



**General Manager**  
334 Front Street  
Ketchikan, AK. 99901

(907) 228-5603 phone  
(907) 225-5075 fax

TRANSMITTAL MEMORANDUM
------------------------

**TO:** The Honorable Mayor and City Council

**FROM:** Karl R. Amylon, General Manager

**DATE:** August 6, 2019

**RE:** **Project Status Reports of the KPU Operating Divisions – July 2019**

Attached for City Council review are the project status reports of the KPU operating divisions for the month of July 2019. Should the City Council have questions regarding the Division Managers' reports, staff can respond accordingly.

**MANAGER'S REPORT**  
**SALES, MARKETING & CUSTOMER SERVICE DIVISION**  
**July 2019**

Verizon wireless sales have been steady but below the level of 2018 year due to the significantly higher price of the newest Samsung and iPhone models, which account for the majority of sales. The iPhone can retail for as high \$1590 and the new Samsung are priced up to \$2000. The average time to upgrade phones has changed from 2-3 years to almost 6 years for most cell phone owners. Verizon technical assistance requests remained high at more than 100 requests for help in July, many from visitors to the community.

KPU's combined active and vacation-hold IPTV accounts in July increase by a few subscribers from June, primarily due to customers porting in from GCI. Combined active and vacation-hold Double play accounts were 4% higher than last year and 2% higher than June. Many of the customers were port ins from GCI, unhappy with the poor performance of GCI's internet and the high prices that they charge. Over 380 double play subscribers have opted for the unlimited data option. KPU added a stand-alone "no phone line" option that allows customers to save a small amount of money by not requiring the phone line. This was due to changes in federal regulations, which requires fees associated with the phone line, but not the line itself. There was a 20% increase in standalone customers from May to June, as most new customers opted to not have a phone line and since customers are looking to save expenses. This federal change also allowed KPU CSRs to save customers that would have disconnected due to the need for a phone line.

KPU Business techs continued to work to provide fiber services into additional locations in the downtown core, as well as building fiber extensions to major businesses on North Tongass. The fiber allowed customers to access the faster internet speeds on more stable fiber connections. This contributed to additional businesses porting services to KPU from GCI.

In July, KPU TV continued with several Tram Jams, which spotlights many local musicians performing in the Cape Fox tram. Other events and meetings which were covered were, Ketchicrafts: Mason Jars, several Taste of SE with Chef Bev, Music on the Docks featuring several musicians, Flag Talk at the library, Healthy Minds: Green Dot. A new talk series with Katherine Tatsuda, "Conversations with Katherine" was launched, the first with Mayor Dave

Landis. Lastly, several community meetings with City Council were filmed, as well as the Ward Cove Dock Chamber of Commerce presentation.

KPU Marketing has continued the efforts towards electric conservation. Businesses that have made efforts to conserve have been featured on social media, most recently First Bank, AJ's Burger, Ketchikan Wellness, Bear Crossing B&B. Additionally, tips for conservation have been posted regularly, also pointing citizens to the KPU Electric webpage to find conservation tips, to answer common questions regarding power generation, power outages, alternative energy sources, and how the diesel surcharge works.

# **MANAGER'S REPORT**

## **ELECTRIC DIVISION**

**July 2019**

### **Electric Shop and Meters**

- Meters. During the month, there were fifty (50) meter exchanges:
  - Twenty-three (23) changes from manual meters to RFN (Radio Frequency Node) meters.
  - Twenty-six (26) PLC (Power Line Communications) meter to RFN meters.
  - One (1) RFN meter exchange.
- Operations. Deployed the new safety Lock-out Tag-out (LOTO) equipment through the system. Removed the old battery bank and charger at Intake No. 1. Replaced lights and photo cells for lighting system throughout Ketchikan. Investigated, performed troubleshooting, and repairs for Beaver Falls (BF) door alarms, BF Generator No. 1, 3, and 4 voltage rheostats and rotor brushes, BF Generator No. 4 neutral transformer leak, Bethe AC Bus relays, Silvis generator brushes, Mt. Point DC system ground issue, Ketchikan stream gauge, multiple issues with the rental generators, Whitman Generator No. 1 and 2 rotor brushes, and Mt. Point Carrier Control Unit (CCU) for PLC metering. Installed new Mt. Point CCU, Ketchikan bearing oil level transducers, and fire protection systems at Ketchikan. Continuing metering upgrade for the Yukon system with Eaton/Cooper. Installed communications and power at the MILE4 generation site. Installed fuel tank grounding systems at new rental generating site. Service disconnects/reconnects. Continued support for the KPU diesel campaign and rental program.
- SCADA. Reconfigured SCADA programing for the MILE4 generation site. Investigated, performed troubleshooting, and repairs for SCADA at the adit value at Intake No. 1 and Back Island breakers. Continuing training new employee on the SCADA system. Records management activities and SCADA upgrade planning.
- Water Department. Investigated, performed troubleshooting, and repairs for the Water UV Plant backup PLC control, Bear Valley tank level and Ammonia Plant soda ash valve control.
- Harbors. Cleared sixteen (16) harbor trouble tickets.
- Telecommunications. No work planned or performed at telecommunications facilities.

### **Contingency Diesel Project**

- Currently, there are four rental generators with a total capacity of 6.4MW; these generators provided twenty-nine percent (29%) of required generation for KPU in the month of July.

## **Outages and Events**

- On Monday, July 22, 2018, at 7:37 PM, an outage affected all substation feeders and electric services in Ketchikan. This outage was caused by a lightning strike on the Swan-Tyee intertie (STI) and a loss of generation during the event. Initially all 7,641 customers were affected by the outage. Within 38 minutes, power was restored to all customers.

## **Plant/Fleet Maintenance**

- Continued diesel generation and fueling operations (Bailey, NPH Sub, Mud Bight No. 1 & No. 2, Ward Cove No. 1, Ward Cove No. 2/Mile 4 NTG).
- BAG3: completed piston leak down test; replaced expansion tank site glass; repaired myriad of oil leaks; repaired line leaks; began repairing exhaust leaks & replacing exhaust blankets
- Mud Bight No. 1: changed oil & filters; cleaned radiator
- Ward Cove No. 1: changed oil & filters
- NPH No. 1 (Cat): cleaned radiator; replaced crankcase breather
- KTNG3: troubleshot governor
- Upper Silvis Lake: brushing
- Ketchikan Lakes: brushing
- Fleet maintenance

## **Regulatory and Dam Safety**

- Met with ADEC staff regarding revisions to the Bailey Power Plant Title V permit, including equivalent fuel use limits and rescinding the requirement for ambient air quality monitoring. Prepared and filed minor permit application to convert operating hour limits to fuel use limits.
- Reviewed draft Preliminary Application Document for the Beaver Falls Relicensing Project.

## **SEAPA**

- SEAPA has been providing frequency support for the system and provided twenty-seven percent (27%) of required generation for KPU in the month of July.

## **Transmission & Distribution Work**

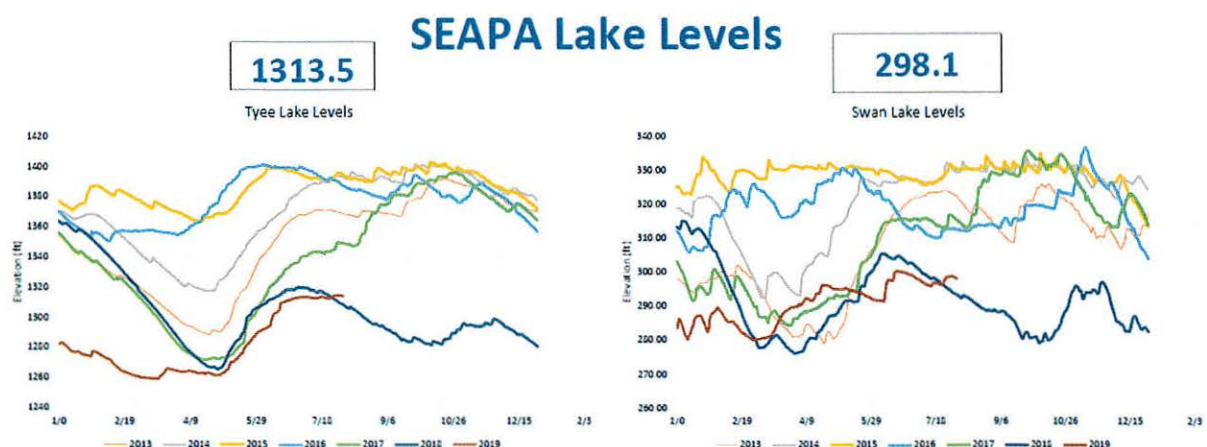
- Installed new undergrounds services, including: 14 Mile NTG, Emerald Forest, Mile 7.2 NTG
- Completed site prep & hook-up of Mile 4 NTG generator, including: setting new pole and running 34.5kV conductor; relocating unit transformer and associated primary & secondary conductor work; site fencing
- Completed associated work with the new Heckman 12.47kV breaker/recloser installation



- Conducted switching operations in support of BAG3 maintenance projects
- Performed switching and reconfigured a portion of Ketchikan Feeder 3 on Millar Street
- Replaced single-phase primary poles on Sunset Drive and on Stay Court
- Set two (2) new secondary/service poles: Ketchikan Lakes Rd; Pond Reef
- Reconfigured anchor/guy-wires on Oyster Avenue
- Completed a myriad of service & light orders

## Water Management/Diesel Supplement

- Electric loads for the month of July were slightly lower than 2018. July 2018 was 12,893 MWh and this year was 12,272 MWh; this reduction is due to the continuation of warmer than normal temperatures and community conservation efforts.
- Precipitation<sup>1</sup> for July was below normal in Ketchikan. Normal precipitation for July is 6.57 inches. This July was 4.30 inches and a departure from normal of -2.27 inches. However, this was an improvement from the 1.21 inches Ketchikan received in July of 2018. Year to date is 60.50 inches and a departure from normal of -7.07 inches; this time last year was 59.06 inches.
- Diesel generation for July totaled 3,565 MWh or roughly twenty nine percent (29%) of KPU's generation for the month.
- Lake levels responded to the infows, allowing sustained generation from SEAPA and KPU hydroelectric facilities at Ketchikan, Whitman, and Silvis Lakes. Hydropower provided seventy-one percent (71%) or 8,707 MWh of generation for the month.
- SEAPA continues curtailment of power exports from Tyee to KPU; the curtailment began on Monday, September 17, 2018 due to drought conditions. Tyee Lake is only generating for the "dedicated" use of the Northern Communities and net-zero frequency support for Ketchikan.
- Lake levels and "net" generation are shown in a separate report.



<sup>1</sup> Weather data is provided by the National Weather Service Forecast Office. <https://w2.weather.gov/climate/index.php?wfo=pajk>

MANAGER'S REPORT  
**TELECOMMUNICATIONS DIVISION**  
July 2019  
Operational Issues

**TELECOMMUNICATIONS DIVISION MANAGER**

In July our Plant Manager (Chastine Lynch) resigned, having accepted a telecommunications opportunity in Anchorage, AK. I am pleased to report that a local KPU Telecommunications technician, Jason Hudlin, applied for and was recently promoted to be our new Plant Manager. Jason most recently served (for the past 4 years) as KPU Telecommunications' OSP Foreman.

Notably, this is the third local Ketchikan resident hired and/or promoted into a KPU Telecommunications management position in the past 12 months (Network Engineering & Operations Manager, OSP Engineer, and Plant Manager). We continue to recruit for an open Network Engineer position.

**REGULATORY UPDATE**  
Summary

The FCC adopted several items at its August 1 public meeting. The items most applicable to KPU are; establishing a new digital opportunity data collection to collect geospatial broadband coverage data, a second report and order amending the Truth in Caller ID rules to help with robocalls, a report and order addressing calls to 911 made from multi-line telephone systems (Kari's Law), and regulation changes for incumbent cable operators. The details of most of these orders have not been released, but we will have our work cut out for us implementing these new regulations.

Other regulatory issues of interest are as follows:

The House of Representatives passed the Stopping Bad Robocalls Act on July 24, 2019. The bill requires phone carriers to implement call authentication technology so consumers can trust their caller ID again, with no additional line item for consumers, and includes a process to help rural carriers implement this technology. It also directs the FCC to issue rules to protect consumers from calls they did not agree to receive, to ensure consumers can withdraw consent for such calls and to enact safeguards so companies cannot abuse robocalls exemptions, among other things.

Reports and filing:

**Biannual FCC Form 477**

KPU filed the FCC Form 477 on July 26, 2019. This information is used to measure broadband deployment and telephone competition by census tract. Those who must file include: facilities based providers of broadband connections to end user locations, providers of wired or fixed wireless local exchange telephone service, providers of Voice over Internet Protocol (VoIP) Service, and facilities-based providers of mobile telephony service. The FCC Form 477 is filed directly with the FCC.

**Biannual FCC Form 502 Filed**

KPU filed the FCC Form 502 Numbering Resource Utilization/Forecast (NRUF) with NANPA on July 03, 2019. This is a requirement for ILECS, CLECS, wireless telephony carriers, satellite service providers, and resellers of these services.

**Biannual CIC access and usage report Submitted**

KPU filed the Carrier Identification Code access and usage report with NANPA on July 8, 2019. This report provides NANPA with the information needed to verify CIC assignments in use.

**Quarterly Revenue Report filed**

KPU Telecommunications filed their 499Q Revenue report on July 26, 2019. The 499Q is a quarterly report which contains revenue information from the preceding quarter.

**Biannual SA 1-2 Short Form**

KPU filed the statement of account and submitted royalty fees for the license to provide secondary transmissions of copyrighted works through the KPUTV cable system. The SA 1-2 Short form is completed semiannually and submitted to the Licensing Division of the Copyright office. Royalties are paid via wire transfer directly to the U.S. Treasury.

**TELECOMMUNICATIONS PLANT DEPARTMENT**  
Summary

**Outside Plant Construction and Splicing:**

Projects Completed in July 2019:

- Shilat beauty/ Parnassus fiber building terminal
- Oceans Alaska fiber and copper circuit
- Library cell site
- 18 mile copper circuit
- Dump tower cell site repair
- 312 Mission St. fiber building terminal
- 127 Main St Fiber building terminal
- 4 pole transfers
- Tree trimming around Satellite dish

**Installation and Repair:**

- The installation and repair crews completed:
  - 78 service orders
  - 84 trouble tickets
  - 17 fiber drops

2019	January	February	March	April	May	June	July
SO	73	56	75	68	81	75	78
TT	115	97	71	79	56	80	84
FD	24	25	24	22	30	17	16
<b>Total</b>	<b>212</b>	<b>178</b>	<b>170</b>	<b>169</b>	<b>167</b>	<b>172</b>	<b>173</b>



## Installation and Repair Scorecard:

OSP Installation & Repair Scorecard:	SO	TT
Month of: July, 2019		
Employee		
Brad C.	1	48
Ricky M.	31	12
Nathan L.	31	10
Von D.	14	14
Ryan J.	1	0
<b>Total</b>	<b>78</b>	<b>84</b>

### Safety:

The safety program for July was primarily for the OSP crew as it entailed Pole Top/Tower safe working and rescue and then proper gear inspection of the equipment used for climbing and working on towers or poles.

## TELECOMMUNICATIONS ENGINEERING DEPARTMENT Summary

### Engineering:

- 4G/LTE / Wireless
  - Library cell site hardware installed and in 1<sup>st</sup> phase of Ericsson implementation.
  - KPI for all sites this summer are within contracted limits.
  - NEC Microwave sparing project started.
  - IPv6 training started internally for continued maintenance of 4GLTE network.
- IP Engineering
  - Continued router upgrades planned and increase in 10G port capacity.
  - Internal CO cleanup and upgrade project started for L2 switching capacity.
  - Qwilt server implementation 90% complete.
  - Redundant management network hardware and access points upgraded in the CO.
- Video Engineering
  - Ongoing planning for Minerva10 middleware upgrade.
  - Anevia VOD server replacement planning.
  - Multicast realignment of HD channels 80% complete.
  - Satellite feeds updates for channel lineup.
  - Removal of legacy servers.
  - New JDSU monitoring server for Seattle/Westin prep work started.
- Voice Engineering
  - Broadworks security audit implementation 75% complete.
  - AT&T LD CIC Code billing fixes and updates.
  - Broadworks software upgrade project in the planning phase.

- Systems Engineering
  - Datacenter cleanup and rewiring project 80% complete.
  - EMC Unity storage array ordered and integration work started.
  - Retirement of legacy Cisco UCS blade server.
- Facility
  - Fiber capacity increase to the datacenter.
  - Yukon Fire Systems rebuild and refill of Eichner suppression system.

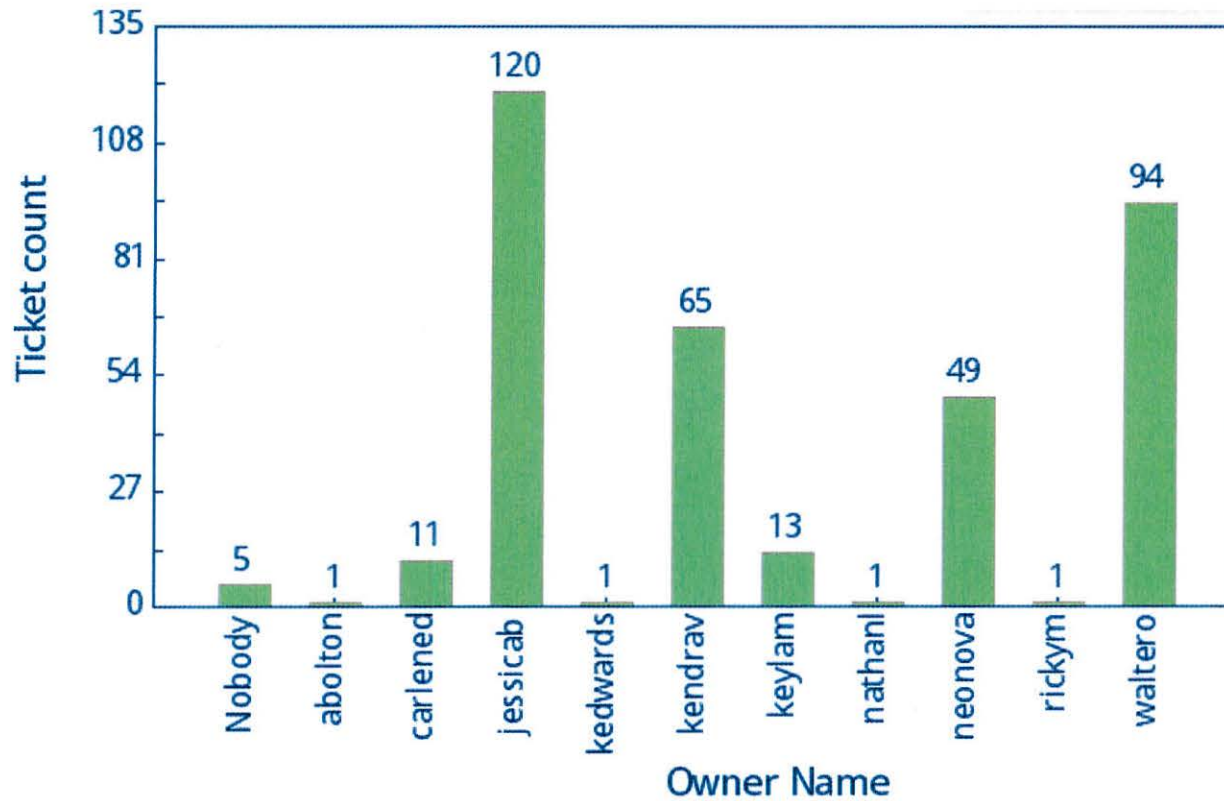
**Service Delivery & Network Operations:**

- 2x Electric Scada circuit installs.
- Ocean's Alaska, Legacy Real Estate service transfers.
- Asian Garden Meraki installs.
- 3 new circuit installs.
- 9 service orders Hosted Business.
- 83 trouble tickets Hosted Business.

**Customer Support:**

- Total Calls to Support Line 225-2111 = 398
- Calls forwarded to NeoNova 984-244-5721 = 252
- Calls Answered by Customer Support = 146

CSS Overview:



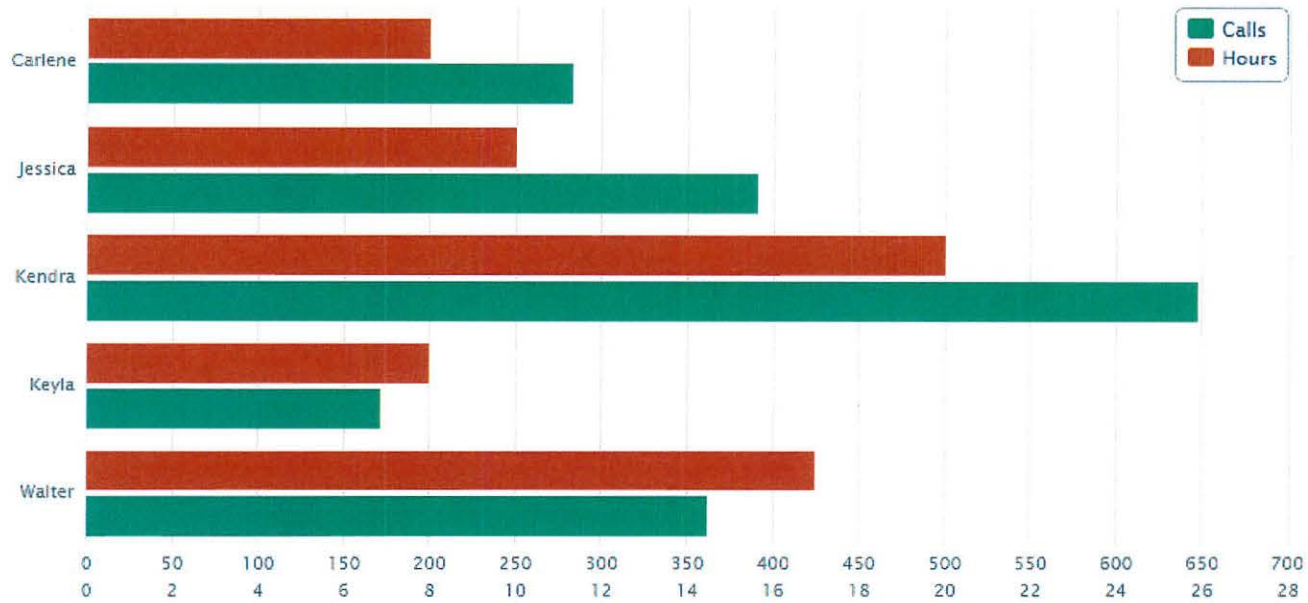
Owner Name	Ticket count
Nobody	5
abolton	1
carlened	11
jessicab	120
kedwards	1
kendrav	65
keylam	13
nathanl	1
neonova	49
rickym	1
waltero	94
Total	361

## Total CSS Calls:

CSS Users



2019/07/01 - 2019/07/31



USER	RECORDED CALLS	DURATION (HOURS)
Carlene	283	8
Jessica	391	10
Kendra	648	20
Keyla	172	8
Walter	362	17

**MANAGER'S REPORT  
WATER DIVISION  
July 2019**

**OPERATIONAL ISSUES**

Throughout the Southeast Alaska Panhandle, the low lake levels coupled with low precipitation amounts received during the first two quarters of 2019 have reduced the ability of the large Tyee and Swan Lake hydrogeneration facilities to supply the individual community's electric power needs through their interconnected grid. Instead, it has required Ketchikan to continue running standby diesel generators to supplement our individual hydrogeneration facilities. Although the warming summer temperatures have melted the snow pack at the higher elevations of Ketchikan's watersheds and no longer are augmenting the individual lake levels.

Because Ketchikan Lakes is the sole domestic drinking water supply for the community as well as provides water for electric power generation from the same source, these two competing uses could conceivably conflict during a potential water shortage that continues to be of concern. 2018 was an abnormally dry year for Ketchikan with a total of only 106.59 inches of rain falling and the same weather patterns appear to be continuing into 2019.

Thus far, Ketchikan has received 8.8% less rainfall in 2019 when compared to 2018 for the same period. Only 60.01 inches of rain have fallen this year from January through July 31<sup>st</sup>. Similarly, for the same period in 2018 between January and July 31<sup>st</sup>, 65.79 inches fell. Overall, the NOAA Climate Prediction Center expects this pattern to continue well into 2019 for all of Southeast Alaska with precipitation predicted to be well below normal (perhaps as much as 40% below normal) in August. Above normal temperatures (as much as 60% above normal) are also predicted for August and September although the probability of precipitation for September and October has improved (perhaps 1/3<sup>rd</sup> more than normal).

It should be noted that NOAA uses climatic normals that are based on conditions between 1981 and 2010, following the World Meteorological Organization convention of using the most recent three complete decades as the climate reference period. The probability anomalies for temperature and precipitation based on these new normals better represent shorter term climatic anomalies than the forecasts that were based on older normals.

**CRITICAL WATER MAIN FAILURE**

On July 12th at 4:45 am, another major failure occurred to the 36-inch ductile iron water transmission main in Schoenbar Road between the Valley Forge intersection and the Ketchikan Charter School. This critical water transmission main transports water from the Chlorination Plant up to the UV Disinfection Facility and is the sole route supplying disinfected drinking water to the entire City.

Not only is this the third major failure that has happened since last October, only 19 days have elapsed since the last failure occurred on June 23<sup>rd</sup>. It is becoming readily apparent that this



portion of the 36-inch ductile iron transmission main between the westerly edge of Norman Walker Field and the Ketchikan Charter School has reached the end of its useful life sooner than anyone expected. It is in dire need of replacement at least in this area of highly corrosive conditions existing beneath Schoenbar Road.

This time, it was not just a relatively small leak but a major rupture that flooded the street and hydraulically washed out the surrounding subsurface fill leaving a large crater. Before valves could be closed and the water main isolated at 5:30 am, the measured rate of flow was exceeding 14,500 gallons per minute (GPM). While the Bear Valley Reservoir had been quickly isolated, it was only about 2/3<sup>rd</sup> full leaving the community in a rather precarious situation with less than 3-million gallons stored and available between the Bear Valley and Jefferson Reservoirs. In the meantime, a vehicle had driven into the flooded roadway and was now trapped at the edge of the crater. Fortunately, no one was injured and the vehicle was removed by 7:00 am.

As before, given the known magnitude of the excavation required and the difficult repair that would be necessary, additional aid and equipment was requested from BAM LLC. Tyler Rental also delivered two large excavation backhoes, heavy duty pumps, and additional equipment. To keep the large excavation backhoes as productive as possible, three dump trucks were used for the waste haul. As soon as one truck was filled, another moved into place while the first one hauled the spoils up to KPU's nearest site adjacent to the UV Facility.

Although necessary 36-inch repair parts had been ordered immediately in the aftermath of the June 23<sup>rd</sup> failure, they had only just arrived in Seattle. Being needed immediately, the only option was to air freight them to Ketchikan. This being Alaska Air Cargo's busy season, obtaining priority space on the aircraft required extensive efforts by the KPU Assistant General Manager. Even so, the earliest the parts could arrive in Ketchikan was the afternoon of the following day. In the meantime, some repairs had to be attempted before the reservoirs were emptied and community was out of water.

The Alaska Department of Environmental Conservation (ADEC) had been advised at 9:30 am of the difficulty Ketchikan was in. Before the reservoirs went completely dry, the 16-inch emergency bypass at the Chlorination Plant would have to be opened. There would be sufficient water for everyone's daily needs, the water would still have chlorine added, but it would not have adequate contact time to disinfect and deactivate any pathogens that might be present. A "Boil Water" Notice was prepared that would be issued to advise everyone of the situation when the emergency bypass was opened. Fortunately, this wasn't needed and was confirmed with ADEC to conclude their formal notification process.

By 12:30 pm, the crews had exposed the 36-inch main and began cutting the 7-foot damaged section out. Rather than just a small hole, the ductile iron pipe had been actually torn apart for 5 ½-feet along its major axis leaving a gaping hole. Normally this ductile iron pipe has a ½ -inch wall thickness but due to external corrosion, the edges of the torn portion were very thin; some as little as only 1/8-inch thick.

Since the correct repair fittings were in Seattle and wouldn't arrive until tomorrow, an improvised temporary solution had to be tried. After the new section of 36-inch pipe was

installed in place, each connection was sealed by tightening a wide stainless band with an inner rubber liner around it. Refilling the 36-inch main began at 2:40 pm and although leaks developed, they were manageable, only 500 - 700 GPM. The UV Disinfection Facility was restarted and the Bear Valley Reservoir began being slowly refilled and by 7:35pm contained about 1.2-million gallons. The crisis had been averted.

KPU employees worked split shifts throughout the night into the morning to monitor the operating situation, ensuring that the temporary repairs didn't fail or the leaks worsen, and to keep the de-watering pumps fueled and operating. By 3:40 am, the Bear Valley Reservoir contained about 2.5-million gallons and was refilled by 9:00 am the following morning.

Crews began making preparations Saturday at noon for the arrival of the Alaska Air Cargo flight with the permanent repair parts. While one crew went to the Airport to pick up the parts, the second crew secured the UV Disinfection Facility, isolated the 36-inch main and drained it again. At 4:15 pm, they began removal of the temporary stainless steel repair bands and then lifted the new pipe section out to install the repair sleeves with their mechanical fasteners.

By 7:00 pm, the permanent repairs were complete and the 36-inch main began refilling. At 9:20 pm, the UV Disinfection Facility started and began refilling the reservoir. Although there was a minor leak at one repair sleeve, it wasn't significant. It was corrected the following Sunday morning by moving the repair sleeve slightly further onto the existing pipe and away from an irregular area that wouldn't seal.

Also on Sunday, after the pipeline was refilled and the newly installed pipe segment inspected for leaks before backfilling, the water meter at the Chlorination Plant was also checked. It showed zero flow indicating that there were no more active leaks within the portion of the 36-inch main between the Chlorination Plant and the UV Facility. Then refilling the large excavation hole took the remainder of the day although this section of Schoenbar Road remained closed to traffic until Monday afternoon due to one of Tyler's backhoes that had failed and was blocking the roadway.

DOWL Engineers, who have completed the earlier design work for the Schoenbar water & sewer replacements, are beginning a design to replace the portion of the 36-inch ductile iron main in Schoenbar Road between the westerly edge of Norman Walker Field and the Ketchikan Charter School. It would include a temporary 24-inch HDPE water transmission main to be built alongside the existing sidewalk from Walker Field to the Ketchikan Charter School along with a design for the replacement or slip lining of the failing 36-inch ductile iron main with HDPE pipe to be installed in the existing trench. The purpose of the temporary 24-inch HDPE main is to have a temporary alternate water route that will supply the water requirements of the entire community while the new 36-inch HDPE transmission main is being installed.

Right now, KPU has funding in place for the Schoenbar Road Water Main Replacement Project Schoenbar – Phase I (Drinking Water Loan 481151) at a project cost of \$1,591,967 that was ranked 2 on the ADWF SFY 2018 list with a subsidy of \$662,400. Although it was originally intended to replace a 12" cast iron main, replacing the 36" main is critically important as this is the sole water supply for the entire community. ADEC is willing to amend this loan to reflect

the additional expense that will be required to replace this portion of this 36-inch transmission main.

### **Contract 19-06 – Water Meters – Business & Commercial Customers**

After ADEC's review and approval of our Bid Documents as required in the Loan Agreements, KPU began advertising the initial meter installation contract with a bid opening of July 2nd. The contract is for the installation of meters in 70 businesses that have already been audited by staff and in each instance, the audit determined the service size, meter location, the telephone number and contact person, and identified any additional complications that the contractor may have to address while installing the new meter.

This first contract is limited in size to allow everyone involved to both gain experience and to obtain better knowledge of the difficulties that are encountered while installing individual meters. Each installation will be almost custom-made as KPU intends to have as many of these new water meters as possible installed inside each building's heated mechanical room. This will not only eliminate the need to demolish concrete sidewalk panels throughout the community which would be necessary if meters were placed in buried vaults outside, it will also eliminate the possible effect of subfreezing winter weather conditions, particularly on those seasonal business owners who have their water service shut off after the tourist season is completed.

Thus far, only a few of KPU's audits have discovered locations where extensive piping renovations in the mechanical room will be required just to fit a water meter inside. For some of those like the State Jail, it will be more cost-effective to place a new meter outside the building envelope in a heated enclosure. Two waterfront industrial installations, Petro Marine and Ketchikan Ready-Mix, also appear in this contract as they require multiple meters, a large one monitoring all water consumption including that portion being discharged into Tongass Narrows along with a smaller one installed in the building occupied by personnel to determine the lesser amount of wastewater that is being returned to the City's wastewater treatment plant. Similarly, the Ketchikan International Airport will have two new meters placed in their existing heated enclosures; one that monitors their incoming water supply and the other, the amount of their wastewater return.

Two bids for this contract were received from Ketchikan Mechanical Inc. and Schmolck Mechanical Contractors, Inc. in the amounts of \$410,332.29 and \$604,025.00 respectively. Schmolck Mechanical did make a calculation error multiplying the quantity of an item times the unit price such that their stated total price was \$8,727 greater than it should have been. The Contract Documents state in the Bid Proposal itself that whenever a discrepancy exists between any such unit prices and totals so given, the unit prices shall prevail. After review by the Municipal Attorney, although this clerical error does reduce Schmolck Mechanical Contractor Inc.'s bid, it does not make it less than the amount bid by Ketchikan Mechanical Inc. and can be disregarded.

The Contract was awarded to Ketchikan Mechanical, Inc. by motion of the City Council on July 18<sup>th</sup>, the Notice of Award was sent July 22<sup>nd</sup>, and a Pre-Construction Meeting is scheduled for August 7<sup>th</sup>.