

AGENDA
PUBLIC UTILITIES COMMISSION
December 6, 2017
3:00 P.M.

- A. Call to Order

- B. Roll Call

- C. Approve Consent Agenda
 - 1. Approve Agenda
 - 2. Approve Meeting Minutes
 - 3. Approve Payment of Bills

- D. Wastewater Decanting Summary

- E. Sewer Credits

- F. AEC Climate change Response Letter

- G. Adjourn

GRAND MARAIS PUBLIC UTILITIES COMMISSION MEETING

Tuesday, November 21, 2017

Meeting was called to order at 12:02 p.m. by Chair Karl Hansen. Members present were Karl Hansen and Tim Kennedy. Absent was George Wilkes. Others present were Tom Nelson, Brian Larsen, Hayden Hinchman, Tina Hanson, and Mike Roth.

Motion by Kennedy, seconded by Hansen to approve the consent agenda. Ayes all.

The commission discussed 2018 utility budgets and rates. Roth presented the department operating and capital budgets. The rate adjustment recommendations for 2018 were:

- no increase for the electrical
- 2% increase for the water
- 5% increase for the sewer

Motion by Kennedy, seconded by Hansen to approve the rate recommendations for 2018. Ayes all.

Meeting adjourned at 12:57 pm.

Next meeting was set for December 6 at 3 p.m.



City of Grand Marais

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Payments

Current Period: December 2017

Batch Name	12062017PUC	User Dollar Amt	\$28,584.78
Payments		Computer Dollar Amt	\$28,584.78
			\$0.00 In Balance

Refer	71614	US POSTMASTER			
Cash Payment	E 604-49590-322	Postage			\$144.00
Invoice	PERMIT FEE	11/29/2017			
Cash Payment	E 601-49440-322	Postage			\$40.50
Invoice	PERMIT FEE	11/29/2017			
Cash Payment	E 602-49490-322	Postage			\$40.50
Invoice	PERMIT FEE	11/29/2017			
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total	\$225.00
Refer	71615	G&G SEPTIC			
Cash Payment	E 602-49480-317	Contracted Services			\$7,280.00
Invoice	14666	11/16/2017			
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total	\$7,280.00
Refer	71616	PACE ANALYTICAL SERVICES			
Cash Payment	E 602-49480-300	Professional Svcs (GEN)			\$88.62
Invoice	171288065	11/15/2017			
Cash Payment	E 602-49480-300	Professional Svcs (GEN)			\$88.62
Invoice	171288267	11/21/2017			
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total	\$177.24
Refer	71617	SUNDEW TECHNICAL SERVICES			
Cash Payment	E 601-49440-310	Service Agreements			\$94.54
Invoice	GM CITY	11/15/2017			
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total	\$94.54
Refer	71618	GRANITE ELECTRIC, LLC			
Cash Payment	E 604-49570-317	Contracted Services			\$1,485.75
Invoice	2017-543	11/18/2017			
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total	\$1,485.75
Refer	71619	MN DEPT OF HEALTH			
Cash Payment	G 601-20803	State Water Connection Fee			\$1,124.00
Invoice	PWSID1160001	11/29/2017			
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total	\$1,124.00
Refer	71620	COMO OIL & PROPANE			
Cash Payment	E 604-49570-217	Heating Fuel			\$351.31
Invoice	119237	11/20/2017			
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total	\$351.31
Refer	71621	US BANK			
Cash Payment	E 601-47027-611	Bond Interest			\$837.67
Invoice	SERIES 2005B	11/27/2017			
Cash Payment	E 601-47027-620	Fiscal Agent s Fees			\$217.70
Invoice	SERIES 2005B	11/27/2017			
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total	\$1,055.37
Refer	71622	GRAND MARAIS AUTO PARTS, INC			



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Payments

City of Grand Marais

Current Period: December 2017

Cash Payment	E 604-49570-220 Repair/Maint Supply (GE			\$161.48
Invoice	2088	11/22/2017		
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total \$161.48
Refer	71623	AE2S		
Cash Payment	E 602-49481-303 Engineering Fees			\$7,388.25
Invoice	55597	11/14/2017		
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total \$7,388.25
Refer	71624	SUNSHINE FILTERS OF PINELLAS,		
Cash Payment	E 602-49480-210 Operating Supplies (GE			\$234.11
Invoice	129402	11/17/2017		
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total \$234.11
Refer	71625	HACH COMPANY		
Cash Payment	E 602-49451-210 Operating Supplies (GE			\$521.79
Invoice	10724135	11/17/2017		
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total \$521.79
Refer	71626	COOK COUNTY HIGHWAY DEPT		
Cash Payment	E 602-49451-430 Miscellaneous (GENERA			\$100.00
Invoice	PERMITUID1581	11/27/2017		
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total \$100.00
Refer	71627	PUBLIC UTILITIES COMMISSION2	Ck# 004100E 11/29/2017	
Cash Payment	G 604-22000 Deposits			\$200.00
Invoice	DEP. TO UTILITI	11/29/2017		
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total \$200.00
Refer	71628	PUBLIC UTILITIES COMMISSION1	Ck# 004101E 11/29/2017	
Cash Payment	E 602-49451-380 Utility Services (GENER			\$1,241.06
Invoice	DEC 2017	11/29/2017		
Cash Payment	E 602-49480-380 Utility Services (GENER			\$3,787.11
Invoice	DEC 2017	11/29/2017		
Cash Payment	E 601-49420-380 Utility Services (GENER			\$2,097.26
Invoice	DEC 2017	11/29/2017		
Cash Payment	E 604-49551-380 Utility Services (GENER			\$81.00
Invoice	DEC 2017	11/29/2017		
Transaction Date	11/29/2017	MAIN CHECKING G	10100	Total \$7,206.43
Refer	71629	MERCURY TECHNOLOGIES OF M		
Cash Payment	E 604-49590-390 Conservation Improve			\$658.81
Invoice	020323	11/27/2017		
Transaction Date	12/1/2017	MAIN CHECKING G	10100	Total \$658.81
Refer	71630	NORTH SHORE WASTE		
Cash Payment	E 602-49480-384 Refuse/Garbage Dispos			\$70.20
Invoice	60254	11/30/2017		
Transaction Date	12/1/2017	MAIN CHECKING G	10100	Total \$70.20
Refer	71631	EDWIN E. THORESON, INC.		
Cash Payment	E 601-49430-220 Repair/Maint Supply (GE			\$250.50
Invoice	25190	9/29/2017		
Transaction Date	12/1/2017	MAIN CHECKING G	10100	Total \$250.50



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Payments

City of Grand Marais

Current Period: December 2017

Fund Summary

	10100 MAIN CHECKING GMSB	
601 WATER		\$4,662.17
602 SEWER		\$20,840.26
604 ELECTRIC		\$3,082.35
		<hr/>
		\$28,584.78

Pre-Written Checks	\$7,406.43
Checks to be Generated by the Computer	\$21,178.35
Total	<hr/>
	\$28,584.78

Date: 11/30/17

To: PUC

Re: Summary of 2017 Bug augmentation trial 2017.

The Grand Marais WWTF is an extended aeration oxidation ditch activated sludge plant. The WWTF does not have primary clarifiers, only secondary clarifiers.

The current flow for 2017 is 0.560 mgd. The flow in 2012 was 0.350 mgd, which indicates a 60% increase in flow all due to inflow and infiltration. In total about 65% of the 0.560 mgd is inflow and infiltration.

The WWTF receives about 1.4 mg of septage from the county, mostly in the summer.

The Storage is an aerobic digester.

The WWTF has never been able to decant supernatant from the digester since the new plant went on line in 1988.

The WWTF used to achieve very good settleability in the past, with results on the 30 minute settleometer test of 300 mg/L to 400 mg/L. During the past five years the settleability has increased to a current average 800 mg/L to 950 mg/L. The most probable causes are due to increase in I and I, septage receiving and brewery wastes.

After adding the T197 bug the settleability greatly improved as well as floc development. We did have an issue after a large shock load of concentrated waste combined with seasonally low dissolved oxygen in the oxidation ditch which led to poor settling for a short period of time. We have noticed this problem before in past years and I believe that the bug greatly shortened the time until the settleability improved again.

The main objective in bug program experiment was to increase settleability in the aerated digester tanks so we could implement a decanting program. The end goal was to save money on the biosolids disposal cost, which is been increasing substantially mostly due to the increase fees that Western Lake Superior Sanitary district charges for accepting the biosolids.

This year we did observe a saving of about \$25,000 and I considered the experiment successful, even with the fact that there was some odor issues related to decanting. I am positive we can achieve even better results and cost savings as we learn and adjust the process.

Included is information on past disposal costs and this years experiment results.

Grand Marais Biosolids Volume hauled versus Cost.

Year	Volume	Trucking Cost	WLSSD Disposal Cost	Total
2012	830,000	\$60,721.50	\$32,372.69	\$93,094.19
2013	922,000	\$69,065.50	\$36,492.83	\$105,558.33
2014	982,000	\$68,655.50	\$40,808.05	\$109,463.55
2015	934,000	\$61,096.00	\$40,065.60	\$101,161.60
2016	1,274,000	\$83,265.00	\$55,316.58	\$138,581.58
2017	1,043,000	\$67,795.00	\$30,381.95	\$98,176.95

Notes 2017 cost not finalized, should be around \$121,500

Trucking cost have not increased in over 6 years, with an actual decrease due to the fuel surcharge fee that has not been added since fuel is under \$3.00/gallon.

WLSSD disposal fees have taken substantial increase recently and account for about 45% of the total cost. It was about 30% in 2012 before rate increases

2017 WLSSD cost not complete. Only through August

Grand Marais Wastewater Treatment Facility Bug Enhancement Program

Goal is to reduce the volume and pounds of biosolids that need to be disposed from the aerobic digesters, thus saving money in the wastewater treatment budget.

Operation strategy will be adding a bug enhancement program to the influent and closely monitoring the digesters temperature, oxygen levels, volume, settleability and the timing of the removal process and wasting process

Data current cost of biosolids disposal is \$0.117 per gallon/0.065 transportation and 0.052 disposal
 2016 biosolids disposal was 1,274,000 gallons
 Last three average was 1,084,000 gallons

Bugs are added at a rate of 1/2 pounds per day. With a cost of \$10.70 per day.
 Annual cost approximately is \$ 4000.00

Date	Volume Wasted gallons	Volume Decanted gallons	Volume Disposed gallons	Volume Boisolids in tank	Bugs cost Dollars	Cost savings of Decant Vol.	Net savings	Biosolids Disposal cost
Dec 1,2016 to April 30,2017	277,000	49,375	0	225,000	\$1,650	\$5,777	\$4,127	\$0
May	153,750	75,000	105,000	180,000	\$332	\$8,775	\$8,443	\$12,285
June	180,000	34,375	189,000	162,250	\$321	\$4,022	\$3,701	\$22,113
July	147,500	10,700	126,000	165,000	\$332	\$1,252	\$920	\$14,742
August	172,500	1,250	175,000	150,000	\$332	\$146	-\$186	\$20,475
September	150,000	39,750	168,000	108,750	\$321	\$4,651	\$4,330	\$19,656
October	177,500	37,500	168,000	86,250	\$332	\$4,388	\$4,056	\$19,656
November	36,000	3,200	112,000	0	\$321	\$374	\$53	\$13,104
Total	1,294,250	251,150	1043000	0	\$3,941	\$29,385	\$25,444	\$122,031

Notes Started bugs an January 4, 2017 with 10 one pound bags.

cold temp and high O2 levels affect settleability.

Takes about 4 months or more to fill digester before they can be decanted.

Summer odor problems occurred sometimes when turning air back on to digester.

Jar tests don't always match digester settleability

Worked on modifying the decanting system to decant more volume when tank is full and be able to decant when the tank is not full.

DATE: November, 29 2017

TO: Mike Roth, City Administrator

FROM: Thomas Nelson
Wastewater/Water Superintendent

RE: Mike Senty Lawn Water Meter Issue.

Mike

Here are the findings of the Mike Senty water meter usage issue.

The meter was a used water meter sold to Mike Senty for lawn watering by the PUC. The meter was installed on August 5, 2015 and had a reading of 28810 gallons. The meter to this date still had a reading of 28810 gallons, showing zero usage. I determined the meter register did not work, reason unknown. Upon the analysis on Mike Senty's water usage from June 2015 to present of the non high water usage months showed an average monthly usage of 3060 gallons/month. The total usage for the summer five months that had extremely high water usage less the 3060 gallon/month average was 39300 gallons.

The lawn water metering program allowed buy the PUC was established to allow customer to apply for a sewer credit for water that doesn't go into the PUC sanitary system. The meter purchase and installation and maintenance are solely the responsibility of the customer. The PUC staff attempts to reads the meters in the fall of the year. Some meters do go unread do to no accessibility issues.

Therefore Mike Senty is responsible for the meter and insuring the meter is working. Mike Senty should have notice the register not recording any increase in usage back in 2015. But since I determined that 39300 gallons of water with a high degree of certainty was used for lawn watering purpose and did not go into the sanitary sewer, the PUC Board could approve a sewer credit for Mike Senty up to 39300 gallons and provide a different register at no cost.

Thanks

Thomas Nelson
Water/Wastewater Superintendent
Grand Marais Public Utilities

From: **George Wilkes** gwilkes@boreal.org
Subject: **Climate Change and AEC**
Date: **October 20, 2017 at 7:45 PM**
To: **Scott Harrison** nburns@lutsenresort.com, **Yusef Orest** yorest@arrowhead.coop
Cc: **Staci-Lola Drouillard** localenergy@boreal.org, **Don Grant** dcgrant@boreal.org, **Chris O'Brien** obriencl79@gmail.com, **Shane Steele** shane.w.steele@gmail.com, **Jay Arrowsmith DeCoux** jay.a.decoux@gmail.com, **Mike Roth** cityhall@boreal.org, **Jeanne Wright** wright@boreal.org, **Rebecca Wiinanen** wiinanen@boreal.org



Dear Scott and AEC Staff and Board,

I wanted to follow up on our recent Carbon Fee and Dividend presentation with a personal note.

Scott had asked at the end of the presentation what we were asking of AEC. Well, it would be great to get a letter from AEC endorsing Carbon Fee and Dividend sent out to our congressional delegation! But I realize that is probably not going to happen right now — maybe down the road.

More importantly, and more fundamentally, your community and your members are asking for AEC's engagement on the climate change crisis. With 97% of climate scientists being convinced, based on the evidence, that human caused global warming is happening, it is no longer acceptable to disregard this issue. See here: <https://climate.nasa.gov/scientific-consensus/>

Essentially, AEC is being asked to "call the question." Either you decide that climate change is not a threat to AEC and its members in which case you have a responsibility to explain why you disagree with 97% of climate scientists (I don't recommend this option); or you decide that climate change is indeed a threat to AEC and its members in which case you have a responsibility to begin working explicitly towards climate change solutions. The third option, which is what AEC and GRE are substantially doing now and which is no longer a reasonable response, is to ignore the issue, and to continue doing so is increasingly morally and even legally negligent.

So, at least from my personal perspective, that is the "ask." And maybe a first step is to set up a process within AEC to explicitly address climate change. I am hoping that AEC will be willing to work with the Cook County Local Energy Project, Citizen's Climate Lobby, and Nordic Nature Group. These groups are working now on suggestions for how they (we) might partner with AEC to work together towards climate change solutions.

Many thanks for your consideration,

George Wilkes
Grand Marais
218 387 2137
gwilkes@boreal.org

<https://climate.nasa.gov/scientific-consensus/>



Arrowhead Cooperative

November 17, 2017

Hi George,

Thanks for your letter of 10/20/17 helping the Coop Board and staff understand what you are asking us for. It was certainly implied at your presentation at our Board meeting but it is now clearer.

You are asking AEC to address climate change which implies that we haven't. We actually feel that we've made some good progress in this area and I've attached a summary of the numerous things that Arrowhead and our supplier GRE have initiated and implemented. As you are aware, AEC is the second smallest of 28 coops distributing power to their members from GRE. Despite our small size, our previous board member, Tom Spence, provided a significant leadership role as our representative to the GRE Board of Directors in driving that Board to accelerate its plan to increase its reliance on renewables at the expense of coal. The graphs enclosed reflect this commitment. This current diversification effort away from coal is significantly ahead of the state's mandate. Given this commitment and progress to date, what specific methodology do you suggest we pursue to continue to address climate change (other than write our state or federal legislators)?

We are open to engaging with representatives of your group and the city (Mike and/or his PUC directors) to try and define various roles of engagement. Joe Pandey, our new CEO, will reach out to Mike and ask if they are open to this idea. If all parties agree to meet and discuss, I feel it is important to define the topic(s) which would address feasible methodologies of engagement consistent with our scale.

Hopefully we can focus constructively on this.

Sincerely,

Scott Harrison
Board Member

