



**CITY OF RIVER FALLS WISCONSIN
UTILITY ADVISORY BOARD AGENDA
CITY HALL – COUNCIL CHAMBERS
January 18, 2016**

Call Meeting to Order: 6:30 p.m.

Roll Call

Approval of Minutes: November 16, 2015

ACTION MAY BE TAKEN ON ANY OF THE FOLLOWING ITEMS

PUBLIC COMMENTS:

CONSENT AGENDA:

1. Acknowledgement of the following minutes:
 - a. West Central Wisconsin Biosolids Facility Commission – 10-20-15, 11-17-15
 - b. POWERful Choices Committee – 11-12-15 and 12-10-15

RESOLUTIONS:

2. Resolution Authorizing Purchase of 69KV Transformer and Switchgear for Power Plant Substation Project
3. Resolution to Amend Commitment to Community Rate Tariff
4. Resolution to Approve Residential Loan Program for Community Solar

NEW BUSINESS:

5. Water Rate Update
6. Waste Water Treatment Plant Upgrade Project Update

REPORTS:

7. Finance Report
8. Utility Dashboards
 - a. Electric
 - b. Water
 - c. Waste Water Treatment Plant
 - d. Powerful Choices
9. Monthly Utility Report

ANNOUNCEMENTS:

ADJOURNMENT:

Post: 01-08-16

Utility Advisory Board Meeting

November 16, 2015

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REGULAR MEETING

RIVER FALLS UTILITY ADVISORY BOARD

November 16, 2015 6:30 p.m.

Council Chambers, City Hall

The Regular Meeting of the River Falls Utility Advisory Board was called to order by President Hanson at 6:30 p.m. Present: Chris Gagne, Grant Hanson, Wayne Beebe, Tim Thum, and Adam Myszewski. Absent: Diane Odeen, Duane Pederson. Staff present: Kevin Westhuis, Utility Director; Kristi Hartmon, Administrative Assistant; Reid Wronski, City Engineer; Brent Buesking, Management Analyst Fellow, and Julie Bergstrom, Finance Director; Other Present: Council Representative Scott Morrisette

M/S Gagne/Pederson to approve minutes of the September 21, 2015 Regular Meeting. Motion Carried.

CONSENT AGENDA:

1. Acknowledgment of the following minutes:
West Central Wisconsin Biosolids Facility Commission Meeting – 08-18-15 and 09-15-15
POWERful Choices Committee – 9-17-15

M/S Beebe/Myszewski to approve Consent Agenda. Motion Carried.

RESOLUTIONS:

2. Resolution for Sycamore Water Tower Reconditioning Bid (Evaluation of Options and Bid Recommendation)
 - a. Utility Director Kevin Westhuis gave a presentation. Utility has been tossing Sycamore tank rehabilitation project around since 2013 when SEH did an assessment of both Golf View and Sycamore towers. SEH presented to the board last January the results of the water tower model updates and analysis of the Sycamore tank location. At that time it was recommended that the existing Sycamore tank be rehabilitated as this was the lowest cost, had existing infrastructure and location, telecom revenue, boosted zones and the tanks age. Utility Director Westhuis also discussed tank location options. In May 2015 after going out to bid, two bids were received for 2015 work. The bids were higher than anticipated (\$660,950 and \$818,900). Options were considered as awarding the bid with a challenging 2015 construction schedule or rebid for 2016 construction schedule. After careful deliberation the utility decided to rebid with a 2016 construction schedule eager for more bids and more aggressive bids by increasing the “lead time” before project start. After rebidding in August of 2015, four bids were received for 2016 work. Classic Protective Coatings - \$642,950, TMI Coatings - \$709,000, LC United Painting - \$713,000 and M.K. Painting - \$976,000. The bids were still higher than anticipated so the utility sent SEH back to work to do net present value of money. If we did build a new tower at one of those other recommended locations, if we built a tower in the existing location, or repainted it in the existing location and looked at those three options. How much is it going to cost today and extrapolating that out for 50, 100, and 150 years. A lifecycle analysis / present worth analysis were done. The options were reconditioning Sycamore Tank (award the bid), replace Sycamore Tank in a new location or replace Sycamore Tank in the same location. Assumptions were made (same for all options). Maintenance schedule, inspection schedule, discount rate, analysis period (50, 100 and 150 years). Reconditioning of the Sycamore tank had the lowest lifecycle costs in all combinations of alternatives and analysis periods. 50 to 75% of the lifecycle cost of a new water tower. The \$650,000 bid to recondition the existing tank that was asked to be

approved by Utility Advisory Board, is the best option. Moving forward staff is recommending reconditioning the Sycamore Tank in 2016 with bid award to Classic Protective Coatings of Menomonie, WI for \$642,950. Started coordination with telecom tenants and will start work on or after May 1, 2016 and be complete on or before October 28, 2016 (with a stipulation that the tank will not be out of service for more than 45 days). Utility Director Westhuis asked the Advisory Board to approve the resolution awarding bid for the Sycamore Tank Rehabilitation. Myszewski asked in reading the SEH Memorandum, the schedule for maintenance is basically every 10 years, either paint it or wash it down. Myszewski asked Mr. Westhuis to describe do we do this now and then in 20 years we do it again, what is that going to entail and it is not as big of a process as it is now. Westhuis answered, correct. Right now we have several issues that are not going to have to be addressed in the future. One of them is led based paint abatement (have to curtain and sandblast the tank to capture led paint). Railing and other pieces of the structure needs tweaking to come up to OSHA standards. Once these are done, they will not need to be done in the future. Thumb asked if this is the first major significant coating of that structure. Westhuis answered, this is the first major project but has been repainted in the past. Hanson asked what the worse case scenario would be if we did nothing right now. Westhuis stated the metal would start deteriorating and we are starting to get to bare metal in some spots. Hanson asked if Westhuis is satisfied after bidding twice that this is the best price we will get for reconditioning. Westhuis stated yes. Gagne stated he liked that we are saving \$20,000 from the last bid and it is a fairly local company as well. Hanson made a motion to recommend the resolution awarding bid for Sycamore Tank Rehabilitation, Gagne seconded the motion. Motion Passed.

3. Resolution for Commitment to Community Tariff Adjustment. This item was pulled by Utility Director Westhuis. This will be brought back to the board in January 2016.

NEW BUSINESS:

4. North Interceptor Sanitary Sewer Project Summary and RFP Draft
 - a. Utility Director Westhuis gave a brief statement on the North Interceptor Sewer. It is the spine for our sewer system that runs north to south in town and delivers 27 percent of our existing developed area into our WWTP. It will be 42 percent of urban growth boundary someday. This is critical piece to future development and critical infrastructure that supports the entire sum of industry properties north, Sterling Ponds and future stuff along Radio Road potentially. Do not have everything in place to ensure it will be good for the next 50 years and it needs some attention.
 - b. Reid Wronski, City Engineer gave presentation. Wronski showed a map of the area it serves. Serves 27% of the existing developed area and will serve 42% of the urban area boundary and includes all three of the City's Corporate Parks and much of the commercial property in town. The 2009 sewer system study predicted that the existing north main street lift station will reach capacity between 2011 and 2018 (there was a big change right about the time this study was done when the housing market really collapsed). Housing downturn has resulted in less growth than expected. The wet industry and there is a new corporate park in Sterling Ponds if we wanted to consider appropriate wet industry that could take up that capacity (lift station) rather quickly. Want to be prepared to act if we do get business that happens to be wet.
 - i. Study recommendations were the elimination of the north main street lift station, constructing a gravity extension of the north area (Lametti) interceptor from an existing deep manhole located in the St. Croix outfall storm water pond to the lift station location. To do a new sewer line a routing study would need to be done. Wronski stated to the board that in their packet is information on pulling together a Request for Proposal trying to outline the various things that need to happen. First thing is a need to determine a route for a new 21' sewer interceptor line that

would replace the existing north side lift station and force main with a gravity flow sewer. Wronski showed some detailed graphs/photos. In the routing study would want to consider at least three routes and we want them to look at the existing route which would go up St. Croix Street. Would want preliminary plans identifying all land acquisition necessary for access, construction, and ongoing maintenance. Looking for preliminary estimates with a plus/minus 25%. Because the existing line goes up to the north, there is a stormwater pond with a manhole right in the middle of it and is not the most ideal design but that is what it is. The pond is not sized up to today's standards and we think it would be a good thing to analyze enhancements to that pond that would make it serve better from a storm water management standpoint. Would coordinate that with the planned improvements for this North Interceptor Sewer project. These two projects that are different in nature do mix together at that point so we want to study this outfall project and look at a couple different concept plans on that again with current standards and do some preliminary planning. St. Croix St. outfall study would include at least two concept plans that are compatible with the adopted North Interceptor Sewer routes, preliminary plans identifying all land acquisition necessary and have preliminary estimate of plus/minus 25% including land acquisition. After the preliminary studies of where the new sewer line wants to be and what the modifications of the St. Croix outfall want to be, we've identified necessary land to do those things then we need to go through a land acquisition to property obtain rights to constructing sewer line or expand the pond on the lands that have been identified. Would go into the land acquisition stage. This would be a significant and time consuming phase of the project. Once we have those necessary easements, we would follow up interceptor rehabilitation; televise, review, recommend and rehabilitate. There are leaking joints in this North interceptor that want to be dealt with.

- ii. Final Design of North Interceptor. Have it ready to go if significant growth opportunities in that North service area so we could respond quickly to an opportunity for the city. Would need to obtain all necessary permits, review at 35% with a plus/minus 15% estimates and review at 95% with a plus/minus 10% estimate.
- iii. The stage we are at is getting ready; go out to talk to some engineering firms about the expertise that they are able to offer us as we move through all these different facets of the project. Wronski wanted to make sure the Utility Advisory Board had an update on that and he was available to answer any questions.
 1. Hanson stated you did not mention in here that the Lametti restriction area and would assume that would be built into this plan. Wronski stated currently if you track the North Interceptor up from Sterling Ponds on down in the lift station it sends it into a force main, the force main dumps it into a less shallow sewer system that goes by the bowling alley and such and there is a section of pipe there on St. Croix Street that is at marginal capacity, but this sewage won't even be going through there so that pipe that is at marginal capacity all of a sudden gets all sorts of capacity because it no longer gets sewage from Sterling Ponds flowing through it because you built the gravity interceptor that goes around that and that reverts back to what it was designed for which will be a local sewer. Thum asked if you have considered taking this in a step wise fashion and step one getting the proper easements so you can do this televising of it and assessment of their condition and then having that information available to decide what the long range plan would be. Wronski answered that is exactly what we intend to do. These are a whole bunch of steps; this is not one large project or program that we are

going to sign on a dotted line with a consultant to do all of it. What we do want to hopefully do is identify a consultant that can stay with us, assuming good performance and bring us through all these phases because they are all inner-related. This would be multiple phases over a number of years. Hanson asked if we have history with an engineering firm that has worked with us before that has good history in our particular case. Wronski answered we always look for that and he had suggested four firms that the information go out to (SEH, MSA, Ayres Associates and TKDA). Gagne stated he appreciates putting four recommendations out there for these firms, he likes being able to have the city find out what's best suited for them (being able to pick). Westhuis emphasized that this is not a fast process (18 – 24 month type process) to get where we need to go. Again we have a brand new corporate park opening up and we have potential on Radio Road and 35 and we don't want to be surprised and have great industry coming in and not being prepared and not being able to serve. Gagne stated looking at our tax base and where the City of River Falls is headed, he thinks that is a wise move to be attractive to those bigger companies and corporate parks bring that tax base down for residence, but also attract quality workforce. Wronski stated we will be incurring some costs on this that are different than most projects we do (with land acquisitions). Westhuis stated that the objective tonight was to introduce the Utility Board to this topic and this concept and get them thinking about it because they will be hearing more about his in the next six months.

REPORTS:

5. Finance Report was included in the packets for review. Bergstrom stated that if the board has any questions she could answer those. In general the electric fund expenses has decreased year-to-date about \$30,000. In the water and sewer fund we received revenue for both of those from an assessment related to the property owned by St. Bridget's so that was a long term deferred assessment. This benefited water and sewer fund about \$30,000 each. This gave the water utility a net gain. For all funds the revenues are close to projected and the expenses are a little less.
6. Utility Dashboards for, Electric, Water, Waste water and Powerful Choices were included in the UAB Packets. Hanson stated that you have on one of the graphs renewable block customer participation where we do very well in Wisconsin and we are looking to increase it by another 10% and is there anything we are doing to make customers aware or trying to get more people to participate in the program. Westhuis answered that yes, Customer Service Reps have been doing a great job with selling the blocks when a customer signs up for service. Gagne stated that we are roughly at 5.8% now and the goal is 10% by December. Westhuis stated that is the target goal.
7. Monthly Utility Report was included in the UAB packets.
 - a. Westhuis stated that we were a little behind with the LED light replacement this year, but thinks we have about a hundred more to go, and knows the crews are wanting to get to the two hundred they need to install this year; so we are ramping up our LED light replacement program.
 - b. Thum asked regarding the WWTP improvement project in the minutes last month it talks about receiving bids. Westhuis stated that we just got notice from MSA last week that it is publicized right now for the bids and will have the drawings done the first week of December and open bids the first part of January.
 - c. Hanson asked about the fluoride issue at well #6 with DNR. Westhuis answered that we had high fluoride readings and Greg Koehler said where it is injected they think there was

part of a clog and the clog released a lot of fluoride at once and they got a high reading on the fluoride injections. They cleaned that out and haven't had a problem since. Solution to the problem is complete and a report is being written for the DNR.

- d. Thum stated with the wipes in the system, have we done any education to the public on this. Westhuis has visited some of the nursing homes to educate staff.
- e. Community Solar – Live cam is up and running at www.rfmu.org and the panels are in.
- f. Added 75 new electric accounts in an apartment complex (had one meter and invested in separate meters for each apartment).

Announcements: On January 26, 2016 at 4:30pm we will have a joint workshop with City Council regarding WPPI Contract Extension proposal. Mike Peters, CEO of WPPI will be present to give a short presentation. On December 10, 2015 at 7:30am at Kilkarney Golf Course we will have our Business Leaders Breakfast. We are inviting our top customers and invite Advisory Board to attend as well. We will not have a Utility Advisory Board meeting in December. Gagne announced that in October he attended the Little Falls Dam DNR meeting with the community of Lake Mallalieu, that's the dam they are removing out at the state park. Just trying to get some background on our project and some of the issues that might come our way as well and overwhelmingly heard from people that live down river of all the finds that went down river because they had to reach their dam because it wasn't low enough. These are things that he observed and something we might want to think about is who is downstream on that dam if we did remove the dams and how we are going to do that effectively. He appreciates what we are doing to make sure we are doing it right ahead of time so we are not rushed in a position where we get into a predicament like this, but at the same point we need to think about the people way downstream because there are people stepping out into their Lake Mallalieu in a foot of soot. Westhuis stated that we are doing core sampling on our upper pond later this week and will find out through the sediment study what's in the sediment.

ADJOURNMENT:

M/S Myszewski/Beebe moved to adjourn at 7:29 p.m. Unanimous.

Reported by: Kristi Hartmon, Administrative Assistant

Wayne Beebe, Secretary

West Central Wisconsin Biosolids Facility

Commission meeting

October 20th 2015

Meeting was called to order by Gary Newton at 8:37 am.

Board members present were Gary Newton, Greg Engeset, John Bond, Kevin Westhuis, and Steve Skinner.

Others present: Richard Bignell, Tom Johnson, Joe Beaudry, Nathan Wells, and Pete Skorseth.

Consent Agenda:

Approval of the September 2015 monthly bills was passed. (M/S Steve/John) Approval of the October 2015 monthly bills was passed. (M/S Greg/John). Approval of the September meeting minutes was passed. (M/S Steve/Kevin)

Financial Report:

Randy discussed financial report as outlined in the meeting agenda packet. Motion was made to approve financial report. M/S John/Greg

Facility Report:

Facility pounds are down from last year's pounds at this time. Gallons are up from last year's numbers at this time. Maintenance items over the last month were Bioset drive screws were replaced. The repairs went smoothly. There were no disruptions during the repairs and have been able to lower the pump speed from 80% down to 45%. There are a few issues with the Bioset that Schwing are still working on. Sulfamic acid feeder motor and shaft have worn out. Motor has been replaced, waiting on shaft assembly to complete repair. Mixer pump #2 repairs that included VFD replacement along with impellor and seals were completed by Minnesota pump works. Work on silo #2 are almost done. The new bag house has been installed but they do need to come back as they did not install 2 of the requested impact vibrators. Other items Randy discussed was the WPDES is up for renewal. Current permit expires September 30th 2016. Permit application in is progress. SCADA project shop drawing review will at the Biosolids next Tuesday or Wednesday. If anyone would like to attend Randy will inform them as soon as Gene gives him more details. Edgewood Estates a private development near Mantorville MN has again contacted the Biosolids for a quote to process their solids. They will have about 4500 gallons at 1.5% to 2% solids. The biosolids did haul a load from them in July 2013.

Old business:

Annual Biosolid meeting is to be held on November 17th at the Ellsworth fire hall. Meeting will consist of speakers Randy Lindquist, Chris Moarn, and Gene Laschinger. The 2016 budget will be a topic of discussion during the meeting. Motion was made to approve meeting agenda. M/S Kevin/Greg

New Business:

Nominations for commission seats that are open are the vice president seat held by John Bond and secretary seat held by Steve Skinner. These positions will be voted on at the annual meeting.

Motion was made to go into closed session. M/S Kevin/John Motion was made to go out of closed session. M/S Kevin/Greg Motion was made to approve compensation renewal for operator/maintenance, bookkeeper, Superintendent for the 2016 operating year. M/S Kevin/Greg

Adjournment:

Meeting was adjourned at 10:20am. M/S Steve/John

West Central Wisconsin Biosolids Facility

Annual Meeting Minutes

November 17th 2015

Meeting was called to order by Gary Newton at 9:10 am.

Board members present were Gary Newton, Greg Engeset, John Bond, Kevin Westhuis, and Steve Skinner.

Communities represented at the Annual meeting were: Baldwin, Ellsworth, Hudson, New Richmond, Prescott, River Falls, Roberts. Communities absent were: Amery, Osceola, Somerset, Spring Valley.

Others presents: Steve Reed, Rick Whitely, Dennis Eaton, Hank Zwart, Kip Peters, Joe Beaudry, Richard Bignell, and Jeremiah Wendt.

Consent Agenda:

Approval of the October minutes was passed. M/S Kevin/Greg

Approval of the November bills was passed. M/S Steve/John

Superintendents report- Summary of 2015 and financial report:

Randy started his discussion by talking about the debit that had been paid off in the 2015 year. The loans paid were Clean Water Fund, River Falls Loan, and Somerset Grant Credit. He talked about the major maintenance items for the year which were services on the Bio-set and Centrifuges. Both pieces of equipment are in good condition with years of life left in them. Member pounds were down 5.7% and gallons were down 11%. This is due to more efficient plant operations and better thickening. Non-members pounds are up 5% and gallons up 11%. Randy demonstrated this with trending graphs from throughout the year. Randy asked how the monthly invoicing was working. Many answered they like the new invoicing. He discussed the yearly budget and how the facility was doing in various areas. Durand has contacted the facility on taking their sludge. Other than a few correspondences that as far as it has gone. Lake City also has asked about the possibly of becoming a member verses a non-member. No action has been taken any further by either party. End product has been working its way out to the fields but has stopped do to the wet weather. There is about 40 feet of sludge in the storage building left to haul out.

Chris Moarn with Blu-Teq talked about the challenges he has been facing to bring a Bio-Solids treatment process to market. He has found that he can't just make one piece of equipment for a processes because there are many pieces needed. He has found himself designing a sludge treatment system and product delivery systems. When he has worked though one problem then he encounters a new unforeseen problem such as moisture from condensation coming off the treatment process which fills the storage area during batch test runs. This got him working on developing an air scrubber to clean up

the air coming off the dryer. This has been a challenge but he has been able to get DNR and EPA approval of his process treatment system. He touched on the interest there is in the end product. He continues to work toward a marketable system but it is proving to take a lot of time.

Town and Country Engineering Report:

Gene Laschinger with town and country Engineering gave an overview of the year's highlights at the facility. Centrifuge were evaluated for condition and found to be in good condition. If centrifuge were operated the same as right now the life remain for the centrifuges is about 10 years. There is a Scada system upgrade that was awarded this summer with completion to be next year. Gene talked about replacement fund changes. With the reduction in debit over this last year the facility has been able put more money in the replacement fund. This allows for funds to be available to pay for smaller projects without taking out loans and also allowing for a 10% reduction in rates to communities. The discussion of allowing non-members to become members has come up over the year. Pros and cons of that were discussed. The decision of the commission is keep quo of members and non-members the same at this time. If a specific request was made in writing from a non-member to become a member then that would be handled at that time. Gene talked about future changes in process like upgrading off-loading screening, using centrate for backwashing of equipment, and investigating of ventilation improvements. These ideas would be looked into as technology changes continue to improve and would allow for more cost effective processes of these areas.

Budget review and approval:

Budget for 2015 was review and discussed by Randy. Motion was made to approve 2015 budget. M/S John/Kevin

Election of commissioners:

Motion was made to vote for the two chairs up this year on the board. M/S John/Kevin. First chair voted on was Secretary. Steve Skinner was elected to a two year term as secretary. Vice President was second chair voted on. John Bond was voted to a two year term as vice president. Motion was made to approve newly elected people. M/S Greg/Kevin.

Adjournment:

Meeting was adjourned at 11:40 am. M/S Greg/John. Meeting was followed by a great meal hosted at the Ellsworth Fire Hall.



MINUTES

November 12, 2015

Fire Hall

12:00 p.m. – 1:00 p.m.

Committee members and guests present: Mike Noreen (RFMU), Kristi Hartmon (RFMU), Dave Engstrom (SCV-Habitat), Matt Fitzgerald (UWRF), Jim Cooper (SCV Habitat), Aleisha Miller (Miller Escapes), Lauren Kaminski (RFSD – Community Ed), Don Richards (SCVH, RFBC), Nathan Croes (City of RF), Ken Thill (City of RF), Rebecca Ferguson (Resident/ First Cong), Alan Symicek (UWRF), Melissa Rickert (Focus on Energy), Al Bohl (Focus on Energy), Art Tobin (RFSD), Debbie Murtha(SCV Habitat), Dave Ostendorf (First Congregational Church), Judy Berg (RF Chamber), Jay Spinnes (resident), Chuck Eaton (RFSD), Deb Lucero (Express Employment), and Rhonda Davison (RFMU)

Mike Noreen mentioned that long time caterer Amy Field has recently moved back to Hawaii and is looking for suggestion of caterers with similar food options (local and organic).

Matt Fitzgerald moved and Aleisha Miller seconded minutes of the 9/17/15 Committee Meeting. - Motion Carried. Alisha Miller mentioned 2 minor changes to the minutes which have been since corrected.

Mike Noreen encouraged the committee to provide input and suggestions on all topics during our meetings.

1. Community Solar

Mike spoke about the 254 KW solar arrays being installed near the Sterling Ponds Corporate Park. He shared the FAQ sheet, application and Envior benefits form. Mike explained the pay back to be in 18 years as the exact amount is unknown and will change based on rate cases and tariffs. At the present time the payback will be at a rate of 7.8 cents per kwh. To date there have been 60 panels sold. Mike asked the group to provide suggestions for marketing to the variety of customers (Industrial, Commercial, Business, Residential, and Non- Profits) we have. Al with Focus on Energy asked about the environmental attributes – 250 lbs of coal per year would be saved. Mike spoke of the transferability and community gifting if a customer wanted. He explained if you wanted to purchase a panel and donate it to your church or non-profit that the monthly credit would go to the entity. The individual would need to check with their accountant about any tax credits if the panel were to be donated.

Mike talked about how POWERful Choices would donate panels to be used for silent auction. Recently one was donated to the River Falls Free Clinic fund raiser. Other upcoming events were suggested Forward Foundation, CAB Gala, Relay for Life, St. B's, Rocky Branch Luau, Pride Fitness Room, and ARC. It was suggested that the message be simplistic and reflect 1 panel equals this amount of savings as part of the information on the bid sheet.

2. Cool Choices

Melissa Rickert and Al Bohl with Focus on Energy explained the DEET Program – Deliver Energy Efficiency Together. This program works with schools K-12 only and is targeting changes in behavior with regard to how to change current habits like turning off lights and using equipment differently can impact your bills. The school must have a 12 month baseline and if recent system upgrades have taken place the baseline must be 12 months after the changes. This is to ensure the behavior changes are that and not due to the new or upgraded equipment. Melissa and Al met earlier in the day with representatives of the River Falls School District to discuss these programs and see which facilities would best benefit from the program while keeping in mind future capital improvements projects that may nullify the Cool Choices program. This is a pilot program with a new way to reward schools for changing habits. For more information you are asked to contact Focus on Energy. Also discussed was the Green and Health Schools. There are caps on long range planning which may make it necessary to put off some capital projects.

3. LED Light Exchange

November 30th and December 1 are the dates for the light exchange. Customers that bring in 2 or more strands of lights will be given 2 strands of LED lights. Customers that do not have lights to recycle will be allowed to bring in 2 nonperishable food items and receive 1 strand of lights. Customers may bring in additional strands of lights to recycle and additional food items, but will only receive a maximum of 2 strands of LED's while supplies last. Only River Falls Municipal Utility Customers will be eligible to receive lights. All citizens are able to bring in lights for recycling.

It was asked how many lights in past years were turned in? Mike stated 400 strands. The recycled lights are picked up by a facility that hires adults with disabilities and they strip the lights and recycle the parts and receive funds for the recycling efforts.

4. Other items of interest

- ✓ 18th annual River Dazzle event will be held on November 27th – Events include a Chili Crawl, Cookie Decorating, Wearable Art, Wagon Rides, and Parade (currently 20 units are signed up). Mr. and Mrs. Santa Claus will be a big hit with the kids!
- ✓ Habitat for Humanity – They are planning an event to celebrate the completion of the Eco Village. The last of the homes will be completed by the end of the year.
- ✓ Habitat will be traveling to Washington DC along with representatives of Andersen Windows for Green Build U.
- ✓ The City of River Falls recently received an award from the American Planning Association for the Eco Village project.
- ✓ Habitat welcomed Kayla Ludwig as their Vista – Faith relations outreach person.
- ✓ First Congregation Church and St Bridget's held a joint meeting with 22 attendees to discuss the Pope's encyclical "On a Care for Our Common Home". There was a great deal of excitement amongst the group and they plan to gather again in January.
- ✓ First Congregation Church indicated that much to their surprise they are seeing more benefit from the solar panels that were installed on the church than they expected. They hope other churches will take advantage of installing solar panels.
- ✓ St. Bridget's has completed several HVAC, electrical, and lighting projects over the last few months.
- ✓ The River Falls Public Library is holding a climate change discussion this series will coincide with UW – Madison Massive Open Online course (MOOC) November 11 & 18 and December 2. This is a free event.
- ✓ Mike Noreen reminded the group that there are training opportunities with funding available. Mike is attending and event next week in Stevens Point. Please contact him if you are interested.

- ✓ UW River Falls has begun recycling batteries they have bins on campus and they are surprised with the amount of batteries they have collected. The City of River Falls will also begin collecting batteries at City hall. This will begin in early December.
- ✓ Habitat for Humanity's Restore facility accepts many appliances and electronic devices for a nominal fee. Chuck Eaton received the Wisconsin Environmental Educators Association's "Administrator of the Year" award. Chuck shares the award with all UWRF staff.
- ✓ Sustainability Conference – Social justice and low income working with others in the community. There will be funds for low income families to take advantage of some community education classes using these funds. The hope is to provide opportunities to be with successful people educate and increase self-worth.
- ✓ Passive house tours are going on in Minneapolis and St. Paul this weekend.
- ✓ Habitat ownership study – Home is empowering Twincitieshabitat.org for more information.

Meeting minutes were taken by Rhonda Davison



MINUTES

December 10, 2015

Riverwalk Art and Antiques

12:00 p.m. – 1:00 p.m.

Committee members and guests present: Mike Noreen (RFMU), Kristi Hartmon (RFMU), Dave Engstrom (SCV-Habitat), Matt Fitzgerald (UWRF), Jim Cooper (SCV Habitat), Lauren Kaminski (RFSD – Community Ed), Melissa Rickert (Focus on Energy), Dave Ostendorf (First Congregational Church), Kit Luedtke (RFHS), Steve Preisler (CAB), Erin Tomlinson (TFS), Reed Schneider (UWRF Student Senate), Mike Huth (City of RF), Mike Stifter (UWRF), Patricia La Rue (Resident), Jill Coleman Wasit (UWRF), Anna Luebke (RFHS), Kayla Ludwigson (SCV-Habitat), Peter Morsch (St Croix Energy Solutions), Aaron Riendeau (St Croix Energy Solutions) and Rhonda Davison (RFMU) – *There are some names missing for people that were present who did not sign the attendance sheet.*

Mike Noreen welcomed everyone and mentioned what a cool space that Riverwalk had to offer for our meeting. Thanking Dan and the staff at Riverwalk for having us.

1. 2016 POWERful Choices! Programing

Mike spoke about the POWERful Choices program and how we have a unique group of individuals working together to reach sustainability goals for our community. Talking about the current programs what is working and what is due to be updated or changed. We are looking for some new innovative ideas for future programs and how to make the existing programs better. We should all dream BIG! – Mike handed out forms for each table to discuss programs for each of the following areas: Education, Marketing, Renewable energy, Low income, Partnerships, Business, Multifamily programing, and Projects. Each table took about 20 minutes to discuss amongst themselves, then a representative from each table reported to the group their ideas. Attached is a list of the many different ideas that came from the discussion.

2. Other items of interest

January 2016 meeting will be held at City Hall.

Meeting minutes were taken by Rhonda Davison



MEMORANDUM

To: Utility Advisory Board

From: David Keating, Civil Engineer

Date: January 18, 2016

Re: Resolution Authorizing Award of 69kV Transformer and Switchgear for Power Plant Substation Project

BACKGROUND REVIEW

Since the City's power plant was decommissioned in 2012, a study has been conducted for a potential future location of the existing substation and related equipment housed in the power plant. It was determined that the substation equipment housed in the power plant will need to be relocated. This will allow for repurposing of the Power Plant building as well as upgrade this major substation.

Proposed substation upgrades are planned for two separate phases. Beginning in 2016, Phase 1 will incorporate the replacement of the substation transformer, switch gear, and feeder exit. The current transformer has exceeded its expected life. Phase 2 will begin thereafter and incorporates replacing the transformer breaker switches.

The project is located at the existing Power Plant as well as the open lot directly north of the existing substation adjacent to the Power Plant. An existing City of River Falls right-of-way has been vacated surrounding the open lot (to the 80' ROW associated with Winter Street) to allow this project to proceed unobstructed. Additionally, this project will extend the existing Xcel Energy easement north from the current substation to allow their portion of the project to occur as well.



PROJECT SCOPE REVIEW

The scope of the project includes the replacement of the existing 69kV equipment including the bus and line PT's and two (2) circuit breakers, line protection relaying and controls. Additionally, a new 69 kV breaker and power transformer will be installed in the north lot along with a new building, indoor-metal clad switchgear, protection relaying and controls installed. New feeder exit cables will be required for all feeders. Existing controls and relaying will be disconnected and abandoned or demolished as part of this project, as is reconnection of the existing hydro outlet circuit to the new switchgear. Additionally, this project will be coordinated with a similar scope project by Xcel Energy on the same site.

DISCUSSION

Two bid packages have been created to secure the procurement of the long lead time items for this project. The first bid package is for the 69kV transformer. The second bid package is for the new substation switchgear. Each bid was advertised separately; however, we had them both due on December 16, 2015 at 2 and 2:30 p.m. respectively.

Krause Power Engineering created and released hard copies of the bid documents to each interested party in an effort to track plan holders and ensure bid coverage. (A hard copy of each bid package document is available for your review upon request.)

69kV Transformer

For the power transformer bid opening there were nine plan holders, and we received seven bids (see attached bidders tabulation form). We requested pricing on three (3) different sizes for the power transformer. As the size (capacity) increases, the price increases, but the price/unit power delivered decreases. Given there were (3) size options, bid prices ranged from \$481,800 to \$795,237. Not all bidders supplied bids on all three size options.

Specific to the size (and subsequently the price of) the units:

The capacity of the base bid is equal to the existing power transformer. With provisions for growth, Krause recommends purchase of at least the mid-sized unit. The bid asked for pricing on a unit one size larger (2 sizes larger than the existing) to see if there were discounts that could be taken advantage of.

Not all bidders could manufacture the mid or largest unit requested. Some bidders missed the optional sizes in the bidding documents, so they did not provide pricing. The numbers recorded in the bid opening were the base (smallest) bid prices only.

Krause followed up with the bidders who provided a compliant/quality submittal and, if they missed the optional prices for the larger units, got them to provide the additional pricing.

Here is a summary of the follow up results:

1. Ilgin's bid did not provide pricing for mid and large units. Also, their bid included a clarification that they could not meet the delivery date for the unit; therefore, Krause did not contact them further.
2. PTT was high priced, and they could not manufacture the mid or large unit.
3. CG Power provided price for mid and large units
4. ABB provided price for mid and large units
5. Delta-Star provided prices for all units; however, they had errors in their bid which they can't honor.
6. Virginia Transformer initially provided a price for only the smallest (base) unit. Krause contacted them and got additional prices.
7. WEG provided prices for all units; however, their components are substandard in Krause's opinion.

Therefore, for the mid-sized unit we have the following updated bid results:

WEG - \$523,000

Virginia - \$572,358

CG Power - \$573,800

ABB - \$586,055

Delta Star - \$630,298

Of these results, Virginia Transformer has the lowest purchase price with quality components, and has the lowest no-load losses. When purchase price and all losses are factored in, WEG technically has the lowest bid. However, WEG has lower quality components for some parts of the unit and Krause Power has no experience with them.

Therefore, based on their bid and follow up discussions, Staff and Krause Power are recommending the 22.4MVA transformer size and bid from Virginia Transformer be awarded at a price of \$572,358. This recommendation is a result of bid pricing, Krause's familiarity with Virginia Transformer and their product, and the fact that they are providing better accessories as well.

Substation Switchgear

For the switchgear bid opening, there were eight plan holders and five bids were received (see attached bidders tabulation form). Prices ranged from \$240,356 to \$490,525. Based on their bid and follow up discussions, Staff and Krause Power recommend Siemens Industries be awarded the switchgear at a price of \$240,356.

These purchases are included in the 2016 CIP budget. The budget for the whole project (excluding design) is \$3,500,000, all of which is allocated in 2016 for the construction of the new substation and equipment. The switch gear price of \$240,356 is \$259,644 less than the \$500,000 allocated in the initial budget and the transformer price of \$572,358 is \$127,642 less than the \$700,000 allocated in the initial budget for this project. While these bids came in less than their budgeted amounts, it is important to maintain the overall budget of \$3,500,000 in case other elements of the project come in over their initial budgeted amounts. Budget updates can be provided as the project progresses.

It is also important to note that this project has been submitted to the Public Service Commission (PSC) as of December 1, 2015. Accordingly, the PSC has begun to process this application and has issued a Notice of Investigation as of January 6, 2016 (see attached notice). While we do not anticipate any approval issues with the PSC, it is Staff's recommendation to stipulate that all recommended awards are contingent upon final approval from the PSC, as we would not be willing to purchase these items if the project is rejected by the PSC.

CONCLUSION

Staff recommends approval of the attached resolution authorizing staff to purchase a new 69kV transformer from Virginia Transformer in accordance with their adjusted proposal dated December 15, 2015 in the amount of \$572,358.00 and new switchgear from Siemens Industries in accordance with their proposal dated December 16, 2015 in the amount of \$240,356.00. All awards will be contingent upon final approval from the Public Service Commission.



RESOLUTION NO. 2016-01

**RESOLUTION AUTHORIZING PURCHASE OF 69KV
TRANSFORMER AND SWITCHGEAR FOR POWER
PLANT SUBSTATION PROJECT**

WHEREAS, The City of River Falls and RFMU have a desire to potentially repurpose the existing Power Plant requiring relocation of substation equipment housed there; and

WHEREAS, RFMU needs to replace the existing substation transformer and related equipment; and

WHEREAS, the project was added into the 2015-2019 CIP for construction in 2016; and

WHEREAS, the 2016 budget contains monies for the purchase of these items; and

WHEREAS, staff and our designer separately requested and received proposals to furnish a 69 kV transformer and to furnish the specified switchgear for this project; and

WHEREAS, staff and our designer have received multiple proposals, have reviewed all proposals and recommend awarding the switchgear to Siemens Industries for \$240,356 and awarding the power transformer to Virginia Transformer for \$572,358;

WHEREAS, all awards will be contingent upon final approval from the Public Service Commission (PSC); and

NOW, THEREFORE, BE IT RESOLVED that the City of River Falls Utility Advisory Board requests Common Council approve the purchase of a new 69kV transformer from Virginia Transformer in accordance with their adjusted proposal dated December 15, 2015 in the amount of \$572,358.00 and new switchgear from Siemens Industries in accordance with their proposal dated December 16, 2015 in the amount of \$240,356.00, contingent upon approval from the PSC.

Dated this 18th day of January, 2016.

Grant Hanson, President

ATTEST:

Lu Ann Hecht, City Clerk



Krause Power Engineering, LLC

2029 County Highway I, Suite 1

Chippewa Falls, WI 54729

TEL 715 577 1369 FAX 715 861 3916

WEB www.krausepowerengineering.com

January 12, 2016

Mr. David Keating
City of River Falls Utilities
222 Lewis Street
River Falls, WI 54022

RE: Power Transformer and Switchgear Bid Evaluation and Recommendations

Dear Mr. Keating:

We have reviewed the bids received at the bid opening held on December 16, 2015, at City Hall.

For the switchgear bid opening there were eight planholders and five bids received. Prices ranged from \$240,356 to \$490,525. Based on their bid and follow up discussions, we are recommending Siemens Industries be awarded the switchgear project at a bid price of \$240,356.

For the power transformer bid opening there were nine planholders and seven bids received. Given we had three (3) size options, bid prices ranged from \$481,800 to \$795,237. Not all bidders supplied bids on all three size options. Based on their bid and follow up discussions, we are recommending the 22.4MVA transformer size and bid from Virginia Transformer be awarded at a price of \$572,358.

After you award the bids we will prepare and execute contracts for both of these items.

If you have any questions on our recommendations, please contact me.

Sincerely,

A handwritten signature in black ink that reads "David Krause". The signature is fluid and cursive.

David Krause, PE

BIDDER'S TABULATION FORM - 00 43 99

D. J. [Signature]
LuAnn Wecht
Eryn Wecht
Wayne [Signature]

Client's Name: City of River Falls
 Project Number: RFL-15-01.2
 Project Name: Substation Switchgear
 Bid Opening Date/Time: December 16, 2015, at 2:30 p.m. CST

Bidder's Name	Bid Bond (Y/N)	Base Bid
Myers Power Products Inc.	Y	384,446-
Powergrid Solutions, Inc.	Y	490,525-
PowerOne Corp.		
Primus Marketing Group Inc. - ABB	N	410,925-
Pro-Tech Power Sales Inc.		
Schneider Electric		
Siemens Industry	Y	240,356-
Stuart C. Irby		
EATON	Y	411,131-

BIDDER'S TABULATION FORM - 00 43 99

Erin Ann Healy
Kyrin West
Wayne Swilley
D. J. G.

Client's Name: City of River Falls
 Project Number: RFL-15-01.1
 Project Name: Substation Power Transformer
 Bid Opening Date/Time: November 20, 2015, at 10:00 a.m. CST
December 16, 2015 at 2:00 p.m. CST

Bidder's Name	Bid Bond (Y/N)	Base Bid
ElectroTech		
Evans, Lipka & Associates		
iSqFt		
MC Sales Inc.		
Partner Technologies Inc.	Y	795,237-
Primus Marketing - ARB	Y	537,635-
Pro-Tech Power Sales	Y	563,815-
Virginia Transformer - RESCO	Y	497,760-
WEG Transformers	Y	490,000-
ILGIN Electric	Y	481,800-
CG Power Systems	Y	776,600-

ADD

✓
 ✓
 ✓
 ✓
 ✓
 ✓
 ✓

BID FORM – 00 41 43

Total Amount of Bid \$ 240 356
Contractor's Name Siemens Industry
Contact Person Kedar Gokhale
Email kedar.gokhale@Siemens.com
Telephone (919) 365-2343
Fax ()

**PROJECT IDENTIFICATION: SUBSTATION SWITCHGEAR
River Falls, Wisconsin
Project # RFL-15-01.2**

BIDS TO BE OPENED: December 16, 2015, at 2:30 p.m. CST

TABLE OF ARTICLES

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ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted to:

Mr. David Keating
City of River Falls
222 Lewis Street, Suite 228
River Falls, WI 54022

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with Buyer in the form included in the Bidding Documents to furnish the Goods and Special Services as specified or indicated in the Bidding Documents, for the prices and within the times indicated in this Bid, and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 - BIDDER'S ACKNOWLEDGMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Buyer.

ARTICLE 3 - BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, the related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.	Addendum Date
Rev. 0	12/14/15

B. Bidder has visited the Point of Destination and site where the Goods are to be installed or Special Services will be provided and become familiar with and is satisfied as to the observable local conditions that may affect cost, progress, or the furnishing of Goods and Special Services, if required to do so by the Bidding Documents, or if, in Bidder's judgment, any local condition may affect cost, progress, or the furnishing of Goods and Special Services.

C. Bidder is familiar with and is satisfied as to all Laws and Regulations in effect as of the date of the Bid that may affect cost, progress, and the furnishing of Goods and Special Services.

D. Bidder has carefully studied, considered, and correlated the information known to Bidder; information commonly known to sellers of similar goods doing business in the locality of the Point of Destination and the site where the Goods will be installed or where Special Services will be provided; information and observations obtained from Bidder's visits, if any, to the Point of Destination and the site where the Goods will be installed or Special Services will be provided; and any reports and drawings identified

in the Bidding Documents regarding the Point of Destination and the site where the Goods will be installed or where Special Services will be provided, with respect to the effect of such information, observations, and documents on the cost, progress, and performance of Seller's obligations under the Bidding Documents.

- E. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution (if any) thereof by Engineer is acceptable to Bidder.
- F. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing the Goods and Special Services for which this Bid is submitted.

ARTICLE 4 - BIDDER'S CERTIFICATIONS

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Buyer, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Buyer of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Buyer, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process.

ARTICLE 5 - BASIS OF BID

5.01 Bidder will furnish the Goods and Special Services in accordance with the Contract Documents for the following price(s):

Lump Sum Bid Price	\$

ARTICLE 6 - TIME OF COMPLETION

6.01 Bidder agrees that the furnishing of Goods and Special Services will conform to the schedule set forth in Article 5 of the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 - ATTACHMENTS TO THIS BID

7.01 The following documents are attached to and made a condition of this Bid:

- A. Required Bid security in the form of five (5) percent;
- B. List of Proposed Major Suppliers;
- C. List of Proposed Subcontractors;
- D. List of Project References;
- E. Non-Collusion Affidavit;
- F. Non-Discrimination Affidavit;

ARTICLE 8 - DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 - BID SUBMITTAL

9.01 "I certify and swear that I have examined and carefully prepared this proposal from the plans and specifications provided and have checked the same in detail before submitting this proposal."

This Bid submitted by:

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____
(Individual's signature)

Doing business as: _____

Business address: _____

Phone: _____ Facsimile: _____

E-mail address: _____

A Partnership

Partnership Name: _____ + (SEAL)

By: _____
(Signature of general partner - attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

Phone: _____ Facsimile: _____

E-mail address: _____

A Corporation

Corporation Name: Siemens Industry

State of Incorporation: Delaware

Type (General Business, Professional, Service, other): _____

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): Brian Dyla

Title: Vice President SII EM ms
(CORPORATE SEAL)

Attest _____
(Signature of Corporate Secretary)

Business address: 7000 Siemens Rd, Wendell, NC - 27511

Phone: 919-365-2200 Facsimile: -

E-mail address: -

A Limited Liability Company (LLC)

LLC Name: _____

State in which organized: _____

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____
Business address: _____

Phone: _____ Facsimile: _____
E-mail address: _____

A Joint Venture

First Joint Venturer Name: _____ (SEAL)

By: _____

(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone: _____ Facsimile: _____

E-mail address: _____

Second Joint Venturer Name: _____ (SEAL)

By: _____

(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone: _____ Facsimile: _____

E-mail address: _____

Phone and Facsimile Number, and Address for receipt of official communications to Joint
Venture: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, corporation, and limited liability company that is a party to the joint venture should be in the manner indicated above.)

END OF SECTION

LIST OF PROPOSED SUPPLIERS – 00 41 43.02

Company Name: M.A.
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Material/Equipment to be Supplied: _____

Company Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Material/Equipment to be Supplied: _____

Company Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Material/Equipment to be Supplied: _____

Company Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Material/Equipment to be Supplied: _____

Company Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Material/Equipment to be Supplied: _____

LIST OF PROPOSED SUBCONTRACTORS – 00 43 36

Subcontractor Name: M.A.
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Type of Work to be Provided: _____

Subcontractor Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Type of Work to be Provided: _____

Subcontractor Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Type of Work to be Provided: _____

Subcontractor Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Type of Work to be Provided: _____

Subcontractor Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Type of Work to be Provided: _____

BID BOND – 00 43 13 (Please Find attached Bid Bond)

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):
City of River Falls
222 Lewis Street, Suite 228
River Falls, WI 54022

BID
Bid Due Date:
Description (Project Name and Include Location):

BOND
Bond Number:
Date (Not earlier than Bid due date):

Penal sum _____ \$ _____
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER (Seal) _____ **SURETY** (Seal) _____
Bidder's Name and Corporate Seal Surety's Name and Corporate Seal

By: _____
Signature

Print Name

Title

By: _____
Signature (Attach Power of Attorney)

Print Name

Title

Attest: _____
Signature

Title

Attest: _____
Signature

Title

Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

BIDDER'S QUALIFICATONS – 00 45 13

Bidder's Qualifications must be filed at least five (5) days prior to the date set for opening bids as referenced in the Advertisement for Bids.

On all contracts, the Bidder must submit a full and complete statement sworn to before any officer authorized to administer oaths of financial ability, equipment, experience in the work prescribed and such other matters as the municipality may require for the protection and welfare of the public.

The object of this questionnaire is intended to make it possible for the Owner to have exact information on financial ability, equipment and experience involved in awarding contracts to parties apparently not qualified to perform them. The Owner reserves the right to require additional information before awarding the contract in order to determine qualification for the work. The contents of this questionnaire are confidential.

This questionnaire is to be submitted to the following location; the outside should be clearly marked "BIDDER'S QUALIFICATIONS":

Attn: David Krause
Krause Power Engineering, LLC
2029 County Highway I, Suite 1
Chippewa Falls, WI 54729

It is recommended that this questionnaire be returned by Registered Mail.

If the Owner is not satisfied with the Bidder's answers to the questionnaire, a financial statement may be required, or it may reject the bid, or disregard the same, or require additional information.

STATEMENT OF BIDDER'S QUALIFICATIONS

1. Name of Bidder: *Siemens Industry*
2. Bidder's Address: *7000 Siemens Rd., Wendell, NC - 27511*
3. Bidder's Telephone: *919-365-2200*
4. When Organized:
5. Where Incorporated:

6. How many years have you been working under the present company name:
7. Current contracts on hand (list your present contracts with an estimated completion date and gross amount per contract).
8. Type of work performed by your firm.
9. Have you ever failed to complete any work awarded to you:
Yes_____ No_____. If Yes, identify where and why.
10. Have you ever defaulted on a contract:
Yes_____ No_____. If Yes, identify where and why.
11. Attach a list of the most important contracts completed by your company. Include the kind of work and the approximate cost of each.
12. Attach a statement of your work experience similar in importance to this Project.
13. Provide a synopsis of your company's actions related to quality control, procedures and methods, metrics, goals and actual performance. Indicate procedures and methods which apply specifically to the types of work requested in this contract.
14. Provide your procedures related to requests for emergency repair assistance and explain how you prioritize multiple requests from multiple customers.
15. Provide evidence of your ability to produce and submit project progress tracking measures (sub-task schedules with job-to-date progress, cost-to-date, estimated total cost and time to complete) in an electronic format. Examples from references who can be contacted would be preferred.
16. Provide written evidence, preferably from banks, of your available credit.
17. Additional information may be included.

PROJECT REFERENCES - 00 45 13.01

Below is a listing of five (5) recent projects of a similar scope: *(Please refer to attached Press Release.)*

Company Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Type of Work: _____

Company Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Type of Work: _____

Company Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Type of Work: _____

Company Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Type of Work: _____

Company Name: _____
Name of Contact: _____
Street Address: _____
City/State/Zip: _____ Telephone No: _____
Type of Work: _____



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Siemens to provide new switchgear technology for National Grid substation project

New arc-resistant switchgear technology design resulted in smaller project footprint and lower overall cost

Category: Energy Management

Thursday, October 22, 2015 9:30 am EDT

Dateline: Wendell, NC

National Grid, a multinational electricity and gas utility, has chosen Siemens to provide its 63 kA arc-resistant switchgear technology for the utility's new electric substation in downtown Providence, Rhode Island. The new location, replacing the National Grid's existing South Street Station, will provide reliable, efficient power to the utility's customers including the City of Providence and much of downtown Providence. Siemens' 63 kA type GM-SG-AR switchgear is designed to improve power reliability and includes arc-resistant features that increase safety conditions for workers and operators. The technology's design will also allow National Grid and contractor TRC Companies, Inc. to reduce the project's physical footprint, resulting in significant project cost savings.

"This Siemens switchgear is a great technology solution for utilities and contractors who are looking for flexibility in moving or upgrading substation technology, especially when overall safety is your goal and space constraint is an issue"

"This Siemens switchgear is a great technology solution for utilities and contractors who are looking for flexibility in moving or upgrading substation technology, especially when overall safety is your goal and space constraint is an issue," said Steve Redden, senior project manager of power delivery engineering at TRC Companies, Inc.

Siemens recently extended the rating of its GM-SG-AR arc-resistant switchgear to 63 kA, which broadens its applications into the oil and gas, chemical, and power generation spaces that require the highest level of arc-resistant, fault-current interrupting.

"As power systems become increasingly complex, utilities and power operators rely on advanced technologies like our 63 kA type GM-SG-AR switchgear to operate the power grid more, efficiently, safely, and reliably than ever," said Brian Dula, vice president of Siemens Medium Voltage and Systems. "We're proud that our work with National Grid and TRC on this project is bringing the next generation of power technologies into the substation in an innovative and cost-effective way."

For further information on Siemens 63 kA type GM-SG-AR medium-voltage, arc-resistant technology, please visit <http://w3.usa.siemens.com/powerdistribution/us/en/product-portfolio/Medium-Voltage-Switchgear/Pages/metal-clad-arc-resistant-switchgear>.

This press release and a press picture / press pictures/ further material is available at <http://news.usa.siemens.biz/>.

Contact for Journalists

Annie Seiple, Siemens

Phone: 202-316-0219; E-mail: annie.seiple@siemens.com

Siemens Corporation is a U.S. subsidiary of Siemens AG, a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 165 years. With 343,000 employees in more than 200 countries, Siemens reported worldwide revenue of approximately \$98 billion in fiscal 2014. Siemens in the U.S. reported revenue of \$22.2 billion, including \$5.2 billion in exports, and employment of approximately 50,000 people throughout all 50 states and Puerto Rico. To receive expert insights sign up for Siemens' U.S. Executive Pulse leadership blog. Follow us on Facebook and Twitter at: www.twitter.com/siemensUSA.

Contact:

Annie Seiple, Siemens

Phone: 202-316-0219; E-mail: annie.seiple@siemens.com

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- Congrats to our 2015 Employee Hackathon Finalists, embracing Siemens' values of #innovation and #collaboration. <https://t.co/dnxveu6umD> — 4 days 22 hours ago
- RT @GWPeterK: Welcome back to #GWU. MT @ericspiegel: Congrats to the #SiemensComp finalists! Proud of their drive to address real problems... — 5 days 54 min ago
- Honored to present awards today to the 2015 #SiemensComp finalists. They are the next generation of disruptors, engineers & inventors. — 6 days 1 hour ago
- RT @sfoundation: As anticipation builds for today's announcement, students use one word to describe the #SiemensComp experience. <https://t.co/...> — 6 days 2 hours ago
- RT @DiscoveryEd: Starting now! The 2015 #SiemensComp Innovation Summit. Tune-in LIVE here <https://t.co/jCgJfMvAe> — 6 days 2 hours ago

1 of 135 »

more

NON-COLLUSION AFFIDAVIT – 00 45 19

STATE OF _____

COUNTY OF _____

I hereby swear (or affirm) under the penalty of perjury:

- 1) That I am the bidder (if the bidder is an individual), a partner in the bidder (if the bidder is a partnership) or an officer or employee of the bidder corporation having authority to sign on its behalf (if the bidder is a corporation);
- 2) That the attached bid or bids have been arrived at by the bidder individually and have been submitted without collusion with, and without any agreement, understanding or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid designed to limit individual bidding or competition;
- 3) That the contents of the bid or bids have not been communicated by the bidder or its employees or agents to any person not an employee or agent of the bidder or its surety on any bond furnished with the bid or bids, and will not be communicated to any such person, prior to any official opening of the bid or bids; and
- 4) That I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Subscribed and sworn to before me this

15th day of December, 2015

Edwin A. Brantley, Jr.
Notary



My Commission Expires 9-10-2018.

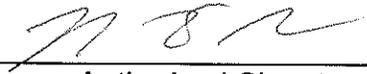
[Signature]
Bidder's Signature

Brian Dula - Vice President SII EM ms
Title

Siemens Industry
Company

NON-DISCRIMINATION AFFIDAVIT – 00 45 20

"I, the undersigned, state that the organization which I represent will be in compliance with the applicable Federal and State Statutes for the City of River Falls, Wisconsin, adopted Affirmative Action Program concerning non-discrimination and Equal Employment Opportunity."



Authorized Signature

Title: Brian Dula - Vice President SII Emms

Company Name: Siemens Industry

Date: 12/14/15

BID BOND - 00 43 13

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (Name and Address):

Siemens Industry Inc.
7000 Siemens Road
Wendell, NC 27591

SURETY (Name and Address of Principal Place of Business):

Federal Insurance Company
15 Mountain View Road
Warren, NJ 07059

OWNER (Name and Address):

City of River Falls
222 Lewis Street, Suite 228
River Falls, WI 54022

BID

Bid Due Date: December 16, 2015
Description (Project Name and Include Location): 9 GM-SG 15kV

BOND

Bond Number: N/A
Date (Not earlier than Bid due date): December 16, 2015

\$ 5% of Amount Bid-----

Penal sum Five Percent of Amount Bid-----
(Words)

(Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

Siemens Industry Inc.
Bidder's Name and Corporate Seal

By: Chris Powers
Signature

CHRIS POWERS
Print Name

FINANCE MGR.
Title

Attest: _____
Signature

SURETY

(Seal) Federal Insurance Company (Seal)
Surety's Name and Corporate Seal

By: Cynthia L. Choren
Signature (Attach Power of Attorney)

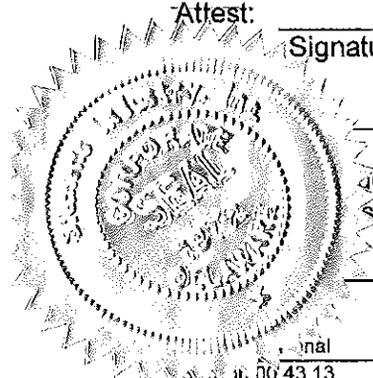
Cynthia L. Choren
Print Name

Attorney-In-Fact
Title

Attest: Kelsey M Jones
Signature

Witness
Title

Addresses are to be used for giving any required notice. Provide execution by any additional joint venturers, if necessary.



1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

ACKNOWLEDGMENT BY SURETY

STATE
OF Missouri }
City of St. Louis } ss.

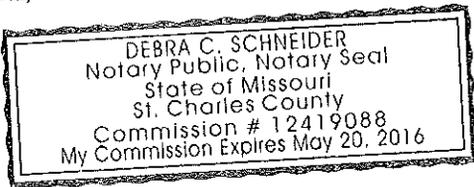
On this 16th day of December, 2015, before me personally
appeared Cynthia L. Choren, known to me to be the Attorney-in-Fact of
Federal Insurance Company

_____, the corporation
that executed the within instrument, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, at my office in the aforesaid
County, the day and year in this certificate first above written.

My Commission Expires: May 20, 2016

(Seal)



A handwritten signature in cursive script that reads "Debra C. Schneider".

Debra C. Schneider
Notary Public in the State of Missouri
County of St. Charles



**Chubb
Surety**

**POWER
OF
ATTORNEY**

**Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company**

**Attn: Surety Department
15 Mountain View Road
Warren, NJ 07059**

Know All by These Presents, That **FEDERAL INSURANCE COMPANY**, an Indiana corporation, **VIGILANT INSURANCE COMPANY**, a New York corporation, and **PACIFIC INDEMNITY COMPANY**, a Wisconsin corporation, do each hereby constitute and appoint Pamela A. Beelman, Cynthia L. Choren, Joann R. Frank, Sandra L. Ham, Nancy L. Johnson, Heidi A. Notheisen, Karen L. Roider and Debra C. Schneider of St. Louis, Missouri -----

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations. In Witness Whereof, said **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** have each executed and attested these presents and affixed their corporate seals on this **21st day of May, 2014.**

Dawn M. Chloros, Assistant Secretary

David B. Norris, Jr., Vice President



STATE OF NEW JERSEY

ss.

County of Somerset

On this **21st day of May, 2014** before me, a Notary Public of New Jersey, personally came Dawn M. Chloros, to me known to be Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY**, the companies which executed the foregoing Power of Attorney, and the said Dawn M. Chloros, being by me duly sworn, did depose and say that she is Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that she signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that she is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By-Laws and in deponent's presence.

Notarial Seal



**KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No 2316685
Commission Expires July 16, 2014**

Notary Public

CERTIFICATION

Extract from the By-Laws of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY**:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Dawn M. Chloros, Assistant Secretary of **FEDERAL INSURANCE COMPANY**, **VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** (the "Companies") do hereby certify that

- (i) the foregoing extract of the By-Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in the U.S. Virgin Islands, and Federal is licensed in American Samoa, Guam, Puerto Rico, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this **16th day of December, 2015.**



Dawn M. Chloros, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903-3493 Fax (908) 903-3656 e-mail: surety@chubb.com

FEDERAL INSURANCE COMPANY

STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statutory Basis

DECEMBER 31, 2014

(in thousands of dollars)

ASSETS	LIABILITIES AND SURPLUS TO POLICYHOLDERS
Cash and Short Term Investments..... \$ 110,484	Outstanding Losses and Loss Expenses \$ 12,181,139
United States Government, State and Municipal Bonds 10,245,402	Unearned Premiums..... 3,654,861
Other Bonds..... 4,927,443	Ceded Reinsurance Premiums Payable..... 339,466
Stocks 1,066,355	Provision for Reinsurance 46,470
Other Invested Assets..... 1,365,367	Other Liabilities..... 1,434,018
TOTAL INVESTMENTS 17,715,051	TOTAL LIABILITIES 17,655,954
Investments in Affiliates:	Capital Stock..... 20,980
Chubb Investment Holdings, Inc..... 3,565,038	Paid-In Surplus..... 3,106,809
Pacific Indemnity Company..... 2,922,214	Unassigned Funds 11,700,594
Executive Risk Indemnity Inc..... 1,258,019	
Chubb Insurance Investment Holdings Ltd... 1,162,709	
CC Canada Holdings Ltd..... 652,880	
Chubb Insurance Company of Australia Ltd. 480,068	SURPLUS TO POLICYHOLDERS 14,828,383
Great Northern Insurance Company 476,969	
Vigilant Insurance Company 292,313	
Chubb European Investment Holdings SLP .. 287,633	
Other Affiliates 517,330	
Premiums Receivable 1,679,148	
Other Assets 1,474,965	
TOTAL ADMITTED ASSETS \$ 32,484,337	TOTAL LIABILITIES AND SURPLUS TO POLICYHOLDERS..... \$ 32,484,337

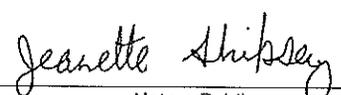
Investments are valued in accordance with requirements of the National Association of Insurance Commissioners. At December 31, 2014, investments with a carrying value of \$518,199,884 were deposited with government authorities as required by law.

State, County & City of New York, — ss:

Yvonne Baker, Assistant Secretary _____ of the Federal Insurance Company

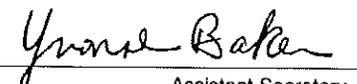
being duly sworn, deposes and says that the foregoing Statement of Assets, Liabilities and Surplus to Policyholders of said Federal Insurance Company on December 31, 2014 is true and correct and is a true abstract of the Annual Statement of said Company as filed with the Secretary of the Treasury of the United States for the 12 months ending December 31, 2014.

Subscribed and sworn to before me
this March 11, 2015.



Notary Public

JEANETTE SHIPSEY
Notary Public, State of New York
No. 02SH5074142
Qualified in Nassau County
Commission Expires March 10, 2019



Assistant Secretary

SIEMENS

Siemens Industry, Inc. ,7000 Siemens Road Wendell, North Carolina 27591

Name Kedar Gokhale
Department RC-US EM MS CRM OFF

River Falls Municipal

Telephone +1 919 365-2200

Email kedar.gokhale@siemens.com

Internal reference no. O-U281-US-16-0117

US quote number SF15963673

Revision 0

Date December 14, 2015

Project: City of River Falls, Wisconsin - City of River Falls

Dear Sir or Madam,

Thank you for the opportunity afforded to Siemens Industry, Inc. to quote on this project.

Please find the attached Siemens technical and commercial proposal, which will remain in effect for 30 days from date of issue.

Should you have any questions or require additional clarification, please do not hesitate to contact the undersigned.

With kind regards,

Kedar Gokhale

Rev #	Date	Description
0	12/14/15	Firm Offer

We are pleased to submit a proposal for the supply of the following equipment:

GM-SG medium-voltage, air-insulated, metal-clad switchgear features and benefits:

- One-high or two-high construction
- Horizontal drawout type GMSG vacuum circuit breaker with highly reliable type 3AH3 operating mechanism
- Meets or exceeds the latest standards:
 - ANSI/IEEE C37.20.2 metal-clad switchgear
 - ANSI/IEEE C37.04 rating structure for high-voltage circuit breakers
 - ANSI/IEEE C37.06 preferred ratings for high-voltage circuit breakers
- Universal circuit breaker; interlocks permit insertion of higher rated vacuum circuit breaker into lower rated cell but not vice versa
- Front accessible circuit breaker operating mechanism for ease of maintenance
- Floor rollout circuit breaker in lower cell without a dolly
- Visible secondary disconnect
- Circuit breaker ships inside of cell, thus reducing installation cost and transit damage
- 10,000 operations to overhaul
- Closed door racking.

GM-SG switchgear available as:

- Indoor (GM-SG)
- Outdoor non-walk-in (OGM-SG)
- Outdoor walk-in Shelter-Clad NEMA 3R single-aisle (SGM-SG)
- Factory insulated aisle (optional).

Internet page and documentation: <http://w3.usa.siemens.com/powerdistribution/us/en/product-portfolio/Medium-Voltage-Switchgear/Pages/metal-clad-switchgear.aspx>

Confidential information

This proposal, including all of its attachments, exhibits, appendices, etc. ("Proposal"), is provided "as-is" for your evaluation of Siemens Industry, Inc. ("Siemens") as the provider of work discussed therein and contains information that is confidential to and solely owned by Siemens. Your acceptance, viewing or storage of this Proposal is an acknowledgment of a confidential relationship between you and Siemens. We require that this Proposal be returned or destroyed when no longer required for the purpose identified herein. This Proposal and any information obtained from this Proposal may not be re-produced, transmitted, disclosed or otherwise used, in whole or in part, without the prior written authorization of Siemens.

The above terms supersede any click-wrap or other terms not expressly set forth in a signed agreement between the parties covering the Proposal. All such click-wrap or other terms are expressly rejected by Siemens.

Scope of supply

Siemens Industry, Inc. (company) agrees to sell to purchaser and purchaser agrees to purchase from the company the goods described below:

Item	Designation	Quantity	Unit price	Total price
10	GM-SG 15kV, 40kA,3000A	1 pcs	\$ 240,356.00	\$ 240,356.00
Offer Amount:				\$ 240,356.00

Optional Item: Integral Electric Racking (GM-SG) Basic Unit

If ordered, each circuit breaker cell will be equipped with an integrated, electric-racking system, which includes a fixed-mounted, high-torque motor and logic control module, control-pendant connector powered by control power in the switchgear or an external supply (either 120 Vac or 125 Vdc) when necessary. One control pendant is supplied per lineup.

- Type SIERS integrated, electric-racking system = \$1,500 per circuit breaker cell
- Control pendant – one per lineup = \$250 Each

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Progress payments (Equipment).

The following progress payments will apply to this project. Partial shipments will be invoiced at their corresponding value. Any billing plan different to the one below must be mutually negotiated, prior to purchase order issuance.

10%	Down payment with order
20%	Upon submittal of drawings by Siemens for customer approval
60%	Upon release to manufacturing
10%	Upon shipment or when placed into storage in the event shipping is delayed by Buyer

Cancellation schedule

In the event that Buyer cancels the purchase order, or portions of the purchase order in writing, the following charges, as a percentage of the total purchase order price for the order, or applicable portions thereof, will apply:

1 – 3	Weeks after receipt of order, or before approval drawings are completed	15%
3 – 9	Weeks after receipt of order, or after approval drawing completion, but before release to manufacturing	30%
9 – 12	Weeks after receipt of order, or before start of fabrication, but after major component purchase	60%
12 – 20	Weeks after receipt of order, or after start of fabrication, but before start of assembly	80%
> 20	Weeks after receipt of order, or after assembly has started	100%

See "System Specifications and General Bill of Material" section in this proposal for greater detail.

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Spare Parts

GM-SG medium-voltage, air-insulated, metal-clad switchgear breaker
Recommended spare parts list (Circuit breaker) – indicative quantities only
 (Available for purchase)

Item	Designation	Quantity	Price in \$ Unit price	Total price in \$
1	Trip coil	1	281.00	281.00
2	Closing coil	1	336.00	336.00
3	Limit switch	1	34.00	34.00
4	contact lubricant	1	19.00	19.00
5	Finger assembly	6	154.00	924.00
6	Air flow switch (4,000A switchgear only)	1	645.00	645.00
7	Direct drive fan (4,000A switchgear only)	1	2,898.00	2,898.00
8	Overcurrent relay (4,000A switchgear only)	1	977.00	977.00

GM-SG medium-voltage, air-insulated, metal-clad switchgear
Recommended spare parts list (switchgear) – indicative quantities only
 (available for purchase)

Item	Designation	Quantity*	Price in \$ Unit price	Total price in \$
1	Fuse pullout	6	64.00	384.00
2	Contact base	1	389.00	389.00
3	Spare fuse 30A 250V	6	2.00	12.00
4	Spare fuse 4A 250V	6	4.00	24.00
5	Lamp assembly red	8	17.00	134.00
6	Lamp assembly green	8	17.00	134.00
7	Resistor mounting 270 ohms	8	25.00	200.00
8	Fuse cartridge 250V6A	4	2.00	8.00
9	Fuse cartridge 250V15A	3	2.00	6.00
10	Clip fuse General Electric	3	19.00	57.00

* Recommended quantities are per line-up

All prices are based on ex-factory. Freight terms same as the Switchgear.

Prices are good only if ordered to ship with the equipment in this proposal.

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Commercial considerations

Terms and conditions

This proposal is quoted using Siemens Industry Inc. Standard Terms and Conditions of Sale for Products and Services. Siemens hereby takes exception to any additional or different terms set forth in purchaser's request for proposal, specification, purchase order or any other document of purchaser. Acceptance of additional or different terms must be specifically agreed to in writing by Siemens. However, Siemens is willing to negotiate mutually agreeable terms and conditions as part of the contract negotiation process.

Quotation validity

This proposal will remain in effect for 30 days, unless changed in the interim upon written notice from Siemens. Documents and related correspondence shall be sent to the local Siemens office or an authorized Siemens distributor. The proposal is based upon Siemens interpretation of the plans and specifications and is subject for correction for errors. This document and any other document specifically referred to as being a part hereof constitute the entire agreement on the subject matter, and shall not be modified except in writing signed by both parties. The proposal is based upon the Standard Terms and Conditions of Sale for Products and Services included herein. Siemens hereby objects to any additional or different terms set forth in purchaser's request for proposal, specification, purchase order or any other document of purchaser. Acceptance of additional or different terms must be specifically assented to in writing by Siemens.

Conditions of sale

Price policy	Prices are firm for quoted shipment. In the event shipment is delayed for any reason that is beyond the control of Siemens Industry, Inc., prices shall be increased ½ % of total purchase order price for each full month or fraction thereof that shipment is delayed beyond the specified shipping date. In case of customer delays, price escalation on material/services supplied by our sub-suppliers will have to be reconfirmed separately.
Payment terms	Progress payment per schedule in this offer, which is subject to credit approval. All payments are due net 30 days from date of each invoice.
Delivery:	FOB 401 South Winter Street, River Falls, WI, USA freight prepaid and allowed to continental USA. Suitable for Truck Transport Packing.
Other terms	No taxes are included in the quoted price.
Back charges:	Siemens will only accept reasonable back charges if notified in writing within five days of customer identifying a repair is needed and afforded an opportunity to cure within a commercially reasonable time.
Purchase Order:	In the event a purchase order is generated based on the scope of supply described in this proposal, the purchase order must have the following information included to process the order and eliminate delays during the order entry process.

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For NEW customers to Siemens please provide a tax certificate and W-9 form prior to or upon submission of a purchase order.

1. The customer's Purchase Order must be made payable to:

Siemens Industry, Inc.
7000 Siemens Road
Wendell, NC 27591

2. The correct proposal/revision number should be referenced on the purchase order.
3. PO must refer to the Siemens Industry, Inc. Standard Terms and Conditions of Sale for Products and Services or any pre-negotiated terms with Siemens Industry, Inc., as the case may be, to be the applicable terms for the order.
4. The purchase order net price must match the proposal price as outlined in the proposal summary.

Storage

In the event shipment is delayed for any reason that is beyond the control of Siemens Industry, Inc., and the equipment needs to be kept in storage, a storage fee in the amount of 1.5% of the equipment value shall be charged per month on the first day of each month.

In the event that shipment is delayed for reasons beyond our control, payment shall be effected against shipping agent's confirmation that the material is ready for shipment or storage.

Warranty

The warranty period will be 18 months from the date of shipment (bill of lading) or 12 months from date of commissioning, whichever event may occur first. Siemens warranty is limited to remedies as set forth in Siemens Industry, Inc. Standard Terms and Conditions of Sale for Products and Services incorporated herein and does not include damage as a result of force majeure events including but not limited to acts of God, vandalism, war or terrorism, use of the equipment for purposes other than what is specified in the scope of work, or abuse of the equipment by buyer. Siemens hereby disclaims all other warranties, express or implied, except that of title.

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Schedule

The table(s) below provides typical project lead times for projects requiring approval drawings (Approval) and also for those that do not (certified).

- The project cycle starts after receipt of a technically and commercially clear purchase order.
- The quoted lead times are based on current engineering and factory production capacity. Actual lead times are dependent on available production capacity at time of order entry and return of approved drawings.
- Earlier submittals and shipment may be possible depending on scope of work and factory loading.

Time schedule for GM SG Switchgear

Description	Approval duration (weeks)	Certified duration (weeks)
Submission of approval drawing package consisting of: <ul style="list-style-type: none"> • General arrangement and floor plan with primary one-line diagram • General information • Three-line diagram • Schematic • Panel arrangement • Accessories list • Nameplate engraving • Electrical bill of materials 	6	6
Customer review and return of approval package and customer release for manufacture	3	
Ready for shipment of equipment	11	11
Factory Acceptance Testing Testing (FAT), if applicable (additional charges may apply)		
Total cycle time	20	17

■ On-board approval is an available option, should the customer approve the drawing package on the same day it is released. This will reduce total cycle time by 2 weeks.

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System Specifications and General Bill of Material

Scope of Supply

General Specifications

Switchgear No: GMSG-06747	
Lineup Details	
Customer Name (NXTools Customer)	River Falls Municipal
Project Name (NXTools Project Name)	City of River Falls, Wisconsin - City of River Falls
Siemens Proposal ID# (NXTools Offer number 1)	SF15963673
Customer Item Designation (NXTools Keyword)	15 KV Switchgear
Number of vertical sections	9
Number of breakers	9
System	
Rated Voltage	15kV
Operating Voltage	12.47kV
Frequency	60 Hz
System Grounding	Low Resistance
System Type	3 Phase, 3 Wire
Enclosure	
Design Type	GM-SG Indoor switchgear, non-arc-resistant
Aisle Assembly	Not provided
Indoor Drip Proof	Not provided
Seismic Rating	Non-Seismic
Sill Channels	Not required
Panel/Front Door Hinges	Left Hinge (standard)
Panel/Front Door Fasteners	Two Quarter Turn Latch
Panel/Rear Door Hinges	Left Hinge (standard)
Rear Access Requirements	Full height doors
Rear Access Latch Type	Bolted w/o hasp
Exterior Paint	ANSI 61
Bus	
Main Bus Rating	3000A
Main Bus Bracing	60kA (Asymmetrical)
Main Bus Rotation	1-2-3
Ground Bus Rating	1200A (1/2" x 2")
Bus/Ground Material and Plating	Copper/Silver plated
Main Bus Supports	High Track Polyester
External Connections	
Phase Cable Lugs	Tinned CU 2-hole compression lugs
Ground Cable Lugs	Tinned CU 2-hole compression lugs
Cable Lug Boots	Not provided

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Cable Supports	Not provided
Space for Stress Cone	Standard Space
Ground Studs	Not provided
Secondary Control Voltage	
Control Voltage - Spring Charging Motor	DC 125 V
Control Voltage - Close Coil	DC 125 V
Control Voltage - Trip Coil	DC 125 V (3.5 cycle)
Control Voltage - Second Trip Coil	DC 125 V (5 cycle)
Control Voltage - UV device on Breaker	Not provided
Control Voltage - Switchgear Heaters	AC 120 V
Wiring Requirements	
Terminal Blocks	Screw - 600V, 13 point
No. of Spare Terminals	20 %
Shorting Terminal Blocks for CTs	Provided
Wire Lugs	Fork for control, Ring Tongue for CT
Wire Lugs Insulation	Panduit Nylon Insulated
Control Wire Type	SIS
Control Wire Size	#14 AWG
CT Secondary Wire Size	#10 AWG
VT Secondary Wire Size	#12 AWG
Heater Bus Wire Size	#10 AWG
DC Bus Wire Size	#10 AWG
Wire Markers	Sleeve
Wire Marking	Wire name
Wired Out Spare Terminals	Not provided
Special Requirements	
Type Of Space Heaters	240VAC Space Heaters Operated@120VAC
Type Of Thermostat/Humidistat	Non-Adj. Thermostat One per Section
Electrical Racking	Not Required
Battery System	Battery supplied by customer
Battery Charger	Battery Charger supplied by customer
Mimic Bus Material	Black Tape
Accessories Cabinet	Right side of the gear
Special Label Requirements	Not provided
Special Codes	Not provided
Witness Testing	Not provided

Accessories

Accessories	
Qty	Description

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Accessories	
1	Common Parts for Indoor
1	RACKING CRANK ASSEMBLY
1	Supply costs
1	Accessory Cabinet – Indoor mounted on right end of line-up
1	AUX TRAY ATTACHMENT FOR LIFT TRUCK
1	Test Plug, 10PT,FT
1	Duties
1	GM-SG Lift Truck - CB, Shorter, SGM-SG/PEC
1	Certified Test Report/Grp
1	GM-SG switchgear instruction manual #E50001-U229-A284-X-US00
1	LIFT SLING - GMSG
1	GMSG Standard Accessories for Non Arc Vented
1	GMSG circuit breaker instruction manual #E50001-U229-A285-X-US00

Primary Bill Of Material

Circuit Breaker					Total Quantity		9
Type	Current Rating	MVA/KA Rating	Trip Coil	Close & Latch Rating	MOC Quantity	TOC Quantity	Qty
Feeder	1200A	25kA	2x Trip Coil	65 peak kA	6 Stages	4 Stages	6
Feeder (Generator)	1200A	40kA	2x Trip Coil	110 peak kA	6 Stages	4 Stages	1
Main	3000A	40kA	2x Trip Coil	104 peak kA	6 Stages	4 Stages	1
Tie	3000A	40kA	2x Trip Coil	104 peak kA	6 Stages	4 Stages	1

Current Transformers Set 1		Total Quantity	54
CT-1 Type	CT-1 Ratio		Qty
MD	2000:5		30
MD	600:5		24

Current Transformers Set 2		Total Quantity	18
CT-2 Type	CT-2 Ratio		Qty
MD	2000:5		18
MD	600:5		18

Drawout Tray Voltage Transformers			Total Quantity	15
VT Connection	Description	VT Ratio		Qty
1-Phase VT A-B Phase	Voltage Transformer 7.2kV/120V (Ratio 60:1)	7200:120		6

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Drawout Tray Voltage Transformers			Total Quantity	15
VT Connection	Description	VT Ratio	Qty	
Wye-Wye	Voltage Transformer 7.2 kV/120V (Ratio 60:1)	7200:120	9	

Surge Protection (Arrester/Limiter)			Total Quantity	21
Type	Class	Surge Arrester KV Rating	Surge Limiter KV Rating	Qty
Siemens Surge Arrestors	Distribution	10KV		7

Secondary Parts

Bill of Material			
Qty	Part Number	Catalog	Description
4	15171666083	129A539G01	TEST SWITCH, 10T,FT-1
9	15172256003	3RH1122-1BG40	AUX.RLY,S.R,125VDC,2NO&2NC
9	25154758078	BT711	Test SW, 10 POLE, 2P, 8C, BLACK COVER
9	77101000016	116B6708G43R73R4	IND LIGHT,RED,125VDC,RES,LED
9	77101000017	116B6708G43G73G4	IND LIGHT,GREEN,125VDC,RES,LED
1	77101000020	116B6708G43A73W5	IND LIGHT,WHITE,125VDC,RES,LED
9	77172555016	2638D	CONTROL SWITCH,PISTOL
9	77172555083	26203B-13987-3	SELECTOR SWITCH,2 POS,L/R.,OVAL,6 FORM C
1	77ARR00012 1	0587Z0X325H12XX	SEL-0587Z0X325H12XX
1	77KDG00000 3		L.O.RLY,M.R,30-140VDC,16NO&16NC,WHITE/RE
9	88900000050		Terminal Block Wires-W/O Spares
9	88900000052		GMSG Breaker Wire Connections

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Drawing submittals with proposal

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Comments and clarifications

The quoted price is based on the following documents, which are received with the request for quote:

Commercial Documents

1. NA

Technical Documents

1. Drawing:
 - a. PPS-10-02.
2. Specification:
 - a. RFL-15-01.2.

Commercial Comments

1. The **Customer Visual Inspection (CVI)** is an opportunity for the Customer Representative to visit our manufacturing facility for the purpose of visually inspecting their equipment. This includes a general survey of such things as the number of sections, general configuration, components used, shipping plans/splits, etc. Inspection does not include any type of powering up of the gear or any functionality test. An inspection does not include the support of the testing personnel on the floor. The factory will not charge the customer for a CVI visit. Food, travel, lodging, permits and miscellaneous expenses are to be borne by the customer.
2. The **Factory Acceptance Test (FAT)** is an opportunity for the Customer Representative to witness the testing of their equipment. A FAT will include a review of the engineered drawings prior to the floor visit to ensure understanding of functionality/sequence of operations, etc. The floor testing will consist of a functionality test of the overall gear as well as any testing required by applicable (ANSI/IEEE or NEMA/UL) codes or standards. Siemens encourages all customers to visit and tour our facility. If a FAT is required, a price adder of \$2,500.00 for the first day and \$1,000.00 per day until the FAT is complete applies for individuals or a group. FAT prices shown are only valid when conducted at the respective manufacturing facilities for the equipment. Food, travel, lodging, permits and miscellaneous expenses are not included in the above and are to be borne by the customer.
3. Field service, start-up, testing, commissioning, training and analysis/studies are to be supplied by others unless explicitly outlined in the scope of supply.
4. Relay settings, relay programming, system studies, coordination, interfacing and installation are to be supplied by others unless explicitly outlined in the scope of supply. Should this scope be required please refer to the "System Engineering Service" rate sheet at the end of the proposal..
5. Certificates for items such as seismic ratings are available for the standard product design. Project-specific certificates are not included in this proposal unless explicitly listed in the scope of supply.
6. This proposal is based on our best interpretation of the single line drawing and specification, and Siemens reserves the rights to revise the quotation if our interpretation differs from actual requirements.

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7. Additional technical comments and clarifications may be generated during the detailed engineering phase of the project.
8. This document and any other document specifically referred to as being a part hereof constitute the entire agreement on the subject matter, and shall not be modified except in writing signed by both parties.
9. Siemens' obligation to fulfill this agreement is subject to the proviso that the fulfillment is not prevented by any impediments arising out of national and international foreign trade and customs requirements or any embargos (or any sanctions).
10. Goods quoted in this proposal are manufactured in Germany, a WTO-GPA country or Mexico, a NAFTA country. Any applicable Buy American provisions must be reviewed by Siemens to determine compliance. Customer must notify Siemens of any applicable Buy American requirements and provide Siemens with a complete and accurate copy of the applicable Buy American provisions. Siemens reserves the right to reject any order where compliance with Buy American requirements is not possible or cannot be determined.
11. Siemens takes exception to external Codes of Conduct, Quality, Drug and Safety programs and policies. This offer is based on Siemens Code of Conduct, Quality, Drug and Safety programs and policies.
12. Insurance endorsements, bonds and all other forms of surety, if required, shall be provided in accordance with Siemens guidelines using Siemens standard forms and rates.
13. Hard copies of the Siemens standard Installation, Operation and Maintenance manuals will be included in the accessories of the shipment. An electronic copy of the standard manual can be provided, upon request, by the Project Manager or Contract Administrator assigned to the project. Requirement for Special Operation and Maintenance Manuals will require a separate line item on the purchase order. Additional fees & time will apply to provide such special manuals, unless explicitly stated as included in our proposal.

Technical Comments

- GM-SG

Clarification/DEVIATIONS/EXCEPTIONS:

Item	Ref Doc	Section	D/E	Description
1	2a	MVSWGR-2.01B	E	This proposal includes support insulators made of optional high tracking-resistance glass reinforced polyester (Mar-Bal MB4000) instead of porcelain. In design testing witnessed by UL, Mar-Bal MB4000 demonstrated comparable electrical characteristics to porcelain, with better mechanical properties.
2	2a	MVSWGR-2.02A	E	This proposal includes ANSI 61 as external paint.
3	2a	MVSWGR-3.03	D	This proposal includes GE ITI VT's.
4	2a	MVSWGR-4.05/06	D	This proposal includes standard control switches, and test switches.
5	2a	MVSWGR-2.01B	E	This proposal does not include receptacles inside switchgear.
6	1a & 2a		C	This proposal includes protection relays mentioned in the specification. For all the future relay cutouts, please provide the cutout details.

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7			The current transformer (CT) ratios and accuracies proposed meet (and for most ratios significantly exceed) the standard current transformer class ratings shown in IEEE std C37.20.2-1999 (see Table 4 on page 11). As noted in footnote "c" of this table, these accuracies may not be sufficient for proper relaying performance under all conditions. To ensure proper relaying performance, the user should make careful analysis of CT performance considering the relaying requirements for the specific short circuit currents and secondary circuit impedances.
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**Siemens Industry, Inc.
Standard Terms and Conditions of Sale for Products and Services
January 1, 2015 (Rev. 1)**

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www.usa.siemens.com/myterms

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Systems Engineering Services - typically include, but are not limited to, the provision of principal engineers, Sr. process experts or Sr. Systems Engineers for consulting, system analysis, process studies, optimization, Architecture design, etc.

Systems Engineering Services	Overtime Rates			Minimum Billing	
	Hourly Rate (1)	Weekdays & Saturdays (2)	Sundays & Holidays (3)	1-4 Hours	5-8 Hours
	\$275	\$413	\$550	\$1,100	\$2,200

(1) Straight time rates apply to all time worked or traveled during a normal eight hour workday. The normal eight-hour workday is defined as any consecutive eight-hour day shift period (Monday through Friday - Holidays excluded) between the hours of 7 am and 7 pm, with an allowance for lunchtime.

(2) Overtime rate applies to all hours worked or traveled outside of the normal 8 hour workday or in excess of eight hours on weekdays and all time worked or traveled on Saturdays.

(3) Premium rate applies to all hours worked or traveled on Sundays and Holidays.

Hourly and Daily Rates do not include travel and living cost. Should the Purchaser require additional documentation such as copies of employee expense reports and/or expense receipts, a written request must be submitted to Siemens Industry, Inc.

Per Diem Rate Where customers specify or require per diem rates for living expenses, a daily flat charge will be applied for each day, or portion thereof, worked. The per diem rate for the class of service rendered will include normal local living and transportation expense. Travel time and expenses from the engineer's headquarters to and from the job site will be billed separately.

Standby Time When service personnel are on the job site but unable to perform services requested due to circumstances beyond Siemens Industry, Inc. control, the customer will be charged up to eight hours per day standby time at applicable rates.

Other Charges - The following charges will be in addition to the service rates outlined above.

A. Expendable Small Tools, Special Tools and Equipment When a particular job requires the furnishing of small expendable tools or specialized tools, equipment, and instruments not normally carried by a field engineer or representative, a charge will be made equal to either the cost of acquisition (expendable items) or a rental charge, in the case of Special Tools and Equipment, as appropriate.

B. Material Furnished by Siemens Industry, Inc. All Siemens Industry, Inc material used on the job will be billed at current prices.

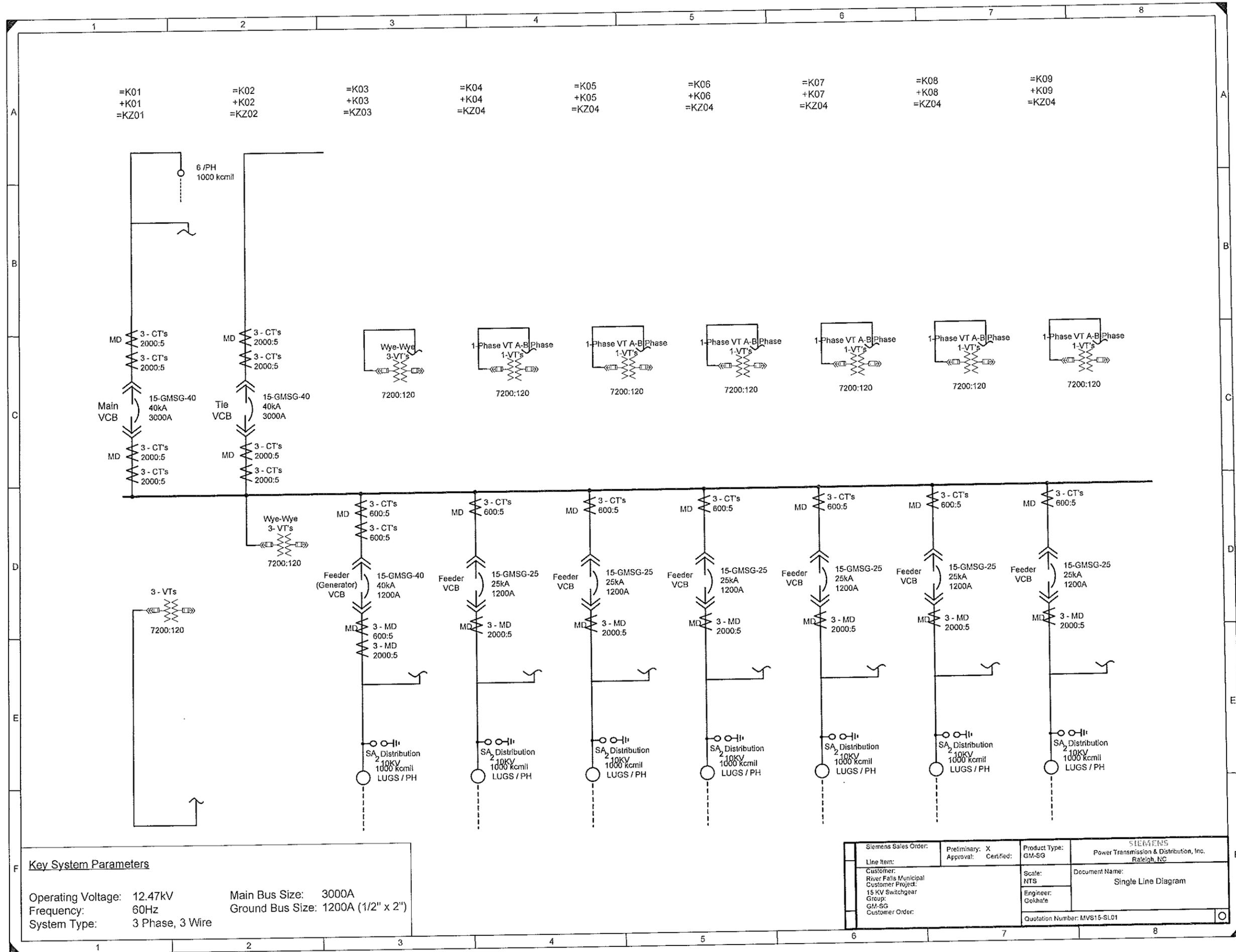
C. Material Purchased from Subcontractors or Other Vendors Materials or services from Subcontractors or Vendors will be billed at cost plus a handling fee.

D. Special Administration When a particular job requires special procedures, forms, invoicing, etc. an administration charge of 1% of order price or \$50.00 per hour (whichever is greater) may be charged. Consult your local Siemens Industry, Inc. representative for additional information.

Confidential Information

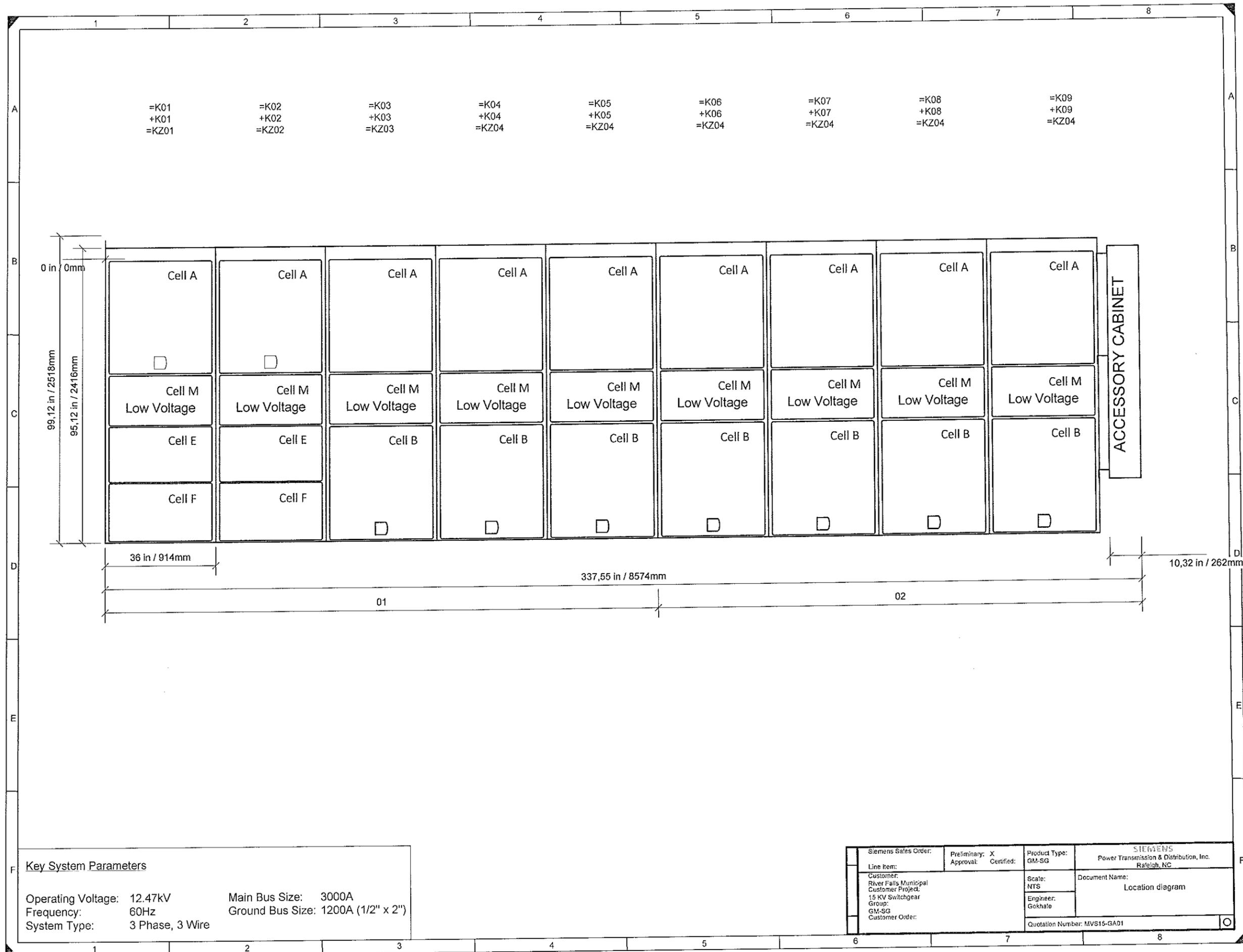
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Key System Parameters	
Operating Voltage:	12.47kV
Frequency:	60Hz
System Type:	3 Phase, 3 Wire
Main Bus Size:	3000A
Ground Bus Size:	1200A (1/2" x 2")

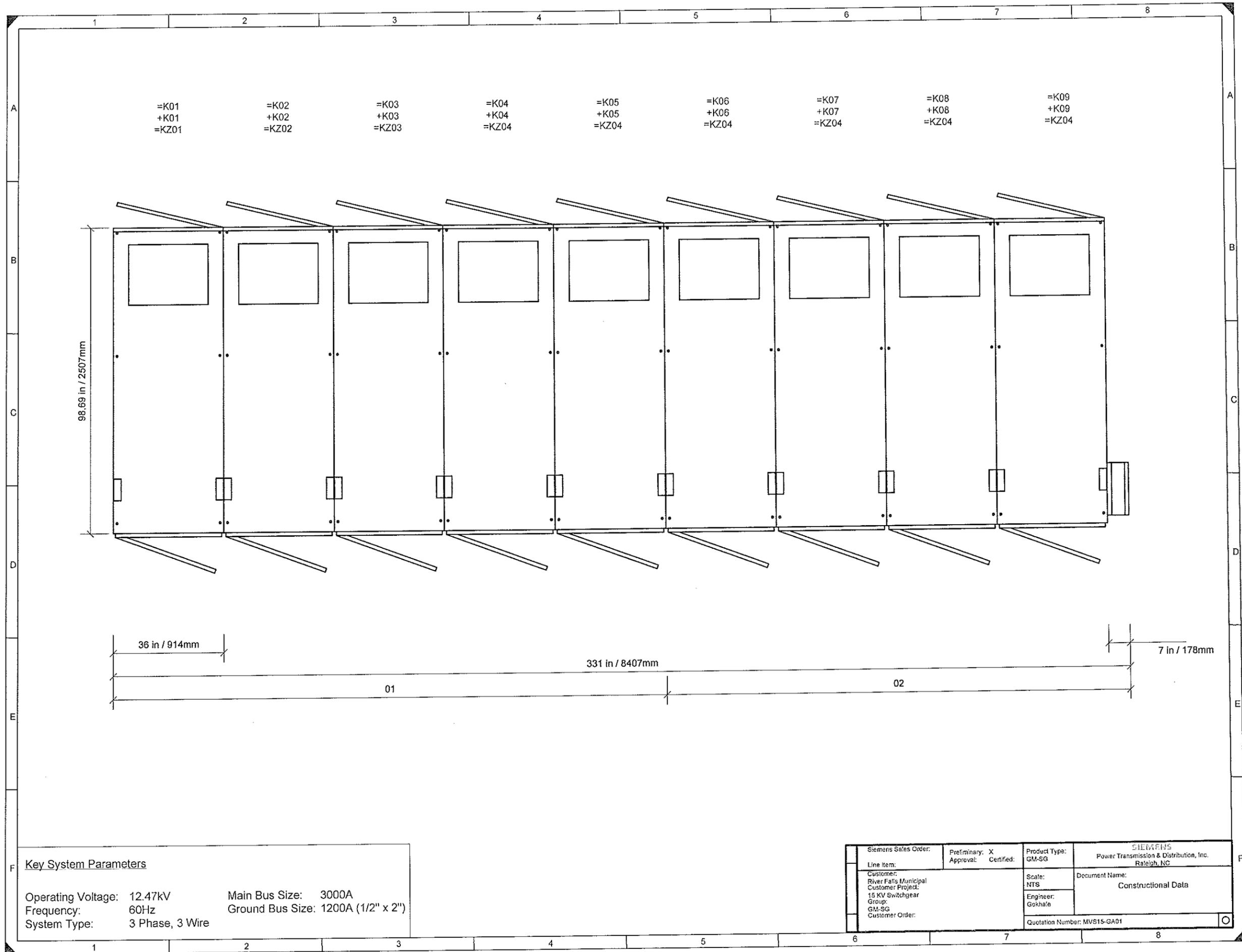
SIEMENS			
Siemens Sales Order:	Preliminary: X Approved: _____	Product Type:	Power Transmission & Distribution, Inc. Raleigh, NC
Line Item:	Certified: _____	Scale:	Document Name: Single Line Diagram
Customer:	River Falls Municipal Customer Project:	Engineer:	Gokhate
Group:	15 KV Switchgear GM-SG	Quotation Number:	MVS15-SL01
Customer Order:			



Key System Parameters

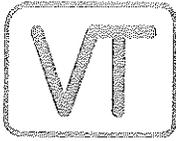
Operating Voltage: 12.47kV Main Bus Size: 3000A
 Frequency: 60Hz Ground Bus Size: 1200A (1/2" x 2")
 System Type: 3 Phase, 3 Wire

Siemens Sales Order:	Preliminary: X Approval: Certified:	Produd Type: GM-SG	SIEMENS Power Transmission & Distribution, Inc. Raleigh, NC
Line Item:		Scale: NTS	Document Name: Location diagram
Customer: River Falls Municipal Customer Project, 15 KV Switchgear Group: GM-SG Customer Order:		Engineer: Gokhale	
		Quotation Number: MVS15-GA01	



Key System Parameters	
Operating Voltage: 12.47kV	Main Bus Size: 3000A
Frequency: 60Hz	Ground Bus Size: 1200A (1/2" x 2")
System Type: 3 Phase, 3 Wire	

Siemens Sales Order:	Preliminary: X Approval: Certified:	Product Type: GM-SG	SIEMENS Power Transmission & Distribution, Inc. Raleigh, NC
Line Item:		Scale: NTS	Document Name: Constructional Data
Customer: River Falls Municipal Customer Project: 15 KV Switchgear Group: GM-SG Customer Order:		Engineer: Gokhafe	Quotation Number: MVS15-GA01



ISO 9001

"The Commitment Company"

VIRGINIA TRANSFORMER CORP

220 GLADE VIEW DRIVE • ROANOKE, VA 24012

PHONE 540.345.9892 • FAX 540.342.7694

www.vatransformer.com

December 15, 2015

Mr. David Keating
City of River Falls
222 Lewis Street
River Falls, WI 54022

RE: Project # RFL-15-01.1 16.8/22.4/28 MVA, 67 – 12.47kV Power Transformer

Dear David,

Thank you for choosing Virginia Transformer as a preferred provider of power transformer equipment. We appreciate the opportunity to provide this quotation to you, and are at your disposal to clarify any content of this proposal. It is our intent to comply with your specification; our concerted effort will be made to meet your requirements. In accordance with your request for quotation, this package includes:

- Your proposal bid sheets, as required
- Our detailed proposal.
- Summary of design and construction standards.
- Warranty information.
- Transformer Installation Descriptions.
- Truck delivery information.
- Corporate overview of Virginia Transformer.
- ISO 9001: 2008 certification.

Please feel free to contact me anytime, I will address any questions or concerns you may have. Thank you for the opportunity to bid on your transformer. I'm looking forward to working with you again.

Very truly yours,

Ben Grant

Ben Grant
Virginia Transformer Corporation
208-238-0720 ext. 287
208-241-8532 (cell)
Ben_grant@vatransformer.com

Custom
Designer
and
Manufacturer
of

UNCLAD®
Transformers
up to 34.5 kV
Encapsulated Coil

Dry Type
Transformers
up to 34.5 kV

Liquid-Filled
Transformers
up to 230 kV

Automatic
LTC Transformers
up to 230kV

Voltage Regulators
up to 69 kV

Current Limiting
Reactors

Iron Core
Reactors

Large Power
Transformers
up to 300 MVA



Roanoke, VA
Pocatello, ID
Chihuahua, MX
Mumbai, India
Delhi, India

PENAL SUM FORM

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Roy E Bucher Jr, Robin O Deatherage, Pamela Sue Brumagin, Robert M Swindell Jr, Patricia Hoal Clark, Jason R Kiser, Individually

of Roanoke, VA, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 22nd day of August, 2013.



WESTERN SURETY COMPANY

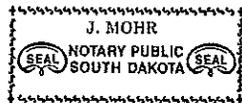
Paul T. Bruflat
Paul T. Bruflat, Vice President

State of South Dakota }
County of Minnehaha } ss

On this 22nd day of August, 2013, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

June 23, 2015



J. Mohr
J. Mohr, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 16th day of December, 2015.



WESTERN SURETY COMPANY

L. Nelson
L. Nelson, Assistant Secretary

Authorizing By-Law

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

BID FORM – 00 41 43

Total Amount of Bid	\$ 497,760
Contractor's Name	Virginia Transformer Corp
Contact Person	Ben Grant
Email	ben_grant@vatransformer.com
Telephone	(208) 238-0720 ext 287
Fax	(208) 238-9810

PROJECT IDENTIFICATION: Substation Power Transformer
River Falls, Wisconsin
Project # RFL-15-01.1

BIDS TO BE OPENED: November 20, 2015, at 10:00 a.m. CST

TABLE OF ARTICLES

<u>Article</u>	<u>Article No.</u>
Article 1 - BID RECIPIENT.....	1
Article 2 - BIDDER'S ACKNOWLEDGMENTS	2
Article 3 - BIDDER'S REPRESENTATIONS	2
Article 4 - BIDDER'S CERTIFICATIONS.....	3
Article 5 - BASIS OF BID	3
Article 6 - TIME OF COMPLETION.....	3
Article 7 - ATTACHMENTS TO THIS BID	4
Article 8 - DEFINED TERMS.....	4
Article 9 - BID SUBMITTAL.....	4

ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted to:

Mr. David Keating
City of River Falls
222 Lewis Street, Suite 228
River Falls, WI 54022

- 1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with Buyer in the form included in the Bidding Documents to furnish the Goods and Special Services as specified or indicated in the Bidding Documents, for the prices and within the times indicated in this Bid, and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 - BIDDER'S ACKNOWLEDGMENTS

- 2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Buyer.

ARTICLE 3 - BIDDER'S REPRESENTATIONS

- 3.01 In submitting this Bid, Bidder represents that:

- A. Bidder has examined and carefully studied the Bidding Documents, the related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.	Addendum Date
1	November 10, 2015

- B. Bidder has visited the Point of Destination and site where the Goods are to be installed or Special Services will be provided and become familiar with and is satisfied as to the observable local conditions that may affect cost, progress, or the furnishing of Goods and Special Services, if required to do so by the Bidding Documents, or if, in Bidder's judgment, any local condition may affect cost, progress, or the furnishing of Goods and Special Services.
- C. Bidder is familiar with and is satisfied as to all Laws and Regulations in effect as of the date of the Bid that may affect cost, progress, and the furnishing of Goods and Special Services.
- D. Bidder has carefully studied, considered, and correlated the information known to Bidder; information commonly known to sellers of similar goods doing business in the locality of the Point of Destination and the site where the Goods will be installed or where Special Services will be provided; information and observations obtained from Bidder's visits, if any, to the Point of Destination and the site where the Goods will be installed or Special Services will be provided; and any reports and drawings identified in the Bidding Documents regarding the Point of Destination and the site where the Goods will be installed or where Special Services will be provided, with respect to the effect of such information, observations, and documents on the cost, progress, and performance of Seller's obligations under the Bidding Documents.
- E. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution (if any) thereof by Engineer is acceptable to Bidder.
- F. The Bidding Documents are generally sufficient to indicate and convey understanding

of all terms and conditions for furnishing the Goods and Special Services for which this Bid is submitted.

ARTICLE 4 - BIDDER'S CERTIFICATIONS

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Buyer, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Buyer of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Buyer, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process.

ARTICLE 5 - BASIS OF BID

5.01 Bidder will furnish the Goods and Special Services in accordance with the Contract Documents for the following price(s):

Single Lump Sum Bid Price:

\$ 497,760

(numerals)

four hundred ninety seven thousand seven hundred sixty dollars

(words)

ARTICLE 6 - TIME OF COMPLETION

6.01 Bidder agrees that the furnishing of Goods and Special Services will conform to the schedule set forth in Article 5 of the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 - ATTACHMENTS TO THIS BID

7.01 The following documents are attached to and made a condition of this Bid:

- A. Required Bid security in the form of five (5) percent;
- B. List of Proposed Major Suppliers;
- C. List of Proposed Subcontractors;
- D. List of Project References;
- E. Non-Collusion Affidavit;
- F. Non-Discrimination Affidavit;

ARTICLE 8 - DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 - BID SUBMITTAL

9.01 "I certify and swear that I have examined and carefully prepared this proposal from the plans and specifications provided and have checked the same in detail before submitting this proposal."

This Bid submitted by:

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____
(Individual's signature)

Doing business as: _____

Business address: _____

Phone: _____ Facsimile: _____

E-mail address: _____

A Partnership

Partnership Name: _____ + (SEAL)

By: _____
(Signature of general partner - attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

Phone: _____ Facsimile: _____

E-mail address: _____

A Corporation

Corporation Name: Virginia Transformer Corp

State of Incorporation: Virginia

Type (General Business, Professional, Service, other): Transformer Manufacturer

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): Prabhat K Jain

Title: President

Attest _____ (CORPORATE SEAL)

(Signature of Corporate Secretary)

Business address: 220 Glade View Drive
Roanoke, VA 24012

Phone: 540-345-9892 Facsimile: 540-342-7694

E-mail address: ben_grant@vatransformer.com

A Limited Liability Company (LLC)

LLC Name: _____

State in which organized: _____

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone: _____ Facsimile: _____

E-mail address: _____

A Joint Venture

First Joint Venturer Name: _____ (SEAL)

By: _____

(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone: _____ Facsimile: _____

E-mail address: _____

Second Joint Venturer Name: _____ (SEAL)

By: _____

(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone: _____ Facsimile: _____

E-mail address: _____

Phone and Facsimile Number, and Address for receipt of official communications to Joint Venture: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, corporation, and limited liability company that is a party to the joint venture should be in the manner indicated above.)

END OF SECTION

POWER TRANSFORMER DATA SHEETS – 00 41 43.01

Shipping, Manufacturer and Rigging Data

Manufacturer: Virginia Transformer Corp
Shipment Date: 18 to 20 weeks ARO
Shipment Origin: Roanoke, VA
Shipping Company: TBD
Crane / Rigging Company: TBD
Crane capacity # tons @ 30 feet lifting radius: TBD
Field Assembly / Testing Company: Virginia Transformer Corp

Net Weight and Capacity Information Approximate

<u>42,650</u>	lb. Tank & Fittings	<u>46,350</u>	lb. Core and coils
<u>32,000</u>	lb. Insulating oil	<u>121,000</u>	lb. Total weight
<u>49,250</u>	lb. Untanking weight	<u>4265</u>	Gal. Insulating oil
<u>106,590</u>	lb. Weight of heaviest handled piece		

Overall Dimensions - Inches Approximate

<u>183</u>	Height over surge arresters
<u>183</u>	Height over high voltage bushing
<u>169</u>	Height over low voltage bushing
<u>212</u>	Width (include heat exchanger)
<u>230</u>	Height above base required to remove highest bushing
<u>163</u>	Shipping height
<u>193</u>	Depth required to remove radiators

List of items shipped separately from transformer tank requiring field assembly:

HV bushings & arresters, Radiators & radiator oil, Fans, Safety posts

Voltage Taps – No Load

<u>70.35</u>	kV
<u>68.675</u>	kV
<u>67</u>	kV – normal tap
<u>65.325</u>	kV
<u>63.65</u>	kV

Insulation Levels

350 BIL (high voltage winding) 110 BIL (low voltage winding)
N/A BIL (tertiary winding)

Bushings

	High Voltage	Low Voltage	LV Neutral
Manufacturer	ABB	ABB	ABB
Catalog Number	069Z0412AN	025W2000BE	025W2000BE
Rated continuous current	400A	2000A	2000A
Type	Condenser	Condenser	Condenser
Insulation class	69kV	25kV	25kV
BIL internal	350	150	150
BIL external	350	150	150
Test Taps	Yes	Yes	Yes
Bushing color	Gray	Gray	Gray

Efficiency at 100% Power Factor Guaranteed – not including power for cooling

99.62 % at full rated load 99.68 % at 75% full load
99.71 % at 50% full load 99.65 % at 25% full load

Impedance Guaranteed

8.0 % impedance based on 16.8 MVA and rated voltage tap h- to x-winding
 Manufacturer's tolerance 7.5 Plus 7.5 Minus

Approximate Resistance at 75° C – on rated voltage connection

2.807 Ohms high voltage winding 0.02342 Ohms low voltage winding

Losses Guaranteed

11.5 kW at 100% no load loss (excitation only)
16.56 kW at 110% no load loss (excitation only)
63.5 kW at full load at 65° C rise total loss (no load loss plus load loss at unity power factor)
1.6 kW auxiliary at first stage of cooling
3.2 kW auxiliary at second state of cooling

On-Load Tap Changer

Reinhausen RMV-II Manufacturer style
Vacuum Type

Temperature Under Continuous Operation Guaranteed

- 65 ° C winding temperature rise by resistance at 65° C
- 80 ° C hottest spot winding temperature rise by resistance at 65° C
- 50 ° C oil temperature rise at 65° C
- 85 ° C performance ref temp (efficiency, losses, impedance corrected)
- 40 ° C max ambient temperature for equipment heat to dissipate

Average Sound Level Guaranteed

Per NEMA TR-1 dB rated load all fans running scale "A" at 5'-0"

Exciting Current Guaranteed

0.301 % at 100% voltage 1.202 % at 110% voltage

Inrush RMS Magnetizing Current

8 to 10 times Based on no residual magnetism in; times full load current at 65° C

Transformer Cooling Equipment

Manufacturer VTC Standard

5 Number of radiators

Galvanized Coating system (painted or galvanized)

15 % capacity reduction with one radiator out of service

Only ONAN hrs full load at 65° C with fans out of service cold start

ONLY ONAN hrs continued full load at 65° C with fans out of service

Only ONAN hrs excitation only at 65° C with fans out of service cold start

Fans

Manufacturer Krenz

<u>6</u> Total Number	<u>1/3</u> Horsepower each
<u>230</u> Volt	<u>1</u> Phase
<u>60</u> Frequency	<u>4.9</u> Locked rotor current each

Transformer Oil Preservation System

Manufacturer of oil Ergon or Equivalent

Name of oil Hyvolt II

Type of oil preservation Nitrogen System With Regulator

Type of oil drain valve VTC Standard

Manufacturer of fault gas pressure device Qualitrol

Type of fault gas pressure device _____

2 Inches size of oil drain valve

2 Inches size of oil sampling valve

1 Inches size of gas sampling valve

Current Transformers

	Manufacturer	Type
High Side CTs	Meramec or Equal	600:5, MR, C800
Low Wide CTs	Meramec or Equal	2000:5, MR, C800
Neutral CT	Meramec or Equal	2000:5, MR, C800

Alarms

	Manufacturer	Type
Winding Hot Spot CT	VTC Standard	
Liquid Temperature	Qualitrol	
Fault Pressure	Qualitrol	
Sudden Pressure	Qualitrol	
Pressure Vacuum Gauge	Qualitrol	

Surge Arresters

	High Voltage	Low Voltage
Manufacturer	ABB	ABB
Type	Station Class	Station Class
Color	Gray	Gray
Anti-contaminant features	-	-
Catalog Number	POLIM-S	POLIM-S
kV voltage rating	72	10
lb cantilever strength at top of arrester	With Design	With Design

Windings

Describe your proposed winding construction type and how your proposal is superior, especially in consideration of 3.02B of Section 26 12 13. Use additional sheets as necessary.

Please see VTC Proposal and attachments

NON-COLLUSION AFFIDAVIT – 00 45 19

STATE OF Virginia

City

~~COUNTY~~ OF Roanoke

I hereby swear (or affirm) under the penalty of perjury:

- 1) That I am the bidder (if the bidder is an individual), a partner in the bidder (if the bidder is a partnership) or an officer or employee of the bidder corporation having authority to sign on its behalf (if the bidder is a corporation);
- 2) That the attached bid or bids have been arrived at by the bidder individually and have been submitted without collusion with, and without any agreement, understanding or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid designed to limit individual bidding or competition;
- 3) That the contents of the bid or bids have not been communicated by the bidder or its employees or agents to any person not an employee or agent of the bidder or its surety on any bond furnished with the bid or bids, and will not be communicated to any such person, prior to any official opening of the bid or bids; and
- 4) That I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Subscribed and sworn to before me this

15th day of DECEMBER, 20 15

Bidder's Signature

Notary

CFO

Title

(Seal)



Virginia Transformer Corp

Company

NON-DISCRIMINATION AFFIDAVIT – 00 45 20

"I, the undersigned, state that the organization which I represent will be in compliance with the applicable Federal and State Statutes for the City of River Falls, Wisconsin, adopted Affirmative Action Program concerning non-discrimination and Equal Employment Opportunity."



Authorized Signature

Title: CFO

Company Name: Virginia Transformer Corp

Date: 12/15/15

PROPOSAL SUMMARY:

ITEM	DESCRIPTION	QTY	UNIT PRICE	EXTENDED PRICE
1	16800/22400/28000 KVA, 67 – 12.47kV with LTC	1	\$ 497,760	\$ 497,760

The Firm price offer is for shipment by the schedule below and order by 2/12/2016. If shipment is delayed by Customer for any reason; the price will be increased at a rate of 0.5% per month effective the first day after the shipment date expires.

SHIPPING INFORMATION

Validity of Quotation	2/12/2016
Unit Shipment by	18 – 20 weeks ARO
Incoterm	FOB-Destination: River Falls, WI
Freight	Prepaid & Allowed to Substation Site

PAYMENT TERMS

25% with drawing Submittal, Net 30 days
35% upon shipment, Net 30 days
40% upon Final Completion, not to exceed 30 days from shipment

VA Transformer: Accounting, Phone: 540-345-9892, E-mail:accounting@vatransformer.com

NOTES:

1. All prices are excluding any State, Federal, Sales or Use Tax.
2. Written Purchase Orders are required prior to any Engineering, Manufacturing, or Order Entry by VTC. The stated delivery date contained in this proposal is predicated on the factory loading at the time of quotation. The actual delivery date will only be confirmed at the time an order is received. Our acknowledgement will confirm the committed shipment date. Virginia Transformer Corp. reserves the option to ship this unit within a window of four to six (4 to 6) weeks prior to the date requested on the purchase order.
3. Drawings will be supplied six to seven (6-7) weeks ARO following receipt of technical and confirming purchase order. Customer approval of drawings are required one to two (1-2) weeks from date of submittal unless otherwise agreed to in writing by VTC. Shipment will be scheduled fifteen (15) weeks following approval and release to manufacturing unless otherwise specified in the purchase order.
4. **Access to final site and all access roads leading thereto must be suitable for un-impeded delivery by special, heavy-duty trucks carrying large transformers, including grades, turning radii, and surface conditions capable of supporting the combined weight of these trucks and transformers.**
5. VTC will include its standard O&M manual with a Final, As-Built package of drawings and cut cuts of the devices. Reference VTC website for a sample copy of our standard O&M manual (www.vatransformer.com > Brochures & White Papers > Liquid Filled Installation and Operation).

This proposal is Virginia Transformer's complete understanding of the specification requirements provided, and is the basis for acceptance of any resulting orders. The table below describes the salient ratings of the transformer(s) in the proposal:

ITEM #1			QUANTITY 1
KVA	16800/22400/28000	Application	Load Tap Changer
Cooling Class	ONAN/ONAF/ONAF	Winding Temp Rise (Avg)	65 °C
# Phases	3	Dielectric Fluid	TYPE II MINERAL
Frequency (Hertz)	60	Conductor Material	Copper
HV Rating(V)	67000 Delta	LV Rating(V)	12470 GRDY / 7200
HV BIL(kV)	350	LV BIL(kV)	110
HV Taps	2 FCAN, 2 FCBN @ 2.5 %	Nom. Impedance	8 % ± 7.50 % @ 16800 KVA
HV Bushing Mounting	Segment III, Cover Mounted	LV Bushing Mounting	Segment I, Cover Mounted
HV Terminal Chamber	N/A	LV Terminal Chamber	N/A
Radiators	Demountable W/ Valves	Paint Color / Type	70 / III Urethane over Epoxy
Losses	Guaranteed Max	Coil Type	Circular
No Load Loss	11.5 KW at 100% volts	Load Loss	52.0 KW at 16800 KVA

TANK FEATURES:

- NEMA 4 Junction Box
- De-energized Manual No Load Tap Changer on HV Winding & Load Tap Changer on LV winding.
- Nitrogen Preservation System.
- Diagrammatic Name Plate
- Gasketed Manhole in Cover
- Panel Type Radiators
- Two Stainless Steel Ground Pads welded to Base on Diagonally Opposite Corners
- Welded Top Cover

STANDARD GAUGES AND ADDITIONAL FIXTURES / ACCESSORIES:

Gauge Details
Pressure Vacuum Gauge W/ Contact & Bleeder
Liquid Level Gauge W/ Contacts
Liquid Temperature Gauge W/ Contacts
Pressure Relief Device W/ Contact & Flag
Sudden Pressure Relay – Gas Space W/ Seal in Relay
Simulated Winding Temperature Gauge W/ Contacts
Electronic Temperature Monitor-TTC 1000
Nitrogen Preservation System W/ Regulator

Note: All gauges are VTC Std. / Qualitrol as applicable.

BUSHINGS, CURRENT TRANSFORMERS AND LIGHTNING ARRESTERS:

Details of Bushings:

Bushing	kV BIL	Location	Quantity / Phase	Make
HV	350	Segment III	1	ABB / Equal
LV	110	Segment I	1	ABB / Equal

Details of Current Transformers:

Location	Quantity/Phase	CT Ratio	Single Ratio / Multi Ratio	Class / Accuracy
HV	3	600:5	MR	C800
LV	3	2000:5	MR	C800
LVN	1	2000:5	MR	C800

Details of Lightning Arresters:

Location	Type	kV Class	MCOV	Manufacturer
HV	SC (Polymer)	72	57	ABB / Equal
LV	SC (Polymer)	10	8.4	ABB / Equal

Radiators:

VTC standard radiators are Hot Dipped Galvanized and do not require painting. These radiators are suitable for all climatic conditions that include chemical, petro-chemical and marine conditions. Unless specified differently below, these standard, galvanized radiators will be provided.

Radiators included in this quoted transformer - Standard per above	
Demountable	Hot Dipped Galvanized

TESTING:

Routine per ANSI
Power Factor
Partial Discharge
Temperature Rise
Impulse test
Zero Sequence
DGA Sampling
Sound Level

AMBIENT CONDITIONS:

Ambient Temperature (°C)	Min. -40 / Av. 30 / Max. 40
Seismic Zone	Zone 1 / 2
Altitude (Feet)	< 3300
Sound Level	PER NEMA TR1

LOAD TAP CHANGER (LTC):

Details of LTC:

Make	Reinhausen RMV-II
Location	On LV Winding
Tap Range	± 10% in ± 16 approx. 0.625% Steps
Preventive Autotransformer	Included
Fully Distributed Regulating Winding	Included
Tapcon 250 Controller	Included
INCON Controls per Specification	Included
Line Drop Compensation	Included

NOTE: The actual voltages at various taps of the LTC shall correspond to the nearest turn in accordance with IEEE Std C57.12.00 2006 clause 9.1. This can lead to different step voltage between steps. **Unless otherwise specified, the taps below the nominal tap shall be of reduced capacity.**

SHIPPING & HANDLING DETAILS:

[A] Overall & Shipping Estimated Dimensions:		
Dimension	Overall Dimensions (Inches)	Shipping Dimensions (Inches)
Width	212	212
Depth	181	120
Height	183	163

[B] Overall & Shipping Estimated Weight:	
Weight of the Unit (Lbs)	Shipping Weight (Lbs)
121,000	106,590

[C] Parts to be shipped Separately:

HV Bushings, HV Arresters and Brackets, Fans & Fan Brackets, Radiators and Oil for radiator on separate trucks

SUGGESTED SPARE PARTS:

Particulars	Price (\$)
HV Bushing – Each	\$ 6,475
LV Bushing – Each	\$ 4,150
Gasket Set	\$ 1,150
Fan – Each	\$ 1,250

VALUE ADDED OPTIONS:

Particulars	Price Adder (\$)
Extended Warranty to 60/60 Months – (see attached descriptive literature)	Included
Field Service unloading, Assembly & Testing (see attached descriptive literature)	Included
Impact Recorder- Customer courtesy with prompt return	\$ 8500 if not returned in 30 days
VTC Final As-Built Package (FABP)	With Order
Final as-built Drawings	With FABP
Operation & Maintenance Manual	With Shipment/FABP
Catalog cuts for components	With Drawings/FABP
Spare parts price list for five-year operation	With FABP

CLARIFICATION TO SPECIFICATION:

- VTC is quoted 60/60 months extended warranty and we take exception to the eight (8) year warranty coverage from date of delivery.
- VTC quoted HV Bushings 69 KV class 350 BIL.

Clarifications to the Proposal:

- The Buyer listed on the resulting Purchase Order is VTC's customer. All terms, schedules, approvals, technical issues and payments required by the order are the responsibility of the Buyer; no other end-user flow-down requirements are accepted.
- Stenographic and clerical errors on this quotation are subject to correction.
- Prices are quoted F.O.B., Factory unless otherwise stated. Quotes F.O.B., Destination require Buyer's guarantee of clear and free access to site.
- Freight terms "Prepaid and Add" are subject to a 15% administrative fee included in the resulting freight invoice.
- All orders are subject to review of equipment schedule and pricing prior to acceptance. VTC's Sales Order Acknowledgment constitutes acceptance for manufacture and shipment as shown on the acknowledgment form. No orders shall be accepted subject to: a) Hold for Manufacture Release, or b) No Delivery Date specified.
- Shipping schedules are made in good faith. VTC cannot, however, accept liability for penalty or damages resulting from shipping delays caused by Force Majeure including but not limited to strikes, fires or any other cause beyond VTC's control. Ship Separate Parts may not arrive concurrently with the transformer and some assembly may be required. Shipment may be made earlier after due notice to Buyer.
- No charge backs for services, delays or etc. on VTC's behalf shall be accepted without prior written authorization of VTC's Field Service Manager.
- Units quoted for shipment under nitrogen blanket with oil provided separately assume the Buyer is responsible for oil filling unless otherwise noted.
- Quotations include one (1) Standard Operation & Maintenance Manual and Final As-Built Drawings. Additional copies are available for 0.1% / copy or as otherwise agreed.
- All specifications requiring bolted covers are quoted per VTC's standard rectangular design unless otherwise stated herein.
- State and Local sales/use taxes and or Customs Duties, where applicable, are the responsibility of the Buyer.
- Pro rata payments shall become due as shipments are made. If shipments are delayed by Buyer, payments shall become due from the date VTC is prepared to make shipment. If order is delayed by Buyer during manufacture, payment shall be based on the contract price and percent of completion. Apparatus held for the Buyer shall be at the risk and expense of the Buyer and storage charges will apply. VTC's standard storage rates are as follows:
 - FOB Factory = 0.05% of order value per day + \$2,500 craning charges (minimum daily charge not less than \$40/day)
 - FOB Destination = 0.10% of order value per day + \$2,500 craning charges (minimum daily charge not less than \$40/day)
- All purchase orders will be subject to VTC's standard cancellation policy as follows:
 - 10% of order amount after order entry;
 - Additional 20 % of order amount after outline drawing completion / submission;
 - If manufacturing has begun, charges will be based upon percent completion plus 30 % for engineering and order entry.

- VTC's responsibility ceases with delivery of merchandise in good order at the F.O.B. point. Claims for shortage or damage in transit must be made by Buyer against the Carrier. In the absence of definite shipping instructions, VTC reserves the right to ship all material, upon completion, by any public carrier which in VTC's opinion is satisfactory. Shipments are made during the week shown on the Sales Order Acknowledgment and arrival on site is a best estimate only.
- No material will be accepted for return without prior written consent or instruction. Material returns are to be prepaid by the Buyer to Factory.
- VTC's Standard Warranty provision as contained in VTC's Standard Terms and Conditions of Sales (10/02) shall apply. In summary, VTC warrants to repair or replace, F.O.B. Factory, any equipment manufactured by VTC due to defective material or workmanship, under normal and proper use, within one year from installation or eighteen months from date of shipment, whichever comes first. Buyer shall make the equipment available to the Seller to perform warranty work at the job site without interference. VTC will not assume any expense of liability for any repairs or modifications to the equipment without prior written authorization. There will be no guarantee, warranty or liability for damage or expense other than stated. VTC's warranty on purchased components will be limited to the warranty provided by the component manufacturer. Under no circumstances will VTC accept any consequential damages. The following Warranty Options are available for quotation:
 - Extended Warranty Option. Covers core and coils only against failure occurring with respect to normal operation and within the parameters for which the transformer was designed.
 - In/Out Coverage Option. For warranty failures occurring within the period defined, VTC will cover only the expenses to transport the transformer to a repair facility and back to site. Buyer will make transformer ready for shipment in the condition it was originally received per the Outline Drawing with clear and free access by Carrier. Craning, civil work, disconnection and reconnection of the transformer, etc. is the responsibility of the Buyer.
- VTC's standard term for payment is Net 30 "subject to credit approval", unless otherwise noted. Interest of 1.5% per month will be charged on unpaid, past due balances. No other payment terms shall apply unless agreed upon in writing by an officer of VTC. Payments shall not be contingent on end-user payment to Buyer and VTC reserves the right to refuse to fulfill any and all obligations (including field service and voiding of warranty) if payment is not received by the terms of sale.
 - Contractors/Distributors/Packagers/Transit Customers - Progress payments may be required and negotiated prior to order acceptance.
 - Foreign Customers - 30% Advance with order, 70% Balance before shipment or 100% by Letter of Credit. EXIM Bank financing available.
- If in the judgment of VTC, the financial condition of the Buyer, at any time during the manufacturing period, or at the time the apparatus is ready for shipment, does not justify the terms of payment specified, VTC reserves the right to require full or partial payment in advance.
- Setoff of payment against any other orders is prohibited.
- Except where specifically stated otherwise, prices on this quotation do not include export shipment preparation and/or packaging.
- This quotation is on the basis of present commodity prices. Any significant variations of commodity prices will be charged extra.
- In case of non-performance by Buyer requiring legal action, VTC's cost of action shall be the responsibility of the Buyer. Any action, controversy, or claim arising out of or related to the contract, or breach thereof, shall be settled by arbitration with the American Arbitration Association under its Commercial Arbitration Rules, and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.
- This quotation is not valid unless issued by Virginia Transformer Corp. in the name of the Buyer.
- Liquidated Damages are not accepted unless in writing by VTC. In no event shall any liquidated damages (as an aggregate) exceed 5% of the resulting order value unless as otherwise expressly agreed in writing by Seller.
- Retainage amounts are not accepted unless in writing by VTC. In no event shall any retainage amounts exceed 10% of the resulting order value and must be payable within 60 days of transformer shipment unless as otherwise expressly agreed in writing by Seller.
- VTC reserves the right to adjust prices and schedule for alterations or changes authorized by the purchaser subsequent to order acceptance. The following standard escalation factors shall apply for Buyer ordered changes after the Purchase Order has been accepted.
 - Change by customer after P.O. received and entered 1.2 times Sales Price of added items.
 - Change by customer after drawing approval 1.7 times S.P. of added items.
 - Change by customer after Sales release but before design release 2.2 times S.P. of added items (Eng Complete).
 - Change by customer after Engineering Release to manufacture 2.5 times S.P. of added items.
 - Change by customer within 6 week window of scheduled ship date (per Review) 2.8 times S.P. of added items minimum.
 - Change by customer Ship Date moved to accommodate manufacturing schedule per original schedule ship date.
 - Change by customer at Witness Test or Inspection 3.5 times S.P. of added items.

General Terms and Conditions of Sale

(Also available at www.vatransformer.com)

Virginia Transformer Corp, hereinafter referred to as Seller, hereby offers to supply the items and/or services identified in the quotation, proposal, or acknowledgment expressly conditional upon the Buyer's acceptance of the following terms. Seller, by its commencement of performance, shall not prejudice its rights to enforcement of these conditions. Any confirmatory action by the Buyer hereunder, or any acceptance of such equipment or services, installation, energization or utilization shall constitute assent to said terms or conditions. Stenographic and clerical errors on this quotation, proposal, or acknowledgment are subject to correction.

1. **ACCEPTANCE OF ORDER:** None of Buyer's Terms and Conditions contained in the Purchase Order shall alter Seller's Terms and Conditions in any respect and shall not apply to this transaction unless specifically agreed to in writing on the face of Seller's sales contract form.
2. **EXPIRATION OF OFFER:** All offers of sale by Seller are valid for thirty (30) days from the date of the offer based on product delivery within 6 months unless otherwise specifically stated in the Seller's offer or as otherwise may be expressly agreed to in writing by the Seller. All such offers of Seller are subject to change without notice after this period unless earlier withdrawn by the Seller.
3. **MINIMUM ORDER VALUE:** The minimum acceptable value of any order is \$500.00. Buyer's accumulation of a number of items into one purchase is authorized to reach the minimum order value.
4. **F.O.B. POINT AND SHIPMENTS:** Title to the goods and risk of loss shall pass to Buyer at the FOB point. All supplies and services are sold FOB origin and the point of origin shall be that of Seller's factories or locations identified in its proposal or sales contract form unless as otherwise specifically agreed to in writing on the face of Seller's sales contract. Seller assumes no responsibility for delay, breakage, damage or loss after delivery to the carrier as evidenced by "In good order" receipts from the carrier. All claims for loss, damage and delay in transit are to be handled by Buyer directly with the carrier. Seller shall select method of transportation and route on behalf of Buyer, unless Buyer specifies the method and route and is to pay freight costs in addition to price. Seller reserves the right to make partial shipments at its discretion. Claims for shortages or incorrect items must be made in writing to Seller within seven days after receipt of shipment. Failure to give such notice shall constitute an unqualified acceptance of equipment and waiver by Buyer of all claims for such shortages or incorrect items.

When terms are F.O.B. destination or freight allowed to destination, "destination" means common carrier delivery point nearest the destination (within the continental United States, excluding Alaska, Hawaii, Puerto Rico, etc.). When terms are F.O.B. job site or pad, Buyer guarantees all access roads are suitable for normal un-impeded access to site with free and clear access to area directly adjacent to the placement point of the unit with no physical obstructions and clear of stored materials.

Shipping schedules and delivery arrangements are made in best effort and good faith. Seller cannot, however, accept liability for penalty or damages resulting from shipping delays caused by Force Majeure including but not limited to strikes, fires, truck availability or any other cause beyond VTC's control. Ship Separate Parts may not arrive concurrently with the transformer and some assembly may be required. Shipment may be made earlier after due notice to Buyer.

5. **BUYER'S OBLIGATION OF ASSISTANCE:** Except to the extent Seller has otherwise assumed such responsibility for itself under express provisions of the attachment hereto entitled "Statement of Work" Buyer shall:
 - a) Place at Seller's disposal all information necessary for performance of the work including any plans, plant layout, wiring instructions and operational information that may reasonably be expected to affect the performance of the work. This includes to the extent reasonable previous studies or reports and other data relative to the design, installation and selection of equipment for the work to be performed by Seller.
 - b) Buyer guarantees access to and to make all reasonable provisions for Seller to enter on its property and other public and private lands as is required for performance of the work including safe storage of equipment, materials and tools during the process of any such off-site work.
 - c) Buyer agrees to cooperate in all reasonable ways necessary to Seller's performance of the work.
 - d) Buyer covenants that it has disclosed fully and accurately to Seller all general and local conditions which can affect performance of the work prescribed hereunder or the price thereof. Buyer acknowledges that Seller is entitled to rely on information furnished by Buyer in developing its specifications, equipment selection, price and other terms of this order.
6. **PAYMENT TERMS:** Terms are "NET thirty (30) days" calculated from the date of invoice if credit arrangements have been approved in advance by Seller and these terms are included on the Seller's sales contract form. Otherwise, payment is required before shipment or delivery in a form and arrangement acceptable to Seller. In addition to any other rights or remedies available to seller, failure to pay the amount(s) due within the time specified will result in a late charge of one and one half (1-1/2%) percent per month to Buyer's account until final payment. Payments shall not be contingent on end-user payment to Buyer and Seller reserves the right to refuse to fulfill any and all obligations (including field service and voiding of warranty) if payment is not received by the terms of sale.

Except to the extent otherwise specified by Seller in its quotation, pro rata payments shall become due without setoff as shipments are made. If Seller consents to delay shipments after completion of any product, the goods may be placed in storage by Seller for Buyer's account and risk, and Buyer shall pay all charges for storage, trucking and other incidental expenses incurred by Seller.

Any order for products by Buyer shall constitute a representation that Buyer is solvent. In addition, upon Seller's request, Buyer will furnish a written representation concerning its solvency at any time prior to shipment. If Buyer's financial condition at any time does not justify

continuance of the work to be performed by Seller hereunder on the agreed terms of payment, Seller may require full or partial payment in advance. In the event of Buyer's bankruptcy or insolvency; or insolvency or in the event any proceeding is brought against Buyer, voluntarily or involuntarily, under the bankruptcy or any insolvency laws; Seller shall be entitled to cancel any order then outstanding at any time during the period allowed for filing claims against the estate and shall receive reimbursement for its proper cancellation charges. Seller's rights under this article are in addition to all rights available to it at law or in equity.

7. **CHARGEBACKS, SET-OFF, OFFSETS OR WITHHOLDING:** In no event will Seller accept any back charges, set-off, offsets, withholding for material or services without the prior written consent of Seller's authorized personnel.
8. **DELIVERY:** The prices quoted are for the shipment dates provided on the Seller's sales contract form or proposal. While the Seller shall have no obligation to comply with unilateral directives to change schedules or temporarily cease work, Seller will endeavor to accommodate Buyer's reasonable written requests for acceleration or deceleration made at least ninety/sixty(90/60) days respectively prior to scheduled delivery. Such changes may or may not be accepted by Seller at its sole discretion. In the event Seller accepts such changes, Seller shall be under no obligation to comply therewith until a price adjustment acceptable to Seller is negotiated between the parties and evidenced by an amendment to the order. Any agreement to delay delivery shall not exceed 6 months from original acknowledgement ship date; goods not released for shipment within such revised time frame shall be automatically deemed canceled and subject to Seller's Cancellation terms listed below.
9. **EXPORT REGULATIONS:** Buyer acknowledges that if the items purchased hereunder are to be exported, they are subject to the U.S. Commerce and/or State Department Export Regulations. Buyer accepts full responsibility for and agrees to comply fully with such regulations, including obtaining export licenses and re-export permission unless otherwise agreed that Seller is to be exporter of record.
10. **CANCELLATION & TERMINATION:** In the event of cancellation of this order for breach of the provisions hereof by Buyer, Seller shall have no further liability to Buyer and Seller shall not be liable for any costs of cancellation, special, incidental or consequential damages (including punitive or exemplary damages) for any cause or of any nature whatsoever and such cancellation shall be in addition to any other rights and remedies of Seller under this order or at law. Further, Seller reserves the right to cancel this order or any portion thereof without liability if Buyer fails to make payment as required by the terms of the acknowledgement or if Buyer is adjudicated bankrupt, files a petition in bankruptcy, makes an assignment for the benefit of creditors or if action under any law for the relief of debtors is taken. All terminations shall be subject to the following cancellation charges:
 - a) 10 % of order amount after order entry by Seller;
 - b) Additional 20 % of order amount after outline drawing completion / submission;
 - c) If manufacturing has begun, charges will be based upon percent completion plus 30 % for engineering and order entry
 - d) If manufacturing has begun, charges will be based upon percent completion plus 30 % for engineering and order entry
11. **PATENT INFRINGEMENT:** To the extent that the items ordered are manufactured to designs, drawings, specifications or instructions furnished by Buyer, Buyer guarantees that the manufacture and sale or use of such items will not infringe upon any U.S. or foreign patents. Buyer further agrees to indemnify and hold harmless the Seller from any expense, loss, cost, damage or liability of any kind which may be incurred because of any such infringement or alleged infringement of patent rights with respect to such items and to defend, at its own cost and expense, any action or claim in which such infringement is alleged. Buyer shall promptly notify Seller of any such action and shall provide Seller an opportunity, at Seller's option, to participate in any defense of such action or claim at Seller's own expense.

Seller shall hold Buyer harmless from costs actually incurred arising directly from the defense of any suit for infringement of any domestic or foreign patent by a Seller-manufactured item, provided Seller shall be given timely written notice of such suit and the option to replace the same, obtain a license, make other arrangements to avoid litigation or to defend the suit. No indemnification is offered for alleged infringement arising from the use of Seller's items in combination with other items supplied by Buyer or from compliance with drawings, specifications or instructions furnished by Buyer as described in the paragraph above. Further, no indemnification by Seller applies if this order is accepted under a U.S. government contract containing an Authorization and Consent Clause applicable hereto as prescribed by federal procurement laws and regulations.

12. **DISCLOSURE OF INFORMATION / PROPERTY OF SELLER:** Any information, suggestions or ideas transmitted by either Buyer or Seller in connection with performance hereunder are not to be regarded as secret or submitted in confidence except as may be otherwise provided in writing signed by a duly authorized representative of the disclosing party. Neither party shall use or disclose such property to any third party or anyone not having a need to know, including employees, without the prior written consent from the disclosing party. Title to all tools, test equipment and facilities not furnished by Buyer or specifically paid for by Buyer as a separate line item under any order, shall remain with Seller. Further, Seller does not agree to submit to Buyer as a result of the Consideration paid under this order, any information, technical data or drawings which are proprietary to Seller; nor does Seller agree to grant to Buyer any patent rights, title or license without Seller's expressed prior written consent.
13. **TAXES:** In addition to any price specified herein, Buyer shall pay the gross amount of any present or future sales, use, excise, value-added, or other similar tax applicable to the price, sale or delivery of any products or services furnished hereunder or to their use by Seller or Buyer, or Buyer shall furnish Seller with evidence of exemption acceptable to the taxing authorities.
14. **EQUIPMENT WARRANTIES AND REMEDY:**
 - a) Seller warrants that each newly manufactured item sold hereunder and such portion of a repaired/refurbished item as has been repaired or replaced by Seller under this warranty, shall be free from defects in material, workmanship or title at the time of shipment and shall perform during the warranty period in accordance with the specifications incorporated herein. Should any failure to conform to these warranties (excluding any defects in title) be discovered and brought to Seller's attention during the warranty period and be substantiated by examination at Seller's factory or by authorized field personnel, then (i) Seller shall correct such failure by, at Seller's

exclusive option, repair or replacement of the nonconforming item or portion thereof with Buyer promptly making product available to be worked by Seller's personnel or agents without interference with no additional cost to the Seller; or (ii) Buyer making available product F.O.B. Seller's plant with Seller's written return authorization, at Seller's exclusive option, for repair or replacement of the nonconforming item or portion thereof. Buyer agrees that this remedy shall be its sole and exclusive remedy against Seller and that no other remedy shall be available or pursued by Buyer against Seller. In no event shall the Seller be liable for any costs or expenses in excess of those described in this paragraph and expressly excluding any liability or damages for special, incidental or consequential damages.

The warranty period for newly manufactured items shall extend 12 months from the date of first energization or 18 months from the date of shipment whichever occurs first or unless a different warranty period is agreed to by Seller. The warranty period for repaired/refurbished articles shall extend for the unexpired warranty period of the item repaired or replaced or for 90 days, whichever is longer. This warranty shall be voided and not extend to any item that upon examination by Seller is found to have been subject to:

- (1) Mishandling, misuse, negligence or accident.
- (2) Storage, installation, operation or maintenance that either was not in accordance with Seller's specifications and instructions or otherwise improper.
- (3) Tampering as evidenced for example by broken seals, damaged packaging containers, etc.
- (4) Testing of equipment above normally accepted field tests.
- (5) Repair or alteration by anyone other than Seller without Seller's express advance written approval.
- (6) Payment(s) not received per terms of sale.**

Failure to promptly notify Seller in writing upon discovery of any non-conforming items during the warranty period shall void the warranty as to such items. Buyer shall describe any such non-conformities in detail, expressing its position as to return of any article under the remedy provided herein. No returns shall be accepted without prior approval by Seller. No back charges shall be accepted without the prior written consent of Seller's authorized representative. Where a failure cannot be corrected by Seller's reasonable efforts, the parties shall mutually agree upon an equitable adjustment in price. The preceding sets forth the exclusive remedies for claims (except as to title) based on defect contract or tort (including negligence) and however instituted. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

- b) **SELLER'S INSTALLATION WARRANTY:** Seller warrants that all work hereunder shall be performed in accordance with the standards employed by Seller in performing the same or similar services for itself. Seller disclaims any and all other representations or warranties expressed or implied including without limitation any representation or warranty that a) any unauthorized entry, burglary, theft, embezzlement or any other crimes will be prevented by the equipment and/or installation thereof or that b) any particular purpose or standard of care intended or desired or any particular results to be achieved by Buyer through the installation and operation of the items to be delivered hereunder. Seller's installation services and installation warranty does not include or imply any assistance for system field troubleshooting and no back charges for such services shall be accepted without the prior written consent of Seller's authorized representative.
 - c) **EXTENDED WARRANTY OPTION:** When purchased, warranty may be extended by the period specified covering core and coils only against failure occurring with respect to normal operation and within the parameters for which the transformer was designed.
 - d) **IN/OUT COVERAGE OPTION:** When purchased, Seller will cover only the expenses to transport the transformer to a repair facility and back to site for warranty failures occurring within the period defined. Buyer will make transformer ready for shipment in the condition it was originally received per the Outline Drawing with clear and free access by Carrier. Craning, civil work, disconnection and reconnection of the transformer, etc. are the responsibility of the Buyer.
15. **CONFIGURATION STATUS AND SUBSTITUTION OF MATERIALS:** Seller reserves the right to make substitution of materials without degrading the quality of product. Customer approval will be solicited when changes affect form, fit or function. Seller further reserves the right to discontinue any items without notice and to change or modify specifications at any time without incurring any obligation to incorporate new or modified features in components or products previously sold or shipped.
16. **LIMITATION OF LIABILITY:** Seller's liability on any claim for loss or damage arising out of this contract or from the performance or breach thereof or connected with the design, manufacturing and supplying of any good hereunder, or their sale, resale, operation or use, whether based on contract, warranty, tort (including negligence) or other grounds, shall not exceed the price allowed to such goods or part thereof involved in the claim. Seller shall not, under any circumstances, be liable for any labor charges without the prior written consent of the Seller.

Seller shall not in any event be liable, whether as a result of breach of contract, warranty, tort (including negligence) or other grounds, for special, consequential, incidental or penal damages including, but not limited to, loss of profits or revenue, loss of use of the product or any associated product, cost of capital, cost of substitute products, facilities or services, downtime costs, or claims of customers of the Buyer for such damages.

17. **HAZARDOUS BUSINESS:** Unless otherwise agreed in writing by an authorized representative of the Seller, goods sold hereunder are not intended for use in connection with any nuclear facility or any other hazardous activity such as commercial or military aircraft, missile installation, space exploration or other critical applications where failure of a single component could cause substantial harm to persons or property. If so used, Seller disclaims all liability for any nuclear damage contamination or other injury and Buyer shall indemnify and hold

Seller harmless from such liability whether as a result of breach of contract, warranty, tort (including negligence) or other grounds. Neither Seller nor its suppliers shall have any liability to the Buyer or its insurers whether based on contract warranty, tort (including negligence) or other grounds for on-site damage to any property located at a nuclear facility.

18. **COMPLIANCE WITH LAW:** Buyer shall comply with all applicable Federal, State and local laws including but not limited to: laws concerning procurement integrity (particularly subsections 27(a), (d) and (f) of the Office of Federal Procurement Policy Act, as amended, 41 U.S.C. Â§423 and FAR 3.104-3; the Byrd Amendment (31 U.S.C. Â§1352); laws governing lobbying activities (2 U.S.C. Â§261 et seq., particularly Â§ 267); laws prohibiting the giving of bribes (18 U.S.C. Â§201(b) or gratuities (18 U.S.C. Â§201 (c)); the Foreign Corrupt Practices Act of 1977, as amended, (15 U.S.C. Â§78m, 78dd-1, 78dd-2, and 78ff). Buyer acknowledges that if items purchased are to be exported, Buyer has the complete responsibility and agrees to comply with all export laws and regulations of the U.S. Department of Commerce and of the U.S. State Department.

Seller hereby certifies that all goods sold hereunder which are produced or manufactured in the United States of America are products in compliance with the Fair Labor Standards Act of 1938 which shall be considered as satisfied by this certification.

19. **INSURANCE:** Buyer shall maintain its usual and customary insurance coverage for automobile, workmen's compensation and third party liability claims during performance of this order and, if requested by Seller, name Seller an insured under its third party liability coverage.
20. **NON-WAIVER:** The failure of Seller to enforce at any time any of the provisions of this order shall not constitute a waiver of such provisions or a waiver of the right of Seller to enforce any or all provisions. If any term or provisions of this order is held invalid or unenforceable by any court of competent jurisdiction, the remainder of this order shall continue to be valid and binding upon the parties unless performance thereof is rendered legally impractical and no longer fulfills the intention of the parties under this order.
21. **APPLICABLE LAW AND FORUM FOR RESOLUTION OF DISPUTES:** This contract shall be deemed to have been made and performed in, and shall be construed, interpreted and the rights and obligations of the parties determined by the law of the Commonwealth of Virginia excluding choice of law rules. Any action, controversy or claim arising out of or related to this contract, or any breach thereof, shall be settled by arbitration administered by the American Arbitration Association under its Commercial Arbitration Rules and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. Such arbitration shall take place in Roanoke, Va. In case of non-performance by Buyer requiring legal action, Seller's cost of action shall be the responsibility of the Buyer.
22. **PRICE VARIATION:** This agreement is on the basis of present commodity prices. Commodity prices at the time of shipment will be considered in determining if the prices for goods are to be modified. Seller reserves the right to adjust prices for alterations or changes authorized by the Buyer subject to Seller's acceptance of the order.
23. **ASSIGNMENT:** Except as otherwise expressly provided herein, no assignment of this order or Buyer's rights under this order shall be made by Buyer without the prior written agreement of the Seller.
24. **FORCE MAJEURE:** In addition to other liability limitation herein contained Seller shall not be responsible to the Buyer for any loss or damage due to failure or delay in performance or delivery of any of the items or services required under this order when such delay or failure is due to causes beyond the failing or delaying parties reasonable control. Such causes shall include without limitation fires, floods, epidemics, quarantines, unusually severe weather, strikes, embargoes, wars, political strife, riots, delays in transportation, compliance with any regulation or directives of any national, state or local municipal government or authority and unforeseeable shortages in fuel, power, materials or labor. Seller shall not be liable for delays in delivery or performance, or for failure to manufacture, deliver or perform, due to an inability on account of a cause beyond the reasonable control of Seller to obtain necessary materials, components, services or facilities. Seller will notify Buyer of any material delay excused by this clause and will specify the revised delivery date as soon as practicable. In the event of any such delay, there will be no termination and the date of delivery or of performance shall be extended for a period equal to the time lost by reason of the delay.
25. **ORDER TERMS EXCLUSIVE:** This order constitutes the entire and sole agreement between the parties concerning the subject matter of this order and the parties acknowledge and agree that none of them has made any representation with respect to the subject matter of this order or any representations including the execution and delivery hereof except as specifically set forth herein. Captions as used herein are for convenience or reference only and shall not be deemed or construed as in any way limiting or extending the meaning of any terms and conditions contained herein.
26. **MODIFICATION:** This order may not be modified except by written instrument executed by the parties with the same formality.
27. **SECTION TITLES:** Section titles appearing in the General Terms and Conditions of Sale are for convenience only and shall not be construed as interpretations of text.
28. **APPENDICIES:** Any appendix or other terms and conditions of the Seller as may be attached hereto and/or identified herewith are hereby incorporated and made a part of these terms and conditions. All orders or contracts shall be subject to such additional terms and conditions which shall control over any inconsistency with the terms and conditions stated herein.

END OF PROPOSAL

SERVICE DATE
Jan 06, 2016

PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of the City of River Falls, as an Electric Public Utility, for Authority to Upgrade its Existing Power Plant Substation and Associated Equipment, in the City of River Falls, in Pierce and St. Croix Counties, Wisconsin 5110-CE-109

NOTICE OF INVESTIGATION

THIS IS AN INVESTIGATION to consider the December 1, 2015, application of the City of River Falls, as an electric public utility, for authority to upgrade its existing Power Plant Substation, located in the City of River Falls, Pierce and St. Croix Counties, Wisconsin, at a total estimated cost of \$4,300,000. The Commission opens this docket by its authority under Wis. Stat. ch. 196. The Commission intends to conduct this investigation without a hearing.

DOCUMENTS. All documents in this docket are filed on the Commission's Electronic Regulatory Filing (ERF) system. To view these documents: (1) go to the Commission's web site at <http://psc.wi.gov>, (2) enter "5110-CE-109" in the box labeled "Link Directly to a Case," and (3) select "GO."

INTERVENTION. Any person desiring to become a party shall file a request for party status, known as a request to intervene, under Wis. Stat. § 227.44(2m) and Wis. Admin. Code § PSC 2.21 no later than 14 days from the date of service of this notice using the ERF system.

To file such a request, go to the Commission's web site at <http://psc.wi.gov>, click on the "ERF - Electronic Regulatory Filing" graphic on the side menu bar. On the next page, click on "Need Help?" for instructions on how to upload a document.

A person desiring to become a party who lacks access to the Internet shall make a request to intervene by U.S. mail addressed to:

Docket 5110-CE-109 Intervention Request
Public Service Commission of Wisconsin
P.O. Box 7854
Madison, WI 53707-7854

At the time of filing, the person making the request to intervene shall serve a copy of the request on existing parties. An existing party may respond to the request within 5 days of service. A party wishing to request intervenor compensation should do so as soon as practicable.

WISCONSIN ENVIRONMENTAL POLICY ACT. This is a Type III action under Wis. Admin. Code § PSC 4.10(3). The Commission will review the potential environmental effects of the project. Type III actions normally do not require the preparation of an environmental impact statement under Wis. Stat. § 1.11 or an environmental assessment.

ASSESSMENT. The Commission considers it necessary, in order to carry out its duties, to investigate all books, accounts, practices, and activities of the applicant. The expenses incurred or to be incurred by the Commission that are reasonably attributable to such an investigation will be assessed against and collected from the applicant in accordance with the provisions of Wis. Stat. § 196.85 and Wis. Admin. Code ch. PSC 5.

AMERICANS WITH DISABILITIES ACT. The Commission does not discriminate on the basis of disability in the provision of programs, services, or employment. Any person with a disability who needs accommodations to participate in this docket or who needs to obtain this document in a different format should contact the docket coordinator listed below. Any hearing location is accessible to people in wheelchairs. The Public Service Commission Building is accessible to people in wheelchairs through the Whitney Way first floor (lobby) entrance. Parking for people with disabilities is available on the south side of the building.

CONTACT. Please direct questions about this docket or requests for additional accommodations for the disabled to the Commission's docket coordinator, Mohammed Monawer, at (608) 266-3900 or Mohammed.Monawer@wisconsin.gov.

Dated at Madison, Wisconsin, this 6th day of January, 2016.

By the Commission:

A handwritten signature in black ink, appearing to read 'SJP bar', is written over the printed name of Sandra J. Paske.

Sandra J. Paske
Secretary to the Commission

SJP:MMM:dlh:ev:DL:01280613



MEMORANDUM

TO: Utility Advisory Board

FROM: Mike Noreen, Conservation and Efficiency Coordinator

DATE: January 18, 2016

TITLE: **AMENDING COMMITMENT TO COMMUNITY PROGRAM RIDER**

RECOMMENDED ACTION

Review amended Commitment to Community program rider options and approve resolution.

BACKGROUND

Under provisions of 1999 Wisconsin Act 9 and 2005 Wisconsin Act 141, municipal electric utilities were ordered to charge each customer a low-income and energy efficiency fee. Fifty percent of the fees charged are used for low-income assistance programs and the remainder are used for energy efficiency programs and in this case, the energy efficiency funds are sent to Focus on Energy. The highest percentage of funds are returned to residential rate class, though the per customer incentives are proportional to the electric consumption.

Energy Efficiency Incentives by Rate Class 2013 - 2015

	Number of meters	% of Incentive \$ from Focus on Energy	Average Incentive per Customer
Residential	5574	41%	\$ 10
General Service	631	17%	\$ 38
Small Power	70	10%	\$ 198
Large Power	18	26%	\$ 1,994
Industrial Power	2	6%	\$ 4,037

According to the Wisconsin Statutes §§ 16.957(5) and 196.374(7), each municipal electric utility must collect an average of \$16 per meter per year. Each municipal utility is allowed to determine the amount that a particular class of customer is required to pay and may charge different fees to different classes of customers. River Falls Municipal Utilities along with other municipal utilities periodically adjust collections as city demographics and populations change.

The current estimated average annual collection of commitment to community fees for the River Falls Municipal Utilities is \$14.76 per meter per year, thus an analysis was performed to fairly allocate increases across customer classes to achieve the required \$16 per meter per year average collection.

DISCUSSION

The existing rate structure charges a flat 3% of the electric bill, with not to exceed charges varying by the rate class of customers. The existing structure is shown below:

Residential Service (RG-1 & RG-2 TOD)	3.0% of the total electric bill not to exceed \$1.20
General Service (GS-1 & GS-2 TOD)	3.0% of the total electric bill not to exceed \$2.20
Cp-1 Small Power Service (inc. TOD)	3.0% of the total electric bill not to exceed \$3.00
Cp-2 Large Power TOD Service	3.0% of the total electric bill not to exceed \$14.00
Cp-3 Industrial Power TOD Service	3.0% of the total electric bill not to exceed \$24.00
Municipal Street Lighting	No Charge

After reviewing this methodology, and the methodology of other Wisconsin utilities, the following tariff schedules were proposed and evaluated:

Proposed Monthly Commitment to Community Rates

Customer Class	Proposed Rates 1		Proposed Rates 2		Proposed Rates 3	
	%	NTE	%	NTE	%	NTE
Residential	1.49%	\$ 2.00	1.25%	n/a	3.00%	\$ 1.25
Commercial	1.49%	\$ 4.50	1.25%	n/a	3.00%	\$ 2.70
Cp-1	3.00%	\$ 5.00	3.00%	\$ 5.00	3.00%	\$ 5.00
Cp-2	3.00%	\$ 20.00	3.00%	\$ 20.00	3.00%	\$ 20.00
Cp-3	3.00%	\$ 30.00	3.00%	\$ 30.00	3.00%	\$ 30.00

Median figures were utilized to evaluate the proposal impacts, summarized below:

Monthly Electric Bill Impacts

2015	Average kWh	Median kWh	Median Total bill	Existing	Proposal	Proposal	Proposal
				Median Charge	1 % Change	2 % Change	3 % Change
Residential	671	578	\$ 74	\$ 1.20	-0.14%	-0.38%	0.07%
General Service	1,844	728	\$ 92	\$ 2.20	-0.90%	-1.14%	0.54%
Small Power	24,730	20,480	\$ 2,242	\$ 3.00	0.09%	0.09%	0.09%
Large Power	112,195	95,200	\$ 9,493	\$ 14.00	0.06%	0.06%	0.06%
Industrial Power	637,322	614,559	\$ 59,498	\$ 24.00	0.01%	0.01%	0.01%

Option 1. Tariff rate is lower for residential and general service customers than for commercial and industrial customers. This method more accurately reflects the pricing of the current model, and still includes a maximum fee.

Option 2. Tariff rate is lower for residential and general service customers, but omits the maximum fee for those groups. High energy users could see a relatively large increase in the fee.

Option 3. Tariff provides small increases in not to exceed amount for Residential and Commercial customers, having the largest proposed increase on the median customers.

Median Cost / Month / Customer

Customer Class	Current	1	2	3
Residential (Rg-1)	\$ 1.20	\$ 1.10	\$ 0.92	\$ 1.25
Commercial (Gs-1)	\$ 2.20	\$ 1.37	\$ 1.15	\$ 2.70
Small Power (Cp-1)	\$ 3.00	\$ 5.00	\$ 5.00	\$ 5.00
Large Power (Cp-2)	\$ 14.00	\$ 19.97	\$ 19.97	\$ 19.97
Industrial Power (Cp-3)	\$ 24.00	\$ 30.00	\$ 30.00	\$ 30.00

Depending on the tariff chosen, a change to a typical residential customer could result in paying approximately 28 cents less per month to paying 4 cents more per month. A typical commercial customer could vary from paying \$1.05 per month less or an additional \$0.50 per month. Increases in the Small Power, Large Power, and Industrial Power were determined based on review of recent PSC tariff filings.

CONCLUSION

All rider options meet the state statutes, and provide sufficient funding to low income and energy efficiency programming. Staff recommends approval of option 1, due to its balance of reduced impact on low energy users with higher not to exceed charges in the residential and commercial rate classes.



RESOLUTION NO. 2016-02

**RESOLUTION AUTHORIZING AMENDING COMMITMENT TO COMMUNITY
PROGRAM RIDER**

WHEREAS, under provisions of 1999 Wisconsin Act 9 and 2005 Wisconsin Act 141, a municipal electric utility shall charge each customer a low-income and energy efficiency fee; and

WHEREAS, fifty percent of the fees charged by the municipal utility shall be used for low-income assistance programs and the remainder will be used for energy efficiency programs; and

WHEREAS, pursuant to Wisconsin Statutes §§ 16.957(5) and 196.374(7), each municipal electric utility must collect an average of \$16 per meter per year; and

WHEREAS, the estimated average annual collection of commitment to community fees is currently \$14.76 per meter per year; and

WHEREAS, a municipal utility may determine the amount that a particular class of customer is required to pay and may charge different fees to different classes of customers; and

WHEREAS, analysis was performed to fairly allocate increases across customer classes to achieve the required \$16 per meter per year average collection; and

WHEREAS, the Utility Advisory Board has reviewed the analysis at their regular meeting of January 18th, 2016 and found it to be acceptable; and

NOW, THEREFORE, BE IT RESOLVED that the Utility Advisory Board of the City of River Falls hereby approves the attached tariff submittal to the Public Service Commission of Wisconsin for amending the Commitment to Community Program Rider.

Dated this 18th day of January, 2016.

Grant Hanson, President

ATTEST:

Lu Ann Hecht, City Clerk



#

MEMORANDUM

TO: Utility Advisory Board

FROM: Mike Noreen, Conservation and Efficiency Coordinator

DATE: January 18, 2016

TITLE: **Community Solar Loans**

RECOMMENDED ACTION

Approve the renewable energy finance program for residents to take out loans to purchase shares in the community solar project.

BACKGROUND

The City Council, per Resolution 5921, reallocated the renewable energy finance program, in part, to a loan program for the community solar project. The City has written a new loan agreement for customers looking to purchase shares in the community solar project, but who cannot afford the initial payment. The agreement states that the loan for the community solar panel would be placed on the property owner's tax roll for a period of up to three years, [per Wis. Stats. §66.0627](#), as a special charge.

The Loan program will be similar to that of the previous renewable energy finance program with a few exceptions. First, due to the anticipated lower dollar amounts requested per loan, the customer will sign a promissory note but it will not be recorded as a lien on the property. Second, the terms are shorter, 1-3 years and lastly the customer must provide a down payment of \$67 for every share they want to purchase.

The significant similarities; the loan still has an interest rate of 4% and eligible customers are those RFMU customers, in good standing, who pay City property taxes.

LOAN PROCESSES

Eligible customers who want to take out a community solar loan will meet with the Conservation and Efficiency Coordinator and City Clerk to fill out the application, loan agreement and promissory note, as well as, pay the down payment.

The loan payment amounts would be submitted by the City Clerk to the Treasurer to be placed on the tax rolls. The county would assign a new code for the renewable energy loan, which would be a line item on the tax statement.

The City Clerk will track the loans each year and keep a full accounting of the payments. The City Clerk will annually submit the loan amounts to counties for placement on the tax roll.

CONCLUSION

The Utility Advisory Board and City Council approved the creation of a revised loan program for the community solar project in the spring of 2015. The loan program allow more people to participate in the program, will assist in selling shares and further cement River Falls Municipal Utilities as leader in innovation and renewable energy development. Staff recommends the approval of the community solar loan program.

RIVER FALLS MUNICIPAL UTILITIES
POWERful Choices! – COMMUNITY SOLAR LOAN POLICY

POLICY PURPOSE

The purpose of this policy is to provide River Falls Municipal Utilities, the City of River Falls and its governing bodies a uniform guideline for POWERful Choices! Community solar loan program

POLICY PROCEDURE

- Loan application is attached
- Customer can take a loan from 1-3 years
- 4% interest
- Loan to be paid back on their property taxes
- Customer can repay the loan at the utility office at any time, without penalty
- Program deadline: TBD

Customer Responsibility

- The customer must apply at City Hall
- Pay \$67 down payment for each \$567 per panel
- The remaining \$500 per panel will go on the tax roll
- Agree to all requirements as stipulated in the loan agreement

RFMU Responsibility

- Conservation and Efficiency Coordinator will meet with individual customers and educate them on loan parameters
- Staff will process the down payment, provide a receipt, amortization schedule and copies of signed agreement to the customer at the initial meeting
- Staff will process loans in Munis and pay WPPI Energy our the Renewable Energy Loan Program fund monthly
- Staff will provide City Clerk all information necessary to put on annual tax roll as a special charge.
- Staff will send the loan applicant a letter in October of each year notifying them that they can pay RFMU directly or allow it to go on the tax roll
- There is no penalty for putting the loan on the tax roll
- If the person moves they will have the option of transfer
- Loan is available to all RFMU customers who own the property in the City of River Falls
- Loan not available for gifting shares or those who do not pay City property taxes

Budget

- \$25,000 – Community Solar Loan Program

Expected outcomes

The loans are intended to:

- Create greater social equity because it will allow those with lower incomes to participate

- Help sell shares in the project
- Create a valuable template for other municipal utilities to use

i

i Mike Noreen, Conservation and Efficiency Coordinator 12/14/15

RENEWABLE ENERGY FINANCE PROGRAM

FINANCE PROGRAM LOAN AGREEMENT



River Falls Municipal Utilities · 222 Lewis Street, Suite 228 · River Falls, WI 54022 · 715.425.0906 · www.rfmu.org

Instructions: Complete this form and return it with the supporting community solar loan documentation to River Falls Municipal Utilities, 222 Lewis St. River Falls, WI 54022.

CUSTOMER INFORMATION (Please Print Clearly)	
Customer Name (First, Last)	Utility Account Number
Home Address	City / State / Zip Code
Mailing address if different than home	County
() Telephone # (Home)	() Telephone # (Days)
Real Estate Parcel ID Number	E-mail Address
Loan Start Date	Loan Completion Date
Number of Kilowatts Purchased	Total Loan Cost
To be completed by RFMU Staff	
<p>The Borrower agrees that the proceeds of the loan shall be used for this specific purpose and for no other or further purpose. The term of this loan shall be for _____ years, commencing with the 1st day of the month next succeeding the date of execution of this agreement, otherwise described as extending from _____ 1, 20__ to _____, 20__. Interest shall be assessed on the declining balance in the amount of four percent (4 %) per annum from and after the date of commencement.</p>	
METHOD OF PAYMENT	
<p>Annual payments of principal and interest shall be made in the following manner. The Borrower consents to the placement of each annual installment of principal and interest on the Borrower's tax statement for the real estate to which the renewable energy loan is attached or affixed as a special charge under §66.0627, Wis. Stats. Said special charge shall be collected in the same manner as are general property taxes. In the event that the Borrower desires to pre pay any or all of the principal balance plus interest under this Loan, Borrower may do so without a pre-payment penalty.</p>	
Customer Signature	Date
RFMU Staff Signature	Date
<p>I authorize River Falls Municipal Utilities to assess my proposed energy loan and payment history to determine my eligibility to participate in the Renewable Energy Finance Program.</p>	

RENEWABLE ENERGY FINANCE PROGRAM PROMISSORY NOTE



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\$ _____, 20 _____
River Falls, Wisconsin

FOR VALUE RECEIVED, the undersigned _____ ("Maker") promises to pay to the order of River Falls Municipal Utilities ("Holder") at River Falls, Wisconsin, or at such other place within or without the State as the Holder of this Note may, from time to time, designate in writing, the principal sum of _____ (\$ _____), in lawful money of the United States, or the balance of principal due and owing to the Holder at the time collection of this Promissory Note becomes effective, together with interest thereon at the rate of four percent (4%) per annum on the balance of principal until such time as when it has been timely paid or upon any delinquency in the payment thereof.

The Maker waives demand, protest, notice of nonpayment, lack of diligence or delay in collection or enforcement hereof and expressly consents to any extension of time, release of any party liable hereunder or release of any of the security for this Note, or any other forbearance whatsoever.

Upon default in the payment of the principal under this Note, interest shall be assessed in the amount indicated above. The failure of the Holder to exercise the right of collection shall not constitute a waiver of the right to exercise it at any subsequent time.

In the event the Maker shall commit an act of bankruptcy under the United States Bankruptcy Code or file or have filed against the Maker, voluntarily or involuntarily, a petition in bankruptcy or for reorganization or for the adoption of an arrangement or plan under the United States Bankruptcy Code or initiate or have initiated against the Maker, voluntarily or involuntarily, any act, process or proceeding under any insolvency law or any other statute or law providing for the relief of debtors, then, in such event, the Holder may, at the Holder's option, by notice in writing to the Maker, declare the entire principal balance then remaining unpaid on this Note to be immediately due and payable, and the same shall thereupon be immediately due and payable, together with interest accrued, without further notice or demand.

This Promissory Note is subject to the following agreement as and between the Maker and the Holder. Because the primary means of paying both principal and interest shall be through one or more annual payments of principal and interest on a declining basis by assessment of said amounts on the tax roll against the Maker's real property as a special charge and collection thereof as part of the taxes assessed or levied against the Maker's real property, collection of all or any portion of principal and interest due and owing to the Holder under this Promissory Note shall be made only in one of the following three (3) events: (1) That through legal or equitable action, the Maker or some person with an interest in the Maker's real property, challenges the assessment of the principal and interest as an item of tax collection and is successful in overturning the use of the tax rolls as a means of collecting sums due and owing to the Holder for purposes of a loan or loans made to the Maker under the Holder's Renewable Energy Finance Program; or (2) In the event that the Maker sells his or her real property and fails or refuses to pay to the Holder, in full, all payments of principal and interest then due and owing under this Promissory Note; or (3) That the Maker shall have engaged in some specific act of default under the terms and obligations of this Promissory Note.

RENEWABLE ENERGY FINANCE PROGRAM

PROMISSORY NOTE



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The amount due and owing at the time a judgment or order is issued by a court of competent jurisdiction invalidating use of special charges as a means of collecting the sums represented by this Promissory Note or, in the alternative, at the date of closing of a real estate transaction under which the Maker or, if there are several Makers, at least one of them, divests him or herself of any or all interest in the Maker's real estate; or the date of default under the terms of this Promissory Note shall be fixed as the date when the principal sum then due and owing under this Promissory Note shall become due and owing immediately. Barring such a circumstance, the principal and interest represented by this Promissory Note shall be collected solely through the tax collection procedures in Chs. 70 through 74, Wis. Stats.

All payments shall be applied first to interest, the balance, if any, to principal.

The Maker shall pay, upon demand, any and all costs and expenses, whether or not taxable as costs, including but not limited to reasonable attorney's fees, witness fees (expert and otherwise), deposition costs, copying charges and other expenses incurred or paid by Holder regardless of whether or not a lawsuit or action was instituted in attempting to collect funds due under this Note, including but not limited to, any action or participation by the Maker in, or in connection with, a case or proceeding under the United States Bankruptcy Code or any successor statute.

If the Maker shall be more than one person, liability under this Note shall be joint and several.

In the event of collection of the entire principal and interest sum is made in full via the tax collection procedures, this Promissory Note shall be marked as PAID IN FULL and returned to the Maker.

IN WITNESS WHEREOF, the undersigned has caused this Note to be signed, sealed and delivered the day and year first above written.

Maker

Maker

RENEWABLE ENERGY FINANCE PROGRAM FINANCE PROGRAM LOAN AGREEMENT



River Falls Municipal Utilities · 222 Lewis Street, Suite 228 · River Falls, WI 54022 · 715.425.0906 · www.rfmu.org

This Agreement between River Falls Municipal Utilities (“Lender”) and _____ and _____ [if more than one Borrower] (“Borrower”):

WHEREAS, the Lender has established a Renewable Energy Finance Program Loan Fund for the purpose of assisting Participating Customers, who are property owners in the City of River Falls, of the River Falls Municipal Utilities’ Community Solar Project; and

WHEREAS, the Borrower has applied for and has been approved for a loan for this purpose.

NOW, THEREFORE, THIS AGREEMENT:

1. Designation of the Customer Subscription Fee for Which the Loan is Granted:

The Borrower agrees that the proceeds of the loan shall be used only to pay for the Borrower’s Customer Subscription Fee in accordance with this agreement and pursuant to the Borrower’s Community Solar Participant Agreement.

2. Location of the Property for Which the Loan is Granted.

The Borrower’s property is located on the following real estate, which is located within the corporate limits of the City of River Falls:

3. Ownership and Customer Acknowledgment.

The Borrower acknowledges that he/she/they is/are the owner of the real estate described in ¶ 2., above. In addition, the Borrower acknowledges that he/she/they is/are customers of the River Falls Municipal Utilities. The Borrower understands that each of these is a condition of eligibility for the loan and that failure of qualification in either respect constitutes a default under this Agreement.

4. Principal Value of Loan.

The principal value of this loan shall be calculated as the total cost of the Customer Subscription Fee, subject to a \$67.00 down payment per panel purchased as part of the Borrower’s Community Solar Participant Agreement. The principal value of this loan is \$ _____ [Fill in amount].

5. Term of Loan; Impact of Sale of Real Estate on Stated Term of Loan.

A. Subject to B., below, the term of this loan shall be for _____ years, commencing with the 1st day of the month next succeeding the date of execution of this agreement, otherwise described as extending from _____ 1, 20__ to _____, 20__.

RENEWABLE ENERGY FINANCE PROGRAM

FINANCE PROGRAM LOAN AGREEMENT



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B. The loan represented by this Agreement shall be immediately due and payable in its entirety, including the entire principal balance and all accrued interest, no later than the date upon which the Borrower closes a transaction to sell or otherwise convey the real estate identified in ¶ 2., above, to a third party or in the event that one of the Borrowers, if multiple persons execute this Agreement, conveys his or her interest therein to one of the other Borrowers or to a third party. The only exception to this requirement shall be if the Lender agrees to extend the original Agreement terms and conditions to Borrower's assignee, conveyee or purchaser in accord with Lender's own policies. The Borrower shall have no right to demand that this Agreement shall be subject to assignment or transfer. In order to seek to transfer this loan to a subsequent owner, the Borrower shall notify the Lender's Agent in writing no later than sixty (60) days prior to the date of the proposed closing and both the Borrower and assignee, conveyee or purchaser shall cooperate with requests for information made of them by the Lender's Agent with respect to the Lender's decision-making process as to whether or not to call for payment in full or allow the assignment of all rights and obligations under this Agreement to the assignee, conveyee or purchaser. Barring extension of the term in accord with this subparagraph, the Lender shall calculate the interest due on the principal balance as of the date of closing and communicate the amount of principal and interest to be paid at the time of closing to the Lender.

C. In the event that contrary to subparagraph B., above, the Borrower fails or refuses to pay the total balance of principal and interest due as of the time of closing of a transaction to sell or otherwise convey the real estate to an assignee, conveyee or purchaser, the Lender shall be afforded the following options as to collection of the total balance due and owing:

- i. It may sue for payment on the promissory note issued by the Borrower under D., below.
- ii. It may place the entire balance due and owing on the tax roll under §66.0627, Wis. Stats., as of November 1st of the year of the conveyance for collection purposes, including interest due on the principal balance between the date of conveyance and October 31st of that year.

D. The Borrower shall execute a promissory note in favor of the Lender contemporaneous with the execution of this Agreement.

6. Interest on Principal Balance.

Interest shall be assessed on the declining balance in the amount of four percent (4%) per annum from and after the date of commencement set forth in ¶ 4. A., above.

7. Payments of Principal and Interest.

A. Annually the Borrower shall be obligated to pay to the Lender a sum equal to the total principal value of the Loan, divided by the number of years of the Term of the Loan, to which interest on the declining balance at the rate specified in ¶ 6., above, shall be added. If the Term

RENEWABLE ENERGY FINANCE PROGRAM

FINANCE PROGRAM LOAN AGREEMENT



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of the Loan does not commence with November 1st, then the first year of payment shall be prorated on the basis of the number of months the loan balance has been outstanding versus 12, with the end of the initial year being October 31st of the year of commencement of the loan, as determined in accord with ¶ 4. A., above, which shall result in calculation of the amount of the initial annual loan repayment. Thereafter, each year shall be calculated on an annual basis extending from November 1 to October 31 with the final year of payment prorated again on the basis of the number of months remaining in the term of the loan past the last October 31st versus 12.

B. Annual payments of principal and interest shall be made in the following manner. The Borrower consents to the placement of each annual installment of principal and interest on the Borrower's tax statement for the real estate to which the Customer Subscription Fee is attached or affixed as a special charge under §66.0627, Wis. Stats. Said special charge shall be collected in the same manner as are general property taxes. In the event that the Borrower defaults in the annual payment of the special charge, said special charge shall be collected in the same manner as are delinquent taxes under Ch. 75, Wis. Stats. Failure to timely pay special charges may result in statutory interest and penalties being assessed in accord with §74.47, Wis. Stats., which interest and penalties shall be in addition to the interest assessed under this Agreement, divesting Borrower of his/her/their ownership of the same, in the event that payment of the delinquency is not made in accord with Chs. 74 and 75, Wis. Stats.

C. In the event that the Borrower desires to prepay any or all of the principal balance plus interest under this Loan, Borrower may do so without a pre payment penalty. To make arrangements for prepayment, the Borrower shall contact the Lender's Agent who shall accept prepayments on behalf of the Lender and credit them against Borrower's account. To the extent that a prepayment does not fully repay the principal and interest payable under this Agreement, the Lender shall continue to collect the principal and interest balances remaining after prepayment in the manner described in B., above. Prepayments shall be applied first to the outstanding, accrued interest at the time of prepayment and only when all outstanding interest has been paid will a prepayment be applied in whole or in part to pay down the outstanding principal balance.

D. As a complete alternative to collecting principal and interest by means of special charges levied against the Borrower's real estate under §66.0627, Wis. Stats., and then in the event that the Borrower or some person with an interest in the Borrower's real estate brings a lawsuit in a court of competent jurisdiction to invalidate this means of collecting the balance due under this Agreement and such Court holds the method of collection to be invalid or unenforceable, or in the event that the Borrower fails or refuses to pay the entire balance of the loan at or before the time of sale of the property described in ¶ 2, above, or in the event of some other act of default under the promissory note, the Lender may collect upon the promissory note under ¶ 4. D., above, which note evidence Borrower's obligation to repay the principal and interest in full, without the necessity of demand from the Lender. However, this means of collection shall be resorted to by the Lender only in the event that use of the special charge means of collection is held to be invalid and unenforceable or in the event of non payment of the total balance of principal and interest at or before the time of a sale of the property described in ¶ 2., above, should the Borrower not repay the loan in its entirety at or before the time of said sale or other

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conveyance of said property or in the event of some other and further act of default under the terms of the promissory note executed in favor of the Lender by the Borrower.

8. Default.

A. In the event of any default by Borrower in payment under the terms of this Agreement, the Borrower shall be subject to the Lender's right to demand repayment in full of the total amount of principal and interest due and owing to the Lender at the time of the default, subject to collection in the manner specified in ¶ 7., above.

B. In the event of a non monetary default, the party seeking to enforce this Agreement shall provide written notice to the other party, detailing the nature of the alleged default, providing to the alleged defaulting party a period of thirty (30) days in which to cure the defect in performance and to provide proof of such performance to the party giving the notice.

9. Miscellaneous Terms and Conditions.

A. *Wisconsin Law to Apply*

This Agreement shall be interpreted and applied under Wisconsin law.

B. *Venue for Dispute Resolution*

Any and all lawsuits pertaining to the subject matter of this Agreement shall be venued in the Circuit Court for Pierce County, Wisconsin.

C. *Withdrawal from Loan Program Prior to Loan Start Date*

The Borrower may opt to withdraw from this Loan Agreement at any time prior to the commencement of the renewable energy loan or transfer of any monies to or on behalf of the Borrower for such purposes by providing written notice of intent to withdraw to the Lender's Agent. To the extent that any monies have been paid to or on behalf of the Borrower by the Lender toward the loan in question, the Borrower shall be obligated to repay the Lender in the manner prescribed under ¶ 7., above.

D. *Lender's Agent*

The Lender's Agent shall be the River Falls Municipal Utilities Director, Kevin Westhuis, or his designee.

E. *Notices.*

Notices under or concerning this Agreement shall be placed in writing and mailed by 1st class mail or personally delivered to the following representatives of the Lender and Borrower:

To Lender:

River Falls Municipal Utilities

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222 Lewis Street
River Falls, Wisconsin 54022

To Borrower:

F. *Waiver Not to Be Implied*

No failure to notify the other party of a default of performance under this Agreement shall be held to be a waiver of the same or a similar default of performance under differing circumstances or at different times than the time of the default which went without notice being provided to the defaulting party.

G. *Obligation is Both Personal and In Rem*

The obligation to repay the Lender is both personal to the Borrower and is also attached as an obligation of the real estate described in ¶ 2., above. To this effect, the Borrower agrees that not only is/are he/she/they liable to repay the principal and interest due hereunder but for failure of such repayment, he/she/they hereby obligate the subject real estate to this obligation and to this effect, if and when he/she/they seek to convey their interest, in whole or in part, in the subject real estate, a copy of this Agreement shall be provided to the proposed assignee, conveyee or purchaser, advising and informing them of the obligation of the real estate to repay the remaining balance of principal and interest in the event of default of the Borrower to have done so in accord with ¶ 7. C., above.

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Dated this ____ day of _____, 20__.

BORROWER:

LENDER:

By: _____

By: _____

By: _____

[If co-owned in tenancy in common,
joint tenancy or as marital property]

Revised and Updated for Community Solar Program, January, 2016.



RESOLUTION NO. 2016-03

RESOLUTION AUTHORIZING COMMUNITY SOLAR LOAN PROGRAM

WHEREAS, the Common Council approved reallocation of the renewable energy finance program and development of a redesigned loan program per Resolution 5921; and

WHEREAS, the community solar project was implemented as a pilot project with the goal to provide the opportunity for greater access to local clean energy, available to all customers; and

WHEREAS, a community solar loan program will allow greater participation by residential customers, create greater social equity, and advance the pilot aspect of the project; and

WHEREAS, loans will be 1, 2, or 3 year terms, with 4% interest, repayment made on property taxes, and no penalties for early repayment; and

WHEREAS, the applicant will be charged \$67 per panel as a down payment; and

NOW, THEREFORE, BE IT RESOLVED that the Utility Advisory Board recommends approval of the Renewable Energy Finance Program - Community Solar Loan offering.

Dated this 18th day of January, 2016.

Grant Hanson, President

ATTEST:

Lu Ann Hecht, City Clerk



MEMORANDUM

TO: Utility Advisory Board Members

FROM: Julie Bergstrom, Finance Director/Asst. City Administrator

DATE: January 18, 2016

TITLE: **Water Rate Update**

RECOMMENDED ACTION

Discussion and direction from the Utility Advisory Board regarding the proposed water rate case and funding from water rates versus the use of impact fees.

BACKGROUND

In May 2015, a water rate case was presented to the Public Service Commission (PSC) for review and approval. We have had continuing discussions with PSC staff since that time specifically regarding the exclusion of Well #6 from water rates. Attached is the update that was presented to the Utility Advisory Board in September for background information.

Anne Waymouth, PSC staff, contacted me in December to discuss the water rate case. She had reviewed the sanitary survey report that is prepared every three years by Department of Natural Resources (DNR), and felt that perhaps the water utility was understaffed considering the number of projects that need to be completed and that are itemized in the survey report (attached).

We subsequently had internal discussions about the report with Greg Koehler, lead water operator, and Kevin Westhuis, Utility Director. Although the list of suggested projects and changes was extensive, most if not all were remedied by the end of 2015, however, the water utility does have increasing needs for infrastructure maintenance, and could benefit from additional staff in operations.

DISCUSSION

Current Situation

PSC staff have proposed an adjustment to the original rate case to include funding for two additional water operators, or an increase of approximately \$136,000 annually. This is considerably higher than the original rate increase request, and would significantly affect the rates for customers. It would provide some additional funding for ongoing projects, and allow other utility revenues, such as water tower lease payments to be used for the debt service payments on Well #6.

I had a telephone conference with Anne Waymouth and Denise Schmidt from the PSC last week in an effort to come to an understanding regarding using rates versus using impact fees for capital expenses. My concern, and the concern of our consultant, is that the PSC is involved in decisions that are outside of their authority, i.e. what the City should charge for impact fees.

The City is not required to have an impact fee ordinance, in which case all costs would be borne by ratepayers. It is the City's position that development results in increased costs for plant and infrastructure upgrades, therefore the new customers should be paying to connect to the systems. The question has become how much should be allocated to growth and how much is added to water rates.

Our discussion last week provided an opportunity for the City and PSC staff to elaborate on our positions and concerns. The following is an excerpt from a draft letter that is proposed to be sent to the PSC to proceed with the water rate case, assuming that the PSC will acknowledge the four points of contention:

1. The Utility considers the 2014 Impact Fee Study prepared by Trilogy Consulting as a comprehensive and feasible representation of likely future capital improvements. Previous impact fee studies were not adequate for planning purposes, and essentially have been superseded by the 2014 study. The Utility will not be referencing data from impact fee reports earlier than 2014.
2. It is expected that the Utility will be updating the 2014 impact fee report in the future based on changes in growth patterns, or unanticipated capital assets needed or removed from the plan. Should changes to documented impact fee collection percentages be needed, the rationale for a change in philosophy will be specifically noted and supported. It is the expectation of the Utility that these changes, as supported, will be acceptable for future rate adjustments.
3. The Utility will continue to evaluate each proposed improvement for timing and necessity before going forward with planning and construction, and will work cooperatively with the PSC for construction authorization approval for those projects that meet the authorization guidelines. It is the understanding of the Utility that the actual funding percentage (impact fees versus water rates) will be discussed by the Utility and the PSC at the time the construction authorization is reviewed, and that the proposed funding sources may vary from the 2014 or future impact fee studies.
4. As Well #6 is not fully funded with either impact fees or water rates, the Utility will be using general water revenues to pay outstanding debt service for this project.

Memorandum to Utility Advisory Board

January 18, 2016

Page 3

I feel that if these items can be included in the documentation filing for this rate case, we will be protected in the future from arbitrary regulation of future impact fee decisions.

CONCLUSION

Input from the Utility Advisory Board members is requested for the proposed increase in water rates above the amount requested, and any concerns regarding accepting the PSC's stance on Well #6.

Attachments:

September 2015 Memo to Utility Advisory Board

Department of Natural Resources Sanitary Survey – 2015

Water Department Response to Sanitary Survey Report-2015

Application for Authority to Increase Water Rates 12-16-2015



#

MEMORANDUM

TO: Utility Advisory Board

FROM: Julie Bergstrom, Finance Director/Asst. City Administrator

DATE: September 21, 2015

TITLE: Update on Water Rate Case

RECOMMENDED ACTION

Adopt the resolution regarding proposed actions on the pending water rate case.

BACKGROUND

In 2014, the City hired Trilogy Consulting to review and update the City's water impact fees. This review was comprehensive, and including an update of historical, current and future water projects. The goal was to provide a reasonable and achievable plan to collect water impact fees for development related projects. The report was approved by the Utility Advisory Board and the City Council for an implementation date of January 1, 2015.

Following the impact fee study, a review of the water rates was completed by Trilogy. The results were a proposed increase of 6.3% in the overall water rates, with additional annual revenues of \$84,127. This was approved by the Utility Advisory Board on April, 2015. The City filed the water rate case with the Wisconsin Public Service Commission (PSC) in May. Initial results by PSC staff were favorable, with the exception of costs related to well #6. The reason given is that a previous impact fee study completed by another firm included 100% of the costs of well #6 to be paid by future impact fees.

DISCUSSION

Current Situation

Impact fees are governed by Wisconsin statutes 66.0617, which prohibits the City from collecting impact fees that exceed the proportionate share of the capital costs that are required to serve new development. The City may choose to collect costs through impact fees, but is not required to do so. An impact fee study completed in 2007 included 100% of well #6 costs as funded by impact fees, which we have now determined was not accurate.

Utility Director Kevin Westhuis, Christine Cramer and Erik Granum from Trilogy, and I met with PSC staff on the issue of modifying the method of payment for well #6. PSC staff was

unaccepting of the City's request to modify a previous funding method, and would not agree to move the rate case forward as presented. In order to advance in the process, it was suggested that the water rate application be presented directly to the PSC commission instead of the PSC administrator, which would delay the process until 2016.

At this point, the City has debt services costs for a well without a funding source. The options are to accept the PSC staff recommendation and finance the well using other means, such as property taxes, or proceed with the process to present the case to the full commission.

In the next few weeks, we will receive the revenue summary from the PSC staff, and will need to either object to the revenue requirements as determined by staff, or accept the reduction in rates due to well #6.

FINANCIAL CONSIDERATIONS

Funding of approximately \$1 million is needed for debt service related to the well. Without either impact fees or water revenues to cover this expense, other means would need to be determined.

CONCLUSION

Objecting to water rate adjustments which exclude costs related to well #6 would send the City's application to the full PSC commission for review, and is recommended as the next step in the process.



October 5, 2015

Ms. Lu Ann Hecht, Clerk
City of River Falls
222 Lewis Street, Suite 228
River Falls, WI 54022

PWSID# 64802463
River Falls Waterworks
Pierce County

Subject: Sanitary Survey Report of River Falls Waterworks

Dear Ms. Hecht:

I would like to thank Mr. Greg Koehler and his staff for their assistance on the 2015 sanitary survey of the River Falls Public Utility's drinking water system. The survey process began with a walk through on August 6 and follow-up meeting on September 17th. The City's cooperation made the inspection a success. To meet federal requirements, the Department completes surveys on a 3-year schedule. The previous survey was completed October 9, 2012 by DNR staff, Mr. Brad Henderson.

The purpose of the sanitary survey is to evaluate water source, conveyance/storage/treatment facilities, operation and maintenance, and management and financial capability as related to providing safe drinking water. The 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 in your community. 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.

SYSTEM OVERVIEW

From water source to delivery, drinking water systems consist of many components. This includes infrastructure as well as source-water characteristics, operation and maintenance practices, and managerial and fiscal aspects. This section is a detailed overview of the entire system of providing water to your customers.

Ownership, Service Area, Geography, Personnel

River Falls owns and operates a municipal, public water supply system having more than 25 year round residents and more than 15 service connections. Residential service population is approximately 15,053 people (2014 DOA estimate).

The City is located on the northwest border of Pierce County with some of the City crossing into St. Croix County. The area has driftless topography and is largely agricultural and forested outside City limits.

Elevation starts at about 825' MSL (mean sea level) and rises to the reservoir overflow (elevation of 1057' MSL) in the primary pressure zone and 1196' MSL in the secondary pressure zone (Golf View overflow). Two additional boosted zones exist.

River Falls Public Utility is City owned and governed. Mr. Dan Toland serves as Mayor. Mr. Terry Kufilek serves as the Operations Supervisor for the water Utility. Mr. Greg Koehler is the certified water operator in charge (OIC). The City has two other certified operators and recently hired two additional staff. Northern Lake Service of Crandon Wisconsin performs the Safe Drinking Water Act (SDWA) chemical testing while the Wisconsin State Laboratory of Hygiene does the bacteriological testing for the City.

System History

The City of River Falls was founded in 1848 and incorporated in 1854. It is reported that the first water system was constructed in 1894 and included an old cistern on Mound Hill. The first well (MW1) was located on the west side of the 500 block of North Main. The well was abandoned around 1990 to accommodate a parking lot.

The City added additional wells, reservoirs, and boosted zones as growth and customer base increased. MW2 was constructed in 1948 and MW3 in 1953. In 1959, the Sycamore reservoir was constructed. MW4 was constructed in 1967 and MW5 in 1979. Golf View reservoir and booster station, as well as the Mound Park reservoir, were placed into service in 1991. East booster station was added in 2005. MW6 was constructed the following year (2006) but the well was not placed into service until the well house was completed in 2012. North booster station was added in 2011.

As far as treatment goes, fluoridation began sometime before the 1990's. Iron and manganese sequestering, using polyphosphates (sodium hexametaphosphate), began in 1996. Chlorination was practiced on an as needed basis until 2004 when the City failed a distribution system bacteriological monitoring test. The Department required continuous chlorination disinfection following the incident since the City was using phosphate (nutrient).

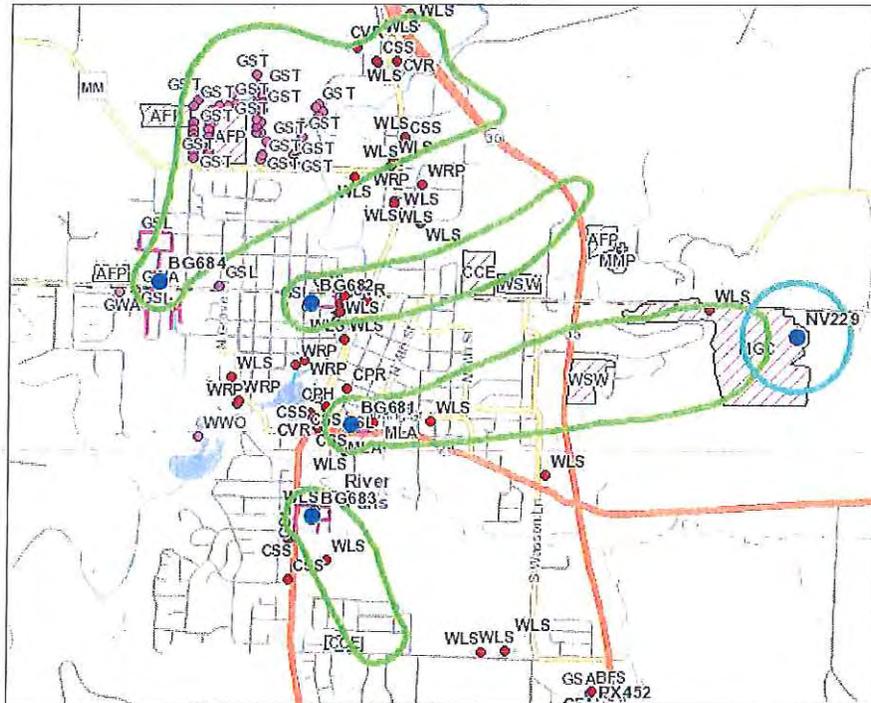
Geological, Source Water Characteristics, Well Recharge Zone, Potential Contaminants

The City has five wells, with depths ranging from 160' to 169'. All five wells have grouted casings over 100' deep; however, the grout at MW2 only has 42' of formation contact.

MW2 and MW3 are cased into the Prairie du Chien formation (mixed dolomite/sandstone). The open borehole then proceeds through the remaining Prairie du Chien, through the Jordon sandstone formation, and terminates in the St. Lawrence formation (shale). MW4 and MW5 are cased through the Prairie du Chien and terminate in the Jordan formation. The open borehole then proceeds through the remaining Jordon and terminates in the St. Lawrence. MW6 is cased through the Sinipee formation (Platteville and Kinnicinnic), Ancell formation (Glenwood and St. Peter), and terminates towards the bottom of the Prairie du Chien formation. The open borehole proceeds through the Jordan and terminates in the St. Lawrence formation. Generally speaking, the predominate aquifer is the Jordan formation. Well yield is about 15 gpm/ft of drawdown according to literature.

SEH modeled the aquifer and completed a wellhead protection plan for the City in 2000. The MLAEM program was used to model groundwater flow and includes time of travel and capture zones. Capture zones have an elliptical pattern. The wells predominantly pull from the east while MW5 pulls from the north. Model results were not available for MW6.

To identify potential sources of contamination for the vulnerability analysis (VA), the City completed a "Contaminant Use Inventory" (CUI) report in 2013. Unfortunately, a modeled recharge zone for MW6 was not incorporated into the VA. A 1200' fixed radius was used for this well. CUI's and VA's are completed every 3 years and are used to determine whether monitoring waivers are granted. Potential contaminant sources within the capture zones are as follows:



Potential contaminant sites within the 5-year recharge zone are listed below:

Potential Contaminant Sources	
Agricultural Farming (AFP)	Sewage Tank (GST)
Cemetery (CCE)	Water Well (GWA)
Photo Processing (CPH)	Golf Course (MGC)
Gas Service Station (CSS)	Laboratory (MLA)
Motor Vehicle Repair Shop (CVR)	Leaking Underground Storage Tank (WLS)
Sewer Line (GSL)	Stormwater Retention Pond (WSW)

Note: bold font indicates the potential contaminant source affects monitoring waiver decisions.

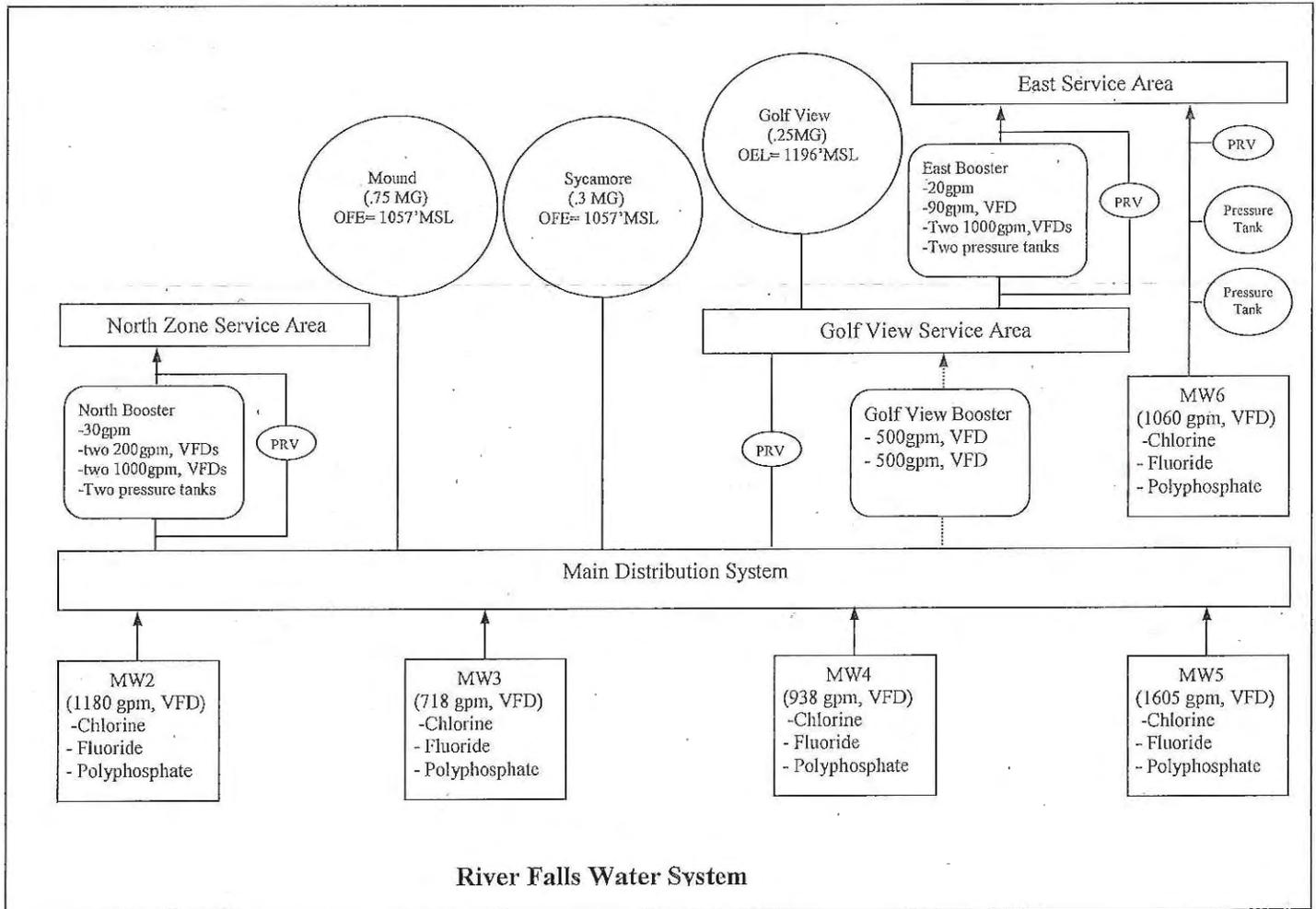
Four of the City wells do not meet the minimum setback criteria of 200' to the sanitary sewer collection system. This presents some vulnerability of virus contamination. Setbacks follow:

Well	Distance to Sewer System
MW2	100'
MW3	60'
MW4	120'
MW5	50'
MW6	>200'

Code allows the separation distance to be less than 200' where sewer main is water main class material and pressure tested to meet AWWA C-600 criteria. It is unknown whether any of the sewer lines were upgraded to meet the variance requirement; however, upgrades are not mandatory at this time. The affected wells and sewer lines were constructed prior to the 1992 setback criteria.

Infrastructure

City infrastructure consists of five wells, chlorination/fluoridation/phosphate sequestering chemical feed systems, three storage reservoirs, three booster stations, and a distribution system network. Configuration follows:



Well/Pump Facilities

The well pumps operate at least once per week. MW4 and MW6 operate daily. MW2, MW3, and MW5 operate on a three day cycle with MW2/3 operating together when MW5 is off line and vice-versa. This allows the lower capacity wells (MW2/3) to get exercised. Well 5 operates on the weekends. Well pumps 2, 3, 4, and 5 can be operated individually, in tandem, and can be set as lead/lag.

Wells 2, 3, 4, and 5 pump directly into the main section of the distribution system (low service area) where it fills the Mound and Sycamore reservoirs. Water elevation in these two reservoirs control well pump operation (wells 2, 3, 4, and 5). Some of the water from the low service area gets boosted into the north high service area by the north booster station. The Golf View booster station can also move water from the low service area into the Golf View high service area; however, the station is only used in emergency situations (when MW6 is down or Golf View reservoir water level falls to 18').

Well 6 pumps directly into the east high service area. Some of the water in this service area passes through a pressure reducing valve and enters the Golf View high service area where the Golf View reservoir is filled. Reservoir water elevation controls well pump 6 operation. If the well pump fails or could not keep up, the Golf View booster station would move water from the low service area into the Golf View high service area to fill the reservoir. The east booster station moves water from the Golf View high service area to the east high service area when MW6 is not operating.

MW2 was constructed in 1948 by Keys Well Drilling Company. The pump was pulled and replaced in 1998. It was pulled again in 2013 for a rebuild. Based on the current pumping rate of 1080 gpm, yield is 57 gpm per foot of drawdown.

MW3 was constructed in 1953 by McCarthy Well Company. The pump was pulled and replaced in 1999 by Keys and the well was rehabilitated using air bursting technology. The well produced sand until 2002 when the Department approved Keys to grout in a 2' cement plug. The pump was pulled and rebuilt in 2010. Based on the current pumping rate of 718 gpm, yield is 8.2 gpm per foot of drawdown.

MW4 was constructed in 1967 by McCarthy Well Company. The pump was pulled and rebuilt in 1995 and again in 2011. Based on the current pumping rate of 938 gpm, yield is 24 gpm per foot of drawdown.

MW5 was constructed in 1979 by Alan Lang Well and Pump. The pump was pulled and rebuilt in 2001 and again in 2009. Based on the current pumping rate of 1605 gpm, yield is 11.4 gpm per foot of drawdown.

MW6 was constructed in 2006 by Traut Wells Inc. The pump has not been pulled for inspection or maintenance yet. Based on the current pumping rate of 1060 gpm, yield is 28.6 gpm per foot of drawdown. It should be noted here that this well's recharge area is influenced by the Golf Course's irrigation well (BC659). There was oil in MW6 during well development due to maintenance practices at the golf course well. It's an oil lubricated unit. This has since been resolved.

The City has an inspection schedule for its well pumps. They are pulled and serviced every 7 years. Further well and pump information can be found in Table B of the Appendix.

Treatment Chemicals

The City chlorinates, fluoridates, and sequesters its water using phosphates. The chemicals are NSF (National Sanitation Foundation) approved. Hawkins delivers on a quarterly basis. No dilution is necessary or practiced.

Chlorination began in 2004 for sanitary purposes. The City uses 100% chlorine gas (Cl_2). It is measured gravimetrically using older Scaleton digital scales (tenth pound increments) and injected into the water main at the wells. Chlorine gas alarms are used at each wellhouse. The only well to use auto cylinder shutoffs is MW6.

Fluoridation began sometime before the 1990's for dental purposes. The City uses 23% hydrofluorosilic acid (H_2F_6Si). Fluoride ion concentration is 19.8%. It is measured gravimetrically using older hydraulic Chem-Scale units (measures in 5-pound increments) and injected into the water main at the wells.

Given the size of the solution container (160 gallons) and quarterly delivery, chemical can be as old as 16 months before complete turnover. Less than half a gallon of solution is used on some days which is .3% of the total container volume.

Phosphate use began in 1996 for sequestering purposes. The City uses a 40% liquid sodium hexametaphosphate ($Na_6P_6O_{18}$) product called LPC-5. Total phosphate in the product is 36%. This product has an NSF maximum allowable product dose of 27mg/l. Solution is weighed volumetrically using a staff gage (1 gallon increments) and injected into the water upstream from the other chemicals. The operator converts volume used to weight for reporting purposes using the correct product density (11.6 lbs/gal).

Given the size of the solution container (100 gallons and 240 gallons at MW6) and quarterly delivery, chemical can be as old as 16 months before complete turnover. Less than a gallon of solution is used on some days which is .4% of the total container volume. Test results indicate that most of the polyphosphate breaks down to orthophosphate by the time it is used.

Chlorine is added to the phosphate solution to maintain its sanitary condition. The City uses 2 ounces of 12.5% sodium hypochlorite per 75 gallons of solution. This equates to about a 31mg/l concentration and meets the 10mg/l requirement.

It is noted here that fluoride and phosphate are stored in the same rooms at some of the well houses even though they belong to different compatibility groups (Group I Acids and Group III Salts/Polymers). This is a hazard that will need to be addressed during the next reviewable project at these wells.

Further information on the chemical feed system can be found in Table C of the Appendix.

Distribution and Storage

The distribution system is a multi-pressure zone piping network that moves water from the wells, reservoirs, and booster pumps to individual service customers. There are essentially four pressure zones which are separate service areas. The main pressure zone, being the-oldest, serves most of the City. Four wells (MW2, 3, 4, and 5) pump water into the low service area and fill the Mound and Sycamore storage reservoirs. These reservoirs maintain distribution system pressure in the low service area. Some of the water is boosted from the low service area into the north high service area and sometimes the Golf View high service area (if MW6 were to fail) by separate booster stations (North booster station and Golf View booster station).

Distribution system pressure in the north high service area is maintained by two pressure tanks at the North booster station. Pressure in the Golf View high service area is maintained by the Golf View elevated reservoir. A third booster station (eastern booster station) moves water from the Golf View high service area to the east high service area when MW6 is not operating. Pressure in the east high service area is maintained by two pressure tanks located at MW6 and two pressure tanks at the east booster station. MW6 pumps groundwater directly into the east high service area. Some of the water in the east high service area is then allowed back into the Golf View high service area to fill the reservoir. Long range plans call for elevated storage in the north high service area and the east high service area that will allow the pressure tanks to be removed from service.

North booster station pumps pull water directly from the main distribution system and moves it into the north high service area. Five centrifugal pumps are staged to operate at different water pressures in the boosted zone. Suction pressure is 50psi with the jockey pump operating. A stationary 400 KW diesel generator with an automatic transfer switch is located at the station. Pump specifications follow:

North Booster Station						
Pump	Rate (gpm)	TDH (feet)	Inlet Shutoff	Control	Motor	Size (h.p.)
Balador	30	171	20psi	98 to 110 psi	Berkley	.75, VFD
Balador	200	173		93 to 110 psi	Berkley	15, VFD
Balador	200	173		92 to 110 psi	Berkley	15, VFD
Balador	1000	223		87 to 110 psi	Berkley	75, VFD
Balador	1000	223		85 to 110 psi	Berkley	75, VFD

Design suction pressure is 45 to 52psi with a boosted zone pressure of 40 to 120psi. Areas with pressure above 80 psi have pressure reducing valves at the service per variance.

Two Wessel hydro-pneumatic pressure tanks (FXA-400) are being used at the station with 106 gallons of gross volume per tank.

Golf View booster station pumps pull water directly from the main distribution system and moves it into the Golf View high service area. This station is in standby mode for emergency purposes. It operates when MW6 fails or water elevation drops in the Golf View reservoir below its normal low level setting.

The booster station is a below grade, USEMCO package system. It consists of two centrifugal pumps. They are staged to operate at different water levels in the Golf View reservoir. They are exercised annually. The City has a portable diesel generator for operating the booster station. It is exercised annually. Pump specifications follow:

Golf View Booster Station						
Pump	Rate (gpm)	TDH (feet)	Inlet Shutoff	Pump On/Off	Motor	Size (h.p.)
Paco	500	156	20psi	18 to 26' in Golf View Reservoir	Baldor	40, VFD
Paco	500	156			Baldor	40, VFD

East booster station pumps pull water directly from the Golf View high service area and moves it into the east high service area. It operates when MW6 is not operating. Centrifugal pumps are staged to operate off of different water pressures in the east high service area. A stationary 100 KW natural gas generator with an automatic transfer switch is located at the station. In case of pump failure, minimal pressure at the highest point of this high service area would be 17psi. Pump specifications follow:

East Booster Station						
Pump	Rate (gpm)	TDH (feet)	Inlet Shutoff	Control	Motor	Size (h.p.)
Berkley	20	60	20psi	64.4 to 84 psi	Berkley	.75, VFD
Berkley	90	65		63.5 to 76.1 psi	Century	3, VFD
Berkley	1000	100		60.9 to 82 psi	Balador	40, VFD
Berkley	1000	100		58.9 to 81 psi	Balador	40, VFD

Two Wessel hydro-pneumatic pressure tanks (FXA-400) are being used at the station with 106 gallons of gross volume per tank.

Distribution System piping network consists of 336,305 linear feet of water main, 1050 shutoff valves, 673 fire hydrants, 0 flushing hydrants, and 4034 service connections (2014 PSC Report). Additional distribution system facts include:

- 24,141' undersized (<6") water main, 7% of the system
- 9 surface water crossings (bored under the stream beds)
- 1 privately looped system (High School has check valves)
- Several dead-end water mains without flushing devices
- No automatic flushing hydrants are being used
- Four pressure reducing valves (underground station on Hanson Drive, North Booster station, East booster station, Well 6 pumphouse)
- No service booster pumps in use
- No wholesale customers
- Two water loading stations
- No interconnections with other water sources (private wells)

It is noted here that about 10% of the total water pumped to the distribution system is pumped from MW6 into the east high service area with some feeding down into the Golf View high service area.

Storage consists of two elevated reservoirs (Sycamore and Golf View) and a ground storage reservoir (Mound Hill). Two of the reservoirs serve the main section of the distribution system (Sycamore and Mound Hill) and have an overflow elevation of 1057' MSL. Another elevated reservoir serves Golf View high service area and has an overflow elevation of 1196'.

All the reservoirs have pressure transducers to measure water level. The low service area reservoirs are tied into the SCADA system for operating well pumps 2, 3, 4, and 5. Golf View is also tied into the SCADA system to control MW6 operation and the Golf View booster pumps.

Sycamore is a steel ellipsoid unit made by Pittsburg Fabricators. It was constructed in 1959 and recoated in 1999. Golf View is a steel spheroid made by Chicago Bridge and Iron (CBI). It was constructed in 1991 and recoated in 2014. Reservoir specifications follow:

Volume (gal)	Age	Type (Make) Dimension	Overflow (depth to overflow)	Pump Settings (low/high feet)	Working Volume (gal)	Working Volume (% est.)
Mound (low service area) Design: 750,000 Operating: 700,000 Low Set Pt: 625,000	1991	Concrete Circular 81.8' diameter	30' @ 1057' MSL	26 to 28.1' (MW2, 3, 5 on weekends)	100,000 weekday 52,500 weekend	13 weekday 7 weekend
Sycamore (low service area) Design: 300,000 Operating: 281,000 Low Set Pt: 250,000	1959	Ellipsoid ' diameter	30' @ 1057' MSL	25 to 29' (MW4 on weekdays)	40,000 weekday 21,000 weekend	13 weekday 7 weekend
Golf View (Golf View/East High Service Area) Design: 250,000 Operating: 246,000 Low Set Pt: 158,000	1991	Spheroid (CB&I) ' diameter	30' @ 1196.5' MSL	19 to 29.6', MW6 18 to 26', when booster used	87,500	35

On average, water age is less than a day old in the low service reservoirs and about 60 hours old in the Golf View reservoir.

The highest water main elevation and corresponding static water pressure for each service area follows:

Service Area	Highest Service Customer (feet MSL)	Static Pressure (PSI)
Low Service Area	960'	40 psi
North Service Area	1096'	40 psi
Golf View Service Area	1080' (Sunwood Ct.)	50 psi
East Service Area	1158' (Walker Property)	50 psi

Emergency Power

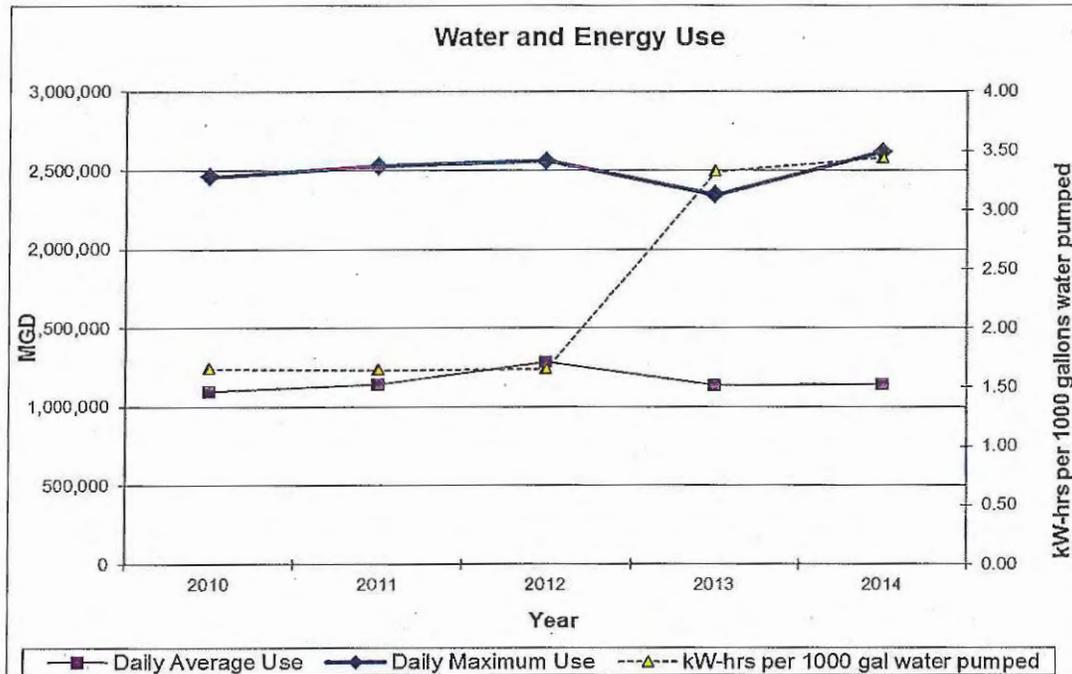
The City has auxiliary power for operating three of the five wells and all the booster stations:

Unit	Auxiliary Power	Exercised	Full Load Test
MW2			
MW3	RAD, no engine		
MW4	RAD, Gas Engine	Monthly	
MW5	RAD, Diesel Engine	Weekly	June 30th
MW6	Diesel GenSet	Weekly	
Golf B.	Portable Diesel	Annual	
East B.	Natural Gas GenSet	Weekly	
North B.	Diesel GenSet	Weekly	

The engines and generators are being exercised at least monthly except the Golf booster station. This station's service area has elevated storage. Full load testing is not being completed quarterly. The City has adequate auxiliary power to meet pumping requirements.

Connections, Water Use and Demands, and System Capacity

Average water use is fairly consistent as shown below (Table E in Appendix):



Average daily use is about 1.2 MGD while maximum use is about 2.5 MGD. The Golf View and East high service areas are about 10% of this use. Maximum use occurs during flushing, main breaks, and soccer field irrigation. Daily use during the highest water use month, August 2013, was about 1.7 MGD.

Energy use doubled in 2013 when MW6 was placed into service. It went from about 1.7 in 2012 to 3.3 kW-hrs per 1000 gallons of water pumped.

Real (leaks and storage overflow) and apparent water (billing and metering problems and theft) losses are reasonable ($\leq 10\%$), averaging 10% the last 3 years. Losses were 11% in 2014.

River Falls Fire Department provides City fire protection. They have four pumper trucks capable of pumping 1250, 1250, 1500, and 2000 gpm. It is not known when the last ISO fire flow study was completed; however, the City's engineer (SEH) has modeled the water system and will be submitting the results to the Department at a later date.

Service Area	Static Range (psi)	Fire Flow Range (gpm) @ 20psi
Main System (Low Service Area)	?	?
North High Service Area	?	?
Golf View High Service Area	?	?
East High Service Area	?	?

Given the reservoir elevations and topography, it is likely that static pressure is above 35psi across the distribution system and fire flow rates meet the 500gpm requirement with system pressures above 20psi. Modeling results will be used confirm whether this is true.

Apart from distribution system hydraulics, storage and pumping capacity is evaluated to determine whether the water system can provide 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 with full capacity and firm capacity (loss of largest pumping unit). From design and water demand data over the last year, several observations are made concerning whether the City can safely meet the above demand situations:

First, the system is capable of meeting the average daily water demand of 1.2 MGD. Average run time for the pumps is about 4 hours over a 24-hour period.

Second, the system can meet the average daily water demand with the largest unit (MW5) out of service. The other well pumps would run about 5 hours over a 24-hour period.

Third, the system is capable of meeting the maximum daily water demand of 2.5 MGD with the wells in service. The pumps would run about 8 hours over a 24-hour period.

Fourth, the system can meet the maximum daily demand with the largest unit (MW5) out of service. The remaining well pumps would run about 11 hours over a 24-hour period.

Fifth, taking into consideration the worst case scenario (high use day, 80% storage volume available, and 2-hour duration fire event of 2000 gpm), the City would have enough pumping and storage volume to meet the demand.

Sixth, the water system is capable of operating during a power outage to maintain service. On-site generation is available at MW4, MW5, and MW6. The well pumps would run 12 hours per day during high water use days. The City can also meet fire protection requirements as well.

Summarizing the capacity evaluation, the City has adequate pumping and storage capacity to meet all the service demands that can be.

Water Quality Monitoring and Reporting

To satisfy SDWA requirements and protect public health, the City performs rigorous water quality testing of its drinking water. A monitoring schedule is provided to the community each year, monitoring results are submitted to the Department electronically by the certified laboratory performing the analysis, and the results are provided to the public through the Annual Consumer Confidence Report. The monitoring program is discussed in this section (reference Tables F and G in the Appendix for additional information).

Bacteriological Monitoring

The City's population increased the last few years and is currently at 15,053 people. 15 distribution system samples are required. Monitoring that was completed the last 12 months is as follows:

Address	ID	Total	Sept	Oct	Nov	Dec	Jan 2015	Feb	Mar	Apr	May	Jun	Jul	Aug
1007 W. PINE ST.	D24	12	1	1	1	1	1	1	1	1	1	1	1	1
1119 S. STATE ST.	D6	12	1	1	1	1	1	1	1	1	1	1	1	1
1200 S. MAIN STREET		6							1	1	1	1	1	1
1415 BARTOSH LN.	D19	12	1	1	1	1	1	1	1	1	1	1	1	1
215 N. 2ND ST.	D21	12	1	1	1	1	1	1	1	1	1	1	1	1
2202 E. DIVISION ST.	D23	12	1	1	1	1	1	1	1	1	1	1	1	1
222 LEWIS ST.	D4	11		1	1	1	1	1	1	1	1	1	1	1
2348 AURORA CIR.	D103	12	1	1	1	1	1	1	1	1	1	1	1	1
2523 GOLFVIEW DR.	D30	13	1	2	1	1	1	1	1	1	1	1	1	1
432 APOLLO RD.	D29	12	1	1	1	1	1	1	1	1	1	1	1	1
439 W. MAPLE STREET	D16	12	1	1	1	1	1	1	1	1	1	1	1	1
625 WHITETAIL BLVD.	D35	12	1	1	1	1	1	1	1	1	1	1	1	1
818 CEMETERY RD	D36	6	1	1	1	1	1	1						
950 BENSON ST.	D5	12	1	1	1	1	1	1	1	1	1	1	1	1
CITY ROOM TAP		1	1											
U.W.R.F. MAINT. BLDG.		11	1	1		1	1	1	1	1	1	1	1	1
U.W.R.F. STUDENT CENTER		13	1	1	2	1	1	1	1	1	1	1	1	1
Total		181	15	16	15									

Monitoring program was poor and not representative of the entire distribution system. First, there were areas not being monitored (North and East high service areas and north and south central locations of the low service area). Second, monitoring was not being evenly distributed throughout the month to minimize the non-monitoring window. Some weeks were not being monitored. Third, some of the sites being used did not have a DNR approval number (1200 S. Main Street and UWRF sites). Forth, the City did not report the street address on some of the sites (UWRF sites and a site called City Room Tap) when submitting the results. This information is important if a positive test result were reported.

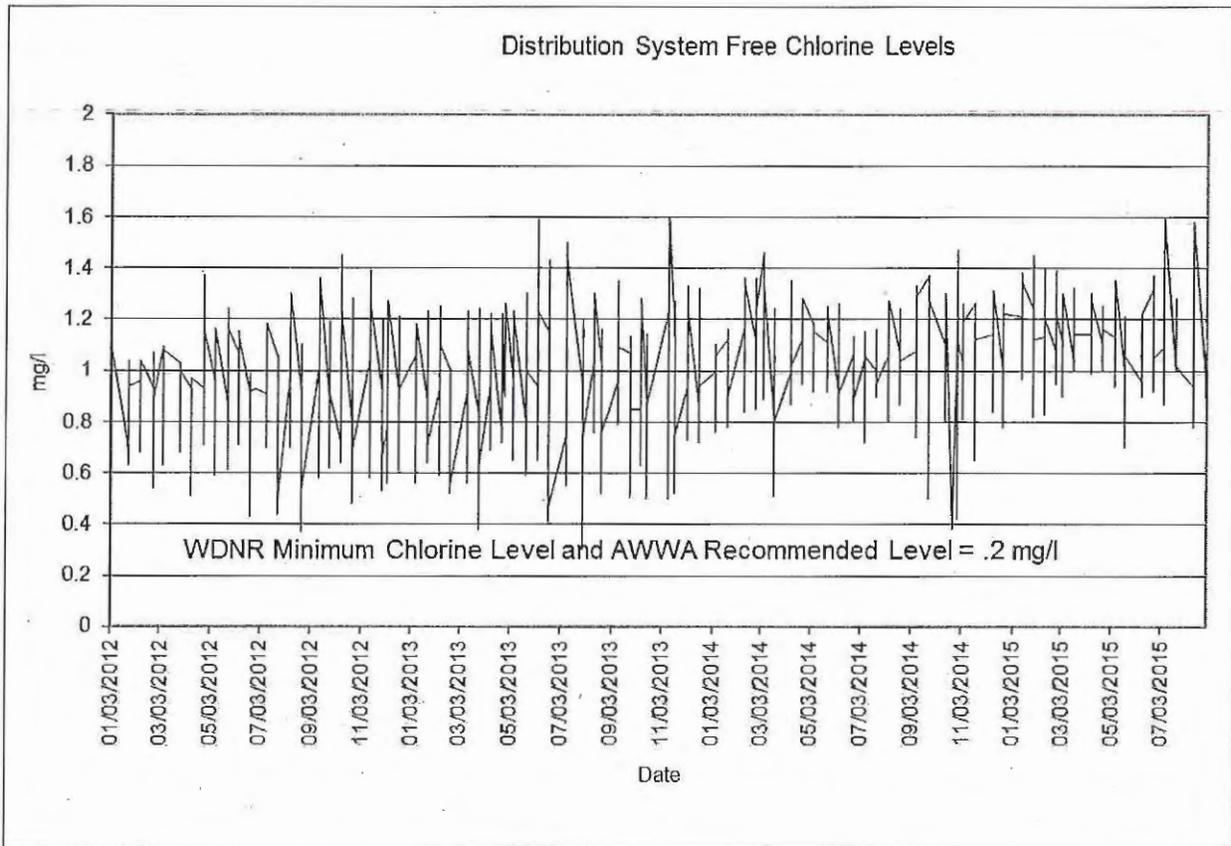
The City's last positive distribution system result occurred in April 2013 at UW River Falls Student Center. Follow-up samples were negative. Previously to that, the City went from 2004 to 2013 without failing bacteriological testing.

Wells are sampled quarterly. There has only been one positive bacteria sample at the wells. A positive fecal coliform sample occurred at MW6 on October 24, 2006. This appears to have occurred right after startup. Follow-up samples were negative.

Chlorination

The City began continuous chlorination disinfection in 2004 following a positive bacteriological test result. It should have been required prior to 2004 since phosphate treatment was used (phosphate is a nutrient). As background information, chlorination disinfection is a 100 year-old practice in the United States and has led to significant reduction of waterborne illness. While everyone benefits, those with weak or compromised immune systems (i.e. formula fed infants, elderly, and those with pre-existing illnesses) receive very important public health protection from this practice.

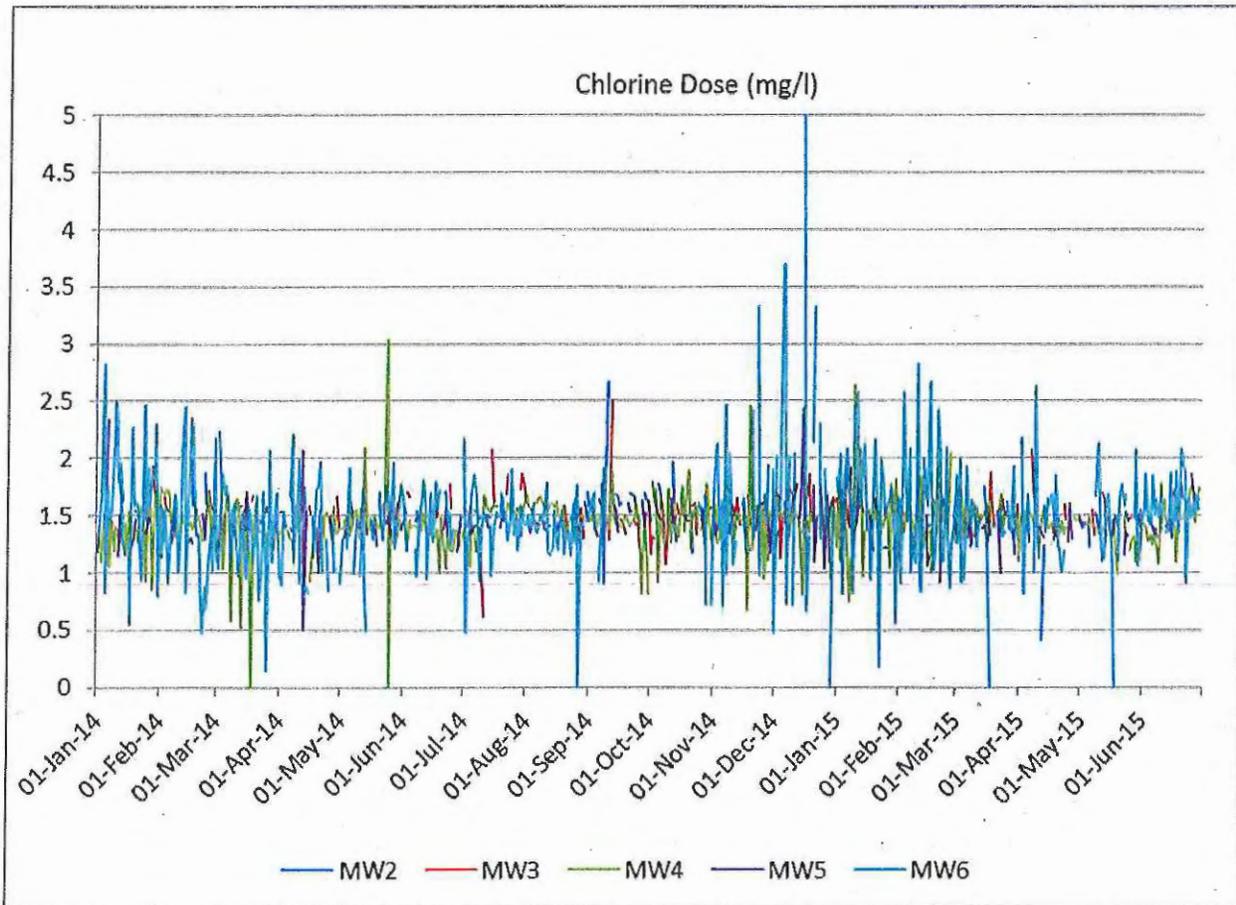
Chlorine residual is measured in the distribution system when bacteriological samples are collected. Average chlorine residual at these sites was .97 mg/l over the last 3 years. It met the minimum recommended residual of .2mg/l 100% of the time as shown below:



It is noted here that chlorine residual has been rising the last few years and can probably be reduced without affecting efficacy. The City will be lowering the chlorine dose.

Besides testing chlorine at the bacteriological monitoring sites, the operator collects samples at some of the same sites each day for the monthly operating reports. The same average concentration was observed. The operator also collects samples at the entry point even though not required.

Chemical dose is calculated daily and noted in the monthly operating reports. As shown below, average dose is generally 1.5mg/l but varies:



Dose variability is relatively high at all the wells with MW6 at 25%. Most communities with digital scales have a variability of less than 15% and commonly less than 10%. High variability is likely the result of the older scales being used. Other factors include:

- Not measuring chemical used and water treated at the same time during the day.
- Not accurately measuring water pumped (metering problem).
- Not accurately measuring chemical pumped (scales not working correctly).
- Not measuring or reporting volume or weight in the correct units or at a low enough scale.
- Changing feed rate all the time and never settling on a consistent feed rate.
- Running out of chemical during the day.
- Changing feed concentration during the month while not changing the % active concentration in the monthly operating report.
- Poor feed pump performance.
- Clogged injection nozzels or line leaks.

Chlorine testing is carried out by the operator using the DPD test method with a digital HACH colorimeter. Sample and testing observations follow (**bold font shows concerns**):

- **Glassware is clean and un-scratched**

- **Sample/optics compartment was dirty**
- Samples are tested immediately upon collection at the monitoring site
- Meter is being zeroed with tap water
- Meter is read within 1 minute of adding the test reagent
- Regent is within its expiration date
- Meter reads to the hundredth (.01) mg/l
- **Chlorine standards are not being run weekly to verify meter and test method accuracy**
- Log book is kept on meter servicing but **calibration checks (standards) are not kept**

Lead and Copper

The identified monitoring sites in 1992 and still completes monitoring at the original sites. These are Tier 1 sites (plumbing installed between January 1983 and September 1984 and galvanized pipe with lead goose necks). There are no known lead services in use. The operator provides customers with a letter during each monitoring round asking that plumbing changes be reported.

The City began lead and copper monitoring in 1992 and has now completed several monitoring rounds:

Sample Date	Copper (ug/l)	Lead (ug/l)
1992	120	4
1993	100	5
1994	90	3.5
1995	210	2.8
1996	150	3.4
1999	170	3.2
2002	500	2.2
2005	320	2.7
2008	440	2.3
2011	430	1.6
2014	260	0.9
MCL (ug/l)	1300	15

All monitoring results meet SDWA standards and are shared with the homeowner being sampled. Monitoring will remain at the reduced schedule of 30 samples every 3 years with the next monitoring round scheduled for 2017.

Disinfection Byproducts (DBP) - Trihalomethanes (TTHM) and Haloacetic Acids (HAA5)

The City began monitoring disinfection byproducts in 2004 and has since completed several monitoring rounds. Results have met federal requirements.

The City originally set up its Stage I DBP monitoring program by selecting a site in each quadrant of the water system. Some of these sites do not appear (based on chlorine residuals) to be maximum water age locations as was required by the rule. Monitoring was completed quarterly at these sites for the first year and reduced to annual monitoring thereafter. In 2014, Stage II DBP rules took effect and the number of samples dropped to two a year at each service area location with the highest historical results (2523 Golfview Drive and 625 Whitetail Blvd). One of the sites is in the low service area being served by MW2, 3, 4, and 5. The other site is in the high service area served by MW6.

It is appropriate for the City to continue with two DBP samples given that water characteristics at the wells are similar and there are two unique service areas that receive water from different wells/treatment plants. The older water age location in each of the two service areas will need to be identified though.

Beginning in 2016, monitoring will go to quarterly for one year at the highest water age locations to capture any seasonal variation in results. The City will be modeling its water age to determine these

locations. Once a full year of quarterly data is available, the Department will then determine monitoring frequency and time of year to sample. If results are less than 40ug/l TTHM and 30ug/l HAA5, monitoring frequency will be reduced to annual monitoring.

Radiological (RAD)

The City collected its first full round of radiological samples in 2009. Radiologicals met Federal standards.

Future monitoring frequency depends on levels found in previous monitoring events. Since radiologicals were above half the MCL, monitoring will be set at a three year frequency. The next monitoring event is scheduled for 2017.

Inorganic Contaminants

For SDWA purposes, IOC monitoring began in 1993. Since standard IOC monitoring frequency is 3 years, several monitoring events have taken place.

The City has not had problems meeting IOC standards. This is common for other systems as well with the exception of nitrates. City nitrate levels, however, are low.

Nitrate monitoring is required annually at all the wells while the remaining IOCs are on the 3-year monitoring schedule. The next monitoring event is scheduled for 2017.

Volatile Organic Contaminants

VOC testing began in 1993 under the SDWA and several monitoring events have been completed. Three of the wells have had VOC detects in the past with results below the federal standard as shown below:

EP ID	Parameter	Date	Value (ug/l)	MCL (ug/l)	MCLG (ug/l)
2	CHLOROMETHANE	05/04/1994	0.26		
2	DICHLOROMETHANE	05/04/1994	0.23	5	5
2	CHLOROMETHANE	05/04/1994	0.26		
2	CHLOROMETHANE	08/29/1995	0.1		
2	CHLOROMETHANE	08/16/2005	0.2		
3	1,1,1-TRICHLOROETHANE	05/03/1994	0.37	200	
3	CHLOROMETHANE	07/31/1996	0.19		
3	CARBON TETRACHLORIDE	05/22/2002	0.39	5	0.3
3	CHLOROMETHANE	05/22/2002	0.96		
3	CHLOROMETHANE	08/16/2005	0.26		
4	CHLOROMETHANE	11/16/1999	0.23		
4	CHLOROMETHANE	08/16/2005	0.24		

It is unknown where the contaminant sources originated. These chemicals have many possible industrial uses. Chloromethane is used to manufacture silicone and rubber products. It can also be found in cigarette smoke, polystyrene insulation, and aerosol propellants; burning of wood, coal, or certain plastics; and chlorinated swimming pools. Dichloromethane is used as a paint remover but is used as a solvent and cleaning agent in chemical manufacture, textiles, electronics, metals and plastics, pesticides industries; blowing and cleaning agent in the urethane foam industry; fumigant for strawberries and grains, as degreener for citrus fruits; in pharmaceuticals as an anesthetic; in extraction of caffeine, cocoa, fats,

spices and beer hops; as a heat transfer agent in refrigeration products. 1,1,1 Trichloroethane is used as a solvent and degreasing agent. It is also an ingredient in consumer products such as household cleaners, glues, and aerosol sprays. Carbon Tetrachloride is used to make refrigerants and propellants for aerosol cans, as a solvent for oils, fats, lacquers, varnishes, rubber waxes, and resins, and as a grain fumigant and a dry cleaning agent.

VOC monitoring frequency and waivers depend on historic monitoring results, well design, and potential sources of contaminants in the recharge zones. Normal monitoring is set at a 3-year frequency unless a “use waiver” is granted (which results in a 6-year monitoring frequency) or contaminants are detected (which results in a quarterly or annual monitoring frequency). Vulnerability criteria and existing/proposed monitoring frequencies are shown below:

Well	<100' Grouted Casing	Potential Contaminant Sources in the Recharge Area	Historic Detects	Last Detect	Last Monitored	Monitoring Frequency	Proposed Monitoring Frequency
MW2		x	x	2005	2014	3 year	3 year
MW3		x	x	2005	2014	3 year	3 year
MW4		x	x	2005	2014	3 year	3 year
MW5		x			2014	3 year	6 year
MW6					2014	3 year	6 year

Wells with VOC detects are placed on quarterly monitoring until each contaminant is consistently (four quarters in a row) below < .5ug/l. Wells 2, 3, and 4 met this criteria and dropped to annual monitoring following their initial detect. After 3 years of annual monitoring, the frequency may be dropped to a three-year schedule.

Wells 2, 3, and 4 are on a 3-year monitoring schedule with the next event scheduled for 2017. Wells 5 and 6 qualify for a use waiver which allows monitoring to be reduced to a 6-year schedule. The next monitoring event for MW5 is 2020. Since MW6 does not yet have three years of annual monitoring since being placed into operation, one sample will be required in 2016 before making a waiver determination.

Synthetic Organic Contaminants

SOC monitoring began in 1993 under the SDWA. Several monitoring events have been completed at all the wells except MW6. This well has not been sampled yet. There have been no SOC detects at the wells being monitored.

Two waivers are available that can be used to reduce monitoring frequency. None of the wells qualify for a susceptibility waiver (9-year monitoring schedule), since the aquifer is an unconsolidated formation. All the wells qualify for a “use waiver” which allows monitoring to be reduced to a 6-year frequency. These wells have a clean monitoring history, have more than 60' of grouted casing, and have no potential contaminant sources in their recharge zone. All the wells, except MW6, will be on the 6-year frequency with the next monitoring event scheduled for 2018. MW6 will need to be sampled in 2016 before being placed on the 6-year schedule.

Aesthetics (Hardness, Color, Odor, Taste)

Aesthetic complaints in Western Wisconsin water systems are commonly associated with hardness, high iron/manganese minerals, and chlorine odors. The water quality parameters are discussed in more detail.

Hardness

The City's drinking water is classified as “hard”. Hardness ranges from about 150 to 220 mg/l as CaCO₃. Customers typically remedy this by softening the water when it enters their home. This practice not only

removes excess scale but also reduces soap and detergent use. There are minimal problems associated with this approach as long as effluent being discharged from the local POTW meets the WPDES permit chloride limits.

Iron/Manganese

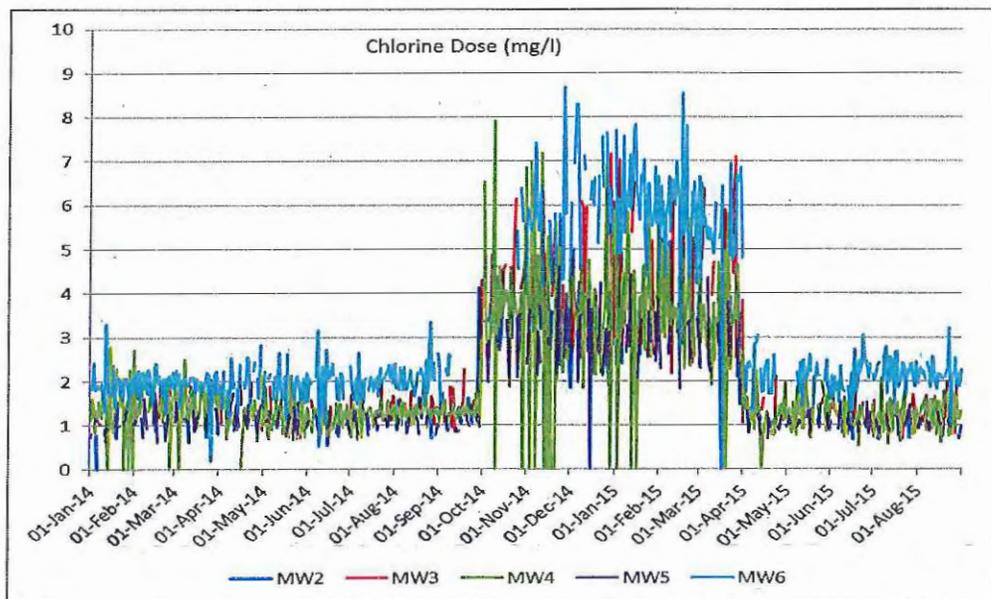
Iron and manganese are naturally occurring minerals in well water. Testing was last done in 2008 at wells 2, 3, 4, and 5. Well 6 has not been tested since placed into service. The most recent test results follow:

Well	Iron (mg/l)	Manganese (mg/l)
MW2	.11	.043
MW3	.14	.04
MW4	.14	.044
MW5	.13	.037
MW6		
Secondary MCL	.3	.05
DHS Health Advisory Level		.30

Iron and manganese concentration is below the aesthetic standard at all the wells tested. Manganese is less than the health advisory level at the wells tested. As for what was detected, it is unknown whether the minerals come from the ground in their reduced or oxidized (sequesterable) form.

The City has used polyphosphates since 1996 for sequestering purposes even though mineral levels are below the secondary standard and likely manageable through good flushing practices. There were no records available to determine the reasons why sequestering was adopted, studies showing it was necessary, or evaluation of optimal dosing rates. Discussions with the City seem to indicate that poor flushing practices (low velocity and/or spot flushing) may have been involved. The City appears to have since resolved this by implementing unidirectional flushing. This is further supported by the fact that most of the phosphate breaks down to orthophosphate by the time it is used.

The City uses a 40% sodium hexametaphosphate called LPC-5. All the phosphate is in the polyphosphate form with 36% being total phosphate. It is injected at the well houses ahead of the other chemicals using lower pulse rate diaphragm injection pumps. Since January 1, 2014, chemical dose ranged from 0 mg/l to almost 9 mg/l total phosphate as shown below:



It is unknown what the levels are in the distribution system since it was not being tested or reported. Given the relatively low amount of iron and manganese, there is little reason to be using such a high dose unless the majority of the polyphosphate breaks down to ortho by the time it is used. It was also observed that MW6 phosphate levels are generally the highest even though the source water has not been tested for iron or manganese.

From the above graph, one also observes how poor phosphate dosing is. Dose varied 18 to 32% over the last 6 months and as high as 70% at some of the wells. Granted that the calculated dose is likely inaccurate given the method of measuring chemical used but there is some confirmation from test results at the entry points.

Sequestering will not be effective if the sequesterant does not tie up the iron and manganese before it is oxidized. If injection is not continuous, in cases where low pulse rate injection is used, unsequestered minerals will readily oxidize at the chlorine injection point. Likewise, if the minerals are already in their oxidized form in the source water, sequestering will not be effective. Increasing phosphate concentration, in an attempt to remedy these two situations, wastes dollars and contributes additional phosphorus load to the City wastewater treatment facility. It is unknown whether this is occurring since there have been no optimization studies to establish an effective target dose, to establish performance criteria for the feed systems, or to minimize phosphate use.

As far as phosphate testing goes, the operator was collecting samples at the entry point twice a week and testing orthophosphate with a Hach colorimeter. It is surprising to see orthophosphate in the entry point test results since the product being used does not contain any ortho. It is 40% polyphosphate. The most likely reason for the presence of ortho is that the poly is breaking down in the solution container. The water industry recognizes that heat and age will do this and the oversized containers make it quite probable. Another interesting finding is that the entry point orthophosphate results are higher than the calculated total phosphate dose being reported in the monthly operating reports - two to three times in some cases. This indicates that chemical injected may be under-reported.

Additional observations made of the testing program follow (concerns are in bold font):

- Glassware and meter are clean and protected.
- **Distilled water is being used rather than lab grade deionized water.**
- Reagents within expiration date.
- Standards are being run.
- Meter log book is kept showing cleaning, servicing, and standards test results.

Antidotal observations by the operator indicate good water quality. This is likely the result of improved flushing practices rather than the sequestering program.

Chlorine

Chlorine related aesthetics, commonly reported as odor or taste, typically occur when breakpoint chlorination is not achieved, when solids collect in the pipes, or when chlorine depletes in stagnant dead-ends. Breakpoint chlorination occurs when enough chlorine is added to the water to break the chlorine-ammonia molecule bond and to satisfy the demand of iron/manganese oxidation. Combined chlorine causes most taste and odor issues and is corrected by using enough chlorine to break this chlorine-ammonia molecular bond.

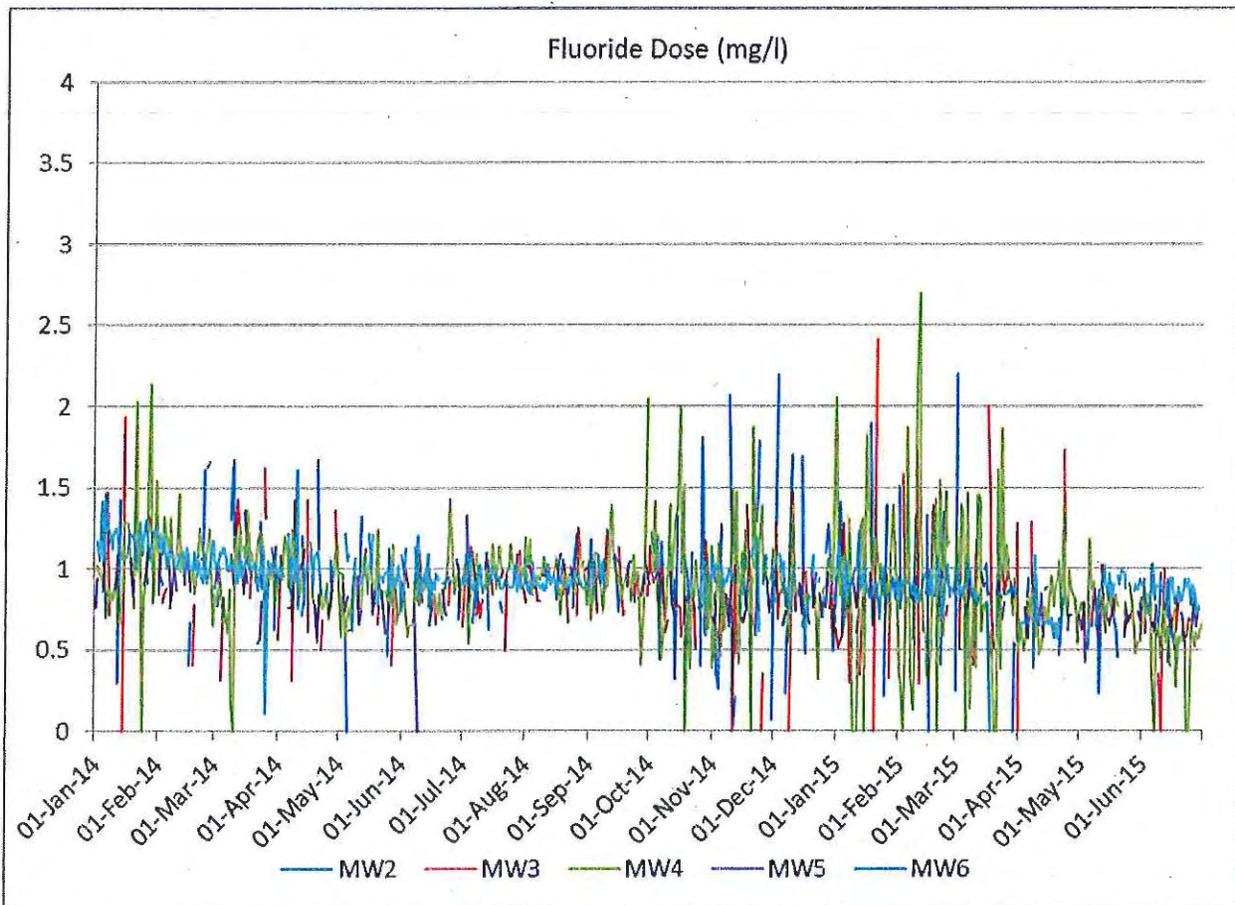
Breakpoint chlorination determinations have not been made; however, it is likely occurring given the relatively high chlorine dose and free chlorine levels throughout the distribution system. As for antidotal concerns, there have been no odor or taste related issues reported by customers.

Fluoridation

Fluoridation is practiced for dental purposes by a number of communities in Wisconsin and has been practiced by the City since before the 1990's. Implementation of fluoridation is a local decision in Wisconsin.

Studies confirm that optimizing fluoride levels in drinking water reduces dental carries as well as short and long term expenses associated with correcting tooth decay. Most municipal wells in Wisconsin lack natural fluoride for dental benefit and require supplemental fluoride. Background fluoride levels in City water are too low for dental purposes. At about .1 mg/l fluoride, it provides only 14% of the recommended fluoride dose. Dental protection requires a fluoride dose of .7mg/l (WDHS revised standard). Fluoride addition raises the concentration to optimal levels.

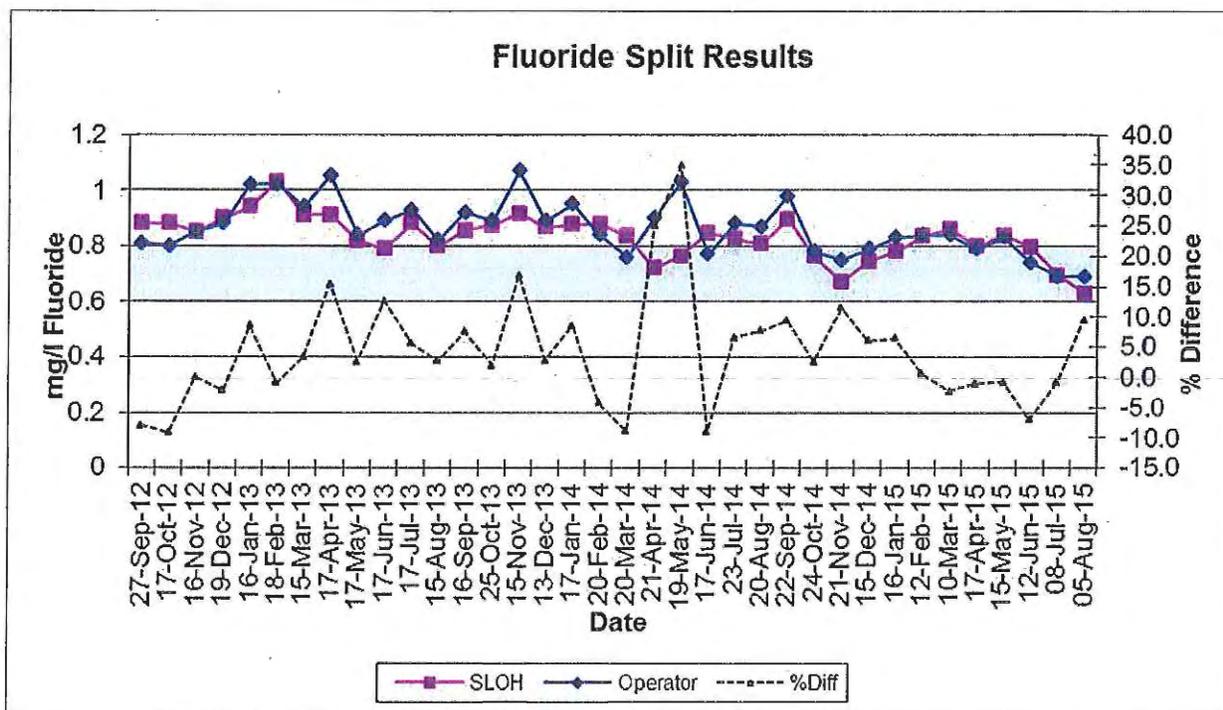
Fluoride is injected into the water at each well house and monitored daily at the wastewater plant. Fluoride is not being measured in the Golf View/East high service area where MW6 pumps. On average, the City delivers a fluoride dose of about .7 mg/l to meet a targeted dose of .7 to .8 mg/l. Fluoride dose at each well is shown below:



Depending on treatment system, dose variability ranged from 14 to 52% depending on well. The two newest wells have the lowest variability < 15% while MW3 has the highest 52%. As mentioned in the chlorine section of the report, there may be several reasons for high variability. In this case, it is likely functionality problems with the old pneumatic scales and the large units measured in (5 lb increments).

The above graph brings out another observation related to dosing. The City recently decreased fluoride to bring them closer to the new recommended range of .6 to .8 mg/l.

A split water sample is collected monthly at the wastewater plant (low service area) and sent to the Wisconsin State Laboratory of Hygiene (SLOH). The high service area being served by MW6 is not being monitored. The split sample results show some variance between the testing agencies and were outside the recommended dental health range (.6 to .8 mg/l) about 70% of the time. This appears to have since been resolved as shown below:



Test results tended to be on the high side until more recently and have fairly good agreement with the SLOH.

Testing is carried out by the operator using the SPADNS test method with HACH digital colorimeter. Observations of testing protocol follow (concerns in bold font):

- Fluoride ions quantified using the AccuVac technique
- AccuVac vials are within their expiration date
- Meter is in good condition and reads to the hundredth (.01) mg/l
- **Meter sample/optic compartment needed to be cleaned**
- **Operator may not be testing the sample at room temperature all the time**
- **Lab-grade deionized water is not being used**
- Standards are run weekly to verify meter/test method accuracy **but not recorded**
- Meter log book is kept showing cleaning, servicing, and standard test 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 complete a vulnerability assessment by 2004. These are self-assessments consisting of a review of security related practices. The City completed its vulnerability assessment in 2004.

The City completed a “table top” security exercise in 2006. A cursory review of security was carried out on the day of the inspection. Facilities were locked and relatively secure.

Emergency Planning

The Department has an emergency plan on file for the City; however, it is outdated (2003). Plan elements include:

- List of local and state emergency contacts.
- System for establishing emergency communications.
- Mutual aid agreements the City may have with other communities for sharing personnel, equipment and other resources during an emergency.
- Standard procedures for emergency water production.

Contacts and emergency water production procedures need to be updated.

Wellhead Protection

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. The City has a wellhead protection plan and ordinance (adopted 2001); however, it does not appear to have been updated to include MW6.

Private Well Abandonment Permitting Program

The City has a current private well abandonment ordinance. The City permits private wells on a five year basis after meeting the following requirements:

- Well must meet the well construction/pump code,
- Has a history of producing safe water evidenced by 1 bacti test,
- Has a functioning pump system,
- Is not cross-connected with plumbing to the municipal water system.

Owners not meeting the above requirements are required to abandon their wells.

There are currently 17 known, active private wells in the City. Some of the well owners do not have current permits.

Cross-Connection Control Inspection Program

The Department issued the City a Notice of Noncompliance (NON) on October 6, 2014 for not having a comprehensive cross-connection inspection program. The City began completing its own residential inspections in 2011 but suspended inspections until after the NON.

The City has a current cross-connection control ordinance but no written plan on how the inspection program is administered.

City staff is completing the residential inspections when the water meters are replaced. About 250 inspections/meter change-outs are scheduled to be completed every year until full compliance is achieved. The City inspectors are trained (Rural Water Association classes) and document results on an approved inspection form. In lieu of inspecting kitchen and bathroom areas, the City has a customer education program. They provide customers with an inspection brochure for these areas during the City inspection and mail them a copy of the brochure every 3 years. It was last mailed in 2014. Where violations are noted, City policy requires the utility to complete reinspections within 30 days and turn the service off at the 60 day point if corrections are not made. There are currently no customers with violations older than 60 days.

The City hired General Engineering late last year, under a 5-year contract, to inspect the non-residential customers (except UW River Falls). The contract called for 100 new inspections per year. A paper evaluation was made to determine which of these customers were higher hazard units (units that do not have similar plumbing/end uses as residential) so that they could be scheduled first. General completed 100 inspections last year, 100 this year, and plan to complete 100 each of the next three years (ending in 2018). General is also scheduling and completing follow-up inspections where violations were observed and notifying the City when compliance is not achieved. General is also making a hazard determination at the time of the inspection that will be used to drive the next inspection date. At this time, the City does not know who will be completing the next 20year inspection which will begin next year. General's staff have been through the UW Extension course and use an appropriate inspection form for documenting the inspections; however, it does not appear that they are documenting each end use device observation on this form (i.e. all the end uses at the hospital, beverage machines, etc.) and some of the forms were missing the original inspection date. This date drives the 60 day enforcement process. It is unknown whether there are any customers with violations older than 60 days.

UW River Falls is being inspected by its own staff per verbal agreement with the City. It is unknown how they are documenting observations, quality of inspection, or whether each end use device is evaluated. The City did not have records of these inspections during the survey and said they were not tracking these inspections and reporting them on the WDNR on the annual reporting form. The City indicates that UW inspection agents are qualified in making the assessments.

The status of the City's inspection program follows:

Status	Current # Customers	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Residential	4,452	0	0	0	0	0	0	366	0	0	
Low Risk Non-Residential	?	0	0	0	0	0	0	0	0	0	
High Risk Non-Residential	?	0	0	0	0	0	0	0	0	0	
Total		0	0	0	0	0	0	0	0	0	

It is unknown at this time how many of the residential and non-residential customers have been inspected within the last 10 years. The 2014 annual inspection form has not been submitted and UW River Falls is not reporting their inspection results to the City. Also, since not all of the non-residential customers have been inspected, it is unknown how many fit the high hazard category and whether they have all been inspected within the last 2 calendar years.

There are two loading stations (950 Benson Street and the Fire Station). Both are protected by a registered RPZ.

Distribution System Maintenance Practices

The City has a mediocre preventative maintenance program for ensuring the distribution system is in good working order. While unidirectional flushing is performed annually, which includes flushing of dead-ends, not all the valves are being exercised every five years. To address this, the City recently hired additional staff and ordered a valve turner. Flushing, valve exercising, and meter records are current. The operator reports that all valves and hydrants function properly.

Real and apparent water losses have been low the last few years and average about 10%. The operator reports that all services are metered. Flushing/hydrant use is recorded as well.

The City tests its well meters annually. The City had been replacing residential meters every 10 years but switched to a 20-year replacement program with the most recent replacements. The Badger Model 35 meter is used. The oldest meters currently in use are about 12 years old.

Storage Maintenance Practices

Reservoir hatches, screens, overflow pipes, and vents are inspected annually. Sediment was removed prior to inspecting the units in 2011; however, Liquid Engineering's reports and supporting documents (pictures/video) were never submitted. These were all dive inspections. Minor paint failure, delamination, and surface rust were reported on the two elevated reservoirs. Minor concrete cracking and spalling were reported on the ground storage reservoir. Some of the cracking has limed shut. The Golf View reservoir was modified and painted last year to resolve the paint failures; however, the City has not submitted the inspection results (SEH completed the inspection).

Water Reports

The City submits monitoring and operating reports on a timely basis; however, there were several errors in the monthly operating report forms. First, total phosphate is not being tested in the distribution system and reported in the monthly forms. Second, phosphate used is being reported as orthophosphate when the phosphate is polyphosphate. Third, chlorine, fluoride, and phosphate test results were not being reported for the Golf View/East boosted zone service area. This area is served by a separate well (MW6). Fourth, percent active concentration for some of the chemicals being added was incorrect. Some of the reports had 100% active for phosphate when it should be 36% total phosphate. Also, fluoride was not being reported as 19.8% earlier this year. It should be noted that some of the above errors were introduced by the Department when the new electronic forms were set up. Corrections will begin showing up on the September form.

Consumer Confidence Reports (CCR)

The City completes a consumer confidence reports on an annual basis. These reports provide customers with general water system information and water quality results over the course of the year. The City mails the report to each customer and posts them as well. Reports contain all the required information.

System Operators

The City is required to have a water system "operator in charge" (OIC) with "Grade 1" certification in groundwater and distribution system. Mr. Greg Koehler meets the certification requirements.

Greg was certified in 2000 and recently took over as OIC. The City also has two other certified operators that cover when Greg is out of town or away. Two additional staff have also been hired that are working on their certification.

Fiscal

The City's financial officer is the Finance Director, Ms. Julie Bergstrom. The City maintains separate journals and has an annual budgeting process. Independent financial audits are performed annually by Baker Tilly Virchow Krause of Madison Wisconsin.

Outstanding debt service includes the following instruments:

Instrument	Issued	Matures	Interest	Principle Remaining
Water Revenue Bond 2011A	7/6/2011	5/1/2031	3.81%	1,995,000
Capital Paid by Municipality				521,735
AMR Load State Fund	7/19/2005	3/15/2015	3.99	54,833
Electric Shares Savings Loan	6/15/2010	6/15/2015	1.97	55,422
AMR Loan State Fund	3/15/2015	3/15/2015	3.99	35,775

Including depreciation, net operating income has been positive the last few years but dropped appreciably last year. Ending balance was \$82,804. Average net rate base was 2.43%. The City does qualify for a simplified rate adjustment of 3%.

Rates were last adjusted in 2012 and included a full rate adjustment. Out of 78 Class AB utilities, River Falls has the lowest rates in Wisconsin. Current rates are based on a fixed rate of \$5.25/month for a 5/8" or 3/4" meter size and a declining volumetric rate that starts at \$1.40/1000 gallons for the first 15,000 gallons.

The City does its own meter reading using radio automatic meter reading (AMR) technology.

Previous Enforcement Action

There has been one enforcement action since the last survey:

October 6, 2014 Notice of Noncompliance—City was not implementing a comprehensive cross-connection inspection program and private well permitting program. Cross-connection inspections were not being completed at the required frequency and private wells were not being permitted or abandoned. These violations still exist.

SURVEY FINDINGS

A lot of information is gathered and reviewed during the survey process. Since surveys are completed on a 3-year basis, it's important that the inspection be carried out successfully and clearly documented so that issues can be resolved by the community in a timely manner. The section on key findings hopes to do just that in four sections: deficiencies, recommendations, accomplishments, and capacity development.

DEFICIENCIES

During the course of the survey, deficiencies are identified. Deficiencies are problems in the drinking water system that cause or have the potential to cause operational problems, equipment failure, or short and long term health risks depending on changing conditions. Some of these may be related to new code requirements. Deficiencies usually indicate noncompliance with one or more of Wisconsin administrative codes which are largely based on Federal standards.

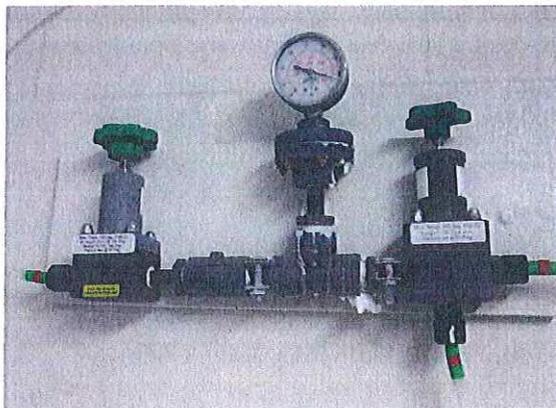
Violations may be classified as a deficiency, significant deficiency, or nonconforming feature (NCF). Nonconforming features are design deficiencies that were identified after the December 2010 code change (ch. NR811 Wis. Adm. Code) and are not significant in nature at the time of inspection. They are corrected when projects go through formal plan review. Significant deficiencies are serious in nature and need immediate attention. There were no significant deficiencies noted. Deficiencies and non-conforming features follow.

Source Water, Pumping Facilities, and Treatment

1. MW2 door sweep has a gap in it and could be an entry point for vectors and outside debris. (ch. NR810.13 and NR811.24 and .25(1b)Wis. Adm. Code)
2. MW5 water main metal support pillar concrete support base failed. (ch. NR810.13 Wis. Adm. Code)



3. MW5 chlorine room gas line conduit is unsealed where it leaves the room. The operator reports that this has since been resolved. (ch. NR811.48(5a) Wis. Adm. Code)
4. MW5 prelube conduit broke off allowing the wires to be exposed. (ch. NR810.13 and NR811.30 Wis. Adm. Code)
5. MW5 diesel engine's cooling line does not have the proper backflow protection valve. Simple check valves do not meet cross-connection protection requirements. (ch. NR810.15 Wis. Adm. Code)
6. MW6 block wall is coming apart in some areas. This needs to be evaluated further and corrected by December 31, 2016. (ch. NR810.13 Wis. Adm. Code)
7. MW6 air release needs to have an air break. The operator reports that this has since been resolved. (ch. NR811.37(5a) Wis. Adm. Code)
8. A leaking, adjustable pressure relief valve/adjustable back pressure valve/pressure gage assembly (shown below) is used at MW6. This assembly is not required for diaphragm pump setups like the one being used at this well. Your treatment system may have originally been designed for peristaltic pumps where they would have been required. Since chemical is leaking from this equipment and it's not necessary for the current feed pumps you are using, this unit should be removed. (ch. NR810.13 and NR811.39(2e3)Wis. Adm. Code)



9. Fluoride injector fittings leaked at MW6 and damaged the floor. You should keep rubber/plastic underneath the injectors to catch any liquids and fix leaks promptly. As an FYI, fluoride will evaporate and etch any glass or metal surfaces, including controls, and it does not take much to do it. As such, its important to resolve any leaks in a timely manner. (ch. NR810.13 Wis. Adm. Code)
10. Prelube lines need to be metered to allow the City to track water usage. (ch. NR811.31(2b) Wis. Adm. Code)
11. North booster station air release does not have a 24-mesh screen. (ch. NR811.37(5a) Wis. Adm. Code)
12. NCF: there are no automatic shutoff valves on the chlorine cylinders. The unit that was installed at you're newest well, MW6, was not being used at the time of the survey. It has since been reconnected. The City needs to keep using it. The Department highly recommends these units be installed at the other wells, especially wells with higher populations which includes the well near the university. (ch. NR811.48(7c) Wis. Adm. Code)
13. There was black sediment on the bottom of some of your solution containers. It is recommended that they be cleaned out at least annually. (ch. NR810.13 Wis. Adm. Code)
14. NCF: Fluoride (EPA Group 1 chemical - acid) and phosphate (EPA Group III chemical - Salt/Polymer) are being stored in the same room. These chemicals are not compatible and should not be stored together. While addressing the deficiency now is recommended, the City must address the deficiency during the next reviewable project. (ch. NR811.40(11) Wis. Adm. Code)
15. Some of the chemical lines are breaking down (i.e. fluoride lines) and need to be replaced. (ch. NR810.13 Wis. Adm. Code)
16. Some of the solution container penetration points (lines and threaded fittings) were not tight. You may have to install different grommets to ensure a tight seal to keep out dirt or other debris. (ch. NR811.40(1b) Wis. Adm. Code)
17. NCF: some of the solution containers do not have spill protection. This has since been resolved. Double walled units were recently installed. (ch. NR811.39(3d) Wis. Adm. Code)
18. Some of the chemical solution containers are not labeled. (ch. NR810.09(1d) Wis. Adm. Code)

19. Some of the solution container vent lines are not screened (24-mesh) and/or sloped down and out when exiting or outside the buildings. (ch. NR811.48(6f) and .51(1c) Wis. Adm. Code)
20. Solution containers are oversized and cause chemical age to exceed 60 days. Container size and delivery frequency need to be reduced to increase fluoride and phosphate turnover. Phosphate turnover may need to be more frequent to ensure the poly does not break down to ortho by the time it is used. (ch. NR811.40(d) Wis. Adm. Code)
21. The older pneumatic fluoride scales (with 5 lb increments) are not accurate and do not have enough granularity for accurately measuring the amount of chemical being used each day. (ch. NR810.13 and NR811.39(6) and .40(1d and g) Wis. Adm. Code)
22. The 100 gallon phosphate containers (1 gallon increments) do not have a fine enough increment to accurately measure chemical volumetrically. (ch. NR811.39(6) and .40(1d and g) Wis. Adm. Code)
23. Chemical dose being reported in your monthly reports has significant variance from day to day. Fluoride and phosphate are likely due to the oversized solution containers and older pneumatic scales. The chlorine scales read to the tenth gallon but are older units that are quite corroded. The City should update its method for measuring chemical to ensure dose calculations are accurate. (ch. NR810.13 and NR811.39(6) and .40(1d and g) Wis. Adm. Code)
24. Some of the chemical injection pump electrical outlets are not labeled. The operator reports that this has since been resolved. (ch. NR811.39(4b) Wis. Adm. Code)
25. The City's phosphate sequestering program is poorly done. The Department has the following concerns with your program:
 - Phosphates were introduced to address dirty water complaints before the City had an adequate flushing program. Low velocity and spot flushing will not remove sediment and film that cause complaints. The City reports that it has since switched to unidirectional flushing to improve water quality.
 - Previous source water iron and manganese concentrations are well below the secondary (aesthetic) standard. The majority of communities with the same levels as River Falls are not sequestering.
 - Iron and manganese testing has not been completed at MW6. The other wells have not been sampled in over 7 years.
 - Orthophosphate testing at the entry point indicates that most, if not all, of the polyphosphate has broken down to orthophosphate by the time it is injected. Orthophosphate is a corrosion inhibitor not a sequesterant.
 - Phosphate dose is quite high and some wells have double the level as others. It is clearly not optimized for sequestering specific mineral content.
 - Phosphate feed pumps are lower speed units with poor mixing ability. Chemical is not mixed throughout the entire water column by the time chlorine is introduced. This would result in oxidation of mineral before the sequesterant can tie them up.

- City is not measuring total phosphate in the distribution system to verify phosphate levels.
- Poor sequestering performance results in additional phosphate being discharged to the local POTW.

Taking all the above into consideration, the City does not have an appreciative amount of iron and manganese to warrant sequestering and most, if not all, the polyphosphate sequesterant has broken down to orthophosphate by the time it is injected. The water industry recognizes flushing as the best way to manage dirty water, the City now has such a program, and it is very likely this program has eliminated the complaints rather than the sequestering program.

The Department requests that the City test each of your wells again for iron and manganese and report the results and time the samples were collected in relation to starting the well pumps. Submit results by December 1, 2015. If results are below the secondary MCL and manageable through your flushing program, meter off the phosphate over the next several months. If levels are above the standard or not manageable through our flushing program, please report whether they are in their oxidized or reduced form. If minerals are at a high enough level, in a sequesterable form (reduced), and you wish to continue sequestering; submit an optimization study by April 1, 2016. Describe the appropriate dosing levels for each well (based on mineral content) and bench testing. In addition, correct the chemical feed system deficiencies to minimize product age and improve mixing. Finally, begin testing total phosphate in your distribution system including the higher service area served by MW6. (ch. NR810.06, .09(5), and NR811.56 Wis. Adm. Code)

Storage

1. The Department has not received your 2011 reservoir inspection reports/video from Liquid Engineering nor the 2014 Golf View inspection report following modifications and paint work. We received the DNR inspection forms for the 2011 inspections but no report from your contractor. Please submit these by November 1, 2015. Please note that all your reservoirs are due to be inspected next year and sediment and any biofilm must be removed prior to inspection of the surfaces. (ch. NR810.14(4) Wis. Adm. Code)
2. The Golf View reservoir, being a CBI unit, may have an unprotected access-tube vent. Please send a picture of its access tube to roof features, taken from outside, by November 1, 2015. If unprotected, you will need to correct this by August 1, 2016. (ch. NR810.14 and NF811.64(7 and 8)Wis. Adm. Code)
3. NCF: Sycamore water reservoir's overflow pipe does not have a 12" air break above the stormwater inlet. This needs to be addressed prior to painting the unit. (ch. NR811.64(4) Wis. Adm. Code)
4. Sycamore water tower's coatings have failed. Submit a schedule on when the unit will repainted. Please note that the exterior is a lead based paint and may need to meet special removal and disposal requirements if removed. (ch. NR810.14 Wis. Adm. Code)

Distribution System

1. NCF: the operator indicated that there may be privately owned, looped water mains connected to your distribution system without check valves. Please submit a list of them and note whether they have check valves at the connection points to your system. (ch. NR811.68(3) Wis. Adm. Code)

2. NCF: continue to eliminate undersized water main (<6") where practical. You can coordinate with other City projects. (ch. NR 811.70(5) Wis. Adm. Code)
3. NCF: continue to eliminate dead end water mains by looping water mains where practical. These can be addressed during other City projects. (ch. NR 811.70(8) Wis. Adm. Code)
4. Please submit an updated copy of your distribution system map after this year's construction season but no later than December 31, 2015. Include the water main, well IDs, reservoir (maximum storage volume and overflow elevation), hydrants and flushing devices, pressure sustaining/reducing valves, pressure zones, and remove or label private main/services on the map. (ch. NR810.26(2) Wis. Adm. Code)
5. The City is not flushing some of the dead-end water mains to remove sediment. Flushing devices are required and need to be able to achieve 2.5ft/sec of flushing velocity. (s. NR810.13(2d) and NR811.71(7) Wis. Adm. Code).
6. There appear to be several dead-ends shown on the distribution system map that do not terminate with a fire hydrant or flushing device (downstream of the last service connection). Street locations where these appear include: North Winter and West Cedar, Hillcrest, Pierce, South Fork, Dalley, Union and Seventh. Deadends longer than 20' are required to have some type of flushing device or hydrant (s. NR811.70(8) and 811.71(7) Wis. Adm. Code).

While it would be nice to resolve all these at the same time, the Department expects that you correct a few each year, beginning next year, until all of them are resolved. You may want to coordinate with other utility projects.

By December 31, 2015, submit a list of dead-ends without flushing capability and a schedule for their correction (either looping or installing hydrants/flushing devices to obtain the 2.5 ft/sec of flushing velocity required by code). Include the following information:

- Location of each dead-end
- Pipe age, material, length, and size
- Number of services downstream of the last hydrant on the deadend
- Age of pavement or general idea on when it will be resurfaced
- Any water quality complaints from customers on the dead-end
- Any unsafe bacteria results in the past on or near the dead-end

Then submit plans and specifications for eliminating a few a year beginning next year. All of them must be resolved by December 31, 2018 unless the Department agrees to an alternative schedule.

7. There are dozens of water main valves that have not been exercised within the last 5 years. Valves are used to minimize the extent of a service outage during main breaks or equipment repair. This minimizes the area of pressure loss which thereby prevents or minimizes contamination of your distribution system. It also minimizes property, water damage. Valves that are not exercised may not work properly when expected during emergencies or planned maintenance activities. The City needs to clean the valve boxes out and exercise the valves by the end of next year – December 31, 2016. Hydrant lead valves are required to be exercised at least once every 7 years. The Department recommends exercising every other year rather than the 5 and 7 year schedule. (s. NR810.13(2a) Wis. Adm. Code)

8. Please submit distribution system pressure and flow test data by December 31, 2015. This should include static pressure and residual pressure at fire flow rates above 500 gpm. It is my understanding that your engineer just completed a study. This may be used to satisfy the requirement. Also, please provide your most recent copy (just the pressure testing sheets) of your ISO fire protection study. (s. NR810.10 and .11 Wis. Adm. Code)

Monitoring, Reporting, and Data Verification

1. Emergency plan is outdated. (ch. NR810.23(2a) Wis. Adm. Code)
2. The City has not been testing total phosphate in its distribution system. Tests being completed were orthophosphate. Since you are not using an orthophosphate product and the quantity of polyphosphate cannot be measured using the ortho test, total phosphate testing is required. Two samples shall be collected weekly and reported in your monthly operating reports. One sample in the main part of the distribution system and the other in the East/Golf View high service area. The City recently switched to the total phosphate test method to resolve this. (ch. NR810.06 and NR809.73(2) Wis. Adm. Code)
3. The City needs to complete two split fluoride samples with the SLOH each month. The City has been testing in the main part of the distribution system but not in the high service area served by MW6. (ch. NR810.06 and NR809.74(1) Wis. Adm. Code)
4. The City needs to complete daily fluoride testing in the high service area served by MW6 and report the result in the monthly operating report form. (ch. NR810.06 and NR809.74(1)) Wis. Adm. Code)
5. Fluoride test results were outside the recommended dose range about 70% of the time. This may be the result of your feed systems or testing program. Testing program deficiencies (809.113(1) Wis. Adm. Code and Standard Methods) include the following items:
 - You are using the SPADNS test method rather than the electrode test method. Systems using phosphates need to be using the electrode method due to interference with phosphate.
 - Store bought, distilled water is being used. Lab grade deionized water should be used for fluoride testing.
 - Samples need to warm up to room temperature before testing.
 - Operator needs to be checking against a standard weekly and documenting the result. Problems with the testing program will be evident if your result is different than the standard.
6. The City needs to complete free chlorine residual testing, twice weekly, in the high service area served by MW6 and report the result in the monthly operating report form. (ch. NR810.06 and NR809.74(2) Wis. Adm. Code)
7. The City needs to be running chlorine standards at least weekly to verify meter and test method accuracy. Record the results. (NR811.563 Wis. Adm. Code and Standard Methods)
8. Bacteriological monitoring is not being completed in some of your service areas and not geographically representative in others. You need to have sites in the north and east high service

areas and in the north and central-east (school would be appropriate) sections of the main service area of the system. Add additional sites (submit address and tap location to the Department) and begin testing these areas by November 1, 2015. (s. NR809.31(1a-b) Wis. Adm. Code)

9. The City was collecting bacteriological samples at sites that had not been previously approved by the Department (1200 South Main Street). The Department added this site to your list. In the future, please notify the Department about changes prior to monitoring. (s. NR809.31(1a-b) Wis. Adm. Code)
10. The City has not been reporting the street address on bacteriological samples collected at the University sites. Please provide the street addresses for these sites and tap location. (s. NR809.31 Wis. Adm. Code)
11. Distribution system bacteriological monitoring is not being completed each week of the month. Given that 15 samples are required each month, they need to be spread out and collected each week of the month. (s. NR809.31(1a-b) Wis. Adm. Code)
12. Some of the Stage I Disinfection byproduct (DBP) monitoring sites were not older water age locations and sites currently being used have a younger water age according to chlorine results. It does not appear that the sites were based on modeling as required for communities over 10,000 people. The Department is requesting a water age study by December 31, 2015 that identifies older water locations. Once we receive this, DBP samples will be required quarterly for one year so that Stage II DBP sites can be identified for future annual monitoring. Sites are needed in the area served by MW2, 3, 4, and 5 and another site that receives MW6 water. (NR809.61 and NR809.62 Wis. Adm. Code).
13. Please update your lead and copper monitoring site list by re-evaluating your sites Tier designation, as listed in NR809.547 Wis. Adm. Code, and plumbing materials used. This needs to be completed before the next sampling event in 2017.

System Management and Operator Compliance

1. Generators are not being exercised under full load on a quarterly basis and documented. (s. NR810.13(1d) Wis. Adm. Code)
2. The City is not reporting the correct weight of phosphate being injected on the monthly operating reports. LPC-5 has a density of 11.6 lbs/gallon. When converting gallons of chemical used to pounds, you will need to multiple gallons used by 11.6. The operator reports that this has since been resolved. (s. NR810.07 Wis. Adm. Code)
3. There were errors in your monthly operating report forms. The operators were not reporting the correct % active chemical on the forms. Use the following: 36% total phosphate, 100% chlorine, 19.8% fluoride. The operator reports that this has since been resolved. (s. NR810.07 Wis. Adm. Code)
4. The Department did not set up your monthly operating reports correctly under s. NR810.07 Wis. Adm. Code. The following changes were made:
 - Another distribution system operational area was created for reporting chlorine, fluoride, and total phosphate in the East/Golf View high service area.

- Total phosphate was added for reporting chemical used instead of orthophosphate.
 - Total phosphate testing was added to the main distribution system operation area and the East/Golf high service area.
5. The City does not have enough resources to carry out its operation and maintenance responsibilities (ch. NR810.03 Wis. Adm. Code). When discussing deficiencies with staff, employee turnover and manpower concerns were raised. The City recently hired additional staff to address this item. Proper training and resources should be directed to the utility that will allow them to carry out their responsibilities.
6. The Department does not have a current copy of your wellhead protection plan nor ordinance that includes MW6. An updated plan, including modeling results, is needed before it can be incorporated into your ordinance. (ch. NR810.26(5) and NR811.12(6) Wis. Adm. Code)
7. Department records indicate that not all of your water customers having private wells are permitted under your Private Well Abandonment Program. Permits are required to be issued every 5 years following a negative test result for bacteria and passing an inspection by a licensed pump installer (not a licensed plumber) within the last 10 years. The City was notified of this deficiency in the October 4, 2015 Notice of Noncompliance. (ch. NR810.16 Wis. Adm. Code)
8. The City is not implementing a comprehensive cross-connection inspection program as required under ch. NR810.15 Wis. Adm. Code. The City was notified of this deficiency in an October 4, 2015 Notice of Noncompliance. The following deficiencies are noted:
- ✓ • Failure to have a written description on how the inspection program is administered.
 - ✓ • Failure to inspect all the residential customers every 10 years or during meter replacement, not to exceed 20 years.
 - ✓ • Failure to inspect high-hazard non-residential customers every 2 years.
 - ✓ • Failure to provide adequate oversight of the UW River Falls inspection program. They need to provide the Utility with a list of buildings, their hazard rating and inspection frequency, timely inspection results that will allow for timely enforcement, and end of year inspection summaries for the WDNR annual report.
 - ✓ • Failure to submit annual inspection report summaries on forms provided by the WDNR (missing 2012, 2013, and 2014).
 - ✓ • Failure to include UW River Falls inspection results in previous annual reports.

The following requirements apply:

- Submit a complete description of how you are administering your inspection program including agreements on how it is administered on the UWRF campus. Include inspection frequency, parties completing the inspections and their qualifications and training, how inspection agents are tracking and communicating inspection results to the utility, how you are documenting and tracking inspection results, your stepped enforcement process leading

up to service disconnection, and educational materials you will be mailing to customers every three years on how they can inspect their own kitchen and bathroom areas.

- UWRF must be sending inspection reports to the City so that the City can verify that corrections are made. They need to be sent to the City in a timely manner to allow implementation of the 60 day enforcement policy.
- The City must include UWRF customer list (buildings or services) and inspection results on the annual WDNR reporting form.
- Submit your 2012, 2013, and 2014 annual cross-connection report forms.
- Complete 250 new residential customer inspections annually until all are within the 10 year inspection frequency requirement or within the 20 year meter change-out frequency requirement.
- Inspect all your non-residential customers who have never been inspected and make a hazard rating to establish an inspection frequency. Complete 100 new inspections annually and complete all the non-residential inspections by December 31, 2018. You must make a reasonable attempt to identify which of your customers are higher-hazard units (not-similar to residential) and inspect these units first.
- Complete reinspections at high-hazard non-residential customers every two calendar years. Since you began your inspection program in 2014, those who were determined to be high-hazard will need reinspected next year (2016) to meet the 2-year inspection requirement.

Reinspections shall not be included in the 100 new inspections being completed by General Engineering. Your written plan shall describe who will be completing these inspections, their qualifications, and how results will be reported to the Utility in a timely manner.

- Require customers with un-protected cross-connections to resolve their plumbing violations within 60 days. If you are unable to resolve the deficiency within 60 days, the City needs to exercise its service shutoff privileges.
- Since it was difficult to make a compliance decision on whether inspection frequency requirements were met, please submit a list of all your non-residential customers to the Department and include their inspection frequency, original inspection date, date of reinspection when compliance was achieved. The list needs to be submitted by March 1, 2016. You must include University buildings in the list as well.

Fiscal

There are no fiscal deficiencies at this time but recommendations are provided later in the report.

Recommendations

During the course of the survey, several observations were made that can be considered recommendations. These can be energy, fiscal, O&M, or management related problems that can or will hinder the City in consistently providing safe drinking water to customers. They are usually based on industry standards in the drinking water field. The following recommendations are made:

1. It is recommended that you accelerate your non-residential cross-connection inspections by completing the remaining first time inspections by the end of next year. This will ensure all the higher hazard units can be identified, evaluated, and deficiencies resolved rather than waiting until the end of 2018.
2. It is recommended that you run your entry point sample taps from the manholes outside the well houses, back into the wells to allow for easier monitoring during cold weather.
3. It is recommended that all your sewer lines, within 200' of your wells, meet water main class specifications and AWWA C-600 leak test requirements as is now required by code for newer infrastructure. This would reduce the potential of virus contamination.
4. The Department recommends a rate adjustment. It does not appear that your net operating income will be sufficient to cover expenses given the amount of work that will be needed to address survey deficiencies. The City currently qualifies for a PSC simplified rate adjustment of 3%. This does not require a full rate case and can be completed easily using the PSC's online tool.

Accomplishments

The Department recognizes the City for the amount of hard work that has been done the last three years in updating your water system and improving its operation. Some of these projects were very difficult, as well as complex, but they were needed to safeguard and improve water quality as well as maintain the system's long-term integrity. Accomplishments include:

1. The City began a CCC program last year for identifying dangerous connections to the water system.
2. The City maintains an aggressive well pump servicing program.
3. Golf View reservoir was painted last year.

Capacity Development

As required by Federal law (42 USC 300f to 300j-26), this survey serves as an evaluation of the capabilities of your water system. This is called "Capacity Development" assessment and is essentially a viability analysis. It's a determination of whether you have and can maintain adequate technical, managerial, and fiscal practices to deliver water to your customers that meets Safe Drinking Water Act requirements.

The City has adequate technical, managerial, and financial capacity to provide safe drinking water. While there were a number of violations, they have not risen to the point of affecting capacity yet. The next survey is scheduled for 2018.

CONCLUSION AND RESPONSE

In summary, water quality is good and met drinking water standards. Wells, treatment plants, and reservoirs are in relatively good condition with the exception of paint and corrosion problems at some of the storage units. Underground infrastructure needs work though. Not all the valves are being exercised and there are several dead-end water lines that are not flushed. It should also be mentioned chemical treatment and monitoring is poorly executed. Most of the chemicals exceed allowable holding times,

measurement of chemicals is inaccurate, and sequestering appears unnecessary and not even being done. Improvements are needed in chemical as well as your bacteriological monitoring programs.

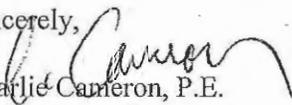
The biggest concern is lack of a comprehensive cross-connection inspection program. The City has failed to inspect the plumbing systems of the majority of your customers. It is likely that there are dangerous cross-connections connected to your water system that are not properly protected. These may be connections to hazardous chemicals, sewer lines, or other wastewater lines of unknown sanitary condition. This poses a risk to your other customers. The City began implementing a program late last year after receiving a Notice of Noncompliance from the Department. Unfortunately, with the inspection schedule you established, it will be years until you are in full compliance.

As required by Federal and State code, unless otherwise noted in the above report or agreed to by the Department, the City has 120 days to address survey deficiencies (February 2, 2016). Please provide a written response within 45 days (November 19, 2015) of receiving the report describing corrective action or proposed action that will be taken to resolve the deficiencies.

I would like to provide a word of appreciation for the help I received from Mr. Greg Koehler and his staff. I could not have completed such a thorough inspection without Greg's help. Following so many recent retirements within the utility, Greg has assumed a lot of responsibility in such a short amount of time. I was pleasantly surprised at just how much Greg knew in order to provide me with the information necessary to make informed compliance decisions. I have no doubt that he will make an excellent superintendent.

I hope you find the above assessment a fair treatment of the issues facing the City as well as providing solid guidance and a framework to move forward. I enjoyed getting to know your staff, community, and look forward to the progress you will be making to improve your water system. Please feel free to contact me with any questions you may have. You may reach me at 608-785-9013 (charles.cameron@wisconsin.gov).

Sincerely,


Charlie Cameron, P.E.
Environmental Engineer

cc: DG Supervisor – WCR
Bureau of Drinking Water/Groundwater - DG/5

APPENDIX

Table A: Certified Operators

Name	License	Expires
JEFFRY CROOK	27250	06/01/2018
DONALD HILL	32677	11/01/2017
GREGORY KOEHLER	32442	11/01/2015

Table 8: Specification of Wells and Pumps

	MW2 (BG681)	MWJ (BG682)	MW4 (BG683)	MWS (IIG684)	M\V6 (NV229)
Location					
Construction Date	1948	1953	1967	1979	2006
Geological Fornation					Kinnickinnic-0 to 20' Platteville -20 to 48' Glenwood -48 to 55' Tonti -55 to 173' Readstown- 173 to 187' Prairie Du Chien – 187 to 415' Jordan ..,415 to 543' St. Lawrence- 543 to 568'
St. Peter	0 to 265'	0 to 255'	Drift 0 to 21'	Soil/Grav 0 to 25'	
Prairie Du Chien	265 to 370'	255 to 379'	21 to 280'	25 to 50'	
Jordan	370' to 401'		280 to 390'	50 to 305'	
St. Lawrence			390 to 415'	305 to 425'	
				425 to 440'	
Borehole (size/depth)	20"-0to90' 12'-90 to 401'	24"-0 to 31' 23"-31 to 377' (concrete plug 379 to 377' in 2002 to stop sand)	24" -0 to 415'	48"- 0 to 14.5' 23"- 14.5 to 440'	24" -0 to 25' 23" -0 to 548' (concrete plug 568 to 548' in 2006)
Casing	20"-0to90' 12"- 0 to 132'	24"- 0 to 31' 16"-0 to 165'	24"-0 to 24' 16"- 2 to 315'	24"- 0 to 18.5' 16"-2 to 313'	24"-0 to 25' 18"-0 to 385'
Screen	None	None	None	None	None
Grout	0 to 132'	0 to 164.5'	0 to 315'	0 to 313'	0 to 385'
Gravel Pack	None	None	None	None	None
Original Static WL	21'	39'	49'	79'	170'
Current Static WL	25.1'	27.9'	52.5'	71.8'	167'
Original Pumping WL	71' @J 100gpm	90' @J 106gpm	147' @J 156gpm	150.9 @J 160gpm	303' @J 1400gpm
Current Pumping WL	44' @J 1081gpm	115' @J 18gpm	91.5' @J 938gpm	213.1' @J 1605gpm	204' @ J 1060gpm
Original Specific Capacity	2 gpm/ft	2.1 gpm/ft	1.6 gpm/ft	1 gpm/ft	10.5 gpm/ft
Current Specific Capacity	57 gpm/ft	8.2 gpm/ft	24 gpm/ft	11.4 gpm/ft	28.6 gpm/ft
Top of Bowls	110'	135'	130'	240'	250'
TDH	280'	280'	280'	280'	
Last Rehab./Reconstmction		1999 airburst			
Distance to Gravity Sewer	100'	60'	120'	50'	>200'
Pump Manufacturer	Gould	Gould	Gould	Peerless	American Marsh
Type	Veitical Turbine	Vertical Turbine	Vertical Turbine	Vertical Turbine	Vertical Tmbine
Age (Installed)	1998	1999	1995	1980	2006
Motor (hp)	100hp US	125hp US	60hp US	200hp Westinghouse	200hp US
Current Pumping Rate(gpm)	1081	718	938	1605	1060
Auxiliary Power	None	Right Angle Drive but no engine/tractor	Natural Gas Genset	Right Angle Drive with Diesel Engine	Diesel Gensel
Latest Inspection	2013 new pipe/bowls	2010, new pipe/bowls	2011	2009	2006

Table C: Specifications of Chemical Feed System

Chlorine		
Chlorination disinfection purposes: 100% gas Cl ₂ , measured gravimetrically		
Well ID	Rotameter Capacity and Make	Rotameter Setting
MW 2	50 lb/day Hydro Instruments Series 300	5#/day
MW 3	50 lb/day Capital Controls Advance 200	9#/day
MW 4	50 lb/day Capital Controls Advance 200	8#/day
MW 5	100 lb/day Capital Controls Advance 200	19#/day
MW 6	50 lb/day Hydro Instruments Series 300	14#/day Siemens Wallace Tiernan V10K for VFD operation

Hydrofluorosilic Acid			
Dental fluoridation purposes: 23% H ₂ F ₆ Si solution which is 19.8% fluoride ion; measured gravimetrically			
Well ID	Solution Container (gal)	Pump Capacity/Make	Pump Setting (% Stroke / Speed)
MW 2	160	24 gpd Pulsatron	46%/38%
MW 3	160	24 gpd Pulsatron	40%/35%
MW 4	160	24 gpd Pulsatron	40%/40%
MW 5	160	24 gpd Pulsatron	34%/30%
MW 6	160	12 gpd Pulsatron, SCADA Controlled	100%/100%

Sodium Hexametaphosphate			
Iron sequestering purposes: 46% Na ₆ P ₆ O ₁₈ solution which is 36% phosphate; measured volumetrically			
Well ID	Solution Container (gal)	Pump Capacity/Make	Pump Setting (Speed)
MW 2	100	24 gpd Pulsatron	38%/40%
MW 3	100	24 gpd Pulsatron	48%/35%
MW 4	100	12 gpd Pulsatron	62%/60%
MW 5	100	12 gpd Pulsatron	64%/70%
MW 6	240	12 gpd Pulsatron, SCADA Controlled	60%/50%

Table D: Summary of Services and Meter Statistics

Service Type	Services			Meters		
	2011	2014	% change	2011	2014	% change
Residential					4054	
Commercial					294	
Industrial					17	
Public Authority					71	
Multi Family					69	
Irrigation					613	
Wholesale					0	
City Use					5	
Total		4034			5123	

Table E: Summary of Water Use Statistics

Year	Population (est. Cap)	Average (gpd)	Maximum (gpd)	Unaccounted (%)	Energy (total kwhr)
2010		1,096,017	2,461,000	6	661,674
2011		1,140,427	2,526,000	7	686,451
2012		1,285,184	2,559,000	12	777,515
2013		1,135,414	2,344,000	6	1,377,242
2014	15,053	1,142,397	2,617,000	11	1,434,373

Table F: Summary of Water Quality Compliance (Bacteriological)

Year	Missed Samples	Wells		Distribution	
		Negative	Positive	Negative	Positive
2015		10		113	
2014		20		181	
2013		20		179	1
2012		18		182	
2011		16		189	
		16		158	

Note: total coliform positives shown above, were fecal or eColi negative.

Table G: Summary of Water Quality Compliance (Chemical and Radiological)

Sample Group	Year	Source ID	Samples Taken	Missed Samples	MCL Violations
2015	FLUORIDE		8	0	0
2014	IOC	5	1	0	0
2014	VOC	2	1	0	0
2014	IOC	2	1	0	0
2014	VOC	6	1	0	0
2014	IOC	3	1	0	0
2014	IOC	4	1	0	0
2014	VOC	3	1	0	0
2014	VOC	4	1	0	0
2014	RAD	4	1	0	0
2014	VOC	5	1	0	0
2014	RAD	5	1	0	0
2014	IOC	6	1	0	0
2014	RAD	6	1	0	0
2014	PBCU		30	0	0
2014	FLUORIDE		12	0	0
2014	DBP		2	0	0
2014	RAD	2	1	0	0
2014	RAD	3	1	0	0
2013	VOC	6	4	0	0
2013	NITRATE	3	1	0	0
2013	RAD	4	4	0	0
2013	NITRATE	4	1	0	0
2013	NITRATE	5	1	0	0
2013	RAD	6	2	0	0
2013	IOC	6	1	0	0
2013	FLUORIDE		12	0	0
2013	DBP		5	0	0
2013	NITRATE	2	1	0	0

DNR Sanitary Survey Response

Dear Mr. Cameron please consider this our 45 day response for our sanitary survey. We have made many corrective actions and proposals to resolve issues at this point. We will list deficiencies corrected, and to be corrected.

Source Water, Pumping Facilities and Treatment

1. Done- Sweep gasket has been adjusted.
2. Done- Water main pillar support has been fixed.
3. Done- Chlorine gas line conduit is sealed.
4. Will be fixing conduit before end of the year.
5. Plumber to be hired for backflow protection before end of year.
6. Done- Re-built wall.
7. Done- air break corrected.
8. Will be removing assembly before end of the year.
9. Done- Rubber mat installed.
10. Meters will be added before the end of the year.
11. Mesh will be installed.
12. Done- automatic shut offs re-installed.
13. Scheduling containers to be cleaned annually.
14. Will address during projects.
15. Chemical lines will be replaced.
16. Done- fittings were tightened.
17. To be discussed with Mr. Cameron.
18. Done- labels are in place.
19. Will adjust and screen vents.
20. Done- We are now on 60 day delivery cycle.
21. Scales are being bid, has to be approved by council.
22. Scales are being bid, has to be approved by council.
23. Scales are being bid, has to be approved by council.
24. Done- outlets labeled.
25. Done- We have re-tested all wells and re-adjusted all phosphate dosages, and are changing our pump settings to pump more consistently in the water column.

Storage

1. 2011 inspection reports will be sent to you, 2014 golf view inspection will also be sent.
2. Done- access vent is screened properly.
3. Will improve air-break during painting.
4. Sycamore tower to be painted.

Distribution System

1. Will submit list before end of the year.
2. Done- City ordinance mandates 8 in. water main minimum, will replace smaller mains during projects.
3. Done- Eliminating dead end water mains by looping, existing will be addressed during city projects.
4. Updated system map will be submitted to you.
5. Done- Flushing dead ends when needed, flushing devices will be installed if needed.
6. Will submit lists by end of year, and discuss projects with DNR for approval.
7. Done- Automatic valve turning machine was purchased, as well as software program for valve information. We have started our exercising program already. We hope to meet our compliance next year.
8. Done- We had an engineering study completed on flows and pressures this year, will submit fire protection flow study.

Monitoring, Reporting, and Data Verification

1. Latest copies are dated 2013 and will be updated with new contact information and submitted.
2. Done- Proper testing is being done, as well as East/GolfView high pressure area.
3. Done- We now complete two fluoride splits each month.
4. Done- Daily fluoride testing done in East high pressure area.
5. Done- Our lab has discussed with you and approved of their testing procedures.
6. Done- Free Chlorine residual testing done daily in Eastern high pressure service area.
7. Done- Standards purchased and accuracy done weekly.
8. Adjusting monitoring sites for better representation.
9. Done- All monitoring addresses are current and correct.
10. Done- All proper addresses will be included with samples.
11. Done- Bacti sampling done weekly.
12. Working with engineering company that did our water study to do a water age study.
13. Will update our water monitoring site list by 2017.

System Management and Operator Compliance

1. Done- Generators are now being exercised under full load monthly.
2. Done- Phosphate is now being reported at 11.6 lbs/gal.
3. Done- Correct chemical percentages are now used on monthly report forms.

4. Done- Another distribution system area was created, total phosphate was added for reporting, and total phosphate testing was added to the main system and high service area.
5. Done- Training of new personnel still in process and cross training personnel is taking place. Training of new personnel should be completed before existing employees retire.
6. Getting updated plan when MW6 was installed. Will update ordinance.
7. Permits are all up to date. Will provide requested documentation.
8. The City has a cross connection program and has been implementing the program for two years, we are preparing a plan to address the deficiencies and document all compliance requirements.

Charlie,

Thank you for your help in the survey and your help with our water department as I am new to this position. Please consider this our 45 day written response to the survey. We will continue our work with the deficiencies you have listed. Feel free to call with any questions with this report.

Sincerely,

Greg Koehler

Lead Operator River Falls Wisconsin



Public Service Commission of Wisconsin

Ellen Nowak, Chairperson
Phil Montgomery, Commissioner
Mike Huebsch, Commissioner

610 North Whitney Way
P.O. Box 7854
Madison, WI 53707-7854

December 16, 2015-VIA EMAIL

Ms. Julie Bergstrom
River Falls Municipal Utility
222 Lewis St.
River Falls, WI 54022
Email:jbergstrom@rfcity.org

Re: Application of River Falls Municipal Utility, Pierce and St. Croix Counties, Wisconsin, for Authority to Increase Water Rates 5110-WR-104

Dear Ms. Bergstrom:

Enclosed is a copy of the Public Service Commission staff's (staff) revised proposed 2015 test year Revenue Requirement Exhibit (exhibit) to be presented at the hearing for the River Falls Municipal Utility (utility). Denise Schmidt, Policy Initiatives Advisor, will soon be performing a cost of service study and proposed rate design. A copy of that exhibit will be sent separately when completed. Therefore, please review the enclosed exhibit since it will be the basis for the cost of service study.

This revised exhibit increases operations and maintenance expenses by \$136,332 from the amount in my November 10, 2015, proposal. The increase allows for the addition of two utility staff plus associated benefits and social security taxes. Commission staff believes this addition is reasonable, as the historical level of staffing would not allow the Utility to address items identified in the Department of Natural Resources' October 5, 2015 Sanitary Survey Report. These items were identified after the utility submitted its original application.

The utility's November 5, 2015 response in this proceeding had indicated that the utility was not in agreement with the exclusion of Well #6 costs from rate base. Staff has reviewed this issue and provides the following further analysis that supports the exclusion of Well #6 costs from rate base.

1. Commission accounting requires the full cost of contributed plant to be recorded to Account 101.2, regardless of the timing of the collection of contributions.

The accounting requirements associated with Well #6 have been clear since initially discussed. The Commission issued its order in docket 05-US-105 in March 2001 concerning accounting for Contributions In Aid of Construction (CIAC). The Uniform System of Accounts (USOA) contains the following description for Account 101.2, Utility Plant, contributed:

“This account shall include plant, owned and used by the utility in its utility operations... which is or will be financed by donations or contributions in cash, services, or property from states, other municipalities or other governmental agencies, individuals, and others for construction purposes.”

The order in docket 05-US-105 included specific examples showing that depreciation expense on plant recorded to Account 101.2 will not be included in revenue requirement. Many entities sought to have the Commission reconsider this decision. In June 2001, the Commission denied rehearing of its decision. Since then, regardless of the timing as to when payments would be received, if plant will be paid for by an entity other than the utility, that plant is recorded to Account 101.2 at the time the plant is placed in service.

The Commission has reaffirmed this decision over the years. It was brought up most recently in a January 2008 Order in docket 05-US-117 in which the Commission consolidated multiple changes that had been made to the USOA over the years. The Order re-stated the Commission’s requirement regarding the recording of plant to Account 101.2, Utility Plant, Contributed: “One of the filed comments related to the Commission’s CIAC decision. The commenter questioned the Commission’s long-held practice of recording the total cost of plant contributed or to be contributed as CIAC at the time the asset is placed in service.” In response to this comment, the Commission reiterated its requirement that “utilities record the full cost of a contributed asset upfront as CIAC as it is placed in service.”

Contrary to your letter dated July 31, 2015, the Commission is not determining what costs in the current docket should be collected through impact fees. That decision was made by the City of River Falls when it adopted its impact fee ordinance in 2002. At that time, Wis. Stat. § 66.0617 required a municipality to inventory its existing public facilities and determine whether there were any existing deficiencies. It required the municipality to list the new public facilities that would be paid for with the impact fees to be adopted. The City’s supporting impact fee study identified that a new well site would be acquired in 2005 at an estimated cost of \$70,000, and a new well would be constructed in 2015 at an estimated cost of \$550,000. The City used these estimated costs to develop its impact fee calculation. Therefore, any well that was identified in the impact fee study and constructed after 2002 was required to be recorded to Account 101.2, as the municipality had identified that these facilities would be paid for by others through impact fees. Consistent with this schedule outlined in its impact fee study, in 2005, the utility notified the Commission of its intent to acquire land for its next well in docket 5110-CW-104, and the well was placed in service in 2013 and recorded to Account 101.2, Utility Plant-Contributed, as required by the Commission.

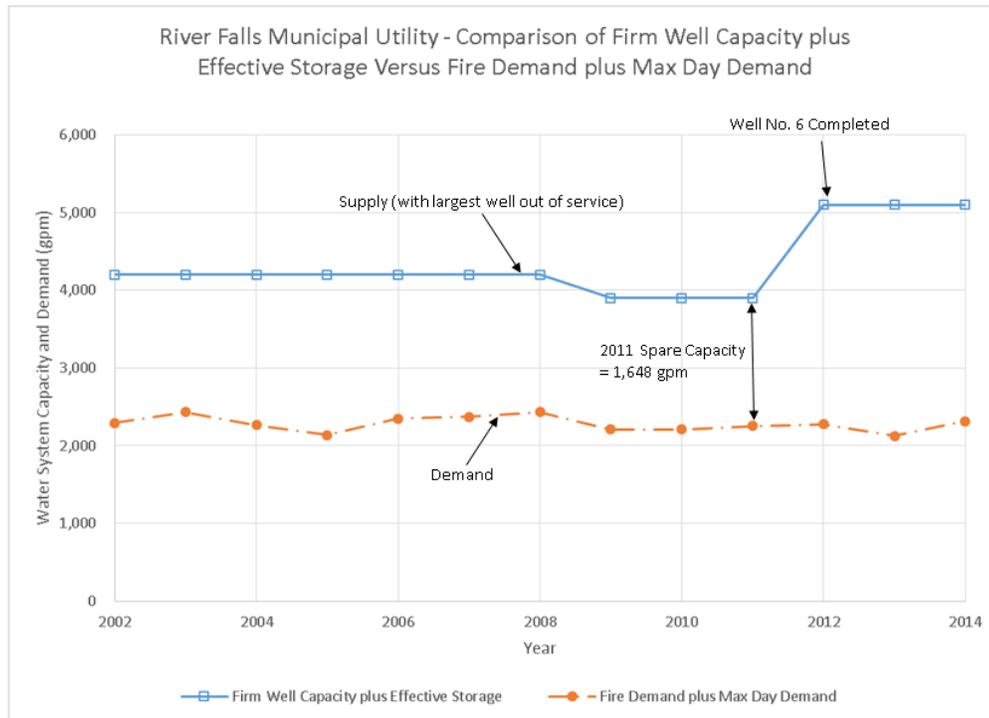
History shows that up through 2013, the utility fully anticipated this well would be paid for by impact fees and fully understood the required accounting. The decision to finance Well #6 using impact fees was made by the City of River Falls, not the Commission. The fact that impact fees now being collected are not fully paying for all the debt service does not change the required

accounting. The total cost of this plant is required to be recorded as contributed plant at the time the plant was placed in service, regardless of the timing of the collection of the impact fees.

2. Well #6 does not address any existing deficiencies in the water system.

Commission engineering staff reviewed whether any deficiency existed at the time the impact fees were adopted. Based on this review, Commission staff concludes that Well #6 did not address any major deficiencies in the River Falls water system either at present or when impact fees were adopted in 2002. It is reasonable to attribute the need for Well #6 to growth customers. The reasons are as follows:

- In 2002, the municipality first began collecting impact fees for Well #6. At that time, the engineering reports, “2002 Public Facilities Needs Assessment” ([PSC REF#: 275619](#)) and “2004 Public Facilities Needs Assessment” ([PSC REF#: 275620](#)) both stated, “There are no existing deficiencies in the City of River Falls water system.”
- Similarly, the “2007 Comprehensive Water Study Plan” ([PSC REF#: 275622](#)) stated that Well #6 was needed for new development. The report also stated that Well #6 would provide supply to the River Falls Golf Club once the golf club’s private well reached its design life and the golf club connected to the public water system. The future connection of the golf club does not represent a deficiency with the River Falls community water system. In fact, when the golf club does connect to the public water system, that customer will be considered new development and will require the payment of impact fees.
- The “2009 Report on Water Impact Fees” ([PSC REF#: 275639](#)) stated that the facilities listed were not needed to cure existing deficiencies.
- Commission staff performed a spare capacity analysis of the River Falls water system. The graph below shows that the community’s fire demand plus max day demand remain relatively stable from 2002 to 2014, while the community water supply (with the largest well out of service) provides 1,648 gpm of excess capacity before Well No. 6 comes on line. This data indicates that when the River Falls water system is viewed in its entirety, it has significant spare capacity (even with the largest well out of service) to meet existing demand. Therefore, it is Commission staff’s opinion that Well #6 does not address any major deficiencies in the River Falls water system. All data used to produce the graph shown below is found in PSC annual reports.



3. The location of Well #6 and how its water is used in the system is irrelevant.

It has been pointed out that pressure reducing valves allow the water from the Eastern High Pressure Zone (where Well #6 is located) and the Golf View Zone to support the Main Pressure Zone. However, it does not matter where the water from Well #6 will be used. All new customers, both infill and those located in new developments, are considered to be “growth” customers and thus pay the impact fee. The River Falls impact fee ordinance defines land development as follows, “the construction or modification or improvements to real property that creates additional residential dwelling units within the city or that results in nonresidential uses that create a need for new, expanded or improved public facilities within the city.” Based on this definition, the “growth” customers that pay the water impact fee can be located within the main pressure zone or within the new pressure zones. The same impact fee applies to all new water services. The 2005 Comprehensive Plan for the City of River Falls identified the potential for a significant amount of infill development. The impact fees are paid upon issuance of a building permit¹ for all building permits, regardless of where the construction takes place. Therefore, growth customers served by Well #6 are located throughout the utility’s service territory.

¹ There was a short transition period from the previous Reserve Availability Charge.

4. Any claim that all Public Facilities Needs Assessments prior to the 2014 study were in violation of the impact fee statute is unsubstantiated.

The 2002 to 2009 Public Facilities Needs Assessments were subject to public hearings prior to the adoption and modifications to the impact fee ordinances. During those hearings, nobody made any challenge to those Needs Assessments. In particular, nobody since 2002 has made any claim that the utility would need to increase its level of service to existing customers. The 2014 Impact Fee Study ([PSC REF#: 275640](#)) claims that 55 percent of the capacity of Well #6 is now needed to increase the level of service to existing customers. This claim is unsubstantiated. No significant events have occurred between 2002 and 2014 to change the assessment of existing customers' needs. The prior Needs Assessments remain unchallenged. In addition, the governing body responsible for enforcing impact fee requirements has not been called upon to make any determination regarding the validity of these prior Needs Assessments. It is reasonable for the Commission to continue to rely on the 2002 to 2009 Public Facilities Needs Assessments.

The 2014 Impact Fee Study states that, in addition to the recently constructed Well #6, an additional, future Well #7 is to be considered as a new source of supply in the planning period through 2045. The 2014 Impact Fee Study projects that 2,240 Residential Equivalent Units (REUs) are expected to pay water impact fees through the planning period ending in 2045. While there are many alternative methods to evaluate whether or not a water system has spare capacity, the 2014 Impact Fee Study concludes that it will only require 45 percent of the combined capacity of Well #6 and Well #7 to serve the future 2,240 REUs that are expected to hook up to the water system in the planning period at the utility's existing level of service. However, the information included in the 2014 study is not sufficient to conclude that 55 percent of the cost of Well #6 should be assigned to current customers. Indeed, if growth is limited to the expected 2,240 REUs, Well #7 may not need to be built at all during the planning period. Alternatively, Well #7 may not need to be built until later than the 2045 planning period in order to provide capacity to serve future. Such uncertainty is characteristic of a long planning horizon such as the one included in the 2014 Impact Fee Study.

5. The Commission is required to set just, reasonable water rates that are not unduly discriminatory.

One can appreciate that there is a benefit to the use of impact fees. When a municipality decides to use impact fees, it effectively increases the portion of the water system that is paid for up front by new customers. This practice has the benefit of keeping water rates lower, as less of the water system costs are recovered in water rates. When this fee assessment is applied consistently, it also provides for non-discriminatory rates. However, it also requires that the municipality assume responsibility for establishing just and reasonable charges for the impact fees. When a municipality decides to adopt impact fees, it effectively takes on rate making responsibility for that portion of the water system developed using those fees. As such, a utility needs to ensure that its impact fee studies are accurate, that impact fees are recovered in the manner consistent with that identified in the impact fee studies, and that the studies are updated to accommodate changes in costs.

The Commission is charged with establishing just, reasonable, and nondiscriminatory rates. It could be discriminatory to have one group of customers pay for a portion of the water system up front through impact fees and then later to change the method of recovery for certain facilities. Using the example of wells, it is potentially discriminatory if all customers were paying up front for the cost of wells and then a change was made such that those same customers were charged through utility rates for the cost of another set of new customers' wells. So it is reasonable for the Commission to look for consistency in the application of impact fees.

Your letter dated July 31, 2015, brought up a unique circumstance related to the Racine Water Utility (Racine) as support for reclassifying Well #6 from contributed plant to rate base. However, the situation Racine faced is inapposite to the current request related to Well #6. Unlike the current situation, Racine unexpectedly became a wholesale service provider rather than a retail service provider to an area it had intended to assess impact fees. No such exceptional or unusual circumstances have been described in this case to justify reclassification of Well #6.

6. The Commission considers cash flow needs in the context of its Rate of Return analysis.

The utility has expressed concern that it will need to make annual debt service payments of approximately \$155,000. The utility estimates that this debt service amount is associated with plant that is not currently included in rate base. The utility expects to collect approximately \$90,000 in impact fees annually; therefore, the utility anticipates that utility revenues will need to be used to supplement impact fee collections in order to make these debt service payments.

In cases where debt service coverage falls below parameters that are considered necessary to maintain the financial integrity of the utility, the Commission has allowed higher rates of return on rate base. I have reviewed the financial parameters of this utility. The deficit that needs to be covered is relatively small compared to the overall financial capacity of the utility. As of December 31, 2014, the combined utility held \$4,296,256 in special funds, as well as \$3,476,818 in cash and temporary cash investments. For the 2015 test year, I forecast rate base to be \$3,885,711, and a 5.25 percent return on rate base will provide an annual net operating income of \$204,000. Combined with the cash generated through annual depreciation expense of \$137,515, and impact fee recovery of \$90,000 per year, the water utility will generate cash flow of \$431,515. There is no debt other than that associated with the \$155,000 debt service. Accordingly, the temporary deficit associated with Well #6 that the utility is experiencing does not appear to adversely affect the financial integrity of the utility. While for this single facility a temporary cash flow deficit may exist, there does not appear to be any uncertainty as to whether the costs of the well can eventually be fully recovered over the life of Well #6 as new customers are added and pay impact fees through the impact fee planning horizon of 2045. The Commission does not make rate of return adjustments under these circumstances.

Summary

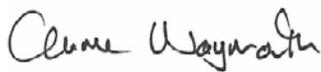
Ms. Julie Bergstrom
Docket 5110-WR-104
Page 7

If the treatment of Well #6 continues to be a concern for the utility, please identify the further steps the utility requests for addressing this issue within the current proceeding. Please be aware there will be additional costs to the utility and delays in implementing a rate increase should the utility decide to pursue a full contested case on the issue of whether 55 percent of Well #6 should be included in rate base. Contested cases often result in a utility incurring substantial legal and consulting costs associated with preparing for the pre-hearing conference, submittal of direct testimony and rebuttal testimony, hearing with cross examination, and drafting of a brief. In addition to the utility's direct cost just described, the utility will be directly assessed for additional Commission staff expenses associated with the contested case. There will also be an extra length of time needed to process a contested case. This process may take an additional six months to complete.

After reviewing the revised exhibit, please confirm by Electronic Regulatory Filing (ERF) that the utility is in agreement with staff's revised revenue requirement proposal as set forth in the enclosed exhibit by December 30, 2015. Please identify the document type in ERF as "Exhibit Offered." If the utility is not in agreement with any individual component(s), please detail this in your reply. We ask that you consider the history of Commission decisions regarding contributed plant accounting practices as well as the additional costs associated with a contested case in arriving at your decisions regarding various components of staff's revenue requirement proposal.

If you have any questions regarding the above, please contact me at (608) 267-0913 or by e-mail at anne.waymouth@wisconsin.gov. If you have any questions regarding the status of your rate case, please contact Denise Schmidt at (608) 266-1282 or by e-mail at denise.schmidt@wisconsin.gov.

Sincerely,



Anne Waymouth
Public Utility Auditor-Advanced
Division of Water, Telecommunications and Consumer Affairs

AWW:DL:01276123

1. December Revised Revenue Requirement Exhibit

cc: Christine Cramer
ccramer@trilogy-llc.com

Exhibit No. _____

Docket No. 5110-WR-104

Witness: Anne Waymouth

RIVER FALLS MUNICIPAL UTILITY
5110-WR-104

Revised Estimated 2015 Operating Income Statement

Net Investment Rate Base

and Revised 2015 Estimated Revenue Requirement

Public Service Commission of Wisconsin

Division of Water, Telecommunications, and Consumer Affairs

RIVER FALLS MUNICIPAL UTILITY
5110-WR-104

Estimated Operating Income Statement
and Net Investment Rate Base
2015 Test Year

	Utility Estimate	Adjustments		Staff Estimate
		No.	Amount	
Total Operating Revenues:	\$1,565,037	1	(\$15,880)	\$1,549,157
Operating Expenses:				
Source of Supply	\$0		\$0	\$0
Pumping	138,501	2	\$21,400	159,901
Water Treatment	75,364	3	16,400	91,764
Transmission and Distribution	362,636	4	35,877	398,513
Customer Accounts	81,055	5a	2,000	83,055
Sales	2,000	5b	(2,000)	0
Administrative and General	255,834	6	99,331	355,165
Total Operation & Maintenance Expenses	\$915,390		\$173,008	\$1,088,398
Depreciation	173,249	7	(35,734)	137,515
Amortization	0		0	0
Taxes	322,266	8	6,273	328,539
Total Operating Expenses	\$1,410,905		\$143,547	\$1,554,452
Net Operating Income (Loss)	\$154,132		(\$159,427)	-\$5,295
Net Investment Rate Base:				
Utility Plant in Service	\$7,906,300	9a	(\$962,781)	\$6,943,519
Less:				
Accumulated Provision for Depreciation	2,901,694	9b	(78,456)	2,823,238
Net Plant in Service	\$5,004,606		(\$884,325)	\$4,120,281
Add: Materials and Supplies	15,144		0	15,144
Less: Regulatory Liability - pre-2003 Depreciation on Contributed Plant	249,715		0	249,714
Net Investment Rate Base	\$4,770,035		(\$884,325)	\$3,885,711
Rate of Return	3.23%			-0.14%

RIVER FALLS MUNICIPAL UTILITY
5110-WR-104

Estimated Operating Income Statement
Average Net Investment Rate Base and
Revenue Requirement to Yield the Proposed Rate of Return
2015 Test Year

	Staff Estimate	Increase Required	Proposed Rate Level
Total Operating Revenues:	\$1,549,157	\$209,294	\$1,758,451
Operating Expenses:			
Source of Supply	\$0		\$0
Pumping	159,901		159,901
Water Treatment	91,764		91,764
Transmission and Distribution	398,513		398,513
Customer Accounts	83,055		83,055
Sales	0		0
Administrative and General	355,165		355,165
Total Operation & Maintenance Expenses	\$1,088,398		\$1,088,398
Depreciation	137,515		137,515
Amortization	0		0
Taxes	328,539		328,539
Total Operating Expenses	\$1,554,452		\$1,554,452
Net Operating Income (Loss)	-\$5,295		\$204,000
Net Investment Rate Base:			
Utility Plant in Service	\$6,943,519		\$6,943,519
Less:			
Accumulated Provision for Depreciation	2,823,238		2,823,238
Net Plant in Service	\$4,120,281		\$4,120,281
Add: Materials and Supplies	15,144		15,144
Less: Regulatory Liability - pre-2003 Depreciation on Contributed Plant	249,714		249,714
Net Investment Rate Base	\$3,885,711		\$3,885,711
Rate of Return	-0.14%		5.25%

RIVER FALLS MUNICIPAL UTILITY
5110-WR-104

Estimated Operating Revenues
2015 Test Year

	Utility Estimate	Adjustments		Staff Estimate
		No.	Amount	
Unmetered Sales to General Customers	\$2,000		0	\$2,000
Metered Sales to General Customers:				
Residential	499,339	1a	(9,045)	490,294
Multi-family Residential	56,549	1b	(6,835)	49,714
Commercial	105,135		0	105,135
Industrial	14,420		0	14,420
Public Authority	83,656		0	83,656
Irrigation	177,589		0	177,589
	<u>936,688</u>		<u>(15,880)</u>	<u>920,808</u>
Total Metered Sales	\$936,688		(\$15,880)	\$920,808
Private Fire Protection	51,804		0	51,804
Public Fire Protection	424,068		0	424,068
Sales for Resale	0		0	0
Interdepartmental	<u>0</u>		<u>0</u>	<u>0</u>
Total Water Sales	\$1,414,560		(\$15,880)	\$1,398,680
Forfeited Discounts	4,911		0	4,911
Rents of Water Property	100,292		0	100,292
Interdepartmental Rents	0		0	0
Other Water Revenues	<u>45,274</u>		<u>0</u>	<u>45,274</u>
Total Operating Revenues	<u>\$1,565,037</u>		<u>(\$15,880)</u>	<u>\$1,549,157</u>

RIVER FALLS MUNICIPAL UTILITY
5110-WR-104

Explanation of Staff Adjustments in Schedules 1 and 3

Particulars	Amount
<u>Adjustment No. 1</u>	
To adjust the utility's estimated operating revenues to the 2015 PSC estimate as follows:	(\$15,880)
a. To decrease Residential revenues based upon:	
- the utility estimated demand suppression due to conservation rates	
- the utility estimated average customer count of 4,068	
- estimated volume of 166,832 mgals	
- utility's estimated distribution by rate block	(\$9,045)
b. To decrease Multifamily revenues based upon:	
- to revise a formula error in the water rate increase application	
- the utility estimated average customer count of 69	
- estimated volume of 30,008 mgals	<u>(6,835)</u>
Total Decrease	<u><u>(\$15,881)</u></u>
<u>Adjustment No. 2</u>	
To increase the utility's estimated Power Purchased for Pumping to the 2015 PSC estimate based on the 2015 estimated sales of water, a two year average ratio of sales to pumpage, a two year average ratio of gallons pumped per kwh, and estimated cost per kWh at the 2015 level. The most recent two years includes the pumpage patterns with Well #6 in service.	\$21,400
<u>Adjustment No. 3</u>	
To increase the utility's estimated Water Treatment Expenses of \$75,364 to the 2015 PSC estimate of \$91,764 based on the following:	\$16,400
a. To increase the utility's estimate for Account 642, Operations Labor and Expenses by \$16,400 to more fully fund staffing costs.	
<p>An increase was made to staffing costs as the Department of Natural Resources issued a Sanitary Survey Report on October 5, 2015, that enumerated a number of areas where the historical level of staffing would not be a reasonable basis for determining the future level of staffing that will be needed. The following additions were made to Operations and Maintenance Expenses to increase funding for staffing by two additional positions.</p>	

RIVER FALLS MUNICIPAL UTILITY
5110-WR-104

Explanation of Staff Adjustments in Schedules 1 and 3

Particulars	Amount
<u>Adjustment No. 3 continued</u>	
Account 624 Pumping Labor and Expenses	\$16,400
Account 642 Treatment Labor and Expenses	\$16,400
Account 660 Operation Supervision and Engineering	\$8,200
Account 670 Maintenance Supervision and Engineering	\$16,400
Account 673 Maintenance of Mains	\$16,400
Account 677 Maintenance of Hydrants	\$8,200
Account 926 Pensions and Benefits	\$48,058
Account 408 Taxes	<u>\$6,273</u>
Total staffing increases	\$136,331
<u>Adjustment No. 4</u>	
To increase the utility's estimated Transmission and Distribution Expenses of \$362,636 to the 2015 PSC estimate of \$398,513 based on the following:	\$35,877
a. To increase the utility's estimate for Account 664, Customer Installation Expenses of \$15,640 to the 2015 PSC estimate of \$22,443 based on more update information about the five year cost of cross connection expenses.	\$6,839
b. To decrease the utility's estimate for Account 673, Maintenance of Transmission and Distribution Mains, of \$45,093 to the 2015 PSC estimate of \$39,500 based on the 2012 to 2014 inflated average which smoothes the fluctuations due to the varying number of main breaks that occur each year.	(\$5,593)
c. To decrease the utility's estimate for Account 675, Maintenance of Services, of \$47,569 to the 2015 PSC estimate of \$33,000 based on the following:	
- \$26,000 which is the 2012 to 2014 inflated average of normal expenses which smoothes the yearly fluctuations in repair activity	
- three year normalization of extreme weather costs of \$21,000.	(\$14,569)
d. To increase the utility's estimate for labor costs as described in Adjustment 3 as follows:	
Account 660 Operation Supervision and Engineering	\$8,200
Account 670 Maintenance Supervision and Engineering	\$16,400
Account 673 Maintenance of Mains	\$16,400
Account 677 Maintenance of Hydrants	<u>\$8,200</u>
Total	<u>\$49,200</u>
Total Increase	<u><u>\$35,877</u></u>

RIVER FALLS MUNICIPAL UTILITY
5110-WR-104

Explanation of Staff Adjustments in Schedules 1 and 3

Particulars	Amount
<u>Adjustment No. 5a and 5b</u>	
To reclassify \$2,000 of annual costs to provide information from Sales to Customer Accounts.	\$0
<u>Adjustment No. 6</u>	
To adjust the utility's estimated Administrative and General Expenses of \$235,834 to the 2015 PSC estimate of \$355,165 based on the following:	\$99,331
<ul style="list-style-type: none"> a. To decrease the utility's combined estimate for Outside Service and Regulatory Commission Expense of \$20,103 to the 2015 PSC estimate of \$16,000 based on the 2011 to 2013 inflated average which smoothes the fluctuations due to the frequency of filing water rate increase applications. 	(\$4,103)
<ul style="list-style-type: none"> b. To increase the utility's estimate for Account 926, Employee Pensions and Benefits, of \$128,284 to the 2015 PSC estimate of \$157,058 based on the following: <ul style="list-style-type: none"> - total O&M payroll of \$366,647 which is a \$25,000 increase over 2014 actual total O&M payroll of \$341,647 - WRS rate of 6.8 percent - total insurances rate of 23 percent. - increase of \$48,058 for pension and benefits for new positions as described in Adjustment 3 above. 	\$28,774
<ul style="list-style-type: none"> c. To increase the utility's estimate for Account 930, Miscellaneous General Expenses, of \$8,980 to the 2015 PSC estimate of \$83,640 to include shared cost allocations. 	<u>\$74,660</u>
Total Increase	<u><u>\$99,331</u></u>
<u>Adjustment No. 7</u>	
To decrease the utility's estimated Depreciation Expense to the 2015 PSC estimate based upon the items noted below.	(\$35,734)
<ul style="list-style-type: none"> - estimated Utility Financed Plant in Service balances for the test year - proposed depreciation rates per Schedule 5 - an allocation of a portion of depreciation on meters to the sewer department - discontinue depreciation on fully depreciated accounts. 	
<p>The primary reason for the adjustment is the adjustments to Utility Financed Plant in Service below that do not allow the reclassification of 55 percent of Well #6 costs.</p>	

RIVER FALLS MUNICIPAL UTILITY
5110-WR-104

Explanation of Staff Adjustments in Schedules 1 and 3

Particulars	Amount
<u>Adjustment No. 8</u>	
To increase the utility's estimated Taxes Expense to the 2015 PSC estimate which includes additional social security taxes for the two new staff described in Adjustment 3.	6,273
<u>Adjustment No. 9</u>	
To adjust the utility's estimated Net Investment Rate Base to the 2015 PSC estimate as follows:	(\$884,325)
<ul style="list-style-type: none"> a. To decrease Plant in Service to the 2015 PSC estimate based upon 2014 and 2015 plant additions and retirements. This adjustment is due to removing the adjustment on Attachment 11a of the Water Rate Increase Application which sought to reclassify 55 percent of Well #6 costs to rate base. 	(\$962,781)
<ul style="list-style-type: none"> b. To increase the utility's estimated Net Investment Rate Base to the 2015 PSC estimate by decreasing Accumulated Provision for Depreciation based upon: <ul style="list-style-type: none"> - actual 2014 accumulated depreciation which includes adjustments related to completed construction not classified - estimated 2015 depreciation accruals using authorized rates - estimated retirements in 2015 - estimated 2015 salvage and cost of removal. 	<u>78,456</u>
Total Decrease	<u><u>(\$884,325)</u></u>

RIVER FALLS MUNICIPAL UTILITY

**Schedule of Depreciation Rates
Effective January 1, 2015**

Account Number	SOURCE OF SUPPLY	Depreciation Rate
314	Wells and springs	0.0%
	PUMPING PLANT	
321	Structures and improvements	3.2%
325	Electric pumping equipment	0.0%
326	Diesel pumping equipment	0.0%
	WATER TREATMENT PLANT	
334	Other Water Treatment Equipment	0.0%
	TRANSMISSION AND DISTRIBUTION PLANT	
341	Structures and improvements	3.2%
342	Distribution reservoirs and standpipes	1.9%
343	Transmission and distribution mains	1.3%
345	Services	2.9%
346	Meters	5.5%
348	Hydrants	2.2%
349	Other transmission and distr. plant	5.0%
	GENERAL PLANT	
390	Structures and improvements	2.9%
391	Office furniture and equipment	5.8%
391.1	Office furniture & equip - Computers	26.7%
392	Transportation equipment	13.3%
394	Tools, shop and garage equipment	5.8%
395	Laboratory equipment	5.8%
396	Power operated equipment	7.5%
397	Communication equipment	15.0%
397.1	SCADA equipment	9.2%



PROFESSIONAL SERVICES

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Memo

To: Utility Advisory Board
From: Mark Lundgren, MSA Professional Services
Subject: January 18th, 2016 UAB Meeting Update on Wastewater Biosolids Facility Project
Date: January 12, 2016

To Whom It May Concern,

MSA Professional Services is in the process of soliciting bids from eligible contractors for the River Falls Wastewater Biosolids Facility Project. The project includes the following major upgrades, with a focus on improving the biosolids handling of the current facility:

1. **Biosolids storage:** The project includes construction of a new solids handling building with covered below-grade tankage for biosolids and centrate, and a high efficiency jet aeration/mixing system.
2. **Biosolids Equipment Safety and Ease of Operation:** The project will relocate the existing dissolved air floatation solids thickening unit to the new solids handling building and construct a walkway around the work area, and include proper ceiling height, lighting and ventilation in the room where the tank will sit. A new jet aeration system will eliminate the existing floating aerators in current biosolids storage tank.
3. **Scum Handling:** The project will install a new scum manhole with new scum piping and a relocated scum pump in the new solids handling building. This upgrade will eliminate the current scum piping which clogs frequently.
4. **Final Clarifier Use:** The project will separate the existing sludge discharge pipes from the existing clarifiers and relocate the pumping functions to the new solids building allowing the clarifiers to be used in tandem.

The engineer's opinion of probably cost for these upgrades is a construction cost of \$3.55 million dollars before contingency. A 15% contingency fund would put the total construction cost at \$4.09 million dollars. The estimate that was presented at the UAB meeting on 9.21.15

Offices in Illinois, Iowa, Minnesota, and Wisconsin

60 Plato Blvd. East, Suite 140, St. Paul, MN 55107-1835

(612) 548-3132 (866) 452-9454

FAX: (763) 786-4574 WEB ADDRESS: www.msa-ps.com

MEMO

January 12, 2016

was \$3.53 million dollars before contingency and \$4.05 million dollars with a 15% contingency fund.

While the bidding climate seems to be active this winter, we have received significant interest in the project from numerous contractors. The level of interest from contractors in competitively bidding projects has improved since last year and we believe the City is in a good position to get a competitive price on this project. The bid opening for this project will occur on February 9th, with a recommendation to the UAB occurring during the February 15th UAB meeting.

Mark Lundgren
Engineer

WASTEWATER BIOSOLIDS FACILITY Project Update

CITY OF RIVER FALLS
UTILITY ADVISORY BOARD MEETING

JANUARY 18, 2016

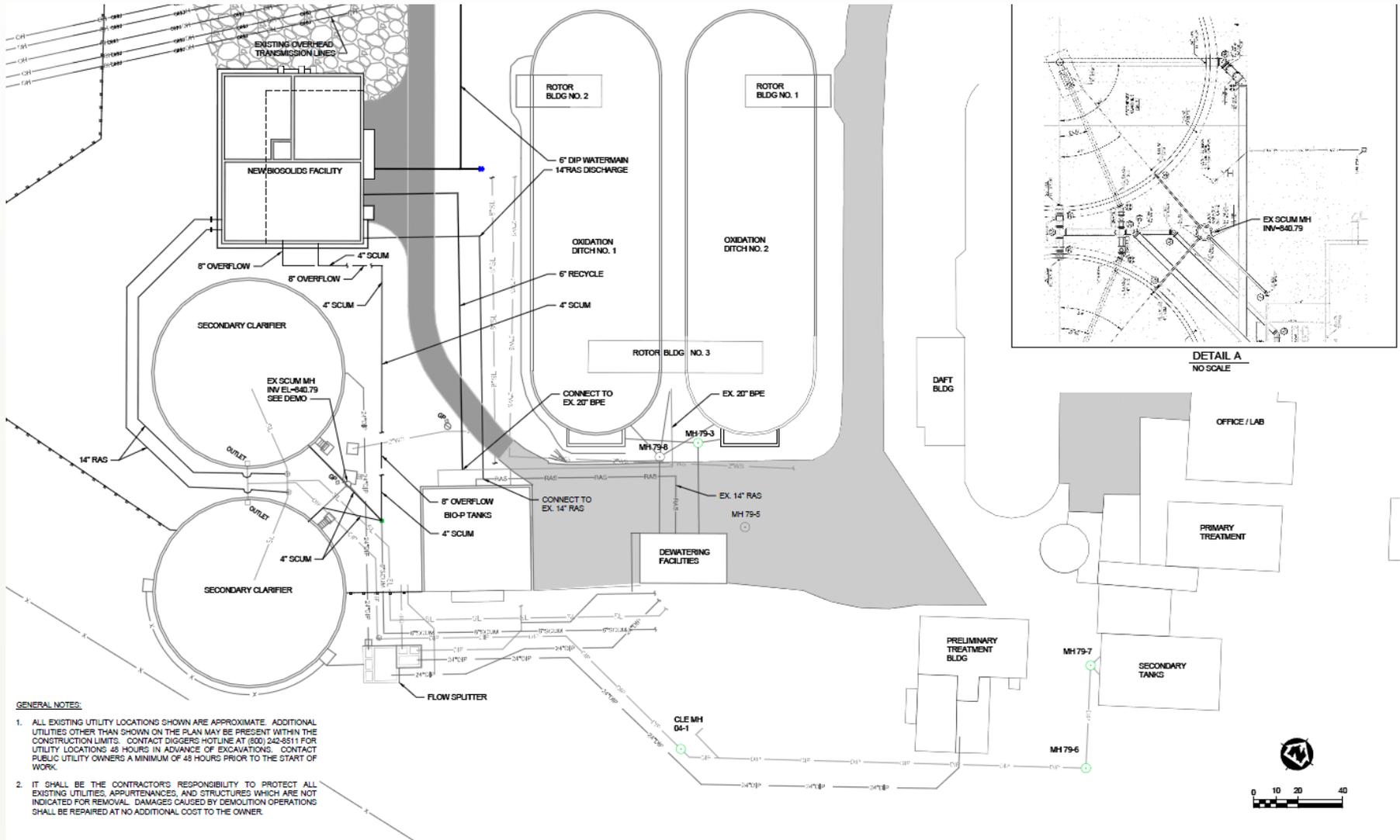
The logo for MSA Professional Services, featuring the letters 'MSA' in a large, bold, red, italicized sans-serif font.

PROFESSIONAL SERVICES

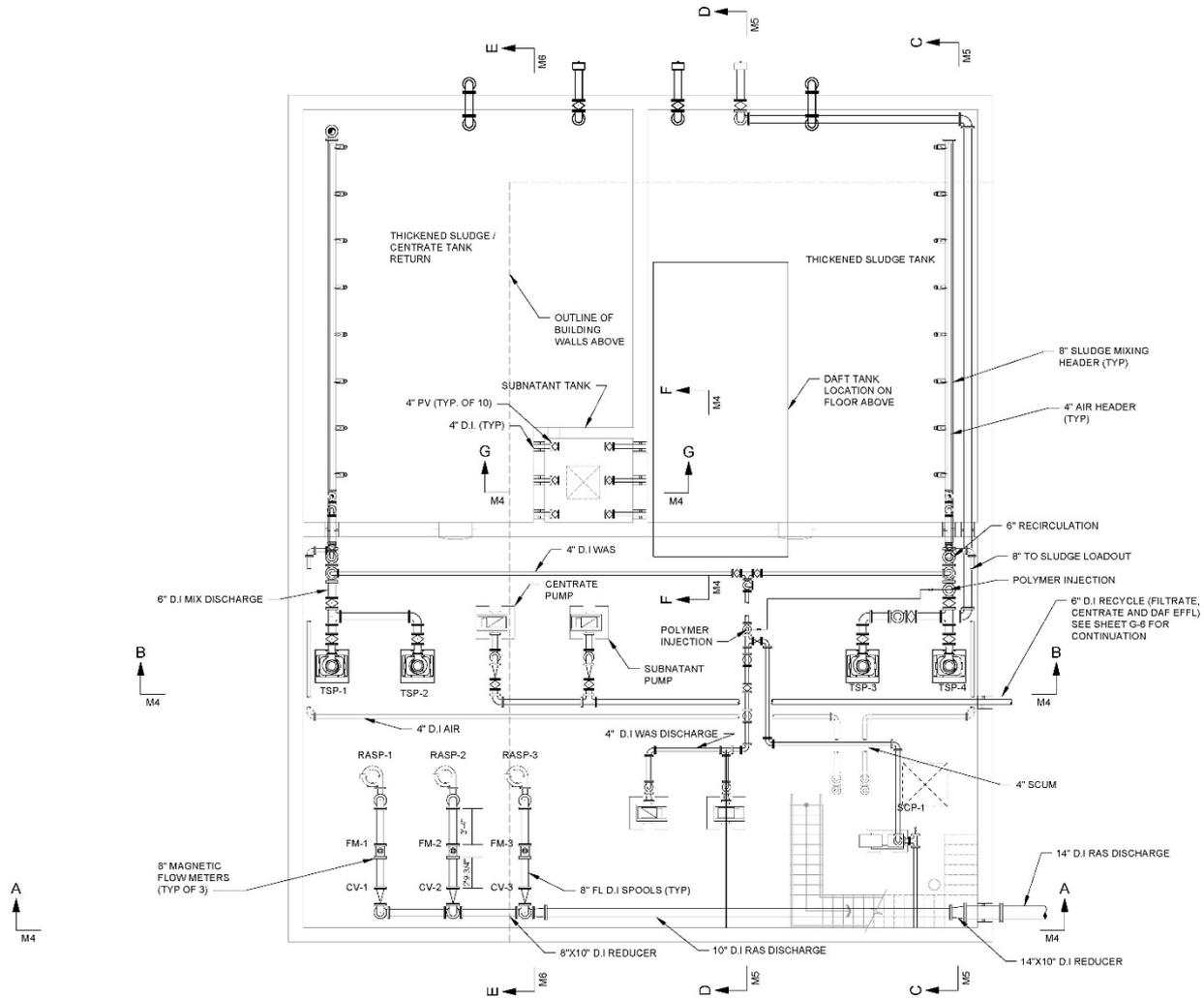
PROJECT OVERVIEW

ITEM	PROBLEM	SOLUTION
Biosolids Storage	Uncovered tanks results in trucking rainwater; poor aeration/mixing and wasted power; inadequate volume	Solids Handling Building with covered below-grade tankage for biosolids and centrate, and high efficiency jet aeration/mixing
Biosolids Equipment Safety and Ease of Operation	Difficult access to equipment; potential unsafe working conditions for dissolved air flotation thickener (DAFT) and biosolids storage tank aerators	DAFT unit relocated to new Solids Handling Building with walkway around work area, proper ceiling height, lighting and ventilation; jet aeration eliminates floating aerators in biosolids storage tank
Scum Handling	Frequent clogging due to poor piping design	New scum piping, with relocated scum pump in Solids Handling Building discharging to DAFT
Final Clarifier Use	Clarifiers cannot be used concurrently due to common sludge discharge pipe	Separate sludge discharge pipes, to relocated return activated sludge pumps located in Solids Handling Building

SITE PLAN



SOLIDS HANDLING BUILDING – LOWER LEVEL

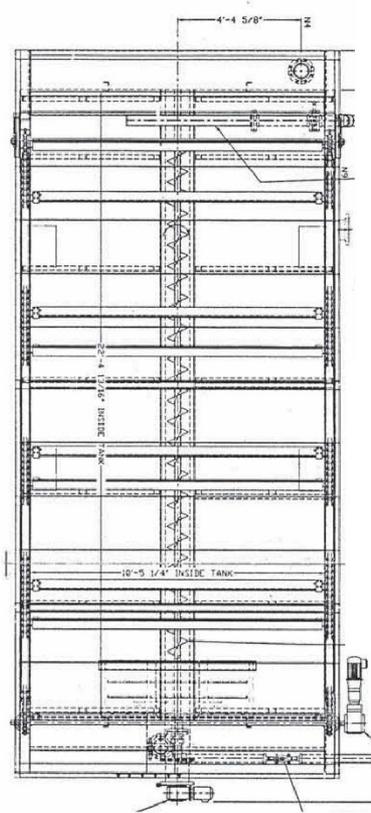


PIPING INTERMEDIATE PLAN

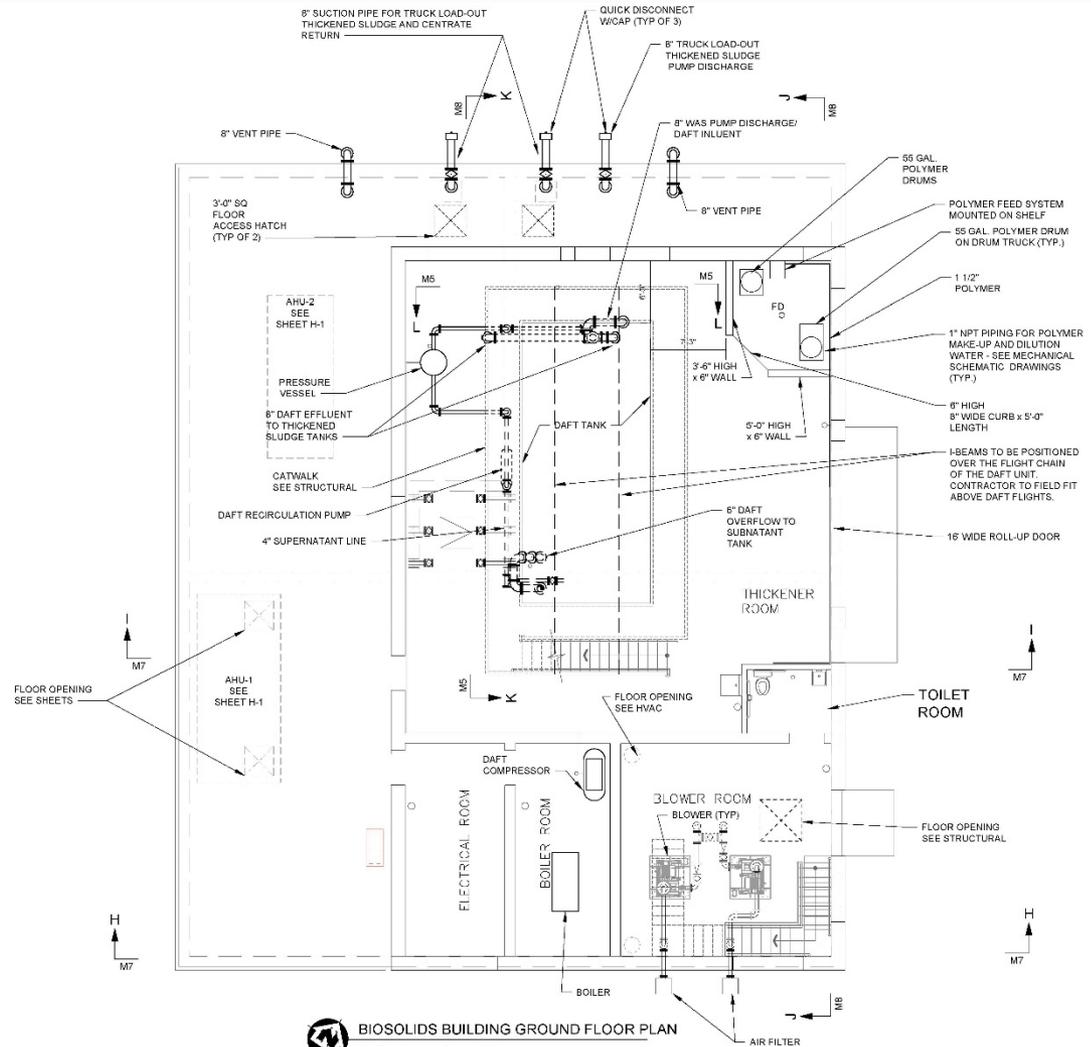
0 2 4 8 12

SCALE: 3/16" = 1'-0" (22x34)
SCALE: 3/32" = 1'-0" (11x17)

SOLIDS HANDLING BUILDING – UPPER LEVEL



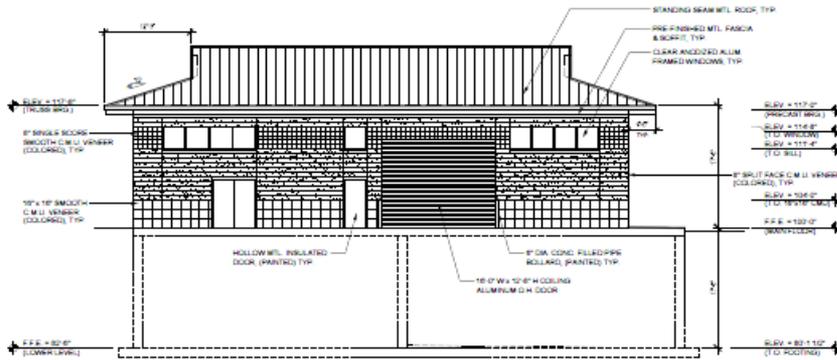
EXISTING DISSOLVED AIR FLOTATION THICKENER (DAFT) TANK
N.T.S.



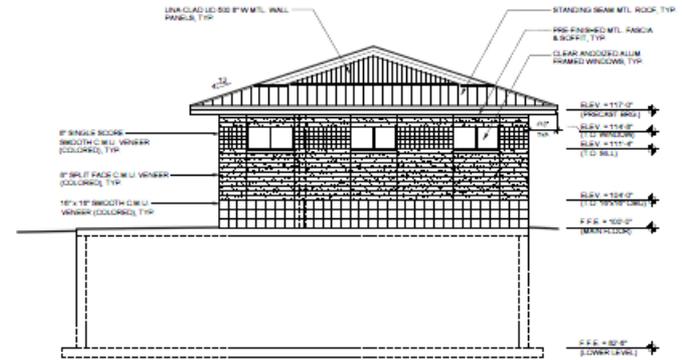
BIOSOLIDS BUILDING GROUND FLOOR PLAN



SOLIDS HANDLING BUILDING – ELEVATION VIEWS



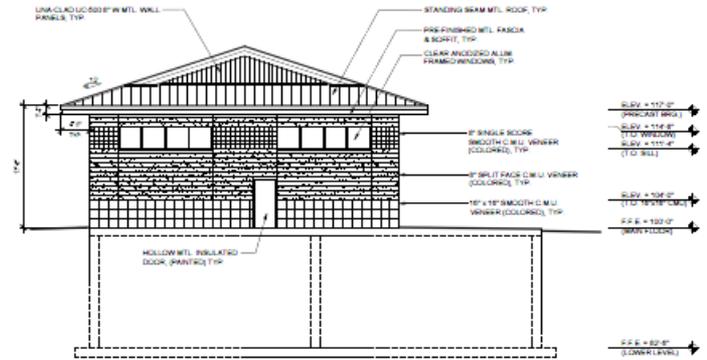
1 EAST EXTERIOR ELEVATION
SCALE: 1/8" = 1'-0"



2 SOUTH EXTERIOR ELEVATION
SCALE: 1/8" = 1'-0"



3 WEST EXTERIOR ELEVATION
SCALE: 1/8" = 1'-0"



4 NORTH EXTERIOR ELEVATION
SCALE: 1/8" = 1'-0"

PROJECT SCHEDULE

MILESTONE	DATE
Bid Opening	February 9, 2016
Bid Recommendation to UAB	February 15, 2016
City Council Awards Construction Contract	February 23, 2015
Substantial Completion	November, 2016
Final Completion	December, 2016

OPINION OF PROBABLE COST

DESIGN ITEM	COST ESTIMATE 9.21.15	UPDATED ESTIMATE 1.15.16
Biosolids Facility (Building and Tanks)	\$ 1,135,600	\$ 1,135,600
Mechanical, HVAC	\$ 410,000	\$ 405,000
Plumbing	\$ 35,000	\$ 32,000
Walkways, Handrail, Grating	\$ 50,000	\$ 50,000
DAFT Removal, Retrofit, Installation	\$ 90,000	\$ 105,000
Jet Mixing/Aeration System and Pumps	\$ 197,300	\$ 197,300
Yard Piping	\$ 97,600	\$ 89,500
Scum Manhole	\$ 45,000	\$ 45,000
RAS Piping	\$ 450,000	\$ 450,000
Process Piping and Valves	\$ 100,000	\$ 125,000
Electrical (Power and Lighting)	\$ 465,000	\$ 445,000
Electrical (Controls)	\$ 300,000	\$ 295,000
Sitework	\$ 150,000	\$ 180,000
Subtotal	\$ 3,525,500	\$ 3,554,400
Contingencies (15%)	\$ 528,800	\$ 533,200
Total Estimated Construction Cost	\$ 4,054,300	\$ 4,087,600

Plan Changes Since 9.21.15:

- Added backup boiler for building
- Reclassified building with improved air handling strategy
- Eliminated 6" yard pipe
- Sludge storage demolition and DAFT relocation estimated at a slightly higher cost
- Net increase in estimate: \$33,300

QUESTIONS/COMMENTS



January 13, 2016

To: Utility Advisory Board

From: Tracy Biederman, Accountant

Re: **December 2015 PRELIMINARY** Year-End Financial Statements
PRE-AUDITED

Attached are the interim financial statements for the electric, water and sewer funds for the twelve months ending December 31st.

Electric fund: Total revenue for the electric fund is \$13,999,497. Year to date total expenses have decreased \$348,451 over the last year.

- A decrease in annual purchased power of \$167,031 partially contributes to the decrease; whereas operating expenses for Distribution, customer service, and debt service factors the remaining expenditure savings.
- The utility closed the Paulson Street Light project, Hope Lutheran Primary Extension, and Knollwood Ave Underground Service. At time of reporting, the Electric Utility has not closed out the mass unit work orders for street light, overhead services, underground services, for install and removal that took place in 2015.
- Period ending cash and unrestricted investments balance is a positive \$7.178 million.

Overall the Electric Utility has a PRELIMINARY year-to-date net gain of \$1,061,014.

Water fund: Total revenue for the water fund is \$1,678,368. Year to date total expenses are \$1,732,745.

- At time of reporting, meter expenses that are shared with sewer have not been allocated out of the water utility into the sewer utility.
- Period ending cash and unrestricted investments balance is a positive \$1.402 million.

Through the end of December, the Water Utility is showing a net loss of \$54,377.

Sewer fund: Total revenue for the sewer fund is \$3,345,782. Year to date total expenses are \$2,591,922.

- BioSolids, Customer Accounts, and Debt Service have recognized a decline in expenditures year-over-year.
- The Utility has paid MSA Professional Services for the WWTF plant improvement design a total of \$216,643
- Expenditures will increase when the water fund allocates meter expenses for the annual reconciliation.
- Period ending cash and unrestricted investments balance is a positive \$3.247 million.

The Utility has an overall net gain of \$2,591,922.

Please contact me if you have any questions regarding the monthly financial reports.



**Balance Sheet
December 2015**

PRELIMINARY – PRE AUDIT

FUND	Description	Period Net Change	Account Balance
610 Electric			
Assets	Total Assets	179,527.64	20,674,410.56
	Cash and Investments	46,865.42	7,178,201.12
	Accounts Receivable	118,700.23	1,326,884.84
	Prepaid & Inventory	(217,724.89)	571,501.10
	Constr in Progress	(297,551.79)	188,131.22
	Capital Assets	614,681.69	24,501,844.54
	A/D Capital Assets	(85,443.02)	(13,092,152.26)
Liabilities	Total Liabilities	(86,297.59)	(954,172.21)
	Accounts Payable	(91,936.63)	(993,673.99)
	Benefits Payable	(28,350.09)	(28,350.09)
	Non-Current Liab	14,242.00	(100,379.28)
	Debt Outstanding	811.76	(108,776.78)
	Deferred Resources	18,935.37	277,007.93
Fund Balance	Total Fund Balance	(93,230.05)	(19,720,238.35)
	Fund Balance	(93,230.05)	(19,720,238.35)
	Total Liabilities + Fund Balance	(179,527.64)	(20,674,410.56)



**Balance Sheet
December 2015**

PRELIMINARY – PRE AUDIT

FUND	Description	Period Net Change	Account Balance
620 Water			
Assets	Total Assets	(30,169.55)	15,544,413.55
	Cash and Investments	288.84	1,402,260.32
	Accounts Receivable	7,902.18	132,625.62
	Prepaid & Inventory	(1,584.37)	83,692.18
	Non-Current Assets	0.00	337,224.76
	Constr in Progress	0.00	101,680.43
	Capital Assets	0.00	18,825,318.05
	A/D Capital Assets	(36,776.20)	(5,338,387.81)
Liabilities	Total Liabilities	(13,193.38)	(1,983,397.41)
	Accounts Payable	2,726.29	(30,158.75)
	Benefits Payable	(10,405.57)	(10,405.57)
	Non-Current Liab	14.86	(34,038.06)
	Debt Outstanding	(5,528.96)	(1,908,795.03)
Fund Balance	Total Fund Balance	43,362.93	(13,561,016.14)
	Fund Balance	43,362.93	(13,561,016.14)
	Total Liabilities + Fund Balance	30,169.55	(15,544,413.55)



**Balance Sheet
December 2015**

PRELIMINARY – PRE AUDIT

FUND	Description	Period Net Change	Account Balance
630 Waste Water			
Assets	Total Assets	57,799.81	23,099,928.31
	Cash and Investments	80,958.02	3,247,937.68
	Accounts Receivable	11,294.55	339,441.25
	Prepaid & Inventory	(2,559.48)	44,278.42
	Non-Current Assets	0.00	410,465.76
	Constr in Progress	11,402.30	346,544.69
	Capital Assets	0.00	27,792,617.55
	A/D Capital Assets	(43,295.58)	(9,081,357.04)
Liabilities	Total Liabilities	(84,124.92)	(5,655,894.14)
	Accounts Payable	(58,065.35)	(87,031.45)
	Benefits Payable	(14,395.08)	(14,395.08)
	Non-Current Liab	1,491.68	(131,197.19)
	Debt Outstanding	(11,142.56)	(5,597,791.19)
	Deferred Resources	(2,013.61)	174,520.77
Fund Balance	Total Fund Balance	26,325.11	(17,444,034.17)
	Fund Balance	26,325.11	(17,444,034.17)
	Total Liabilities + Fund Balance	(57,799.81)	(23,099,928.31)



Financial Statement December 2015

PRELIMINARY – PRE AUDIT

	Current Year				
	Budget	Month	Y-T-D	% Budgeted	
610 - Electric					
Revenue					
Charges for Services	\$13,694,468	\$1,123,820	\$13,286,978	97%	\$13,277,561
Interest	\$15,000	\$772	\$19,700	131%	\$41,615
Miscellaneous	\$382,255	\$26,180	\$374,588	98%	\$391,099
Other Financing	\$257,224	\$40,765	\$318,231	124%	\$430,834
Deferred Resources	\$0	\$0	\$0	0%	\$0
Total Revenue	\$14,348,947	\$1,191,537	\$13,999,497	98%	\$14,141,109
Expense					
Hydraulic Power Generation	\$32,097	\$2,839	\$79,108	246%	\$62,870
Purchased Power	\$10,249,918	\$820,930	\$9,696,357	95%	\$9,863,388
Transmission	\$88,345	\$417	\$51,576	58%	\$63,301
Distribution	\$1,106,971	\$28,797	\$761,546	69%	\$959,642
Customer Accounts	\$572,266	\$70,004	\$551,196	96%	\$584,978
Administrative & General	\$333,510	\$35,144	\$345,698	104%	\$358,381
Other Operating Expenses	\$764,700	\$63,723	\$794,196	104%	\$729,814
Debt Service	\$0	\$0	\$0	0%	\$25,339
Transfers to Other Funds	\$1,201,141	\$76,452	\$658,806	55%	\$639,221
Total Expense	\$14,348,947	\$1,098,306	\$12,938,483	90%	\$13,286,934
Net Total 610 - Electric	\$0	\$93,230	\$1,061,014	94%	\$854,176



Financial Statement December 2015

PRELIMINARY – PRE AUDIT

	Current Year				
	Budget	Month	Y-T-D	% Budgeted	
620 - Water					
Revenue					
Special Assessments	\$0	\$0	\$30,311	0%	\$0
Charges for Services	\$1,306,629	\$108,267	\$1,383,116	106%	\$1,360,933
Interest	\$3,474	\$0	\$2,182	63%	\$3,074
Miscellaneous	\$376,281	\$14,398	\$142,860	38%	\$146,983
Other Financing	\$85,080	\$1,563	\$119,900	141%	\$101,539
Total Revenue	\$1,771,464	\$124,227	\$1,678,368	95%	\$1,612,529
Expense					
Transmission	\$431,168	\$38,031	\$400,987	93%	\$462,636
Pumping	\$138,790	\$11,179	\$135,817	98%	\$164,089
Water Treatment	\$75,422	\$5,309	\$74,974	99%	\$72,404
Customer Accounts	\$103,284	\$9,142	\$85,486	83%	\$98,633
Administrative & General	\$156,623	\$20,604	\$175,168	112%	\$147,930
Other Operating Expenses	\$365,844	\$35,641	\$382,479	105%	\$340,609
Debt Service	\$69,039	\$5,515	\$67,676	98%	\$74,765
Transfers to Other Funds	\$431,294	\$42,169	\$410,158	95%	\$379,651
Total Expense	\$1,771,464	\$167,590	\$1,732,745	98%	\$1,740,718
Net Total 620 - Water	\$0	\$(43,363)	\$(54,377)	96%	\$(128,189)



Financial Statement December 2015

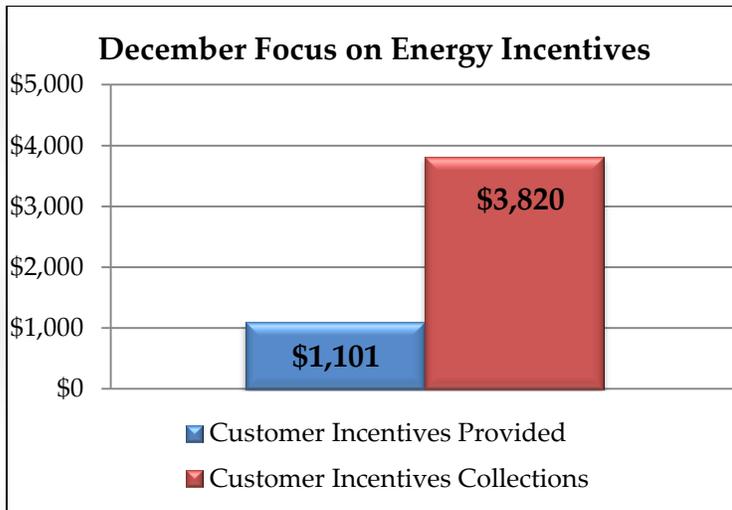
PRELIMINARY – PRE AUDIT

	Current Year				
	Budget	Month	Y-T-D	% Budgeted	Prior Y-T-D
630 - Waste Water					
Revenue					
Special Assessments	\$0	\$0	\$33,517	0%	\$0
Charges for Services	\$3,052,807	\$268,919	\$3,135,854	103%	\$3,119,981
Interest	\$5,847	\$304	\$8,311	142%	\$23,177
Miscellaneous	\$36,252	\$4,647	\$51,186	141%	\$49,449
Other Financing	\$59,480	\$2,226	\$116,915	197%	\$180,424
Total Revenue	\$3,154,386	\$276,096	\$3,345,782	106%	\$3,373,031
Expense					
Operation	\$525,396	\$26,942	\$412,891	79%	\$472,709
Maintenance	\$550,202	\$95,210	\$484,041	88%	\$404,636
Bio Solids	\$394,000	\$69,647	\$367,325	93%	\$407,034
Customer Accounts	\$271,567	\$12,355	\$143,035	53%	\$218,105
Administrative & General	\$311,139	\$28,144	\$288,695	93%	\$292,302
Other Operating Expenses	\$493,000	\$43,296	\$566,160	115%	\$489,168
Debt Service	\$123,640	\$11,664	\$147,828	120%	\$170,569
Transfers to Other Funds	\$485,442	\$15,162	\$181,947	37%	\$176,836
Total Expense	\$3,154,386	\$302,421	\$2,591,922	82%	\$2,631,359
Net Total 630 - Waste Water	\$0	\$(26,325)	\$753,861	94%	\$741,672

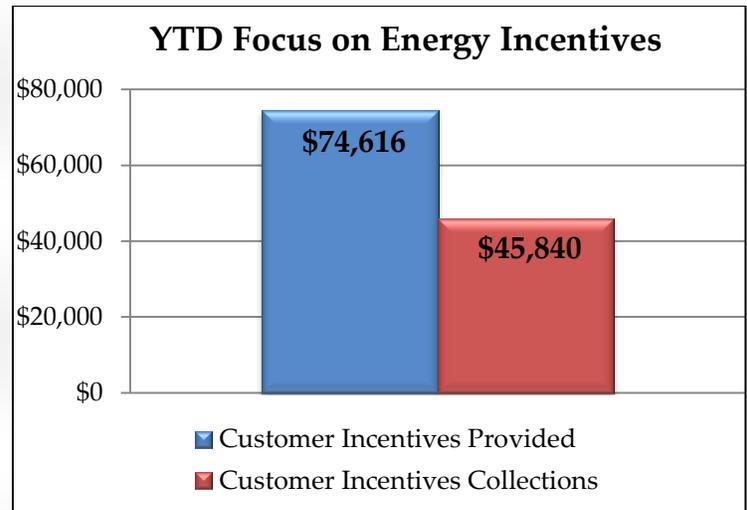
POWERful Choices! Dashboard

For December 2015

Focus on Energy Program

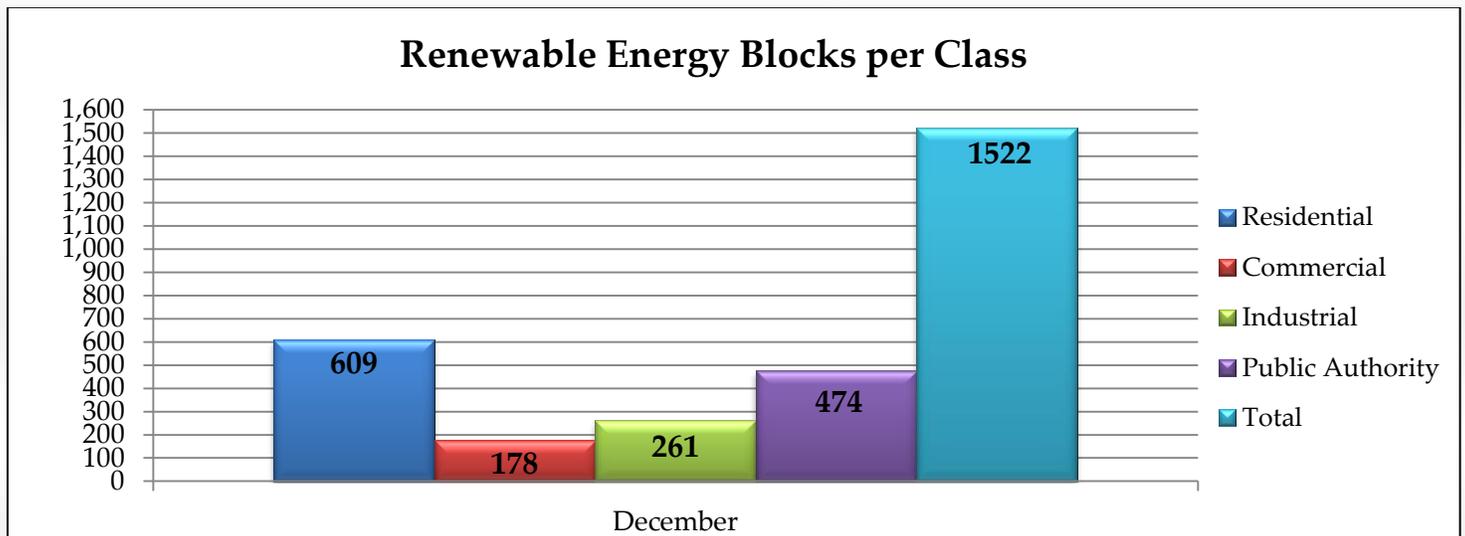


The total customer incentives provided for January compared to the customer incentives collections from Focus on Energy.



The year-to date customer incentives provided compared to the customer incentives collections from Focus on Energy.

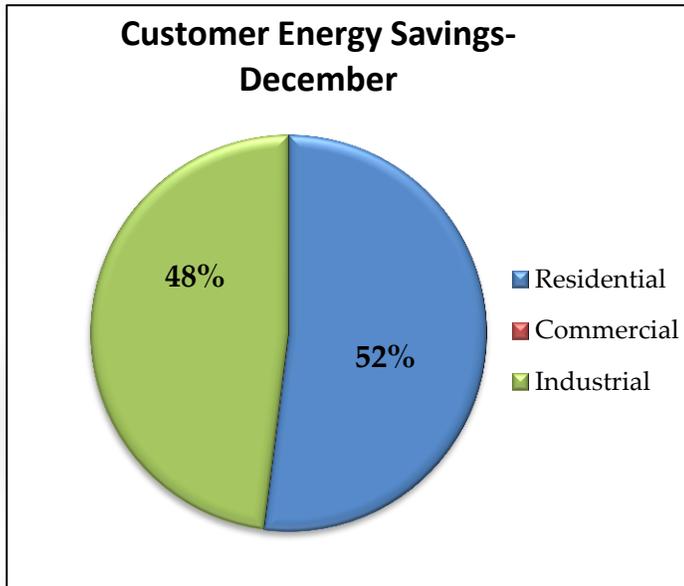
Renewable Energy Blocks



Renewable energy blocks are sold at \$3 for 300kWh of renewable energy.

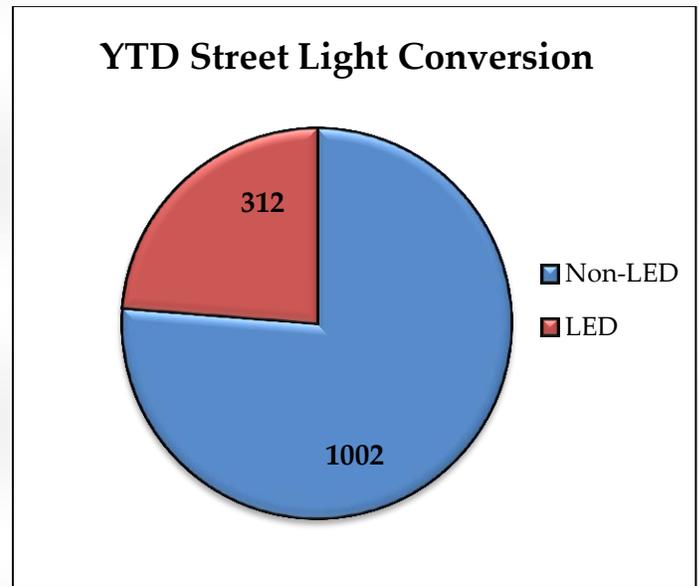
POWERful Choices! Dashboard

Energy Savings



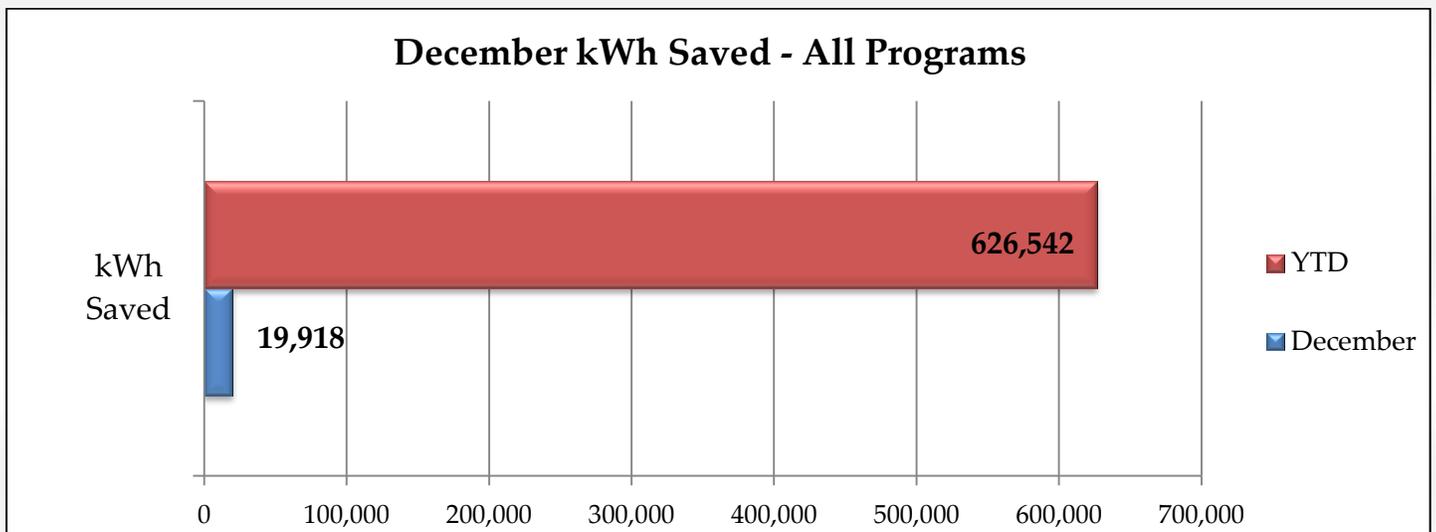
Monthly cumulative percentage of kilowatt hours saved per customer sector.

Street Light Conversion Program



This change is another example of our City leading by example in energy efficiency and environmental stewardship. The goal is to have 70 percent of the street lights converted to LED by 2018.

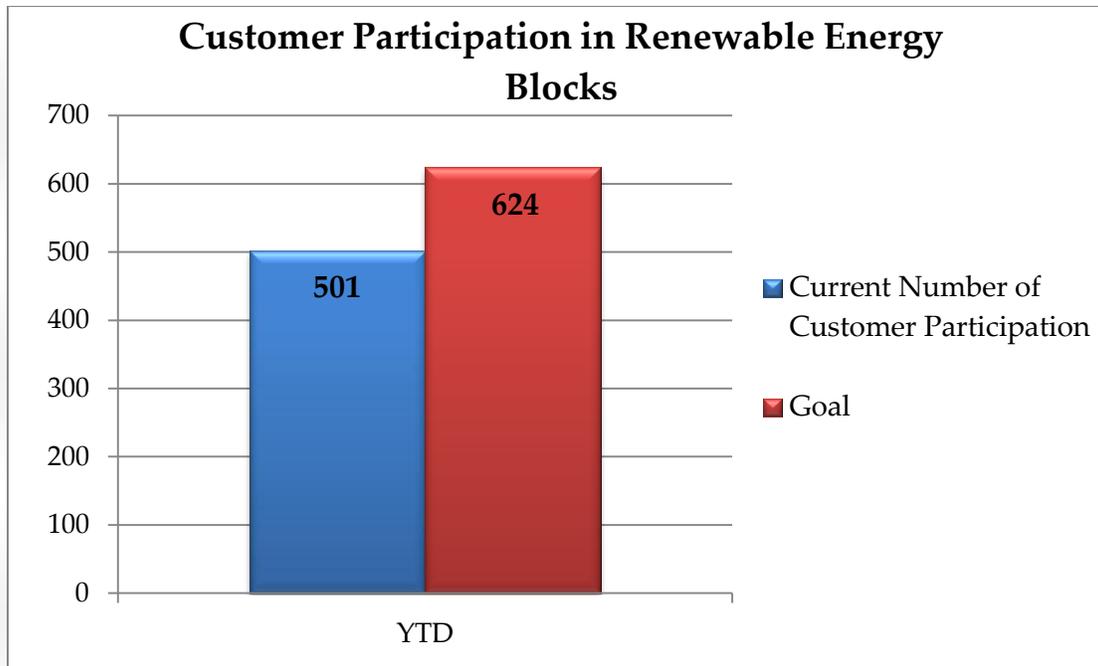
kWh Saved



Energy savings resulting from programs such as upgrades to lighting, motors, HVAC, variable frequency drives, and refrigeration. All customer sectors are included.

POWERful Choices! Dashboard

Renewable Energy Block Participation



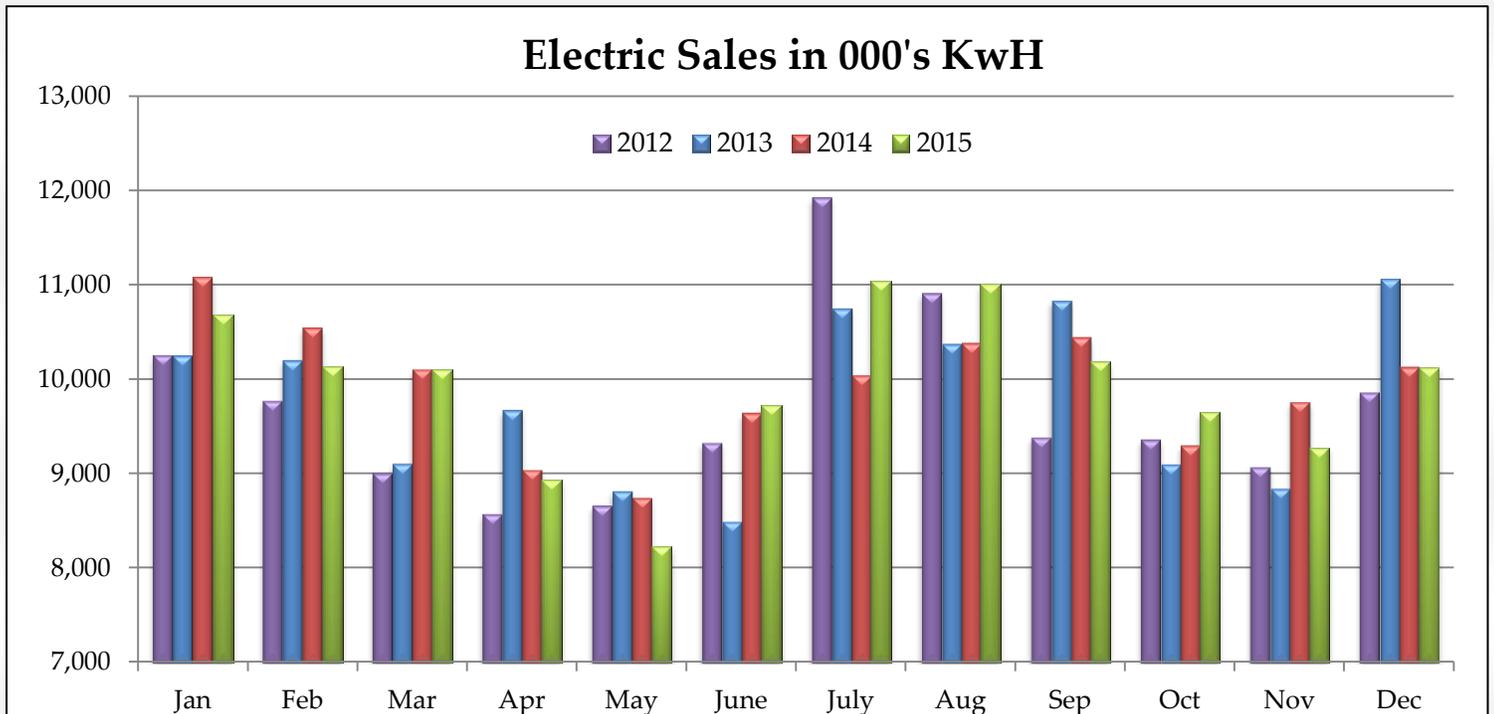
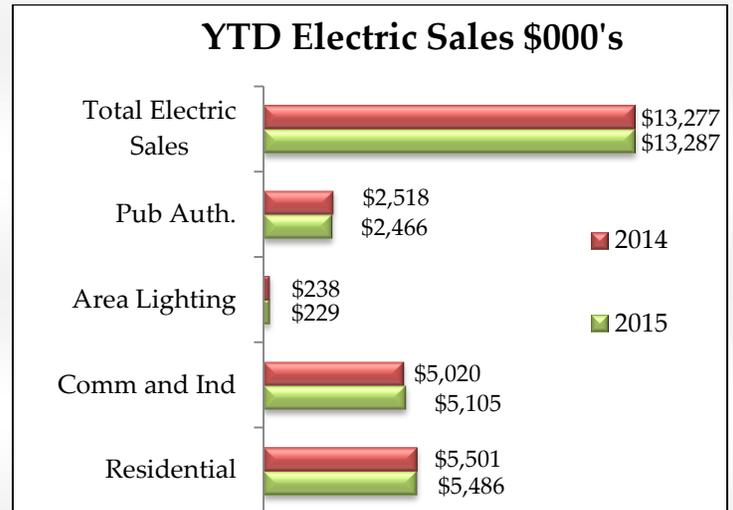
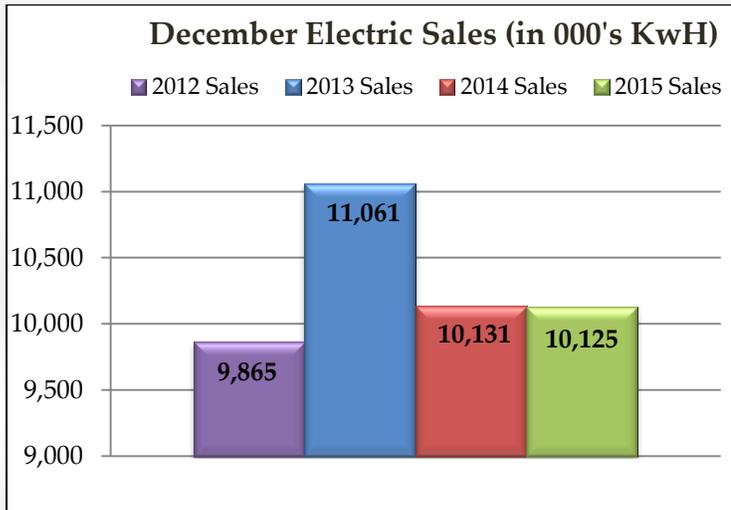
River Falls currently ranks 10th in the nation for customer participation and 2nd in Wisconsin. The 2015 goal is for River Falls to become first in the state. The current level of customer participation in Renewable Energy Blocks is 8.01 percent. The goal is to reach 10 percent customer participation by December 2015.

River Falls Municipal Utility

⚡ Electric Dashboard ⚡

For December 2015

Electric Sales

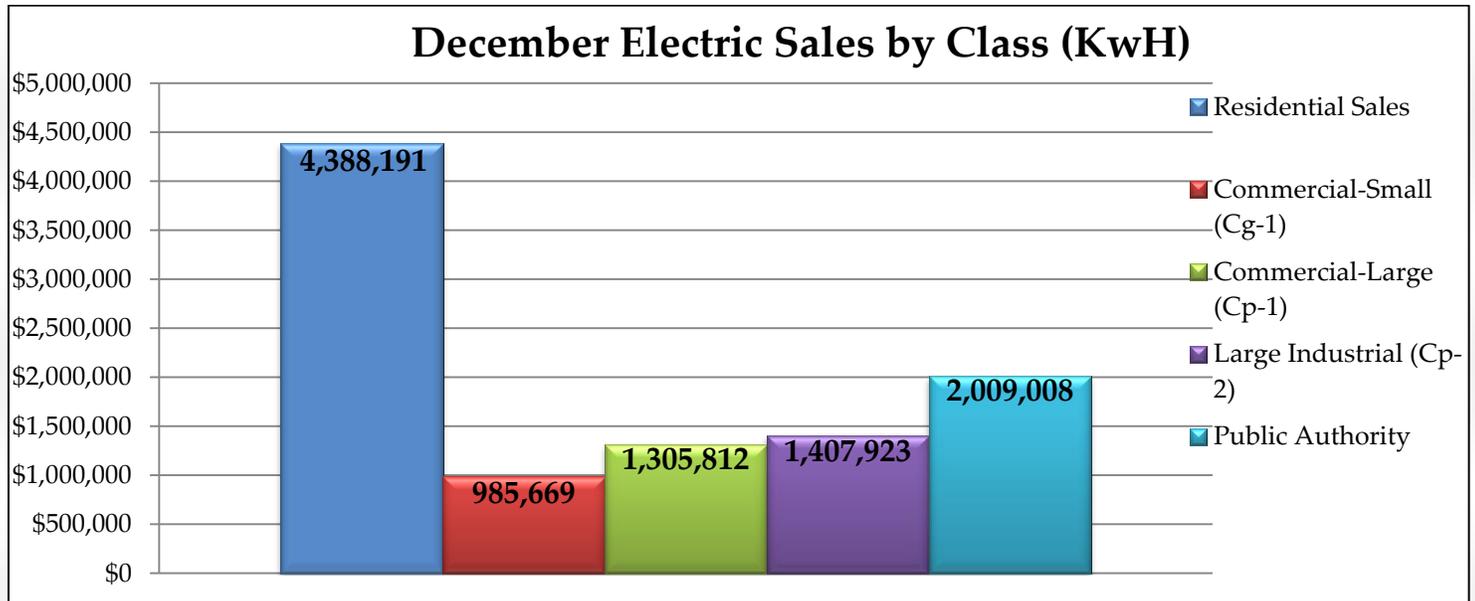


The Power of Community

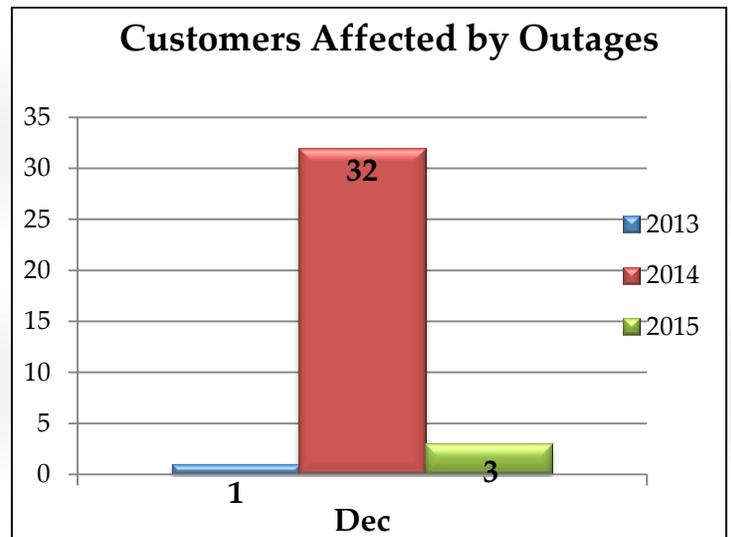
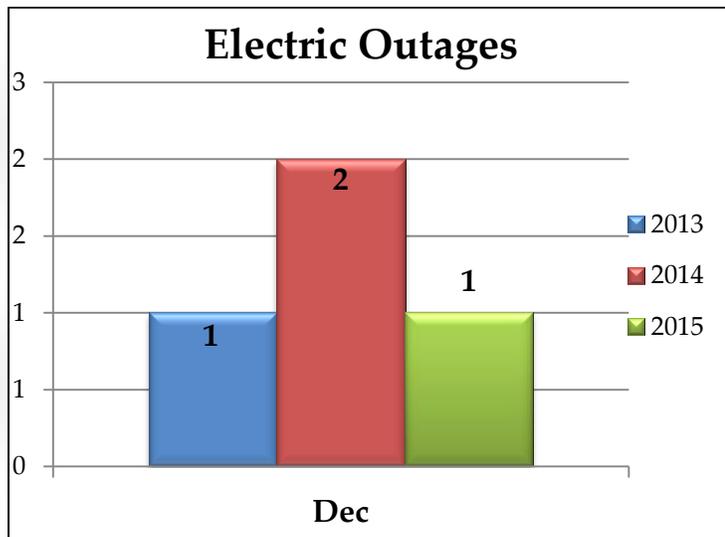
River Falls Municipal Utility

Electric Dashboard

For December 2015



Electric Outages



For more information please contact: Kevin Westhuis
(715) 426-3442 or kwesthuis@rfcity.org

River Falls Municipal Utility

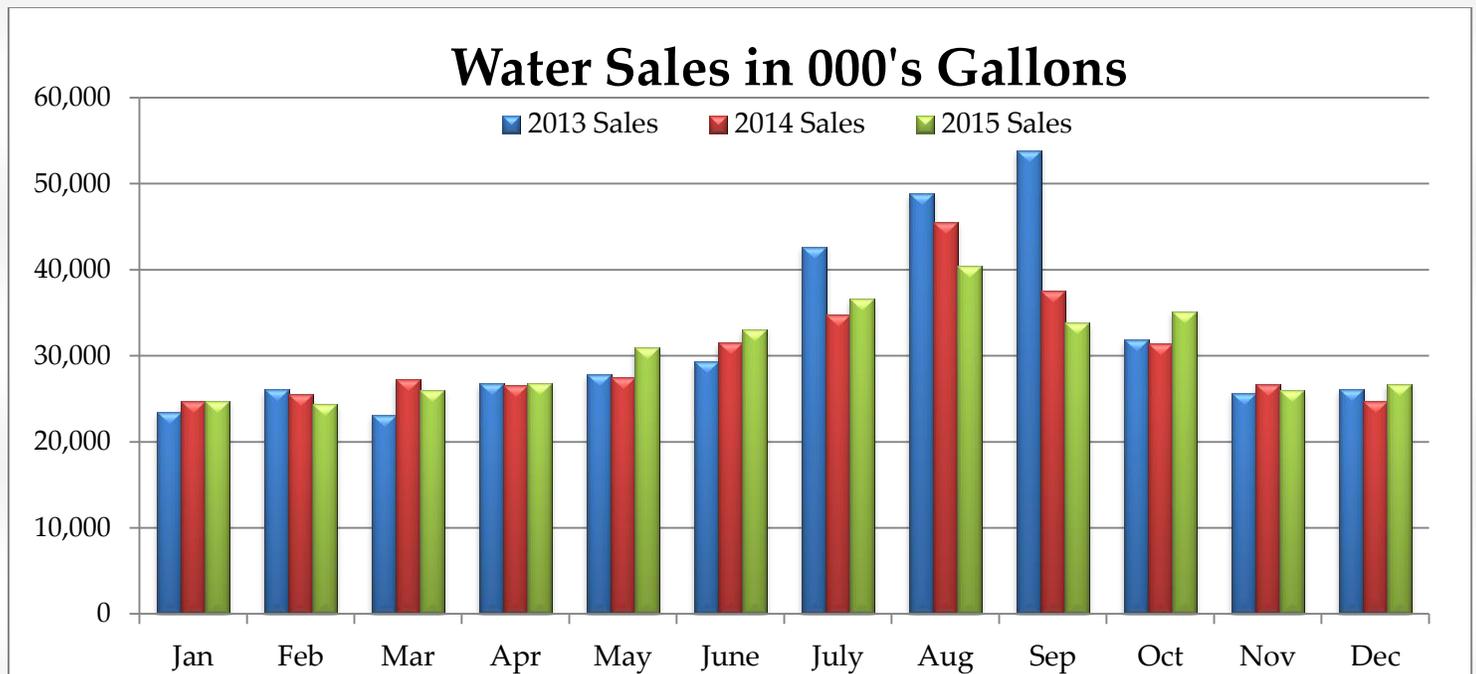
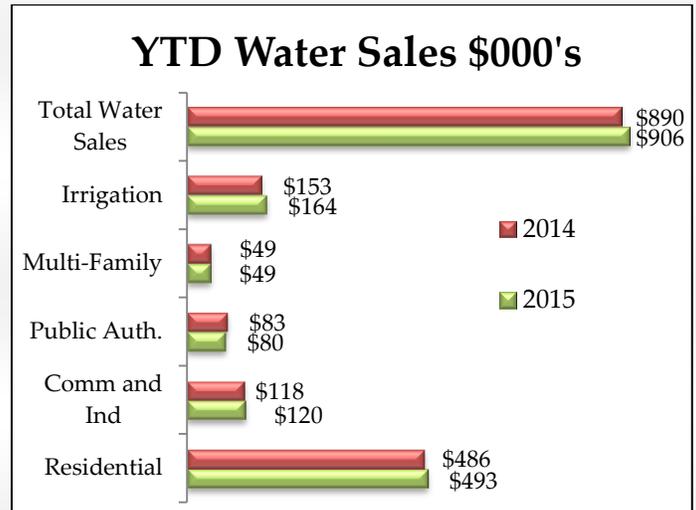
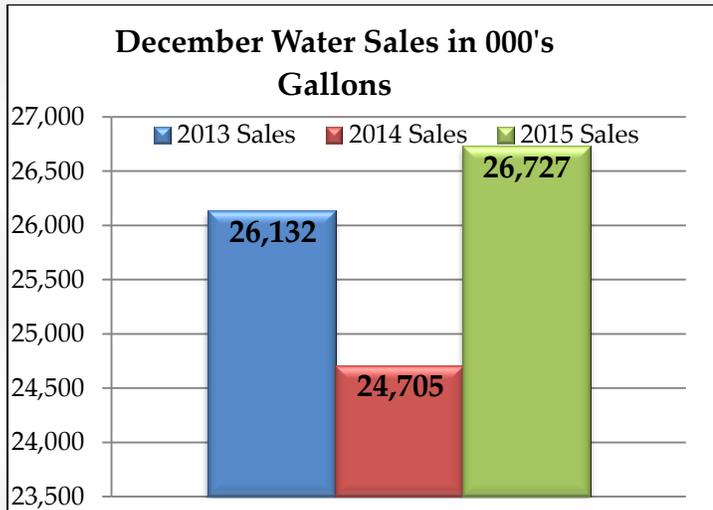


Water Dashboard



For December 2015

Water Sales



Providing a safe and reliable supply of high quality water to the River Falls community we serve.

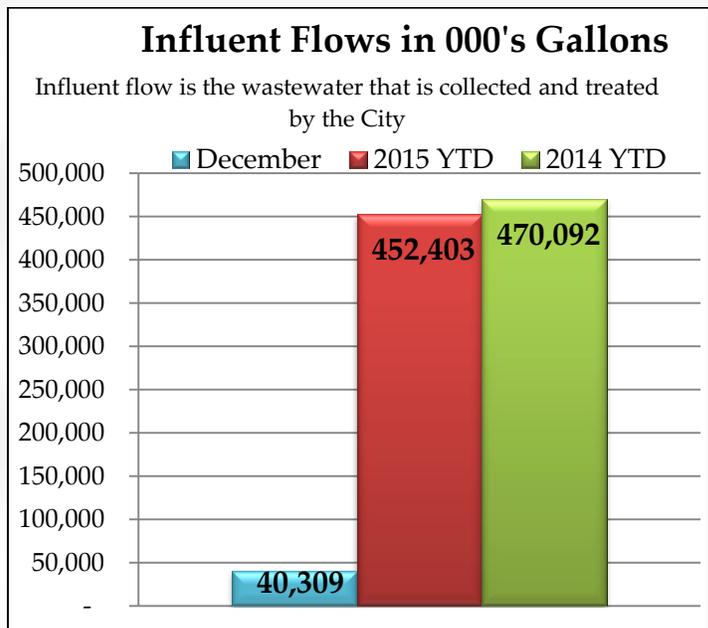
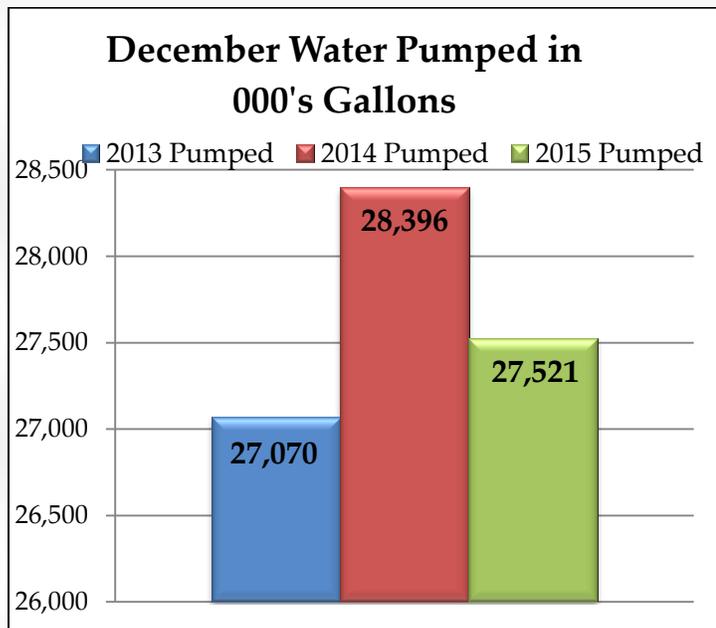
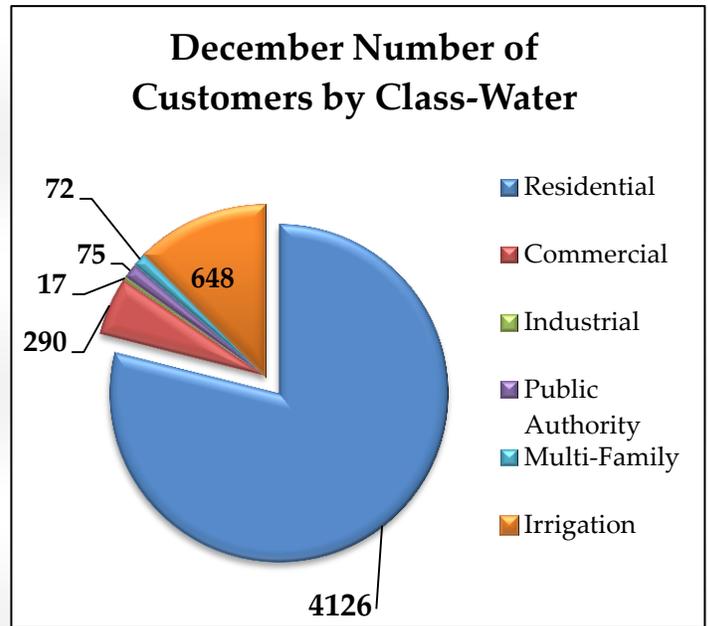
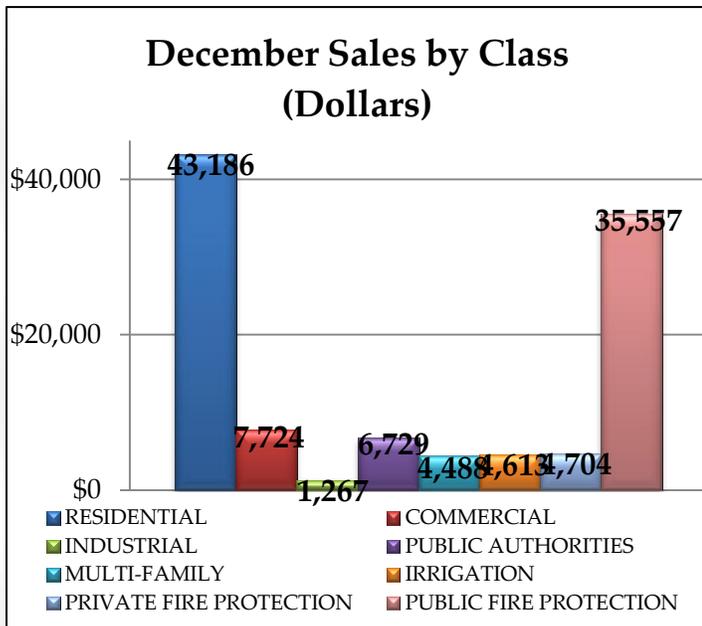
River Falls Municipal Utility



Water Dashboard



For December 2015



Used as a comparison between water pumped versus water treated.

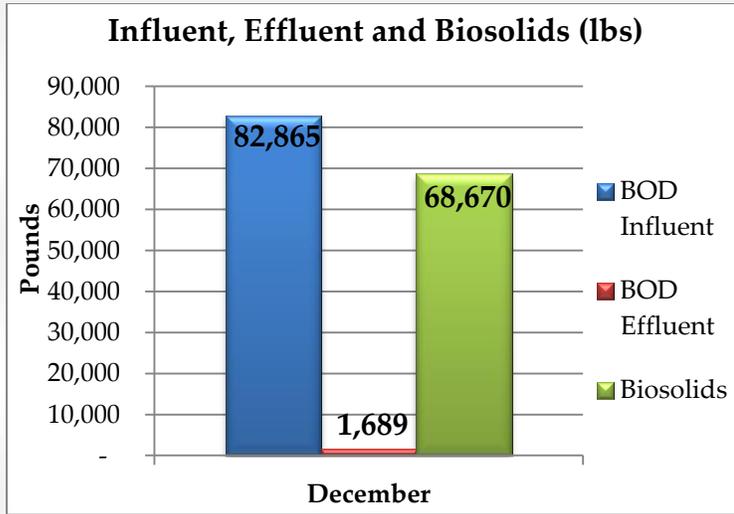


For more information please contact: Kevin Westhuis
 (715) 426-3442 or kwesthuis@rfcity.org

River Falls Municipal Utilities Waste Water Treatment Plant

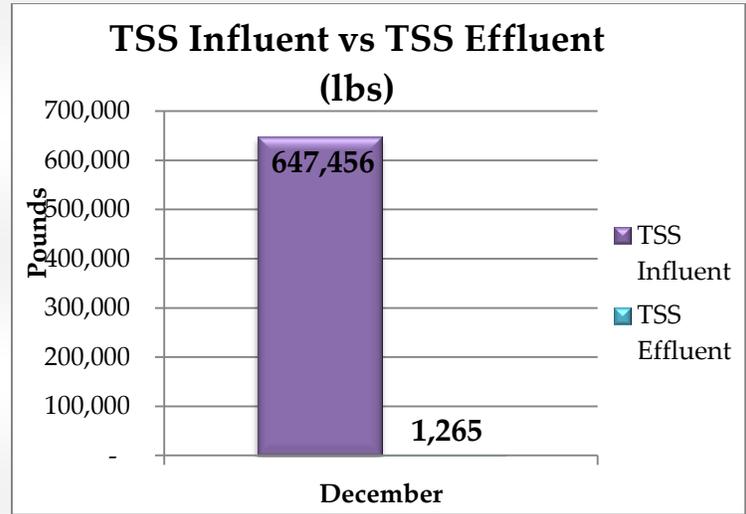
For December 2015

Influent, Effluent and Biosolids (lbs.)



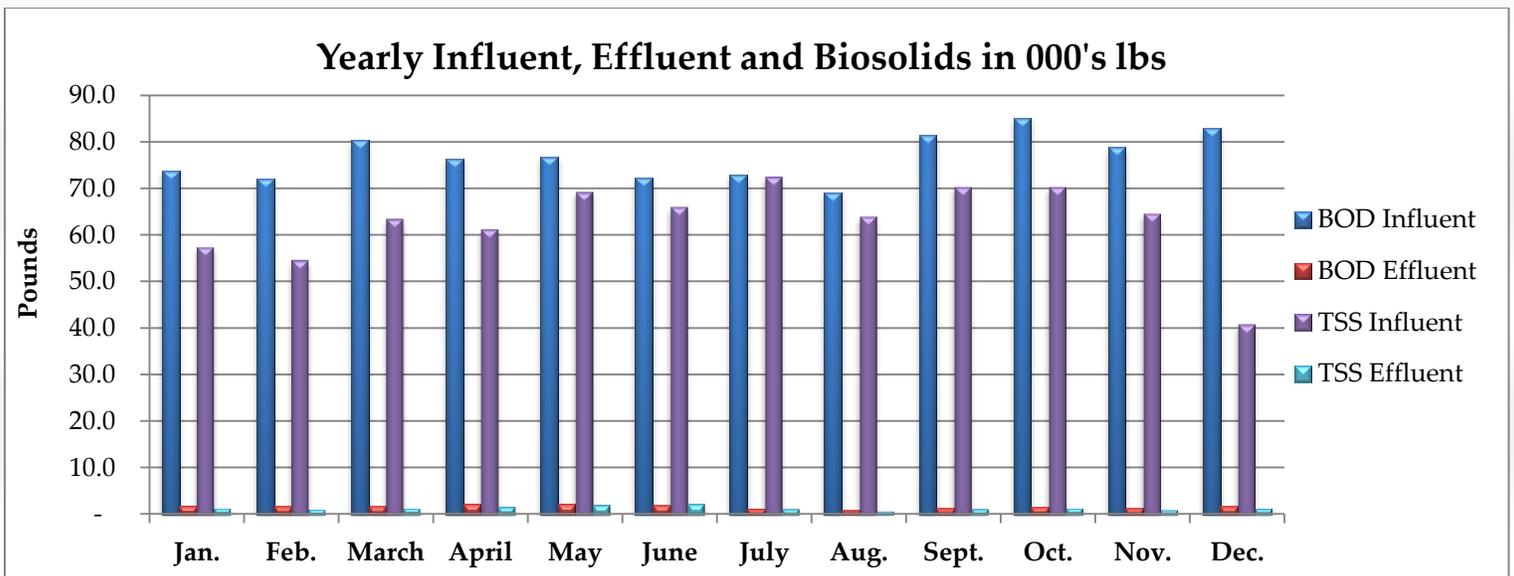
The Biochemical Oxygen Demand (BOD) Influent and BOD Effluent pounds represent pounds of oxygen needed for treatment.

TSS Influent vs TSS Effluent (lbs.)



The TSS Influent and TSS Effluent represent the pounds of Total Suspended Solids entering the Waste Water Treatment plant versus going out into the Kinnickinnic River.

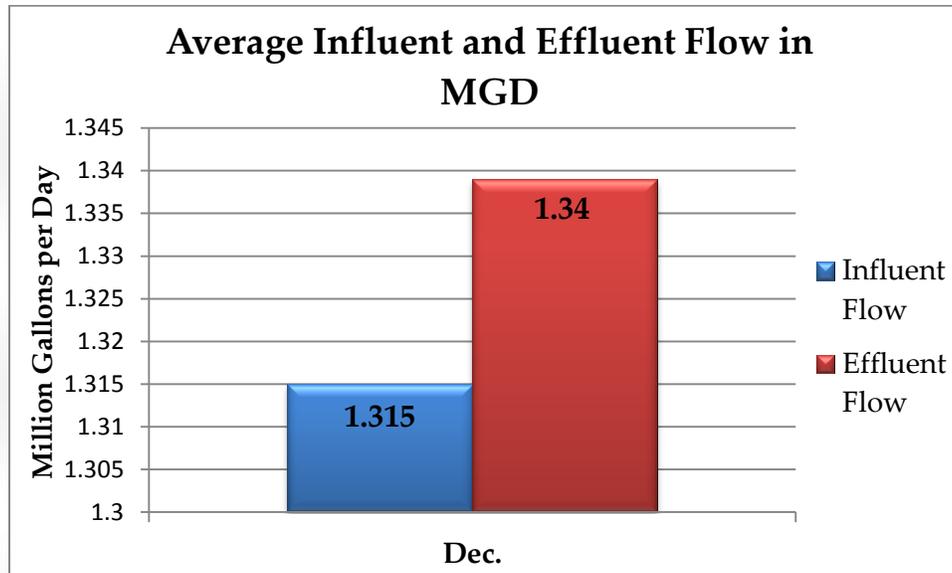
Yearly BOD and TSS Influent and Effluent (in 000's lbs.)



This graph represents the average monthly pounds of both BOD and TSS coming into the plant and being discharged at the plant's outfall into the Kinnickinnic River for the year 2015.

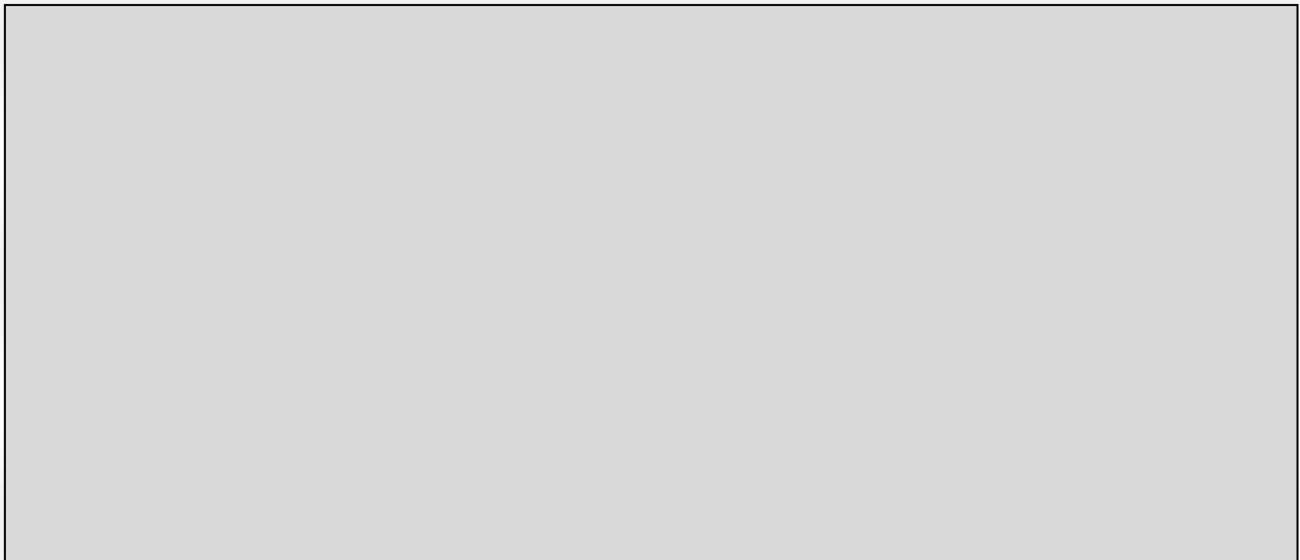
River Falls Municipal Utilities Waste Water Treatment Plant

Average Influent and Effluent Flow in MGD



This graph represents the average daily flow into the treatment plant as well as the average daily flow discharged into the Kinnickinnic River. The design flow for the Treatment Plant is 1.8 million gallons per day (MGD).

WWTP Facts



For more information please contact: Bill Swenson
(715) 426-3531 or wswenson@rfcity.org



River Falls Municipal Utilities

Monthly Report

December 2015



ELECTRIC

- Maintenance repairs performed. This is maintenance work found through our required system inspections.
- Substation monthly inspections completed.
- We have started the winter lateral fee for new Underground services.
- We did have some underground services that we installed before we had frost in the ground.
- We are continuing installing electric along Cty. MM for the Primary extension to the City building on the Mann Valley Property.
- Replaced street lights with LED fixtures.
- Meter readings continue monthly with meter reads.
- Installed a primary extension for the Kinni Drug and Alcohol Facility.
- Solar Garden has been energized and up and running.
- Inventory has been counted for the year end and completed.
- Service to the building at 661 N. Main St. (old carwash), has been redone from three phase to a single phase.



RIVER FALLS WASTE WATER TREATMENT FACILITY

- Reviewed final drawings for the solids building upgrade with Mark Lundgren, MSA Professionals.
- Electrician from NEI came and installed radiant heaters in the lab in effort to eliminate cold spots in lab.
- Ran quarterly quality control lab tests and had excellent results.
- Ordered remaining pipe fittings from HD Supply for the installation of a new main lift pump which will be replacing pump # 1.
- Boiler inspection found potential shock hazard. Tom S called River Falls Plumbing & Heating back to repair the unsafe situation.
- Received email from MSA Engineering advising that there would be a delay in final plans for bidding until Jan 7, 2016.
- RFMU Lineman came down to trench in the conduit to run the new communication cable for card reader gate entrance.
- St. Croix Valley Gas working at plant found large gas leak under road inside gate. They had to shut off all gas to plant for several hours in order to repair.
- Met with MSA Engineers for an update on status of solids handling building timeline for bids and construction.
- Dec 24 - call out for daft recirculation pump failure. Found sticky air solenoid; cleaned, reinstalled, and restarted equipment.



WATER/SEWER

Nov 30 – Dec 6

- Cleaned all five lift station wet wells before winter cold hit.
- Rechecking last few hydrants for water in barrels.
- Checking for new sampling locations for better system representation as mandated by DNR.
- Had Vesco Company in for issues with chemical feed equipment at Well #6.
- Working on unaccounted water usage for year-end DNR report.
- Because of major ragging issues at our lift stations, department began project to identify and document sources.
- Well #6 is off line at the moment until some piping that was leaking from a broken pipe is replaced which should happen today.

Dec 7 – Dec 13

- Fall Hydrant pumping complete.
- Well #6 back on line after problem with chlorine pump.
- Viewing and inspecting of sanitary lining project done.
- Valve turning machine is online and ready for full implementation.
- Starting meter year-end inventory.
- Started new program for marking curb stops on new building sites.
- Dealing with Well #6 road as it is turning to mud on parts.

Dec 14 - Dec 20

- Working on new sample sites as required per DNR.
- Finished water meter inventory for PSC yearly reports.
- Working on sending chemical scale from Well #6 back to factory for repair (Well #6 is off-line until then).
- Continuing compliance needs for DNR report.

Dec 21 – Dec 31

- Temporary replacement scale is setup at well #6 until we get the original fixed (ut is being sent to CA).
- In process of moving SCADA system from lobby to more secure location in Water Department area.
- Setup new weekend duty roster for Water Department for 2016.
- Finished another year with Zero bad bacti samples.

ENGINEERING TECH WORK

- Work with Spin Doctor and Valve software (Install new electronics, help resolve field issues, work with software, write directions for field crew, map results, etc.)
- Got street light (LED) statistics to Wayne & Mike Noreen
- Inspect 1 new home sanitary & water lateral install
- Finish up sanitary lining project with Instiuform field crew
- Map 2015 cleaning, televising and lining data
- Start evaluation for the 2016 sanitary lining project
- Start evaluation for the 2016 man hole rehabilitation project
- Supply tree trimming map books for electric dept.
- Supply various statistics & maps to Water Dept. for DNR
- Submit forms and CAD data to DOT for Jug-Handle near hospital (Division St & Hwy).



CONSERVATION AND EFFICIENCY

- Community Solar
 - Entire community solar project was interconnected and energized on Dec. 18th
 - The energy produced in December will be added to the January production and the credit will be on the February utility bill.
 - Approximately 100 panels have been purchased
 - Positive press continues with guest articles in the River Falls Journal
 - Continue to develop extensive marketing materials for the project.
 - Created a second one minute rap regarding the loan options for the community solar project
 - Applying for an APPA – Demonstrations in Energy Efficiency Developments (DEED) grant with the UWRF Agriculture department on research to determine appropriate pollinator friendly plant mix to be used at the community solar site
 - Shares as gifts include:
 - Karen Hanson gifted a share to the Food Pantry
 - Greg Peters gifted a share to Rocky Branch Elementary
 - Jen Zoller gifted a share to the High School
 - The Library Foundation gifted 3 shares to the Public Library
 - Working with neighbors of the community solar to make the project as beneficial to everyone as possible
- Loan program
 - Staff continues to refine the loan program as an option for customers
 - Only one of 3 property assessed clean energy loan programs available in the state of Wisconsin
- Green Block Program
 - The city of River Falls is now at 8.01% customer participation.
 - The percentage has grown from 5.7% in November 2014
 - As it currently stands, the River Falls community now has the highest customer participation rate in the state of Wisconsin.
 - This was an achieved goal for 2015
 - Customer Service Representatives have done a remarkable job marketing the program
- LED Light Exchange
 - Exchanged 580 LED holiday lights for over 1100 strands of old holiday lights
 - Received approximately 200 lbs of food in exchange for LED holiday lights
 - All food went to the River Falls Food Pantry
- Large Power Customers
 - Continue to visit and assist multiple customers regarding energy efficiency, advanced metering infrastructure, community solar and Focus on Energy programming.
- Schools
 - Made arrangements for an unpaid high school intern to work at the utilities for nine weeks starting in January
 - Helped facilitate the adoption of the Focus on Energy program – Delivering Energy Efficiency Together (DEET) into 3 of the 4 elementary schools in Spring of 2016.

-
- The three schools will also be playing the energy education/behavior change game *Cool Choices* to help in the success of the DEET program.
 - Non Profits
 - Met with Interfaith Power and Light (IPL) to discuss how we can better serve and engage the faith community
 - Met with faith leaders to use lessons learned from the IPL meeting
 - Assisting Hope Lutheran Church with new construction design and energy efficiency options
 - Guest Speaking Engagements and Committees
 - Greenwood Elementary – spoke to 2nd graders about our water system
 - Wisconsin Water Association – Research Committee
 - UWRF-
 - Facilities Management Team
 - Student Senate
 - Forward Foundation
 - POWERful Choices!
 - Blue Bike Program



For November 1, 2015 – November 30, 2015

Move in applications = 107
New Access My Account = 93
Disconnected Services = 0
Reconnected Services = 6

As of **12-23-15** we had a total of 6654 Active utility Accounts.

Explanation

Move in applications - Customers that came into the office to sign up for service or submitted an online application. This information also would include new construction, customers new to River Falls, and customers moving within town. Anytime we need the meters read to end one account and begin a new account.

Access My Account - This is customers logging into the utilities E-Care for the first time. E-Care is an online utility dashboard where the customers can access their individual utility account to view information and make payments.

Disconnected – These are the number of services (electric or water) disconnected for non-payment and or properties in foreclosure with outstanding balances.

Reconnected – These are the number of services (electric or water) reconnected. Customers have paid, landlords have taken over, or new owner on foreclosed properties.