

Eldorado Springs LID Advisory Committee Minutes

May 16, 2019
Rocky Mountain Fire District Station 6 4390
Eldorado Springs Drive
Eldorado Springs, CO 80303

The meeting was called to order at approximately 6:30 pm.

Members Present: Vija Handley, Cathy Proenza, Jeff Mason, Ken Sheldon, Kevin Tone

Guests (by phone): Gabby Begeman, Tom Schubert, ORC

Staff: Joan Barilla, Mark Ruzzin

Approval of Minutes:

The board considered the minutes of the April 18, 2019 meeting:

ACTION: Ken moved to approve the minutes of the April 18, 2019 meeting; the committee voted unanimously to approve the minutes as presented.

Plant Operations:

Gabby and Tom presented the April plant operations report and reported that the UV system is working well. Gabby, Tom and the committee then discussed options to meet the TIN limits included in the WWTF's operating permit. Methanol is a relatively inexpensive option to add a carbon source for de-nitrification, and ORC is interested in experimenting with this method first. Kevin asked why there is a problem with carbon in the system, given the plant's high influent BOD numbers. ORC believes the Fluidyne system was not designed to meet the low TIN numbers included in the permit, and in order to meet those very low limits, carbon needs to be added.

Committee discussion then turned to the high influent BOD values and whether this brings a significant amount of usable carbon into the system to de-nitrify. Evaluation of cycling was also addressed as an alternative, but could require the purchase of additional equipment. A dissolved oxygen probe and automatic switching system could be installed to adjust aeration automatically, which may reduce the TIN down to the permit limits. The plant designer, Fluidyne, recommended these equipment enhancements and chemicals to address the issue, but with no guarantee that these additions would result in the plant meeting the two-year rolling average TIN requirement; this approach would require an estimated \$30,000 for equipment and \$5000 per year in chemicals. Kevin encouraged the staff to use this information as an example of how expensive it will be for the district to meet the current permit requirements.

Cathy asked if it makes sense to test BOD and TIN from the aeration tank to determine if methanol is even needed. Gabby explained that while tests can be run, there is not enough carbon left in the last tank to reduce the TIN to the permit limit. This type of Fluidyne plant, with its permit requirements, needs to be monitored and adjusted at least two times per week.

Kevin asked if there is potential to run longer anoxic cycles to get the nitrate down biologically rather than chemically. Gabby stated that if ORC was on-site at all times and able to run tests daily, this approach might be possible; the current permit limits are difficult to achieve for small systems without a full-time operator on-site, an approach that would significantly increase operating costs.

The discussion then turned to the causes of discharge fluctuations. ORC believes the storage of sludge in the first tank contributes to this fluctuation, but constant adjustment of the amount of effluent in the tank presents challenges. The operation of the plant is an ongoing "read and react" exercise to understand what is happening at the plant during those periods of time the operator is not present and adjusting operations in response to what is learned. The committee agreed that the discussion needs to continue about a capital investment in the near future, including the addition of a sludge holding tank at a cost upwards of \$50,000.

Again, the committee voiced their opposition to the permit limits which cannot be met with the current technology at the plant and which are unacceptable for any system.

Gabby reported that there have been no TIN violations since January. If a violation does occur, ORC will let CDPHE know there will be a request coming from the LID to review the permit.

Questions were raised at the last meeting about collection system issues and ORC briefed the committee about the challenges with the grinder pump at 277, 267, and 261 Eldorado Springs Drive. A contractor has come out and looked at the project, but the position of the pump is not conducive to an operator-friendly examination as it would require hand-digging in the area. The committee discussed whether the grinder pump should be moved into the road or other alternatives explored, as pulling and replacing the grinder on a regular basis is not a sustainable option. ORC is unsure as to what exactly the problem is, and has installed an hour meter to record the pump's run time and will insert a camera into the pipe for further examination. The committee will await a follow-up report from ORC as to next steps.

Invoices and Budget Update:

The \$2,689.69 invoice for the new auto-sampler was provided to the committee for review. Staff also informed the committee that a new actuator needed to be purchased on short notice, so it has been ordered and delivery is expected at the beginning of June.

Committee Updates:

Eldorado Artesian Springs Resort

The committee began the EAS EQR discussion by talking about the need for EAS to purchase commercial E-one units. The committee feels three units should be purchased: one each for the ballroom/snack bar and the pool/bath house grinder pits and a third as a back-up. Ambiente can provide a quote to EAS for these units.

Cathy asked if staff had spoken to the LID attorney about placing a cap on a single rate payer. Mark reported that staff has reviewed the LID's Rules and Regulations with the County Attorney's Office, and currently there are no restrictions or requirements in the Rules and Regulations that address total plant capacity or "over-utilization" of the plant by a single ratepayer. That said, while the current Rules are silent on this issue, the committee certainly has the authority to amend the Rules to include some requirements or guidance in respect to total plant capacity. Cathy feels the existing general statement within the Rules that addresses appropriate use of the plant should cover a cap, but after reviewing this language, the attorneys believe this Rule applies to users who intentionally misuse the system. Staff and the committee both feel putting safeguards in place is a good idea; staff, including the attorneys, recommends an intentional process to update the Rules and Regulations to address capacity issues across the system. Staff recommends a process that would include establishing an EQR for EAS, entering into a Memorandum of Understanding (MOU) with EAS regarding its use of the collection system and plant, collecting data on EAS's impact on the system, and then taking time to update the rules and regulations to address the capacity issue for all commercial users.

Vija pointed out that EAS is not a commercial user and they are in their own category, therefore, any changes to the rules should examine how rate-payers are categorized. Mark feels this review of the rules will give the committee an opportunity to address multiple issues that have surfaced over the last few months with the introduction of this project. Cathy expressed her support for moving forward on an EQR vote for EAS and including a discussion item on updating the Rules and Regulations on a future ESLAC meeting agenda. Kevin suggested that language be added in the MOU to signal to EAS that the capacity issue will be addressed in a Rules and Regulation update; Cathy supported this suggestion. Jeff suggested that ESLAC has established precedent in respect to updating the Rules and Regulations, for example when the idea of creating a lodge in Eldorado Springs was discussed. Kevin also commented that in addition to the three commercial grade E-one pumps, the MOU should reference the need for a metering manhole and a flow meter. Mark will follow-up with the attorneys regarding next steps.

The committee discussed other details of the EAS resort renovation project. Ken clarified that his company is currently the contractor for the pool renovation. He conveyed his understanding that the pool project would be the first to move forward, targeting this summer for a start date. Mark walked the committee through the decisions that staff still needed from the committee to move the EQR-setting forward for both the ballroom/snack bar and pool/bathhouse projects: agreement on a ballroom EQR, pool EQR, and the specific components of the MOU.

The committee discussed the occupancy number of 376 that will drive the EQR for the ballroom. Ken noted that he has spoken with Rocky Mountain Fire; they will be the entity setting the final occupancy limits, based on several different factors. The limits will likely be less than the occupancy limits resulting from the county Land Use analysis. Mark proposed to the committee that it use the Land Use occupancy number and the 5 gallons per person per day standard from CDPHE in order to determine an EQR number and reminded the committee that staff is recommending that 1.25 of the existing 8.25 EQR for EAS be credited to the ballroom/snack bar portion of the project.

The committee discussed and approved establishing an EQR for the ballroom/snack bar of 7.25; establishing an EQR of 7.0 for the pool/bath house; and crediting 1.25 EQR to the ballroom/snack bar. This will result in a Plant Investment Fee of \$83,250. Staff noted that they will be providing a letter to the applicant reflecting the committee's decision in order to satisfy a county Land Use Department requirement.

Mark then walked the committee through the MOU requirements and how to handle the PIF payment. Jeff advocated for a payment of half of the PIF to the LID and half to be held in escrow until metering has been done for a certain period of time, per previous committee discussion about phasing in the PIF so as to provide time to review flow meter data and adjust the PIF as necessary in response to that data. Ken and Vija suggested that the evaluation period should be longer than one year from the issuance of the occupancy permit. Mark pointed out this timeframe is something the committee still needs to decide, how long a period and how to collect this data. Vija stated she feels the data collected from the metering should be used to adjust the operating fee, not the PIF, arguing that the PIF should be paid in full, up front, before the building permit is issued. The committee supported this approach. Jeff cautioned the committee that by requiring the PIF to be paid in its entirety up front, the ability to charge more PIF may not be feasible if metering determines the initial EQR evaluation underestimates the resort's true impact on the WWTF. Vija feels EAS needs to be responsible in how they use the facility and the determination of an EQR is not a blanket approval for them to max out the facility, referencing the earlier discussion regarding setting of a maximum use cap.

Mark confirmed with the committee that the MOU should spell out that the PIF needs to be fully paid at the time the building permit is issued; that once the certificate of occupancy is issued, the flow monitoring period will begin; and the quarterly operating fee will be adjusted based upon that data. Kevin suggested "change in use language" be added to the MOU so that the PIF could be adjusted upwards based upon a use change at the resort. The committee agreed with this suggestion. The committee reiterated its agreement that no one user should have license to negatively impact the larger community through its use of the wastewater system.

Lastly, Mark confirmed the conditions and requirements the committee would like to include in an MOU with EAS: full payment of the PIF in accordance with existing Rules and Regulations, at the time of the issuance of the building permit; EAS to purchase three commercial grade E-one units (no duplex/dual units); EAS to purchase two flow meters, in agreement with ESLAC on the type of meter; EAS to install the meters, manholes, and other equipment as necessary; language to let EAS know that the committee will be exploring options to amend the existing Rules and Regulations for non-residential users to develop a capacity cap on system use, to possibly include language that defines how and when an ordinary use of the system becomes

extraordinary; language clarifying that if it is determined that a change of use has occurred at the resort, the PIF payment will be revisited; the flow monitoring period will be ongoing with no end date; and creation of a surcharge structure to apply in cases when daily peak use averages exceed the 1,880 gallons per day that EAS is entitled to for the ballroom/snack bar portion of the renovation project. The committee would also like surcharge language to be added to the Rules and Regulations for all non-residential properties in the district.

The committee expressed interest in reviewing the Rules and Regulations at a monthly meeting in order to explore other amendments in addition to those already identified.

Old/New Business:

WWTF Operating Permit

Mark reported to the committee on staff progress relating to meeting with Boulder County Public Health and CDPHE regarding the WWTF operating permit. Staff has had three discussions prior to this meeting with Joe Malinowski and Erin Dodge of Boulder County Public Health to discuss the operating permit. Joe and Erin, in turn, have reached out to their contacts at CDPHE. As presented in the CDPHE Fact Sheet, the data submitted by Tod Smith and the county arguments regarding South Boulder Creek flows have been reviewed and evaluated. Resubmitting the data will not move the permit modification request forward; new information is needed. Kevin suggested new information to provide to the state could include the discussion a few months earlier with EAS regarding their daily recharge to the creek. Mark highlighted CDPHE's recommendation to install a flow gauge up river from the plant outfall, and suggested this as a potential future action for the committee to contemplate. Cathy suggested that a flow meter/gauge is a reasonable approach, and Kevin supported the idea as well. Gabby noted that she will reach out to a contact she has who is an expert in water reporting, to get his perspective. The committee was very supportive of this idea and asked Gabby to come take a look at the river as soon as possible. BOCO Public Health staff suggested that if a stream gauge is installed and data collected, this may allow for the LID to apply to CDPHE for a temporary permit modification or extension. The LID would need to log at least one year's worth of data and should begin collecting information prior to November 2019. Gabby and Kevin suggested a data logger would be needed to automatically record the data and the gauge would cost approximately \$1,500.

Mark reported that both Commissioners' Office and Public Health staff believe that hiring an outside expert to fill the existing knowledge gap around permitting issues would be very helpful in developing a plan for what steps should be taken to achieve a positive outcome at CDPHE. Public Health discussed folding this work plan into a contract they are currently in process of developing with Wright Water Engineers; Public Health has also agreed to cover the costs of this expansion of the contract's scope of work. The committee was very pleased to hear this update and supported the idea to hire an expert, in addition to bringing in Gabby's water expert. Cathy suggested staff ask CDPHE for an extension now because the LID will begin the process of collecting new data if a stream gauge is going to be installed, and Kevin suggested asking CDPHE to both relax the 10 TIN limit and agree to a longer compliance schedule for the 1.5 rolling average, given the LID's commitment to collecting this data. Gabby felt CDPHE might be open to reverting to the previous permit requirements or issuing a revised compliance schedule. The committee discussed a few other items that could be helpful with the request to revise the permit, including inconsistent permit numbers, allowing high ammonia levels yet low TIN numbers, and other issues.

Proposal to purchase back-up E-one grinder pump

The committee considered the proposal from ORC to purchase an additional back-up grinder pump and the estimate presented from Ambiente with the option to buy a new pump or a reconditioned pump. Ambiente recommends rotating stock 10% per year and ORC would like to get on that schedule. The current back-up unit is no longer being manufactured, and the purchase of a rebuilt unit would not be a significant cost savings. The committee decided to approve the purchase of a new E-one.

Public Comment:

There was no public comment and the meeting was adjourned at approximately 8:55 p.m.