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TO: Board of Directors
FROM: General Manager
SUBJECT: Agenda 5.a. – Discussion on management objectives for Port Costa Sanitary Department.
DATE: June 3, 2020

To facilitate administrative discussion with the public and members of the District's commissions the letter from Port Costa Sanitary Department Manager Barnhill of May 22, 2020 and email cooresponse regarding the letter is being provided.

5/22/2020

Dear Board members and Commissioners,

The following is a bit long winded but please give me a few minutes of your attention.

When I began working for the Port Costa Sanitary Department (PCSAN) the basic, primary tasks regarding the Wastewater Treatment Plant (WWTP) were to relay information with the contracted Chief Plant Operator, maintain regulatory compliance, submit reports as required, and report items of concern to the PCSAN Commission. In general, the items to be reported were threats to health and safety, threats to the environment and the treatment system, issues with operations or analyses, and to propose requests for funding. I had not been made aware of the dismal condition of assets when I accepted the position. My tasks for Port Costa had to be expanded from general management, as described above and expected upon hiring, to additionally include an aggressive investigative role.

It became a primary and ongoing challenge to identify and correct obvious issues of neglect at the Port Costa WWTP and collection system. The interesting aspect is that the difficulty was not in identification and reporting of risks, rather it was the acceptance of the validity of my reports. I was forced to repeatedly warn the commission of the ultimate consequences for failing assets, this was a wearing process on me. The only conclusion that made sense to me from the very beginning was that the sole focus of the commission was cost savings *at all costs*, this had led inevitably to a system-wide deferred maintenance condition. It was a true head scratcher to me that obvious risks had been and likely would have continued to be ignored at the risk of environment, District personnel, Board members, and the public. I have never experienced a working environment where I needed to sell, prove, and push through disagreement when reporting blatant failures that carried definite potential for real and life changing consequence. Maybe it is because I come from Oil and Gas industry where issues like this were given proper and immediate attention. I was told it is politics, well from my observations the politics formed the foundation of this negligence. I felt forced to adjust my focus toward protecting the environment, human health and safety, and to limit the possibility of discretionary consequence due to the strong potential of failures. I had no choice but to go against the grain to perform with those intentions of protection against the engrained status quo. It made me sick to my stomach prior to and after many meetings, sometimes for days. These things don't seem like much but go ahead and put yourself in my shoes for a minute, stand up against everyone you know and refuse to back down. Do this while knowing that your ability to pay bills, to eat, to keep your dog is reliant on the job approval and income provided by the very people you are battling with, how many years could you do that without some personal consequence? This is supposed to be a job, a place to perform tasks but it is not that simple. What is needed is consistent pressure toward improvement which I have been trying to do. My perception is that the strongest ally I might have in this situation likely comes from the regulatory side. They know the monetary challenges that Port Costa faces and we share common respect and common goals, they have been accommodating to me to our benefit. My burden of being the bearer of bad news has been a heavy weight on my shoulders which has resulted in my need to take sick hours, days off, late mornings due to lack of sleep, and hospitalization due to the built-up stress. I felt a sense of urgency to find problems, I was trapped, I could not back down from the challenges that I knew could cause significant damage.

The ultimate goal was to correct problems. A foreboding sense of urgency stemmed from the worry that an unidentified fault resulting in consequence would be blamed and fully shouldered by me while I am here. A related worry is blame placed on my name even if I had departed prior to a system failure. My goals have been to address everything that I can, in the very least to document faults and issues in a public

setting. The purpose of full disclosure in this setting was to protect my fellow staff, myself, and the administrative side of the department since that is the only aspect I could control.

I began to hold the expectation that reported issues would be downplayed and the remedies would be hard fought since proper maintenance was foreign to the long-term mindset. I saw the benefit of experience in a new industry to me as being priority over comfort. In my working life, honorable tasks have come before comfort, friends, and family, unfortunately. In this case, ultimately effecting divorce and loss of my house due to monetary constraints, hence the silver RV that parks on the street. The goal of fixing the problems became my total goal regarding Port Costa. I was not expecting this position to be primarily the bearer of bad news. I was surprised and disappointed when damaged and neglected assets that I thought were newly found were, in many cases, already known or suspected by others.

As the designated Legally Responsible Official (LRO), I sign a monthly cover letter for a summary report which is generated by the contracted operators. I then submit the report and cover letter to the Regional Water Quality Control Board (Water Board). I sign the letter under threat of *personal* penalty of law including the possibility of fines and imprisonment, not to mention reputational damage which can be costly, carrying forward with incalculable values. In my opinion, the knowledge of failing components at the WWTP has created great risk to me personally and to anyone who signs as LRO. The consequence of failure, due to a known failed or failing conditions, could be considered negligent by the Water Board. The District Board members are also bearers of the risk of consequence, though they do not rely on an income from the District for survival as I do. This is not a hobby or a passion for me, it is a job, a career. My personal and ultimate goal is to have a good career leading to retirement, just like anyone else. The commissioners bear no legal responsibility for their guidance, decisions, or restrictions since they are appointed by the District Board. The commission was given authority under the Board to deliver recommendation and to give direction to staff for operational purposes. The only consequence, other than political, for commissioners is the SUC rates that they will pay as property owners. The consequences of poor public perception could be detrimental to my career and for anyone else who decides to follow reason and bear the weight to the Commission and Board.

Obvious substandard issues:

A utility pole which supported the PG&E power lines powering the WWTP was broken and leaning at an alarming angle. I was made aware of the utility pole soon after I began working for the Port Costa Sanitary Department. I was surprised to learn that the pole had been in a failing condition for years and it had been known and documented to be in that condition for years. The utility pole was held up by the attached power, communication lines, and tree branches. To me, logic dictated that this would be a simple and obvious issue to discuss and correct with haste due to the real threat of power loss at the WWTP. I was naturally expecting a positive interaction with the commission. I was told, in effect, that the power pole had been like that for years and it hasn't caused a problem so far... I was appalled that I received back pressure by the Commission, it seemed to me that I probably shouldn't have brought up the issue, though I would do it again. A power loss due to this known issue could have led to an unplanned discharge of partially treated wastewater. This would have likely been considered negligence by the Water Board which could have very well led to discretionary penalties. I was tasked by the Commission to find the owner of the utility pole in order to place the burden of replacement or repair on another entity whether it be the power utility or a data provider. I spent valuable staff hours discussing ownership and the urgency of this simple issue with commissioners. During this process someone attached a steel

guy-wire to a K-rail to keep the pole from falling all the way over. What would have been the consequence if someone was hurt doing this? What would the consequence have been if the pole had fallen causing power loss at the WWTP? I was new here and I could hardly believe what was happening during this process, I found myself shaking my head in disbelief. Thankfully the broken pole was abandoned for a replacement after many conversations, research, and staff hours spent. If I had been able to deal with this as I had expected to, it would have been done within a month. It took more than a year to take care of this very basic problem. I am allocated approximately one day per week to handle Port Costa, I do what I can with the time allotment, any extraneous time not spent focusing specifically on fixing an issue is wasted. Distraction from tasks or delving too far into the weeds trying to research unlimited avenues drains momentum and fills my allotted time, it represents lost efficiency and a cost to the rate payers. I began to develop an overall sense of dread regarding Port Costa. In this specific situation a new pole should have been installed with little delay, simple, done, safe, compliant.

Another obvious target of my attention was the 25kw emergency power generator (genset). I was unable to locate any records of maintenance, oil changes etc. The only related record I could find was a proposal for regular maintenance, which was apparently not pursued. In interviews with operators and others involved with the Department I was unable to find even a memory of maintenance. I was offered pro bono inspection from a diesel mechanic who holds a John Deere Masters Certificate for large frame equipment power generation and electrical. He was a career diesel mechanic, former USN Engineman Lead Diesel Mechanic Power Generation. I was honored that he traveled and volunteered his time with me to inspect the WWTP genset for the benefit of the rate payers. The inspection was visual. His observations were that the diesel engine had been wet stacking, which means fuel had been bypassing into the exhaust due to low pressure, idling condition, a common trait of diesel gensets. Wet stacking can lead to cylinder washing, potential exhaust fire and in the worst-case scenario possible crankcase combustion. I relayed the risks found during the inspection to the Commission. I received more back pressure including a second visual inspection, followed by downgrading commentary on my diesel technicians validity. The perception was to sell the commission on the idea that the system was okay for the purpose of saving money and there was no rush. The subsequent pro bono inspector indicated the need for maintenance as well. I sought out certified diesel mechanics to perform service and provide an in-depth inspection to the genset. The logic battery was low enough at this point that it died in the beginning of the maintenance testing, a critical failure. The genset would not have switched on when we truly needed it, we were lucky in this instance. The technician verified that engine oil had migrated into the exhaust due to idling nature of the engine. The technician said the ultimate consequences initially reported to me pro bono were indeed possible. In short, the technician confirmed that the generator had been in need of attention as was pointed out during the initial inspections. The cost to fully replace the genset was *estimated* at around \$30,000. This does not take into account that there is no fast or safe way to transport a genset across the railroad tracks, there is no rail crossing. Maintenance is the only prudent action to take in any circumstance but especially in this instance. In the end I was thankful that the Commission agreed to continued annual maintenance, that was a very good decision. We are doing what we can to protect and preserve the power supply at this time. The ongoing risk of negligent failure with the genset is remote, though the risk of random failures still exists as it does for any component in a system.

It was noticed that the landline for the alarm autodialer system was in a compromised state. I disabled the RF antennae and redeployed the alarm system from the primary treatment building to its new home

at the WWTP control room, local to the systems that it monitors. A cellular autodialer was attached and the land-based phone line account was closed. This is a major improvement to the efficiency and security of the system. This was a mostly positive situation and I appreciated the interactions.

The operators reported to me that the primary effluent pumps were making noise. Two apparent replacement pumps were rusting onsite. I found that the like-new pumps had been obtained by a grant for \$21,312 from the Crockett Community Foundation in 2012 and had been subsequently mothballed. I faced back pressure when I pursued replacement. I made contact with multiple contractors, two of which declined the work, the original manufacturer of the mothballed pumps agreed to the job. It was found that, prior to installation, both pumps needed to be rebuilt due to binding and degradation due to their static condition in a moist environment. The pumps were taken down into components and transported by hand across the railway, the hauling of the pumps back and forth across the tracks was valued at \$700. The company rebuilt the pumps. The alignment of the plumbing system did not match the pumps but reworking the plumbing to match to the replacement pumps would have been difficult and expensive since the system holds head pressure and there are no isolation valves on the header. The pump company worked out a less than desirable flex pipe solution to plumb the pumps into the piping system but it was the only immediately viable alternative. I requested that one of the original pumps remain onsite, it is a physical record. The pumps were nearly falling apart by the time they were removed from service. This replacement was completed in March of 2016 for \$8,682. Deferral in this situation added to environmental, health and safety risks, plus added time, and monetary expenditure.

I have mentioned the need for a railroad crossing regularly since I began working for Port Costa. Operators, vendors, contractors, regulators, first responders, staff, and equipment must cross the double railway with haste since there are no notifications of oncoming rail traffic, this traffic can come around the corner at fairly high rates of speed leaving only matters of seconds for a person to depart the tracks. My concerns with this are obvious but I was told that costs and the annoyance of train horns would not be acceptable to the community. I continue to mention the need for crossing regularly, I am fearful that an incident will happen someday.

Another major concern was the unknown volumes of sludge and debris in the primary treatment (septic tank). Observations of sludge bypass were seen in the WWTP sand filter beds bringing concern that there may be a failure of the baffle system within the septic tank. The professional opinions were to fully remove the sludge from the septic tank and return the tank to proper operation, the full removal would also allow for entry and inspection of the structure and internal baffles. The commission denied my request for full cleaning due to costs. The responsible bidder had provided a T&M estimate of \$143+k in March of 2016 to remove the materials. The Commission directed me to have the contractor perform only a partial cleaning. The partial cleaning was completed, but it was not a fully measurable outcome. During the cleaning process a Commissioner had entered the jobsite and directed the crew. The interior areas of the tank remained inaccessible for measurement, cleaning, or inspection. The Commission gave the go ahead with full cleaning in late 2019 following multiple missed planned commission meetings that were critical to timing of the project. By the time approval was given it allowed only a short time to prepare for the major undertaking and I was pressured to hurry and notify the contractor to get going. I was told by the contractor that Commissioners had entered the jobsite during the work. The sludge material within the inaccessible areas was found to be non-standard per field experience which led to complications in the process and cost overruns. It was found that only two of the three designed baffles existed within the tank, only one remained intact. The third baffle was not to be found. I learned during

a subsequent commission meeting that the septic tank had not been properly maintained or inspected for potentially 25 or 30 years. I saw evidence of some sort of cleaning in 2005 or thereabout. It took years from my initial reporting of concern to final cleaning, inspection, and repairs.

I requested to CCTV inspect the majority of the collection system, I was denied a comprehensive inspection. Flow rates increase tenfold during rain events, this is a problem that carries risk.

I have taken on risk as the bearer of bad news for nearly half a decade while facing back pressure. 30% underpay versus peer agencies. Though I understand this is a small District with limited resources the underpay really hurt and I had to fight for motivation. The only motivation I had was the hunting and solving of issues, I cannot turn away from the problems as they must be faced. There is an ongoing sense that I am pushing a boulder up an endless hill. My fear is what will happen if I let the boulder go? The boulders path would be inevitable, but will it crush me and my friends on its way down? This all shows me that I am not valued, respected, or even a part of a team. I am glad I was able to address the above described issues among others to the best of my abilities and with the tools I had to work with. I truly believe that the actions have added protection to the environment, the Department staff, the rate payers, and the Board members. I believe my efforts to address these shortcomings were an honorable undertaking for my record and I am proud of what I have done. As I have said, the job for Port Costa entailed more than what was initially disclosed to me, I believe I have more than fulfilled my purpose with Port Costa in this aspect. I will continue to work to the best of my ability, but I do not know if I hold enough energy to battle through each and every issue that is found. I need objective support that not only accounts for expenditure but also the warnings of consequence which could eclipse repair or maintenance costs. I believe that in looking forward there must be a more team-oriented approach to solving issues with a more diluted focus on the upfront cost, we must be able to see through that barrier sometimes. Interference in active jobs carries some cost and risk, any extraneous workload diminishes time resource from the priorities at hand. My goals have always been to target monetary resources in order to prevent a higher amount from being taken away in penalties.

The above described issues will pale in comparison with what needs to be done in the future at the WWTP. In any case, this is a lonely job and all I ask for is maybe some respect for my position here as the bearer of bad news and also some for my coworker. That position places a major amount of responsibility on his shoulders.

Most sincerely,



James Barnhill

Port Costa Sanitary Dept Manager

6/2/2020

Email communication in response to James Barnhill's letter to Board of Directors and Commissions, dated 5/22/2020

First email response, directed to James Barnhill's work email - 5/22/2020

Hi, James. I am very interested in the things that you described in your letter. I remain upset with the county at how neglectful they were in managing Port Costa's sewage treatment and collection systems for decades. I only learned the true story after the transfer of responsibility from the county to the newly formed Crockett CSD. I wasn't shocked, however, because I found many similarities with how Crockett's collection system had been unmanaged prior to my being hired as CVSD manager. Many similarities, indeed.

In both cases, it was up to me to work within the realities that I discovered and the funding that was approved by others. I was always careful to document my recommendations and the responses that I received, believing that the manager is always expected to take the blame for whatever might go wrong, unless an alternate explanation can be documented. It took more than 10 years for me to bring Crockett's collection system under control, because there had hardly been any pro-active management. It may take even longer for Port Costa's collection system, alone. But keep in mind that you, Dale and Crockett CSD are the heroes, rescuing Port Costa from the the county's dismal oversight and financial devastation that the town had so little chance of surviving, given the Water Board's demands. Whether Port Costa does survive in the end, and there is no assurance of that, will depend on the continued sacrifices of the residents in paying exorbitant rates, of you and other managers who may not be generously compensated, and of the District in working every angle to help Port Costa limp along and avoid collapse.

I took pride in my accomplishments at CVSD, particularly in light of my negligible compensation. But then it was not a career path for me, as you have stated it is for you. I understand that pride of accomplishment is not sufficient for most people and rarely puts food on the table or a roof overhead. I hope that it helps to have written your letter to the District, as we shall see. I regret that it has been stressful for you, as you've described. Let's see if there aren't some changes that we can make to improve your situation. I promise to think on that.

Stay well and safe!
Kent Peterson

James Barnhill's email reply – 5/22/2020

Thank you Kent,

I didn't want to write such a letter since it isn't written in a professional format, it contains emotions etc. I didn't want it to come across as whining and it isn't my intention to piss anyone off although I'm certain it's too late for that. The problem is all of the issues had already been discussed and documented in a professional manner but my warnings went unheeded. I needed to put it all together in context. I'm just trying to help them and they keep fighting me off. Very frustrating. If they had continued on their path unhindered by my annoyances they would have definitely failed somewhere by now.

Someone needs to be the arse sometimes. The toll on me is a reality that is difficult for me to deal with, it is a burden gained here. I was not trying to complain or beg, my point was that I don't think there was any appreciation or respect for the circumstance. They cannot hide from reality anymore and blame accomplishes nothing. All that is needed is a more concerted front, that is the only choice they have now. They are in a battle to save their town and I don't think they know that well enough. That is what I was trying to convey. Do not care if people like me personally or not, friendships are hard earned. I appreciate that you replied to me.

Have a good weekend

Anonymous email response to James Barnhill - 5/26/2020

Hi James,

Thank you very much for taking the time to write this letter. That took a lot, to write it and send it. Thanks for being willing to stick your neck out, to make sure the Board knows just how bad things are.

What would improve the situation? Obviously money is the ideal answer - if there were infinite money, we wouldn't have to delay maintenance or hesitate to implement the best solutions to problems. But what else could be done? In your estimation, is the Commission a big part of the problem? And is it the entire system, or is it one or two personalities on the Commission? (No names please, I am just trying to get an overall picture, from your perspective)

Thanks,

James Barnhill's email reply to anonymous - 5/26/2020

Hi ..., Port Costa has a greater potential of major penalties than Crockett does since it not only maintains a collection system but is also responsible for an independent wastewater treatment plant. Crockett on the other hand is not directly responsible for their treatment plant at this moment. The treatment plant is owned by a separate entity and maintained by a responsible contract operator. The big risks in Crockett come from the main pump station and the collection system. These systems are simplistic in nature. The collection and pump systems are a conveyance that are not subject to mandated analyses. A wwtp, like Port Costa's, cannot easily absorb problems. Any problems can cause lab issues due to its low volume operation. Every variable must be monitored, maintained, and repaired to protect the treatment. =It is why the very best option for Port Costa is to plan to abandon treatment and pipe to Crockett.

In the 80's the county constructed the wwtp as a stop-gap, a can to be kicked to the next generation or the next managers. The wwtp was not constructed to last very well, in fact it is physically cracking due to its gunite construction and the hundreds or thousands of tons of sand need replacement. The county had also threatened the Port Costa sanitary commission that the town could be shut down due to inability to fund proper treatment. In 2008 CCSD absorbed Port Costa as a condition of CCSD founding, the county had bandaged Port Costa and kicked the can to CCSD. As far as I see it the

town reps have just tried to ride this through without facing the problem but they kicked the can to the wrong guy. I hate kicking cans and I would not be a part of carrying problems to the next person without at least trying to address the issues from the perspective of the regulators.

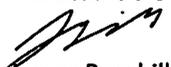
Money is a big problem and there's not much anyone can do about that at this point. Such a small base and wasted rates, over the years Port Costa has chosen to make small or minimum SUC increases which were mostly eaten up by the cost to study and report the SUC in the first place. This wasn't an unknown but nobody wanted to cause pain to the rate payers. The problem is now they have a high SUC without the benefit of building reserves to weather through issues such as the septic tank. They kept feeding the machine one quarter at a time. Nobody was willing to be the jerk when that's what they really needed in order to simply maintain, let alone improve.

It is a problem that little or no credence was given to any of those problems I described in the letter, I think the root cause of this was the fear of delivering bad news to the residents. It is a mindset which is set in concrete and that's why I'm tired, I've been trying to chip it away with limited time and personal worries. The meetings take 4-8 hours to deal with and I only get 8 hours per week with Port Costa.

There were/are personalities that applied/apply strong pressure to operate as cowboys and question every one of my choices in an almost confrontational manner. I've told Dale many times and that is a reason why he began attending more meetings, the confrontation was muted when he was present. The same personalities were/are involved with personnel committee which did not and still does not help with my confidence. I personally believe my income and position in life directly reflects their disapproval of the goals for improvement.

I am also leary of spending any time on site within the town now. This is a small additional risk that I did not mention before. Recently I was in our easement and a neighboring property owner told me that I should not be there because it is dangerous for the property owners liability and I could get hurt or even shot. It wasn't a direct threat from the property owner but a general reality. I told the owner I attempted to make contact but nobody was home and I have business to conduct. I was told by the owner that PG&E had been shot at in other parts of California. I'm not sure I feel safe being in Port Costa, considering the likely to grow discontent due to SUC increase etc. I did not mention this to anyone outside the office because in my past work decades ago that kind of exchange without actions would have meant a normal and even peaceful day for me. The negative pressures coming from the Commission came from a place of knowledge but residents don't have that specific knowledge, the residents only hear what is relayed. I hope that there is a sense of reason when the commissioners speak with their neighbors. I have little confidence. Makes me nervous.

Interactions are authorized, unedited, or spell checked. Senders identity was redacted from the second email



James Barnhill

Port Costa Sanitary Dept Manager