OWATONNA PUBLIC UTILITIES

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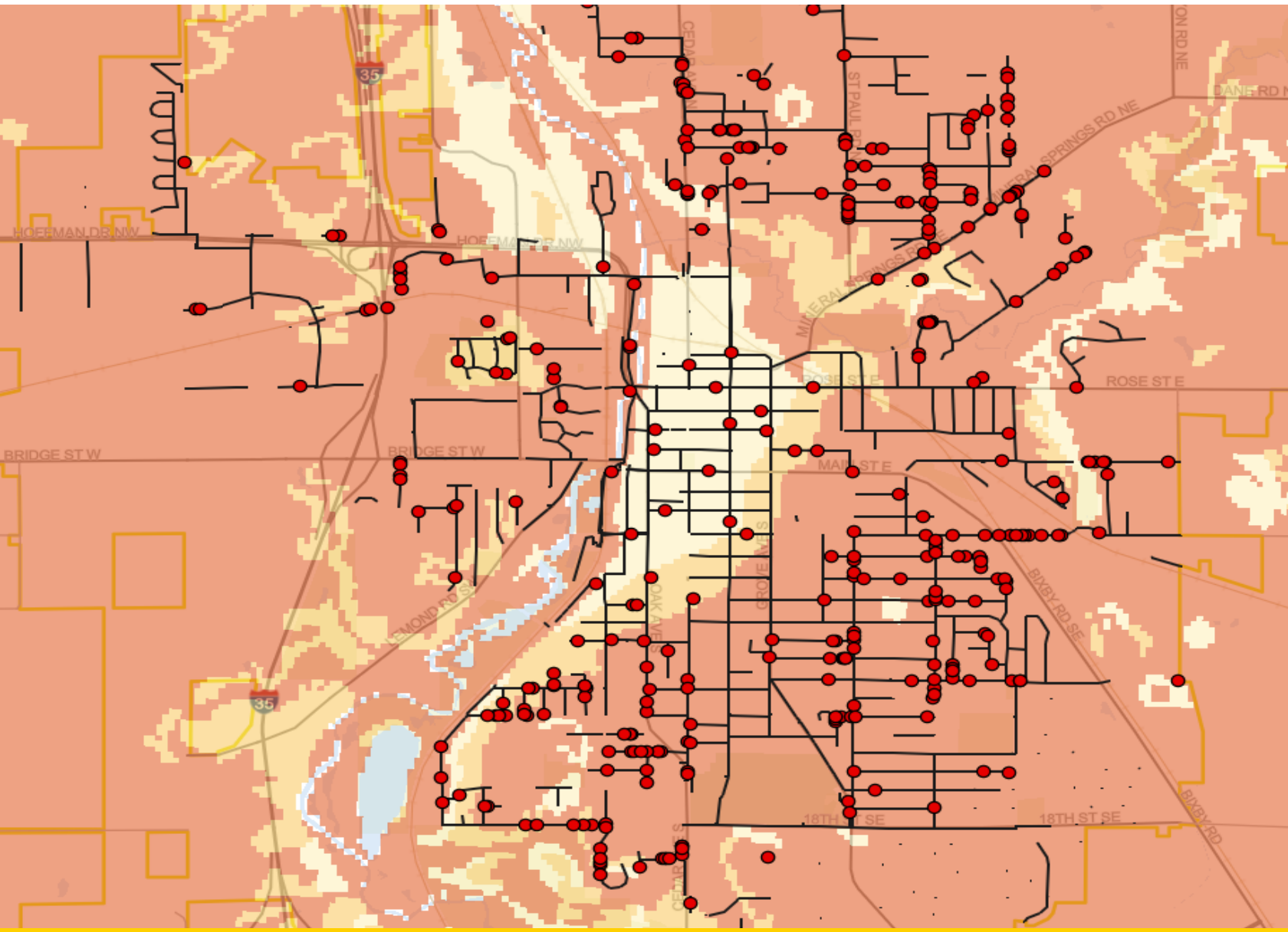
CUSTOMER UPDATE



FEATURING: GEOGRAPHICAL INFORMATION SYSTEM (GIS)

OPU MEMO

Roger Warehime,
General Manager

OPU Commission

Mr. Dale E. Simon
Mr. Matt Kottke
Mr. Kent Rossi
Mr. Randy Doyal
Ms. Dena Keilman

As we began preparing for our annual strategic planning process this year, we asked our GIS team to help us reflect upon the road we have already traveled with our Geographic Information System (GIS) and where we see it helping us meet our goals in the future. I decided to share some of this with you. Thank you to Kate Scheurer and Dave Wavrin for putting this information together. The pyramid on the opposite page provides a graphical representation of the stages an organization moves through when implementing GIS.

So what exactly is a GIS? Wikipedia defines it as "a system designed to capture, store, manipulate, analyze, manage, and present spatial or geographic data." Or maybe a better way to say it is that GIS is computer software that links geographic information (where things are) with descriptive information (what things are). Or, you could call it a "smart map". Unlike a paper map where what you see is what you get, GIS can present many layers of different information.

We began developing our GIS system in 2011. The first and foundational step in deploying a GIS is Data Creation; this can be thought of as the Historian Phase. We have quite a bit of old documentation that describes our infrastructure. Much of this had been saved electronically, but much of it included old maps, detail notes, and drawings stored on paper. Using GPS (Global Positioning System) data collected in the field and combining it with the data contained in the historical documents, we created the historical foundation of our GIS. This foundation continues to be maintained and expanded as we move forward.

Once the data has been captured and stored with GPS locations, we needed to begin providing access to the data. This can be thought of as the Librarian Phase. The first access was to produce printed maps from the GIS. Later we began publishing web-based maps that could be accessed through a web browser or through mobile apps. These maps are interactive and provide a much greater level of detail than can be conveyed on paper.

After getting access to the data, the next step is to start making sense of it through Spatial Analysis. This can be thought of as the Geographer Phase. With the data connected through a geometric network we can begin to analyze our systems in ways we could not before. For example, the map shown on the front page shows water main breaks over the past 37 years in relation to the corrosiveness of the soil. This helps us make better decisions as to where we should invest in replacing water mains.

We have recently moved into Workflow Integration. This can be thought of as the Manager Phase. Using mobile data collections applications, GIS manages several inspections tasks which were previously documented on paper and kept within a single department. We first used GIS for natural gas inspections because the numerous regulatory inspections

On the Cover…

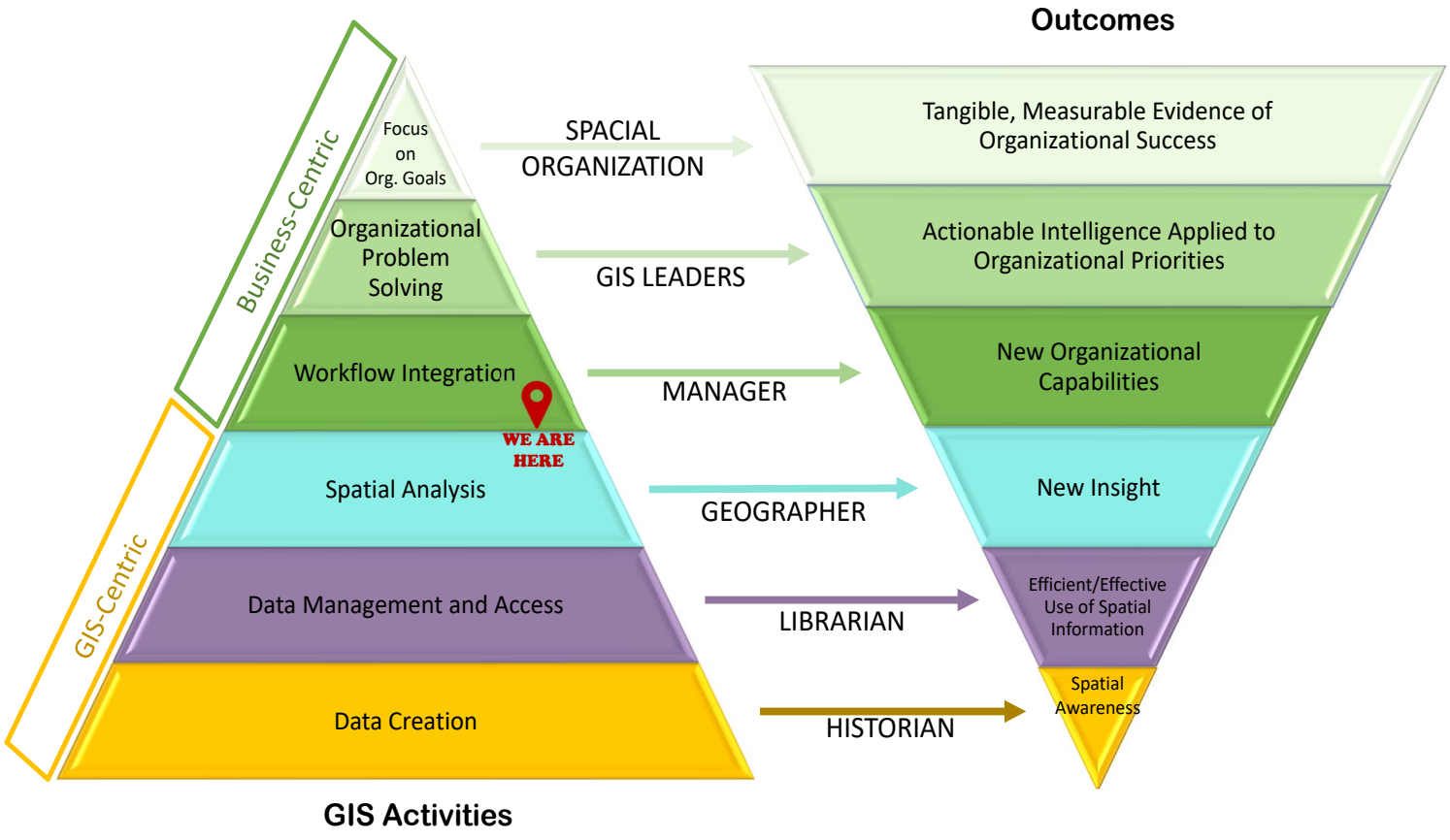
By integrating data from ESRI Live Atlas and our internal GIS (featured in the article on this page), we can analyze our data in more detail.

The map on the front shows steel water main breaks from 1983 to present in correlation with corrosive soil.

Check out the story on Page 5 regarding how steel pipe is protected from corrosive soil.

that must be performed. We have since started using it for water and electric tasks. We now use GIS for more than 25 different inspection and maintenance tasks, and are continuing to add to this.

If history is any indication of the future, we know that our future with GIS will lead us to new applications and processes that we haven't even imagined yet. As we make decisions regarding how we will obtain the full benefits of a spatial thinking organization, we will do so by making sure that what we are doing helps us meet at least one of the following four goals: Improved reliability, improved speed and responsiveness, reduced costs through efficiency, and improving the customer experience and engagement.



CONSERVATION TIP$

Double check the programming on your thermostat for heating season. Although many thermostats have a separate program for heating, it is a good idea to double check it before it starts running all the time.

Visit our website for more energy conservation ideas at https://www.owatonnautilities.com/residential-customers/conservation-tips/

CITY SPOT

HIGHLIGHTING: OWATONNA POLICE DEPARTMENT

OWATONNA CITY COUNCIL

MAYOR
Tom Kuntz

COUNCIL MEMBERS
David Burbank
Nathan Dotson
Jeff Okerberg
Kevin Raney
Greg Schultz
Brent Svenby
Doug Voss

Maslow's Hierarchy of Needs Theory has 5 levels within its pyramid. Maslow used the terms "physiological", "safety", "love and belonging", "esteem", and "self-actualization" to describe the pattern human motivations generally move through. The base of the pyramid (most basic needs) starts with physiological needs and work their way up the pyramid to self-actualization.

Physiological: Food, shelter, sleep
Safety: Security, health, employment
Love and Belonging: Love, family, friendships
Esteem: Achievement or education, confidence in a group, status
Self-Actualization: Achieving individual potential

In my opinion, the Owatonna Public School system runs the gamut of the pyramid. We want our kids to have a nutritious meal, feel safe, develop friendships, achieve and reach their individual potential. Our desire is they experience all of this within our school buildings.

The Owatonna Police Department and Owatonna Public Schools place a strong emphasis on safety and security. In 2013, the Owatonna Police Department partnered with the Owatonna Public Schools, the Minnesota Department of Education, Homeland Security and Emergency Management, Minnesota Department of Public Safety, the Federal Bureau of Investigations (FBI), Alcohol, Tobacco and Firearms (ATF), Steele County Emergency Management, and other stakeholders to protect our children. This K-12 School Outreach Initiative produced some analysis and key findings.

Why is this important then and now? In November, our community gets an opportunity to build a 21st century learning environment with a focus on safety and security. The current high school was built to maximize openness and accommodate access by students, staff, contractors, vendors, and the community at large. This magnificent building was state of the art for its period. Today's security deficiencies are not a reflection of yesteryear or any one person. The construction of school buildings, technology, engineering, materials, and equipment has evolved exponentially since its original construction. The development, structure, and functioning of human society demands we revisit and revise our planning and response to school safety.

A passage by the late John Wayne helps puts things into perspective for me.

Tomorrow is the most important thing in life.
Comes into us at midnight very clean.
It's perfect when it arrives and it puts itself in our hands.
It hopes we've learned something from yesterday.

What have we learned from yesterday? Using history as our guide, and employing 21st century strategic planning with cutting edge developments, it is important to consider the following potential security enhancements:

- Post trained staff equipped with communication capabilities at entry/exit points to monitor and control access by employees, students, visitors, contractors, and vendors.
- Construct limited entry points with electronic access control systems to control the flow of traffic within the high school to prevent unauthorized people from gaining access.
- Install effective locking mechanisms on doors to classrooms and similar areas.
- Harden exterior doors by replacing glass doors and components with stronger materials.
- Use intrusion detection systems and video surveillance systems equipped with real-time monitoring capabilities and comprehensive coverage of all school areas.
- Install perimeter fencing and gates to enhance perimeter security.
- Install barriers to mitigate the vulnerability of a high-speed avenue of approach for vehicles and to increase standoff distances from the facility or critical areas.
- Use state of the art construction materials to avoid weak wall construction at school facilities. The weakest wall construction materials is concrete masonry or brick.
- Install uniformed lighting with consideration given to the combination of type and coverage of the lighting. Backup power for all lighting.
- Design and construct controlled parking areas. Use video surveillance and security patrols to monitor parking or vehicle placement.
- Establish Threat Assessment Teams to identify, assess, and manage threats.
- Establish, update, and regularly exercise emergency response plans in conjunction with first responders.

Safety and security is paramount. We all want it for ourselves, and we want it for our current and future students, educators, and visitors who walk the halls of our new high school. In emergency management, we often speak of mitigation, preparedness, response and recovery. The new high school is an amazing opportunity to put mitigation and preparedness into the design and construction of a safe and secure 21st century learning environment. Let's learn from yesterday and prepare for the future!

Prepared by Owatonna Chief of Police, Keith Hiller

EQUIPMENT SERIES

Why don't steel gas and water mains simply rust away after years of being buried?

Rust is the name given to oxidation of steel and occurs when steel is exposed to water and oxygen. In Minnesota, we can see how quickly rust can eat through the fender of a vehicle in just a few years. Paint protects vehicles from rust but is not a great way of protecting steel gas and water mains. Paint can easily be scratched off during construction which would leave the pipe unprotected.

Protecting steel pipes from rust is important to OPU and is done through something called cathodic protection. Cathodic protection is done by attaching a sacrificial anode (zinc or magnesium) to the pipe. Once connected, these anodes will be slowly eaten away instead of the steel pipe. OPU uses different type of anodes for different situations. Some anodes are heavy bags of magnesium wired to stretches of pipe, while others are zinc nuts attached to bolts at a valve or "T."

Cathodic protection is not perfect and rust will still occur, but is greatly reduced and allows pipes to remain buried for decades without problems.

ESCAPING MINNESOTA THIS WINTER?

MAKE SURE YOUR CONTACT INFORMATION IS UP-TO-DATE IN CASE OF AN ISSUE WITH YOUR ELECTRIC, WATER OR NATURAL GAS SERVICE

If you are a customer who leaves Owatonna for an extended amount of time over winter, there are a few things you can do to help ensure your electric, water and natural gas services are safe and working properly while you are away.

- **Call OPU before you leave to make sure your contact information is up-to-date.** If there is a question regarding your bill or irregular usage is seen at your home, OPU may need to call you.
- **Tell us how long you will be away.** A note can be made on your account notifying OPU Customer Care that you will be away.
- **Put a backup contact on your account.** Adding a backup contact of someone in the Owatonna area can help you in the case of a utility emergency. Their name and phone number must be on your account and they must be noted as an authorized person on your account.
- **Check to see if you are signed up for the Water Service Line Protection program.** The Water Service Line Protection Program (WSLPP) provides owners of residential properties an option for affordable protection against the significant costs of repair or replacing leaking, damaged or frozen water service lines. Don't be stuck with a surprise expense while you're away.
- **Ensure your OPU bill is forwarded to your winter location.** Having your bill forwarded to your winter location is as easy as calling Customer Care and leaving your winter address with them.

OPU HIGHLIGHT

On September 12, 2019 several OPU employees, from many different departments, participated in the Big Brothers/Big Sisters Career Exploration Activity. Employees shared different aspects of their jobs including needed education and skills. Pictured below are lineworkers Tom Foss and Trevor Wilson talking about the importance of safety and personal protective equipment (PPE) when being an electric lineman.

SMELL GAS? GET OUT... STAY FAR AWAY

Customers are the first line of defense when it comes to natural gas leak detection. Utilities odorize natural gas with Mercaptan -- which smells similar to rotten eggs or sulfur -- so that it's easy to smell if there is a leak. If you smell a gas leak, take immediate action.

1. **Leave the building/area immediately and take others with you.** Stay at least **300 feet away** from the area. If a structure explodes, debris can fly through the air for several feet.
2. **Avoid causing a spark,** which might cause an explosion:
   - Do not light a match or smoke
   - Do not turn appliances or lights on or off
   - Do not use a flashlight
   - Do not start a car
   - Do not use a telephone
3. **Find a phone at least 300 feet away from the area and call 911 or OPU**. Always call to report the problem. Do not assume someone else will do it.
4. **Follow directions from utility employees or emergency responsers** who show up on site.

The picture above was obtained from wgntv.com of a house explosion in northern Illinois that damaged more than 50 homes in the area and caused widespread power outages.

clean H2Owatonna

Clean Streets for Clean Water!

In urbanized areas, stormwater carries phosphorus and other pollutants directly into Minnesota's water resources through the drainage system. Unlike Owatonna's household wastewater, stormwater does not go through the Wastewater Treatment Facility. In many cases, stormwater is discharged directly to our rivers and creeks.

Common pollutants that can wash off our yards and streets include:

- Phosphorus: From leaves, grass clippings, fertilizer, and animal waste.
- Soil: From exposed soil on construction sites, sparse lawns, and unprotected garden beds.
- Bacteria: From pet and wildlife wastes, failing septic systems, and improper waste handling.
- Toxins: Oils, paint, cleaners, etc. spilled onto hard surfaces or dumped down the storm drain.

Fall Clean Water Tips

1. Have a storm drain near your home? Volunteer to adopt it through the City's Adopt a Catch Basin Program and receive a complimentary rake to keep it free of leaves and debris.
2. Sweep up your grass clippings, leaves, and other debris from driveways, sidewalks, and the street. Don't forget to keep the gutters cleared.
3. Clean up any excess fertilizer that has spread onto hard surfaces during application.
4. Even as the weather turns cold, continue scooping your pet's waste.
5. During routine fall tune-ups check your vehicle and equipment for leaks.

Learn more about the Adopt-A-Catch Basin Program by contacting Bradley D. Rademacher, Water Quality/ Stormwater Specialist at (507)-774-7300 or Bradley.rademacher@ci.owatonna.mn.us

REBATES

LED Light Bulbs

ON SALE NOW

Be Bright this fall!

Through December 31, while supplies last, our residential electric customers are eligible for reduced pricing on ENERGY STAR® qualified LED light bulbs. We've partnered with the local retailers below to offer energy-efficient bulbs for as little as 22¢ each!*

ENERGY STAR-labeled LEDs use 80% less energy and last up to 25 times longer than incandescent light bulbs. But less watts doesn't mean less light. By replacing the five most-used bulbs in your home with LEDs, you can save up to $40 in energy costs during the first year alone.

Remember, supplies are limited so get your discounted LEDs before they sell out!

Alexander Lumber Co.
Arrow Ace Hardware
Batteries + Bulbs
Lowe's Walmart

*pricing may vary at participating retailers

Be bright

CONSERVE & $AVE® HOUSE CALL

RESIDENTIAL ENERGY AUDITS

- **STANDARD AUDIT: $50 co-pay** *($300 value!)*
- **PERFORMANCE AUDIT: $125 co-pay** *($380 value!)*

EXCLUSIVE HOUSE CALL REBATES AVAILABLE!

Learn more at OwatonnaUtilities.com

Visit **www.owatonnautilities.com** to learn more and download rebate applications with complete terms and conditions.

CONSERVE & $AVE®

OWATONNA PUBLIC UTILITIES
P.O Box 800 208 S. Walnut Ave.
Owatonna, MN 55060

Office: 451-2480 Service: 451-1616

INDICIA

OFFICE HOURS:

Monday-Wednesday:
8:00 a.m. - 5:00 p.m.

Thursday:
8:00 a.m. - 6:00 p.m.

Friday:
8:00 a.m. - 4:00 p.m.

Saturday & Sunday:
Closed

Payment Options

- **Online at www.owatonnautilities.com**
- **Automatic Withdrawal; bank account or credit card**
- **Drive-up drop box located in the parking lot south of building**
- **Drop box locations at Cash Wise Grocery Store and HyVee Food Store**
- **Mail**
- **At Owatonna Public Utilities; cash, credit card, check or money order**

Moving?

Remember to contact the Customer Service Department **ONE WEEK** prior to moving, 451-2480.

MINNESOTA COLD WEATHER RULE

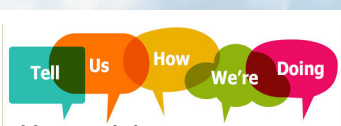
Bills can pile up just like snow. A Minnesota state law called the "Cold Weather Rule" is designed to protect people who have trouble paying their utilities bills in winter. The Cold Weather Rule applies from October 15 to April 15. It says that utility services affecting your home's primary source of heat must not be disconnected and must be reconnected during this period if you meet all the following requirements:

1. Your total household income is less than 50% of the state median household income

AND

2. You enter into a payment agreement with your utility that considers the financial resources of your household, and you continue to make reasonable, timely payments under that agreement.

If you are concerned about being able to pay your utility bill, please contact OPU at 507-451-2480. We can provide you with referrals to local energy assistance providers. If you know you're going to have trouble paying your utility bills, please contact us to work out a payment agreement.



Your opinion matters to us. Please take a few minutes to tell us how we did by visiting our website at owatonnautilities.com/customersurvey or simply scan the QR code above.

From the Editors

We welcome your comments and suggestions for future issues. Feel free to email us at tammy.schmoll@owatonnautilities.com.

Gas Leak?

If you smell gas and can't find the source immediately, go to a neighbor's house and call OPU at 451-1616.

Don't turn electrical switches on or off or use a flashlight or telephone in the home, because an electrical spark could ignite the gas and cause an explosion.