

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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RECEIVED

MAY 31 2017

May 17, 2017

Lynn Niggemann
Colfax Waterworks
PO BOX 417
Dunn, WI 54757

Village of Colfax

FILE REF:
PWS ID#: 61702619
Colfax Waterworks-MC
Colfax, WI
Dunn County

Subject: Sanitary Survey Report and Notice of Noncompliance

Dear Lynn Niggemann, Colfax Waterworks,

The purpose of a sanitary survey is to evaluate the system's source, facilities, equipment, operation, maintenance, and management as they relate to providing safe drinking water. The sanitary survey is also an opportunity to update the Department's records, provide technical assistance, and identify potential risks that may adversely affect drinking water quality. This report includes an overview of the system, key findings as related to specific requirements, and a brief summary that includes response criteria for correcting deficiencies. **This Sanitary Survey Report also serves as a notice of noncompliance for any deficiencies noted below.** Failure to correct deficiencies will result in a notice of violation/enforcement conference.

On May 5, 2017, Corey Larson (WDNR) conducted a sanitary survey of your water system, Colfax Waterworks. During the survey, Randy Bates assisted from the utility. This report outlines the final findings, discusses problems that need to be addressed, and timelines for corrective action where appropriate. To meet federal requirements, the Department completes surveys on a 3-year schedule.

Required Action

Please respond by **07/01/2017** with notification that all deficiencies have been corrected, or that you agree to correct the deficiencies identified in this letter by the due dates listed, or are providing reasonable alternative dates. The recommendations should also be discussed and implemented as time and funding allow.

SIGNIFICANT DEFICIENCIES

During the course of the sanitary survey, 0 significant deficiencies were identified. Significant deficiencies indicate noncompliance with one or more Wisconsin Administrative Codes and/or represent an immediate health risk to consumers.

DEFICIENCIES

During the course of the sanitary survey, 21 deficiencies were identified. Deficiencies are problems in the drinking water system that have the potential to cause serious health risks or represent long-term health risks to consumers. These deficiencies may indicate noncompliance with one or more Wisconsin Administrative Codes. Corrective action should be completed for these deficiencies as soon as possible.

Discussion and Schedule for Correction of Deficiencies:



- The Deficiency is listed in bold below; with the comments/description of how the deficiency may be corrected in regular text below. The compliance due date along with the code citation is also listed.

DESCRIPTION	DUE DATE	Code Citation
1. Distribution system PH on EMOR needs to be reported twice weekly minimum. This is only being reported once a week. The utility contracts with CTL to have it done, it needs to be done twice a week.	07/01/2017	811.38
2. The operators need to fill out monitoring site ID as listed in the monitoring site plan provided by the department when filling out lab slips. If the operator does not do this these samples may not get assigned to the correct site, resulting in an unwarranted monitoring reporting violation.	07/01/2017	810.07
3. The department requires a current updated map of the public water supply system and its distribution network. An updated map was available onsite, although the DNR requires a copy. Please send 2 hard copies in the mail or send one electronically. The code states: Each municipal and OTM subdivision water supplier shall supply a current map of the public water system which shows the size and location of all facilities and appurtenances, such as water mains, valves, hydrants, wells or sources, pumping stations, treatment plants, and storage facilities. Overflow elevations of the water system storage units shall be shown. Any pressure zones shall be delineated. Two current copies of this map shall be kept on file with the department at all times. One copy shall be provided to the department's central office and one copy shall be provided to the appropriate department regional office.	07/01/2017	810.26 (2)

4. Well 2 caustic tubing and injection tap/check valve needs investigation. This tubing is stained orange. This appears to be iron sediment coming from the well (indicate backflow), or some type of chemical reaction going on in the tubing causing the staining. This is not common and is a red flag compared to what is seen elsewhere at other utilities. This is an indication that there may be a failure of the injection tap/check valve. The utility should investigate the cause of the staining and replace the electronic pulse tubing and check the check valve/injection tap for issues. Following investigation the utility should notify the department of the cause and solution.	07/01/2017	811.24
5. Well 1 Requires a Smooth bore sample tap at entry point and raw. This would apply to Well 2 if it was the case here; however it was not noted at the time of the inspection. All sampling faucets shall be installed to terminate a minimum of 12 inches above the floor, have a down-turned smooth end spout, be constructed of metal, have a minimum spout diameter of 0.25 inches, be installed directly on the piping conveying the water whenever possible, and be located in an area accessible for sampling.	09/01/2017	811.37 (4)
6. Tower 1- The pump sump discharge requires screening to protect the tower pit area from being vulnerable. A 4" mesh screen or grate on sump pump Discharge would be appropriate.	09/01/2017	810.24, 811.24 811.25
7. Well 2-Air Relief and Well Vent, 24" corrosion resistant mesh screen was not used; a nylon or neoprene/window screen was used. DNR will send information on mesh screen supplier. The Air Relief valves need a 24" mesh corrosion resistant screen to be installed, and the vent needs to terminate 24" above the floor. The Air Vacuum relieve valve did not have an appropriate screen.	09/01/2017	811.36 (5)(a)
8. Private Well abandonment program, need copies of permits from clerk for 2016-2017, operator had copies of permits from 2004 but this doesn't show that the utility is keeping up with the program. Clerk can email these over copies of these 5 permits to the department. Wisconsin Administrative Code NR 810.16 requires that the water system have a private well program. The Village is in the process of having the private well permits renewed. There are 8 known private wells in the Village, 3 of those properties do not have Village water easily available to them and are not connected to the water system. The other 5 wells will need to have their permits renewed, or be properly abandoned by the end of the year.	09/01/2017	810.16

<p>9. Well 3- A meter is required on prelude line, auxiliary power is also present so additional valving for manual prelube is required as well. Line shaft vertical turbine pumps require pre-lube metering. If static water level is deeper than 50 ft, pre-lube metering is required when installed, and solenoid valve control will be required if chemical addition is practiced. (Current Static is >50 ft). For water lubricated pumps with static water levels deeper than 50 feet, provision shall be made for prelubricating the column bearings prior to pump startup. All prelubrication water lines shall be equipped with metering or controls to monitor and limit the volume of prelubrication water. At systems where chemical addition is practiced, solenoid valve control of the prelubrication water line shall be provided. If auxiliary power is provided, additional valving of the prelubrication water line shall be provided.</p> <p>When pump backspin is allowed to occur after the motor shuts off, the design engineer for the water system shall determine the necessity for lubrication during this period and provide for lubrication if necessary.</p>	12/31/2017	811.31
<p>10. Well 1, Well 2, Well 3 are not provided with adequate secondary containment. The operator tried to install secondary containment although the secondary containment storage bin/bucket is not large enough to hold 100 gallons. This needs to be a large enough basin or containment structure that holds the largest chemical addition tank volume. For these wells it would be 100 gallons to date.</p> <p>Wisconsin Administrative Code NR811.39 (3) requires that all new chemical barrels be either double walled or placed in a containment tank. This requirement was new in 2010, and existing barrels were grandfathered. However, the caustic barrels in the Colfax wellhouses were replaced last year, and are now expected to meet the current requirement. Containment tanks for your new chemical barrels will need to be acquired by the end of the year.</p>	12/31/2017	811.39 (3)

11. The utility will need updated emergency plan as it is 95% complete need to update contacts, include actual auxiliary power descriptions (copy from their well house procedures) and public notification methods. DNR will send copy of their plan on file and an example so they can merge documents and make edits.	12/31/2017	810.26 (1) 5. & NR 810.23 (2)
<p>EMERGENCY OPERATIONS. Water suppliers for each community water system shall develop a plan to prepare for, respond to, mitigate and recover from all types of emergency situations, including terrorism, sabotage, natural disasters such as floods and tornadoes, loss of system-wide pressure, and overfeed of chemicals.</p> <ul style="list-style-type: none"> • Municipal water systems shall have an emergency operation plan including, at a minimum: <ul style="list-style-type: none"> • A list of local and state emergency contacts. • A system for establishing emergency communications. • Any mutual aid agreements the water utility has with other communities for sharing personnel, equipment and other resources during an emergency. • Standard procedures for emergency water production. • A means for sharing information with customers. • The plan should also include a copy of the facility's emergency chlorination plan/procedures as well. 		
12. Emergency Chlorination plan needs to be updated and is 95% complete; the plan does not adequately describe tower disinfection. Basically tower chlorine calculations amount is not clear, the utility should compare this to the DNR example provided as part of the Emergency response plan and edit as needed to clarify.	12/31/2017	810.26 (1) 5. & NR 810.23 (2)
13. Utility is installing a water loading station prior to end of 2017. The backflow preventer the utility purchased for this is for an above the tanker loading station. Thus the backflow preventer must be placed in the air above the highest fill point or above the highest height of a tanker (20 ft or so) to ensure no backflow occurs. It is recommended the operator confirm design with DNR prior to installation.	12/31/2017	810.15
14. Wisconsin Administrative Code NR 810.15 requires the water system to have a cross connection program. The Colfax water system has such a program, and has hired Hydro Corp. to perform the cross connection inspections. Based on the summary spreadsheet, they are up to date. The only problem was that the Village did not have copies of the inspection reports themselves. These will need to be obtained from Hydro Corp. as they perform the cross connection inspections.	12/31/2017	810.15
15. The department does not have record of the 2014 cross connection annual summary report. The utility could not locate this onsite, the utility need to locate this report and supply this to department to receive credit for any inspections performed in 2014. DNR has no record of submittal.	12/31/2017	810.15

<p>16. All Chemical feed Pump need anti siphon devices present. Well 1, Well 3 do not have an anti-siphon device present on the chemical feed pumps. This applies to Well 2 if applicable, but was not noted at time of inspection.</p> <p>This was not reviewed for each chemical pump onsite. Please install these on the pumps that do not have them, and then also provide photos to the department of all pumps upon completion of this. <i>Anti-siphon devices</i>. Chemical feed pumps shall be provided with anti-siphon devices meeting the following requirements: 1. All electronic positive displacement diaphragm metering pumps shall be provided with a spring-opposed diaphragm type anti-siphon device or a spring opposed diaphragm type anti-siphon and back pressure valve device installed in the discharge piping of the chemical feed pump. The anti-siphon and back pressure functions may be part of a common device or separate devices. Any back pressure valve shall be set to open at a pressure greater than the maximum pressure in the piping or facilities into which the chemical feed pump will discharge. When a back pressure valve is installed on the discharge piping of a chemical feed pump, it shall be preceded by a pressure relief valve and a pressure gauge or other department approved means to verify that the back pressure valve is operating satisfactorily. 2. Digitally controlled diaphragm metering pumps shall be provided with a spring opposed diaphragm type anti-siphon and back pressure valve device installed in the discharge piping of the chemical feed pump in accordance with the requirements of subd. 1. 3. Peristaltic chemical feed pumps shall be provided with a back pressure valve device installed in the discharge piping of the chemical feed pump in accordance with the requirements.</p> <div data-bbox="824 1304 997 1472">  <p>77388</p> </div> <div data-bbox="824 1087 997 1188">  <p>77388</p> </div> <p>LMI 4 function valve for pumps → ←Pulsafeeder 5 function valve.</p>	<p>12/31/2017</p> <p>811.39 (e)</p>
<p>17. Well 3- A meter is required on prelude line, auxiliary power is also present so additional valving for manual prelube is required as well. Line shaft vertical turbine pumps require pre-lube metering. If static water level is deeper than 50 ft, pre-lube metering is required when installed, and solenoid valve control will be required if chemical addition is practiced. (Current Static is >50 ft). For water lubricated pumps with static water levels deeper than 50 feet, provision shall be made for prelubricating the column bearings prior to pump startup. All prelubrication water lines shall be equipped with metering or controls to monitor and limit the volume of prelubrication water. At systems where chemical addition is practiced, solenoid valve control of the prelubrication water line shall be provided. If auxiliary power is provided, additional valving of the prelubrication water line shall be provided.</p> <p>When pump backspin is allowed to occur after the motor shuts off, the design engineer for the water system shall determine the necessity for lubrication during this period and provide for lubrication if necessary.</p>	<p>12/31/2017</p> <p>811.31</p>

<p>18. Colfax needs to update their hydrant exercising records and developed this during their next hydrant exercising/flushing. Wisconsin Administrative Code NR 810.13 requires that the water system have written or electronic records of hydrant exercising and maintenance activities. At a minimum, the records will need hydrant/valve location, date of flushing/exercising, and comments regarding maintenance. Records of these activities will need to be kept. It is a one year process for the utility to perform exercising/flushing of all hydrants thus it is expected that this process be implemented, completed, and improved over the next two years. The department will provide some documents on setting up a hydrant exercising program.</p>	<p>01/01/2019</p>	<p>810.13</p>
<p>19. The utility has an extremely High Water Loss 35-37% for 2014-2016. The utility needs to work to find these water losses. In the past few years the utility has been working with Jeff Label from rural water. The utility should continue to work with Jeff to find and reduce water loss. A desired water loss of less 10% or less is desired. This should be improved by the next survey.</p>	<p>05/01/2020</p>	<p>810.18</p>
<p>20. Colfax needs to update their valve exercising records and develop this during their next valve exercising. Wisconsin Administrative Code NR 810.13 requires that the water system have written or electronic records of valve and hydrant maintenance activities. At a minimum, the records will need hydrant/valve location, date of flushing/exercising, and comments regarding maintenance. Records of these activities will need to be kept starting this year. This must include location records and adequate exercising/maintenance records for each valve. This should be corrected by the next sanitary survey inspection as it is a three year process for valve exercising for the utility.</p> <p>Currently the city does not have location records for all valves. This may allow valves to go missing during road construction or operator changeover. Additionally they do not keep valve exercising records for each valve instead they just count up the number that they exercised at the end of the year. This is not an appropriate record keeping method. Distribution valves are required to be exercised on a 5 year interval and hydrant lead valves on a 5 to 7 year interval. The department will provide some documents on setting up a valve exercising program.</p>	<p>05/01/2020</p>	<p>810.13</p>

<p>21. Colfax needs to provide the department with its hydrant fire flow records so these can be evaluated for fire flow and develop these records over time. The utility performed half of these last year and plans on doing the rest in the next few years. This will be re-evaluated at the next inspection.</p> <p>It was unknown when the last time distribution system pressures and hydrants were tested by ISO or fire flow values were recorded for each hydrant. Fire Hydrants are required to have at least a 6 inch diameter water main lead and provide at least 500 gpm at 20 psi residual pressure. Hydrants not meeting this, need to be color coded or tagged and the fire chief notified in writing that this hydrant is not to be connected to a fire pumper in accordance with s. NR 811.64(3)(5) Wis. Adm. Code. Additionally when new hydrants are installed the utility should obtain fire flow results from the consulting firm or confirm upon project completion. Information is included below relating to fire flow calculations methods:</p> <p>To calculate the flow at 20 psi:</p> $Q \text{ at } 20 \text{ psi} = Q_f \times (P_{\text{stat}} - 20 \text{ psi})^{0.54} / (P_{\text{stat}} - \text{Press})^{0.54}$ <p>Where:</p> <p>Q_f = flow hydrant discharge (gpm) at pitot pressure P_{stat} = residual hydrant "static" pressure Press = residual hydrant "residual" pressure</p> <p>The "x" indicates raising to a power</p> <p>For Example:</p> <p>$Q_f = 1200 \text{ gpm}$ $P_{\text{stat}} = 60 \text{ psi}$ $\text{Press} = 46 \text{ psi}$</p> <p>Then: $Q \text{ at } 20 \text{ psi} = 2,115 \text{ gpm.}$</p> <p>Equation for determining flow from a hydrant outlet</p> $Q = 29.83 C \sqrt{d^5 p}$ <p>Q = flow in gpm C = outlet coefficient, usually 0.9 d = outlet diameter in inches p = velocity pressure in psi</p> <p>Equation for converting fire flow result to flow at 20 psi residual pressure</p> $Q_L = Q \frac{H_{\text{st}}^{0.54}}{H_T^{0.54}} = Q \frac{(H_{\text{st}} - 20 \text{ psi})^{0.54}}{(H_{\text{st}} - H_T)^{0.54}}$ <p>Q_L = flow at 20 psi in gpm Q = test flow in gpm H_{st} = static pressure - specified pressure (20 psi) H_T = static pressure - residual test pressure</p>	<p>05/01/2020</p>	<p>811.64 (3)(5)</p>
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NON-CONFORMING FEATURES

During the course of the sanitary survey, 5 features that met code requirements at the time of your public water system's construction, but would not be allowed in the current code were observed. These are referred to as "non-conforming features." Though you are not required to correct these non-conforming features at this time, they will need to be corrected when any major work is done in the future.

Discussion of Non-conforming Features:

The non-conforming feature is listed in bold below with a description of how the non-conforming feature can be corrected in regular text. The applicable code citation is also listed. Variance may have been previously granted for some of these non-conforming features as the entire file was not reviewed for prior variances.

DESCRIPTION	Code Citation
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Well 1, and Well 2 there is no entry point tap. The utility is using raw sample tap for entry point samples. This can be corrected by installing a sample tap downstream of the chemical injectors (ensure adequate mixing), or by tapping the main and running a sample line back into the well house prior to the first service for sampling purposes. This should be corrected in future.	811.37 (4)
For Well 1, Well 2, and Well 3, if Chemical addition is necessary, the station shall be provided with a separate chemical room. No separate chemical room is provided.	811.84
Wisconsin Administrative Code NR 810.26(8) requires that the water system have the ability to emergency chlorinate the entire system within four hours in response to a confirmed e-coli and/or coliform positive bacteria test. This means that the system must have stand by chlorination ready to be activated. The system has the chlorine pumps, but does not have chemical taps and feed lines installed at the well houses. These need to be installed, so they are ready to go if needed. This needs to be done by the end of the year.	810.26(8)
Well 2-The vent pipe diameter shall be a minimum of 2 inches for well casings 10 inches in diameter and larger. This was not noted at the other wells but would apply. This must be corrected the next time the well is pulled. For wells without pitless units, a metal vent pipe shall be installed which terminates in a 24-mesh corrosion resistant screened "U" bend or mushroom cap at least 24 inches above the floor. The vent pipe diameter shall be a minimum of 2 inches for well casings 10 inches in diameter and larger. Vent piping shall be welded watertight to the side of the well casing a minimum of 4 inches above the floor and may extend through a concrete pump base or collar where one is present. Alternatively, vent piping may project watertight through a well seal or pump discharge head if the well seal or discharge head will facilitate the installation of the vent pipe.	811.36
Well 2 and Well 3 are 150-200 ft from sanitary sewer main. These wells may not meet the minimum separation distance from contamination sources for sanitary sewer main. Sanitary sewer main may not be within 200 ft. of a well unless the sewer main is constructed of water main class material. These wells may have sanitary sewer main that is closer than 200 ft. of the well and is not constructed of water main class material. The next time work is done on this sewer main it needs to be replaced with water main class material per NR 811.12 (5). Minimum separation from contamination sources- Fifty feet between a well and a storm sewer main or a sanitary sewer main where the sanitary sewer main is constructed of water main class materials and joints. Gravity sanitary sewers shall be successfully air pressure tested in place. The air pressure test shall meet or exceed the requirements of the 4 psi low pressure air test for plastic gravity sewer lines found in the latest edition of Standard Specifications for Sewer & Water Construction in Wisconsin. Force mains shall be successfully pressure tested with water to meet the AWWA C600 pressure and leakage testing. Requirements for one hour at 125% of the pump shut-off head and two hundred feet between a well and any sanitary sewer main not constructed of water main class materials, sanitary sewer manhole, lift station, one or 2 family residential heating fuel oil underground storage tank or above ground storage tank or POWTS treatment tank or holding tank component and associated piping.	811.12 (5) 2-3

RECOMMENDATIONS

During the course of the sanitary survey, 10 recommendations were identified. Recommendations are problems in the water system that may hinder your public water system from consistently providing safe drinking water to consumers.

Discussion of Recommendations:

The Recommendation is listed in bold text below; with the comments/description of how the recommendation may be addressed in regular text below.

DESCRIPTION	Code Citation If applicable
<p>The operator should locate well rehab/replacement/pump pulling records for Wells 1 and Well 3 records and provide these to the department. The operator was unaware of when the work was last performed. Not knowing past work performed or having records does not allow for good maintenance of the wells and pumps.</p> <p>The department generally recommends these pumps be pulled and inspected at least once every ten years or as needed based on historical records. The expression "if it ain't broke, don't fix it" is often used when communities are asked to perform preventive maintenance. However, it is usually less costly and more efficient to perform preventive maintenance on a schedule that is anticipated and planned for rather than effecting an emergency repair that may occur at the most inopportune time. Pump work could be scheduled when water demand is low and contractor schedules are light. Arrangements can also be made ahead of time to have a temporary pump ready in case something unexpected is encountered. The utility should have a frequency for pump work based on pump installer's recommendations after evaluating the condition of your pump when it is last pulled. A schedule is required since we don't allow water systems to have a policy of operating pumps until they fail. Failure can damage not only the well pump but also the casing and bore hole.</p> <p>Well 1, Well 2, Well 3 do not have dehumidifier. Variable control and electronic equipment is located in these well house, thus it is recommended to have one.</p> <p>A means for dehumidification shall be provided in pump rooms and in other water system related buildings where excess moisture could cause or is causing safety hazards or damage to equipment or piping. Dehumidification or air conditioning equipment shall be installed in any room where an electronic variable output control device will be installed and excessive moisture will be a concern.</p> <p>Well 1, Well 2 and Well 3 have exterior windows with no additional protection. The Department recommends that grating or bars be put on the widows at the wellhouses to improve their security. This is a security issue and thus your water system could be considered vulnerable.</p> <p>Well 1, and Well 2 the Fresh air intake is small and could use some work, it is recommended this be fixed or evaluated. This this would apply to each well. These intake or exhausts may have been present previously in the design and were removed over time and covered up. Due to chemical usage, ventilation is likely required by building code. This should be repaired and fixed to its original design. If ventilation is repaired, appropriate screening to protect from vectors would be required.</p> <p>VENTILATION-Ventilation for all pumping stations, pump houses, and water treatment plant buildings is governed by applicable building codes. Automatically controlled forced air ventilation shall be installed for any room where an electronic variable output control device will be installed and room temperatures will exceed 90 degrees F.</p> <p>The generator at well 2 has a fuel oil tank located within the well house. The Department recommends that containment be placed around this tank to prevent any spillage or leakage from this tank from contaminating the well.</p>	<p>811.27 811.35 (9)</p> <p>811.25</p>

<p>Annual vent/screen inspections are required by code. The utility needs to set aside one day a year or create an annual work order to take pictures and document all screens are adequate and still working properly. This includes reservoir vents and screens so climbing of the towers must occur.</p>	<p>810.14</p>
<p>The Department strongly recommends that the Colfax begin providing continuous disinfection of their water system. Total coliform organisms are very common in the environment, but should not be found in a well or the distribution network of a water system. The presence of total coliforms are used as an indicator that the well or distribution system may have been compromised and other, more harmful, organisms may be present as well. A recent study performed in Wisconsin determined that viruses are also commonly found in groundwater systems and are often found within water distribution systems. One of the most reliable barriers a community can use to protect public health from organisms that may find their way into a water system is to practice continuous chlorination. In a review of past monitoring at Colfax, total coliform positive samples occurred occasionally 01/11/2017 (Confirmed TCP), 01/09/2017, 01/03/2017, 10/03/2016, and 06/13/2013 (Confirmed TCP MCL). Each confirmed unsafe water sample results in additional costs to flush and sample the system, added workload and stress on Village employees, and rattled confidence in the minds of the customers. Continuous disinfection or chlorination, when properly controlled and monitored, will not result in chlorine taste or odor complaints and is the most reliable safeguard against unwanted organisms in a water system. Groundwater is not sterile and nuisance bacteria can also become established within a water system. These organisms can create biofilms within the distribution piping which can harbor coliforms or other harmful bacteria or viruses. Biofilms can also result in corrosion of metal water main and service line materials, complicating problems with lead and copper control and even resulting in pinhole leaks of copper services.</p>	
<p>The water system has three wells. Currently, auxiliary power is only available at well 2. The Department recommends that backup power be obtained for the other wells. This will be required for any new wells added to the system. Auxiliary power could also be improve by renting or leasing a portable generator for Well 3 from a generator company or nearby utility.</p>	
<p>The new Nursing home in town is an isolated Service Area. Should a main break occur several residences will be without water. The utility should consider looping this water source or installing a backup main to reduce this potential water loss and loss of service. Additionally on Park Street there is a dead end greater than 20 ft without a flushing device. This could use the addition of a flushing device or looping.</p> <p>Looping dead end mains or isolated service areas will help the system in a number of ways. A dead end line often results in stagnant water and the water quality complaints that are associated with stagnant water. The City would use a lot less water if they could eliminate as many dead ends as possible, since the City is flushing this area more frequently to alleviate water quality complaints it should be considered. In addition, looping improves fire flows and the overall conveyance efficiency of the system.</p>	
<p>The department recommends calibration of the Chlorimeter prior to use when emergency chlorine occurs or immediately after use to ensure data accuracy, nearby utilities or CTL that continuously chlorinate should have these standards available for use considering they chlorinate continuously. A log book on meter calibration/standards checks can be recorded following the checks.</p> <p>LaMotte (for LaMott meters) and HACH (for HACH meter) sells secondary standard that can be used for this purpose, or you can buy standard solutions to use in calibration. You should keep a log of your results following calibration. If you do not calibrate your meter results could be suspect.</p>	

RE-OCCURRING COMPLIANCE DUE DATES TO REMEMBER

During the course of the sanitary survey, 1 re-occurring due dates were identified based on code requirement, this information is provided as a reminder.

Description	Compliance Date	Code Citation
22. TOWER 1 INSPECTION-Next Inspection Due by end of 2018 (Previous July 20, 2013) This must be performed by a certified professional or a professional engineer.	12/31/2018	810.14

SYSTEM OVERVIEW

From source to delivery, drinking water systems consist of many components. This not only includes infrastructure, it also encompasses the quality of the source-water, operation and maintenance practices, and management and fiscal aspects. This section is a detailed overview of the entire system of providing water to your customers.

Ownership, Service Area, Geography, Personnel

The Village of Colfax owns and operates a municipal, public water supply system having more than 25 year round residents and more than 15 service connections. Residential population is approximately 1,123 (DOA) people according to the operator.

The Village is governed by a Village board with a president; Scott Gunnufson. The water operator, serving as operator-in-charge (OIC), is Mr. Randy Bates.

System History

Colfax consists of 3 actives wells and 1 elevated water tower.

Well 1 was re-constructed in 1985 with a depth of 271 ft and cased and grouted to 70 ft. Well 1 had an original pumping design of estimate of 200 GPM; today's operational pumping capacity is 240 GPM with a 20 hp submersible. The airline is 106' deep. There is no auxiliary power at the well. There is caustic addition at this well. There is no emergency chlorine feed set up.

Well 2 was constructed in 1974 with a depth of 285 ft and is grouted to 220 ft. Well 2 had an original pumping design of estimated of 421 GPM; today's operational pumping capacity is 225 GPM with a 20 hp submersible pump. There is an onsite diesel generator that is compatible with the well. There is caustic addition at this well. There is no emergency chlorine feed set up. The airline is 100' deep. In 2015 the well was hit by lighting and the submersible pump was replaced at that time.

Well 3 was constructed in 1983 with a depth of 238 ft and is grouted to 130 ft. Well 2 had an original pumping design of estimated of 300 GPM; today's operational pumping capacity is 325 GPM with a 40 hp vertical turbine pump. The well is set up to be compatible with a portable generator but the utility does not own one. There is caustic addition at this well. There is no emergency chlorine feed set up. The airline is 101' deep.

Tower 1 is an elevated single pedestal spheroid, Cadwell tank. The tank is 150,000 gal tanks. This tank was built in 1996 and overflow elevation is 155' above GL.

Geological, Source Water Characteristics, Well Recharge Zone, Potential Contaminants

Colfax's water is classified as Soft (USGS). Colfax's last raw Iron, Manganese, Nitrate, Raw Flouride, and PH results are shown below:

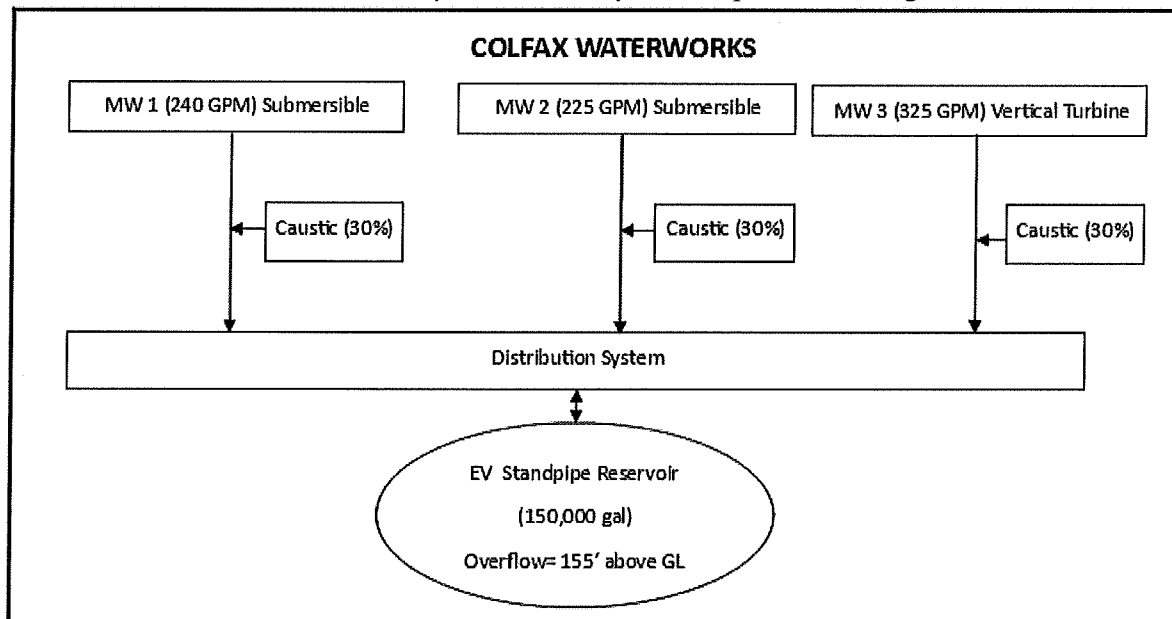
Well	Iron (mg/l)	Manganese (mg/l)	Hardness (mg/l)	Nitrate (NO3-N) (mg/l)	RAW Fluoride (mg/l) (Year)	PH (Dist.)
Well 1	0.031 (2017)	0.0 (2017)	21 (2017)	0.2 (2016)	0.34(2017)	7.38
Well 2	0.202 (2017)	0.005 (2017)	32 (2017)	0.0 (2016)	0.29(2017)	

Well 3	0.011 (2017)	0 (2017)	19 (2017)	0.2 (2016)	0.28 (2017)	
	Secondary MCL: .3	Secondary MCL: .05	Classification: Soft	Primary Standard: 10 mg/L MCL	0.7 mg/l Dental Health Recommendation	Raw 2017 were 6.1- 6.4 (Caustic Addition)

Well 2 and Well 3 are believed to be <200' + from the sanitary sewer main. If the wells are closer than 200' to the sewer main, this main would need to be constructed of water main class material (DR-18 PVC) and be pressure tested to meet AWWA C-600 criteria. Separation distance cannot be less than 50 ft. The operator could not confirm this onsite.

Infrastructure

Colfax is a medium to small community sized water system. A plant flow diagram is seen below.



Well/Pump Facilities

Colfax has 3 municipal wells. The utility has a full control SCADA, located at the Well 3 where they have the ability to switch well rotation, and tower set points as needed. The tower set points at the time of the inspection are below:

- Well 1-19-23 ft
- Well 2 17-23 ft
- Well 3 18.5-23 ft

The operators state that Well 2 runs Well 3 run more frequently than Well 1. Well 2 and 3 run on average about 1.5 hours per day and Well 3 runs 1 hour per day on average. All three wells run each day. The set points are seen above. Well 2 has an onsite diesel engine for auxiliary power. Well 3 is compatible with a portable generator, but the utility does not own one.

Well 1 and Well 3 have not been rehabbed in many years and the operator is unaware of when it was last done. The operator should locate these records so a schedule can be developed. When doing so, you should obtain and maintain records of the work done and parts replaced so an appropriate schedule can be created for the well. The utility should obtain or locate these records and provide these records to the department for appropriate record keeping. Well 2 was last rehabbed in 2015, the well was hit with lightning and the submersible was replaced at that time.

The department generally recommends these pumps be pulled and inspected at **least once every ten years**. The expression “if it ain’t broke, don’t fix it” is often used when communities are asked to perform preventive maintenance. However, it is usually less costly and more efficient to perform preventive maintenance on a schedule that is anticipated and planned for rather than effecting an emergency repair that may occur at the most inopportune time. Pump work could be scheduled when water demand is low and contractor schedules are light. Arrangements can also be made ahead of time to have a temporary pump ready in case something unexpected is encountered. The utility should have a frequency for pump work based on pump installer’s recommendations after evaluating the condition of your pump when it was last pulled. A schedule is required since we don’t allow water systems to have a policy of operating pumps until they fail. Failure can damage not only the well pump but also the casing and bore hole.

Treatment and Chemicals

Colfax uses Hawkins for their chemical supplier, and receives dry 30% caustic every 2 months. Chemical hold times need to be maintained <45 days for liquid chlorine, and <60 days for other chemicals.

Well 1 is provided with caustic addition. There is an injection tap but no set up for emergency chlorination. An electronic pulse feeder is used for caustic. Settings were 70 stroke and 50% speed. The injection point is horizontal in a vertical pipe. No anti-siphon devices were present. One 100 gal solution tank was used. Usage is determined by gravity. Secondary containment is not provided as the containment tank could not hold 100 gallons and there is no separate chemical room.

Well 2 is provided with caustic addition. There is an injection tap but no set up for emergency chlorination. An electronic pulse feeder is used for caustic. Settings were 70 stroke and 60% speed. The injection point is horizontal in a vertical pipe. No anti-siphon devices were present. One 100 gal solution tank was used. Usage is determined by gravity. Secondary containment is not provided as the containment tank could not hold 100 gallons and there is no separate chemical room.

Well 3 is provided with caustic addition. There is an injection tap but no set up for emergency chlorination. An electronic pulse feeder is used for caustic. Settings were 80 stroke and 70% speed. The injection point is horizontal in a vertical pipe. No anti-siphon devices were present. One 100 gal solution tank was used. Usage is determined by gravity. Secondary containment is not provided as the containment tank could not hold 100 gallons and there is no separate chemical room.

Distribution and Storage

The distribution system consists of one pressure zone piping network that moves water from the wells to the distribution system. The wells feed the distribution system where there is 1 elevated tower for storage. The tower is 150,000 gallons. The utility has a full control SCADA system that uses telemetry

from the water towers where the operator can set, set points base on tower water level to call the wells online and rotate wells as needed.

The water distribution map was reviewed onsite; an updated copy was onsite but a copy needs to be sent to the DNR. There is one isolated area by the new nursing home that could use improvement and then also one stub that is greater than 20 ft, on Park St, that does not appear to be not valved off; these two items should be corrected in the future. There is also several smaller isolated areas of the distribution system.

The distribution system consists of 52,945 linear feet (10.03 miles) of water main, 107 valves, 85 hydrants, 150,000 gallons of elevated storage from 1 elevate tower , 3 wells (1.13 MGD), 471 service connections, 470 metered (2016 PSC Report). There is 11,629 ft (21%) of undersized water main ($\leq 6''$).

Additional distribution system facts include:

- 0 Water loading stations-they have 1 hydrant that the operator plans to install a water loading station prior to start of the summer
- 1 private water distribution systems served which includes a trailer park where there is a master meter
- 0 Privately looped distribution systems
- 0 Individual or private booster pumps are used
- 0 Interconnection with other water sources
- 1 Surface-water crossings (under flowage) at 18 mile creek that is about 10 ft wide
- 4 Services outside Village-houses
- 0 Automatic flushing hydrants are used
- 0 Village owned pressure reducing valves
- The utility has no mutual aid agreements.

Emergency Power

Municipal water systems are required to have auxiliary power for operating their wells if power is lost and they must exercise it on a regular basis (Ch. NR 811.27 and 810.13 Wis. Adm. Code).

The auxiliary power summary for the utility is described below:

- Well 1-None
- Well 2-Onsite Diesel Engine that is exercised monthly and under full load quarterly, a log is kept in the well house
- Well 3- Compatible with a portable generator, although they do not own nor have a lease agreement for a portable generator
- Tower 1-none

The utility is performing the appropriate auxiliary power exercising for the generator and records are being maintained as required.

Emergency generators and auxiliary engines shall be exercised a minimum of once per month and quarterly under full load. A log shall be kept that documents when the unit was operated and maintenance that was performed on the unit. Water suppliers for those public water systems who rent,

lease, or borrow their generators shall have a contract with the owner of the unit, perform full-load exercising at least annually, and keep records showing when exercising was performed. Water suppliers for those public water systems with right angle units requiring mobile tractors shall perform full load exercising at least annually and keep records showing when exercising was performed.

Connections, Water Use and Demands, and System Capacity

The utility has 471 service connections. 3 year max average day demand is 138,578 GPD, the max day 3 year demand day was 464,000 GPD due to tower filling.

Water loss in 2014 was 35%, in 2015 was 37%, and in 2016 was 36%. It is important to note, as water loss increases over time, the utility should continue to search for water main leaks on a routine basis to maintain water losses below 10 percent.

Static pressures in the system are stated to be between 30-70 psi in the system. The utility should maintain records of the system pressure over time.

Apart from distribution system hydraulics, storage and pumping capacity is evaluated to determine whether the water system has adequate storage and pumping volume to meet average daily demand, maximum daily demand, peak hourly demand, worst case fire flow demand, and demand during power outages. This analysis is performed based on the information available to the department. From design and water demand data over the last 3 years, several observations are made related to system capacity:

First, the system is capable of meeting the 3 year high average daily water demand of 138,578 gpd. Average run time for the wells at operational pumping flow is 3.04 hours with all wells running at the same time. If this value is over 12 hours on a consistent basis; the utility should be in the process of constructing another well or increase operational pumping flow. This is not the case.

Second, depending on the water level in storage, the reservoirs can provide 7.75 hr (tower drain down day) (17 hours for high flushing day) of water during 3 year max day if all wells are out of service. The reservoirs have 25.92 days of storage volume without all wells out of service during average day. If less than 24 hours, then the utility should be in the process of either constructing additional storage or adding another well pump or both. This is not an issue for the utility.

Third, the system is capable of meeting the 3 year maximum daily demand of 464,000 gpd with just the largest well out of service. The well pumps would run 16.63 hours at operational capacities over a 24 hour period to meet this. If this is over 18 hours during peak pumping days, the utility should be in the process of constructing another well or increase operational pumping flow.

Fourth, during continual peak demand the system can provide water for an unlimited amount (full theoretical storage capacity and operational pumping for 18 hours/day) with the largest well out of service depending on the water level in the reservoir. The reservoir has 7.5 hours of storage without the wells in service during peak demand. If below 24 hours, then they should be in the process of either constructing additional storage or adding a second well pump or both. This does not apply to the utility as and they have two additional wells. Additionally this peak demand is high as it related to tower drain down.

Fifth, taking into consideration the worst case scenario high use day and 2,500 gpm pumping rate (largest fire truck), the village would run out of water in 72 minutes at operational pumping (24 hours pumping) depending on the water level in the reservoir at the time of a fire. ISO likes to see 120 minutes of fire protection, so the utility could use improvement here. The village should have a discussion with the fire department to discuss how a fire would be handled in the city.

Sixth, the water system has auxiliary power to operate one well pump during an electrical outage. Operational capacity is reduced by two well in an electrical power outage. This one well would have to operate for 10.5 hours to sustain keeping up with average day demand of 138,578. If the tower started full the one well with auxiliary power would be able to keep up for 25.71 hours before the tower would be empty on 3 year max day demand of 464,000.

Based on the analysis above, Colfax has currently has adequate capacity. This could be improved if the city were to purchase a portable generator to operate well 3 in an emergency, or contract with a generator rental company or another utility.

Water Quality Monitoring and Reporting

The utility does not have the best monitoring and reporting record. The utility has experienced frequently Total Coliform positive samples and MCL violations for BACTI. The cause is believed to be biofilm and the fact that the utility does not continuously chlorinate. The following violations have occurred over the past few years:

- January 217 BACTI Total Coliform Confirmed Positive
- Oct 2016 Late EMOR
- Sept 2015 Late EMOR
- 2011 Dec BACTI MCL

Additionally the BACTI sample results had TCP hits on the following sample dates: 1/11/2017, 1/09/2017, 01/03/2017 10/03/2016, 06/13/2013

A monitoring site plans for Bacteriological sampling, Disinfection By-products sampling, and Lead and Copper sampling is on file with the department.

The Lead and Copper past historical sample results are seen below:

Sample Date	Lead (ug/l) 90 th	Copper (ug/l) 90 th
July 2002	0	571
July 2005	0	731
July 2008	0	499
August 2011	0	598
September 2014	0	314
MCL (ug/l)	15	1300
Reduced Sampling (10 sites) every 3 years.		

For Lead and copper monitoring, homeowners should be advised to remove and clean the aerators on a regular basis, but not prior to collecting the lead and copper samples. Flushing of the lines six hours before sampling collection is not allowed by the Lead and Copper Rule. Samples should be collected under typical conditions, after the water sits for at least six hours.

We have been informed that the US EPA will be revising the Lead and Copper Rule. Our recommendations are based on discussions with the US EPA. The department is also stepping up state wide efforts to reduce consumer's exposure to any amount of lead coming from their drinking water. The Department is asking that all systems review their lead and copper sites to ensure that all are appropriate locations (kitchen or bathroom sinks) and that sites meet the required Tier criteria. We have reviewed your water system's lead and copper monitoring history and this was updated in 2016. After you review your data please contact your water supply engineer to request any changes. You should only be using sampling sites on your approved plan.

There may be many lead services in most cities. Homes with lead services must be included as Tier 1 sites if any part of the service is lead, including the goosenecks in the utility portion, or the customer portion. Homeowners with lead service lines should be strongly encouraged to replace their portion of the line at the same time the utility portion is being replaced. If lead is detected at levels greater than 15 ug/L in a home, we are asking that the homeowners be notified within 24 hours, even if the current code requirement is 30 days.

The facility chlorimeter testing procedures were reviewed onsite and the items in bold indicate issues with their procedures.

- Glassware is clean and unscratched
- Meter's sample compartment/optics are clean
- Meter is being zeroed with sample water/tap water should be used
- Samples are tested at the monitoring site
- Meter is read within 1 minute of adding the test reagent
- Reagent are within its expiration date
- Meter reads to the hundredth (.01) mg/l
- **Chlorine standards should be run to verify test method and meter accuracy (Standards can be purchased if continuous chlorine is used, if not the utility could calibrate meter prior to/after use with a nearby utilities standards to confirm accuracy of the meter results) (Eau Claire or CTL could potentially be used for this)**
- **A Log book should be kept on meter servicing and calibration checks (recommend weekly if continuous chlorination used, or prior to/after use for emergency coloration to confirm accuracy of meter results)**

Programs Administered

Implementation of several mandatory programs at the local level is required by code. The status of their implementation follows.

Vulnerability Assessment and System Security

Municipal water systems serving more than 3,300 people were required to have a vulnerability assessment completed by 2004. These are self-assessments consisting of a review of security related practices. A security vulnerability assessment has not been performed at the utility as the population is less than 3,300 people.

It is recommended that a daily security check be performed on the entire drinking water system to insure doors are locked, windows are secured and nothing has been tampered with. The utility should continue

to enhance the security of all of their water supply facilities whenever possible. A cursory review of security and safety was carried out on the day of the inspection the following items were noted, some of these may need improvement:

- All Roof hatches were provided with a barrier to entry
- Intrusion alarms/panic hardware were no present at all buildings
- Electrical panels were locked
- Wells were not fenced in.
- Tower was fenced in
- The wells had exterior window without security bars
- The utility has a comprehensive SCADA system
- The well has a flashing alarm light, that is not connected to a call or electronic alarm system

Emergency Planning

The emergency operations plan will need to be updated and practiced on a routine basis. There was an outdated copy in the DNR file and the utility mentioned it could use some minor updating. There are specific DNR requirements specific to the municipal water dept. emergency operations plan. It is best to assign one staff person to update the emergency plan once each year. You can do this by having the staff review the plan, sign and date it if no updates are needed, or update it as appropriate. Staff should also have a minimum of Incident Command System (ICS) training to be familiar with the terminology and workings of this system. ICS 100 and 200 courses are generally available free on line at most County Emergency Management sites. The emergency plan was practiced in a table top exercise in 2007. The city should participate in a table top exercise to ensure all staff are familiar with the details of the plan every few years.

The plan is required to include the following:

- A list of local and state emergency contacts.
- A system for establishing emergency communications. (Also a backup method)
- Any mutual aid agreements the water utility has with other communities for sharing personnel, equipment and other resources during an emergency. (County wide one with other cities or rural water one if they exists)
- Standard procedures for emergency water production. (description of how to hook up auxiliary power, how to provide power/gas source, and how to provide emergency water)
- A means for sharing information with customers. (public notices, boil water notices, etc)
- Emergency Chlorination Plan

Additionally the emergency chlorine plan for the facility was 90% up to date and could use some work relating to the tower disinfection. This should be attached to the emergency response plan. A copy of this must be posted at each well house and tower.

Wellhead Protection

The loss of a well due to groundwater contamination poses significant fiscal impacts on communities. Wellhead protection is a proactive tool for protecting the infrastructure investment by protecting source water quality. It does this by defining a well's recharge area, typically a 5-year recharge zone, and protecting the recharge zone through a local wellhead protection ordinance. Colfax had a copy of their

ordinance and plan from 2010. It is important to note that a plan and ordinance update would be required following the addition of any new well. Also when a well is removed from service, the DNR must be informed and a copy of the well abandonment form for that well must be sent to your regional Water Supply Engineer.

Private Well Abandonment

The utility stated they are properly permitting private wells under their private well abandonment ordinance. These records were unavailable at the time of the inspection. The utility will need to provide the department records of the 5 wells permitted by the city. There are 3 additional wells in the city that do not receive water from the village and may be permitted by the utility as they see fit. The ordinance was last updated in 2014, a copy is in the DNR file.

Private well owners with wells located on properties connected to the municipal water system must have their wells permitted or abandoned in accordance with s. NR 812 Wis. Adm. Code and your ordinance. The private well program is directly related to both the cross-connection program and the well head protection program, there should be a question on the cross connection form about private wells. Private wells can easily become a cross-connection to the communities municipal supply system, and an improperly maintained well can cause contamination of the groundwater relied upon as the source of your drinking water. The maximum 5 year permitting process provides a means of tracking these private well systems to insure they continue to be properly maintained and inspected and to prevent any possible cross-connection to the municipal system. The department can provide an example permit that other communities have used to aid in the implementation of this program if requested. The municipality shall cause the filling and sealing of all unused, unsafe, or non-complying private wells located on properties connected to the municipal system and issue permits to those well owners that qualify for them, in accordance with s. NR 812 Wis. Adm. Code. Well owners with expired permits shall be notified and their wells brought back into compliance with s. NR 812 Wis. Adm. Code and your ordinance.

The city has three other wells on property not served by the municipal and an estimated five wells served by municipal water. The department recommends a utility permit these wells not served by municipal per their program if present, but not charges a fee as they are not provided with municipal water. Although this is up to the utility on how they handle these. The city needs to ensure they have an updated cross connection inspection form with a question relating to private wells so any existing private wells in the community not known can be located or discovered. At a minimum the program must:

- Meet state code
- Receive a permit from utility of no greater than 5 years
- Be inspected by a licensed pump installer or well driller every 10 years
- Have a history of producing safe water evidenced by a Bacteriological test
- Not be cross-connected with the municipal water system
- Have a functioning pumping system
- Not discharged to the sanitary sewer
- Have a legitimate use

Owners not meeting the above requirements are required to abandon their wells. Permitted wells will need to obtain documentation that a licensed pump installer or well driller has inspected each well in the past 10 year.

Cross-Connection Control

The cross-connection program implementation was previously deficient. During the onsite inspection the cross connection records were reviewed with the operators. This program is relatively new for the City and started in 2012, even though it was required previously by rule since the 1970s.

The Village has until March 1, of each year to report inspection numbers. Inspection numbers reported during the last several years are seen below.

Status (Insp. Frequency)	Current # Customers (2016)	2011	2012	2013	2014	2015	2016	Comments	
Residual (10 year)	375	NO PROGRAM EXISTED PRIOR	7/378	57/380 6-NC	DEF-missing from files	50/383 (8-NC) and 19 Carryover	71/375 (2-NC) and 23 Carryover	DEF-190/390 (48%) completed in 5 year period. Need to perform 40+ per year over next 5 years to complete on time and stay on track granted 2014 numbers are zero.	
Residential (1 year) (VACANT)	2					0/1	0/2 1 NC		
Multi-Family (10 year)	13					0/13	5/13		
Commercial (6 year) (similar to res)	45		1/70 1-NC	35/69 (13-NC)		7/41	14/45 1 carry over	Continue to Meet on 6 year cycle; all seem to be performed at least once in past 6 years.	
Commercial (2 years)	7					2/3	5/7 (2 NC)	Continue to Meet Every other Year	
Commercial (1 years)	2					2/3	0/2	Continue to Meet Every other Year	
Industrial (2 years)	4		0/7	4/7 2-NC		0/4 1-NC	4/4	Continue to Meet Every other Year	
Industrial (6 years)	1					1/1	1/1	What industry is approved on a 6 year basis?	
Public Authority (2 years)	4					2/4 1 Carryover	1/4 3 Carry over	Need to meet on every other year cycle.	
Public Authority (6 years)	9		0/7	7/7		2/9 1-NC 5 carry over	2/9 1 Carry over	Need to meet on 6 year cycle.	

The city contracted with Hydro Corp in 2015, and 2016 to perform inspections for the utility. The residential inspections are not performed with meter change out, although the utility is working on PSC approval for a whole village 2017 meter change out.

For a community the size of Colfax, shutoff may need to be required due to uncooperative residence/business, as well as vacant houses. If the utility or the board has issues with providing/performing shut off please contact the regional water supply engineer.

The utility has an administrative plan from Hydro. This plan includes who is completing the inspections, inspection frequencies, public education program/brochure, enforcement steps that you are using leading

up to the service shutoff, and example draft letters. The utility did not have copies of records from hydro for inspection performed; they only had annual summary sheets, when they should maintain actual inspection records.

At the time of the inspection operators/inspect agent should take this opportunity to inform the homeowner of the importance of cross-connection prevention. Brochures are available from the Wisconsin Rural Water Association and the Department of Commerce which do an excellent job of describing what a cross-connection is and why it is important for homeowners to work with their water utility to prevent them. Other public education opportunities such as the consumer confidence report, utility newsletters and the local media are all excellent means of providing this important information. Public education is required every 3 years if partial inspections are performed. The Department now requires industrial, commercial and public facilities be inspected for cross connections at least every two years. If the utility operators are not comfortable in performing cross-connection inspections on more complicated facilities, the facilities should be informed that they need to perform a comprehensive cross-connection inspection of their facility and provide the utility with documentation that the facility is free of cross-connections or hire an independent contractor. For record keeping to show compliance with the plan the utility/inspection agent should have a spreadsheet or tracking system indicating each customer serviced, the category of the customer, and the frequency that the customer falls into, the last time the customer received a compliant inspection, and the date the next inspection is due by. This should also be tracking the non-compliance letter tracking and follow up to shutoff.

A private well question should be located on each type of inspection forms to confirm no additional unknown wells are present in their community.

Distribution System Maintenance Practices

The utility is commended for actively incorporating preventative maintenance programs such as hydrant flushing and valve exercising into their annual routine. Distribution valves are required to be exercised on a 5 year interval and hydrant lead valves on a 5 to 7 year interval. Many systems are breaking their distribution system into 5 equal zones and performing valve exercising in one zone each year, insuring that all valves are routinely exercised on a 5 year interval as required. Several utilities prefer to do this every other year to provide for better maintenance. The utility states they have been flushing dead ends 2 times per year. They stated they flush their entire system every 4 years doing about a quarter per year. Hydrants are exercised every year. The utility did not have a record keeping program for valve exercising. It is important have adequate location descriptions of valves and hydrants so they do not end up going missing during road construction.

The utility states they do not perform unidirectional flushing as staffing has not allowed this to date.

A flushing method referred to as unidirectional Flushing is being promoted in the water industry to improve the overall process of removing debris from a water system through flushing. The concept involves maintaining a flow velocity of at least 5 feet per second through the section of water main being flushed. Experiments have shown that a velocity of 5 feet per second is capable of cleaning most debris and deposits from a water main system. To maintain an adequate velocity through the pipe network, sections of the main must be valved off to insure flow is moving through a single section of pipe. If a hydrant is being fed from two directions, even though the velocity may be 5 feet per second at

the hydrant, the flow in the mains from each direction will only be 2.5 feet per second. When performed correctly, a unidirectional flushing program will provide a much better pipe scour using less water than a traditional flushing program. There are a number of training sessions being offered throughout the state on setting up and running a unidirectional flushing program. The utility should look into utilizing a unidirectional flushing program, as this can aid in removal of biofilm.

A discussion of fire flow occurred; they only had copies of fire flow hydrant records for half their system. They started creating this process last year and have about half of the system. It is expected that by the next survey they will have these records completed. These records should be developed and maintained overtime. The utility should share the hydrant records with the fire department. The utility should have an annual discussion with the fire department as to how the utility and fire department will react and respond to fires in their community. Fire hydrants are required to have at least a 6 inch diameter water main lead and provide at least 500 GPM at 20 psi residual pressure. Hydrants that do not meet this criteria need to be color coded or tagged and the fire chief notified in writing that this hydrant is not to be connected to a fire pumper in accordance with s. NR 811.64(3)(5) Wis. Adm. Code. These records should be updated changes occur to the system, or every 5-10 years.

The utility stated they have been exercising valves every 4 years but have not been keeping records, they also state that they do not have good location records (GPS or drawings) to allow for easy location of valves. The utility will need to begin keeping records of valve exercising and develop a location tracking system to ensure vales do not end up going missing during road construction or operator changeover.

A valve exercising program assures that all the main valves can be readily located, the operating nut is accessible, and the valves are operating properly, and are fully open. Valves are often needed in an emergency situation and a valve that is not operating properly can elevate a routine problem into a large inconvenience for many customers. Whenever a portion of the distribution system must be depressurized, the mains are subject to an increased potential for contamination. The larger the area affected, the higher the chances of impacting public health. It is also important to maintain accurate records on the location of each valve along with the maintenance record and specification. Record keeping for valves and hydrants is required to insure routine scheduling and performance in accordance with s. NR 810.13 Wis. Adm. Code.

The Well water meters are tested/calibrated every two years and tags are located on the meter. The utility has a testing/calibration schedule with Munitech testing for all larger meters in the utility. These records were available onsite.

Storage Maintenance Practices

Colfax has 1 elevated water towers providing 150,000 gallons of storage in the distribution system.

Tower 1 is a single pedestal spheroid tank by Cadwell Tanks with capacity of 150,000. Overflow Height is 155' above ground level with 122' 9" to bottom. The tank has a 8" overflow, and the recirculation pump is used in winter only. Tower 1 was last inspected in 2013, thus it is due in 2018. The tower was last painted in 2013 interior and exterior. A hydrant is used for draining. An annual tower vent and

screen check should occur annually. This tower was constructed in 1996. The sump pump discharge requires a screen.

The tanks above require inspection every 5 years, with a complete drain down every 10 years. Tanks over 10,000 gallons require inspection by professional tank inspection firm or by registered professional engineer. Any pressure vessels or tanks <10,000 gallons need to be inspected minimum of every 5 years and records must be kept. These inspections (tanks <10,000 gal) may be performed in-house based on tank size and utility comfort in doing the inspection.

Water Reports and Records

Generally speaking, the City submits monitoring and operating reports in a timely manner. The city is reporting the following information on EMOR, the items in red require improvement.

EMOR REQUIREMENTS	REQUIRMENT
Raw Water Pumped	Daily if pumped
Pump to Waste	Daily if pumped
Water Levels (Hours Rest, Static Level , Pumping Level)	Once Weekly Minimum
Caustic (PH Adjust) <ul style="list-style-type: none"> • Amount • Dose • Entry Point 	<ul style="list-style-type: none"> • Daily if used • Auto Generated • Optional Recommended 1/week
Chlorine <ul style="list-style-type: none"> • Amount • Dose • Entry Point 	<ul style="list-style-type: none"> • Daily if used • Auto Generated • Optional Recommended 1/week
Distribution Chlorine Residual	2X/week if chlorine used
Distribution PH System	2X/Week
Dilutions/Concentrations/Active Accurately Reported	Report Caustic, and include Chlorine % if used

Improving Records: A record system needs to be established that accurately characterizes all the elements of the water system, including but not limited to:

- Cross-Connection Program
- Local Well Regulation Program (Private Well Permits)
- Emergency Operations Plan
- Emergency Chlorination Plan
- Valve and Hydrant locations and maintenance files
- Well and Tower construction and maintenance files
- Unmetered water usage
- Customer complaint files
- Distribution system components and mapping files

- Water Quality Sampling and monitoring files
- Meter Calibration (Well Meters, and handheld testing devices)

Many software packages are available to assist in setting up a reliable data system and will greatly aid in setting up maintenance schedules and inventory tracking.

Consumer Confidence Reports (CCR)

The Village completes a consumer confidence report on an annual basis. The reports provide customers with general water system information and water quality results over the course of the year.

Certified Operator

The Village is required to have a water system “operator in charge” (OIC) with “Grade 1” certification in groundwater, and distribution system. Mr. Randy Bates is listed as the OIC.

Operator	Certification Levels	Expiration Date	Credits needed for renewal
Randy Bates	GW and DIST GRADE 1	11/01/2018	Ready
Don Logslett	GW and DIST GRADE 1	10/01/2018	Ready
Tim Rundle	GW and DIST GRADE T	05/01/2020	18 Credits

Fiscal

Colfax’s last rate increase was 3/15/2012. Colfax’s billing is \$111.56 per 2,500 CF for a ¾ in meter, this is about 10% higher than the county average rate of \$101.39. They are the 3rd highest water cost in the county of 7. Based on size of the utility and amount of industry the billing rate seems appropriate. The net operating income and return on investment was 5.13 in 2016, 3.42 in 2015 and 2.04 in 2014. PSC recommends this be maintained near 5-6%. When this decreases over time or is negative the community needs to continue to stay up to date with the necessary water rate increases to keep infrastructure up to date and to put money away for future infrastructure replacement, the department recommends that communities perform the 3% simplified rate increase every couple of years with a full rate case every 5 years to stay up to date with inflation and utility expense increases. The Simplified Rate Case (SRC) is a simple and convenient means for municipal utilities to increase water and sewer rates. This is an inflationary type increase that helps utilities maintain rates continually so that customers benefit from smaller, more frequent rate increases. This also requires less public notice requirements.

Capacity Development Evaluation

This sanitary survey serves as an evaluation of the capabilities of your water system. This system has been determined to have adequate technical, managerial and financial capacity to provide safe drinking water. The ability to plan for, achieve, and maintain compliance with applicable drinking water standards has been demonstrated.

The Utility operators are commended for continuing the effort and work to maintain the water system.

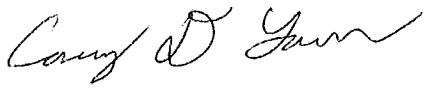
Required Action

Please respond by **07/01/2017** with notification that all deficiencies have been corrected, or that you agree to correct the deficiencies identified in this letter by the due dates listed, or are providing reasonable alternative dates. The report recommendations should also be discussed and implemented as time and funding allow.

The next sanitary survey of your system is scheduled to take place in 2020. The designated operator in charge will be contacted prior to the survey to schedule a date that is convenient.

I would like to thank, Randy Bates and staff for their time and cooperation during the sanitary survey. If there are any questions concerning this report, please feel free to contact me at (715) 839-1636 or by e-mail at corey.larson@wisconsin.gov. I would offer to attend a Water Committee or City Council meeting to discuss the continuous chlorination recommendation report at our mutual convenience.

Sincerely,

A handwritten signature in cursive script, reading "Corey D. Larson".

Corey D. Larson
Water Supply Engineer
Department of Natural Resources

Encl.

cc: Bureau of Drinking Water/Groundwater – DG/5 (e-copy)
Troy Stapelmann, Eau Claire (e-copy)
Colfax File, Dunn
Randy Bates –Colfax (e-copy)
Lynn Niggemann - Colfax (e-copy)

Water System Summary Information

System ID: 61702619

System Name: COLFAX WATERWORKS

County: Dunn

Type: Municipal Community

Basin: Chippewa River (lower)

Population: 1123

Service Connections: 471

Owner: COLFAX VILLAGE CLERK

613 Main St

P O Box 417 - Vlge Hall

Colfax, WI 54730

(715) 962-3311 Fax: (715) 962-2221

clerktreasurer@villageofcolfaxwi.org

Date Security VA Complete: None

Date ERP Complete: Needs update

Date ERP Last Exercised/Updated: 2007

Emergency Phone: (715) 962-3136

Emergency Fax: (715) 962-2221

Emergency E-mail: colfaxdpw@colfaxdpw.com

Certified Operators

Name	Lic. #	Expires	Phone/Fax/E-mail	Address 1	Address 2	City, State, Zip
RAND BATES	35661	11/01/2018	(715) 308-0861 colfaxdpw@colfaxdpw.com	E9260 830TH AVE		COLFAX, WI 54730
DON LOGSLETT	24774	10/01/2018	(715) 308-6774	VILLAGE OF COLFAX	P O BOX 417	COLFAX, WI 54730
Tim Rundle	37213	05/01/2020				

Affiliations

Name	Affiliation	Start Date	End Date	Primary?	Phone
RAND L BATES	SAMPLER	11/07/2012		Y	715-308-0861
COLFAX VILLAGE CLERK	PLAN_CON	06/08/2006		Y	715-962-3311
COLFAX VILLAGE CLERK	OWNER	01/01/1960		Y	715-962-3311
RAND L BATES	EMERGENCY	11/07/2012		Y	715-308-0861
COREY D LARSON	DNR_REP	03/04/2016		Y	715-839-1636

Entry Points and Sources of Water (Basic Data)

Source ID	Name	WUWN	Status	Type	Source	Depth	Cased	Grouted
1	WELL 1	BF723	Active	ENTRY PT/SOURCE	Ground Water Source	271	203	70
2	WELL	BF724	Active	ENTRY	Ground	285	220	220

Source ID	Name	WUWN	Status	Type	Source	Depth	Cased	Grouted
	2			PT/SOURCE	Water Source			
3	WELL 3	BF725	Active	ENTRY PT/SOURCE	Ground Water Source	238	130	130

Entry Points and Sources of Water (Misc. Data)

Source ID	PLSS	Lat./Long.	Pump Cap.	Pump Type	Lube	Aux. Power?
1	T29, R11W, S16, Q-NW QQ-NW	44.99905N x 91.72786W	240	Submersible	None	No
2	T29, R11W, S9, Q-SE QQ-SE	45.00255N x 91.71697W	225	Submersible	None	Yes
3	T29, R11W, S16, Q-SW QQ-NE	44.99300N x 91.72759W	325	Vertical_Turbine	Water	Yes

Storage

ID/Location	Type	Vol. (gal)	Firm Pumping Capacity (gpm)	Height to Overflow (ft.)	Overflow Elev. (sea-level, ft.)	Aux. Power?	Mfg.	Model
5th Ave. by Industrial Park	ELEVATED TANK	150000		155		No	Cadwell	

Booster Stations

ID/Location	Type	Firm Pumping Capacity (gpm)	Aux. Power?
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None

System Interconnects

ID/Location	Type	Capacity (gpm)	Metered?	Chemical Injection Capable?
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None

Treatment Summary Data

Source ID	Type	Description	Begin	End	Objective(s)	Pump Model	Cap.	Stroke %	Speed %	Sol. Tank Cap.	Dil. Ratio	Comments
1	740	pH Adjustment	01/01/1960		Corrosion Control	A151	24	70	50	100	None	30% Solution
2	740	pH Adjustment	01/01/1960		Corrosion Control	E+	12	70	60	100	None	30% Solution
3	740	pH Adjustment	01/01/1960		Corrosion Control	A151	24	80	70	100	None	30% Solution

System Evaluation Summary

Inspector/Reviewer	Date	Report Date	Type	Agency	Response Due	Response Recd
LARSON, COREY D	05/05/2017		SURVEY	DNR		
Rand Bates	01/11/2017		LEVEL1	PWS		
PIETZ, BRIAN	06/04/2015	06/12/2015	ANNUAL	DNR		
Henderson, Brad	03/07/2014	04/04/2014	SURVEY	DNR		04/15/2014
Henderson, Brad	06/12/2013	06/20/2013	ANNUAL	DNR		

Bacteriological Sampling History

Year	Distribution Safe	Distribution Unsafe	Confirmed Unsafe	Missed Samples	Raw Safe	Raw Unsafe	Fecal Positive?
2017	8	1	1	0			N
2016	23	1		0			N
2015	24			0			N
2014	24			0			N
2013	24			0			N
2012	27			0			N
2011	23	1	2	0			N

Chemical Sampling History

Year	Sample Group	Source ID	Samples Taken	Missed Samples	MCL Violations
2017	SOC	3	1	0	0
2017	IOC	2	1	0	0
2017	SOC	1	1	0	0
2017	SOC	2	1	0	0
2017	IOC	1	1	0	0
2017	VOC	3	1	0	0
2017	VOC	2	1	0	0
2017	IOC	3	1	0	0
2017	VOC	1	1	0	0
2016	NITRATE	1	1	0	0
2016	NITRATE	3	1	0	0
2016	NITRATE	2	1	0	0
2015	NITRATE	1	1	0	0

Year	Sample Group	Source ID	Samples Taken	Missed Samples	MCL Violations
2015	NITRATE	3	1	0	0
2015	NITRATE	2	1	0	0
2014	IOC	2	1	0	0
2014	RAD	2	1	0	0
2014	RAD	3	1	0	0
2014	IOC	1	1	0	0
2014	VOC	3	1	0	0
2014	IOC	3	1	0	0
2014	RAD	1	1	0	0
2014	VOC	2	1	0	0
2014	PBCU		10	0	0
2014	VOC	1	1	0	0
2013	NITRATE	1	1	0	0
2013	NITRATE	3	1	0	0
2013	NITRATE	2	1	0	0

Sample Group	Last Sampled
BACTI	2017
IOC	2017
RAD	2014
PBCU	2014
NITRATE	2016
VOC	2017
SOC	2017

MCL Violations

Source ID		Contaminant	Concentration	MCL	Units	Viol. Start	Viol. End	Continuing Operation?
	3100	Coliform (TCR)				12/08/2011	12/15/2011	N

Definitions

MCL = Maximum Contaminant Limit (as set by the Environmental Protection Agency (EPA))

BACTI = Bacteriological Sample

IOC = Sample for Inorganic Compounds

NITRATE = Nitrate Sample

PBCU = Lead and Copper Sample

RAD = Sample for Radioactivity

SOC = Sample for Synthetic Organic Compounds

VOC = Sample for Volatile Organic Compounds

FLUORIDE = Fluoride from Fluoridation

TTHM = Total Trihalomethane Sample

Village of Colfax

P.O. Box 417 - Colfax, Wisconsin 54730
Phone 715-962-3311
Fax 715-962-2221

Gary Stene, President
Lynn M. Niggemann, Administrator-Clerk-Treasurer

NOTICE OF EXEMPTION FROM COUNTY TAX FOR LIBRARY SERVICES FOR THE YEAR OF 2018

Wisconsin Statute 43.64(2) allows municipalities and townships to exempt themselves from the county library tax for Indianhead Federated Library System. The level of local funding is the justification for exemption.

NOTE TO VILLAGE CLERK-TREASURER: This form must be submitted to your County Clerk before the County Board of Supervisors sets the 2018 levy. Failure to do so will disqualify your municipality for exemption. Please note that it is your responsibility to file for exemption, not your librarian's.

Library: Colfax Public Library

Librarian: Lisa Bragg-Hurlburt

Municipality: Village of Colfax

Village Administrator-Clerk-Treasurer: Lynn M. Niggemann

Amount appropriated by your municipality for this fiscal year 2016 for Colfax Public Library operating expenses:
\$54,078

Amount appropriated by your municipality for the fiscal year 2017 for the Colfax Public Library operating expenses:
\$54,791

Lisa Bragg-Hurlburt
Library Director Signature

Lynn M. Niggemann
Village Administrator-Clerk-Treasurer Signature

6/6/17

Date Signed

06/06/2017

Date Signed

Please Note: Should there be any change from the appropriation Listed for 2017, the Indianhead Federated Library System office must be notified in writing as soon as possible.

WILLIAM J. ANDERSON
CHIEF OF POLICE

PHONE (715) 962-3136
FAX (715) 962-4357

COLFAX POLICE DEPARTMENT

PO BOX 417, 613 MAIN ST.

COLFAX, WI 54730

APRIL 2017 MONTHLY POLICE REPORT

CALLS FOR SERVICE: 69

TRAFFIC STOPS: 17

- ASSIST OTHER AGENCY: 4
 - ERRATIC DRIVER
 - ASSIST ON TRAFFIC STOP
 - ASSIST TRAFFIC CONTROL
 - LOOK FOR A SUSPECT VEHICLE
- TRAFFIC ACCIDENT: 3
 - 2 PARKING LOT ACCIDENTS
 - 1 REAR END
- AMBULANCE ASSIST: 3
- DISORDERLY: 3
 - NEIGHBOR DISPUTE
 - BAR FIGHT
 - DISORDERLY OPERATOR OF VEHICLE
- CIVIL: 7
 - 2 CHILD CUSTODY
 - 1 EVICTION
 - 3 PROPERTY EXCHANGE
 - AUTOMOBILE OWNER DISPUTE
- 911 HANGUP/MISDIAL: 3
- PROPERTY WATCH: 2
 - VACANT HOUSE
 - SUSPICIOUS ACTIVITY AT PROPERTY
- ANIMAL COMPLAINT: 2
 - DOGS AT LARGE
-

- SUSPICIOUS VEHICLE: 2
 - ABANDONED RENTAL CAR
 - SUSPICIOUS VEHICLE AROUND BUSINESS
- ABATEMENT: 5
 - 1 JUNK VEHICLE
 - 4 PROPERTY CLEANUP NOTICES
- WARRANT: 2
 - 1 FROM A TRAFFIC STOP AND 1 FOR A FAILURE TO APPEAR
- FRAUD /SCAM: 1
 - SUBJECT ON PHONE IDENTIFYING THEMSELVES AS COLFAX CHIEF OF POLICE TO A CITIZEN AND SAYING THEY HAD LEGITIMATELY WON A LARGE SUM OF MONEY
- TRESPASS: 1
 - RAILROAD MUSEUM- SIGNS OF PEOPLE HANGING OUT DURING CLOSED HOURS
- JUVENILE: 2
 - SCHOOL ISSUE
 - DISORDERLY
- HARASSMENT: 2
 - ON GOING DISPUTES BETWEEN NEIGHBORS
- CHECK WELFARE: 2
 - CONCERN FOR ELDERLY PERSON
 - JUVENILE WANTING TO HARM SELF
- SUSPICIOUS PERSON: 2
 - SUBJECTS WITH LIGHTS LOOKING FOR NIGHTCRAWLERS
 - PERSON SLEEPING IN CAR
- SQUAD DAMAGE: 1
 - OFFICER HIT RACCOON WITH SQUAD CAR- NO NOTABLE DAMAGE
- SUSPICION: 1
 - SUBJECT BELIEVED THERE WAS AN UNWANTED PERSON INSIDE RESIDENCE
- PROPERTY DAMAGE: 1
 - STOP SIGN RAN INTO
- SEXUAL ASSAULT: 1
- PARKING TICKET: 1
- PAPER SERVICE: 1

Colfax Rescue May 2017 Report

Municipalities Responded to:

Village of Colfax	8
Township of Colfax	6
Village of Elk Mound	5
Township of Elk Mound	5
Village of Wheeler	4
Township of Otter Creek	6
Township of Sand Creek	1
Township of Tainter	4
<u>Mutual aid Chetek</u>	<u>1</u>

Total 40

Receiving Facilities:

Mayo Clinic Health System Eau Claire	12
Mayo Clinic Health System Menomonie	7
Sacred Heart	3
<u>No Transport/Refused/Standby</u>	<u>18</u>

Total 40

Financials:

May Billed Out	\$36,464.92
May Collected	\$11,978.91

CRS Notes:

- I have been out on medical for the month of May, checking into the office two to three times a week, so this is a shorter report than usual.
- Megan Schleusner is taking the EMT-Basic summer class. She is a recent graduate of Colfax High School and will be attending UWEC this fall majoring in pre-med.
- May was national EMS week however, I was not here to present service awards or the EMS week proclamation. So, at Colfax Rescue EMS week will be in June this year. I would like to thank all my EMT's for the time they work at Colfax Rescue making our communities safer.
- Colfax Rescue awards pins for milestone years of service.
 - **One Year**
 - Jarred Millard, Margaret Hafferman, Valerie Henrichs, Leah Suzan, Lance Loftus, Samantha Engler
 - **Two Year** :Jake Kreiner, Daniel LaMettry, Blake Miller, Erin Geraghty
 - **Three Year**: Dustin Toellner, Carrie DeMuth, Rick Henrichs
 - **Four Year** :Michelle Briggs
 - **Seven Year**: Pete Jain, Travis Borreson, Nick Mann, Jessica Erickson, David Shipman, Chris Larson
 - **Fifteen years**: Jim Osterman
 - **Twenty year**: Jerry Loftus
 - **Twenty-Five Year**: Roger Knutson



2921 Ingalls Road
Menomonie, WI 54751

Mobile: 715-556-0066
FAX: 715-231-2447
www.weberinspections.com
Inspector@weberinspections.com

Activity Report

Village of Colfax

May

Date	Customer	Service	Pass/Fail	Project
<input type="checkbox"/> 5/25/2017	Palewicz/Jenseon	Permit Issued		Remodel

Weber Inspections

2921 Ingalls Road, Menomonie, WI 54751 715-556-0066

Building Permit

Village of Colfax

Date 5/25/2017

Issued to: John Palewicz & RheAnna Jenson

Address: 701 University Ave. , Colfax, Wis.

Project: 22' x 22' 6" 2 story addition / basement to existing home. A 8' x 26' covered porch attached to the new addition.

Permits Issued:

Inspections Needed:

☒

Yes

☐

No

	Cost
Construction	\$150.00
HVAC	
Electrical	\$8.00
Plumbing	\$25.00
Erosion Control	
Total	\$ 183.00

Phase	Rough	Final
Footing	x	
Foundation		
Basement Drain Tiles		
Construction	x	x
Plumbing	x	x
Heat/Vent/AC	x	x
Electrical	x	x
Insulation	x	
Occupancy		

Wisconsin Division of Safety and Buildings Wisconsin Stats. 101.63, 101.73	VILLAGE OF COLFAX UNIFORM BUILDING PERMIT APPLICATION	Application No. <div style="font-size: 1.2em; font-family: cursive;">2017-4</div>
		Parcel No.

PERMIT REQUESTED <input type="checkbox"/> Constr. <input type="checkbox"/> HVAC <input type="checkbox"/> Electric <input type="checkbox"/> Plumbing <input type="checkbox"/> Erosion Control Other:			
Owner's Name <u>Speerstra, Matt</u>		Mailing Address <u>512 Cedar St. Colfax WI 54736</u>	
Contractor's Name: <input checked="" type="checkbox"/> Con <input type="checkbox"/> Elec <input type="checkbox"/> HVAC <input type="checkbox"/> Plbg <u>Your Home Improvement Company</u>		Lic/Cert# <u>995219</u>	Mailing Address <u>3900 Roosevelt Rd #125</u> <u>St. Cloud, MN 56301</u>
Contractor's Name: <input type="checkbox"/> Con <input type="checkbox"/> Elec <input type="checkbox"/> HVAC <input type="checkbox"/> Plbg		Lic/Cert#	Mailing Address
Contractor's Name: <input type="checkbox"/> Con <input type="checkbox"/> Elec <input type="checkbox"/> HVAC <input type="checkbox"/> Plbg		Lic/Cert#	Mailing Address
Contractor's Name: <input type="checkbox"/> Con <input type="checkbox"/> Elec <input type="checkbox"/> HVAC <input type="checkbox"/> Plbg		Lic/Cert#	Mailing Address

PROJECT LOCATION		Lot area Sq. ft. _____ 1/4, _____ 1/4, of Section _____, T _____ N, R _____ E (or) W																						
Building Address <u>512 Cedar St.</u>		Subdivision Name																						
Zoning District(s)		Zoning Permit No.																						
Setbacks:		Front ft. Rear ft. Left ft. Right ft.																						
1. PROJECT <input type="checkbox"/> New <input type="checkbox"/> Repair <input type="checkbox"/> Alteration <input type="checkbox"/> Raze <input type="checkbox"/> Addition <input type="checkbox"/> Move <input checked="" type="checkbox"/> Other: <u>Replace Windows</u>		3. OCCUPANCY <input checked="" type="checkbox"/> Single Family <input type="checkbox"/> Two Family <input type="checkbox"/> Garage <input type="checkbox"/> Other:																						
2. AREA INVOLVED Unfin. _____ Sq Ft Bsmt _____ Sq Ft Living Area _____ Sq Ft Garage _____ Sq Ft Deck _____ Sq Ft		4. CONST. TYPE <input type="checkbox"/> Site-Built <input type="checkbox"/> Mfd: <input type="checkbox"/> WI UDC <input type="checkbox"/> U.S. HUD 5. STORIES <input type="checkbox"/> 1-Story <input type="checkbox"/> 2-Story <input type="checkbox"/> Other: <input type="checkbox"/> Plus Basement																						
6. ELECTRICAL Entrance Panel Amps: _____ <input type="checkbox"/> Underground <input type="checkbox"/> Overhead 7. FOUNDATION <input type="checkbox"/> Concrete <input type="checkbox"/> Masonry <input type="checkbox"/> Treated Wood <input type="checkbox"/> Other:		9. HVAC EQUIPMENT <input type="checkbox"/> Forced Air Furnace <input type="checkbox"/> Radiant Basebd/ Panel <input type="checkbox"/> Heat Pump <input type="checkbox"/> Boiler <input type="checkbox"/> Central Air Cond. <input type="checkbox"/> Other:																						
10. SEWER <input type="checkbox"/> Municipal <input type="checkbox"/> Sanitary Permit No.:		12. ENERGY SOURCE <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Fuel</th> <th>Nat Gas</th> <th>LP</th> <th>Oil</th> <th>Elec</th> <th>Solid</th> <th>Solar</th> </tr> <tr> <td>Space Htg</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Water Htg</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> <input type="checkbox"/> Dwelling unit has 3 kilowatt or more in electric space heating equipment capacity.		Fuel	Nat Gas	LP	Oil	Elec	Solid	Solar	Space Htg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water Htg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fuel	Nat Gas	LP	Oil	Elec	Solid	Solar																		
Space Htg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																		
Water Htg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																		
11. WATER <input type="checkbox"/> Municipal Utility <input type="checkbox"/> Private On-Site Well		13. HEAT LOSS _____ BTU/HR Total Calculated Envelope and Infiltration Losses ("Maximum Allowable Heating Equipment Output" on Energy Worksheet; "Total Building Heating Load" on WIScheck report)																						
14. EST. BUILDING COST \$ <u>5,840.00</u>																								

I agree to comply with all applicable codes, statutes, and ordinances and with the conditions of this permit; understand that the issuance of the permit creates no legal liability, express or implied, on the state or municipality; and certify that all the above information is accurate. If I am an owner applying for an erosion control or construction permit, I have read the cautionary statement regarding contractor financial responsibility on the reverse side of the last ply. I expressly grant the building inspector, or the inspector's authorized agent, permission to enter the premises for which this permit is sought at all reasonable hours and for any proper purpose to inspect the work which is being done.

APPLICANT'S SIGNATURE  **DATE SIGNED** 5-19-17

APPROVAL CONDITIONS This permit is issued pursuant to the following conditions. Failure to comply may result in suspension or revocation of this permit or other penalty. <input type="checkbox"/> See attached for conditions of approval.	

Municipality Number of Dwelling Location <div style="font-family: monospace; font-size: 1.1em;">1 7 1 1 1</div>	
--	--

FEES: Plan Review \$ _____ Inspection \$ _____ Wis. Permit Seal \$ _____ Other \$ _____ Total \$ <u>10.00</u>		PERMIT(S) ISSUED <input type="checkbox"/> Construction <input type="checkbox"/> HVAC <input type="checkbox"/> Electrical <input type="checkbox"/> Plumbing <input type="checkbox"/> Erosion Control		PERMIT ISSUED BY: Name <u>George Entzminger</u> Date <u>5-19-17</u> Tel. <u>715-962-4402</u> Cert No. _____	
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Distribution: ☐ Copy 1 - Issuing Jurisdiction ☐ Copy 2 - Owner/Agent ☐ Copy 3 - Inspector

Plan Commission Minutes, June 5, 2017

On June 5, 2017, the Plan Commission meeting was called to order at 5:30 p.m. at Village Hall, 613 Main Street, Colfax, WI. In attendance: Dave Hovre, Mike Buchner, David Wolff and Village President Gary Stene. Excused: Nancy Hainstock and Jason Johnson. There is one vacancy. Others Present: Woods Run representatives, Kevin Snyder, Tom Wittek and Bruce Ayres, Timber Technologies representative, Tom Niska, Mark Ackerman, Herb Sackalakas, Scott Gunnufson, Gary Cook, Public Works Director Rand Bates, Administrator-Clerk-Treasurer Lynn Niggemann and LeAnn Ralph with the Messenger.

Public Appearances – none.

Industrial Park discussions – The committee and attendees participated in discussion of a possible rail spur. TWM, Inc. provided some preliminary cost figures and designs to total approximately \$2.8 million dollars. Other costs not calculated into the \$2.8 million are engineering costs for drainage, stormwater retention ponds, costs to maintain the track and the cost of land. Ayres commented that he would not be able to promise that this rail spur would be beneficial to the Village residents. The cost to benefit, he would be reluctant to endorse it as presented. Niska would be afraid that over time the railroad may implement restrictions that would cause businesses to struggle to continue use. He is also concerned about the cost to benefit for the Village; however, he feels it would be very beneficial for Timber Technologies. Sackalakas mentioned that there may be interest in a large company interested in putting in a track to operate a train ride business.

In looking at the designs, Option two does not work at all for Woods Run. Ayres reported that he prefers Option one or three. Woods Run would like to be able to accommodate for ten cars maximum for loading/unloading. Timber Technologies would want to accommodate two cars for sure, but a maximum of five cars.

Ackerman suggests that the spur be installed by Dunn Street where East View Development is and move the Development to the Henderson land in the bluffs.

Hovre feels that the plan currently is too expensive. Investigate other options that may reduce the cost.

Gunnufson suggested that the businesses give suggestions back now that they have seen the current four options. What options work for them?

List of things to do:

- Contact CN Railroad to see if they will come to Colfax and meet with Village President, Niggemann and possibly some business members from Woods Run and Timber Technologies.
- How much value is added and what is the net effect?
- Look at shorter line to assist in reducing the cost.

Village Land Sale Discussions

Appraisals have been ordered through Bill Tice. They are expected to be completed the week of June 19th, 2017.

Salt Shed Land – The committee reviewed the sealed bid document. Once we have the completed appraisal, we will fill in some of the missing information on the bid document. A motion was made by Stene and seconded by Hovre to recommend to the Village Board to use the sealed bid process to sell the salt shed land. Voting For: Wolff, Hovre, Halpin and Stene. Voting Against: none. Motion carried.

Soo Park – Ackerman notified the committee that he purchased Turner's parcels and he is interested in possibly purchasing Soo Park. Sackalakas submitted a request for the Village to consider gifting the land to the Railroad Museum to give them more land to accommodate a kid's train ride that he would like to install. Another option that would help the Village with the request of duplex housing for retirement age residents and increase tax base would be to have a developer purchase the land and build housing for the retirement age group. The concept would flow similar to the East View development, which would require a structure to be complete within one year of the signing of an agreement.

After lengthy discussions by the committee, a motion was made by Stene and seconded by Buchner to table the Soo Park and get the actual dimensions of the lot and ordinances pertaining to setbacks, etc. Voting For: Buchner, Hovre, Wolff and Stene. Voting Against: none. Motion carried.

Adjourn: All business is complete and the Plan Commission meeting adjourned at 6:44 p.m.

Gary Stene, Village President

Attest: Lynn Niggemann
Administrator-Clerk-Treasurer

Street Committee Meeting
June 7, 2017
4:00 p.m.

The Village of Colfax Street Committee met on June 7, 2017 at 4:00 p.m., at the Village Hall. Members present were Chair Davis, Trustees Schieber and Halpin. Also present were Director of Public Works Bates, LeAnn Ralph with the Messenger and Administrator-Clerk-Treasurer Niggemann and Ken Keikhafer for the Legion Drive discussion. The meeting began with a tour of Legion Drive, Maple Street, Hwy 170 street lights and other streets. The formal committee meeting commenced at 5:00 p.m. Members present were Chair Davis, Trustees Schieber and Halpin. Also present were Jane Dobbs, Director of Public Works Bates, LeAnn Ralph with the Messenger and Administrator-Clerk-Treasurer Niggemann.

A motion was made by Trustee Halpin and seconded by Trustee Schieber to move the Maple Street Tree agenda item before Legion Drive since there is a representative at the meeting representing the Maple Street tree. Voting For: Trustees Schieber, Halpin and Davis. Voting Against: none. Motion carried.

Maple Street tree - Niggemann explained Attorney Christina Mayer's interpretation of the Village Ordinances regarding the Maple Street tree incident. She referred to ordinance Sec. 6-2-5 (e) Obstructions and Encroachments which refers to any Village enforcement official may determine that any Village street, Alley, public grounds or land dedicated for public use is obstructed or encumbered and even without the twenty-four (24) hours written notice, under Sec. 6-2-5 (2) the Village Clerk-Treasurer has the right to place the Village expense on the tax rolls for unpaid bills for abating the obstruction as provided for in this section. There was a lot of conversation regarding what Dobbs felt what should have been done vs. what had been done. After many attempts to understand exactly what Dobbs was looking for from the Village, no clear response was received. A motion was made by Trustee Halpin and seconded by Trustee Schieber to split the Shackleton Tree Service invoice of \$1,055, fifty – fifty between Dobbs and the Village, remove the damaged sidewalk and replace the sidewalk with black dirt and seed it with grass and fix the lawn that was damaged. Voting For: Trustees Halpin, Schieber and Davis. Voting Against: none. Motion carried.

Legion Drive - The committee discussed that Legion Drive, north of the tracks, has been paved in the past and it has not withstood due to the truck, forklifts and other equipment that unload at the loading dock or off the cars. Legion Drive, south of the tracks, is assumed may have been paved at some point, but is unknown. It is estimated that the maintenance costs will most likely be excessive compared to other streets in the Village. How does the Village work with these businesses to accommodate everyone? Can asphalt withstand all the motion with the heavy equipment? Is concrete a better option to withstand this type of use? Can we use group blacktop to see how it holds up? Should there be a maintenance agreement with the business that use heavy equipment on the roadway? Should the business participate in the cost difference between asphalt and concrete in the loading and unloading zone?

A motion was made by Trustee Schieber and seconded by Trustee Halpin to get estimates for Legion Drive from Highway 40 to the property line of RKR Printing with ground asphalt, asphalt and concrete where the load and unloading zone is. Once a cost is estimated, bring back to the Streets Committee for review. Voting For: Trustees Schieber, Halpin and Davis. Voting Against: none. Motion carried.

Highway 170 – Street Lights – Davis received a letter from Seth Sikora, a resident of the Town of Colfax, who walks from his home into the Village limits on Highway 170. He expressed his concerns for lack of lighting on the Highway. The Streets Committee has evaluated the number of lights in comparison to the rest of the Village and it is consistent with the rest of the Village Streets excluding Main Street. A motion was made by Trustee Halpin and seconded by Trustee Schieber to leave the lighting as is; if there are concerns from the state, the committee will reconsider. Voting For: Trustees Halpin, Schieber and Davis. Voting Against: none. Motion carried.

Any other street discussions - The Committee also discussed the Cenex Street Light in reference to the damaged base. The committee feels that a letter should be sent to Cenex to discuss possible resolutions to the problem. Two ideas mentioned were to change the base to a cement base or add some bright yellow caution poles around the base so that the light pole does not get hit. A motion was made by Trustee Halpin and seconded by Trustee Davis to have Niggemann send a letter requesting possible solutions to minimize damage to the street light pole. Voting For: Trustees Halpin, Schieber and Davis. Voting Against: none. Motion carried.

The Committee reviewed the Street Improvement List which will be prioritized after a closer review of street condition and cost estimates are received. The streets mentioned were Roosevelt, Cedar Street will still need water/sewer in the future, Railroad Avenue, Johnson-Olson Rd, E. High Street, Oak Street, Dunn Street and Viking Drive. Some of the project will be prioritized by determining if the infrastructure needs to be replaced rather than what does the surface look like. No action was taken.

Any other sidewalk discussions – A motion was made by Trustee Halpin and seconded by Trustee Schieber to table the sidewalk discussions for the next meeting. Voting For: Trustees Halpin, Schieber and Davis. Voting Against: none. Motion carried.

Adjourn: A motion was made by Trustee Davis and seconded by Trustee Schieber to adjourn Streets Committee meeting at 6:37 p.m. A voice vote was taken with all members voting yes. Motion carried.

Carey Davis, Trustee

POOLED CHECKING ACCOUNT

Accounting Checks

Posted From: 5/22/2017 From Account:
Thru: 6/11/2017 Thru Account:

Check Nbr	Check Date	Payee	Amount
XCEL	5/31/2017	XCEL ENERGY	4,007.96
73879	5/31/2017	24-7 TELCOM	24.95
73880	5/31/2017	BOBCAT PRO	1,000.00
73881	5/31/2017	BREMER BANK	20,802.50
73882	5/31/2017	CENTURY LINK	45.16
73883	5/31/2017	CITY OF MENOMONIE	400.00
73884	5/31/2017	COLFAX COMMUNITY FIRE DEPT	5,171.31
73885	5/31/2017	COLFAX FFA ALUMNI	700.00
73886	5/31/2017	CREATIVE COUNTRY	866.00
73887	5/31/2017	DEMCO INC	72.50
73888	5/31/2017	DUNN COUNTY SOLID WASTE DIVISION	1,362.40
73889	5/31/2017	FARRELL EQUIPMENT & SUPPLY CO.	65.94
73890	5/31/2017	FIRST SUPPLY LLC-EAU CLAIRE	843.25
73891	5/31/2017	GALE/CENGAGE	20.79
73892	5/31/2017	GRAINGER	127.14
73893	5/31/2017	HAWKINS, INC.	972.56
73894	5/31/2017	HUEBSCH	151.35
73895	5/31/2017	HYDROCORP	496.00
73896	5/31/2017	JOHN DEERE FINANCIAL	1,474.10
73897	5/31/2017	JOLENE ALBRICHT	26.62
73898	5/31/2017	LISA BRAGG-HURLBURT	10.00
73899	5/31/2017	MENARDS-EAU CLAIRE	89.99
73900	5/31/2017	MICRO MARKETING LLC	227.43
73901	5/31/2017	MISSISSIPPI WELDERS SUPPLY CO.	230.50
73902	5/31/2017	ONE SOURCE IMAGING	552.90
73903	5/31/2017	PATRICIA KISTNER	131.98
73904	5/31/2017	QUILL CORP.	141.98
73905	5/31/2017	ROGER'S REPAIR	36.00
73906	5/31/2017	SHEILA RIEMER	31.74
73907	5/31/2017	SHERWIN WILLIAMS	609.29
73908	5/31/2017	SHORT ELLIOT HENDRICKSON	1,200.00
73909	5/31/2017	SHRED AWAY	25.00
73910	5/31/2017	T & R RECYCLING, LLC	3,800.00

6/09/2017 8:23 AM

Reprint Check Register - Quick Report - ALL

Page: 2
ACCT

POOLED CHECKING ACCOUNT

Accounting Checks

Posted From: 5/22/2017 From Account:
Thru: 6/11/2017 Thru Account:

Check Nbr	Check Date	Payee	Amount
73911	5/31/2017	T & T CONSTRUCTION, LLC	500.00
73912	5/31/2017	WAL MART COMMUNITY/GECRB	47.68
73913	5/31/2017	WOODS RUN FOREST PRODUCTS	36.12
73914	5/31/2017	WRWA	475.85
73915	5/31/2017	ZEMPEL APPRAISAL SERVICE	822.05
73916	6/05/2017	WI SCTF	63.62
AFLAC	5/26/2017	AFLAC	421.02
EFTPS	6/01/2017	EFTPS-FEDERAL-SS-MEDICARE	5,749.62
WIETF	6/05/2017	WI DEPT OF EMPLOYEE TRUST FUNDS	5,460.26
AMAZON	5/23/2017	AMAZON.COM	606.67
BREMER	6/09/2017	CARDMEMBER SERVICE	1,968.53
CHARTER	5/28/2017	CHARTER COMMUNICATIONS	526.63
WIDCOMP	6/01/2017	WISCONSIN DEFERRED COMPENSATION	255.00
Grand Total			62,650.39