MINUTES OF A SPECIAL MEETING OF
THE BOARD OF TRUSTEES OF
DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
MAY 8, 2019

CALL TO ORDER:

A Meeting of the Board of Trustees of the Douglas County Lake Tahoe Sewer Authority (DCLTSA) was duly convened at 9:30 a.m. on Wednesday, May 8, 2019 at the Wastewater Treatment Plant, Stateline, Douglas County, Nevada.

ROLL CALL:

Present were Trustees Mike Bradford, Wes Rice and Chuck Fagen. Trustee Grant Thompson participated via telephone connection by which everyone at the meeting could hear him and he could hear everyone at the meeting. Trustee Darya Vogt was absent.

RECOGNITION OF OTHERS IN ATTENDANCE:

In attendance were Authority Manager Rob Hopkins, Authority Controller Paula East-Janicki, Authority Engineer, Rob Anderson, the Authority's attorney, James Cavilia, Ying Johnson, accounting clerk 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 Rice, seconded by Trustee Fagen and carried unanimously that the agenda be approved and adopted as presented.

MINUTES OF PRIOR MEETING:

It was moved by Chairman Bradford, seconded by Trustee Rice and carried unanimously that the minutes of the Meeting of the Board of Trustees of DCLTSA, dated March 20, 2019, be approved as presented with a revision to reflect that Bob Cook was not in attendance at the meeting.

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.

Mr. Hopkins indicated that based upon a recent inspection of the Emergency Underground Storage project, it was clear that there has been additional damage to the system since the last inspection.

Mr. Hopkins stated that NV Energy power consumption data loggers at the treatment plant had recently been removed and that the data will be used to determine energy usage and whether the Authority will qualify for green energy credits.

Mr. Hopkins reported that replacement of the 51-year old flowmeter at the Beach Pump Station was recently completed by Authority staff with the calibration and tuning being completed by the meter manufacturer Krohne and Tesco. Mr. Hopkins also reported that the plant influent meter has also been replaced.

With regard to the ongoing litigation related to the Emergency Underground Storage project, Mr. Hopkins indicated that he participated in a day-long mediation on April 22nd.

Mr. Hopkins stated that all Authority job descriptions were recently updated to reflect responsibilities based upon moving from 24-hour staffing of the plant. Mr. Hopkins specifically recognized Nikolai Nikolov, Authority Operations Superintendent, for his work on the staffing changes that have allowed the Authority to operate without 24-hour staffing.

Mr. Hopkins reported that the First Quarter Discharge Monitoring Reports for the treatment plant and Park Ranch have been submitted to and approved by the Nevada Division of Environmental Protection (NDEP).

Mr. Hopkins indicated that a Memorandum of Understanding between the Authority and Tahoe Beach Club (TBC) has been updated with regard to future dewatering.

Mr. Hopkins finally reiterated that the plant staffing has recently moved away from 24-hour staffing by eliminating the graveyard shift and having an operator-on-call.

In response to an inquiry of Chairman Bradford, Mr. Hopkins indicated that he was continuing to work with representatives of Tahoe Beach Club (TBC) with regard to the plans to relocate the Authority's sewer line. Mr. Hopkins indicated that the completion of a security agreement and the posting of additional security is necessary before any work can begin on the line relocation.

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

B. Discussion and possible action regarding purchase of a skid-steer loader with forklift attachment and two additional sludge bins for the Treatment Plant at a cost not to exceed $76,000.

Mr. Hopkins stated that in order to improve the handling of bio-solids at the treatment plant, it would be necessary to obtain two additional bio-solids bins and a piece of equipment to move the bins. In considering the most cost-effective way to deal with the disposal of bio-solids, Mr. Hopkins concluded that rather than acquiring the equipment necessary for the Authority to do its own bio-solids hauling, it was best to improve the handling of solids on-site in order to ensure that bio-solids will only be hauled off-site when two bins are full.

Mr. Hopkins recommended that he be authorized to acquire two additional sludge bins and a skid steer loader with a forklift attachment. Mr. Hopkins also explained that the loader could be used for other applications at the plant, including snow removal. Following a brief discussion among the Trustees, **it was moved by Chairman Bradford and seconded by Trustee Thompson that the Authority purchase a skid steer loader and two sludge bins as recommended by Mr. Hopkins for a total amount not to exceed $79,500.** Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment. **The motion passed unanimously (4-0).**

C. Discussion and possible action regarding use of the Construction Manager at Risk (CMAR) method for construction of the Aeration Basin Upgrades Capital Improvement Project.

Mr. Hopkins generally described the Construction Manager at Risk (CMAR) process by which a public works project can be completed without the typical Design-Bid-Build process. Mr. Hopkins stated that the CMAR process allows for more cooperation between the contractor and the project engineer and some additional flexibility. The CMAR process allows the owner, in cooperation with the design engineer, to select a contractor based upon experience and cooperation. The contractor must then provide the owner with a not to exceed price. Mr. Hopkins indicated that the CMAR process was becoming more common and was recently utilized by Kingsbury General Improvement District (KGID) on its water treatment plant project. Ms. East-Janicki added that State Revolving Fund financing can be used for CMAR projects.

Authority Engineer, Rob Anderson, stated that the CMAR process was appropriate and well- suited for a project like the Aeration Basin Upgrade. Mr. Anderson also added that the number of contractors qualified to be involved in a CMAR is limited.

Following a discussion among the Trustees about the CMAR process, the benefits and risks, **it was moved by Chairman Bradford and seconded by Trustee Rice that staff be directed to proceed with the CMAR process for completing the Aeration Basin project**. Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment. **The motion passed unanimously (4-0).**

D. Discussion and possible action to engage HDR Engineering to perform an analysis of the current condition of the Underground Emergency Storage system, and recommend action to repair or replace it, including estimated costs.

Mr. Hopkins indicated that based upon the condition of the Underground Emergency Storage system and the fact that the recently completed mediation did not result in a resolution of the pending litigation, he was recommending that the Authority have the system reviewed by an independent engineer to determine the current condition and come up with possible actions to repair or replace the system. Mr. Hopkins stressed the importance of having the emergency storage available especially since the Authority is no longer staffing the plant 24 hours a day. Following a discussion among the Trustees, **it was moved by Trustee Rice and seconded by Trustee Thompson that the Authority engage HDR to perform an analysis of the current condition of the Underground Emergency Storage system, and recommend action to repair or replace it, including estimated costs.** Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment. **The motion passed unanimously (4-0).**

ENGINEER'S REPORT:

A. General Projects Status Report

In addition to his participation in the Manager's Report, Rob Anderson presented correspondence dated May 7, 2019 briefly summarizing various issues that R.O. Anderson Engineering has been involved with on behalf of the Authority. The May 7, 2019 correspondence is incorporated in these minutes by this reference.

Mr. Anderson indicated that the Annual Flow Report summarizing 2018 flow has been completed and provided to staff. Mr. Anderson stated that the flows were determined using the methodology from previous years and that the recently updated flow data was not utilized because of the need to complete the report in a timely manner.

With regard to gathering more accurate flow information, Mr. Anderson stated that data continues to be collected from RHGID.

Mr. Anderson reported that he and his staff were reviewing revised plans from the Tahoe Beach Club for relocation of the Authority sewer interceptor.

With regard to the relocation of the Authority's sewer line at Edgewood, Mr. Anderson indicated that discussions with Edgewood and its representatives were ongoing. Mr. Anderson then explained that because of the lack of slope in the existing line, it is in the Authority's best interest to relocate the line not just to accommodate the new development, but also to ensure the utility of the sewer line itself. Mr. Anderson indicated that the relocation being proposed by Edgewood would only exacerbate the problems related to the lack of slope in the line. Because of this, Mr. Anderson recommended that a longer section of the pipe be relocated in order to increase the slope which will provide for self-cleansing of the line. Mr. Anderson indicated that the additional work would add approximately $75,000 to the cost of the project and that it was his opinion that it would be reasonable for Edgewood to participate in the additional costs.

Chairman Bradford expressed his opinion that it would not be fair for the Authority to bear all of the additional costs because the alternative being proposed by Edgewood makes an existing problem worse and can not be approved by the Authority. Chairman Bradford added that he had discussed this matter with management at Edgewood. Trustee Thompson expressed his opinion that the additional costs should be shared by the Authority and Edgewood. In response to a question about the additional costs, Mr. Anderson indicated that approximately $25,000 of the costs was related to materials. Following a discussion about the additional costs, a consensus was reached among the trustees that the Authority should negotiate a reasonable cost sharing arrangement with Edgewood for consideration at a future Board meeting. Chairman Bradford expressed his willingness to participate in those discussions with Edgewood representatives.

Mr. Anderson reported that he has been working with Authority staff on the relocation of sewer lines serving a residence in Lake Village. Mr. Anderson indicated that the alternative proposed by the owner would involve the relocation of the Authority's existing sewer main on adjacent United States Forest Service property. Mr. Anderson explained why this proposal was unacceptable and indicated that the homeowner had been informed that the proposal was unacceptable. Ms. East-Janicki indicated that at this time, the homeowner had not submitted an acceptable alternative and had not yet filed an application for the project. Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

B. Presentation of flow analysis and Annual Flow Report

In stating that the Annual Flow Report was complete and that it was prepared using methodology from previous years without the new data now being collected from the contributing districts, Mr. Anderson went on to explain the work being done to isolate the flows from each of the contributing districts. Mr. Anderson explained in some detail how infiltration and inflow was accounting for up to 30% of the total inflow at the Authority. Mr. Anderson indicated that he was surprised by the data and that the next step would be to have video analysis of the sewer lines in an effort to locate the areas of infiltration. In response to an inquiry of Chairman Bradford, Mr. Anderson indicated that it does appear that the areas with the greatest amount of infiltration are in the lines of Tahoe Douglas District (TDD) and that ultimately TDD was responsible for the maintenance and operation of those lines. Trustee Thompson of TDD suggested that TDD's line before connection with RHGID be videoed in order to obtain more information.

Mr. Anderson stated that as additional information is obtained, recommendations would be made to the Authority and the contributing districts about ways to reduce inflow and infiltration going forward. With regard to this year's Annual Flow Report, Mr. Anderson indicated that it had recently been shared with staff at the Authority and the contributing districts. Mr. Anderson anticipated that the final report would be presented at the June Board meeting. Chairman Bradford thanked Mr. Anderson for his report and stressed that the new information being learned would not be used retroactively, but only prospectively to be more accurate in the future. Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

ATTORNEY'S REPORT:

A. General Status Report

Mr. Cavilia had nothing additional to report. Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

B. Discussion and possible action regarding leak/warranty issue with the Underground Emergency Storage Tanks

Mr. Cavilia indicated that the parties were unable to reach an agreement at the mediation that took place on April 22, 2019. Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment.

AUTHORITY CONTROLLER'S REPORT:

A. General Status Report

Ms. East-Janicki provided the trustees with a spreadsheet showing current expenses and she reported that operating expenses are almost 5% under budget through March. Ms. East-Janicki reported that the Authority continued to have increased treatment costs of approximately $12,000 per month related to pumping of groundwater out of the Emergency Underground Storage facility.

Ms. East-Janicki reported that she had recently contracted with a new payroll service as a result of Wells Fargo discontinuing the service. Ms. East-Janicki indicated that the new service, Paychex, would not result in any additional costs.

Ms. East-Janicki indicated that all current salaries and job descriptions have been provide to Public Sector Personnel Consultants (PSPC) in connection with the ongoing employment analysis. Ms. East-Janicki added that PSPC would be gathering information from the same agencies that were surveyed when this analysis was done previously, and she anticipated that the report would be completed before the Board's meeting in June.

With regard to billing, Ms. East-Janicki indicated there is approximately $100,000 that is past due with $87,000 of that consisting of five commercial customers. Ms. East-Janicki reported that after sending out pre-lien notices, several customers paid. Ms. East-Janicki stated that liens would be recorded with regard to five residential properties where the accounts are nine months past due.

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

B. Presentation and discussion of Capital Development Plan for approval prior to submitting the final budget

Ms. East-Janicki presented the Board with an updated proposed Capital Development Plan providing for up to $9 million in State Revolving Fund (SRF) financing. Ms. East-Janicki stressed that the Capital Development Plan needed to be adopted prior to finalizing the annual budget, but that Plan is based upon projections and can be modified as time progresses.
Following a discussion among the Trustees, **it was moved by Trustee Fagen and seconded by Trustee Rice that the Capital Development Plan as presented be approved.** Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment. **The motion passed unanimously (4-0).**

C. Discussion and possible action to approve the formal State Revolving Fund Loan Application for the Aeration Basin Upgrades, the Grit Removal and Headworks Projects, in the amount of $9,000,000

Ms. East-Janicki indicated that she had completed the SRF loan application in conjunction with the now adopted Capital Development Plan and that she needed the Board to formally approved that application. Ms. East-Janicki explained that this was only an application and that it did not bind the Authority to actually borrow the money. Following a brief discussion among the Trustees, **it was moved by Trustee Rice and seconded by Chairman Bradford that a Resolution to complete and submit the SRF Loan Application as presented be approved.** Chairman Bradford opened the floor to public comment regarding the matter. There was no public comment. **The motion passed unanimously (4-0).**

D. Investment Report

Ms. East-Janicki had a written summary of the Authority's investments available, showing a total of approximately $9.8 million. Ms. East-Janicki indicated that she recently invested $700,000 of this year's annual capital assessment in the Local Government Investment Pool, paying approximately 1.8% annual interest.

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

Reports/updated from Board Trustees concerning the areas or districts they represent

Trustee Fagen reported that RHGID recently engaged Farr Engineering to be the District Engineer. Trustee Fagen also reported that RHGID approved the purchase of a tractor for snow removal and other uses.

Trustee Rice reported that legislation was recently approved that will allow a $5 per night room tax to be imposed for the purpose of funding the Lake Tahoe Convention Events Center. Trustee Rice expressed his confidence the room tax would be approved, allowing for the events center to go forward. Trustee Rice also indicated that the Loop Road in Stateline was still being discussed

at the County level. In response to an inquiry from Trustee Thompson, the benefits of the proposed loop road were discussed by the Trustees.

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 treasurer and were approved.

PUBLIC COMMENT:

There was no public comment.

ADJOURNMENT:

There being no further business, the meeting was adjourned at 12:00 p.m.

Charles E. Fogen

APPROVED

4838-5808-1431, v. 1

Meeting Date: May 8th, 2019

DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
Staff Report

Subject / Title:

Authority Manager's Monthly Report – May 8th, 2019
A. General Status Report

Staff Recommendation:

None. This is an informational item only.

Discussion/Report:

This item is regularly agendized to afford the Authority General Manager the opportunity to update the DCLTSA Board of Trustees on select activities over the previous month.

1. Authority staff facilitated a confined space entry and inspection of the failing Emergency Underground Storage Tank system in advance of the second round of mediation, held on April 22nd. It appears that the pipe structure has suffered additional damage since the last inspection in September 2018.

2. NV Energy removed power consumption data-loggers form the Treatment Plant electrical system on April 12. The captured data, as well as historic power consumption data, will be used to determine how much energy has been saved upon completion of the Aeration Basin Upgrades Project. The information may allow the Authority to qualify for green energy credits.

3. The 51-year-old flowmeter at the Beach Pump Station was replaced by staff on April 17th. The work involved constructing 25 feet of scaffolding to access the meter and working overnight during low-flow periods to accomplish the swap-out. Calibration and fine-tuning of the new meter were performed by factory technicians and engineers from Krohne Flowmeters and Tesco Controls. (photos attached)

4. On April 22nd, the Authority Manager participated in round two of mediation related to the failure of the Emergency Underground Storage Tank System. Details on the state of the mediation and next steps may be covered under the Legal Counsel's report.

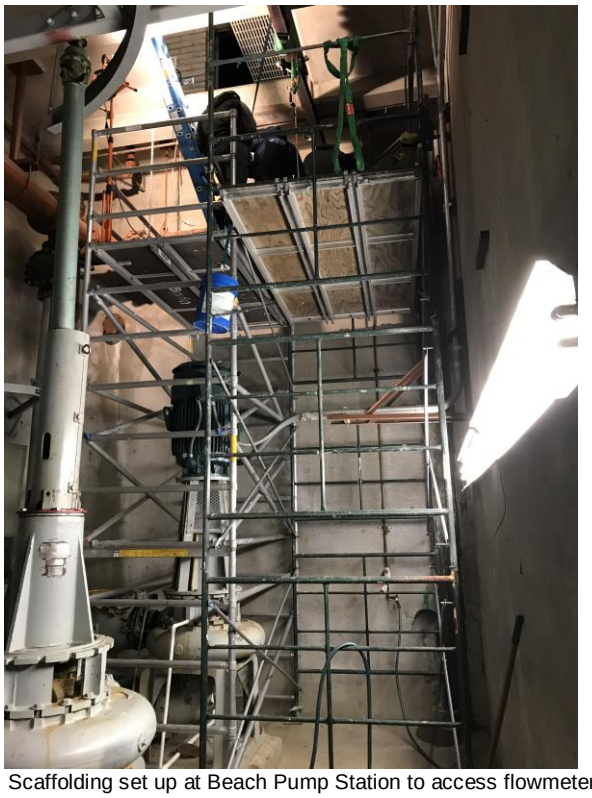
5. All Sewer Authority Job Descriptions were updated this month to reflect the new responsibilities and obligations of staff when we move off 24-hour staffing at the Treatment Plant and adopt an "Operator On-Call" mode of operations.

6. The Treatment Plant Influent Flowmeter was replaced using in-house labor and technical expertise from the flowmeter manufacturer on April 23. The existing meter was nine years old and had not been removed for service in that time. The existing meter was replaced with the same model, and the "old" meter will be sent to the factory for refurbishing and returned to the Authority. The flowmeter manufacturer recommends removing, cleaning and inspecting flowmeters every two years to assure accuracy. The Authority is in the process of putting this practice into effect as standard operating procedure moving forward. (photos attached)

7. The 1st Quarter 2019 Discharge Monitoring Reports for the Treatment Plant and Park Ranch has been submitted and passed by the Nevada Division of Environmental Protection and the Environmental Protections Agency.

8. The temporary dewatering MOU between the Authority and the Tahoe Beach Club and its contractors has been updated for the 2019 construction season.

9. The Sewer Authority realized its goal of eliminating Graveyard Shift and moving to the Operator-On-Call staffing model as of Sunday, April 28, 2019. This critical milestone shall allow greater staff flexibility during daylight "working" hours, create greater productivity, and eliminate "shift-differential" pay moving forward. The Authority Manager wishes to thank all staff for the diligent work that has been required to accomplish this goal.



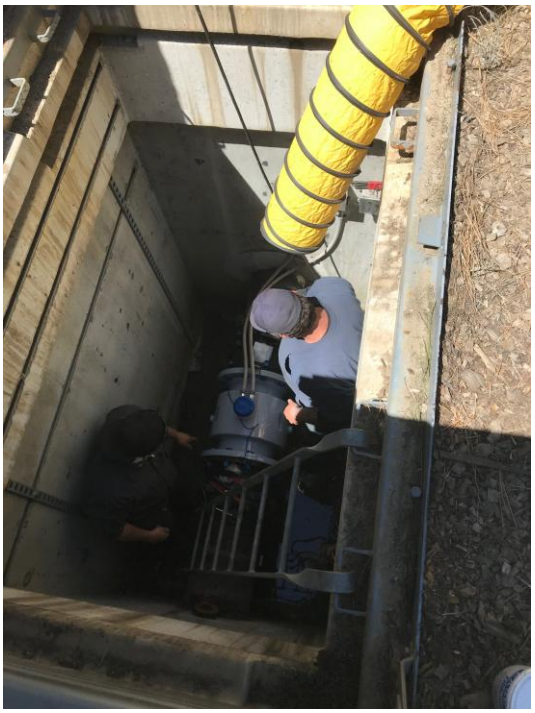
Scaffolding set up at Beach Pump Station to access flowmeter.



Removal of 1967-era flowmeter at BPS



Interior condition of 1967 flowmeter removed from BPS



Installing new Khrone Treatment Plant Influent Meter



Interior of old Treatment Plant Influent Meter, showing accumulated debris stuck to interior after 9 years in service

Meeting Date: May 8th, 2019

DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
Staff Report

Subject / Title:

ITEM B: Discussion and possible action regarding purchase of a skid-steer loader with forklift attachment and two additional sludge bins for the Treatment Plant – **for possible action.**

Staff Recommendation:

Staff recommends DCLTSA Board approve purchase of a skid-steer loader with forklift attachment and two additional sludge bins for the Treatment Plant

Discussion/Report:

DCLTSA staff has concluded research in to the most cost-effective way to improve the trucking and solids handling efficiencies at the Treatment Plant. The three options investigated were:

1. Purchase extra sludge bins and a forklift and manage the existing trucking contract with South Tahoe Refuse (STR) more effectively.

   Purchase cost estimate for Option 1: Forklift - $63,000, Sludge Bins (2) - $16,500. Total Estimated Cost: $79,500.

2. Purchase the items listed in bullet number one, procure our own full-size commercial over-the-road bin truck, and haul our solids in-house.

   Purchase cost estimate for Option 2: Forklift - $63,000, Sludge Bins (2) - $16,500, Commercial-grade truck - $135,000. Total Estimated Cost: $214,500.

3. Purchase the bins and forklift as stated above, purchase a medium-duty truck similar to a “dually”, and haul our solids in-house.

   Purchase cost estimate for Option 3: Forklift - $63,000, Sludge Bins (2) - $16,500, Medium-duty truck - $85,000. Total Estimated Cost: $164,500.

Staff recommends DCLTSA Board approve purchase of a skid-steer loader with forklift attachment and two additional sludge bins for the Treatment Plant for an amount not-to-exceed $79,500.

Meeting Date: May 8th, 2019

DOUGLAS COUNTY LAKE TAHOE SEWER AUTHORITY
Staff Report

Subject / Title:

Discussion and possible action regarding use of the Construction Manager at Risk (CMAR) method for construction of the Aeration Basin Upgrades Capital Improvement Project – **for possible action.**

Staff Recommendation:

Staff recommends Board authorize use of the Construction Manager at Risk (CMAR) method for construction of the Aeration Basin Upgrades Capital Improvement Project

Discussion/Report:

The upcoming Aeration Basin Upgrades project will be one of the most ambitious and expensive Capital Improvement Projects undertaken in the Sewer Authority's recent history. Recognizing this fact, Authority staff has been researching construction contract management methods that would be most likely to assure that the Authority has a successful project, completed at a reasonable and expected cost.

Design-Bid-Build methods have traditionally been used by the District / Authority. This method's advantages include a familiar delivery method, and the owner may obtain competitive pricing in a favorable construction climate. Some of the disadvantages for the Authority using this traditional method are:

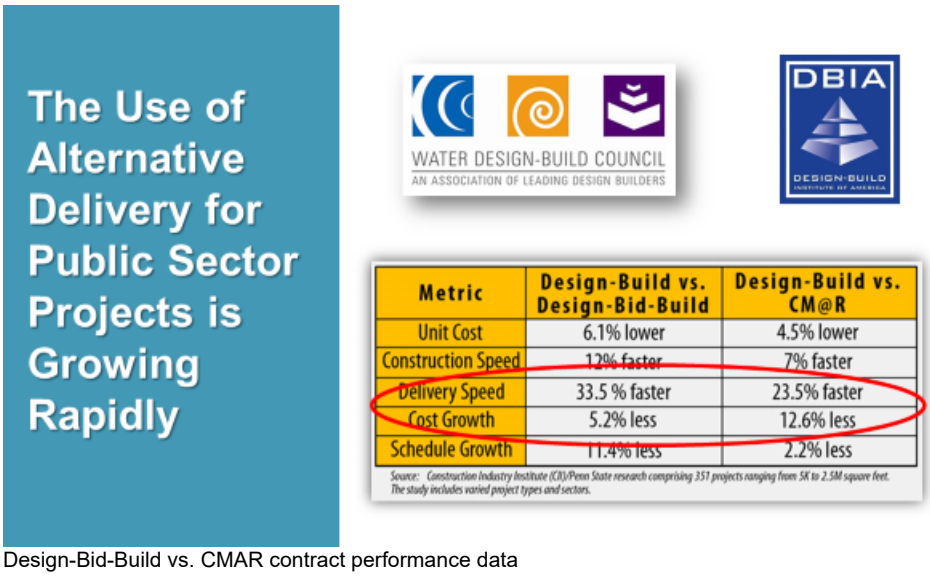
- The Authority is obligated to award to the low-bid contractor, with certain narrow exceptions.
- The Authority bears most of the risk for changes.
- The Authority has reduced collaboration between the designer / engineer and the contractor doing the work.

Construction Manager at Risk will allow the Authority and its designer to have much more influence on the project throughout the construction process. Advantages include:

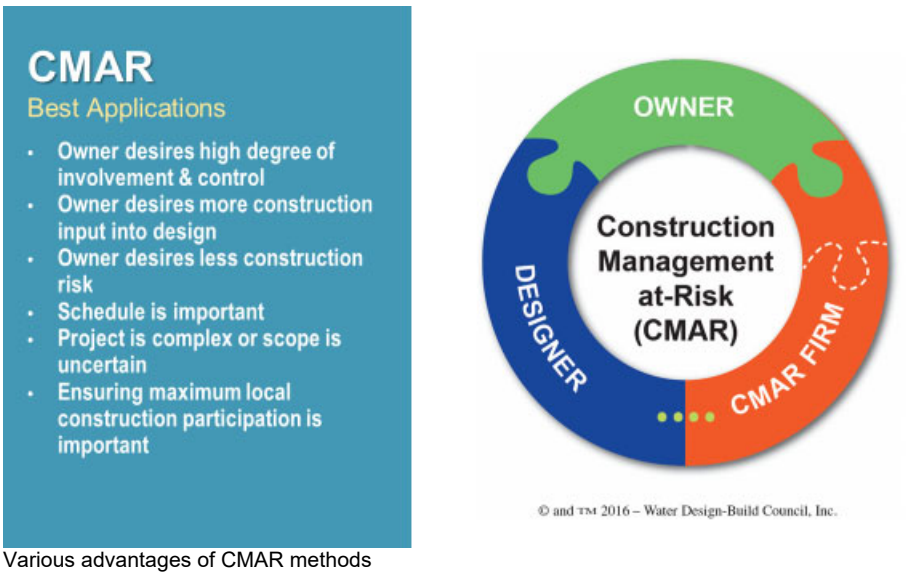
- The Authority will be able to select the contractor that it and the designer judges best able to successfully perform the work, rather than being locked in to taking the lowest bidder.
- Data shows that project delivery times and cost-growth throughout the project are reduced. (see attached)
- The contractor selected during the CMAR process must guarantee a maximum project price at the 60% design phase. This incentivizes the contractor to work diligently with the designer and the Authority to make certain that all aspects and expectations for the project are well understood.

Local examples of successful CMAR projects include the 30-million-dollar Water Resource Recovery Project in Carson City, and the 19-million-dollar Kingsbury General Improvement District Kingsbury Water Treatment Plant Relocation Project in Stateline, Nevada. (see attached)

Staff recommends that the Board authorize use of the Construction Manager at Risk method of construction project management for the upcoming Aeration Basin Upgrades Capital Improvement Project.



Design-Bid-Build vs. CMAR contract performance data



Various advantages of CMAR methods

Water Resource Recovery Project

Owner: Carson City
Location: Carson City, NV
Value: $30M
Features:

- New 3 million gallon bio-reactor
- New secondary clarifier
- Decommission 40-year old process equipment

Why CMAR?

- Tight budget
- Desired collaboration between Design team, Construction team and Owner



Kingsbury Water Treatment Plant Relocation Project

Owner: Kingsbury General Improvement District
Location: Stateline, NV
Value: $19M
Features:

- Relocation of existing WTP to make room for private development
- Ozone & UV treatment process
- Sensitive environmental requirements

Why CMAR?

- Owner wanted to maintain traditional relationship with designer
- Schedule was a driving factor in project delivery selection



R|O|Anderson

May 7, 2019

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 – May 2019

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 April 10, 2019. During this period our efforts were limited to general engineering-related support services. The following paragraphs provide a brief description of these efforts and progress related to each of these efforts.

General Engineering Services: R.O. Anderson Engineering, Inc. (ROA) assisted and participated with Authority personnel on various engineering-related assignments including participation in project coordination meetings and phone calls with Authority staff, legal counsel, and Board members on an as-requested basis.

- Annual Flow Report: The report summarizing 2018 flows is being finalized and may be presented at the meeting. The foundation and basis for the analysis is the same as was used in 2017. The preliminary results of the ongoing Meter Reconciliation Project were not factored in to the analysis of 2018 flows.
- RHGID (Laser) Flow Meter Data Review: We captured another 60 days of the flow data from the meter and have reviewed it to verify internal consistencies and confirm no gaps in data.
- Tahoe Beach Club: Representatives of the Tahoe Beach Club (TBC) have submitted the approved plans of the revised and updated interceptor relocation project to Douglas County for permitting purposes. This month we have reviewed with Authority staff the evolution of the project to address specific questions.
- Edgewood Proposed Interceptor Relocation Project: As the Board is aware, on behalf of the Authority as part of the typical plan review process, we previously recommended to Edgewood's design professionals that they extend the length of the Interceptor Relocation to the next downstream manhole, a distance of about 242 feet (see attached letter dated March 11, 2019). From discussions at the last Board meeting we understand that representatives of Edgewood are open to incorporating the proposed extension, but understandably have requested cost sharing from the Authority.

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The recommended additional length of interceptor relocation provides several important operational and long-term benefits to the Authority including: a) removal/replacement of a section of pipe with very slight (0.04%) slope that is known to accumulate excess sediment; and b) removal/replacement of an aging interceptor pipe constructed of ACP where other sections of this same pipe material in similar sections have shown significant deterioration. Below are a series of pictures taken during Phase I of the Edgewood Lodge Project of this same interceptor at a location slightly downstream. Together these pictures demonstrate the condition of this interceptor.







As is clearly seen from these photos, pipe cleansing velocities (generally taken to be 2 feet per second (fps)) are not achieved in the existing pipe at its existing slope; hence the accumulated sludge. At the existing pipe slope of 0.04%, with an assumed average daily sewer flow of 0.5 MGD, the velocity is about 1 fps; at a peak

flow 1.0 MGD, the pipe velocity is about 1.16 fps. If the pipe relocation was extended as recommended the pipe slope would increase to 0.2% and under the same flow conditions, the estimated pipe velocities would increase to 1.77 fps and 2.15 fps, respectively. That is, pipe self-cleansing velocities would likely occur on a regular basis.

Other considerations that help justify the recommendation to participate in a cost sharing arrangement with Edgewood include the benefits that would accrue to the Authority by: a) permitting of the project through TRPA would be accomplished as part of Edgewood's Threshold Project; and b) Edgewood would be responsible for undertaking the by-pass pumping during construction.

Perhaps most importantly, if the sewer interceptor is not extended the additional distance at this time, the opportunity to correct these deficient slopes will be practically lost unless the Authority were to reconstruct not only the 242 feet of additional length now recommended, but also reconstruct the length of the interceptor now proposed to be relocated by Edgewood. Furthermore, the Authority would then be responsible for the entire cost of design, permitting, and construction which would then involve interruption, construction through, and restoration of portions of the championship golf course.

For all these reasons we continue to recommend that the Authority enter discussions with Edgewood to accomplish the additional 242 feet of sewer interceptor relocation and improving the slope and condition of this important facility. Depending on final discussions, we estimate the probable cost of construction would be less than $75,000.

Mr. Hopkins has been in direct contact with representatives of Edgewood and can provide the status of his on-going discussions with Edgewood's representatives.

- Werbin Residence, 119 and 120 Snowbird Court; 1010 Holly Lane all within Lake Village: We understand the owner, Mr. Lenny Werbin, by and through his representative Basin Strategies, has not selected one of our suggested alternatives (see our February 2019 report) and instead proposed that the Authority relocate their main onto the adjacent USFS property to the north. This approach would necessarily require the Authority to re-design the main and seek approval from USDA-Forest Service to amend the Authority's current Special Use Permit. We recommended to Mr. Hopkins that their proposed alternative was not appropriate for the Authority to pursue for the sole benefit of a single property owner. Beyond that recommendation, we have not received any further correspondence from either Mr. Hopkins or the representatives of the Werbins.
- Meter Reconciliation Project: I am pleased to report that we have concluded our efforts to collect and analyzed flow data from each of the existing meters within the combined collection systems. Additionally, we have completed our flow metering assignment for Round Hill General Improvement District, that we were separately

engaged to undertake, and which involved an independent 30-day flow metering period for the meters at Tahoe Douglas District's Marla Bay Pump Station as well as the LaserFlow meter at the Main Pump Station. I will be delivering the draft Report to the Authority tomorrow and be prepared at the Board meeting to discuss our preliminary findings and recommendations.

I will be present at 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.

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

R O Anderson

March 11, 2019

Eamon Kerley, EIT
NCE
PO Box 1760
Zephyr Cove, NV 89448

EDGEWOOD SEWER INTERCEPTOR RELOCATION PROJECT

Dear Eamon:

We are in receipt of NCE's proposed Edgewood Sanitary Sewer Interceptor Relocation which includes a proposed bypass pumping plan, preliminary improvement plans and construction specifications. Based upon our review, which has been performed on behalf of the Douglas County Lake Tahoe Sewer Authority (DCLTSA), we offer the following comments:

1. The proposed point of connection for the relocated interceptor to the existing 18-inch ACP main connecting existing DCLTSA SSMH No. 203 and 204 is unacceptable to DCLTSA. This existing main presently has a slope of 0.04%, and the proposed relocation as presently designed would decrease the average slope of the upstream line while adding one (1) additional manhole as well as two (2) additional points of change to the direction of flow. As proposed, these changes would exacerbate the already poor flow conditions present in the existing section of main between SSMH No. 203 and 204.

   As an alternative, please consider relocating the existing interceptor such that it connects directly to existing SSMH No. 204. The benefits of this approach are that it eliminates at least one (1) of the proposed manholes and two (2) points of change in flow direction, while substantially improving the average slope between the existing Intertie Diversion Manhole and SSMH No. 204 to about 0.2%. This alternative alignment would add approximately 242 lineal feet of new 18-inch sanitary sewer, and the proposed bypass plan would need to be modified to include existing SSMH No. 205 as the new point of discharge during bypass operations.

Should any questions arise during your review of the attached plan please do not hesitate to contact me.

Yours Sincerely,

R.O. ANDERSON ENGINEERING, INC.

Jonathan Lesperance

Jonathan Lesperance, P.E.
Project Engineer

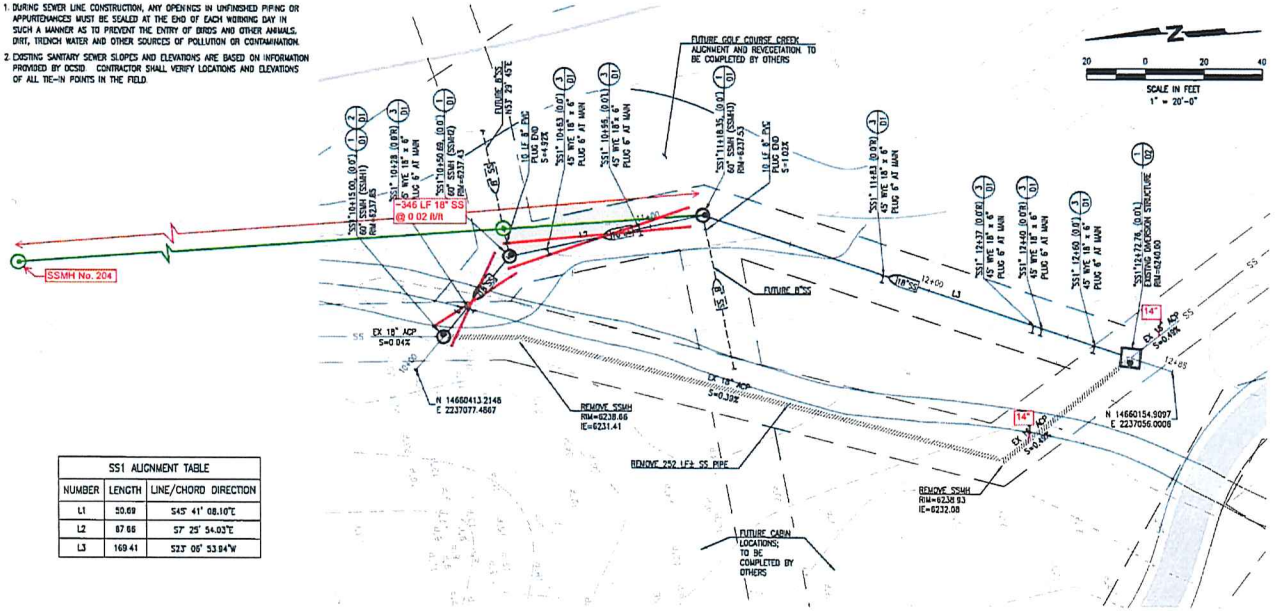
Attachments

Cc: Rob Hopkins, General Manager DCLTSA

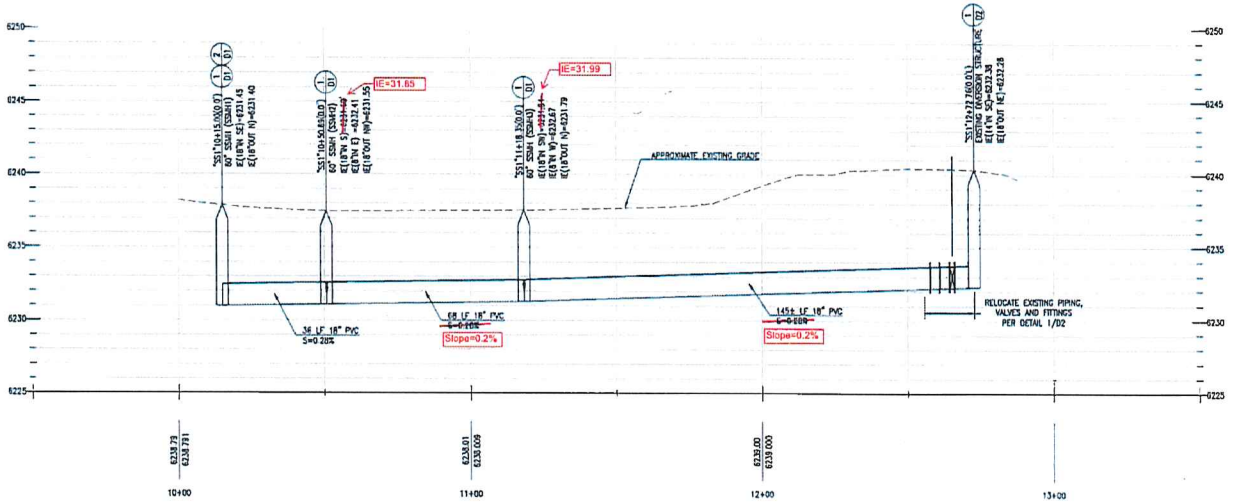
Y:\Client Files\0643\0643-002\Documents\Projects\2019 Edgewood Interceptor Relocation\Ltr T NCE RE Edgewood Interceptor Relocation.docx

NOTES:

1. DURING SEWER LINE CONSTRUCTION, ANY OPENINGS IN UNFINISHED PIPING OR APPURTENANCES MUST BE SEALED AT THE END OF EACH WORKING DAY IN SUCH A MANNER AS TO PREVENT THE ENTRY OF BIRDS AND OTHER ANIMALS, DIRT, TRENCH WATER AND OTHER SOURCES OF POLLUTION OR CONTAMINATION.
2. EXISTING SANITARY SEWER SLOPES AND ELEVATIONS ARE BASED ON INFORMATION PROVIDED BY DCSID. CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL TIE-IN POINTS IN THE FIELD.



SS1 ALIGNMENT TABLE		
NUMBER	LENGTH	LINE/CHORD DIRECTION
L1	50.69	S45° 41' 08.10"E
L2	87.66	S7° 25' 54.03"E
L3	169.41	S23° 05' 53.84"W



SCALE:
HORIZONTAL 1" = 20'
VERTICAL 1" = 4'

PRELIMINARY
FOR REVIEW
NOT FOR CONSTRUCTION
DATE: 1-23-2019

811 Know what's below. Call before you dig.

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155 Hwy 50, Suite 204
Stateline, Nevada 89449
(775) 588-2505 *Fax (775) 588-2607

EDGEWOOD COMPANIES
P.O. Box 2249
Stateline, Nevada 89449

LICENSED PROFESSIONAL ENGINEER STATE OF NEVADA
JACK W. NORBERG
CIVIL
No. 7337

EDGEWOOD LODGE SEWER INTERCEPTOR RELOCATION PROJECT

OWNER

OWNER NAME
ADDRESS

NO	DATE	DESCRIPTION

PROJECT NO 554.12.25
DESIGNED BY: EK
DRAWN BY: RO, EK
CHECKED BY: JN DATE: 1/30/19
DATE: 1/23/2019

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SHEET TITLE

PLAN AND PROFILE
"SS1" 10+15 TO "SS1" 12+72

DRAWING
C1

SHEET 4 OF 6

AUTHORITY CONTROLLER'S

BOARD REPORT – May 8, 2019

General Status Report

I've given you a spreadsheet that shows at the end of March our operating expenses were still almost 5% under budget. Electrical costs increased due to having to pump out the emergency underground storage tank which is continually filling with ground water. Higher increased electrical costs for that will continue into the foreseeable future both at the Main Pump Station and here at the plant.

Wells Fargo is discontinuing their payroll services, so Ying and I have been busy contacting and interviewing companies to replace them. We will not be bringing payroll in house because while it would cost less, the year before I came to work here, the auditors recommended that we use an outside payroll service to minimize the potential for fraud in that area. The Fraud Prevention Training that Ying and I want to at Pool Pact last month reiterated that. So far, the proposals we've received for replacements are comparable to what we paid Wells Fargo, approximately $2,500 a year.

I provided current salary scaled and job descriptions to Kay Tilzer, the consultant from Public Sector Personnel Consultants, and have had conversations about her methodology. She will be using the same agencies previously identified as most similar to ours as comparators. She anticipates having the study completed in six weeks, but if she gets information back from those similar agencies quickly, it could be sooner than that.

Status of Billing

One month after sending out the 4th quarter invoices, there is approximately $101,000 past due and owing. Of that, 5 commercial accounts make up $87,000 of the past due amounts. I sent out pre-lien notices and several people paid their bills. There are still 5 customers with accounts past due 9 months, so next week I will be placing liens on their properties. Those are all residential accounts.

Capital Development Plan (CDP) for 5 years beginning FY 2019-2020

I have refigured the Capital Development Plan to include doing the Aeration Basins, Headworks and Grit Projects over the next three fiscal years and accepting a $9,000,000 State Revolving Fund Loan to pay for them. The debt service numbers were figured by Marty Johnson based on our likely drawdown of funds based on the proposed project schedule submitted by HDR, the design engineer. If the CDP is adopted by the Board at the May 8 meeting, I will build the figures into the final budget which will be presented to the Board on May 29.

State Revolving Fund Loan Application

I have completed the application and am in the process of obtaining all the documentation that needs to be submitted with it. As you can see in the list, they'd like attached a Resolution by the Board approving it, and I will ask Mike Bradford to sign the application. I will reprint the initial document checklist page when I determine what I can find to submit with it.

Investment Report

We have almost $9.8 million dollars invested in liquid Wells Fargo and Local Government Investment Pool accounts and longer- term laddered CD's. Since the last Board meeting I invested $700,000 of the current

year's annual capital assessment in the Local Government Investment Pool. It has been paying approximately 1.8% interest and is entirely liquid. Additionally, one CD matured at 2.05% and I reinvested it at 2.6% for three years. The interest received from all the CDs since we started the laddered program has been building up in a money market holding account that's linked to the CDs, and it recently reached $245,00 enabling us to purchase another CD at 2.6% for three years. I purchased the longer term because interest rates have been falling over the last several months, and my contact at the LGIP indicated she'd also noticed interest leveling off. We want to take advantage of it and lock it in while we can. Our CD balance is now $5,145,000.

Claims and Check Register

I sent copies of the wires and check register from April 10 through May 8 in your board packet. If there are no questions, I would ask that the Treasurer sign them and return them to me for our records.