED
BURR RIDGE	DUPAGE	COMPLETED
COUNTRYSIDE	COOK	COMPLETED
DES PLAINES	COOK	COMPLETED
GALLATIN COUNTY	GALLATIN	IN PROCESS
GRAYSLAKE	LAKE	COMPLETED
HIGHLAND PARK	LAKE	COMPLETED
HIGHWOOD	LAKE	COMPLETED
INDIAN HEAD PARK	COOK	COMPLETED
LAKE BLUFF	LAKE	COMPLETED
LAKE FOREST	LAKE	COMPLETED
LIBERTYVILLE	LAKE	COMPLETED
LINCOLNSHIRE	LAKE	COMPLETED
MARSEILLES	LaSALLE	COMPLETED
MIDLOTHIAN	COOK	COMPLETED
MORTON GROVE	COOK	COMPLETED
NILES	COOK	COMPLETED
SAUK VILLAGE	COOK/WILL	COMPLETED
SENECA	GRUNDY	COMPLETED
SOUTH CHICAGO HEIGHTS	COOK	COMPLETED
SOUTH ELGIN	KANE	COMPLETED

APPENDIX 3 – COUNTY 9-1-1 AUTHORITIES REQUIRED TO CONSOLIDATE

COUNTY 9-1-1 AUTHORITIES REQUIRED TO CONSOLIDATE	STATUS
ALEXANDER COUNTY	IN PROCESS
DeKALB COUNTY	IN PROCESS
DuPAGE COUNTY	COMPLETED
GALLATIN COUNTY	INPROCESS
HAMILTON COUNTY	WAIVER GRANTED AT THIS TIME
HENRY COUNTY	COMPLETED
KANE COUNTY	COMPLETED
KANKAKEE COUNTY	COMPLETED
LAKE COUNTY	COMPLETED
LaSALLE COUNTY	COMPLETED
LAWRENCE COUNTY	WAIVER GRANTED AT THIS TIME
McHENRY COUNTY	COMPLETED
McLEAN COUNTY	COMPLETED
MADISON COUNTY	IN PROCESS
PEORIA COUNTY	COMPLETED
ROCK ISLAND COUNTY	IN PROCESS
ST. CLAIR COUNTY	COMPLETED
TAZEWELL COUNTY	IN PROCESS
WHITESIDE COUNTY	COMPLETED
WILL COUNTY	COMPLETED
WILLIAMSON COUNTY	COMPLETED

APPENDIX 4 – MUNICIPAL 9-1-1 AUTHORITIES REQUIRED TO CONSOLIDATE

MUNICIPAL 9-1-1 AUTHORITIES REQUIRED TO CONSOLIDATE	COUNTY	STATUS
ALSIP	COOK	COMPLETED
BEDFORD PARK	COOK	COMPLETED
BERKELEY	COOK	COMPLETED
BLUE ISLAND	COOK	COMPLETED
BROADVIEW	COOK	IN PROCESS
BROOKFIELD	COOK	COMPLETED
CALUMET PARK	COOK	COMPLETED
COUNTRY CLUB HILLS	COOK	COMPLETED
DEERFIELD/BANNOCKBURN	LAKE	PENDING CIVIL SUIT
DOLTON	COOK	COMPLETED
ELMWOOD PARK	COOK	COMPLETED
FOREST PARK	COOK	COMPLETED
FOREST VIEW	COOK	IN PROCESS
FRANKLIN PARK	COOK	COMPLETED
GLENCOE	COOK	COMPLETED
HARWOOD HEIGHTS	COOK	COMPLETED
HICKORY HILLS	COOK	COMPLETED
HILLSIDE	COOK	IN PROCESS
HOMETOWN	COOK	COMPLETED
JUSTICE	COOK	IN PROCESS
KENILWORTH	COOK	COMPLETED
LaGRANGE	COOK	COMPLETED
LaGRANGE PARK	COOK	COMPLETED
LaSALLE	LaSALLE	COMPLETED
LINCOLNWOOD	COOK	COMPLETED
LYNWOOD/THORNTON/EAST HAZELCREST	COOK	COMPLETED
LYONS	COOK	COMPLETED
MARKHAM	COOK	COMPLETED
MARSEILLES	LaSALLE	COMPLETED
MAYWOOD	COOK	IN PROCESS
McCOOK	COOK	COMPLETED
MENDOTA	LaSALLE	COMPLETED
MERRIONETTE PARK	COOK	COMPLETED
NORRIDGE	COOK	COMPLETED
NORTH RIVERSIDE	COOK	COMPLETED
NORTHFIELD	COOK	COMPLETED
OGLESBY	LaSALLE	COMPLETED
OTTAWA	LaSALLE	COMPLETED
PARK CITY	LAKE	COMPLETED

PERU	LaSALLE	COMPLETED
RIVER FOREST	COOK	COMPLETED
RIVER GROVE	COOK	COMPLETED
RIVERSIDE	COOK	COMPLETED
ROSEMONT	COOK	PENDING CIVIL SUIT
SCHILLER PARK	COOK	COMPLETED
STICKNEY	COOK	COMPLETED
SUMMIT	COOK	COMPLETED
WESTCHESTER	COOK	COMPLETED
WESTERN SPRINGS	COOK	COMPLETED
WILLOW SPRINGS	COOK	IN PROCESS
WINNETKA	COOK	COMPLETED
WINTHROP HARBOR	LAKE	IN PROCESS
ZION	LAKE	COMPLETED



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