# PROPOSAL TO PROVIDE

Facility Assessment, Feasibility Study and Long-Term Facilities Planning for the Wastewater Treatment Facility



# **Prepared for:**

Village of Sister Bay February 7, 2025





1500 N. Casaloma Drive, Suite 100 Appleton, WI 54913 (218) 722-3915 www.msa-ps.com

February 7, 2025

Julie Schmelzer, Village Administrator Village of Sister Bay 2383 Maple Drive, Sister Bay, WI 54234

Re: Proposal to Provide Facility Assessment, Feasibility Study and Long-Term Facilities Planning for the Wastewater Treatment Facility

Dear Julie.

The Village of Sister Bay seeks to complete a Wastewater Facilities Plan with the primary goal of developing a capital improvement plan to address near-term and long-term needs at the facility to remain in compliance with your permit, provide reliable and efficient operations, and offer more long-term certainty on outlets for biosolids. Based on our project understanding, we have developed a scope of services, proposed fee, and a project schedule that will address the challenges presented and support the overall success of the project. MSA's qualified team carries the following advantages:

- Experience with Similar Communities in Similar Situations. MSA prides itself on identifying innovative solutions that are financially and operationally sustainable for the long term. MSA has completed more than 140 projects of similar size and scope in the last 10 years, including more than 25 advanced biosolids projects. We specialize in communities of your size and have a thorough understanding of unique challenges small communities face in terms of affordability, operational flexibility, and staff availability.
- Similar Planning Effort in a Neighboring Community. MSA is currently working with the Town of Baileys Harbor on a very similar effort. By hiring MSA, we can evaluate each situation individually, but also in tandem. The implementation of an advanced biosolids processing upgrade is very costly but could be much more economical if multiple communities work together. A tandem evaluation will be far more efficient if conducted by the same consultant.
- Unmatched Funding Expertise. The most critical question that always comes up is "How are we going to pay for this?" MSA has an unparalleled track record of partnering with clients to secure grants and low-interest loans, helping our communities obtain over \$695 million to offset costs. Our engineering team works hand-in-hand with our funding team to develop a plan that is attractive to funding agencies, helping to ensure you are 'shovel ready' when funding opportunities arise. Furthermore, our funding team takes care of every detail during the funding application and administration phases. We have significant experience navigating the "red tape" that comes with state and federal funding. You can have peace of mind that MSA will walk with you throughout the process.

MSA recognizes the many challenges presented as well as opportunities for efficiency and synergy. We will brainstorm ideas, evaluate options and review various aspects with Village staff to enable informed decisions based on the best information. Village staff are critical team members possessing valuable knowledge and insight. With MSA's team, you can be confident that the Village will meet its goals with respect to biosolids facilities planning and subsequent project phases.

Oce Montes

Please feel free to contact us if you have any questions regarding this proposal.

Sincerely,

MSA Professional Services, Inc.

Sheri Scott, PE, ENV SP Project Manager | Contact Person sscott@msa-ps.com | (920) 545-2085 Joe Martirano, PE
Project Engineer
jmartirano@msa-ps.com | (608) 216-2063

MSA acknowledges receipt of Questions from Potential Proposers dated February 21.



**Insurance information** 

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# FIRM HISTORY

MSA Professional Services, Inc. (MSA) specializes in the sustainable development of communities. We achieve this by building honest, open relationships that go beyond the project to become a trusted source of expertise and support for immediate challenges and long-term goals. Big or small, we do whatever it takes to meet each need, working to make communities stronger in the process. It's more than a project. It's a commitment.

MSA's roots reach back to 1919. Our firm consists of 450+ engineers, architects, planners, landscape architects, funding experts, surveyors, GIS experts and environmental scientists. We excel at helping clients identify grant and funding sources and then delivering high quality, costeffective solutions. MSA's Wastewater Community of Practice has over 40 professionals in four states dedicated to wastewater and related planning and engineering.

### **BUSINESS NAME**

MSA Professional Services, Inc.

# **CONTACT PERSON**

Sheri Scott, PE, ENV SP Project Manager | Contact Person sscott@msa-ps.com | (920) 545-2085

### **CORPORATE OWNERSHIP**

MSA is a 100% employee-owned firm

### LOCAL ADDRESS

1500 N. Casaloma Drive, Suite 100 Appleton, WI 54913

### **WEBSITE**

www.msa-ps.com

# INSURANCE INFORMATION

Included in the Appendix.

# **CAPACITY**

MSA submits this proposal with the commitment that our staff will be available to accomplish the work in sequence and according to established timetables.

WE'RE PROUD TO BE 100% **EMPLOYEE-OWNED** 







POSITIVELY IMPACTING THE LIVES OF OTHERS SINCE 1919

**INDUSTRY** AWARDS EARNED SINCE





# **\$695+ MILLION**

**GRANTS & LOW-INTEREST LOANS** We've helped our clients secure to help offset the cost of infrastructure projects



# UNDERSTANDING OF NEED

The Village of Sister Bay owns and operates a Wastewater Treatment Facility (WWTF) that serves approximately 1,500 service connections within the Village and the Town of Liberty Sanitary District permitted through a Wisconsin Discharge Elimination System (WPDES) Discharge Permit. The activated sludge treatment system was first commissioned in 1990, with significant upgrades in 2021 to update various obsolete equipment and expand other areas of the facility. The facility has a design flow of 0.70 million gallons per day (MGD).

MSA team members visited the Village's facility and spoke with staff about needs. It is clear the existing facility is well maintained and generally in good condition. However, there are concerns related to long-term disposal of biosolids and accommodation of growth within the Village's sewer service area. The Village, like many other Door County municipalities, depend on the City of Sturgeon Bay for disposal of municipal biosolids. Uncertainty regarding the longevity of this outlet has generated Village interest in evaluating alternative biosolids disposal methods which provide additional end uses and provide more long-term certainty. This includes implementing a biosolids dryer which would produce a fertilizer-like product that could be distributed locally to the public. Village staff have spent time touring dryer facilities in the state to gain a better understanding of how these facilities operate.

The next step in the process is to complete a Wastewater Facilities Plan to evaluate a dryer alongside other alternatives with the goal of greater long-term certainty with biosolids disposal. Therefore, the next step is to complete a Wastewater Facilities Plan. The primary purpose of the Facilities Plan includes:

Identifying multiple alternatives for consideration. Develop "apples-to-apples" alternatives that consider monetary factors such as capital and operational costs, and non-monetary factors such as operational needs and regulatory trends.

- Developing an implementation plan. Develop a plan that implements each recommendation at the right time based upon facility need, regulatory drivers, maximizing funding opportunities, and ratepayer impact.
- Maintaining eligibility for state and federal grant and loan programs.

# **PROJECT APPROACH**

At MSA, we believe three factors are critical to a successful wastewater facilities plan:

- Collaboration. It is essential that the Village and MSA work hand-in-hand on this study. In the end, this is your facility, and your report. It must be reflective of your specific situation, and not just cookie-cutter solutions. Therefore, our role as your partner is to guide you through the process by applying our expertise and experience to find a solution you feel confident in. We specifically include collaboration in our project scope through workshops at specific milestones to review progress and help ensure you have ownership in the plan. Furthermore, we also take your staff on "field trips" to various facilities so you can talk operator-to-operator on critical factors towards operating the equipment being considered. Additional details on our approach is included in Project Scope section on the next page.
- Regulatory compliance. It is critical that the alternatives being evaluated consider regulatory requirements not just now, but in the future. MSA has significant experience in the State of Wisconsin, with over 140 wastewater facilities projects in the last 10 years alone. We pride ourselves on understanding the existing regulations, but more importantly, the regulatory trends, as this may greatly impact what alternative is ultimately selected.

This is particularly true when considering alternatives for biosolids. The regulatory environment around biosolids has changed drastically in Wisconsin over the past several years. The DNR has applied greater scrutiny on land application in terms of permittable sites, and amount of biosolids applied. Furthermore, emerging contaminants, such as PFAS, are becoming an area of increasing concern. While not yet formally regulated, public scrutiny has created resistance to land application. This has created a significant increase in advanced biosolids products (commonly known as Class 'A' biosolids) being created in Wisconsin. These products can be distributed to the public and typically have a reduced volume which allow for easier disposal. MSA has considerable experience evaluating and implementing advanced Class A biosolids solutions, and gaining regulatory approval from WDNR. See our Representative Projects section and Appendix Resumes within this proposal for more detail.

Cost and operational efficiency. Cost is always a significant factor in any facilities planning effort. Our goal is to identify the alternative with lowest life cycle cost. While capital cost is important, consideration of operational costs is also critical in terms of fuel, chemical, labor, maintenance/replacement items, etc. Further, while innovative and advanced processes are important to consider, it has to make sense for the staff to operate. Implementation of advanced biosolids processing equipment will likely increase labor requirements at the facility. We will need to consider staff availability and the potential cost of additional staff for each alternative. As identified in our Representative Projects section and Appendix Resumes, MSA has significant experience with communities of similar size to the Village of Sister Bay. We have a proven history of success implementing innovative solutions.

# KEY TECHNICAL CONSIDERATIONS

# Regional biosolids facility

It is understood that several Door County municipalities in addition to the Village are reliant on the City of Sturgeon Bay for final disposal of biosolids. Partnerships with these municipalities to work towards a common goal of a local, longterm, stable biosolids disposal solution may be economically beneficial for the Village and its sewer customers. MSA is currently working with Baileys Harbor on a similar effort, and there could be synergies by evaluating these options in tandem. Individually, an advanced biosolids facility may not be cost effective, but the economy of scale of a regional facility may prove to be more viable.

# Viable 'Class A' alternatives

A dryer has been previously identified as a solution of

interest due to biosolids volume reduction and the ability to easily handle, distribute, and use the final product. The lack of permanent natural gas utilities in the service area will limit the types of feasible dryer technologies that can be installed. Dryers which are solar powered or can operate from alternative fuel sources will be evaluated during the study. Alternative Class A processes, such as lime stabilization or thermophilic digestion, will also be reviewed with consideration for biosolids volume and product end-use.

# Process upgrades that would affect biosolids production and quality

Existing treatment processes and infrastructure can potentially be optimized, without major modifications, to lower the volume of biosolids currently generated. The existing facility uses a considerable quantity of chemical to meet effluent phosphorus limits; however, the chemical produces significant sludge volume. Operation of the existing threechannel oxidation ditch will be studied to determine if biological removal of phosphorus, which would reduce chemical usage, is possible.

# **PROJECT SCOPE**

Our scope will provide a comprehensive document which will meet the requirements of Chapter NR 110, Wis. Admin Code and can be submitted for approval to the Wisconsin DNR. Facilities plans must be approved by the DNR prior to the construction of major wastewater treatment upgrade projects and maintain funding eligibility. The Facilities Plan will review all aspects of the existing treatment facility and help ensure that long-term plans are identified for all critical infrastructure. The primary focus of the Plan will be on biosolids alternatives, but we will also evaluate other needs at the facility, such as septage receiving improvements, and piping modifications to increase flexibility (both items were discussed with Village staff during our site visit).

Our project scope will include the following phases of work:

### Project kickoff

- Review project schedule
- Review relevant facility data, controls, and processes
- Review background information pertaining to facility sewer service area and users

### Foundation of the plan 2.

- Evaluate infiltration and inflow (I/I) in the sewer service area
- Establish design year service conditions, flows, and loads
- Identify potential future discharge permit alterations
- Conduct a workshop with the Village to review and confirm design conditions

# Preliminary alternatives assessment

- Identify critical needs for existing infrastructure
- Preliminary development of several alternatives
- Create process flow diagrams for potential new facilities
- Conduct a workshop with the Village to screen alternatives and select alternatives that warrant additional detailed evaluation three (3) alternatives assumed for detailed evaluation)
- Conduct up to one (1) field trip to evaluate equipment being considered

# Develop recommended plan

- Provide final recommended alternatives
- Conceptual site plan for recommended upgrades
- Total present worth cost analysis for evaluated alternatives
- Estimate cost impact on sewer user rates
- Conduct final workshop to review recommendations, including monetary and non-monetary considerations

# Finalize plan

Complete Facilities Plan Report with final recommendations incorporated

The report will focus on key items identified by the Village, including the following:

# Biosolids process and handling upgrades

- Evaluation of at least three (3) new biosolids disposal alternatives, including a dewatering and drying processes to produce dry Class A biosolids
- Produce conceptual process flow layouts
- Identify system footprints and estimated sizes of new buildings
- Provide 20-year total present worth estimates for each alternative, including capital, operation, maintenance, and replacement costs

- Develop a conceptual site plan to show preferred location of the new processes and identify site work considerations
- Identify impacts of the new processes on existing facility infrastructure, including electrical service and existing treatment processes

### Septage receiving station infrastructure

- Evaluate alternatives to address identified deficiencies and reduce odors, including:
  - Modifications to existing air piping
  - An upgraded aeration system
  - Alternative tank mixing and odor capture strategies

# Improvements to current plant operations

Various piping modifications to increase flexibility and provide process redundancy

# Identify replacement costs for existing infrastructure

- Process equipment
- Electrical controls and instrumentation
- Utilities such as lights, HVAC systems, and water distribution systems
- **Building features**

# Establish anticipated impact of recommended upgrades on sewer users in service area

- Estimate the annual increase from current rates for current sewer users
- Review impact of potential new users within service area in the future
- Review theoretical scenarios where other Door County municipalities would fund a portion of the biosolids upgrades to purchase allocated capacity with the new processes



WWTF upgrade, including lagoon aeration improvements and a new administrative building in Palmyra, WI

# ACHIEVE TREATMENT GOALS AT THE OPTIMUM BALANCE OF COST & EFFORT

Treating wastewater can feel like walking a tightrope between increasing costs and strict treatment requirements. MSA can help you accomplish this mission in the face of aging infrastructure, tighter budgets, new regulations, and population growth. MSA's team of wastewater engineers, certified wastewater operators and funding specialists work closely together to provide affordable wastewater treatment solutions that work. From basic treatment technologies to the most innovative approaches for water reuse, our team can help navigate complexities to select and implement the solutions that are right for you. MSA's team of wastewater and funding experts have what it takes to see a water reclamation project from the conceptual planning phase through the design, construction, and operational phases. From award-winning, innovative treatment facilities to small-scale, modest rehabilitation solutions, we keep each client's unique needs at the forefront.

To achieve the best solution for the funds available, we combine knowledge of the latest innovations in treatment technology, our understanding of environmental regulations, and handson knowledge of system operations. Whether a state-of-the-art solution is needed for enhanced nutrient removal, or a rehabilitative approach is required to better utilize existing systems, MSA has the expertise in planning, design, construction engineering, and funding assistance for your wastewater treatment facility project.

# MSA'S WASTEWATER EXPERIENCE | CAPABILITIES

# **OUR STRONG WISCONSIN HISTORY**

MSA has been providing engineering services to municipal clients in Wisconsin since our incorporation over 60 years ago. Since 2015, MSA has been involved in more than 140 wastewater facilities improvement projects in the state. Each of these projects has contributed to our project team's extensive knowledge of, and experience with, municipal wastewater treatment to meet State of Wisconsin requirements. We are very familiar with Wisconsin Administrative Code NR110 -Sewerage Systems, which is the fundamental state planning and design regulation. We pride ourselves on having a very positive relationship with the Wastewater Section staff at the Wisconsin Department of Natural Resources Bureau of Water Quality, which enables us to advocate for the best solutions for our clients.

# **FUNDING EXPERTISE**

MSA is second to none in our ability to use subsidized funding for wastewater projects. We begin during the facilities planning process by evaluating the potential benefit of each available funding source, including both grants and subsidized loans. We continue those efforts throughout the life of the project, making sure to stay aware of potential for additional funding. MSA excels at combining different sources of funding for maximum benefit, layering multiple grants, principal forgiveness and subsidized loans to meet match-funding requirements with the fewest local dollars possible. In total, we have helped our client communities secure over \$695 million in grants and low-interest loans. Our vast experience with programs such as Community Development Block Grant, Clean Water Fund and USDA-Rural Development means that we know the inner workings of each program. This allows us to interweave the programs to our clients' benefit.



### SUPPORTING DISCIPLINES

Wastewater treatment is more than just a combined set of processes. Buildings, power, controls, site improvements, funding - each of these areas needs attention during facilities planning. In addition to our experience with wastewater treatment, our multi-disciplinary team includes experts in architecture, structural engineering, electrical and controls engineering, heating and ventilation, plumbing design, stormwater management, geographical information systems, funding, financial management, and public participation. Our various experts bring to the project team their familiarity with the federal, state, and local regulations and codes pertinent to their discipline.

# **WORKING TOGETHER**

Successful planning and design requires a true partnership between our project team and your staff and officials. We recognize that the many years of experience of your wastewater treatment plant staff will provide invaluable input into the planning and design process. By combining the local experience of the WWTF staff with our technical knowledge, we are able to leverage both to create an effective, personalized facilities plan. The success of the project is predicated on our ability to tailor the solutions to the City's needs and preferences.

### THE "COMMUNITY OF PRACTICE" ADVANTAGE

Within MSA, a Community of Practice (CoP) is a group of employeeowners who practice in a specific area of expertise. MSA's Wastewater CoP includes more than 40 professionals across four states who spend a significant portion of their time practicing wastewater and wastewater adjacent planning and engineering. The CoP meets regularly to stay up to date on treatment innovations, brainstorm solutions for wastewater challenges, and collaborate on providing top-notch deliverables to our clients. Learning from each other is more efficient than learning on our own, and MSA has a culture of generous sharing of knowledge across the company. The CoP model provides a built-in "support group" of additional experts for your project; the combined knowledge of the entire CoP will be at the fingertips of your project team — an answer to a tough problem is just an email away. Our Communities of Practice also form a strong basis for our QA/QC efforts, enabling the kind of timely and candid feedback and collaboration that assures quality projects.







# ORGANIZATIONAL CHART

Our team is staffed to handle the needs of your project. We are a group of experienced wastewater engineers, technicians and specialists backed by more than 450 fellow employee-owners who are accustomed to working together on similar projects. We have chosen a team that reflects the needs for this project, including familiarity with similar projects, the expertise to explore all viable alternatives, and the capacity to accomplish the work in sequence and according to established timetables. Full project team resumes are included in the Appendix section of this proposal.





Sheri Scott, PE, ENV SP **Project Manager** 

**Project Role:** Coordinate the efforts for the various team members' discipline design groups, including responsibility for the project schedule and budget.



Joe Martirano, PE **Project Engineer** Project Role: Lead technical aspects of the Facilities Plan.



Lance Teunissen, PE

Senior Control Engineer **Project Role:** Provide technical input on electrical, instrumentation, and SCADA items.



Carolyn Wastlund, PE, LEED® AP BD+C Principal Engineer - Mechanical Project Role: Provide architectural, structural, HVAC, and plumbing expertise on process structures.

# **Process Engineers**



Pat Morrow, PE **Process Engineer** Project Role: Provide technical input and Quality Assurance/ Quality Control.



Matt Castillo, PE **Process Expert** Project Role: Oversee technical aspects of the Facilities Plan.



Tom Dye, PE **Process Engineer** Project Role: Provide technical expertise on biosolids handling processes.



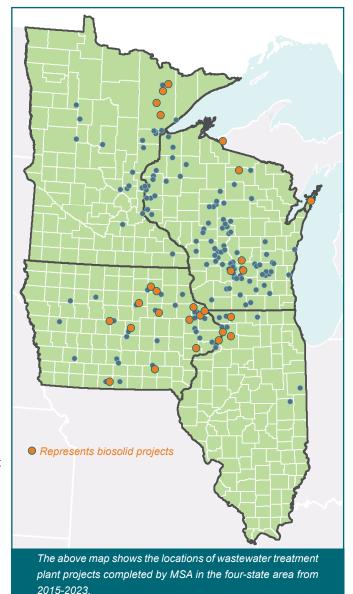
Clint Wienen, PE **Process Engineer** Project Role: Provide technical expertise on biosolids handling processes.

# WASTEWATER TREATMENT PLANT PROJECTS IN WISCONSIN

With 17 offices in four Midwest states, MSA has completed many wastewater treatment plant improvement projects in the region, including over 50 projects since 2015 in Wisconsin alone.

- Antigo, City of
- Arpin, Village of
- Asbury, Village of
- Auburndale, Village of
- Augusta, City of
- Bailey's Harbor, Town of
- Bangor, Village of
- Baraboo, City of
- Barneveld, Village of
- Belleville, Village of
- Bluffview Sanitary District
- Brodhead, Village of
- Brownsville, Village of
- Cascade, City of
- Cumberland, City of
- Curtiss, Village of
- Deer Park, Village of
- Dickeyville, Village of
- Durant, City of
- Eagle River, City of
- Elk Run Heights, Village of
- Elroy, City of
- Epworth, City of
- Eveleth, Village of
- Fairwater, Village of
- Farley, Village of
- Fox Lake, Village of
- Frederic, Village of
- Gilbert, Village of
- Grafton, Villlage of
- Hatfield Sanitary District
- Hedrick, Village of
- Hillsboro, City of
- Iron Ridge, Village of
- Ironwood, Village of
- Johnson Creek, Village of
- Juneau, Village of
- Kendall, Village of
- La Farge, Village of
- La Porte City, City of
- La Valle, Village of

- Lake Delton, Village of
- Lakeland Sanitary District (Woodruff-Minoqua)
- Leon, Village of
- Lomira, Village of
- Luck, Village of
- Melrose, Village of
- Meskwaki, Settlement of
- Milladore, Village of
- Minocqua, Town of
- Mount Carroll, Village of
- Moutain Iron, Village of
- Nashua, Village of
- Necedah, Village of
- New Lisbon, City of
- New Richmond, City of
- North Freedom, Village of
- O'Dells Bay Sanitary District
- Palmyra, Village of
- Platteville, City of
- Port Byron, Village of
- Randolph, Village of
- Rib Lake, Village of
- Ridgeway, Village of
- Rock Springs, Village of
- Rosendale, Village of
- Sand Creek Sanitary District
- Savanna, City of
- Sister Bay, Village of\*
- Somerset, Village of
- Stetsonville, Village of
- Stockton, Village of
- Story City, Village of
- Sun Prairie, City of
- Superior, Village of
- Three Lakes Sanitary District
- Virginia, Village of
- Warrens-Monroe Wastewater Commission
- Wisconsin Dells Lake Delton Sewerage Commission (3 projects)



Wonewoc, Village of

\*MSA staff served as a subconsultant for electrical and controls services on the Village's most recent wastewater treatment facility.

Note: The above list includes clients where MSA has provided engineering services for planning, design, and/or construction of wastewater treatment plant upgrades of various magnitudes. MSA has also provided other wastewater treatment-related engineering services for many communities in Wisconsin and surrounding states, including operation and needs reviews, troubleshooting and process optimization, capacity evaluations, evaluations of discharge permit compliance alternatives, variance applications, discharge permit renewal application assistance, etc.

# BIOSOLIDS DRYER SYSTEM

# WISCONSIN DELLS-LAKE DELTON, WI

The neighboring communities of Wisconsin Dells and Lake Delton (WDLD) encompass one of the most popular tourist destinations in the Midwest. The area draws over 2.8 million visitors annually to the WDLD area. Wastewater from the two communities flows to the joint Wisconsin Dells-Lake Delton Wastewater Treatment Facility (WWTF). MSA Professional Services has served as the WDLD Sewerage Commission's engineering consultant since its formation, providing engineering services dating back to the planning and construction of the WWTF in 1983. The wastewater treatment facility has undergone several upgrades since then, including a major facility upgrade in 2007 at a cost of nearly \$12 million, which addressed nearly every aspect of the liquid and biosolids treatment processes.

The most recent project at the WDLD WWTF was the addition of a Biosolids Dryer System, which was placed into service in 2018. The WWTF staff had previously managed and operated an agricultural land application program utilizing dewatered biosolids. Increasing biosolids volume, and the challenges of public acceptance and finding suitable land application sites, resulted in the need for a new biosolids management program.

MSA worked with the WWTF staff to evaluate options, including alkaline stabilization, composting, and thermal drying. The planning process included an on-site demonstration project utilizing a trailer-mounted biosolids dryer, and visits to operating dryer facilities in Minnesota and Florida. The design of the new facilities ensured that the biosolids treatment and handling facilities could be maintained during construction and in the event that the dryer is out of service for an extended period. A reversible conveyor at the belt filter press discharge point allows the dewatered biosolids to be delivered to either the dryer system or to the bed of a truck for land application or landfilling. The design made maximum use of the existing facilities, including major renovations to both of the existing dewatered sludge storage buildings, so that one building houses all of the biosolids drying equipment and the other building provides for storage of the dried biosolids product that exceeds the DNR requirement for 180 days of storage capacity.

The thermal dryer produces finished biosolids with a solids concentration of 90 percent and reduces the overall volume of biosolids for disposal by 75 percent. The combination of time and temperature within the dryer vessel, along with the highly concentrated level of solids, resulted in a product that meets the U.S. EPA and Wisconsin DNR designation of "Class A" biosolids.

The dried biosolids product is discharged from the dryer vessel to a system of conveyors that delivers it to a bagging system for storage in 50 cubic foot sacks, or directly to the bed of a truck or trailer for bulk hauling. The dried "Class A" biosolids product is very popular with local farmers for its nutrient value and as a soil supplement. The demand for the product far exceeds the volume produced.

### REFERENCE INFORMATION

John Brown, Wastewater Treatment Facility Superintendent (608) 253-2171 | wdldwwtp@gmail.com



Dewatered Biosolids Equalizations Bins.



Biosolids Dryer Vessel.





Dried Biosolids Bagging Equipment.

# WWTF UPGRADE DESIGN

# LAKELAND SANITARY DISTRICT, MINOCQUA, WI

Lakeland Sanitary District No. 1 is located near Minocqua, Wisconsin, and serves customers in the towns of Minocqua, Woodruff, and Arbor Vitae. The Minocqua area is a popular Northwoods tourist destination. with many restaurants, bars, cabins, and tourist attractions. The Sanitary District wastewater treatment facility consists of fine screening, aerated grit removal, equalization basins for septage receiving, oxidation ditches, final clarifiers, UV disinfection, WAS storage, solids thickening, autothermal thermophilic aerobic digestion (ATAD) for Class A biosolids, dewatering, and cake storage. Due to aging infrastructure and service area growth, significant facility upgrades were required to sustain treatment operations and comply with permit regulations. MSA was retained to complete wastewater facilities planning, design, and construction services to address the facility's needs.

The most significant facility upgrade included the replacement of the existing ATAD infrastructure with a completely new ATAD process. This process is a self-heating, high-temperature aerobic digestion process that can produce Class A biosolids as defined by the EPA. The Sanitary District prioritized a Class A biosolids program due to a lack of feasible options to dispose of Class B biosolids in a cost-effective manner. The ATAD system was constructed in a new building and also includes a storage nitrification and denitrification reactor to further improve the quality of the Class A product and reduce the impact of nutrient sidestreams on their existing secondary treatment process.

Additionally, the Sanitary District's existing thickening and dewatering technology was replaced with a new gravity belt thickener and belt filter press. The new equipment was selected based on fitting inside an existing building and the facility staff's preferences. Both processes are used concurrently with the ATAD system and are essential for reducing the overall volume of generated biosolids.

Other facility upgrades include modifications to existing tankage to accommodate enhanced biological phosphorus removal, coagulant chemical treatment upgrades, scum pumping improvements, SCADA replacement, and electrical service and distribution upgrades to accommodate the new ATAD and biosolids processes. Construction of the upgrades will begin in Spring 2025 and is estimated to be completed by 2027.

### REFERENCE INFORMATION

Wilbur Peters, Water & Sewer Superintendent (715) 356-4454 | wilburlakeland@yahoo.com







# WWTF OPERATIONS AND NEEDS REVIEW

# BAILEY'S HARBOR, WI

The Town of Bailey's Harbor is located on the eastern peninsula of Door County in Wisconsin and is a popular tourist destination during the summer months. The Town owns and operates a mechanical wastewater treatment facility, which provides service for residential customers, businesses, and restaurants within the Town's collection system. Additionally, the treatment facility routinely accepts significant volumes of hauled waste from other sources outside the collection system.

MSA was retained to complete an Operations & Needs Review (ONR) for the Town's treatment facility in 2024. The facility, originally constructed in 1988, has historically operated well and provided excellent wastewater treatment quality. The purpose of the ONR was to broadly assess the condition of the current facility's infrastructure and proactively identify operational or regulatory concerns. The results of the ONR assessment will be used as a basis for a long-term plan for the facility, allowing the Town to allocate adequate finances towards the upkeep of the facility for at least the next 20 years.

The ONR study produced two significant outcomes for the Town. First, an itemized list of existing critical treatment equipment and infrastructure was developed. Budgetary purchase and installation costs were provided for the listed items, with a recommendation that financial planning budget for the replacement of the majority of critical infrastructure over a 20-year period.

The second determination was that long-term biosolids disposal was the most significant challenge facing the treatment facility. The Town currently hauls all biosolids generated from treatment operations to Sturgeon Bay for final disposal; however, uncertainty exists about this disposal method remaining viable in the future. The ONR identified general, high-level alternatives which, if implemented, would provide the Town with an alternative method of biosolids disposal. Evaluated alternatives included improvements to the existing Class B biosolids handling processes, conversion to a Class A biosolids system, on-site reed beds, and alternative hauling facilities.

In 2025, MSA will complete a facilities plan for the Town's wastewater treatment facility, which will expand on the long-term biosolids disposal alternatives identified in the ONR and determine the most feasible and cost-effective option.

# REFERENCE INFORMATION

Don Prust, Water and Sewer Superintendent (920) 839-2037 | bhww@baileysharborwi.gov





The study revealed that the biggest challenge facing the existing facility is biosolids storage and handling capacity.



# BIOSOLIDS PROCESSING AND STORAGE FACILITY

BARABOO, WI

The City of Baraboo was faced with upgrading its aging biosolids dewatering and alkaline stabilization system. Equipment was reaching the end of its useful life, and in the past 20 years, new, more efficient dewatering technologies had emerged that would save the City money in operation costs.

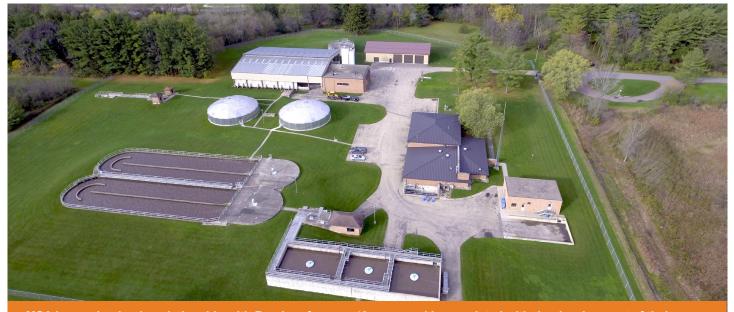
MSA and the City evaluated and pilot tested several dewatering equipment technologies before settling on a dewatering centrifuge. The City decided to continue using an alkaline stabilization system for biosolids stabilization. The system is flexible enough to provide either Class A or Class B biosolids, as the market demands. The project included a new dewatering centrifuge unit, pumping equipment, and a cake solids mixer for blending the biosolids with alkaline materials. After blending, the biosolids are discharged into curing bunkers, where they can satisfy the time and temperature criteria required to ensure pathogen kill and complete stabilization. After a 24-hour curing period, the processed biosolid product can be windrowed for further drying and stacked in the storage building. The centrifuge produces a higher percent solid cake sludge, which requires less alkaline material addition. Even with the overall higher energy cost associated with the centrifuge, the City's annual biosolids processing cost has decreased.



Brad Weirich, Wastewater Treatment Facility Foreman 608-355-2755 | bweirich@baraboowi.gov







MSA has maintained a relationship with Baraboo for over 40 years and has assisted with the development of their wastewater treatment facility as the City has grown.

# **ANTICIPATED PROJECT SCHEDULE**

MSA has the staff capacity to begin this work immediately. The Facility Plan schedule may be affected by inter-municipal discussions and timelines, equipment vendor response time, and public meeting schedules.

FACILITY PLAN PHASE		2025								
	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Historical Data Analysis										
Project Flow, Load, and Biosolids Quantities										
Discuss & Define Alternatives										
Alternative Evaluation										
Submit Draft Facility Plan w/ CIP										
Submit ITA, PERF										
Present to Utility Committee										



# **ESTIMATED FEES**

MSA's not-to-exceed fee for a Facility Plan is \$49,700 based on the scope described in the RFP and proposal. Main scope items include:

- Review historical data for Sister Bay, including hauling data from Liberty Grove
- Project population, flow, load, and sludge production for 20year planning period
- Define alternative evaluation parameters
- Two (2) visits to other wastewater treatment facilities
- Evaluate alternatives for monetary and non-monetary factors
- Develop Phased Capital Improvement Plan
- Summarize the evaluation and review with Village staff
- Provide a draft Facility Plan and present to the **Utility Committee**
- Finalize plan, present in a public hearing, and submit to the DNR

# HOURS BREAKDOWN

TASK	HOURS
Project Management and Communication	80
Project Initiation, Review Data, Site Visit, Condition Assessment	64
Project Flow, Load, Solids, Alternatives Evaluation, Review Meeting	160
Draft Report & CIP, Owner Review Meeting, Finalize Report Documents	120
Final Committee Presentation	16

### ADDITIONAL SERVICES

No permit fees are required to prepare an engineering report/ Facilities Plan documents described above.

The following services are not included in this scope and can be provided under a separate contract, by amending the scope and fee, or on a time and expense basis:

- Comprehensive I&I investigation of the sanitary sewer collection system
- Topographic survey and property boundary survey and title search
- Geotechnical site investigation or borings 3.
- Design, bidding, and construction phase services 4.
- Additional meetings and site visits 5.
  - Attendance at any such meetings or site visits that are not specially addressed in the scope above shall be considered above and beyond the scope of services as identified herein
- Utility potholing to find locations of existing buried utilities (water, sewer, storm, electric, gas, telephone, fiber, etc.) 6.
- 7. Funding services, including application processing and coordinating with Federal, State, or Local funding agencies.
- 8. Additional site visits to other facilities to evaluate equipment
- Facilities Plan public hearing and DNR Facilities Plan submittal/review phase
- 10. Preliminary evaluation of solids capacity needs of the regional are included
  - Additional regional facility discussions would be added scope

The following items shall be provided by the Owner:

- Hauled septage and holding tank data
- Planned development information for service area 2.
- 3. Plan, specification, design, and report information of the existing facility
- Sanitary sewer collection system mapping and data







Sheri Scott, PE, ENV SP PROJECT MANAGER

Sheri will be the Project Manager, coordinating the efforts for the various team members' discipline design groups, including responsibility for the project schedule and budget.

Sheri has more than 20 years of engineering experience. She has provided planning, design, bidding, and construction services on wastewater/water resources projects including new well houses, booster stations, water/wastewater treatment facilities, and lift stations. Sheri provides process mechanical design and leads multi-disciplinary project teams to provide successful solutions on our clients' most complex facility projects.

### **Education**

B.S., Environmental Engineering, University of Wisconsin-Platteville

# Registration | Certification

Professional Engineer, WI, CO Envision Sustainability Professional (ENV SP)

# **Selected Project Experience**

- Wastewater Treatment Facilities Headworks Upgrade, Grafton, WI
- Wastewater Treatment Facility Upgrades, Lomira, WI
- Wastewater Treatment Facility UV Upgrade, Allenton, WI
- Wastewater Treatment Facilities Chemical Feed Upgrade, Brownsville, WI
- Sewer Capacity Evaluation, Oakfield, WI
- Wastewater Treatment Facility Chemical Feed Upgrades, Randolph, WI
- Wastewater Treatment Facility Design and Construction, Ridgeway, WI
- Montreal Water Treatment Facility, Montreal, WI (under design)
- Wastewater Treatment Facility Upgrade, Lakeland Sanitary District, Minocqua, WI
- Wastewater Treatment Facility Upgrade, Juneau, WI
- Wastewater Treatment Facility Electrical Upgrade, Grafton, WI
- Water Reclamation Facility Electrical Generator Upgrade, Platteville, WI
- Wastewater Treatment Facility Aerobic Digester & Sludge Storage Upgrade, Randolph, WI
- MMSD Pumping Station 17 Firm Capacity Improvements, Verona, WI



Joe Martirano, PE **PROJECT ENGINEER** 

Joe will be the process Project Engineer in charge of technical aspects of the facilities plan, including facilities assessment, alternatives analysis, and cost estimating.

Joe has 10 years of engineering experience. He has worked on wastewater projects that include activated sludge systems, tertiary phosphorus treatment, headworks systems and lift stations. He has also completed numerous facility planning efforts for municipal wastewater treatment plants and is knowledgeable regarding requirements and applications for water quality trading and non-point phosphorus management projects.

### Education

M.S., Environmental Engineering, University of Wisconsin-Madison B.S., Civil Engineering, University of Wisconsin-Madison

## Registration

Professional Engineer, WI

- Horicon, WI: headworks rehabilitation, biological phosphorus removal upgrade, aeration improvements, tertiary phosphorus filtration, disinfection, biosolids dewatering
- Mayville, WI: headworks rehabilitation, biological phosphorus removal upgrade, aeration improvements, biosolids handling and storage upgrade
- Mauston, WI: headworks rehabilitation, lagoon aeration improvements and optimization
- Menomonie, WI: primary clarifier rehabilitation, secondary treatment improvements, WAS holding and DAF thickening upgrade, tertiary phosphorus filtration, disinfection\*
- West Salem, WI: biological phosphorus removal upgrade, aeration improvements, disinfection\*
- Cornell, WI: new headworks upgrade, aerobic digester improvements, biosolids handling improvements\*
- Norwalk, WI: influent pumping improvements, trickling filter rehabilitation, secondary treatment improvements\*
- Fish Creek Sanitary District, WI: sewer service area development planning\*
- Sharon, WI and Edgerton, WI: on-site project representative during construction\*

<sup>\*</sup>Denotes experience prior to MSA





Lance Teunissen, PE SENIOR CONTROL ENGINEER

Lance will provide technical input on electrical, instrumentation, and SCADA items related to existing and new processes.

Lance has more than 25 years of industrial, water, and wastewater experience. He has been involved in the planning, design, and construction of a wide spectrum of water and wastewater projects including both SCADA systems and electrical distribution design. He has been involved in all aspects of process instrumentation and electrical distribution design for water and wastewater facilities and has been the lead designer for over 15 years on projects of all sizes. This experience includes programmable logic controllers, supervisory control and data acquisition, primary instrumentation and sensing devices, networks, and electrical distribution solutions for many Midwest clients.

# **Education**

B.S., Pulp and Paper Engineering, Western Michigan University

### Registration

Professional Engineer, WI, MN

# **Selected Project Experience**

- Utilities SCADA System, Kettle Moraine Nine Springs Fish
- Capacity Study and Design with Tertiary Filtration, Sun Prairie, WI
- WWTF Upgrade, Chetek, WI
- WWTF Upgrade, Elk Run, IA
- Aeration Upgrades Facilities Plan and Design with Biological Phosphorus Removal, Lomira, WI
- WWTF Upgrade, Lomira, WI
- WWTF Upgrade, Sun Prairie, WI
- WWTF, Freedom, WI
- WWTF Chemical Feed Upgrade, Brownsville, WI
- Caledonia / Pike River Lift Station, Caledonia, WI
- SCADA Improvements, Cleveland, WI
- Wastewater Facility Plan, Antigo, WI
- SCADA Improvements, Cleveland, WI
- Utilities SCADA System, Marion, WI
- WWTF Upgrade, Sister Bay, WI\*



Carolyn Wastlund, PE, LEED® AP BD+C **PRINCIPAL ENGINEER -MECHANICAL** 

Carolyn will provide technical input on existing and new process buildings related to architectural, structural, plumbing, and HVAC requirements. She will assist in cost estimating for these disciplines.

Carolyn has more than 35 years of diversified experience in the architectural, structural, plumbing, fire protection, and heating, ventilating, and air conditioning design of water treatment facilities, wastewater treatment facilities, municipal pool and park structures, community centers, town/village halls, public works garages, fire and EMS stations, industrial buildings, warehouses, office buildings, and commercial projects consisting of new construction, additions, remodeling, and maintenance.

### **Education**

B.S., Architectural Engineering, Milwaukee School of Engineering

## **Registration | Certification**

Professional Engineer, WI, MN, IL LEED® Accredited Professional-BD&C

- WDLD Wastewater Treatment Facility Bio-Solids Dryer System, Wisconsin Dells, WI
- Wastewater Treatment Facility Headworks Upgrade, Grafton, WI
- Water Pollution Control Facility 2020 Upgrade, Sun Prairie, WI
- Wastewater Treatment Facility Improvements, Somerset, WI
- Wastewater Treatment Facility Upgrades, Rosendale, WI
- Sanitary District WWTF Upgrade, Three Lakes, WI
- Wastewater Treatment Facility Upgrade, Ridgeway, WI
- Wastewater Treatment Facility Solids Process Upgrade,
- Wastewater Treatment Facility Upgrade, Kendall, WI
- Wastewater Treatment Facility Improvements, Rib Lake, WI
- Wastewater Treatment Facility Improvements, Cumberland
- Wastewater Treatment Facility Upgrades, Luck, WI
- Wastewater Fine Screen Improvements, Shell Lake, WI
- Wastewater Treatment Facility Improvements, Birchwood
- Wastewater Treatment Improvements, St Croix Falls, WI
- Water Pollution Control Facility 2005 Upgrade, Sun Prairie, WI

<sup>\*</sup>Denotes subconsultant design services





Pat Morrow, PE **PROCESS ENGINEER** QA/QC

Pat will provide technical input and Quality Assurance/ Quality Control for the project.

For more than 20 years, Pat has played key roles in the planning, design, and construction of wastewater treatment facilities. His expertise also extends to process optimization and troubleshooting, biological and chemical phosphorous removal processes, and activated sludge process modeling, operation and troubleshooting. Pat's knowledge in watershed management has put him in charge of one of Wisconsin's first Adaptive Management planning projects for nonpoint phosphorus reduction.

### **Education**

M.S., Environmental Engineering Michigan Technological University

B.S., Environmental Chemistry, Lake Superior State University

# Registration

Professional Engineer, WI

# **Selected Project Experience**

- Facility Planning, Design and Construction, Rib Lake, WI
- Facility Planning, Design and Construction, Three Lakes, WI
- Facility Planning, Design and Construction, O'Dell's Bay Sanitary District, WI
- Facility Planning, Design, and Construction, Sun Prairie, WI
- Facility Planning, Design, and Construction, Fall River, WI
- Facility Planning, Design, and Construction, Frederic, WI
- Facility Planning and Design, Rosendale, WI
- Phosphorus Compliance Planning (lagoons), Poplar, Siren, Curtiss, Dallas, WI
- Phosphorus Removal Pilot Studies (lagoons), Siren, Curtiss, Dallas, Poplar, WI
- Phosphorus Removal Pilot Study (lagoon), O'Dells Bay Sanitary District, WI
- Phosphorus Removal Optimization Pilot Study, Antigo, WI
- Phosphorus Operational Evaluation, Lakeland Sanitary District, Minocqua, WI
- Phosphorus Operational Evaluation, Village of Superior, WI
- Facility Planning, Boyceville, WI
- Facility Planning, Eagle River, WI
- WWTF Needs Assessment, Hatley, WI
- WWTF Design and Construction, Crandon, WI



Matt Castillo, PE PROCESS EXPERT

Matt will serve as the Process Engineer in charge of technical aspects of the facilities plan, including facilities assessment, alternatives analysis, and cost estimating.

Matt is a senior project engineer specializing in wastewater treatment. He has 18 years of experience and a diverse background in consulting and developing wastewater treatment equipment. Most recently, he was involved in the planning, design, construction and commissioning of treatment systems that have featured chemical phosphorus removal, biological nutrient removal, and tertiary processes for low-level phosphorus removal. Matt has successfully worked directly with communities and their wastewater operators to optimize and troubleshoot their existing treatment systems. His project leadership has resulted in successful capacity evaluations, energy audits and facility upgrades.

### **Education**

M.S., Civil Engineering, Marquette University B.S., Civil Engineering, Marquette University

# Registration

Professional Engineer, WI, IL

- WWTF Filtration Improvements, Sun Prairie, WI
- Wastewater Facility Upgrades & Construction Related Services, Johnson Creek, WI
- Oxidation Ditch Design with Biological Phosphorus Removal, Johnson Creek, WI
- Wastewater Facilities Plan, Capacity Study, Energy Evaluation, Low Phosphorus Filter Pilot Study, Aeration Upgrades, Platteville, WI
- Aeration Upgrades Facilities Plan and Design with Biological Phosphorus Removal, Lomira, WI
- Oxidation Ditch Facilities Plan & Design with Biological Phosphorus Removal, New Lisbon, WI
- WWTF Upgrade, Juneau, WI
- WWTF Upgrade, Randolph, WI



Tom Dye, PE PROCESS ENGINEER

Tom will be available for his technical expertise on biosolids handling processes and will assist in the biosolids alternatives evaluation.

Tom has more than 30 years of experience in the planning, design and management of wastewater projects. He has managed multi-disciplined teams to complete projects that include a wide range of facilities from pond systems to complete activated sludge facilities with biological nutrient removal and biosolids treatment and disposal. Tom has experience with clients that have joint facilities managed by a committee from two or more communities and understands the importance of considering all stakeholders needs and goals. Tom's experience predominantly involves retrofitting improvements to existing facilities and innovatively reusing existing structures and basins to reduce project costs.

# **Education**

B.S., Civil Engineering, University of Minnesota

## Registration

Professional Engineer, WI, MN, ND, MI

### **Selected Project Experience**

- WWTF Improvements (included sludge dryer), Gogebic Iron Wastewater Authority, Ironwood, MI
- Quad Cities Bisoids Disposal Site Authority (included portable belt press), Eveleth, Gilbert, Mt. Iron, Virginia, MN
- Wastewater Treatment Facility Improvements, Somerset, WI
- New Richmond WWTF Improvements, New Richmond, WI
- Water Pollution Control Facility Wastewater Facilities Plan, Sun Prairie, WI
- Facility Plan and Design, Gogebic Iron Wastewater Authority (GIWA), Ironwood, MI
- Myre-Big Island State Park Condition Assessment and Evaluation, Albert Lea, MN
- Itasca State Park WWTP Pond Evaluation, Facility Plan and Design, Park Rapids, MN
- Scenic State Park WWTF Pond Abandonment, Facility Plan, Big Fork, MN
- Facility Plans, Kenyon, Rockford, Wabasha, Clearwater, Clear Lake, Ogilvie and St. Francis, MN\*
- Wastewater Treatment Facility, Avon, MN\*



Clint Wienen, PE PROCESS ENGINEER

Clint will be available for his technical expertise on biosolids handling processes and will assist in the biosolids alternatives evaluation.

In his 21 years at MSA, Clint has led the design of numerous wastewater facilities. Clint has expertise in several aspects of design including process mechanical, HVAC, plumbing, site/civil, utility design, DOT permitting, and lagoon abandonment.

### **Education**

B.S., Civil Engineering, University of Wisconsin-Platteville

### Registration

Professional Engineer, IA, IL

- Screw Press
  - Epworth, IA, Durant, IA, Stockton, IL
- - Cascade, IA, Meskwaki, IA, Savanna, IL, Port Byron, IL, Mount Carroll, IL
- Rotary Fan Press, Story City, IA
- Reed Bed
  - La Porte City, Nashua, Hedrick, Leon, IA
- Sludge Lagoons
  - Farley, Asbury, Elkader, Elk Run Heights, IA
- Wastewater Treatment Facility, Stockton, IL
- Wastewater Treatment Facility, Mount Carroll, IL
- Center Street Lift Station, Mount Carroll, IL
- Bowen Street Lift Station, Savanna, IL Main Lift Station, Savanna, IL
- Meadows Lift Station, Asbury, IA
- Main Lift Station, Elkader, IA

<sup>\*</sup>Denotes experience prior to MSA



# ACORD

### MSAPROF-04

WGERKEN

DATE (MM/DD/YYYY) 6/26/2024

# CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s)

PRODUCER	CONTACT Wendy Gerken						
TRICOR, LLC 230 W Cherry St	PHONE (A/C, No, Ext): (608) 356-6608 1910 FAX (A/C, No):						
Lancaster, WI 53813	E-MAIL ADDRESS: wgerken@tricorinsurance.com						
	INSURER(S) AFFORDING COVERAGE	NAIC#					
	INSURER A : CNA	20443					
INSURED	INSURER B : Cowbell Cyber						
MSA Professional Services Inc	INSURER C:						
1230 South Blvd	INSURER D :						
Baraboo, WI 53913	INSURER E:						
	INSURER F:						

**COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:** 

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR		TYPE OF INSURANCE	ADDL INSD	SUBR	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	s	
Α	X	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	\$	1,000,000 100,000
		CLAIMS-MADE X OCCUR			7039431573	6/30/2024	6/30/2025	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	5,000
								MED EXP (Any one person) PERSONAL & ADV INJURY	\$	1,000,000
	GEN	I'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	\$	2,000,000
		POLICY X PRO- JECT LOC						PRODUCTS - COMP/OP AGG	\$	2,000,000
Α	A117	OTHER:						COMBINED SINGLE LIMIT	\$	1,000,000
``	X	ANY AUTO			7039431542	6/30/2024	6/30/2025	(Ea accident)  BODILY INJURY (Per person)	\$	.,,,,,,,,,
		OWNED SCHEDULED AUTOS						BODILY INJURY (Per accident)	\$	
	Х	AUTOS ONLY X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	\$	
_	v								\$	7,000,000
Α	Х	UMBRELLA LIAB X OCCUR			7039431556	6/30/2024	6/30/2025	EACH OCCURRENCE	\$	
		EXCESS LIAB CLAIMS-MADE	4		7039431556	6/30/2024	6/30/2025	AGGREGATE	\$	7,000,000
		DED X RETENTION \$ 10,000						1050	\$	
A	WOF	RKERS COMPENSATION EMPLOYERS' LIABILITY						X PER X OTH-		
	ANY	PROPRIETOR/PARTNER/EXECUTIVE N	N/A		7039555939	6/30/2024	/30/2024 6/30/2025	E.L. EACH ACCIDENT	\$	1,000,000
		idatory in NH)						E.L. DISEASE - EA EMPLOYEE	\$	1,000,000
	If yes	s, describe under CRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	\$	1,000,000
В	Cyb	er Liability			PLM-CB-SSVSCQ5PL-003	6/30/2024	6/30/2025	Aggregate Limit		5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER	CANCELLATION
MSA Professional Services Inc.	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE
	Windy S Gerken

ACORD 25 (2016/03)

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### MSAPROF-01

**CJOHNSON** 

DATE (MM/DD/YYYY) 1/30/2024

# CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed.

	ertificate does not confer rig					require air enuc	Jisement. As	tatement on		
PRODUCE	R			CONTACT NAME:						
Ames & Gough 859 Willard Street				PHONE (A/C, No, Ext): (617) 3	328-6888					
Suite 320	0			E-MAIL ADDRESS: boston@	amesgoug	h.com				
Quincy,	MA 02169			INS	NAIC#					
				INSURER A : Berkshire	Hathaway Spec	ialty Insurance Con	npany (A++XV)	22276		
INSURED				INSURER B:						
MSA Professional Services, Inc.				INSURER C :						
1230 South Boulevard Baraboo, WI 53913			INSURER D :							
			INSURER E :							
				INSURER F:						
COVER	AGES	<b>CERTIFICATE NUM</b>	IBER:		I	REVISION NUM	IBER:			
	S TO CERTIFY THAT THE PO TTED. NOTWITHSTANDING A									
	FICATE MAY BE ISSUED OR ISIONS AND CONDITIONS OF S					ED HEREIN IS SU	JBJECT TO ALL	THE TERMS,		
INSR	TYPE OF INOURANCE	ADDL SUBR	DOLLOW NUMBER	POLICY EFF	POLICY EXP		LUMITO			

	EXCLUSIONS AND CONDITIONS OF SUCH POLICIES, LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.							
INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	s
	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	\$
	CLAIMS-MADE OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$
							MED EXP (Any one person)	\$
							PERSONAL & ADV INJURY	\$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	\$
	POLICY PRO- LOC						PRODUCTS - COMP/OP AGG	\$
	OTHER:							\$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	\$
	ANY AUTO						BODILY INJURY (Per person)	\$
	OWNED SCHEDULED AUTOS						BODILY INJURY (Per accident)	\$
	HIRED AUTOS ONLY NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	\$
								\$
	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	\$
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	\$
	DED RETENTION \$							\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						PER OTH- STATUTE ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N/A					E.L. EACH ACCIDENT	\$
							E.L. DISEASE - EA EMPLOYEE	\$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	
Α	Professional Liab.			47EPP31390504	2/1/2024	2/1/2025	Per Claim Limit	5,000,000
Α				47EPP31390504	2/1/2024	2/1/2025	Aggregate Limit	10,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) All Coverages are in accordance with the policy terms and conditions.

Claims Made Policy - Environmental Coverage Included. Deductible is \$100.00.

CERTIFICATE HOLDER	CANCELLATION
MSA Professional Services 1230 South Blvd Baraboo, WI 53913	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
Databoo, W 00010	AUTHORIZED REPRESENTATIVE
	gared maxwell

ACORD 25 (2016/03)

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# IT'S MORE THAN A PROJECT. IT'S A COMMITMENT. FACILITY ASSESSMENT, FEASIBILITY STUDY AND LONG-TERM FACILITIES PLANNING FOR THE WASTEWATER TREATMENT FACILITY | SISTER BAY, WI | FEBRUARY 7, 2025

www.msa-ps.com