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- Can I see a show of hands, who here has more work than staff to complete it?
 - Who here has limited financial resources?
- Do your residents expect improved service levels regardless of budget or staffing?

By sharing the next 30 minutes of your time with me, and I will show you how the communities of Montgomery, Oswego, and Yorkville are stepping out of the box to overcome some of these challenges.

Shared Services IGA

Intergovernmental Agreement - Shared Services

- = Collaborating on the use of resources to better serve your agency
- = Reduce over all expense related to programs and services
- = Improves morale by working together to find solutions



COMMUNITIES WORKING TOGETHER



- Montgomery is a Fox River community sharing its northern border with Aurora.
- Montgomery is on the southern edge of Kane County.
- Montgomery is split between Kane and Kendall Counties, with about 50% of the community in each.
- The current population is about 19,000 residents.
- An increase of about 237% from the 5,500 that called it home during the 2000 census.
- Montgomery provides potable water service to the largest unincorporated subdivision in Illinois, approximately 10,000 residents in Boulder Hill.

SHARED SERVICES IGA between Montgomery, Oswego, and Yorkville

- I will talk specifically as it relates to Montgomery and Oswego's anti-icing programs.
- What does this IGA mean to us?
- I'll be touching on other aspects of the same IGA later on in the presentation.

Navigable vs. DISASTROUS



- I will also briefly talk about dealing with an aging fleet and making calculated replacement decisions.

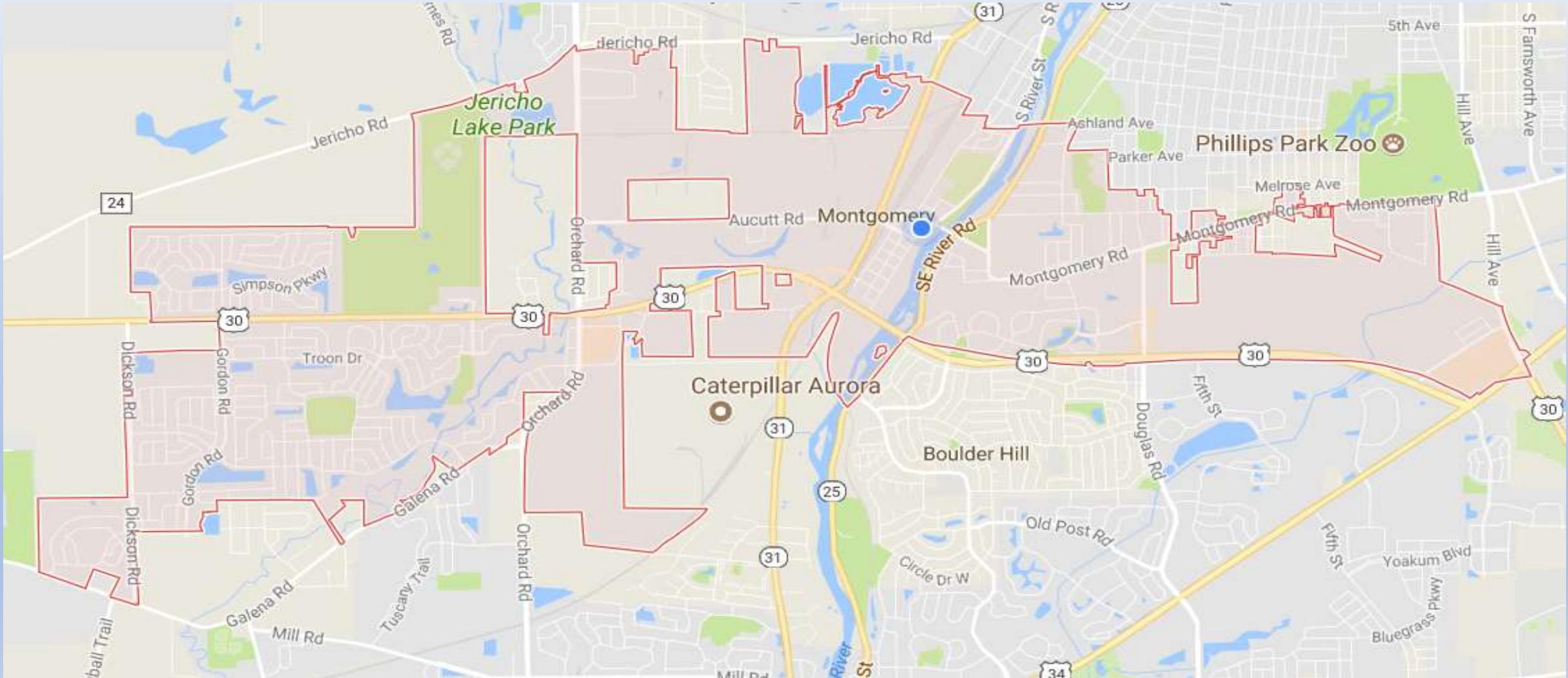


BRIEF HISTORY OF THE ANTI-ICING PROGRAMS IN MONTGOMERY & OSWEGO



- I joined the Montgomery Public Works Department in July of 2015. At that time village staff and residents were mostly unfamiliar with anti-icing and prewetting technologies.
- I immediately began educating staff and the elected officials about the benefits of reducing our dependency on chlorides. I showed them the impacts that chlorides were having on our award winning naturalized basins, the Waubonsie and Blackberry Creeks that run through town, and our greatest treasure the Fox River.

- With 75 miles of municipal roadway spread out across a distance of 7 miles east to west, the village's transportation network begins to look like an incomplete jigsaw puzzle.
- Village service and deployment of resources requires an organized and systematic approach.



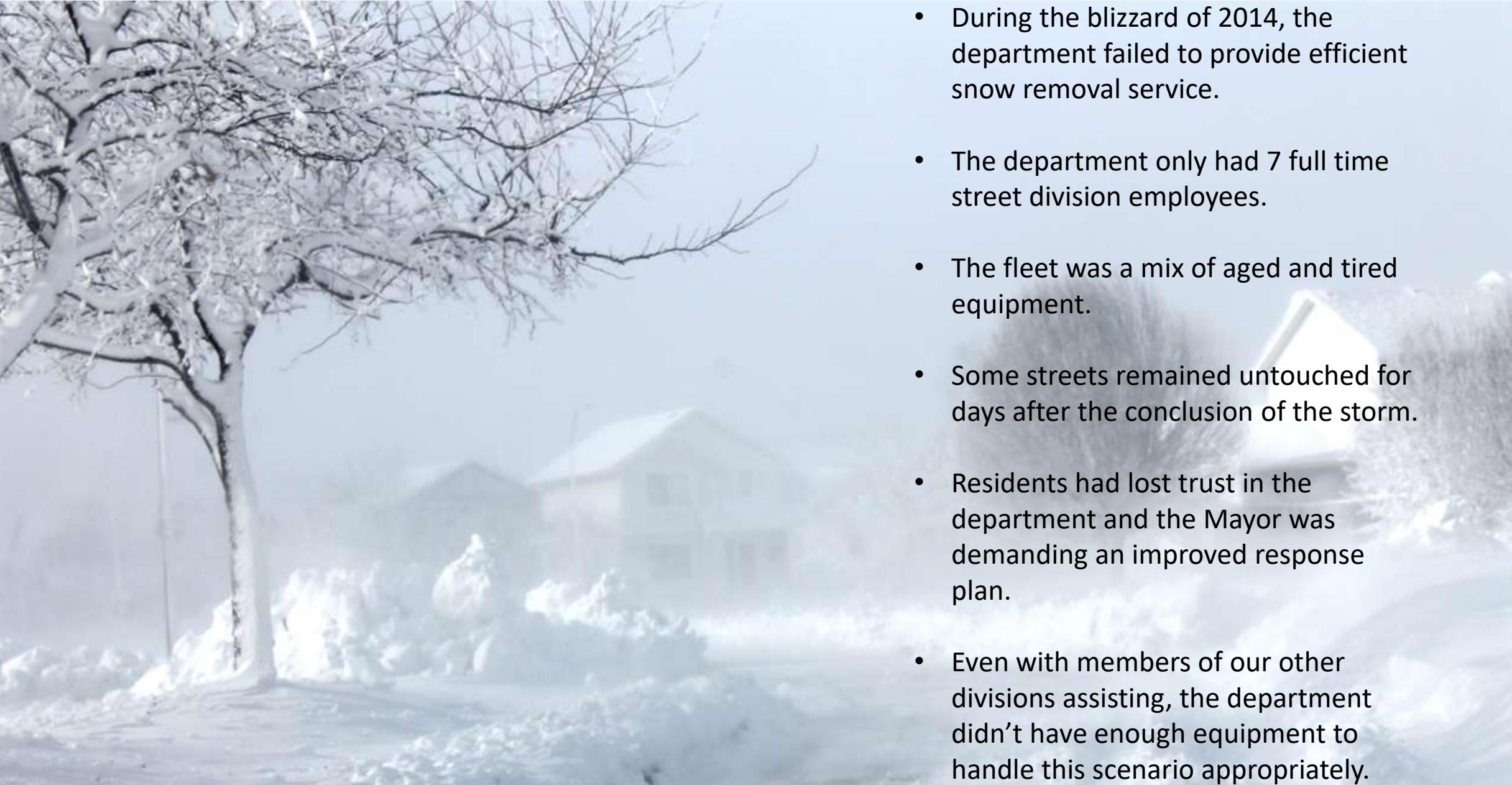
- Under a separate IGA with the City of Aurora, we have created some efficiencies related to snow and ice removal.
- These routes were looked at with safety and customer service in mind.

The City of Aurora will plow and salt all or parts of the following streets, which fall under the jurisdiction of the Village of Montgomery:

Description	Linear Length (ft.)	Length (lane miles)
1. Jericho Rd. – from Barnes Rd. east to 1681 Jericho Rd. (6 sections)	1,845	0.699
2. S. Lincoln Av. – Ashland Av. to Keck Av.	590	0.223
3. Montgomery Rd. – Crown St. east to city limits	<u>210</u>	<u>0.079</u>
Total	2,645	1.001

The Village of Montgomery will plow and salt all or parts of the following streets, which fall under the jurisdiction of the City of Aurora:

Description	Linear Length (ft.)	Length (lane miles)
1. Ashland Av. – City limits between River St and Oliver Av	658	0.249
2. Douglas Av. – City limits north to Melrose Av.	92	0.034
3. Parker Av. – City limits east to Elliot Av	163	0.062
4. Sard Av. – City limits north to Holden Av	448	0.170
5. Sherman Av. – City limits east to Lafayette Av	<u>168</u>	<u>0.064</u>
Total	1,529	0.579

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- During the blizzard of 2014, the department failed to provide efficient snow removal service.
 - The department only had 7 full time street division employees.
 - The fleet was a mix of aged and tired equipment.
 - Some streets remained untouched for days after the conclusion of the storm.
 - Residents had lost trust in the department and the Mayor was demanding an improved response plan.
 - Even with members of our other divisions assisting, the department didn't have enough equipment to handle this scenario appropriately.



- Within days beginning my new position, I began working with staff to evaluate the fleet and plan for strategic replacement of key pieces of equipment.
- We outfitted three existing trucks with snow plows.
- We were able to execute a plan we had made to add an additional truck with a plow to the fleet.

While others were busy making plans for their summer vacations, we were busy planning for snow and ice.





- We considered build costs, reliability of chassis makes, potential equipment failures, service life, and potential resale values.



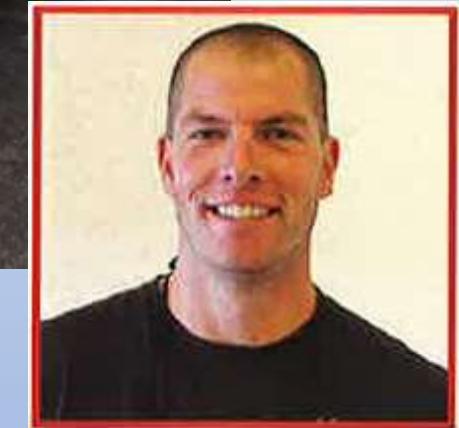
- We also began to consider how these costly capital investments could be utilized to serve the community during the non-winter months of the year.



- Educated and encouraged staff to participate in the building of a home-made brine maker.
- We were able to acquire donated tanks, combined with old pallets and less than \$500 worth of incidental supplies.
- Within a week members of my staff were beginning to see the vision as it became a reality.



- Knowing first hand the benefits of an anti-icing program, my successes working with other agencies were not enough.
- I knew that I needed to demonstrate how this new program would benefit Montgomery.
- We had produced a functional home-made brine maker. However, before it was even tested I looked for creative ways to blend other de-icing agents to mix anti-icing cocktails.
- Keep in mind the budget I had inherited as we prepared for my first snow season did not include any provisions for the items required to deliver an improved plan as requested by the Mayor.



CORY KENNEDY
VILLAGE OF MONTGOMERY

- One of my dedicated staff members stepped up to the challenge and began working on his self taught welding skills. He built an application skid and spray bar for one of our trucks using only scrap metal and a donated tank.

Promote even the smallest successes!

Clear benefits of anti-icing, the treated surfaces remained wet long after the snow began accumulating on the untreated surfaces. In this example from February 8, 2016 our one day anti-icing effort allowed us to get through the entire night (approximately 10.5 hours) of minor accumulations without a single call-out. The alternative would have resulted in a minimum of 6 trucks performing an overtime salt run at an estimated cost of: 12-18 OT hours, 12-18 truck hours, 18 tons of salt = Approx \$3,000.

This is what the Village Board saw in the staff parking lot after their board meeting on February 8, 2016



THURSDAY, FEBRUARY 4, 2016 • 75¢

OSWEGO LEDGER

YOUR NEW LEDGER-SENTINEL • SERVING OSWEGO, MONTGOMERY AND BOULDER HILL FOR MORE THAN HALF A CENTURY

KendallCountyNow.com

Effective Feb. 4, the Oswego Ledger is the successor newspaper to the Ledger-Sentinel, as contemplated by JIS ILCS 5/5 (e)



WINTER CHALLENGE

Local Boy Scouts compete in Klondike Derby /3

- By February of 2016 the department's new initiatives were starting to gain momentum.
- Even though the season had been uniquely mild, the Mayor wrote an article for the Oswego Ledger Sentinel Newspaper discussing anti-icing, how the village was now using it, and its important benefits to our budget, infrastructure, the environment, and even our ground water aquifers.
- A much different story than 24-months early when he reported his disgust with the delays of clearing the roads post blizzard.

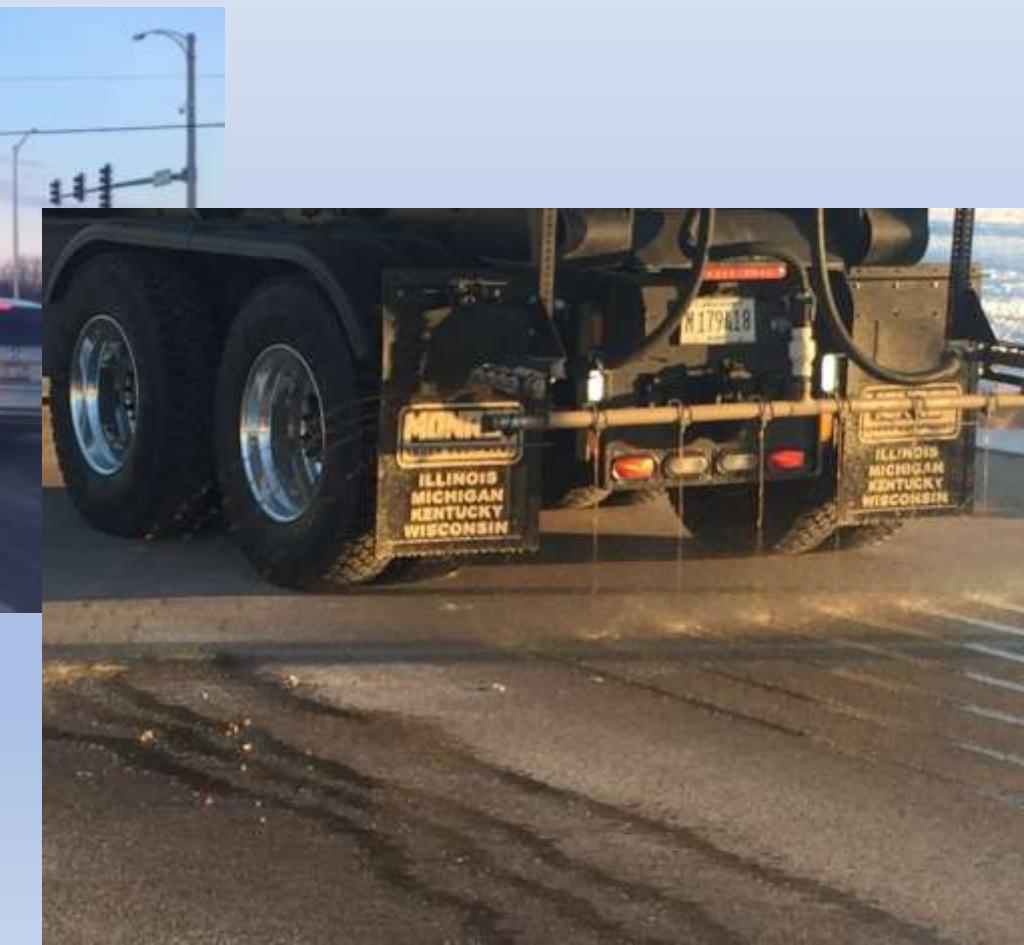


- On March 21st of 2016, I obtained village board approval to order a \$337,000 multi-functional truck. This truck employs a 40,000# swap-loader mechanism which allows staff to efficiently switch between one of four service bodies. Here you can see the stainless steel V-Box Spreader with liquid tanks, Dump Body, and unique Leaf Vacuum.





- By investing in this multi-functional truck, we were able to use money previously earmarked for other equipment needs, and reprioritize it for the purchase of an 1,800 gallon tanker with a 3-lane boom sprayer.
- Additionally the truck has a 1" hose on a mechanical reel, which allows us to pretreat sidewalk at the Village Hall, Police Station, and other priority walkways.



LOOK HOW FAR WE'VE COME!



One small Problem! It take two employees 3 plus hours to make enough brine to fill the 1,800 gallon truck. Can we do better?





SHARED SERVICE???

RESOLUTION NO. 16 - R - 91

A RESOLUTION APPROVING AN INTERGOVERNMENTAL AGREEMENT FOR THE SHARING OF SERVICES BETWEEN THE VILLAGE OF OSWEGO, KENDALL AND WILL COUNTIES, AND THE UNITED CITY OF YORKVILLE, KENDALL COUNTY ILLINOIS, AND THE VILLAGE OF MONTGOMERY, KANE AND KENDALL COUNTIES, ILLINOIS

WHEREAS, the Village of Oswego (“Village”) has a population of more than 25,000 and is therefore a “Home Rule Unit” under the 1970 Illinois Constitution; and

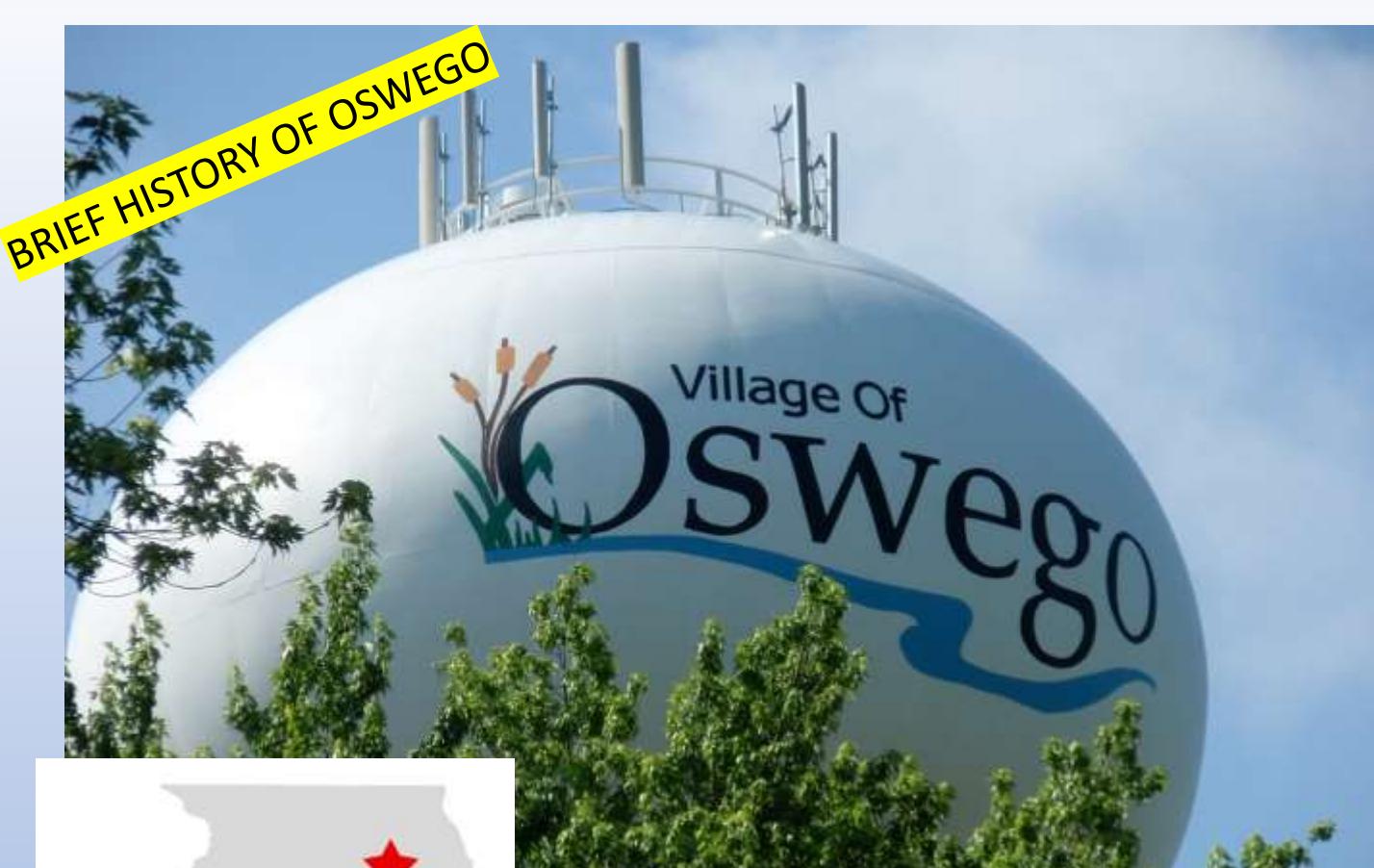
WHEREAS, the Illinois Constitution of 1970 provides that a Home Rule Unit may exercise any power and perform any function pertaining to its government and affairs, including but not limited to the power to regulate for the protection of the public health, safety, morals and welfare; to license, to tax; and to incur debt; and

WHEREAS, the Village of Oswego desires to partner with its neighboring units of government to share services in order to mutually benefit each community; and

WHEREAS, the Village of Oswego approved Resolution 16-R-59 approving an intergovernmental agreement for the same purpose with the United City of Yorkville; and

WHEREAS, the Village of Montgomery has been a partner in shared services and desires to join the agreement; and

WHEREAS, it is in the best interest of the Village of Oswego to approve the agreement substantially in the



- Montgomery's neighbor to the south is The Village of Oswego, also a Fox River Community.
- Oswego's estimated population as of 2016 is 35,000 residents.
- Nearly triple the 13,000 residents that called Oswego home during the 2000 census.
- Oswego is the largest community located entirely within Kendall County.
- Oswego is known to many in the Chicagoland area for the town dragstrip which drew muscle cars from all around for races between 1955 through 1979.





Jennifer Hughes, P.E., CFM
Public Works Director/Village Engineer



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- Jennifer was appointed as Public Works Director and Village Engineer in November of 2013.
- Over the 2014/2015 winter season she introduced anti-icing to the Village of Oswego and budgeted for a sophisticated brine making and blending system.
- Oswego, much like Montgomery runs a very lean department relative to the number of residents served and responsibilities managed.

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- Oswego purchased an elaborate brine making, blending, and storage system.
 - Originally, I thought that they may be willing to sell product to Montgomery for us to use on our roads.
 - Then the idea hit me, potentially I could interest them in allowing us to apply product to their roads in exchange for product we use on our roads?

- The Oswego system has the capacity to store ample volume of multiple deicing agents.
- The size of the system was geared towards providing more capacity than Oswego currently requires.
- We use their homemade brine, an organic component derived from sugar beets, and occasionally some calcium chloride all depending on the forecast.



- The automated system also allows Oswego staff to blend these agents into a premixed cocktail which is ready and waiting for us when we arrive.
- The process requires far less staff time than the homemade system that we built for Montgomery.
- Montgomery agrees to replenish materials used, by delivering rock salt or by providing an ordered load of other deicing agents upon the request of Oswego Public Works.





- The automation also allows Montgomery staff to load product through a control panel located in this cabinet by connecting the hose to our truck.
- In some cases this system has enabled us to pick-up product after-hours so we can optimize the application window.



- Montgomery Public Works Staff uses a subscription forecasting service and monitors winter forecasting throughout the season.
- We consult with Oswego staff as soon as we start to see individual storms develop.
- Since there is minimal benefit to applying anti-icing agents too early, or when there is a risk of rain before the onset of snow. Montgomery has agreed to apply anti-icing agents at the best possible time, in some cases that means that we have one person working after-hours to complete this task.
- **As with any strong partnership, frequent and regular communication is key to success.**





- During the very early morning hours of January 12th, 2017, the Montgomery/Oswego area received a quick ice storm that would have crippled the morning commute if not for the anti-icing efforts conducted the day before.
- Here you can see where the treated lanes of Main Street at Webster, remain wet and slushy while the untreated parking lane is covered in about a $\frac{1}{4}$ " of ice accumulation.

The Improvements to both communities programs have had noticeable impacts:

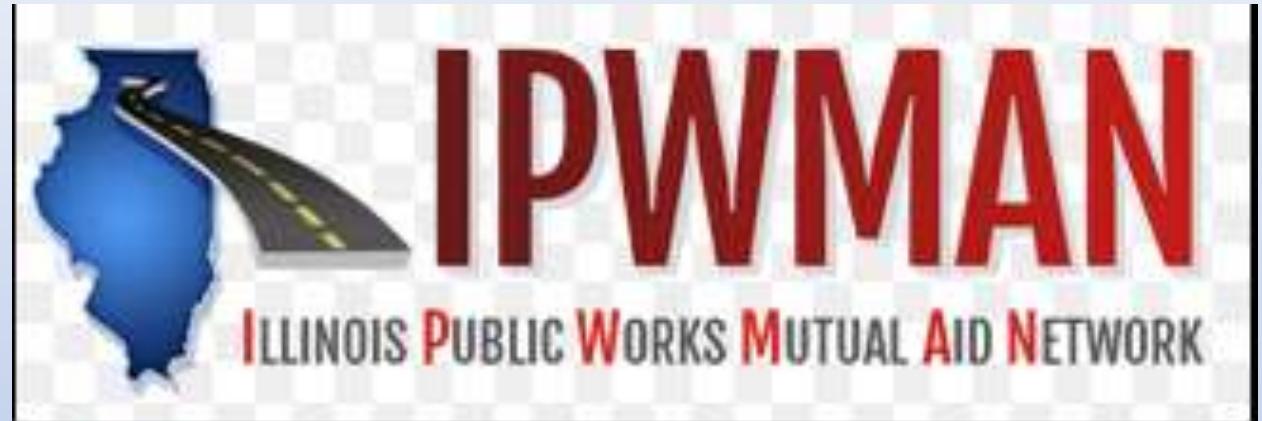
- Reduced staff time spent on anti-icing, reassigned to other priorities
- Improved service levels in both communities
- Reduced over-time fighting snow & ice
- Reduced wear & tear on equipment and roadways
- Less salt used to keep roads clear
- Fewer negative impacts on plant and waterway health
- Increased staff engagement and teamwork
- Better management and use of financial resources



- While there are many factors to be considered, the Montgomery Police Department has noticed a decrease in accidents directly related to road conditions.



- I have counted 188 agencies just in the Chicagoland area who have joined IPWMAN to either assist or receive assistance when disaster strikes.



Intergovernmental Shared Services = Collaborating on use of resources, Improve service levels, Reduced hazards, costs, & fatigue.



- This Shared Services IGA allows Montgomery, Oswego, and Yorkville to find ways to overcome the challenges of day to day operations.
- The options are endless, and framework is in place for staff to make quick decisions that we know are supported by the elected officials.

Other examples of SHARED SERVICE under this IGA:

- The Village's of Oswego, Montgomery, and Yorkville often share fleet maintenance staff, tools, and expertise.
- The three communities have worked together to lend staff and equipment needed for specific projects. For example use of the Vactor truck, hydro-excavator, leaf vacuum machines and debris bodies, other unique pieces of equipment, etc.
- Montgomery is currently storing 800 tons of salt for Oswego under roof.
- Combined training opportunities.
- The Village's of Oswego and Yorkville are currently sharing the time of a purchasing agent hired by Oswego. This helps save costs related to various programs through joint purchasing, and contracting.

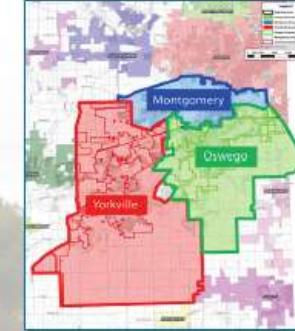
- The three communities are actively working together to evaluate the potential of a multijurisdictional water treatment plant or Joint Water Authority.
- The concept plan includes a state of the art water treatment plant with an intake crib along the Fox River, the treated water would then be pumped to the three different municipalities for resale to the respective customers.
- There is no guarantee that the three communities will act on this concept or if they will choose other sustainable options, however collaborating at this point helps us efficiently manage the engineering study, water quality sampling, and other obstacles along the way.

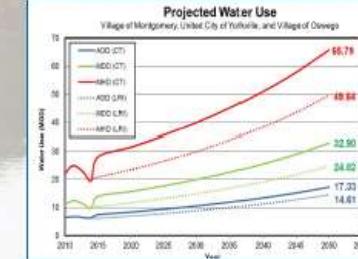
2017
Engineering Excellence
Special Achievement Award

SUB-REGIONAL PLAN FOR SUSTAINABLE DRINKING WATER
Village of Oswego, United City of Yorkville and Village of Montgomery, Illinois

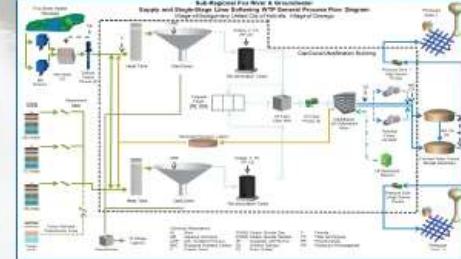
 Engineering Enterprises, Inc.

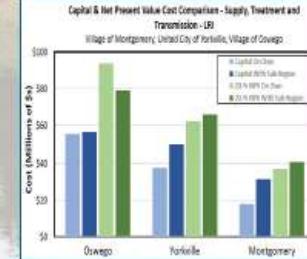




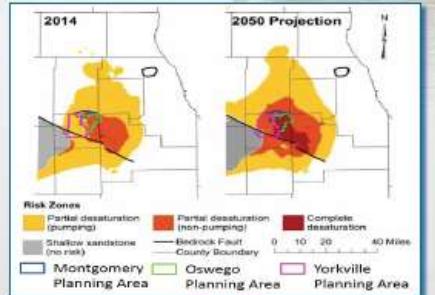
Year	MOD (CT)	AOD (CT)	MOD (IL)	AOD (IL)	MOU (IL)
2010	30	30	20	20	20
2015	35	35	25	25	25
2020	40	40	30	30	30
2025	45	45	35	35	35
2030	50	50	40	40	40
2035	55	55	45	45	45
2040	60	60	50	50	50
2045	65	65	55	55	55
2050	70	70	60	60	60





Community	Capital US	Capital with Sub-Region	Net Present Value US	Net Present Value with Sub-Region
Oswego	\$550	\$480	\$480	\$420
Yorkville	\$480	\$420	\$420	\$360
Montgomery	\$420	\$360	\$360	\$300





Given declining aquifer levels in the Montgomery, Oswego and Yorkville planning area, the three communities joined together to define the sub-region's long term water supply plan. The three communities could see benefits of forming a coalition to provide a sustainable water source for their sub-region's projected 192,000+ residents in 2050. The resultant sub-regional water supply and treatment plan utilized state of the art regional (multi-state) models to evaluate long term groundwater levels and surface water flows, so a sustainable water source could be defined for the sub-region. The plan also demonstrated the capital and O&M cost savings the three communities could achieve with a minimal amount of additional water conservation within the sub-region. By committing to reduce per capita water use by as little as 16% over the planning period (up to year 2050), the sub-region will save over \$12.5M in capital investment.

- Engineering Enterprises, Incorporated has been retained to conduct the engineering study for this concept water plant, nicknamed OSMOYO.
- The strong work product that EEI has prepared combined with the multijurisdictional collaboration earned the group an ACEC award earlier this year.
- Its been my observation through all of our partnered initiatives that the majority of residents don't care who delivers their service, as long as the service is good, reliable, and competitively priced.



Are you wondering how a similar partnership
could benefit your agency?

YOU SHOULD BE!



There is no one size fits all approach!

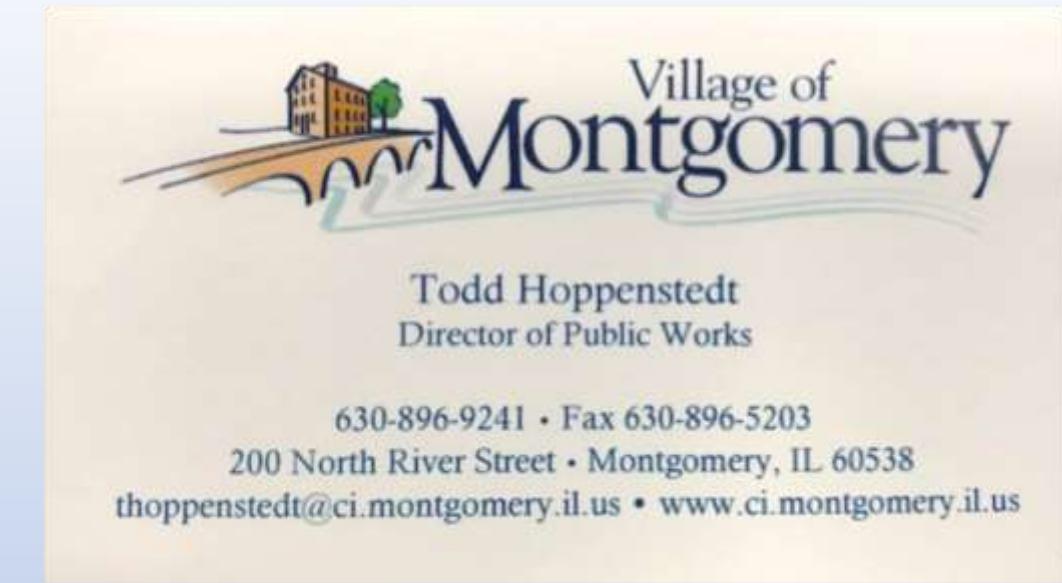
- If you take only one thing away from my presentation, I hope you have learned to keep the IGA as general as possible. This will provide countless options and flexibility in deciding what to do with it.



Once you open your mind to the many benefits, I think you will agree that a SHARED SERVICES IGA can be an **AWESOME** tool to have in your toolbox.



Thank you for sharing
your time with me.



If you'd like me to send you a copy of our IGA, email me at thoppenstedt@ci.montgomery.il.us

Questions?