

**REQUEST FOR PROPOSAL/QUALIFICATIONS**  
**Charter Township of Alpena Department of Public Works**  
**S-2 Licensed Water/WW Operator Management Services**

**GENERAL INFORMATION**

The Charter Township of Alpena will be accepting Statements of Qualifications and proposals from qualified entities for operational assistance and oversight by a S-2 water distribution operator and wastewater collection system operator, located in Alpena Township in Alpena County. The personnel provided shall be responsible for working with the Alpena Township Department of Public Works staff for systems operation.

Qualification and Proposals are due May 1, 2019. Please mark the sealed envelopes as "Water Distribution and Wastewater Collection Systems Operator Qualifications" and in a separate envelope "Water Distribution and Wastewater Collection Systems Operator Cost Proposal."

Entities submitting shall demonstrate experience providing similar services in the State of Michigan. Entities shall meet all requirements of Federal, State and Local laws, regulations, standards, permitting requirements, orders, ordinances and any and all future amendments thereto.

To be considered for evaluation, written statements must be received in the Township Clerks office, no later than **May 1, 2019 at 2:00 pm local time**. Proposals received after this deadline will not be considered. Three copies of the Statement of Qualifications and separate Proposal shall be mailed or hand delivered to the following address:

Charter Township of Alpena  
Attn: Nathan Skibbe  
4385 US 23 North  
Alpena, MI 49707

Questions regarding this RFP/RFQ should be addressed to Nathan Skibbe at 989-356-4024 Ext. 231 or [skibben@alpenatownship.com](mailto:skibben@alpenatownship.com).

**Intent**

Alpena Township wishes to engage the services of a contract operations firm to assist in overseeing and operating the Townships water distribution and wastewater collection systems. The contract operations firm will provide experienced personnel to work with the DPW

Superintendent to oversee the utility system operations, planning and reporting requirements as well as to assist with day to day operational functions. The contract operations firm will provide one (or multiple) experienced personnel for a total of 24 hours per week of on-site time.

## **Systems Descriptions**

The Charter Township of Alpena receives its water from the City of Alpena Water Treatment Plant and its' wastewater is discharged to the City of Alpena sewer system for treatment. The Township owns and operates its' own water distribution and wastewater collection systems as further described below.

### **Water System**

The water system is a Type I municipal system which serves the residents of the Charter Township of Alpena. It consists of (3) Water Towers and (2) Booster Stations. Tower #1 (M32) holds 500,000 gallons. Tower #2 (Piper Road) holds 500,000 gallons. Tower #3 (US23) holds 300,000 gallons. Pump station #1 (M32 West of Walter Street) consists of (2) 15 hp pumps and (1) 125 hp pump. Pump station #2 (M32 at Bagley Street) consists of (2) 15 hp pumps in a below grade enclosure.

The distribution system consists of 540 hydrants, and approximately 1100 valves. As of 2018 there were 2567 service connections on record (2219 residential and 348 non-residential). Percentage of service lines being 50% Copper and 50% PVC/PE/PB.

A copy of the Township's most recent Water System Sanitary Survey is attached for additional information.

### **Wastewater System**

The wastewater collection system consist of (7) primary lift stations. (3) of these being dry well and (4) being wet wells. The Township also maintains 2 separate private systems. Private #1 (Wyndham Gardens) consists of (4) lift stations. Private #2 (Bare Pte. Association) consists of (2) lift stations.

### **Scope of Services**

Provide a Michigan licensed S-2 or greater Water System Operator and Wastewater Collection system operator to provide oversight and direction of the Township's Water and Sewer Systems in compliance with the applicable state and federal requirements.

The Firm/Entity shall provide a contract operation plan which will address the following:

1. It is intended that the Firm/Entity provide a single individual or multiple individuals for a total of 24 hours per week for overseeing and assisting with the operations of the water and sewer systems. The provided individual(s) will work with the Township's Department of Public Works personnel for system operation. Provide properly certified and licensed manager who will be responsible for insuring the systems are operated in a safe and efficient manner while maintaining compliance with regulatory agency criteria. Any operations are not in compliance, The Charter Township of Alpena DPW Director will be notified immediately.
2. Conduct all monitoring and sampling as necessary for process control and compliance reporting. Indicate the analysis parameters to be done on-site and those proposed to be done off-site. If a contract laboratory is used, identify the laboratory and the parameters the lab will analyze. Include costs for off-site lab analysis in the proposal.
3. Operate the systems in compliance with regulatory permit requirements. Report to the regulatory agencies, submit all forms, reports and notices as may be required. Meet all legal operating and safety requirements of regulatory agencies include state and/or federal permitting and safety agencies.
4. Work with the DPW Superintendent to develop or purchase a Computerized Management Maintenance System, conduct routine maintenance of facilities and associated equipment included in a preventative maintenance program.
5. Provide monthly operational reports to the Charter Township of Alpena DPW Director that summarizes non-routine activities performed by the Firm's/Entity's staff, compliance status of all regulatory requirements and a copy of any reports submitted to the State of Michigan.
6. Attend Charter Township of Alpena board meetings (only as necessary/requested by the DPW Director).
7. Work with the Township DPW Director to develop procedures for all major pieces of equipment, functions and corrective actions. Ensure efficient operation and maximum equipment life through incorporation of preventative maintenance scheduling, corrective maintenance history, and inventory control. Provide anticipated annual cost for spare parts every fiscal year.
8. The firm/entity shall provide their own vehicles and normal associated hand tools, laptops or other similar devices. The Township will provide all major tools and equipment and a Township cell phone for use on Township related business.
9. Work with the Charter Township of Alpena DPW Director to develop annual operating and capital improvement needs and costs for every fiscal year. Coordinate the procurement of spare parts, repairs, specialized contractors, chemicals and supplies with the Charter Township of Alpena DPW Director prior to purchase.

10. Assume all costs for any fines or penalties levied against The Charter Township of Alpena as a result of improper operations of the water and/or wastewater systems by the Firm/Entity.
11. Work with the Township DPW Department to maintain a clean and organized physical appearance of the facilities and grounds.

### **Qualifications of Contractor**

The Charter Township of Alpena has established a minimum criterion for experience and financial capabilities required for a contractor to be considered qualified for this work. The Charter Township of Alpena will decide if a Firm/Entity meets these requirements based on its own discretion. Contractor must, at a minimum:

1. Have been in the business of providing O&M services for water and wastewater facilities for at least (3) years.
2. Have operated comparable systems in size and complexity to the Charter Township of Alpena.
3. Have properly Michigan certified operator(s) in direct supervision of the system.

### **Charter Township of Alpena Responsibilities**

1. Chemicals and utilities: Chemicals and utilities needed for process control such as, but not limited to, chlorine, coagulants, electricity, heat and fuel.
2. Analyticals: the Charter Township of Alpena will be responsible for the cost of equipment maintenance (done by outside contractors, as approved by the Township) and normal wear and tear. The Township will be responsible for all necessary offsite analytical services for processing and compliance reporting including transportation and laboratory fees. The Firm/Entity will be required to provide bottles, collect samples and facilitate delivery to the appropriate lab.
3. Equipment: The cost of parts and materials to repair process equipment and associated buildings and structures.
4. Materials and supplies: Those items necessary for the operation and maintenance of the water and wastewater systems such as lubricants, gaskets, seals, belts, cleaners, etc.
5. Outside services: Includes, but not limited to, solid waste, sludge removal, equipment rentals, service agreements for equipment, and repairs and maintenance of specialized equipment such as generators, electronics, electrical distribution, motors, etc.

6. Communications: The Township will provide the firm/entity a cell phone for use under this contract.
7. Customer Service: The Charter Township of Alpena will be responsible for all customer billing and collection services, and point of contact with customers. Contractor shall provide assistance with technical issues, as needed.
8. Insurance: Fire and liability insurance coverage for buildings, equipment and structures.
9. Tools/Data: The Charter Township of Alpena will provide use/access to all equipment, tools, and records that are available onsite and pertinent to the operations and maintenance of the water and wastewater systems. Refer to the attached list. It is assumed that the Firm/Entity will not need to provide tools and equipment other than their own vehicle and normal hand tools.
10. Office Space: The Township will provide office space necessary for the Firm/Entity's individual to work with the DPW department.

## **Proposal Content**

Firms submitting their qualifications/proposals shall organize their submittals as follows. Any variance shall be considered non-responsive and may cause the selection committee to reject.

### **1. Background/Experience**

- a. Provide the full name, tax ID number and main office address of the Firm/Entity which would ultimately enter into a contract with the Charter Township of Alpena. Provide the name and contact information of the Contractor representative who is authorized to discuss and negotiate this proposal and final agreement.
- b. Identify when the firm was organized and, if incorporated, where incorporated and how many years engaged in providing full service contract operations under that name. Provide a comprehensive description and fully identify and explain any changes in corporate ownership and/or operating name.
- c. Provide a comprehensive reference of all facilities in the State of Michigan where the Firm/Entity currently provides service. For each facility, provide the name, address, contact person and title, and the telephone number of the owner, and the size/type of the facility. Provide the name, contact information, contract start and completion dates of comparable O&M projects that are representative of this project.
- d. Provide a list of any violations within the past five (5) years of any permit, license, regulation or statute that resulted in any notices, fines, censures, punitive awards or similar actions being levied on or taken against the Firm/Entity. Identify if the Firm/Entity has had any previous or current litigation

matters as a result of O&M activities. Include any O&M projects where the Firm/Entity has been terminated, fired or replaced. Include the name of the project owner and describe the circumstances.

- e. Identify any potential or existing conflicts of interest with the Charter Township of Alpena, its employees or representatives.
- f. Provide detailed resumes on the following personnel:
  - i. Operator in responsible charge of the water and wastewater systems
  - ii. Any/all personnel intended to provide on-site operator services

## **2. Approach to Operations and Maintenance**

- a. A description of your overall program of preventative and corrective maintenance and plan for responses to emergencies. This includes weather-related emergencies. These systems require twenty-four (24) hour, seven (7) days a week on call status. Provide a description of your response time. Address employee overtime procedures for after-hours emergency responses and how associated costs are addressed.
- b. A description of your quality assurance/quality control program for your organization and O&M facilities.
- c. Describe the health and safety program that the Firm/Entity will implement if selected and currently have in place.

## **3. Costs**

- a. Provide a detailed cost breakdown of the total fees for the work to be completed in a separate, sealed envelope. Cost proposals shall be based on providing a total of 24 hours per week of on-site operator time. Include the proposed payment scheduling in general terms over the course of the project for the next two (2) years. Provide an hourly rate basis for any work over and above the base 24 hours per week rate (only as requested by the Township).
- b. Mileage will be reimbursed for Township related on-site mileage while working within the Township. Mileage shall be tracked and billed in accordance with the current federal government allowance amount.
- c. Current billing rate sheet shall be included with this section for review and reference.
- d. Should the Firm/Entity believe that an alternate operations plan other than the 24 hours/week on-site operator time would be in the best interest of the Township, provide a description and costing of the alternate plan.

## **Sample Contract**

The Firm/Entity shall include a proposed sample contract containing, at a minimum, the Scope of Services described above and the following contract stipulations:

1. Liability for the payment of fines and/or civil penalties levied against The Charter Township of Alpena or the Firm/Entity by any regulatory agency having jurisdiction, as a result of failure to comply with the terms and conditions of duly authorized permits, court order, administrative orders, laws, regulations, statutes, ordinances, etc. for reasons resulting from the Firm's/Entity's negligence during the period of the contract.
2. Compliance with all permits and water quality requirements specifically noting effluent and/or water quality and monitoring/reporting requirements and complete and accurate historical records.
3. Provisions of indemnifications and hold harmless The Charter Township of Alpena, its agents, officers, assigns, employees, etc. from loss or liability for claims, damages, lawsuits, for reasons resulting from the Firm's/Entity's negligence during the period of the contract. Indemnification shall include indirect, consequential and pollution damages.
4. Provisions of comprehensive liability insurance policies naming The Charter Township of Alpena as additional insured for bodily injury and/or property damage in an amount of not less than Two Million Dollars (\$2,000,000) per occurrence: \$4,000,000 in the aggregate. A certificate of such insurance shall be submitted prior to signing of the contract. Furnish insurance coverage with the following minimum coverage limits:

Property Damage and Public Liability	\$2,000,000 each occurrence \$4,000,000 aggregate
Workers Compensation Coverage	Statutory
Auto Liability Coverage	\$500,000

5. Provision of a process for Repair and Maintenance such that the Firm's obligations will be explicit as to maintenance of the Authority's equipment and facilities. A specific method of decision-making concerning the use of funds for repair and replacement should be outlined.
6. Provision that the firm shall be responsible for maintaining all manufacturer's warranties on new equipment purchased by the Township and assist the Township in enforcing existing equipment warranties and guarantees.
7. Provision of the Firm/Entity will provide sufficient number of experienced, certified, qualified personnel, including management, administrative, operational and technical who meet relevant State licensing and other requirements regarding water and wastewater operations.
8. Provision that the Firm/Entity shall provide training for personnel in areas of operation, maintenance, safety, supervisory skills, energy management etc. A proper safety

program must be implemented, and all of the program adhered to. Provide all MIOSHA PPE required safety equipment.

9. Provisions that the Firm/Entity shall assist The Charter Township of Alpena with planning for annual budgets for operation and maintenance and capital expenditures.
10. Provide documentation that preventative maintenance is being performed on all equipment in accordance with manufacturer's recommendations at intervals and in sufficient detail as may be determined by the Charter Township of Alpena.
11. Provision for contract termination if the level of performance is unsatisfactory.
12. Term of agreement is to be a minimum of three (3) years with mechanisms for alternatives for annual price adjustments and reconciliation to be described by the Firm/Entity.

### **Equal Opportunity Requirements**

The selected Firm/Entity, in the performance of all services, will not discriminate on grounds of race, color, religious creed, national origin, age, sex, handicap, height, weight, military status, marital status, genetic information, sexual orientation or any other basis or factor prohibited by law in employment practices, the selection of subcontractors or the procurement of materials and rentals of equipment.



## **APPENDIX B**

### **Asset List:**

1. 2007 -Ford Van (White)
2. 2005 -F-250 Pickup (Red) \$8500.00
3. 2007-GMC 2500 (Blue)
4. 2018-New Holland Tractor Boomer 40 (Blue)
5. New Holland Snow Blower (for tractor)
6. New Holland Brush (for tractor)
7. Woods Loader (for tractor)
8. Woods Back Hoe (for tractor)
9. 2007 Journey Pace Trailer (Red) \$3000.00
10. Bri-Mar Trailer (Dump) \$5195.00
11. Barns Pump on Trailer (Green) \$2000.00
12. Genavac GT-45 Generator w/single axle trailer
13. 1980-FMC Sewer Cleaner
14. Cub Cadet Lawn Mower 2 force S2 \$2500.00
15. GIS System (Silversmith)



**Drinking Water and Municipal Assistance Division**  
Saginaw Bay District Office

# **Water System Sanitary Survey**

Alpena Township Water System, WSSN: 0170

January 9, 2018



# Sanitary Survey of Community Water Supply - Review Summary

Water Supply: Alpena Township

County: Alpena

Evaluator: Matt Sylvester

WSSN: 00170

District: 21

Date: 1/9/2018

Category	Comment	N/A	NotEv	NoD/R	Rec	Def	SigDef
<b>Source</b>	<i>Water is purchased from the City of Alpena</i>	X					
Construction & Maintenance		X					
Standby Power		X					
Isolation		X					
Source Water Protection		X					
Capacity		X					
<b>Treatment</b>		X					
Disinfection		X					
Fluoride		X					
Phosphate Addition		X					
Softening		X					
Iron/Manganese Removal		X					
Arsenic Removal		X					
Pretreatment		X					
Filtration (gravity or membranes)		X					
C*T		X					
Other		X					
<b>Distribution System</b>					X		
Interconnections w/ Other WS				X			
Hydrants & Valves				X			
Service Lines & Metering	<i>Expected Average Meter Age (12-15) years</i>				X		
General Plan				X			
Cross Connections				X			
Construction & Maintenance				X			
Capacity				X			
<b>Finished Water Storage</b>				X			
Construction & Maintenance				X			
Controls				X			
Capacity				X			
<b>Pumps (All Pumping Facilities)</b>				X			
Construction & Maintenance				X			
Controls				X			
Capacity				X			
<b>Monitoring &amp; Reporting</b>				X			
Bacteriological Monitoring				X			
Chemical Monitoring				X			
MOR or Annual Pumpage Report				X			
Consumer Confidence Report				X			
Analytical Capabilities				X			
<b>System Management &amp; Operations</b>				X			
Owner Responsibility				X			
Capacity Development		X					
Reliability Study				X			
Operations Oversight				X			
Permits				X			
<b>Operator Compliance</b>				X			
Operator Certification				X			
Technical Knowledge & Training				X			
<b>Security</b>				X			
Emergency Response Plan				X			
Site Security (Fences, Alarms...)				X			
<b>Financial</b>				X			
Rates				X			
Budget & Capital Imp. Plan				X			
<b>Other</b>		X					

N/A - Not Applicable

Rec - Recommendations Made

NotEv - Not Evaluated

Def - Deficiencies Identified

NoD/R - No Deficiencies/Recommendations Made

SigDef - Significant Deficiencies Identified

# WATER SYSTEM SANITARY SURVEY

## GENERAL

Basic Information					
WSSN:	00170	Supply:	Alpena Township	County:	Alpena
Date:	1/9/2018	Reviewed by:	Matt Sylvester	District:	21
Primary Contact:	Nathan Skibbe		Copy To:	Jerry Bleau	
SDWIS Role:	AC, FC		SDWIS Role:	SA, OP	
Title:	Township Supervisor		Title:	DPW Director	
Telephone:	989-356-4024		Telephone:	989-356-2851	
Cell Phone:			Cell Phone:	989-657-6157	
Fax:	989-356-9540		Fax:	989-356-9540	
e-mail:	skibben@alpenatownship.com		e-mail:	bleauj@alpenatownship.com	
Address:	Alpena Township		Address:	Alpena Township	
	4385 US-23 North			4385 US-23 North	
	Alpena, MI 49707			Alpena, MI 49707	
Population:	5197	Year:	2014	Basis:	Estimated - service connections

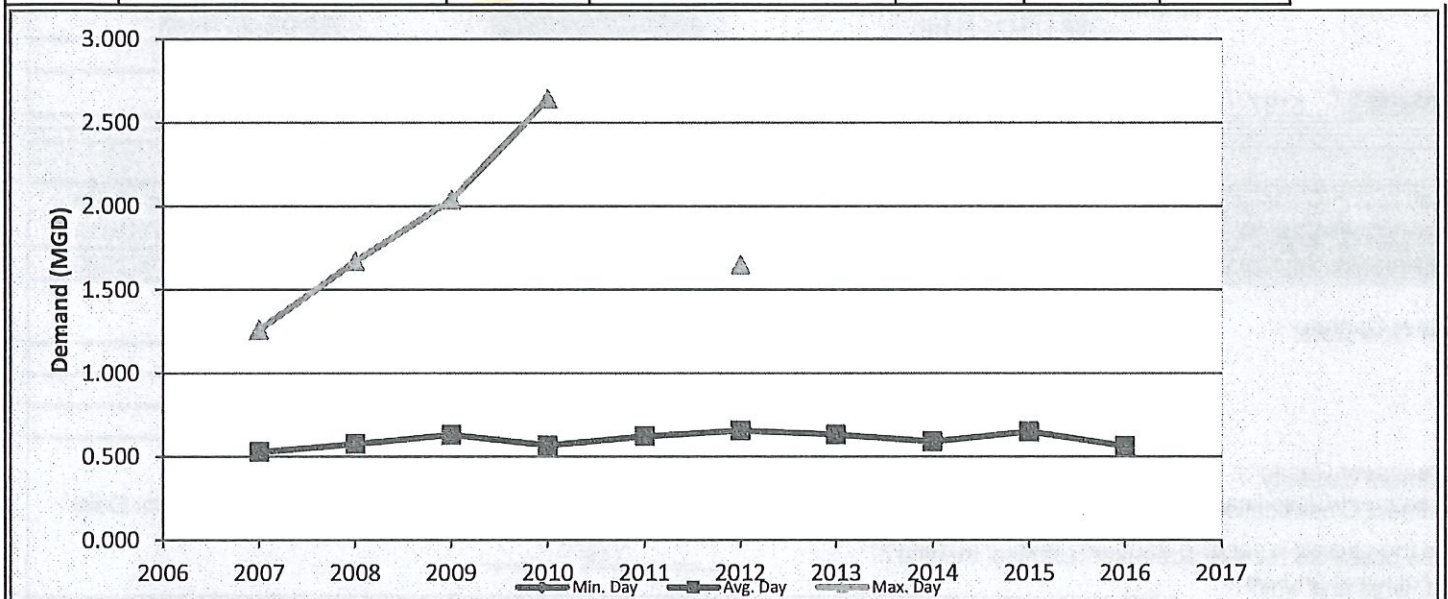
Operator Certification				
Distribution Classification	S-2	Certification	Op. #	Exp. Date
Operator in Charge:	Jerry Bleau	S-2	18410	7/15/2019
Designated Backup:	Scott Stoppa	S-4	18276	1/15/2020
Other Operators:				
Treatment Capacity:	NA			
Treatment Classification:	None	Certification	Op. #	Exp. Date
Do the operators receive adequate technical training?		Yes		
If not, what and why?				
Comments:	<p>The Township pays for certification exams, renewals, continuing education, and training, and maintains a membership in MRWA and AWWA. Phil Heath is a contract employee and is being retained while Township personnel obtain the appropriate certification level. 6/3/15 - A laborer (meter reader and general DPW maintenance work not water-related) was hired in 2015. Jerry Bleau is planning to write the S-2 in November 2015 (and again in May 2016).</p>			

Ownership	
Ownership:	Township
Consent Agreement:	NA
Escrow Account:	NA
Annual Fee:	Paid
Comments:	

## SOURCE

### Capacity

Year	Demand (MGD)					Max/Avg	Population History	G/C/D	% unacct. H <sub>2</sub> O
	Max. Day	Date	Avg. Day	Min. Day	Date				
2007	1.260		0.528			2.39			
2008	1.670		0.575			2.90			
2009	2.040		0.631			3.23			
2010	2.640		0.566			4.66			
2011			0.621				5440	114.2	
2012	1.650		0.655			2.52			
2013			0.632				5197	121.6	20%
2014			0.591						
2015			0.650						
2016			0.563						



Five Year Max. Day	1.650
Ten year Max. Day	2.640
Five Year Avg. Day	0.618
Max Day for capacity requirements:	2.640

The Township has exceeded its contractual maximum day allotment of 1.5 MGD on several occasions.

### Purchase Contract

Principal Parties of Contract:	Alpena Township, City of Alpena
Date of Contract:	1977
Expiration Date:	2012
Annual Volume Available by Contract:	NA MG
Maximum Day Available by Contract:	1.5 MGD
Maximum Hour Available by Contract:	GPH
Minimum Pressure Required by Contract:	PSI

#### Comments:

The contract obligates the City of Alpena to meet the Township's peak hour but does not define a maximum allowed peak hour value. The contract also limits the Township to a maximum day of 1.5 MGD. The contract cannot be terminated after the expiration date unless a feasible alternative supply option exists for the Township. A 40 psi delivery pressure is stated in the contract but appears to be a baseline objective rather than a contract limitation (presumably the City would be obligated to make improvements if they could not provide 40 psi delivery pressure). 1/9/18 - The contract between the City and the TWP is currently undergoing litigation, which will hopefully produce a new contract between the two entities following the court battle.



## STORAGE

Construction, Controls & Maintenance				
Location	M-32	Piper Road	US-23 South	
SDWIS Facility ID (Site Code)				
Volume (gal)	500,000	500,000	300,000	
Type	Pedestal	Pedestal	Pedestal	
Material	Steel	Steel	Steel	
O.F. Elevation	135.3' (El. 795.0')	107.0' (El. 729.1')	138.0' (El. 729.4')	
Date Constructed	1978	1977	2006	
Date Inspected	2017	2017	2017	
Date Painted Inside	2008	2008	New 2006	
Paint System	Tnemec Series 140	Tnemec Series 140		
NSF Std 61 Compliant?	Yes	Yes	Yes	
Date Painted Outside	2008	2008	New 2006	
Cathodic Protection	Yes	Yes	No	
Tank Isolation Valve	Yes	Yes	Yes	
Tank Drain (Hydrant)	Yes	Yes	Yes	
Altitude Valve	No	Yes - 2006	No	
Mud Valve	Yes	Yes	Yes	
High Alarm	Yes	Yes	Yes	
Low Alarm	Yes	Yes	Yes	
Alarms Received By	WTP	WTP	WTP	
Total Head Range (Feet)	Max. 17'	Max. 17'	Max. 17'	
Normal High Water Level	37'(S)/25'(W)	37'(S)/28'(W)	32.5'(S)/23.5'(W)	
Normal Low Water level	20'	20'	15.5	
Normal/Average Pressure				
Data Recording System	Charts	Charts	Charts	
Control Signal Type	Radio	Radio	Radio	
Auxiliary Power for Controls?	UPS	UPS	UPS	
Control System Adequate?	Yes	Yes	Yes	
Vents Screened	Yes	Yes	Yes	
Overflow Screened	Yes	Yes	No - duckbill valve	
Access Hatches Locked	No	No	Yes	
Expansion Collar Lubricated				
Mixing System	None	None	None	
Overflow Splash Pad	Yes	Yes	Yes	
Adequate Security?	Yes	Yes		
Operator Visit Frequency				
Comments:	<p>Tank levels fluctuate approximately 17 feet in the summer. The M-32 tank fluctuates 5 feet in the winter and the Piper Road and US-23 tanks fluctuate approximately 8 feet in the winter. This has not caused freezing problems according to the Township. 5/17/16 - New Telemetry is being installed. Communication issues with the Alpena WTP are being resolved. 1/9/18 - SCADA system is installed.</p>			

Capacity				
Usable Storage (gal)	500,000	500,000	300,000	
Total Usable Storage (gal)	1,300,000			
Total Usable Storage/Max Day	49%			
Total Usable Storage/Avg. Day	210%			
Comments:				

## DISTRIBUTION

Pump Stations			
Location:	M-32, 4400' west of Walter Street		
Function:	Provide flow and pressure to the Alpena Combat Readiness Training Center (ACRTC)		
Adequate Security?	Yes		
Pump Number	1	2	3
Year Installed	1996	1996	1996
Type	Horiz. Split Case	Horiz. Split Case	Horiz. Split Case
Permit Capacity	400	400	1700
Permit TDH	112'	112'	220'
Current Capacity	500	500	1800
Current TDH	66'	66'	@ 30 psi
Basis			C2AE - 2013 test
HP	15	15	125
Last Complete Inspection			
Last Efficiency Test			
NPSHR (ft)			15
CL of Pump Intake Elevation			
Floor Elevation			
Pump Eff. at Design Duty Pt.			80%
Low Pressure Cutoff on Suction?	25 psi	25 psi	25 psi
Cavitation Problems (Y/N)	No	No	No
VFDs (Y/N)	Yes	Yes	Yes
Control Signal Type	Radio	Radio	Radio
Controls Adequate?	Yes	Yes	Yes
Operator Visit Frequency	Daily	Daily	Daily
Comments:	<p>A fire suppression study was performed in May 2014. The study report is not yet available. The ACRTC has hydropneumatic storage on site. Chlorine residual is monitored every other day at the booster station. 1/9/18 - #1 and #2 pumps were built in 2017 and #3 was rebuilt in 2011.</p>		
AUXILIARY POWER			
Power Type	Generator	Power Rating (KW)	
Fuel Type	Natural Gas	Starting Frequency	Weekly
Capacity (gpm)	1800	Load Testing Frequency	Twice/Year
Total Pump Capacity (gpm)	2600	3.744	mgd
Firm Pump Capacity (gpm)	800	1.2	mgd
Auxiliary Power Capacity (gpm)	1800	2.592	mgd
Max Day Demand @ this location		290	gpm (per engineering study)
Peak Hour @ this location		1000	gpm (desired fire flow)
Avg Day Demand @ this location		20	gpm (estimated based on pump station)
Firm Pump Capacity/Max Day		276%	(must be at least 100%)
Peak Hour/Firm Pumping Capacity		NA	
Aux. Power Capacity/Peak Hour		180%	
Comments:			



## DISTRIBUTION

Pump Stations			
Location:	M-32 at Bagley Street		
Function:	Fill M-32 Elevated Tank		
Pump Number	1	2	
Year Installed	1979	1979	
Type	Paco Space-Miser Vertical in-line centrifugal pump		
Permit Capacity	600	600	
Permit TDH			
Current Capacity	560 gpm	810 gpm	
Current TDH			
Basis			
HP	15	15	
Last Complete Inspection	9/29/2015	9/29/2015	
Last Efficiency Test	Electrical efficiency (current draw) in 2014		
NPSHR (ft)			
CL of Pump Intake Elevation	Pumps are below grade		
Floor Elevation			
Pump Eff. at Design Duty Pt.			
Low Pressure Cutoff on Suction?			
Cavitation Problems (Y/N)	No	No	
VFDs (Y/N)	No	No	
Control Signal Type	Radio	Radio	
Controls Adequate?	Yes	Yes	
Operator Visit Frequency			
Comments:	<p>This station is located below grade. In the event of flooding or other long-term problem, reduced (but adequate) flows and pressures can be maintained without the station. Pump capacity will be confirmed in 2014 by UIS during scheduled master meter calibration. 6/3/15 - Testing was not done. 1/9/18 - C2AE had completed a flow test to verify the capacity of the Bagley St. booster pump.</p>		
AUXILIARY POWER			
Power Type	Wired for generator	Power Rating (KW)	See comment
Fuel Type		Starting Frequency	Monthly
Capacity (gpm)		Load Testing Frequency	Twice/Year
Total Pump Capacity (gpm)	600	(either pump)	
Firm Pump Capacity (gpm)	600		mgd
Auxiliary Power Capacity (gpm)	600		mgd
Avg Day Demand in Peak Month @ this location	182		gpm (2012 data)
Max Day Demand @ this location	238		gpm (estimated as 2X average day)
Avg Day Demand @ this location	119		gpm
Firm Pump Capacity/Max Day	252%		(must be at least 100%)
Peak Hour/Firm Pumping Capacity	NA		
Aux. Power Capacity/Avg Day	504%		
Comments:	<p>A 36 KW, diesel, portable generator is maintained at the DPW Garage, and can be moved to the booster station site if needed during a prolonged power outage.</p>		

## DISTRIBUTION

### Interconnections with Other Supplies

Is water purchased from other supplies?

Yes

If yes, list WSSN number (s):

160 (City of Alpena)

Location	Main Size	Capacity	Metered?	Purpose	WSSN of Connection
US-23 South at Grant Avenue	16"		Yes	Routine service	160
M-32 at Bagley Street	16"		Yes	Routine service	160
US-23 North at D&M Railroad	12"		Yes	Routine service	160
Bagley Street at Long Rapids Road	12"			Emergency	160
Bagley Street at 3rd Avenue	12"/10"			Emergency	160
Ripley Boulevard at Grant Avenue	8"/4"			Emergency	160

Are valves exercised annually? \_\_\_\_\_

Flushed? \_\_\_\_\_

Comments:

There are two pressure reducing valves between the west and south pressure districts (located at Hobbs Drive/Shelly Drive and Hobbs Drive/Lakeview Drive). If pressure in the south district drops to 27 psi, the valves would open to supplement the south district.

### Distribution Piping

Mains by Material	
PVC	15.0%
Asbestos-Cement	29.0%
Ductile Iron	50.0%
HDPE	6.0%

Mains by Size	
4"	2.0%
6"	23.0%
8"	33.0%
10"	1.0%
12"	26.0%
14"	3.0%
16"	12.0%

Mains by Date of Installation	
1961 to 1969	
1970 to 1979	58.2%
1980 to 1989	18.1%
1990 to 1999	9.8%
2000 to 2009	14.0%
2010 to Present	

Estimated percent of piping with coal tar lining 0 %

Comments:

An inventory of water main by age, size, and pipe material is needed. 1/9/18 - Data taken from 2016 Reliability Study.

## DISTRIBUTION

Operational Concerns & Maintenance	
Are there areas where water main breaks are frequent?	No
If yes, identify locations:	
Comments:	
Are there areas where aesthetic water quality complaints are frequent?	No
If yes, identify locations:	
Comments:	
Do you receive complaints alleging illness due to the water?	No
If yes, identify locations:	
Comments:	
Are there areas where customers complain of low pressure?	No
If yes, identify locations:	
Comments:	1/9/18 - Some infrequent low pressure complaints isolated to one neighborhood, due to the South Tower pressure delta.
What is the procedure to respond to and track these complaints?	
Comments:	

Distribution System Capacity	
Are there areas where peak flows (including fire flow) cannot be maintained?	No
If yes, identify locations:	
Comments:	
Flows, pressures, and looping are adequate. 6/3/15 - A fire suppression study was recently completed for ACRC. The Township will get us a copy.	
Last ISO report date?	August 2013
Rating	5/8B
Proposed distribution system improvements:	
<u>Location:</u>	<u>Estimated Completion Date</u>
Comments:	
A reliability study and general plan are being completed by C2AE and will include a hydraulic analysis of the distribution system now that the US-23 South system and elevated tank have been installed. 6/3/15 - Discussed a possible WM crossing US23 @ Hamilton to serve a commercial building - issue of WM vs customer site piping - we recommend at least the crossing be public. 5/17/16 - Looping Partridge Point and replacing 4" @ Golf Course rd. will be included in the CIP.	



## DISTRIBUTION

Hydrants	
Number of Hydrants	540
Number Without Auxiliary Shut-Off Valves	0
Number that are Self-Draining	
Number of Inoperable Hydrants	4
Frequency of Hydrant inspection:	Annual
Inspection Staff:	DPW/Fire
Are there areas where additional hydrants are needed?	No
If yes, list locations:	
Hydrant location system	Map
Are hydrants color coded for capacity?	No
Has this information been provided to the fire department?	
Frequency and seasons of hydrant flushing	Hydrants are, now(1/9/18), flushed in the Spring, and problem areas are
Purpose of flushing	flushed again in the Fall, to allow for adequate time to finish the task.
Is the public notified prior to flushing?	Yes
Does flushing follow a specific format?	
Is the volume of water used during flushing estimated?	
Do hydrants receive maintenance painting?	Yes
Is a record maintained of hydrant activities?	Yes
Hydrant records should include: Hydrant number, location of the hydrant, type of hydrant, size of barrel, size of bottom valve, size of lead, direction of turn, operable or inoperable, auxiliary valve type and size, weep holes plugged or unplugged, condition of hydrant (caps, chains, valve operation, operating nut, leakage, etc.), color coded capacity, flow data (gpm, psi) flushing dates, inspection dates.	
Comments:	
There are a number of older hydrants that do not have repair parts readily available. These hydrants are replaced if they become inoperable and can't be repaired. A list of hydrants in need of repair is maintained and is available to the Township Supervisor. Hydrant records are also being computerized. The DPW and Fire Department work together on flushing hydrants. The Fire Department notifies the DPW if they use a hydrant to ensure proper follow-up. 1/9/18 - Silversmith recently tracked and numbered hydrants for TWP. All hydrants are plugged, and two drain.	

Valves	
Number of Valves	~1100
Number of inoperable valves	2
Are there areas where additional valves are needed?	No
If yes, list locations:	
Valve location system	Maps
Accurate?	Yes
Valve Turning Frequencies	Primary: 1 1/2 Years
	Others: 1 1/2 Years
Records Maintained?	Yes
Valve records should include: valve number, location of valve (with witness points), type of valve, size of valve, normal operating status (open or closed), condition of valve (operable or inoperable), direction of turn, number of turns, and dates of operation.	
Comments:	
Records of valve operation are being kept on paper, and will be computerized in the future. The Township is generally meeting the 5-year routine valve operation schedule. 5/17/16 - May purchase Silversmith valve maintenance software. 1/9/18 - Continuous rotation with all valves over 1 1/2 years. They recently purchased devices to create maintenance software to track their valves.	

## DISTRIBUTION

### Customer Service Information

Number of service connections ~2567 (2219 residential, 348 non-residential)  
 Number of metered service connections ~2567

#### Comment:

The population served is estimated based on 2.25 persons/household (2010 census) for single-family residential customers and 2.0 persons per mobile home site ( $2219 \times 2.25 + 102 \times 2 = 5197$ ).

Percentage of service line materials:	Ownership of Service (CWS/Customer)
Copper 50%	From Corp Stop to Curb Stop Township
PVC/PE/PB 50%	From Curb Stop to Property Line Township
Galvanized	From Property Line to Meter Customer
Lead	Meter Township

### CUSTOMER METERS

Types of meters Used	Badger/Sensus	(2009-Current) iPearls
Number of Meters with Remote Reading Devices		Touch or manual read
Residential Meter Sizes		
Industrial/Commercial Meter Sizes		
Meter Testing/Maintenance Program		
Average Age of Meter in System	Majority from 1970's	
Criteria for Changeout	Oldest and stopped	
Number or Percent Changeout per Year		
Master Meter Locations		
Calibration of Master Meters		
Meter Reading Staff/Contract:		

Percent of Usage by Customer Type	Large Users - % of Use
% Residential	ACRTC
% Commercial	Alpena Mobile Home Court (66 sites)
% Industrial	Huron Lake Estates (36 sites)
% Other	

#### Comments:

Large meters were changed out over the last 5 years. A customer meter changeout program will be included in the upcoming Capital Improvement Plan (CIP). 1/9/18 - (~50-60)% of meters need to be updated due to old age.

### System Growth

Year	# of Construction Permits Issued	Permitted Amount of WM Feet
2007	0	
2008	3	760 N
2009	3	1490 N, 455 R
2010	0	
2011	0	
2012	0	
2013	0	
2014	0	
2015	0	
2016	0	

#### Comments:

N = New, R = Replacement.



## **DISTRIBUTION**

<b>Water Rates</b>	
What is your current rate schedule?	\$11.94/1000gal
Are current rates adequate to support O&M and CIPS?	
When was last time rates were adjusted?	2018
Has a water rate study been performed? When?	
Is there a meter charge or ready to serve charge?	
Is a copy of the water rate schedule and ordinance available?	Yes
Comments: The Township is disputing part of the recent rate increase from the City of Alpena. The City is charging \$9.03/1000 gallons. The Township is paying \$6.93/1000 gallons and placing the difference (\$2.10/1000 gallons) into an escrow account pending resolution of legal action. There is also a \$5.00/quarter service fee. The minimum quarterly bill includes a 7000-gallon allotment. 6/3/15 - The City bills the Township \$4.95/1000gal. The Township bills its customers \$11.74/1000gal, of which \$4.20 is placed in escrow.	

<b>Repair Parts Inventory</b>	
Extra Mains (Sections for Each Size in Service)	4", 6", 8"
Repair Clamps (2 or more for each size)	Yes
Tees, Crosses & Elbows	
Hydrants	1
Valves	6", 8"
Services (Corp & Curb Stops, Clamps and Lines)	Yes
Other	
Comments: Excavation is contracted out, and Township personnel do the trench work.	

<b>Safety Programs</b>	
Confined Space Entry Program	With Fire Dept.
Trench Safety Program	Yes
Comments: The Township conducts routine safety meetings.	

## PROGRAM COMPLIANCE

### Cross Connection Program

Ordinance No.	Not numbered	Date:	3/3/1980
Approved Program (Y/N)?	Yes	Date:	7/28/1978
Staff Assigned to Program, (No., Dept and/or who)	Phil Heath		
Is an Annual Cross Connection report required (Y/N)?	Yes		
Was the previous year's annual report received (Y/N)?	Yes	Date:	1/19/2017
Was the previous year's annual report acceptable (Y/N)?	Yes		
Inspection Status:	Active - all annual		
Assembly Testing Frequency	1 to 3 years	High Hazard:	Annual
Assembly Testing Performance	Satisfactory	Low Hazard:	1/3 years
Recordkeeping:	Good		
Private Well Isolation/Abandonment Procedure:			
Comments:			
The Cross Connection Program is in need of revision/updating. The Township is considering working with a consultant to update its ordinance and program. 6/3/15 - Will work w/ Mike Smith to upgrade the program. 5/17/16 - Waiting for our rule change letter then will rewrite program.			

### Annual Pumpage Report

Is an Annual Pumpage Report required (Y/N)?	Yes		
Was the previous year's annual report received (Y/N)?	Yes	Date:	1/23/2017
Comments:			

### Monthly Operation Reports

Are Monthly Operation Reports required (Y/N)?	No		
Were all previous year's reports received (Y/N)?		Timely?	
Are previous year's reports acceptable (Y/N)?			
If no, describe problems:			
Comments:			

### Consumer Confidence Report

Is an annual CCR required? (Y/N)	Yes		
Was the previous year's report received? (Y/N)	Yes	Date:	4/3/2017
Was the previous year's acceptable? (Y/N)	Yes		
Was the previous year's certification form received? (Y/N)	Yes	Date:	4/3/2017
Comments:			
The Township is used the on-line option in 2014.			

### Emergency Response Plan

Date of ERP	1/9/2018	Acceptable?	Up-to-date
Filed where?			
Comments:			
DEQ and Township contact information, and possibly the general plan, need to be updated. 1/9/18 - Spoke with Jerry Bleau, who mentioned they have updated their ERP.			

## PROGRAM COMPLIANCE

### General Plan

Date of Most Recent Plan:	6/2/2016	
Filed Where?	Copy in Bay City Office	Acceptable?
	General Layout	Yes
	Facility locations & capacities	Yes
	Water Main Inventory	Yes
	Identification of Service Areas	Yes
	Hydraulic Analysis	Yes
	Capital Improvement Plan	Yes

**Comments:**

An updated general plan and reliability study are currently underway by C2AE consultants. A partial hydraulic analysis was completed in 2005 as a basis for the US-23 South water main and elevated storage tank project. 6/3/15 - Discussed AMP requirement. 5/17/16 - An updated GP was rec'd 4/25/16, but it did not include a 20 year CIP, a WM inventory, nor a node map for a hydraulic model. The Twp's consultant indicated the missing info would be provided by 5/27/16. 6/2/16 - The updated GP/RS is satisfactory, but does not address AMP due 1/1/18. 1/9/18 - AMP was submitted on time and is being reviewed.

### Reliability Study

Date of Most Recent Study:	6/2/2016	
Filed Where?	Copy in Bay City Office	Acceptable?
Contents:	5 & 20 Year Demand Projections	Yes
	Source Production Totals (Monthly)	Yes
	Customer Supply Usage (Annual)	N/A
	Res/Comm/Ind Usage (Annual)	Yes
	Water Shortage Response Plan	No
	Recommended Improvements	Yes

**Comments:**

An updated general plan and reliability study: Final Study (Received 6/2/16).

### Permits

Applies for and obtains permits prior to construction (Y/N):	Yes	
Reviews plans prior to submittal to DEQ (Y/N):	Yes	
Standard specifications on file at CWS (Y/N):	Yes - Jan 2011	
If applicable, adheres to contract with supplier regarding plan submittal (Y/N):		Date: _____
Follows master plan for any construction (Y/N):		
Develops as-built plans (Y/N):	Yes	
Updates general plans (Y/N):	Yes	

**Comments:**

6/3/15 - Discussed revisions to C651 (Disinfection). 5/17/16 - Working on an updated spec..

### Capacity Development

A capacity assessment is not required at this time.



## **MONITORING**

### **Bacteriological**

Date of Approved Site Sampling Plan :	3/9/2016	Basis:	Population
Number of samples required each month:	6		
Certified Lab Used:	City of Alpena		
MCL, Monitoring or Reporting Violation(s) in past 3 years? (Y/N)	No	Date:	
Number & Type of Violations			
Public Notice Issued according to regulations? (Y/N)	NA	Date:	
Comments: 6/3/15 - Discussed RTCR.			

### **Chemical**

Date of Monitoring Schedule:	1/25/2017
MCL, Monitoring or Reporting Violation(s)? (Y/N)	No
Public Notice Issued according to regulations? (Y/N)	NA
Defects for inorganics > 50% of MCL? (Y/N)	
Defects for VOCs? (Y/N)	
Defects for SOCs? (Y/N)	
DBP Sampling Done According to Approved Plan? (Y/N/Waived)	
Date of Approved Disinfection Byproduct Monitoring Plan:	
Comments: Stage 2 monitoring and water quality are satisfactory.	

### **Lead and Copper Monitoring**

No. of Samples Required:	20
Frequency (Semi Annual/Annual/Triennial)	Triennial
Exceedance of lead or copper action level (Y/N)	No
If yes, was public education issued? (Y/N)	
Date:	
Next Monitoring Period:	6/1-9/30/2020
Corrosion Control Program Status, if applicable	NA
Lead service line replacement status, if applicable	NA
Comments: 5/17/16 - Discussed tier 1 criteria and documenting their actions.	

### **Radiological Monitoring**

Date of Monitoring Schedule	1/25/2017	
Alpha, beta, radium, uranium		Date:
Radon		Date:
Tritium		Date:
Detected for Rads > 50% of MCL? (Y/N)	No	
If yes, list		Date:
Monitoring Comments: Entry point chemical and radiological monitoring is conducted by the City of Alpena. The City conducts bacteriological analysis of Township samples. The City's monitoring has been satisfactory with respect to both frequency and water quality.		





RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
SAGINAW BAY DISTRICT OFFICE



C. HEIDI GRETHER  
DIRECTOR

February 6, 2018

Mr. Nathan Skibbe  
Township Supervisor  
Alpena Township  
4385 US-23 North  
Alpena, Michigan 49707

WSSN: 00170

Dear Mr. Skibbe:

SUBJECT: Alpena Township, Alpena County  
Water System Sanitary Survey

This letter summarizes a January 9, 2018, meeting with Mr. Jerry Bleau and Mr. Scott Stoppa to discuss the Alpena Township (Township) water system. The purpose of this meeting was to evaluate the water system with respect to the requirements of the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). In addition, the enclosed Water System Sanitary Survey form was updated to gather information on the Township water supply system.

The following table summarizes our findings from our survey of the water system:

Survey Element	Findings
Source	Not applicable
Treatment	Not applicable
Distribution System	<b>Recommendation made</b>
Finished Water Storage	No deficiencies/recommendations
Pumps	No deficiencies/recommendations
Monitoring & Reporting	No deficiencies/recommendations
Management & Operations	No deficiencies/recommendations
Operator Compliance	No deficiencies/recommendations
Security	No deficiencies/recommendations
Financial	No deficiencies/recommendations
Other	----

The following recommendation was made for operation of the water system:

1. The customer water meters in the distribution system are quite old, most were installed in the 1970's. The expected life of a water meter is 12-15 years; therefore, the Township should seriously consider replacing the aged meters.

If you have any questions or wish to discuss the sanitary survey, please contact me at 989-395-8567, or by email at [sylvesterm1@michigan.gov](mailto:sylvesterm1@michigan.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Sylvester", written in a cursive style.

Matthew Sylvester  
District Engineer  
Saginaw Bay District Office  
Drinking Water and Municipal Assistance Division

ms/ajl

Enclosure

cc: District Health Department #4, Alpena County

cc/enc: ✓ Mr. Jerry Bleau, Alpena Township