# LAKE LIMERICK COUNTRY CLUB WATER COMMITTEE MEETING

# Minutes of July 11th, 2020 Meeting Location: ZOOM Internet Meeting

The Meeting was held online via ZOOM Meeting on the internet. The meeting was called to order at 9am by Chairman Don Bird.

MEMBERS ATTENDING: Chairman Don Bird, Secretary Pat Paradise, Treasurer Esther Springer-Johannesen, and members Phyllis Antonsen, Kelly Evans, and Brandon Koch.

Board of Directors Attending: Dean Dyson

Employees Attending: Water Manager Doug Carothers

Contractors Attending: none Guests Attending: none

## Approval of Minutes:

A motion was made by Kelly Evans, seconded by Esther Springer Johannesen, and passed with no nays to approve the minutes of June 13th 2020 as written.

Additions to Agenda: none

Comments from any Guests: none

## Financial Report:

1) Water System Financial Report: A draft financial report was provided by treasurer Esther Springer-Johannesen including a budget to actual expenditures, 2020 capital expenditure budget, investments, and cash on hand.

Currently water committee is \$36,000 over budget. Overages are a result of 3 main items: unbudgeted tree removal, equipment rental to maintain water system, and unbudgeted additional Northwest Water Systems support to maintain our water system during our water manager search/hiring.

- 2) Accounts Payable/Receivable update Treasurer Esther Springer-Johannesen Accounts payable/receivable is tracking and there is no documented decline in revenue due to impacts of the Corona Virus. Payables and receivables will be monitored closely for any financial impacts attributable to the current health pandemic.
- 3) Cd and Money Market Review: A Cd and Money Market report was provided by Esther and attached for record.

### 4) Reserve Study Status:

Water Reserve Study continues to be worked on by NWS. A draft copy is due within a few weeks. A questionnaire was received for review/comment by water manager from NWS for incorporation into the draft copy of the water study. Water manager and Water Committee Chair will review, provide answers, and return to NWS.

A motion was made by Kelly Evans, seconded by Phyllis Antonsen, and passed with no nays to accept the financial report as presented.

### Water Distribution Mangers Report:

1) Manager's report and consumption spreadsheet: The report was very complete and is attached for record.

Consumption spreadsheet (attached): The calculated water loss for the month is 9.2% and for the year is 7.5% with a goal of remaining under 10%. The consumption report is attached for record. Increase in water loss percentage due to leak in 4" main (see item 2 under new business)

- 2) Additional Water Testing: LLWS performed water sampling for the month of June and received one dissatisfactory result. This required follow up bacteria samples and resulted in clear/absent test results. No further measures were required. LLCC Water Manager made a recommendation to consider treating our water system with low levels of Chlorine. A discussion of possible water treatment with Chlorine and Fluoride was raised, no action taken except a commitment to educate water committee members on pros and cons of various treatment possibilities and associated costs.
- 3) Status of SCADA system: Doug provided a summary of the scada system and the system is working well. Minor issues are being documented and resolved. The remote text alarm system to notify by cell phone of potential water system issues is being reactivated.
- 4) Badger Analytics meter reading and billing status: Doug provided a summary of the Badger Analytics meter reading and billing experience. The upgraded software and meter reading hardware is working very well. Last meter reading only took a few hours and results were positive. A result of the software upgrade is that we can now detect possible leaks on the "owner side" of the water system.

Correspondence: none

#### Old Business:

- 1) Navy railroad trestle seismic retrofit project: Existing LLCC water main running under the trestle location has been marked for reference.
  - A. Engineering contract with Morrissette: The Navy has finally responded to our requests to sit down and resolve right of way issues. Our Lawyer has recommended that we procure the services of an Engineer to assist in preparation of documents and provide services to assist our legal team and LLCC to maintain an utility easement from NAVFAC Northwest (navy).

A phase one scope of work will provide research, examining available drawings and data for the water main crossing under the Navel Trestle. As well as working with our attorney to make initial contacts with the Navy.

A phase two scope of work may be negotiated later based on phase one results.

A motion was made by Kelly Evans, seconded by Brandon Koch, and passed with no nays to enter into a professional services agreement with Morrissette & Associates to provide phase one services to assist LLCC and our attorney in maintaining a water main easement with the navy at a cost not to exceed \$2,250.00.

- 2) Water System Plan status: NWS continues to work toward completion of a draft water system plan upgrade. NWS sent a list of questions for review and comment needed to complete the draft copy of the survey. Water manager and water committee chair will review and respond to questionnaire providing needed information to NWS. The draft copy should be available in a few weeks but is still being completed. LLCC Water Committee will receive a draft copy for review and comment in a few weeks.
- 3) Water billing considerations:
  - a) Water billing considerations due to Covid 19 there was a brief discussion as to what additional information if any should be provided to membership during the Covid 19 epidemic. Front office can prepare a draft informational packet for review, comment, approval by water committee for distribution to membership.
  - b) Damage charges discussion of adequate fee structure for repairs needed due to customer tampering with meter, shutoff valves, and accidental damages caused by members or their contractors. Water manager will look into developing / updating fee structure for any damages and will have discretion to determine whether to charge for minor damages. IE damage to water box or lid. Task at hand is to develop a fully burdened hourly rate for normal working hours as well as afterhours/weekend repairs if needed.
- 4) Water system security and recent trespassing incident update: A group of 3 or 4 teenagers recently trespassed into one of our well sites. The intrusion created a safety hazard both for the teenagers and for our water supply. It is a federal offense to trespass into a well site. New signage has been installed and a more secure fencing system will be provided to help secure the well site. There is an ongoing effort to identify and "educate" the offenders about the risks they are taking to themselves and to our water supply.

#### New Business:

- 1) NWS responsibilities update: LLCC Water manager is reviewing services provided under contract by Northwest Water Services. There may be work items that could be provided by our water manager instead of by NWS. LLCC water manager will provide a list of tasks that are currently provided by NWS and that could be provided by LLCC water system. Discussion will proceed once this list is provided. It is not the intent of the water committee to discontinue contracting with NWS only to review current scope prior to contract negotiation.
- 2) Leak on 4" water main by 470 Penzance, homeowner expenses and options for long term repair: There was a leak on a 4" water main caused by tree root intrusion into the water line. A few problems resulted from this mainline leak.
  - a) Adjacent homeowner septic tank and crawl space was subject to water intrusion caused by the leak. LLCC water system will absorb the cost of pumping the tank to mitigate damages to the homeowner.

- b) Water manger will provide a sketch of existing water main loop and draw up possible solutions for permanent repair of this section of the water system.
- c) Leak caused a higher than usual loss of water from our water system. Loss noted in water manager July consumption report
- d) LLCC water system was unable to provide timely notification to a few residents who were temporarily without water service during this repair. LLCC water system and water committee are looking for ways to improve communication with membership during unexpected outages.

A motion was made by Brandon Koch, seconded by Kelly Evans, and passed with no nays to pay for the effected homeowners cost of septic tank pumping due to water intrusion into the homeowner septic system caused by a LLCC water main pipe leak.

Commitments Review: None

#### Announcements:

 Next meeting 9am Saturday August 8<sup>th,</sup> 2020 – ZOOM Internet or Lake Limerick Clubhouse (crow's nest)
 Location and format to be determined based on social distancing requirements

Motion to convene to closed session: none

Motion to reconvene to open session: none

Motion to accept all closed session motions: none

Motion to recommend to the LLCC Board of Directors:

Motion to adjourn: A motion to adjourn was made by Brandon Koch, seconded by Kelly Evans, and passed with no nays as follows: To adjourn the meeting at 10:55am

These minutes have not been approved by the Water Committee.

They have been respectfully submitted by Pat Paradise.

### MOTIONS FOR BOARD:

#### Approval of Minutes:

A motion was made by Kelly Evans, seconded by Esther Springer Johannesen, and passed with no nays to approve the minutes of June 13th 2020 as written.

#### Approval of Financial Report:

A motion was made by Kelly Evans, seconded by Phyllis Antonsen, and passed with no nays to accept the financial report as presented.

Navy Trestle water main right of way:

A motion was made by Kelly Evans, seconded by Brandon Koch, and passed with no nays to enter into a professional services agreement with Morrissette & Associates to provide phase one services to assist LLCC and our attorney in maintaining a water main easement with the navy at a cost not to exceed \$2,250.00.

# Penzance Water Main Leak Damages:

A motion was made by Brandon Koch, seconded by Kelly Evans, and passed with no nays to pay for the effected homeowners cost of septic tank pumping due to water intrusion into the homeowner septic system caused by a LLCC water main pipe leak.

Motion to adjourn: A motion to adjourn was made by Brandon Koch, seconded by Kelly Evans, and passed with no nays as follows: To adjourn the meeting at 10:55am

# Lake Limerick Water Systems BUDGET TO ACTUAL

Month Ended Jun 30, 2020

	Variance	Month Budget		Month Actual	<b>D</b>		ar to Date Actual		ar to Date Budget	Va	ariance		2020 Budget	% of Budget
\$	(19,350)	\$ 54,872	\$	35,522	Revenue Gross Revenue Water	\$	338,381	\$	376,673	\$	(38,292)	\$	495,900	<u>75%</u> 68.24 %
\$	(19,350)	\$ 54,872	\$	35,522	Total Revenue	\$	338,381	\$	376,673	\$	(38,292)	\$	495,900	68.24 %
					Operating Expenses									
\$	(781)	\$ 1,250	\$	469	Automobile Expense	\$	4,537	\$	11,250	\$	(6,713)		15,000	30.25 %
\$	(36)	\$ 100	\$	64	Bank Service Charges_	\$	649	\$	900	\$	(251)	181	1,200	54.05 %
\$	37	\$ 42	\$	79	Computer and Internet Expenses	\$	3,827	\$	375	\$	3,452	\$	500	765.44 %
\$	(25)	\$ 25	\$	0	Dues & Subscriptions	\$	1,914	\$	1,944	\$	(30)		2,000	95.70 %
\$	(1,222)	\$ 11,008	\$	9,787	Employee Expense	\$	72,240	\$	99,075		(26,835)		the state of the state of	54.69 %
\$		\$ 0	\$	0	Equipment Rental	\$	10,091	\$	4,000	\$	6,091	\$	4,000	252.28 %
\$	(105)	\$ 1,708	\$	1,604	General Liability Expense	\$	11,820	\$	15,375	\$	(3,555)		20,500	57.66 %
\$	0	\$ 0	\$	0	Interest Expense	\$	1,631	\$	1,500	\$	131	\$	1,500	108.74 %
\$	. 0	\$ 0	\$	0	License & Permits	\$	1,605	\$	1,550	\$	55	\$	2,200	72.95 %
\$	(25)	\$ 25	\$	0	Meals and Entertainment	\$	69	\$	225	\$	(156)	\$	300	23.10 %
\$	256	\$ 200	\$	456	Merchant Account Charges	\$	4,150	\$	1,800	\$	2,350	\$	2,400	172.91 %
\$	(25)	\$ 25	\$	0	NSF Check Fees Returned Items	\$	30	\$	225	\$	(195)	\$	300	10.00 %
\$		\$ 67	\$	38	Office Supplies	\$	127	\$	600	\$	(473)	\$	800	15.94 %
\$	(125)	\$ 125	\$	0	Office Expense	\$	122	\$	1,125	\$	(1,003)	\$	1,500	8.13 %
\$			\$	0	Postage and Delivery	\$	3,274	\$	3,375	\$	(101)	\$	4,500	72.76 %
\$		\$ 4,000	\$	3,431	Professional Fees	\$	66,073	\$	39,000	\$	27,073	\$	55,000	120.13 %
\$		\$ 1,000	\$	0	Repairs and Maintenance	\$	38,455	\$	21,000	\$	17,455	\$	30,800	124.85 %
\$		\$ 267	\$	0	Service Contracts	\$	0	\$	2,400	\$	(2,400)	\$	3,200	0.00 %
\$		\$ 333	\$	272	Small Tools and Equipment	\$	1,762	\$	3,000	\$	(1,238)	\$	4,000	44.04 %
\$		\$ 1,000	\$	252	Supplies	\$	6,433	\$	9,000	\$	(2,567)	\$	12,000	53.61 %
9	0	\$ 0	\$	0	Taxes - Property	\$	365	\$	0	\$	365	\$	0	
\$		\$ 1,823	\$	1,461	Taxes - Public Utility	\$	12,747	\$	11,245	\$	1,502	\$	15,000	84.98 %
\$		\$ 158	\$	167	Telephone Expense	\$	3,427	\$	1,425	\$	2,002	\$	1,900	180.35 %
\$		\$ 42	S	0	Travel Expense	\$	7	\$	375	\$	(368)	\$	500	1.40 %
\$		\$ 250	\$	0	Uniforms	\$	0	\$	750	\$	(750)	\$	1,000	0.00 %
9		\$ 1,950	\$	2.016	Utilities v	\$	18,899	\$	14,450	\$	4,449	\$	21,000	89.99 %
9		\$ 417	\$	190	Water Testing	\$	1,401	\$	3,750	\$	(2,349)	\$	5,000	28.03 %
2					-			Anthropo		micros		minute	220 200	
260	(5,903)	\$ 26,189	\$_	20,286	Total Operating Expenses	\$	265,656	\$	249,714	\$	15,941	\$	338,200	78.55 %
\$	(13,447)	\$ 28,683	\$	15,236	Operating Income (Loss)	\$	72,726	\$	126,959	\$	(54,233)	\$	157,700	46.12 %
					Other Income									
9	609	\$ 67	\$	675	Interest Income	\$	5,966	\$	600	\$	5,366	\$	800	745.81 %
7	003	reconstructive to the control	-		-	-	AND THE PERSON OF THE PERSON O	w/dama/state		without	strategic system between	,		
\$	609	\$ 67	\$	675	Total Other Income	\$	5,966	\$	600	\$	5,366	\$	800	745.81 %
40	(12,838)	\$ 28,749	\$	15,911	Net Income (Loss)	\$	78,692	\$	127,559	\$	(48,867)	\$	158,500	49.65 %
			navoteko	(10,864)	Main Line and Well Capacity Reserves	\$	(97,345)	\$	(99,229)		ā	\$	(130,400)	
				5,047	Well 40 Land Danson and	e	(18,653)	r.	28,330			d	28,100	
					Well #6 Loan Repayment	<b>Circumstance</b>	(18, 123)	edentary/school	(18,100)			modeous	(18, 100)	•
						\$	(36,776)	\$	10,230			\$	10,000	-

#### Jun-20 CAPITAL EXPENDITURE BUDGET FOR 2019/2020

Juli-20 CAFITAL EXPENDITORE BODGET FOR 2019/2020							
HOA Capital Expenditure		Budget	9	<u>Committed</u>	Sp	ent to date	Remaining
Inn refloor Rest & Lounge	\$	14,000.00			\$	13,875.84	\$ •
Inn Refloor entrance & stairs	\$	5,000.00			\$	5,068.52	\$ -
Inn Architect review	\$	5,000.00					\$ 5,000.00
Inn ADA bathroom construction	\$	11,500.00					\$ 11,500.00
Lake Olde Lyme Park	\$	15,000.00					\$ 15,000.00
LakeReseal Sport court	\$	6,000.00	\$	5,994.72			\$ 6,000.00
Lake Inn Island repair	\$	25,000.00					\$ 25,000.00
Golf Cart replacement	\$	25,000.00			\$	25,000.00	\$ -
Golf Landscaping enhancement	\$	5,000.00					\$ 5,000.00
Golf Greens Equipment	\$	5,500.00					\$ 5,500.00
	\$	117,000.00	\$	5,994.72	\$	43,944.36	\$ 73,000.00
Water System Capital Expenditure		<u>Budget</u>	9	<u>Committed</u>	Sc	ent to date	Remaining
Upgrade ladders, hatches and openings on tanks (4) for DOH and OSHA compliance	\$	32,000.00			\$	18,217.15	\$ 13,782.85
Hydrologic study regarding well capacity improvements and well consolidation	\$	30,000.00					\$ 30,000.00
Recondition Well 6 or add new well to improve flow	\$	20,000.00					\$ 20,000.00
Well level meters to monitor aquifer level and add to SCADA	\$	9,500.00					\$ 9,500.00
Flow meters to water network to measure demand and detect leaks and add to SCADA	\$	8,500.00					\$ 8,500.00
Test and calibrate or replace source meters to improve accuracy and add to SCADA	\$	11,000.00					\$ 11,000.00
Generator at Well 4 and/or Well 1 (natural gas or propane?)		49,000.00					\$ 49,000.00
Storage Building for pipes etc		12,000.00					\$ 12,000.00
Storage building for blocs etc	J						
Storage building for pipes etc_	\$	172,000.00	\$	nacentina service administratificação de medical de primero de pri	\$	18,217.15	\$ 153,782.85

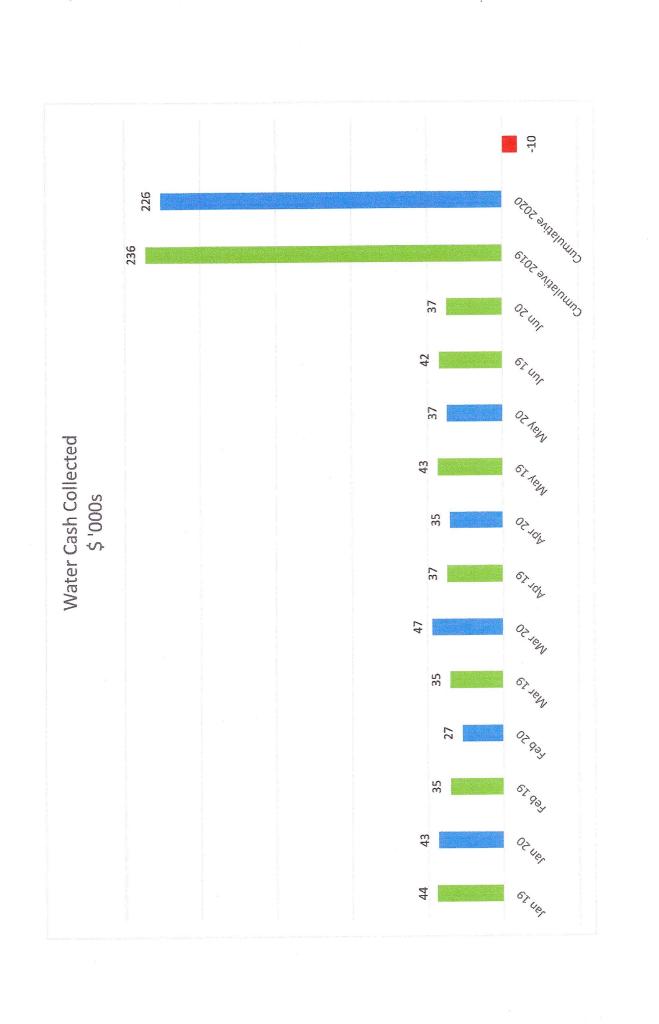
#### EDWARD JONES INVESTMENTS 30-Jun-20

			<u>Purchase</u>			Maturity	Maturity	5.07	terest at	FDIC				
Acct No. HOA	Type	<u>Value</u>	date		Rate	<u>Date</u>	Value	V	<u>/laturity</u>	Insured	<u>Jul</u>	Aug	<u>Oct</u>	<u>Jan</u>
841-01533-1-9	Cert of Deposit	\$ 100,000.00	1/22/2020	Hancock Whitney Bk Gulfport	1.65%	8/21/2020	\$ 100,000	\$	958.36	Yes		\$ 100,000		
	Cert of Deposit	\$ 115,000.00	4/22/2020	Bank of China New York City	1.00%	10/22/2020	\$ 115,000	\$	576.58	Yes			\$ 115,000	
	Cert of Deposit	\$ 94,000.00	5/21/2020	Bank of China New York City	0.25%	8/21/2020	\$ 94,000	\$	59.23	Yes		\$ 94,000		
	Cert of Deposit	\$ 116,000.00	6/25/2020	Bank of India New York	0.15%	1/27/2021	\$ 116,000	\$	102.97	Yes				\$ 116,000
	Cash	\$ 195,322.78		Edward Jones	0.01%					Yes	Ministratoria ministratoria di proprio del del grando proprio del constanti del consta			
		\$ 620,322.78										\$ 194,000	\$ 115,000	\$ 116,000
HOA		Production of the second secon												
841-20043-1-2	Bank Deposit	\$ 24,618.36		Bank of China	0.10%					Yes				
	<b>Bank Deposit</b>	\$ 21,170.20		Trust Bank	0.10%					Yes				
	Bank Deposit	\$ 6,803.36		Well Fargo Bank	0.10%					Yes				
	<b>Bank Deposit</b>	\$ 47,644.86		Citibank	0.10%					Yes				
		\$ 100,236.78												
WATER														
841-11177-1-9	Cert of Deposit	\$ 247,000.00	1/27/2020	Bmo Harris Bk Natl Assn	1.65%	7/27/2020	\$ 247,000	\$	2,032.17	Yes	\$ 247,000			
	Cert of Deposit	\$ 185,000.00	4/21/2020	Trust Bk Charlotte NC	1.00%	10/21/2020	\$ 185,000	\$	927.53	Yes			\$ 185,000	
	Money Market	\$ 314.12		Edward Jones	0.01%					Yes				
		\$ 432,314.12												
WATER														
841-20044-1-1	Cert of Deposit	\$ 151,000.00	1/17/2020	Wells Fargo West Las	1.70%	10/19/2020	\$ 151,000	\$	1,941.07	Yes			\$ 151,000	
	Cash	\$ 97,610.68			0.01%					Yes	and or constructive and analysis and an arrangement of the construction of the constru	PARTICULAR CONTROL OF THE STATE		i
		\$ 248,610.68									\$ 247,000		\$ 336,000	
		**************************************												

HOA	YT	D Interest
841-01533-1-9	\$	3,787.53
841-20043-1-2	\$	356.32
	\$	4,143.85
Water	Vī	D Interest
vvalei		
841-11177-1-9	\$	2,519.82
841-20044-1-1	\$	2,698.71
	\$	5,218.53

Jun 2020

Location	Туре	Name		Balance	Operating		Savings		Reserve
НОА									
Heritage	Checking-0214	Operating	\$	165,599.60	\$ 165,599.60				
110.110.90	Money Market-4023	LLCC Savings	\$	92,670.90	,	\$	92,670.90		
	Savings-5841	Golf Projects	\$	8,837.73		\$	8,837.73		
Edward Jones # 01533	Various Investments	HOA Capital Svgs	\$	620,322.78				\$	620,322.78
Edward Jones #20043	Various Investments	HOA Capital Asset Repair	\$	100,236.78				\$	100,236.78
		Total HOA	\$	987,667.79	\$ 165,599.60	\$	101,508.63	\$	720,559.56
WATER	t Amazakaba amba puntu kara kara ak maka sinama marupun ak maka kara mata kara sa s		water to the second	n de kriste fan ste ferske fan de ferske fan de ferske fan de ferske ferske ferske ferske fan de ferske ferske	abblication editories occupy their visit of the second section of the second distribution of the secon			DARPHIS HIS DETERMINENT	Alla Augustian (groupe and a singuistic and a second and a second
Heritage	Checking-8937	Water Operating	\$	19,026.68	\$ 19,026.68				
, , , , , , , , , , , , , , , , , , , ,	Money Market-8953	Water Mainline	\$	65,793.42				\$	65,793.42
	Money Market-8945	Well #6 Reserves	\$	46,628.50				\$	46,628.50
occu	Checking-0216S50	Water Committee	\$	116,314.90	\$ 116,314.90				
	Savings-0216S7	Water Committee	\$	102,123.88		\$	102,123.88		
Edward Jones #11177	various length investments	LLWS Mainline Reserve	\$	432,314.12				\$	432,314.12
Edward Jones #20044	various length investments	LLWS Capacity Reserve	\$	248,610.68				\$	248,610.68
Heritage Bank	\$ 398,556.83	Total Water	\$	1,030,812.18	\$ 135,341.58	\$	102,123.88	\$	793,346.72
OCCU	\$ 218,438.78								
Edward Jones	\$ 1,401,484.36	STARP STARPS	<u> </u>	2 049 470 07	\$ 200 044 49	¢	203,632.51	¢	4 542 006 29
	\$ 2,018,479.97	TOTAL:	\$	2,018,479.97	\$ 300,941.18	\$	200,002.51	À	1,513,906.28





# Lake Limerick Water

# Manager's Report June

July 11th, 2020

Lake Limerick Water System: Water Committee Meeting regarding May 2020.

The general condition of the water system is good, with reliable water availability to the customers.

SCADA is regularly monitored and operated everyday.

#### Well Conditions:

- Well #1 is operating "normally". Frequent Comms/electrical issue (Working on it)
- ₩ell #2 is still in stand-by and is considered a Seasonal use per Water Rights.
- ₩ Wells #3A/3B are operating "normally".
- ♣ Well #4 is operating "normally".
- ₩ell #5 is operating "normally".
- Well #6 is operating "normally". Although, frequent motor/VFD failures (working on it)

#### Water Usage:

6,846,600 gallons were pumped, 6,220,071 gallons were metered from distribution 626,839 gallons net loss 9,2% Loss

#### **Customer Concerns:**

LLWS had 13 regular locates.

## Water Sampling:

LLWS performed water sampling for the month of June and received one dissatisfactory result. The required follow up bacteria samples resulted in clear/absent. Thus, no further measures were required.

# **Action Items**

Well Site #6: There have been issues with the motors having "errors." I am working to resolve this.

A large water main leak had existed for most of the month of June and into July. This leak occurred on a previously believed abandoned section of water main. This leak was caused by a 4"-5" Douglas Fir root that grew and wrapped itself around the AC water main. Further analysis and investigation will be discussed with the water committee.

Late night call outs and well site failures are frequently occurring.

Alarms still in effect at sites #2 (currently off), and #5 (intrusion alarm).

#### Leak on Water Main

For most a large portion of June and into July we had a relatively high flowing water main leak between the end of Penzance Rd. and St. Andrews Dr.

This leak did not surface and thus not visible above ground. The homeowner near the leak had previously report "some" water in their crawlspace that later started to drastically increase flow. After their septic tank began filling up at a quick rate we decided to dig on previously believed abandoned water main. The AC watermain was broken by a 4"-5" Douglas Fir root that had wrapped around it. While it is repaired for now, it is an old water main that still has similar trees growing around it and crosses a golf course fairway.

I suggest abandoning the above AC water main and installing 2" blowoff valves at both termination points. While no homes will be impacted by the abandoning this main there is a fire hydrant about 200 yds down Penzance Rd that could have some flow impact. Fire Hydrants are not supposed to installed on water mains that are less than 6" diameter - it is a 4" AC main. This hydrant currently has water flowing to it from two directs. Abandoning this main section will limit this already low flow hydrant to receiving water from only one direction.

#### **Positive Bacteria Sample and Chlorine Suggestion**

As we all know, we had a positive coliform bacteria sample at the end of June. After the positive sample I called the DOH and confirmed their subsequent repeat sampling requirements. The repeat samples came back absent and not further actions were required.

We are responsible for maintaining public health by delivering safe, clean and reliable drinking water to our customers. To this end, I suggest that we consider adding chlorine to our drinking water. Chlorine disinfects/inactivates bacteria and viruses that may be present in drinking water. Since we are not treating surface water our chlorine contact time can be maintained in the reservoirs and distribution system. We do not fall under the "Surface Water Treatment Rule" and our goal would be to maintain a minimal chlorine residual in the distribution in order to safeguard against the possible introduction of pathogens (viruses and bacteria).

The use of chlorine should minimize the chances of positive bacteria samples, boil orders, whole system disinfection, the associated expenses like you had in November 2019, and better safeguard human health.

Injecting chlorine would most likely result in LLWS needing to perform Disinfection Byproduct (DBP) testing a few times per year. This would add a \$200 - \$400 hundred dollars to the annual budget.

I would recommend running the distribution chlorine residual at around 20ppm – 30ppm (parts per million) at the farthest reaches of the distribution system. While 20ppm is the lowest allowed level in the SDWA (Safe Drinking Water Act) most utilities keep it at 0.6ppm – 3.9ppm. But these systems are following the SWTR (Surface Water Treatment Rule). We can run the chloring levels as low as we desire since we are not required to use it.

Total Volume Produced Welf #1	January-20	January-20 February-20	March-20	April-20	May-20	June-20	Merch-20 April-20 May-20 June-20 July-20 August-	ugust-20	September-20	October-20	July-20 August-20 September-20 October-20 November-20 December-20	December-20	Totals
OF STATE OF STATE OF	740 000	860 000	910 500	1 028 800	451 ROD	557 700	1						4 346 600
	0	o		0	0	0							0
Total Volume Produced Well #3a	788,700	767,400	568,800	704,300	260,200	1,341,700							4,431,100
Total Volume Produced Well #3b	1,065,300	1,027,400	763,900		652,000 1	1,845,100							6,846,400
Nume Produced Well #4	213,800	222,900	731,800		1,503,200	1,120,900							4,531,200
Total Volume Produced Well #5	24,700	121,400	538,800		858,600	902,400							2,947,200
Total Volume Produced Well #6	1,575,500	904,000	790,000	518,300	2,335,600	1,079,100							7,202,500
1 B. Total Volume Purchased	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1. Total Water Produced All Sources:	4,408,000	3,703,100	4,303,800	4,981,800	6,081,400 6,846,900	3,846,900	0	0	0	0	0	0	30,305,000
				TOTAL	TOTAL VOLUME CONSUMED	CONSUM	IED						
2 A. Water Volume Metered	3,669,889	3,526,709	4,089,105	4,737,702	5,816,966 6,220,071	3,220,071							28.040.442
2 C. Estimated Authorized Uses													
may be billed or Unbilled)	Ì	Ī		1	1	1	1						
Utility Flushing and Tank Cleaning					1								
200													
Storm or Sewer Cleening / Street Sweep													
Offier													
Distribution storage - Allowed													
	3,669,889	3,526,709	4,069,105 4,737,702		5,816,966 6,220,071	8,220,071	0	0		0	0	0	28,040,442
Total Volume DSL	738,111	176,391	234,695	244,098	244,434	626,829	0	0	)	0 0	0	0	2,264,558
Percent DSL	16.7%	4.8%	5.5%	4.9%	4.0%	9.2%							
			L.										
Year to Date Total DSL:	7.5%			Compliar is based last t	Compliance with leakage standard is based on a 3-year average from last three submitted years	ar averag mitted year	andard e from	•	10.6%				
				Next year	Next years 3 year average based current data	verage bi data	ised on		11.5%	le se de la			
	light (a	orff(yr)							1		11		100 100
Water Rights Data	AFY (Qa)	% of total	Total	16	Acre-feet used	pegn 1	Wwater right used	pesn Jul	WK allocated (AFY	red (AFY)		WK allocated (%)	MIPK (CI) GPM
5566-A (62-08049) AHA-974 SUS Well #1	111	75.7%	-	4,340,000	-	5.50	71.4%	8 8	-	34.4		A 40%	-
AEM HAW 500 0 (6-7-17 A-1000	200	12 0%	-	4 431 100	-	136	18.2	200		13.6		1.9%	100
APP G2-29483 AHA-975 S06 Well #38	254	36.3%		6.846.400		210	8.3%	%			-	600	
7012-A (G2-09889) AHA-973 S04 Well #4	79	11.3%	-	4.531,200	***************************************	13.9	17.6	%!	-	13.9	6	2.0%	100
G2-27215 AHA-977 S07 Well #5*	152	15.0%	-	2,947,200		9.0	6.0%	%				0.0%	
G2-27443 S08 Well #6*	160	15.8%		7,202,500		22.1	13.8%	%				%0.0	200
Total AFY without supplementals	7007	130.8%	6	30,305,000		93.0	13.3%	%		72.0	)[	10.3%	71
	-	Consultation of the Consul	-	The state of the last of the l		NAME AND ADDRESS OF THE OWNER, WHEN SHAPE AND AD		Address ( National Address of the Contract of					

#### Electrical Usage in KwH

	Jan-18	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total
Well#1	2,170	1,8691	2.464	2,463	1,182	1,098							11,24
Well#2		2844	1705	506	522	407							5,98
Well#3	6,319	5,698	4,964	5,800	2,505	7,164							32,45
Well#4	775	819	2,168	2,213	4,025	2,639							12,63
Well #5	403	720	2,177	1,990	3,620	2,726							11,6
Well#6	6,544	4,211	4,131	3,486	9,116	4,632							32,1
total:	16,211	16,161	17,609	16,458	20,970	18,666	0	0	0	0	0	0	106,0

			G	allons P	er KwH			Gal/KwH YTD
Well#1	341	353	370	417	382	508		395 AV
Well#2		0	0	0	0	0		0 AV
Well#3	293	315	268	379	364	445		344 AV
Well#4	276	272	338	334	373	425		336 AV
Weil#5	61	169	247	252	237	331		216 AV
Weil #6	241	215	191	149	256	233		214 AV
410							AVG Gai/KwH combined	i = 286
	070	000	044	202	000	207		

	Historical i	Data	
	Pumped	Sold	Loss
2010	69,790,309	66,840,300	4.2%
2011	60,958,882	56,483,665	7.3%
2012	57,963,886	54,775,298	5.5%
2013	56,859,553	54,275,297	4.5%
2014	62,649,611	60,973,228	2.7%
2018	66,109,416	61,749,171	6.6%
2016	66,784,811	62,157,037	6.9%
2017	64,963,044	62,010,322	4.5%
2018	67,149,235	64,162,480	4.4%
2019	79,119,500	61,189,708	22.7%
2020	30,305,000	28,040,442	7.5%
202	30,305,000	28,040,442	7.5%
2023	30,305,000	28,040,442	7.5%
2023	30,305,000	28,040,442	7.5%
2024	30,305,000	28,040,442	7.5%
2029	30,305,000	28,040,442	7.5%

Updated March 7, 2019 per Water Use Efficiency Guide Book Third Edition (Jan. 2017)
WSDOH Division of Environmental Health Office of Drinking Water Pub. DOH 331-375
Distribution System Leakage Notes: