MINUTES OF REGULAR MEETING OF
THE BOARD OF TRUSTEES OF
DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
JUNE 17, 2020

CALL TO ORDER:

Due to the Governor's mandated steps to protect against the spread of the Coronavirus (Covid-19), a Meeting of the Board of Trustees of the Douglas County Lake Tahoe Sewer Authority (DCLTSA) was duly convened via telephone conference call at 9:30 a.m. on Wednesday, June 17, 2020 originating at the Wastewater Treatment Plant, Stateline, Douglas County, Nevada.

ROLL CALL:

Present and taking part via telephone connection were Trustees Mike Bradford, Darya Vogt, Grant Thompson, Chuck Fagen and Wes Rice. Each of them could hear all others taking part in the meeting

RECOGNITION OF OTHERS IN ATTENDANCE:

In attendance in person were Authority Manager Rob Hopkins, Authority Controller Paula East-Janicki and Authority Accountant, Ying Johnson. Participating via telephone connection by which everyone at the meeting could hear one another were Authority Engineer, Rob Anderson, the Authority's legal counsel, Jim Cavilia and Ryan Russell, and Bob Cook.

Also, in attendance was Andrew Hickman of Round Hill General Improvement District (RHGID).

PUBLIC COMMENT:

There was no public comment.

APPROVAL OF AGENDA:

It was moved by Trustee Vogt, seconded by Trustee Thompson and carried unanimously that the agenda be approved and adopted as presented.

MINUTES OF PRIOR MEETING:

It was moved by Trustee Vogt, seconded by Trustee Rice and carried unanimously that the minutes of the Meeting of the Board of Trustees of DCLTSA, dated April 29, 2020 and May 20, 2020, be approved.

Discussion and Possible Execution of a Construction Management at Risk Guaranteed Maximum Price Contract with K.G. Walters Construction Co. Inc. for Phase 2 of the Treatment Plant Upgrades Project in the Amount of $1,885,404.

Authority Manager Rob Hopkins explained that the proposed contract was the result of more than two years of planning and that the project is part of the Authority's Development Plan. Mr. Hopkins indicated that the maximum price of $1,885,404 includes much of the new equipment that is part of the project. Mr. Hopkins recommended approval of the contract as presented. In response to a question from Trustee Rice, Mr. Hopkins indicated that the funds for the project are included in the Authority's approved budget. In response to an inquiry from Trustee Vogt, Mr. Hopkins indicated that this Phase 2 includes, among other things, grit removal, blowers, aerators, piping and railing.

Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

Following the inquiry of the Trustees, **it was moved by Chairman Bradford, seconded by Trustee Vogt and carried unanimously that staff be directed to execute the Construction Management at Risk Guaranteed Maximum Price Contract with K.G. Walters Construction Co. Inc. for Phase 2 of the Treatment Plant Upgrades Project in the Amount of $1,885,404 as presented.**

Discussion and Possible Action to Allow Staff to Contract for Replacement of a Portion of Sewer Line Located on U.S. Highway 50 in Stateline, Nevada Between the Roadway and Harrah's Casino in compliance with NRS Chapter 338.011 in Order to Meet an Emergency which Threatens the Health, Safety and Welfare of the Public.

Mr. Hopkins explained that in the routine video inspection of sewer lines, it has been discovered that the bottom of a six-inch clay sewer main has eroded and needs to be replaced. Mr. Hopkins presented that Board with three options for repair that range from replacing 146 feet of sewer pipe to replacing 496 feet of pipe. Mr. Hopkins recommended the proposed replacement of 233 feet of the six-inch clay pipe with ten-inch PVC pipe. Because of the condition of the pipe and the location, Mr. Hopkins indicated that he would like to find a contractor to do this work as soon as possible. Mr. Hopkins indicated that if the normal bidding process was undertaken, it would be very unlikely that the work could be completed this year and the Authority would be risking the possibility of a serious sewer spill.

Trustee Vogt stressed that in her opinion the work needs to be completed before the winter weather arrives. Trustee Rice agreed and stated that the Authority has no option but to proceed as quickly as possible.

Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

Following the discussion of the Board, **it was moved by Trustee Vogt, seconded by Trustee Rice and carried unanimously that staff be directed to contract, in compliance with NRS 338.010, for replacement of a portion of the sewer line as outlined and presented by Mr. Hopkins.**

Discussion and Possible Action to Allow Staff to Contract for Replacement of a Portion of Effluent Line Located on Forest Service Land in Stateline, Nevada near Burke Creek and the residential area of Terrace View in compliance with NRS Chapter 338.011 in Order to Meet an Emergency which Threatens the Health, Safety and Welfare of the Public.

Mr. Hopkins described for the Board how a portion of the Authority's effluent export line has failed in a particular area on five occasions in the last three years. Mr. Hopkins stated that because of the Authority's detection systems in place none of the failures resulted in significant spills of effluent. Mr. Hopkins emphasized that this section of line has suffered three leaks or failures since March of this year in a residential area and that it was important to complete replacement of the line as soon as possible. Mr. Hopkins requested that the Board acknowledge the recent failures and the importance of a speedy replacement in order to avoid a spill of effluent into Burke Creek which drains into Lake Tahoe. Finally, Mr. Hopkins reported that the effluent line is scheduled to be replaced beginning in 2021/22 as part of the Authority's Development Plan.

Trustee Vogt indicated that she lives in the area of this effluent line and appreciates the importance of getting the work done promptly. In response to an inquiry from Trustee Rice, Mr. Hopkins indicated that he was looking for the authority to obtain cost estimates to have the line replacement work in the neighborhood completed this year. Authority Controller Paula East-Janicki indicated that by October 2020 the Authority will have approximately $2.6 million in its construction fund and an additional $1.95 million in emergency repair funds that is available without cashing certificates of deposit. In response to an inquiry from Chairman Bradford, Mr. Hopkins indicated that if this work is not treated as an emergency, the work would likely not be started until next year, risking the possibility of effluent spills in the winter months when cleanup would be hampered by weather.

Following the discussion of the Board, **it was moved by Trustee Rice and seconded by Trustee Vogt that staff be directed to contract, in compliance with NRS 338.010, for replacement of a portion of the effluent line as outlined and presented by Mr. Hopkins within the range of available funding.** Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment. **The motion passed unanimously.**

MANAGER'S REPORT:

A. General Status Report

Authority Manager Rob Hopkins presented the Board with a written summary of various general matters related to the Authority and briefly summarized each item in the written report. The written report is incorporated in these minutes by this reference.

Mr. Hopkins reported that the Treatment Plant Upgrade Project is ahead of schedule.

Mr. Hopkins indicated that he participated in meeting with representatives of Kingsbury General Improvement District (KGID), the Nevada Tahoe Conservation District and Douglas County regarding a proposed decant facility on Douglas County property on Logging Road off Kingsbury Grade. Mr. Hopkins explained that the decant water would drain to the sewer, but that he sees no problems so long as the planned sand/oil separator is installed.

Mr. Hopkins reported that bids for the second phase of Treatment Plant Upgrades were opened on June 2nd.

With regard to the Tahoe Beach Club (TBC) Clubhouse, Mr. Hopkins stated that Authority staff completed a fixture count resulting in additional hook-up fees of approximately $47,000. Mr. Hopkins also indicated inspections of Units 204 and 205 of the TBC were also completed.

Mr. Hopkins reported that video inspection of the Authority's sewer lines was continuing.

Mr. Hopkins indicated that the coating of Aeration Basins 5 through 8 was continuing and was ahead of schedule.

Trustee Vogt commented that the Kingsbury decant facility was reviewed and approved by the KGID Board of Trustees.

Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

ENGINEER'S REPORT:

A. General Projects Status Report

In addition to his participation in the Manager's Report, Rob Anderson presented correspondence dated June 16, 2020 briefly summarizing various issues that R.O. Anderson Engineering has been involved with on behalf of the Authority. The June 16, 2020 correspondence is incorporated in these minutes by this reference.

Mr. Anderson indicated that plans have been submitted by Edgewood for relocation of the sewer interceptor and that the plans appear to be consistent with the Authority's requirements.

Mr. Anderson also reported that he and his staff were engaged in review of plans for the Tahoe South Events Center. Mr. Anderson stated that at this point a final fixture count has not been established, but that a conditional plan approval letter was being prepared. In response to an inquiry by Chairman Bradford, Mr. Anderson acknowledged that the project was "being designed by review." Chairman Bradford indicated that he may raise this issue with the project developer. Ms. East-Janicki emphasized that the developer will be paying for the engineer's review fees.

Finally, with regard to the Tahoe South Events Center, Mr. Anderson explained that the Authority's sewer lines that will serve the facility will be very near or above capacity when the

facility is operational. Mr. Anderson provided the Board with a detailed analysis of the impact and the possibility of overflow at times of maximum flow. A discussion followed about whether the Authority would accept this situation or require the sewer lines to be upsized in order to eliminate the possibility of surcharge or overflow. Following a discussion among the Trustees, a consensus was reached that the project developer should be required to upsize the sewer lines as a condition of approval.

Finally, Mr. Anderson reported that the ongoing metering reconciliation work has now established very consistent and reliable meter readings.

Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

ATTORNEY'S REPORT:

A. General Status Report

Jim Cavilia expressed his appreciation to Ryan Russell for ably representing the authority in Mr. Cavilia's absence the past few months.

AUTHORITY CONTROLLER'S REPORT:

A. General Status Report

Ms. East-Janicki reported that operating expenses were approximately 10% under budget, but due to required emergency repairs and increased retirement benefit obligations as determined by an actuarial study, it was possible the expenses would go over budget by the end of the fiscal year.

As to the status of billing, Ms. East-Janicki reported that the Authority currently has $121,000 in outstanding invoices with the bulk of that being two commercial accounts, with whom forbearance agreements have been signed.

With regard to the Aeration Basin and Plant Upgrades, Ms. East-Janicki indicated that $1,102,226 has been received from the State Revolving Loan Fund.

Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

B. Discussion and Possible Action to Augment the Budget for Fiscal Year 2019-2020

Ms. East-Janicki explained that if any single line item in the Authority's budget is anticipated to be over by 10% or more, it is necessary to formally augment the budget in order to comply with state law. Ms. East-Janicki provided the Trustee with a modified budget adding a total of approximately $110,000 to various line items and reducing some other line items. The increased

expenses involve retirement benefits, unemployment costs and emergency repairs. Ms. East-Janicki recommended that the Board approve the budget augmentation as presented.

Following the discussion of the Board, **it was moved by Trustee Vogt and seconded by Chairman Bradford that the Authority budget be augmented as recommended and presented.** Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment. **The motion passed unanimously.**

C. Investment Report

Ms. East-Janicki had a written summary of the Authority's investments available, showing a total of approximately $10.3 million. Ms. East-Janicki indicated that the necessary emergency repairs discussed earlier would have an impact on this total.

Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

APPROVAL OF CLAIMS:

The claims along with the Authority's check register were provided to the Board. **It was moved by Chairman Bradford and seconded by Trustee Vogt that the claims as presented be approved.** Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment. **The motion passed unanimously.**

Reports/updates from Board of Trustees concerning the areas or districts they represent:

Trustee Fagen indicated that RHGID did not have a meeting this month.

Trustee Thompson expressed his appreciation to Trustee Rice for his efforts in protecting the Tahoe South Events Center project. Trustee Thompson also stated that he and Diane Imbach of TDD had a very good meeting with Ms. East-Janicki to discuss the Authority's metering and billing. Chairman Bradford added that it was very important for the general improvement districts served by the Authority to understand the Authority's finances.

Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

PUBLIC COMMENT:

There was no public comment.

ADJOURNMENT:

There being no further business, the meeting was adjourned at 11:20 a.m.

Michael H. Bradford

APPROVED

4838-2571-7185, v. 1

Meeting Date: June 17th, 2020

DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
Staff Report

Subject / Title:

Discussion and Possible Action to Allow Staff to Contract for Replacement of a Portion of Sewer Line Located on U.S. Highway 50 in Stateline, Nevada Between the Roadway and Harrah's Casino in compliance with NRS Chapter 338.011 in Order to Meet an Emergency which Threatens the Health, Safety and Welfare of the Public - **for possible action.**

Staff Recommendation:

Staff requests the ***DCLTSA Board authorize staff to replace 146 feet of 6-inch Vitreous Clay Pipe between Manholes MH-117 and MH-116A in the Casino Core.***

Discussion/Report:

Report is attached.

Please note: This is a reduction of scope of Option 1, presented in the attached document. The reduction in scope has been done to save funds which may be needed for the proposed emergency replacement of select sections of the Export Force Main.

CONCERNS AND RECOMMENDATIONS REGARDING FAILED SEWER LINE SEGMENT BETWEEN DCLTSA MANHOLES #117 AND 116-A

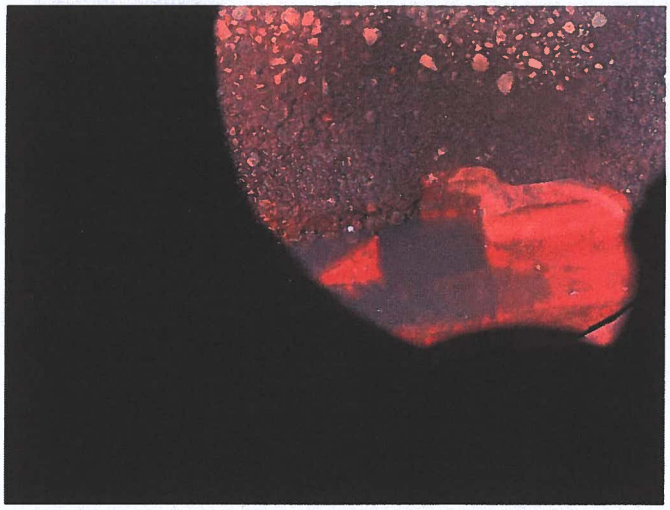
On May 27th, 2020, during routine CCTV inspection of the sewer line segment between Manhole MH-117 and MH-116A staff discovered that the sewer line, a 6" clay (VCP) pipe, has had the invert section of the pipe completely eroded away. That is, there is no "bottom section" of the pipe, only a dirt channel which acts as the conduit for sewage flow and the dewatering flows from the basement sump pumps for both Harrah's and Harveys Casinos, which produce the bulk of the flow here.



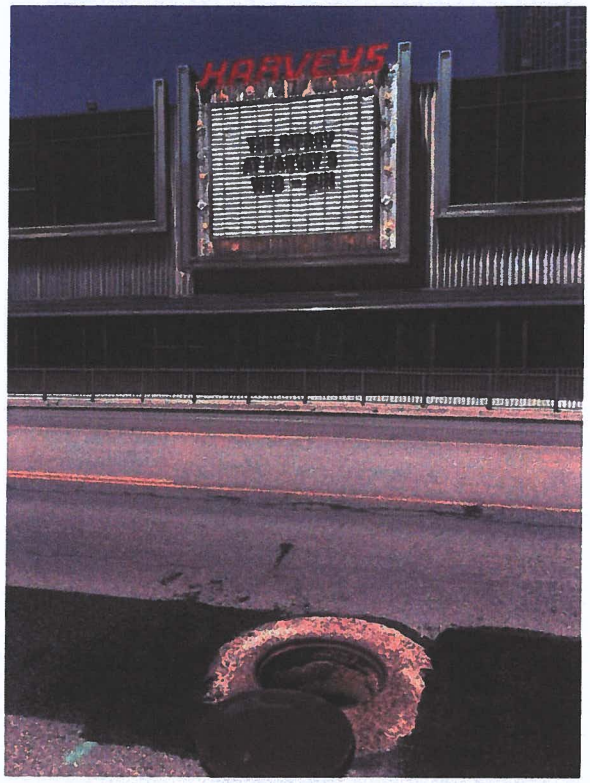
During the same CCTV inspection, staff discovered that a section of clay pipe had dislodged and was partially impeding the flow of sewage and collecting debris on it. DCLTSA staff contacted STPUD and requested assistance and additional special line-clearing tools to clear the blockage. The blockage was cleared successfully. However, the fact that the pipe is so degraded highlights the need to replace this section with all possible haste in order to prevent a future sewer main blockage and spill. Photos are attached below for clarity.



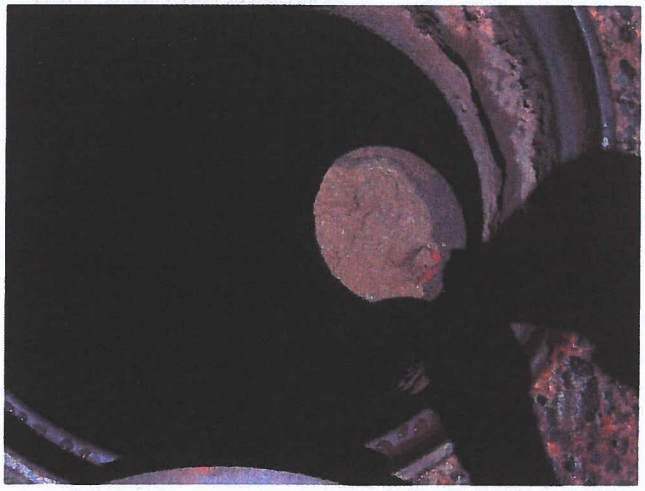
Yellow arrow points to void spaces where the clay pipe has been destroyed just upstream of MH 116A.



Invert of MH-116A, showing dislodged piece of clay pipe flushed out of line.



Location of MH-116A for reference.



Dirty water generated when flushing debris upstream of MH-116A. Jet rodding into subsurface soil as there is no pipe bottom.

RECOMMENDATIONS:

I would like to consider the following options, and obtain an Engineers Estimate of Probable Cost for each.

Option 1:

1. Replace MH-117, replace and upgrade 146 feet of 6-inch VCP pipe with 10-inch SDR-35, and Replace MH-116A. (Two new Manholes and 146 feet of 10 new 10-inch sewer pipe)

2. Replace MH-117, replace and upgrade 146 feet of 6-inch VCP pipe with 10-inch SDR-35, and Replace MH-116A, replace and upgrade an additional 87 feet of 6-inch clay to 10-inch SDR-35 and replace MH-116. (Three new Manholes and 233 feet of new 10-inch sewer pipe)

3. Replace MH-117, replace and upgrade 146 feet of 6-inch VCP pipe with 10-inch SDR-35, and Replace MH-116A, replace and upgrade an additional 87 feet of 6-inch clay to 10-inch SDR-35 and replace MH-116, replace the rest of the 6 inch line between MH-116 and MH-111, and tie in with the existing manhole MH-111. (Three new Manholes and 496 feet of new 10-inch sewer pipe)

NEXT STEPS:

I would propose that the Authority obtain the professional opinion of R.O. Anderson Engineering as to the state and condition of this sewer line. If the Engineers opinion warrants, I would like to propose a special Board meeting to declare this replacement an emergency, which should expedite the replacement of the failed line between MH-117 and MH-116A at a minimum. To me, it makes much more sense to replace and upgrade the whole section that fronts the Casino Core, if budget permits.

I believe we might be able to proceed immediately after we have an Engineers Estimate and the Emergency Declaration from the Board, which may allow us to avoid going out to bid and let us select a contractor and proceed quickly. If we do a sewer bypass, we should be able to remove and replace the line along its existing axis quickly. We would need staff from R.O. Anderson to supervise and map the work and make sure grade and elevation are correct among many other details that R.O. Anderson can guide DCLTSA through.

If I were to choose a contractor to do the work, my first choice would be White Rock Construction, who did our STPUD intertie and the Muller Lane Force Main relocation.

Best regards,

Rob Hopkins

DCLTSA Manager

Meeting Date: June 17th, 2020

DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
Staff Report

Subject / Title:

Discussion and Possible Action to Allow Staff to Contract for Replacement of a Portion of Effluent Line Located on Forest Service Land in Stateline, Nevada near Burke Creek and the residential area of Terrace View in compliance with NRS Chapter 338.011 in Order to Meet an Emergency which Threatens the Health, Safety and Welfare of the Public - **for possible action..**

Staff Recommendation:

Staff requests the ***DCLTSA Board authorize staff to begin work to determine costs and designs for the various proposed Export force main replacement options stated in the attached report.***

Discussion/Report:

Report is attached.

CONCERNS AND RECOMMENDATIONS REGARDING REPEATED LEAKS ON DCLTSA EXPORT FORCE MAIN

TIMELINE:

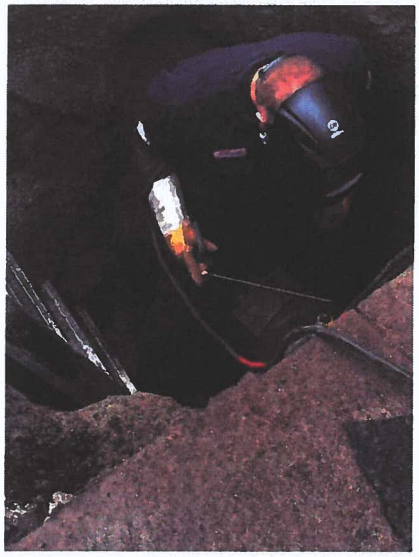
Since the major Export Line failure that occurred due to the repeated power failures on September 9th 2017, DCLTSA has had four additional leaks on the Export line segments between Terrace View Drive and the Export line segment that runs in the U.S. Forest Service easement.

SEPTEMBER 9TH,2017: Major Export pipeline failure at approximate DCLTSA Map Location STA 75+00, located on page 39 of the DCLTSA map book. Spill estimate: 87,000-96,600 gallons discharged; 64,600 gallons recovered via vacuum truck.



Picture of Force Main Rupture, September 9, 2017.

MARCH 9TH, 2018: Minor leak on Terrace View at approximate DCLTSA Map Location STA 41+100, located on page 37 of the DCLTSA map book. Spill estimate: 1,800-5,400 gallons, 100% volume recovered via vacuum truck.



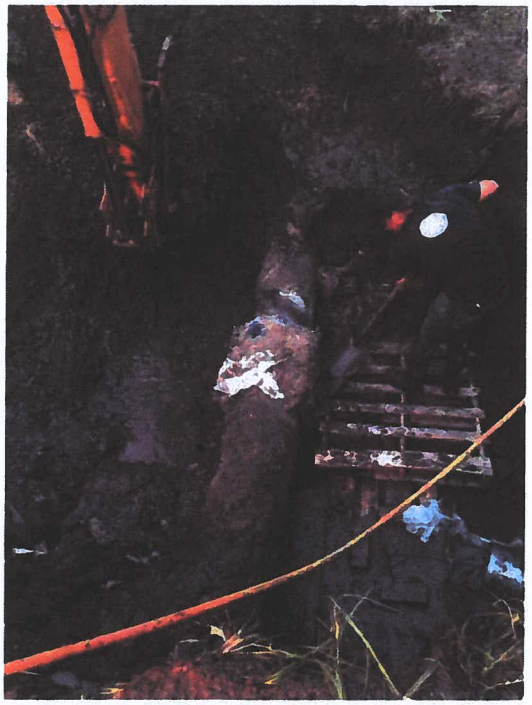
Welding repair patch on pinhole on Export force main, March 9, 2018

APRIL 29TH, 2020: Moderate leak on Terrace View and Pleasant Circle at approximate DCLTSA Map Location STA 42+100, located on page 38 of the DCLTSA map book. Spill estimate: 31,000 gallons, 100% recovered via vacuum truck. Remediation work done for 1 homeowner whose property the effluent ponded on.



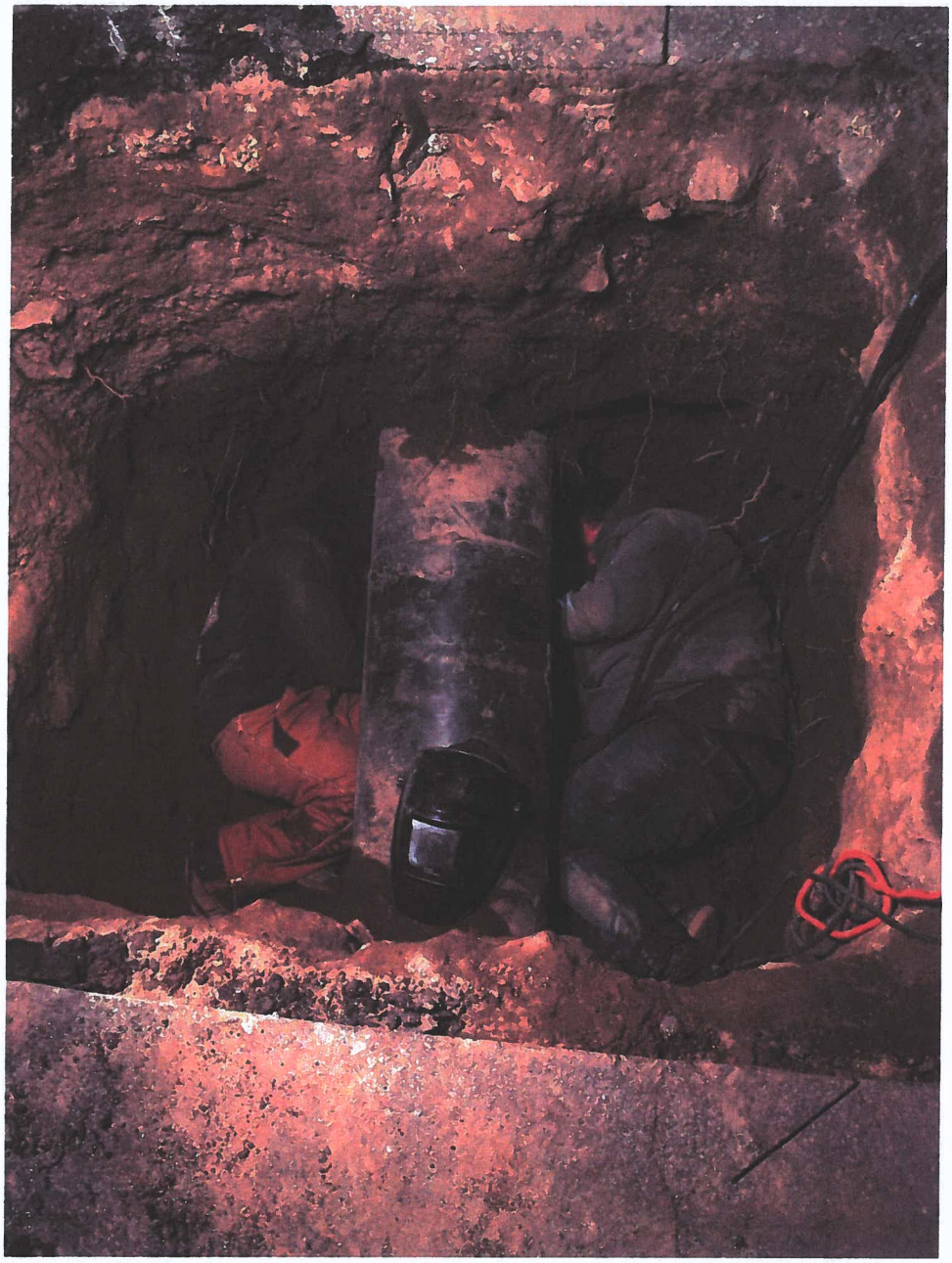
Treated wastewater effluent being captured and recovered via vacuum truck, April 29th, 2020.

May 26th, 2020: Moderate leak at the September 9th, 2017 repair site referenced previously. The new hole was much smaller than the 2017 rupture. Leak in pipe was about 3 feet from the 2017 repair. Spill estimated at less than 30,000 gallons, mostly saturated soils around pipeline.



DCLTSA staff exposing the 2017 repair to repair new pinhole leak discovered May 25th, 2020.

June 9th, 2020: Minor leak on Terrace View at approximate DCLTSA Map Location STA 38+100, Located on page 37 of the DCLTSA Map Book. Pinhole leak estimated at 12,100 gallons, which was recovered via vacuum truck. This repair became complicated in that while welding a repair patch on the pipe pinhole, several thinner areas of pipe were identified nearby. DCLTSA opted to remove and replace a short section of force main out of an abundance of caution. The section of force main removed will be saved on site at the plant for inspection and analysis.



DCLTSA staff attempting to weld a repair patch over pinhole in Export force main, June 9th, 2020.

CONCERNS:

It appears that the frequency of leaks is increasing significantly. So far, the SCADA system improvements made after the September 2017 Export force main rupture have assisted DCLTSA staff in responding quickly and minimizing the severity of the leaks.

We have been very fortunate in that the three most recent leaks occurred during good weather, during daylight and regular working hours, allowing our staff to address mitigation and repair quickly. Given the close proximity of the leaks on Terrace View and near the 2017 repair, I feel it is only a matter of time before we have a serious event, and it might occur during inclement winter weather or during a time in which addressing a repair may be very difficult.

The sections of the Export force main that continue to fail are in the residential neighborhood of Terrace View and in proximity to Burke Creek, which flows directly to Lake Tahoe. I believe that the condition of the Export force main in this area may present a hazard to both public safety and to the protection of the Lake Tahoe watershed. I would therefore request that the Board consider a declaration allowing DCLTSA to perform large-scale emergency repair / replacement of this Export line segment.

It is understood that we are already into the Construction Season, and that the availability of contractors and the time needed to design and permit any of the below suggested options is going to be a factor. It is my hope that Option 1 or 2 can be constructed this year. It may not be possible to get the other Options done in the 2020 construction season.

RECOMMENDATIONS:

I would like to consider the following options, and obtain an Engineers Estimate of Probable Cost for each. The list below is prioritized from what I consider the "minimum" necessary to reduce risk of failure over the next several months (Option 1 or 2), to the maximum size project that DCLTSA might accomplish with such short notice. Option 4 and 5 would reduce the risk to a high degree, short of full Export pipeline replacement from the Plant to the point where the force main exits the Tahoe Basin near the top of Kingsbury Grade. That project could be considered in future years.

Option:

1. Replace the Export force main from the intersection of Summit Drive and Terrace View (approximately DCLTSA Map STA 35+75 near ARV 3) to where the Export force main exits Terrace View and enters the U.S. Forest Service easement (approximately at DCLTSA Map STA 51+00.)

2. Replace the line segment listed in Option 1 and replace the line segment that runs along Chimney Rock Road and Summit Drive as well. This would be the section on DCLTSA Maps

between STA 25+00 / ARV #2 and STA 35+00 / ARV #3. This would replace all the force main in the neighborhood and near Burke Creek.

3. Replace all the line listed in Option 1 and 2 and extend the new line up the U.S. Forest Service easement to the meadow area near DCLTSA Map STA 75+00, where the September 9, 2017 and May 26, 2020 failures occurred.

4. Replace all the line length listed in Option 1 through 3, and further extend it to the location of ARV #6, located near to DCLTSA Map STA 99+00. This would replace a great deal of the line that is exposed to high pressures and could buy us time to replace the remaining line along Benjamin and South Benjamin Drive later.

5. Replace all the line length listed in Options 1 through 4 but include the relatively short segment where the Export force main leaves the Treatment Plant and runs through the forest to Chimney Rock Road. DCLTSA Map STA 1+00 to STA 25+00. This section could be added into any of the above Options if the budget permits.

NEXT STEPS:

I would propose that the Authority obtain the professional opinion of R.O. Anderson Engineering as to the cost and practicality of the Options presented above. If the Engineers opinion warrants, I would like to propose that the Board authorize an Emergency Repair and / or Replacement of the appropriate length of Export force main that can reasonably expected to be completed in the 2020 Construction Season.

I believe we might be able to proceed immediately after we have an Engineers Estimate and the Emergency Declaration from the Board, which may allow us to avoid going out to bid and let us select a contractor and proceed quickly.

Best regards,

Rob Hopkins

DCLTSA Manager

Meeting Date: June 17th, 2020

DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
Staff Report

Subject / Title:

Authority Manager's Monthly Report – June 2020
A. General Status Report

Staff Recommendation:

None. This is an informational item only.

Discussion/Report:

This item serves to afford the Authority General Manager the opportunity to update the DCLTSA Board of Trustees on select activities over the previous month(s).

1. Several remote meetings have been held in the month of June related to design and scheduling for the Treatment Plant Upgrades Project Guaranteed Maximum Price package #2. Overall, the project is on-time or ahead of schedule.

2. A meeting between KGID, the Nevada Tahoe Conservation District, Douglas County and DCLTSA was held to discuss a decant facility proposed on Douglas County property at the end of Logging Road off Kingsbury Grade. The facility will be used jointly by NDOT and Douglas County to decant water and sediment from vacuum trucks and sweepers that clean streets, stormwater conveyance, and treatment features. The facility is currently proposed to have water service and decant water will drain to the sewer after treatment via sedimentation. If the facility builds sand / oil separators as proposed, I do not see any issues with the proposal.

3. Bid openings for the Treatment Plant Upgrades – Early Equipment Procurement was held on Tuesday, June 2nd. This process is included as part of GMP 2.

4. DCLTSA staff performed a fixture count for the Tahoe Beach Club Clubhouse. This count will be used to reconcile the fixture count based on the original project drawings and the as-built construction. The Authority Controller may provide further details.

5. DCLTSA staff performed walk-through inspections on Units 204 and 205 within Building 2 at the Tahoe Beach Club.

6. Closed circuit television inspection of the Authority sewer systems continues.

7. Coating work on Aeration Basins 5 through 8 continues to proceed ahead of schedule.

R O Anderson

June 16, 2020

Via E-mail

Board of Directors
DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
P.O. Box 578
Zephyr Cove, NV 89448

Authority Engineer's Monthly Report – June 2020

Dear Members of the Board:

The following report presents a summary of activities undertaken on behalf of the Authority since our last meeting together on May 20, 2020. During this period, we provided General Engineering Services. The following paragraphs provide a brief description of these efforts and progress related to each specific task.

General Engineering Services: R.O. Anderson Engineering, Inc. (ROA) assisted and participated with Authority personnel on various engineering-related assignments including coordination meetings, site meetings and phone calls with Authority staff, legal counsel, and Board members on an as-requested basis. In addition to these activities, we have participated in the following specific tasks:

- Tahoe Beach Club: During this period we surveyed the constructed elevations of the pipes at each of the manholes, which data in now being incorporated into the record drawings for the project. Once those edits are made, we will submit the updated drawings for the Authority's records.
- Edgewood Proposed Interceptor Relocation Project: Shortly after last month's board meeting, we received a preliminary drawing showing the proposed realignment of the interceptor design through Edgewood's property. We reviewed the proposed design and determined that it successfully accomplishes the Authority's objectives by removing the segment of the line that would otherwise result in a sub-standard pipe slope. An email stating such was issued to the project team on June 2, 2020.
- Tahoe South Events Center: We reviewed the plans that were submitted last month and worked directly with Welsh Hagen on a revised submittal that satisfactorily addressed our plan review comments; however, there remain concerns related to the total number of fixtures units. We requested supplemental plans of the proposed mechanical systems design which have since been received. In cooperation with Authority staff, we are now reviewing those drawings to confirm the actual number of fixture units planned within the facility. A conditional plan approval letter has been drafted and submitted to Authority staff for their review. We anticipate the letter to be amended as may

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be necessary to address the outstanding questions pertaining to the number of fixture units.

- Highway 50 Pipe Capacity Analysis Downstream of TSEC: As noted our last two Board reports, there exists two pipe segments in the existing collection system downstream of the proposed point of connection of the Events Center where the pipe capacity has been raised as a potential concern for surcharged pipe conditions during maximum day flow conditions. One is an 8-inch diameter main (FID #20,069) on the south side of US Highway 50, and the other is a 10-inch diameter main (FID #20,067) that is located on the north side of US Highway 50. We have reviewed available flow data for this portion of the collection system, and calculated pipe capacities for each segment without considering potential flows from the Events Center when complete. After applying a peaking factor of 2.0 to average annual flows to obtain an estimate of probable maximum day flows, we have determined that each of these pipe segments have sufficient hydraulic capacity to safely convey estimated flows without surcharging in the manholes. However, when the estimated maximum day flows from the Events Center are added to existing flows, the upper manhole of each of these two pipe segments will temporarily surcharge to an estimated maximum depth of 1.4 feet and 2.2 feet, respectively. Even with these estimated depths of surcharge, there is an additional 4.5 feet and 5.1 feet, respectively, of freeboard to the existing rim elevations. As a general consideration, it is strongly preferable to avoid surcharging sanitary sewer manholes when possible. Obviously at the times these existing pipes were installed, the District nor its representatives could have possibly anticipated the selected site for the Events Center let alone its size and potential sewer flows. We recommend that the Board together with Authority staff determine whether these periodic levels of surcharge are acceptable. If not, these two segments of pipe would need to be removed and increased in size by one pipe diameter each.
- Highway 50 Emergency Sewer Pipe Repair: During this period DCLTSA became aware of issues with the existing sewer pipes infrastructure under Hwy 50 in front of Harrah's. Mr. Hopkins requested our assistance with preliminary cost estimates for various emergency repair scenarios. We reviewed the available documents and summarized probable construction cost estimates to support the decision-making process (~$350 - $450 per foot). The actual construction cost estimates will be dependent in part on the final terms of an encroachment permit to be issued by NDOT, which are not knowable at this time. Mr. Hopkins will likely expand on this topic in his report.
- Metering Reconciliation (February 19, 2020 – June 9, 2020):

  It has now been about four months since we completed the testing and reconciliation of the flow meters within the system. Attached please find a graphical summary of the meter readings collected for the period from the five

existing sewer flow meters: KGID, Beach Pump Station (BPS), Tahoe Douglas District, Round Hill GID's LaserFlow meter and the Plant meter. I am pleased to report that for this period the combined total flows as measured at KGID, BPS and the LaserFlow meter are within 3.3% of the total flows as measured at the plant meter. During the most recent 30-day period there were two dates (June 4th and June 5th) where the flow volume deduced for Round Hill GID was somewhat lower than what would be expected. The low flows on these dates are visible on the attached graphs and, as you would expect, correspond to an increase in flow measured and reported by the TDD meter.

I have also included a chart that simply compares flow measured at the Plant meter to the combined metered flows of KGID, Beach Pump Station and the RHGID's LaserFlow meter. As you can see the trends of these values remain very consistent and highly correlated.

I will be present during the Board meeting and available then to review this information in greater detail, as well as address any specific questions or concerns Board members might have relative to these subjects. Thank you for your continued confidence and the opportunity to provide these services.

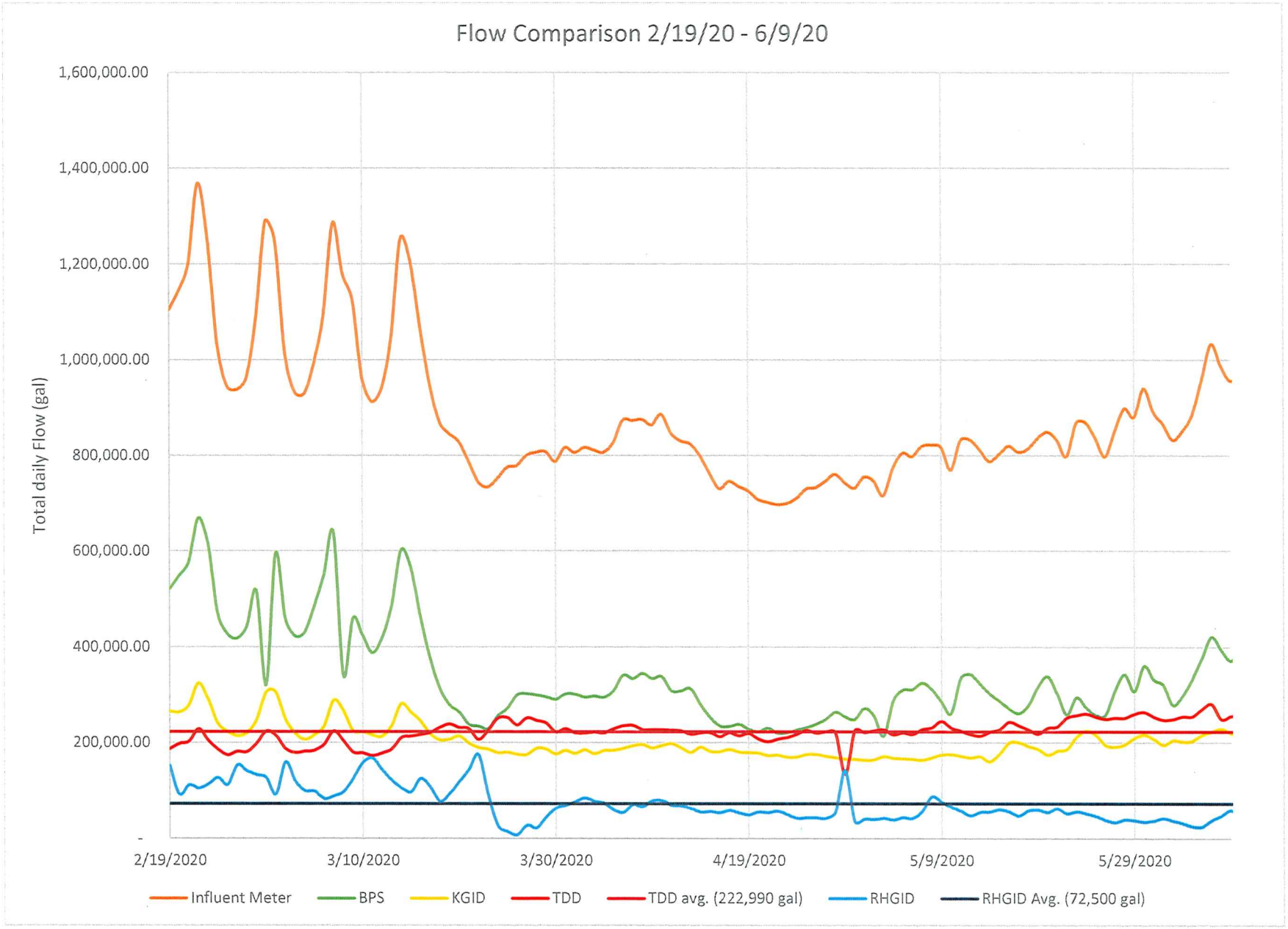
Yours faithfully,

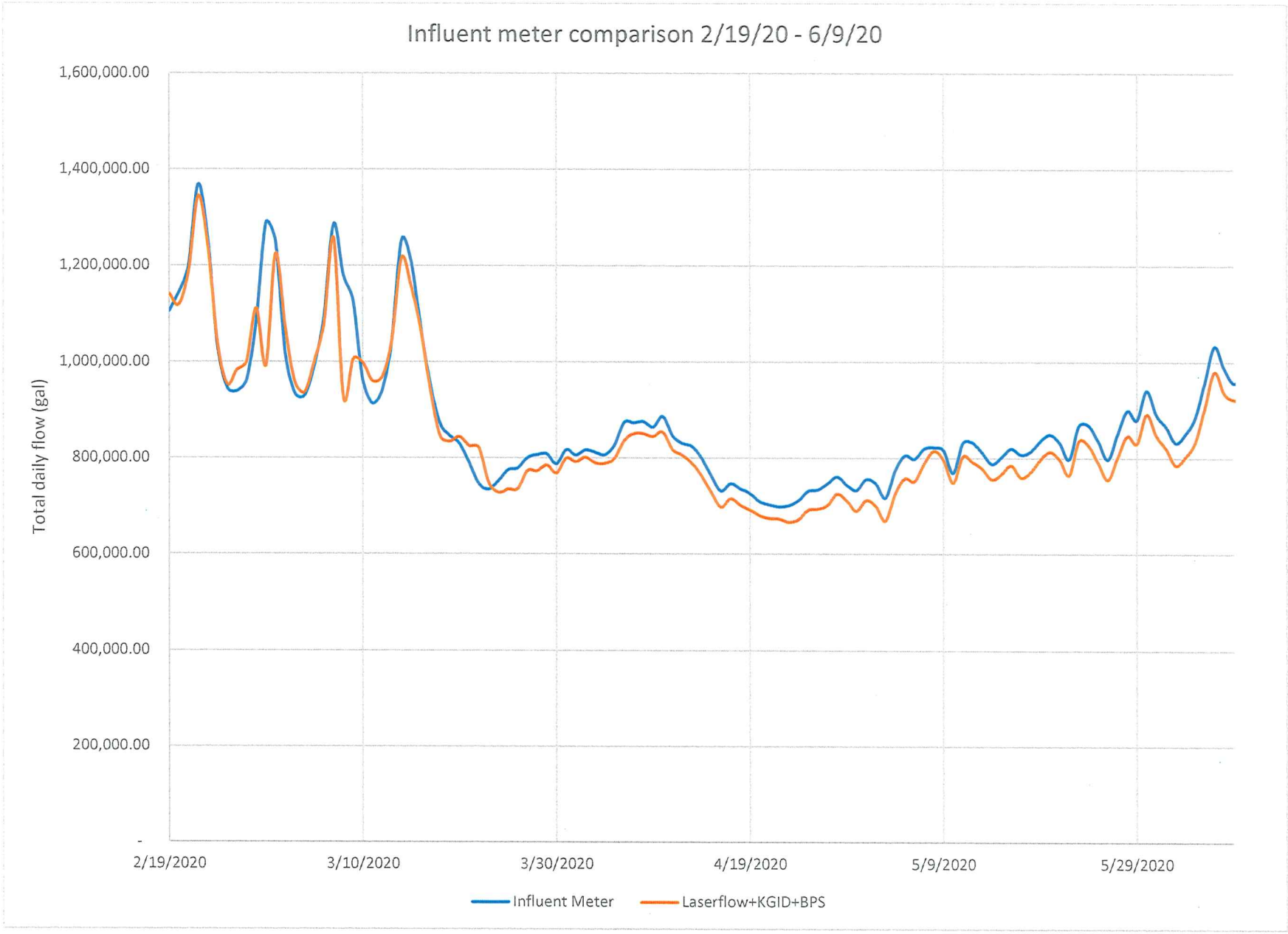
R.O. ANDERSON ENGINEERING, INC.

Robert O. Anderson, PE, WRS, CFM
Principal Engineer

Attachments

cc: Jim Cavilia, Esq.
Paula East-Janicki
Rob Hopkins
Ryan Russell, Esq.


Flow Comparison 2/19/20 - 6/9/20
Total daily Flow (gal)
1,600,000.00
1,400,000.00
1,200,000.00
1,000,000.00
800,000.00
600,000.00
400,000.00
200,000.00
-
2/19/2020
3/10/2020
3/30/2020
4/19/2020
5/9/2020
5/29/2020
Influent Meter
BPS
KGID
TDD
TDD avg. (222,990 gal)
RHGID
RHGID Avg. (72,500 gal)


Influent meter comparison 2/19/20 - 6/9/20
1,600,000.00
1,400,000.00
1,200,000.00
1,000,000.00
800,000.00
600,000.00
400,000.00
200,000.00
-
Total daily flow (gal)
2/19/2020
3/10/2020
3/30/2020
4/19/2020
5/9/2020
5/29/2020
Influent Meter
Laserflow+KGID+BPS

AUTHORITY CONTROLLER'S

BOARD REPORT – June 17, 2020

General Status Report

At the end of April, our operating expenses were still more than 10% under budget. However, since that time, we have had a number of situations that will eat into that, and possibly even put us over budget. Between the GASB 75 actuarial report indicating a $73,000 increase in our OPEB expense (retiree healthcare) for the year, an employee we just discovered went back on our unemployment account in January and a raft of emergency repairs, I expect to finish the fiscal year close to budget but not much under.

Status of Billing

Currently we have $121,500 in outstanding bills. However, of that $106,770 is from the two commercial accounts that have signed Forbearance Agreements with us and $6,000 is from accounts that we hold liens on. In these uncertain times, I feel pretty good about the status of our receivables.

Aeration Basin and Plant Upgrades Project

We have received $1,102,226 from the State Revolving Fund loan proceeds since the project began. Of that amount $110,226 is held in the LGIP Reserve account to pay the final debt service payment on the loan account.

Budget Augmentation

Every year at this time, if there is a chance we will go more than 10% over budget in any line item or the operating expense total, it is necessary to submit a Budget Augmentation. I put copies of Form 19 and Form 20 in the Board packet and have added approximately $110,000 to the various categories. The items that have changed are highlighted. I have also reduced some line items where we have not had extraordinary expenses or unhappy surprises in the last month. Just because we augment the budget doesn't mean we will spend the money, but if in fact we are able to do the emergency repairs before June 30, this will keep us from getting dinged by the State for going over budget.

Obviously, the increased expenses would occur in the areas we've already talked about, the OPEB Expense, Unemployment and Emergency Repairs.

If there are no questions, I would ask that you adopt the Budget Augmentation so I can submit it to the State.

Investment Report

We have a little more than $10.3 million dollars invested in liquid Wells Fargo and Local Government Investment Pool (LGIP) accounts and longer- term laddered CD's. Those amounts do not include the loan

proceed or reserve accounts. There has been no activity on the investment accounts since the last Board meeting with the exception of adding interest. Obviously, the emergency repairs in the near future will put a dent in these.

Claims and Check Register

I put copies of the wires and check register from April 15 through May 15, 2020 in the Board packet. If there are no questions, when we can get together again, I will ask that the Treasurer sign them and return them to me for our records.